

Apollo

Training Guide

02/03/17

Apollo Training Guide

Revision Notes

Date	Document Title	Description
03/28/16	Training Guide	New Document Release
02/03/17	Müse Release Notes	Müse 2.7 updates
02/03/17	Various Procedures	Müse 2.7 updates
02/03/17	BOM	Updates

Index

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Introduction & Setup	7
Introduction.....	9
Apollo Specs	11
Equipment Overview	13
Apollo Setup and Setup Maps	21
User Interface Introduction.....	41
Apollo MÜSE UI	43
Apollo Vivo UI	51
TouchPro UI	65
Müse Tech Focus.....	83
Müse Requirements	85
Müse Release Notes	87
Revision Log	93
Installing Müse	95
Check Installer Log.....	99
Adding Learning Content.....	101
Backup Data.....	111
Vivo Tech Focus	113
Overview Vivo.....	115
Upgrade Instructions	117
Exploring Mannequin	121
Basic Information.....	123
Hardware Updates / Upgrades	125
Picture Break Outs.....	127
Pneumatic Subsystems	151
APN Torso Block Pneu Diagrams	153
APP Torso Block Pneu Diagrams	157
Electrical Subsystems	161
Electrical Overview Block Diagram	163
RHM Board Layouts	165
Power Controller Layout.....	169
Data Acquisition Map	171
Pressure Sensor Specifications	183
TSC Adjustment Potentiometers	184
Torso Wiring Diagram.....	185
Interface update for Apollo rib cage.....	223
Reactive Eyes Cable Overview	224
SBC 12V Power Adapter	225

Network Layout & Tools.....	227
Network Block Diagram	229
IP Config.....	231
CAE Simulator Network Preferences and Ping Tool	235
Checking External and Internal Connectivity.....	237
Using SSH to gather SBC information	241
Wireless Network Support	243
Edimax Router Setup Procedure.....	247
Workstation, TP, SBC, RHM Setup	265
MÜSE Support Guide	267
OSX Compatibility 10.9, 10.10, 10.11 & 10.12	271
MAC Setup Procedure	273
Windows Setup Procedure	281
MUSE Browser Setup.....	289
TouchPro Setup	299
MAC Dual-monitor Setup	307
Firmware Structure.....	309
RHM Programming	311
Installing and Upgrading MUSE SCE Dev SW	325
Trauma Fluids	335
Pressure Bladders	337
APN GU Fluidic Diagram	338
APN Chest Tube	339
APN Airway Suction	340
APN NG Tube Support	341
Troubleshooting NG Insertion	342
APN IV Access	343
Apollo Bleeding System	344
APPChest Tube	345
APP GU.....	346
APP IV Access.....	347

Repair Procedures	349
Head Replacement	351
Tru-corp Airway Replacement.....	357
WiFi Router Replace	373
Ribcage Replacement	375
SBC Replacement.....	381
RHM Replacement.....	389
Test Procedures	397
Tray Calibration	399
ATP Procedure & Data Record.....	395
Software Licensing	409
Licensing Overview	411
Activating & Deactivating	435
Maintenance, Tips & Tricks	453
Clinical Supplies	455
Clothing	456
Care & Maintenance.....	457
In-line Filter Bleeding)	469
Wireless Voice Link (WVL) & Amplitude Adjustment	475
Condition Programming Guidelines.....	487
Reset Muse Admin Password	493
Creating Patient Records	495
Installation and Orientation	497
Preinstall Checklist.....	499
Installation and System Orientation (ISO)	503
Acceptance Check List	511
Pre-preventative Maintenance Customer List.....	513
Preventative Maintenance Check	515
Replacement Parts.....	517
Part Number Guide.....	519
Apollo BOM	529
Various Components	641

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Apollo

Introduction & Setup

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INTRODUCTION

Apollo Nursing and Prehospital simulators give you all the power of CAE Healthcare's cutting edge simulation technology with more of what you want. Apollo Nursing was created by nurses to teach the fundamentals of nursing practice, and Apollo Prehospital was built for medics by medics. Both simulators are less expensive than other simulators, are easy to use and have everything you need with nothing you don't.

Apollo

Apollo is fully wireless with on-board fluid, pneumatic and electrical systems and is built tough to withstand a wide variety of real-life, indoor and outdoor learning environments. Apollo comes with extensive clinical features and capabilities designed specifically for emergency medical personnel and nurses.

The simulator can be placed on standard operating room tables, on an ICU bed, on the ground or even in a vehicle (in the case of a simulated accident). Apollo can also be seated in an upright position.



Apollo

In addition, Apollo has the assessment, cardiovascular, genitourinary and trauma features familiar to CAE Healthcare customers plus an SpO₂ finger probe, fluids on board, bilateral noninvasive blood pressure and IV access. Wireless and tetherless, Apollo takes simulation education to an exciting level of realism.

Equipment Overview

Apollo has been designed to be used in any learning environment. Apollo's standard features are easily integrated into a laboratory setting or remote locations. Apollo comes with standard equipment as well as optional equipment. Optional equipment refers to items which are available for purchase to enhance the simulation experience and additional accessories refers to consumable items which are available for purchase as they may need to be replaced.

**Apollo can be recognized by the new Head Skin with hair
and IO access on the left humerus bone (upper arm).**

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Apollo Specifications

Size

Mannequin/Simulator 74" H x 26" W x 11" D (188cm x 66cm x 28cm)

Weight

Mannequin/Simulator 100lbs (45.4kg)

Environmental Requirements

Ambient Temperature Range

Mannequin/Simulator

Operation:	40°F to 104°F (4°C to 40°C)
Storage:	40°F to 122°F (4°C to 50°C)
Relative Humidity:	0% to 90% noncondensing

Power

Mannequin/Simulator

AC Input:	AC 90 – 240VAC, 50/60Hz
Consumption:	70W nominal
Internal Batteries:	18.5V lithium-ion, rechargeable
Run Time:	4 hours (Typical)

Communications

Simulator Network

Wired:	10/100 Ethernet or
Wireless:	IEEE 802.11g

Wireless Voice

537 MHz to 819MHz (Country Specific)

Electrotherapy

Defibrillation: 20 to 360 joules (Monophasic, Biphasic)

Pacing : 20ma to 180ma

Air Supply

When using the optional external compressed air kit in conjunction with the facility supply source and facility wall adapter.

Maximum pressure: 50 psi to 120 psi

CO₂ Supply

When using the optional external CO₂ kit in conjunction with the facility CO₂ source and facility wall adapter.

Maximum pressure: 30 psi to 120 psi

Standard Equipment

Apollo comes with all the necessary equipment that allows students and instructors the ability to create an endless number of possible clinical situations and establish an educational simulation center.

Standard Equipment
Apollo Simulator
Laptop Instructor Workstation
Battery Charger and External Power Supply
CO ₂ Canisters (Prehospital Only)
Inventory Kit
Wireless Microphone or Wireless Voice Link
Trauma Fill Tank

NOTE: As you would with any shipment, cross-check this inventory with your CAE Healthcare packing invoice to verify that all components have been received.

Full-Body Wireless Simulator

All patient assessments and clinical interventions are played out on the Apollo mannequin, which represents a human patient. At six feet, two inches (188 cm) in height and weighing 100 pounds (45.36 kg), Apollo is fully operational in the supine, lateral, prone and seated positions. The simulator offers features like arm pronation and supination; breath, heart and bowel sounds; palpable pulses; patient voice; and genitourinary features.

Laptop Instructor Workstation

The laptop Instructor Workstation is a computer that utilizes Müse or Vivo software to operate as the main simulation control center. Instructors control the simulation session from the workstation by running Simulated Clinical Experiences (SCEs) that meet their learning objectives, or on the fly with Vivo.

IMPORTANT: All CAE Healthcare computer components are preconfigured for use with the simulator. There are no software installation steps required. Only approved CAE Healthcare applications should be installed or run with the simulator.

Battery Charger and External Power Supply

The simulator is rechargeable using the **Battery Charger** provided.

CO₂ Canisters (Prehospital Only)

Four CO₂ canisters are included with Apollo to supply the on-board CO₂ exhalation feature.

Scan or click the QR code to access the *Using A CO₂ Cannister* video tutorial on caehealthcare.com.

Inventory Kit

Apollo comes with a number of accessories and replacement components.

Included in the Inventory Kit are:

- Start-Up Kit (Quick Start Chart and Setup Map)
- Priming syringe
- Roll (4 ft) of VHB tape and roll of 2 inch wide red tape (for cricothyrotomy)
- BP adapter kit
- Silicone lubricant
- ECG posts
- Pacing/Defibrillation disks
- Condensation drain
- Chest Tube prime tubing
- Female genitalia
- CO₂ Cartridge Kit
- VGA Mini Adapter
- Arm IV tubing
- Hospital gown
- Battery charger

Wireless Microphone

The wireless receiver enables the user to communicate through the simulator using a microphone. The clip-on microphone is attached to a transmitter that may be attached to a belt or waistband.

**Wireless Microphone**

The microphone is battery-operated and has a power switch on the top to turn it on and off.

Wireless Voice Link

The wireless voice link replaces the wireless microphone feature in some Apollo simulators and comes packaged separately. Refer to the section *Wireless Voice Link* for more information.

Trauma Fill Tank

Fluids are supplied to the simulator using a trauma fill tank. One tank is supplied and can be used for distilled water mixed with red food coloring to create simulated blood.

**Trauma Fill Tank (Disassembled and Assembled)**

This tank should be cleaned after each use.

Scan or click the QR code to access the *Cleaning the Trauma Fill Tank* video tutorial on caehealthcare.com.

Optional Equipment

Optional equipment is available to accommodate special customer requirements. For example, options like an air compressor and FX Simulated Wound Kit enable instructors to create real-life scenarios at authentic locations.

Optional Equipment
Additional Instructor Workstation (Laptop, Vivo Tablet, or Instructor Workstation Tablet PC)
TouchPro Patient Monitor
Apollo Replacement Lithium Battery
External Compressed Air Kit
External CO ₂ Kit
Air Compressor
Hands-Free Training Cables
Apollo Learning Modules and Training Courses
Tool Kit
FX Simulated Wound Kit
Moulage Kit

Contact CAE Healthcare Customer Service at 866-462-7920 if there are any questions or if optional equipment is needed.

Additional Instructor Workstation:

Laptop, Vivo Tablet, or Instructor Workstation Tablet PC

The Instructor Workstation is a computer that utilizes Müse Software or Vivo to operate as the main simulation control center. Instructors control the simulation session from the Workstation by running Simulated Clinical Experiences (SCEs) that meet their learning objectives, or on the fly with Vivo.

IMPORTANT: All CAE Healthcare computer components are preconfigured for use with the simulator. There are no software installation steps required. Only approved CAE Healthcare applications should be installed or run with the simulator.

Scan or click the QR code to access the *Getting Started With an Instructor Workstation* video tutorial on caehealthcare.com.

Apollo Replacement Lithium Battery

Under normal usage, a battery pack should last up to two years.

External Compressed Air Kit

The External Compressed Air Kit gives the user the ability to connect Apollo to a CAE Healthcare compressor, tank or wall air using the kit's hose and fittings. When connecting to wall air, the kit attaches to the customer's wall adapter.



External Compressed Air Kit

The internal pump turns off automatically when external compressed air is sensed.

The External Compressed Air Kit includes a flexible 30 ft (9 m) hose attached to a preset air regulator, a fitting for air compressors and adapters for wall or tank air.

External CO₂ Kit

The External CO₂ Kit gives the user the ability to connect Apollo to an external source of CO₂ (30-120 psi). The External CO₂ Kit includes a flexible 30 ft (9 m) hose attached to a preset air regulator and an adapter for wall or tank fittings.

Air Compressor

An air compressor (product #AIR-003) designed for quiet operation is available for same-room use, and an alternative air compressor (product #AIR-002) is available for situations where the compressor resides in a location, such as a storage room, set apart from the simulator.



Both Air Compressors are AC powered and include a regulator and an air hose with the appropriate connector fitting.

A 220VAC/50 Hz version of the Quiet In-Room Air Compressor (product #AIR-004) is also available.

Hands-Free Training Cables

Hands-Free Training Cables connect to most popular defibrillators and cardiac pacing units and take the place of non-reusable electrode pads.



Hands-Free Training Cables

Three different cable designs are available to support the most popular defibrillation and pacing equipment. Each cable kit includes posts that attach to the defibrillator or pace locations on Apollo.



***Physio-Control (Medtronic, Inc.)
Product #ACC-005***



Zoll (Zoll Medical Corporation)
Product #ACC-006



Philips (Koninklijke Philips Electronics, N.V.)
Product #ACC-007

Scan or click the QR code to access the *Preparing METIman or iStan for Standard Defibrillation, Cardioversion, and Pacing* video tutorial on caehealthcare.com.

Apollo Educational Development

Apollo Patient Simulator Essentials and Programming with Physiology courses offer learners at all levels in-depth instruction in the setup, operation, development of scenarios and maintenance related to the use of Apollo.

The Apollo Patient Simulator Essentials course provides learners with an overview of the system and its components, as well as an introduction to patient creation and scenario design.

Apollo Patient Simulator Essentials - two days at CAE Healthcare facility.

Apollo Patient Simulator Essentials On-Site - two days at learner-defined facility.

Apollo Patient Simulator Essentials On-Site Physician Instructor - two days at learner defined facility with physician-led instruction.

The Apollo Programming with Physiology course builds upon the concepts introduced in the prerequisite Patient Simulator Essentials course. After a quick review of the Patient Simulator Essentials course, Programming with Physiology instruction spends the majority of the day providing learners with the ability to design patients and scenarios that can be used immediately upon completion of the course.

Apollo Programming with Physiology - one day at CAE Healthcare facility.

Apollo Programming with Physiology On-Site - one day at learner-defined facility.

Apollo Programming with Physiology On-Site Physician Instructor - one day at learner defined facility with physician-led instruction.

Apollo Learning Modules

CAE Healthcare Learning Modules enhance the use of the simulator by providing pre-programmed scenarios and corresponding support documentation (i.e., Learning Objectives, Facilitator Notes) that can be readily integrated into a lesson plan, a specific curriculum, or an educational program.

Apollo Prehospital/Nursing

- Adult Nursing
- Foundations of Nursing Practice

Apollo Prehospital

- Advanced Cardiac Life Support (ACLS)
- Airway Management Module I
- Airway Management Module II
- Cardiopulmonary Critical Situations (CCS)
- Disaster Medical Readiness (DMR)
- Emergency Medical Services (EMS Modules 1, 2, 3, 4 & 6)
- Patient-Centered Acute Care Training (PACT)
- Perioperative Management
- Rapid Assessment and Intervention (RAI)
- Respiratory Education Simulation Program (RESP I, II & III)
- Tactical Medical Care - Military (TMC)

The Program for Nursing Curriculum Integration (PNCI)

PNCI is a full learning package that integrates pre-licensure nursing curriculum with high-fidelity patient simulation. With 100 evidence based Simulated Clinical Experiences (SCEs), PNCI can be used with both CAE Healthcare patient simulators and other brands. Includes the Joint Commission's National Patient Safety Goals, and the Quality and Safety Education for Nurses (QSEN) competencies.

APOLLO SETUP

The following pages will guide you through assembling and configuring Apollo. Below is a list of steps required to prepare Apollo for operation.

Apollo Operation Steps	
1	Place Apollo in the Work Area
2	Power On Apollo
3	Power On the Instructor Workstation (Laptop, Vivo Tablet, or Instructor Workstation Tablet PC)
4*	Connect to the Apollo Network*
	Connect the SpO ₂ Probe (Optional)
	Connect the External Air (Optional)
	Insert the CO ₂ Canister (Optional, Prehospital Only)
	Detach the Arms (Optional)
	Prepare the Bleeding System (Optional)
	Connect the TouchPro (Optional)

*If you are using the Vivo tablet, skip Step 4 and refer to the *Using Vivo* section of this guide.

Before Beginning Setup

Proper operation of the Apollo simulator requires correct configuration. Before setting up the system, keep in mind these basic guidelines:

Understand the Cautions and Warnings information located in the Introduction section of this User Guide.

- Follow the sequence of steps carefully.
- Complete all steps in order.
- Do not power on any components until instructed in the text.
- KEEP all original shipping materials, including BOXES — warranty and repair items must be return shipped to CAE Healthcare in their original packaging.

When unpacking Apollo for the first time, careful use of a box cutter protects both the packaging and the product.

A Setup Map, included with the unit, covers these same steps in abbreviated fashion.

Scan or click the QR code to access the *Unpacking METIman* video tutorial on caehealthcare.com.

Step 1: Place Apollo in the Work Area

Select a work area with enough room for all equipment, providing ample space for easy access to the simulator. At least 10' x 12' (3 meter x 4 meter) work area is recommended for movement and positioning of components around the simulator.



Apollo

Apollo and the Laptop or Tablet Instructor Workstation can be operated from their batteries, allowing for wireless use.

In a lab environment, make sure a multi-plug AC power outlet exists within the workspace to recharge the simulator's battery and its powered components.

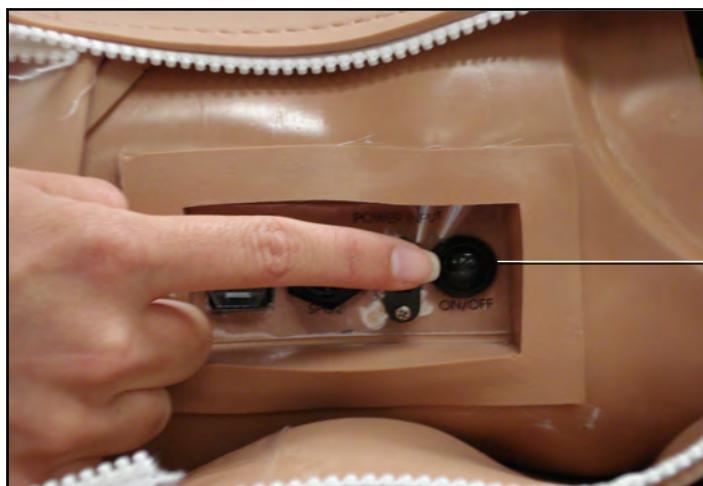
Before placing the simulator on a surface, be certain the surface can easily support 200 pounds.

NEVER lift the simulator by the LIMBS. When lifting, be sure to support the torso and head of the simulator while lifting.

Prior to using the stretcher packed with the shipping container, the mannequin must be wrapped in a sheet. Failure to wrap the mannequin in a sheet may result in permanent damage to the mannequin skin. CAE is not responsible for damage to the mannequin skin if the mannequin is not wrapped in a sheet while using the stretcher.

Step 2: Power On Apollo

- a. Locate the **ON/OFF** button beneath the skin covering Apollo's left hip.



Apollo's ON/OFF Button

- b. Press and hold the **ON/OFF** button for one second. The power light blinks, indicating the system is busy. In approximately one minute, the light stops blinking and remains solid, indicating the simulator is now ready.

NOTE: Apollo can be operated continuously for approximately four hours without recharging the battery.

Step 3: Power On the Instructor Workstation

- a. Place the Laptop or Tablet Instructor Workstation near Apollo in a convenient location.
- b. Ensure the Instructor Workstation battery is fully charged, or connect the AC adapter to the workstation and a surge-protected power outlet.
- c. Power on the Instructor Workstation.

NOTE: If you are using the Vivo tablet, skip Step 4 and refer to the *Using Vivo* section of this guide.

Step 4: Connect to the Wireless Network

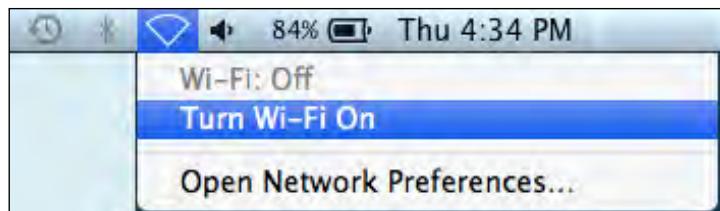
A) Mac Laptop Instructor Workstation Option

Once the mannequin and Instructor Workstation are both powered on, they automatically establish a wireless connection and, when the browser is opened, the Müse software launches.

If the auto-connect does not occur, perform the following steps:

1. Click the **WiFi** icon in the top toolbar. If necessary, turn WiFi on.

TIP: Some previous versions of Mac refer to WiFi as **Airport**.



The WiFi Icon

2. Select your simulator's wireless network (for example, APNXXXX, where XXXX is the serial number for the unit) and enter password.



The Simulator WiFi Connection

The case-sensitive network password is *metiadmin*.

The wireless connection is established.

The Müse software can now be launched.

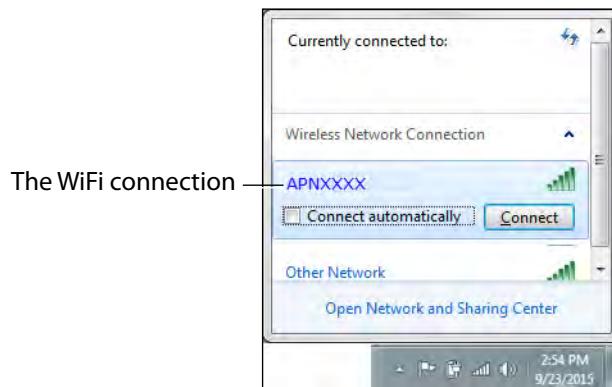
For more information on starting the application, see the *Using Müse* section of the User Guide.

B) Windows Laptop or Tablet Instructor Workstation Option

Once the mannequin and Instructor Workstation are both powered on, they automatically establish a wireless connection and, when the browser is opened, the Müse software launches.

If the auto-connect does not occur, perform the following steps:

1. Click the **Wireless Network** icon in the bottom Windows toolbar.
2. Click to select your simulator's wireless network (for example, APNXXXX, where XXXX is the serial number for the unit). Apollo
3. Click **Connect** and enter password.



The Simulator WiFi Connection

The case-sensitive network password is *metiadmin*.

The wireless connection is established.

The Müse software can now be launched.

For more information on starting the application, see the *Using Müse* section of the User Guide.

Optional: Connect the SpO₂ Probe

Connect and attach the SpO₂ probe to Apollo.

1. Locate the **SPO₂** port on Apollo's left hip.
2. Connect the SpO₂ probe to the **SPO₂** port.
3. Place the SpO₂ probe on Apollo.



Attached SpO₂ Probe

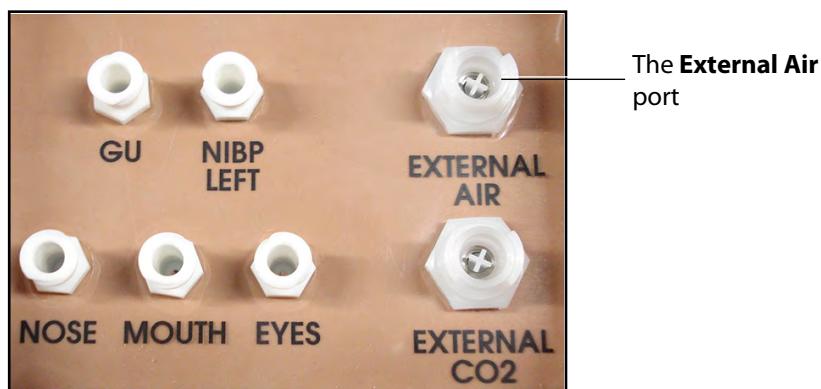
Optional: Connect External Air

Using the External Air kit allows Apollo to be run by an external air source rather than the internal compressor. The air hose can be connected to or disconnected from Apollo at any time. When the external air pressure is sensed, the pump internal to Apollo turns off automatically. When you want to make Apollo mobile again, simply disconnect the hose.

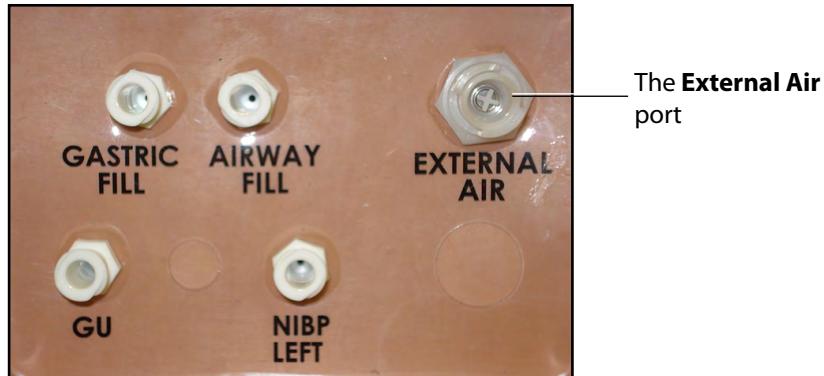
The optional External Compressed Air Kit consists of a flexible 30 ft (9 m) hose attached to a preset air regulator and a fitting for air compressors and adapters for wall or tank air.

To connect the air hose:

1. Connect the External Compressed Air Kit to a CAE Healthcare compressor using the Quick Coupler attached to the regulator. (Other compressed air sources have their own adapters. Locate the adapter for your compressed air source.)
2. Connect the other end of the External Compressed Air Kit to the **EXTERNAL AIR** port on the left shoulder.



Apollo Prehospital's Left Shoulder



Apollo Nursing's Left Shoulder

Optional: Insert the CO₂ Canister (Prehospital Only)

Some SCEs include the simulation of CO₂ exhalation. The following instructions show how to safely connect the CO₂ canister to the simulator.

WARNING: Careful handling, including the use of eye protection, is required when using CO₂ canisters.

Please read and understand all the important cautions and warnings on removing canisters as well as safety steps that must be used when handling CO₂ canisters.

Use of CO₂ Canisters

- Store the CO₂ canisters in a dry location between 32° and 104° F. (0° to 40°C)
- Do not expose the CO₂ canister to heat above 140° F, as rupture may occur.
- Never point the CO₂ canister toward your face or someone nearby.
- Use only CAE Healthcare specified CO₂ canisters.
- Do not remove the canister from the regulator base until empty. The canister end is punctured when screwed into the regulator base.
- Never ship the CO₂ canister attached to the regulator assembly.

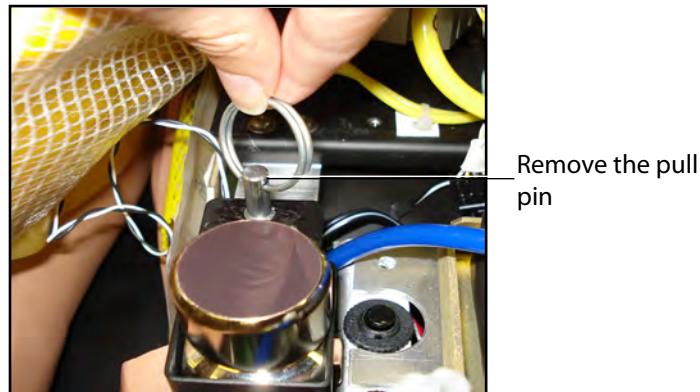
Assembly of the CO₂ Regulator

- Care must always be taken when using high-pressure equipment.
- Do not disassemble or alter the regulator.
- Dry completely if the regulator becomes wet.
- Discontinue use of this equipment if leakage or visible damage is evident.

Insertion of the CO₂ Canister (Prehospital Only)

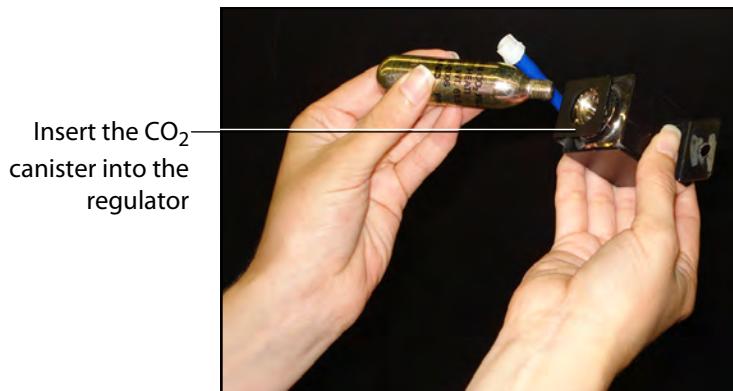
To insert the CO₂ canister:

1. Lift the chest skin at the waist and lift the abdominal insert.
2. From the simulator's right midsection, remove the pull pin and disconnect the blue CO₂ hose.



The Pull Pin

3. Remove the regulator from the simulator.
4. While holding the regulator firmly, carefully twist the CO₂ canister into the regulator as far as it will go. The final turns puncture the CO₂ canister, which is necessary for correct operation.

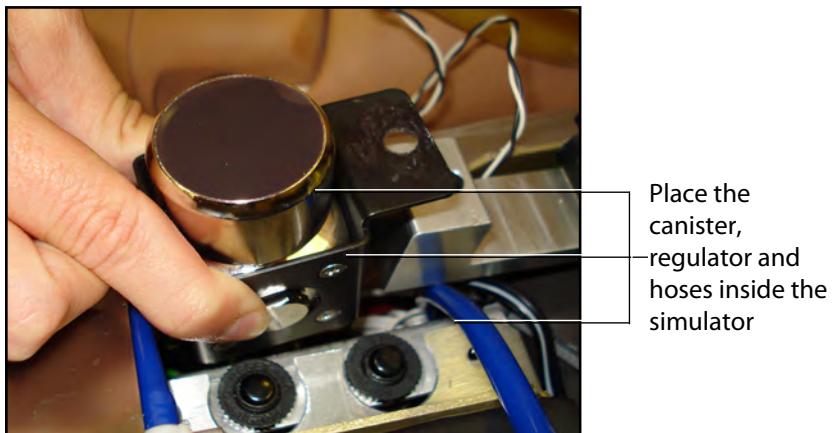


Connecting the CO₂ Canister

CAUTION: Do not loosen the canister once it has been inserted into the regulator assembly until the contents are exhausted and pressure relieved.

CAUTION: Removing the canister before it is empty results in the sudden release of all high-pressure gas with a possibility of liquid CO₂ spray. Unprotected skin could receive freezing burns.

5. Place the CO₂ canister, regulator and hoses inside the simulator. Use the pull pin to secure this assembly to the tray. A properly installed assembly will have the CO₂ canister pointed down toward the rear of the simulator.



Placing the Canister, Regulator and Hoses

6. Attach the blue CO₂ hose to the connection on the regulator.
7. Carefully reposition the abdominal insert and pull the skin back over the simulator to its original location.

Once the canister and regulator assembly are in place, CO₂ is measurable with a disposable ETCO₂ detector during positive pressure ventilation.

Based on the training environment, a CO₂ canister may last from 10 minutes (rapid ventilation) to 25 minutes.

Optional: Detach the Arms

Apollo's arms may be removed for use with trauma scenarios.

To detach Apollo's arms:

1. Unscrew and remove the locking pin at the elbow.



Removing the Locking Pin

2. Carefully separate the lower arm from the upper arm.
3. Twist to disconnect the four tubing connectors (white).



Disconnecting the Tubing

4. Squeeze to disconnect the three electrical connectors (black).



Disconnecting the Electrical Connectors

5. Place the loose connectors carefully within the upper arm.

NOTE: When replacing arms, ensure tubing and electrical connectors are matched using the color-coding.

Optional: Prepare the Bleeding System

ONLY distilled water or distilled water containing food coloring should be used with the secretion system.

A mixture of no more than 29 mL (1 oz) red food coloring with 3.8 liters (1 gallon) of distilled water should be used to create simulated blood. The blood mixture should be created in advance in a separate distilled water container.

NOTE: The higher the ratio of food coloring, the greater the possibility of staining.

Using the Trauma Fill Tank

The Trauma Fill Tank is used to fill the on-board blood reservoir.

CAUTIONS and WARNINGS

Carefully follow all instructions for using the Trauma Fill Tank. Pay particular attention to the following cautions and warnings:

- ALWAYS read and follow instructions for creating trauma fluids (e.g. blood).
- ALWAYS protect eyes, skin and clothing against accidental exposure.
- After use, ALWAYS release pressure and clean the tank.
- ALWAYS release tank pressure before servicing.
- DO NOT modify the tank or any assembly component.
- DO NOT store liquids in the tank.
- NEVER transport or ship in a pressurized and/or full state.
- NEVER leave a pressurized tank unattended.
- NEVER fill the tank with more than 6 liters (1.6 gallons) of fluid.
- NEVER exceed 35 strokes while pressurizing the tank.

Attaching the Overflow Bottle to the Trauma Fill Tank Assembly

The overflow bottle is used to collect overflow when the simulator's on-board tank is filled.

To attach the Overflow Bottle to the Trauma Fill Tank:

1. Connect the clear trauma fill tank hose to the bottle lid fitting.



Connect the clear hose to the bottle lid fitting

Connecting the Trauma Fill Tank Umbilical to the Overflow Bottle

2. Clip the bottle to the tank using the attached carabiner mechanism.



The carabiner

The Carabiner

Operating the Trauma Fill Tank

Be careful to complete the following steps correctly to ensure proper use and maintenance of the simulator and its peripherals.

Step 1: Pour the Fluid into the Trauma Fill Tank

Pour the desired amount of fluid into the Trauma Fill Tank, being careful to NOT to exceed 6 liters (1.6 gallons) of fluid.

NOTE: The right thigh tank holds 1.5 liters and is used for blood.

Three (3) liters of simulated blood provides enough fluid to fill the right thigh reservoir twice. The amount of blood used in a training session varies with the patient, the wounds simulated and the learner's experience.

Step 2: Connect the Trauma Fill Tank Connector to the Simulator

- a. Locate the tan **FILL** port and white **VENT** port.
 - b. Connect the **FILL** (with the tan label) and **VENT** (with the white label) hoses of the Trauma Fill Tank to the corresponding ports on the simulator
- Both connections must be made for correct operation.

Step 3: Pressurize the Trauma Fill Tank and Fill the On-Board Blood Reservoir

An integrated hand pump is used to create the pressure for the Trauma Fill Tank.

WARNING: To prevent ejected pump assembly and/or solution from striking and injuring you, NEVER stand with your face or body directly over the top of the tank when pumping or loosening the pump.

To operate the pump and fill the reservoir:

- a. Unlock the pump handle by turning counter-clockwise. (Be careful not to loosen the pump from the tank.)
- b. Stroke the pump handle up and down from 25 to 35 times to transport 2 liters of simulated blood to the on-board blood reservoir. NEVER exceed 35 strokes while pressurizing the tank.
- c. Lock the pump handle back into the pump assembly by turning clockwise.
- d. Watch the Overflow Bottle located on the tank assembly. When liquid begins to appear in this bottle, the on-board blood reservoir is full. (Filling the on-board blood reservoir takes approximately 3 to 5 minutes.)

Step 4: Release Pressure from the Trauma Fill Tank

Immediately release pressure from the tank by turning and holding the yellow pressure relief knob clockwise until all air pressure is gone.

If pressure will not release using the relief knob:

- a. Place a rag over the top of the tank and pump handle.
 - b. While firmly pushing down on the pump handle, slowly turn the handle counter-clockwise.
- NEVER leave a pressurized tank unattended.

Step 5: Disconnect the Trauma Fill Tank Umbilical from the Simulator

Disconnect the Trauma Fill Tank Umbilical from the simulator and store the assembly out of the way for later use.

After use, ALWAYS release pressure and clean the tank.

Preparing for Storage

After filling and using the Trauma Fill Tank and the simulator's blood reservoir, both must be cleaned for storage.

Step 1: Clean the Simulator and Fluid System

When the simulation is completed and the Trauma Fill Tank has been disconnected, remove the fluids and clean the simulator

Step 2: Clean the Trauma Fill Tank

Before storing the Trauma Fill Tank, make sure the equipment is clean

Step 3: Store the Trauma Fill Tank

After cleaning, the Trauma Fill Tank assembly should be stored securely for future use.

- a. Allow the interior of the tank to dry by loosening the pump assembly. Do NOT leave the pump assembly out of bottle, however, because dust contaminates the system.
- b. Loosely wrap the Trauma Tank Umbilical around the neck of the tank to protect it.
- c. Store all components in a clean, dry area.

Connect a TouchPro™ Workstation to the Wireless Network (Optional)

The CAE Healthcare TouchPro workstation comes pre-configured for use with the simulator. If you wish to supply your own computer to run the TouchPro software, the computer must meet the system requirements and must join the simulator network prior to use.

The simulator and Instructor Workstation form a local area network with static IP addresses. To incorporate an additional computer to run TouchPro, the computer's network properties must be configured to join the simulator network. Refer to the following instructions or contact the system administrator for your institution to configure the network properties and connect the TouchPro software, if necessary.

NOTE: The Instructor Workstation MUST be connected to the simulator network prior to performing the steps below.

To connect the TouchPro software to a Mac laptop not provided by CAE Healthcare:

- a. Power on the computer to be used for the TouchPro software.
- b. On the Instructor Workstation Mac laptop, from the **Apple** menu, click **System Preferences**.

The System Preferences window opens.

- c. From the System Preferences window, click **Network**.

The Network window opens.

- d. From the Network window, click **Advanced**.

The Advanced window appears.

- e. From the Advanced window, click **TCP/IP**.

f. Write down the IP Address listed next to the **IPv4 Address**, then click **Cancel** to close the Advanced window.

- g. Close the System Preferences window.

- h. To launch TouchPro, open a web browser window and enter the IPv4 address in the address field.

To connect the TouchPro software to a Windows laptop not provided by CAE Healthcare:

- a. Power on the computer to be used for the TouchPro software.
- b. On the Instructor Workstation Windows laptop, right-click the WiFi icon and select **Open Network and Sharing Center**.
The Network and Sharing Center windows opens.
- c. Click the **Wireless Network Connection**.
The Wireless Network Connection window opens.
- d. Click **Details**.
The Details window opens.
- e. Write down the IP Address listed next to the **IPv4 Address**, then click **Close** to close the Details window.
- f. Close the Wireless Network Window and the Network and Sharing Center window.
- g. To launch TouchPro, open a web browser window and enter the IPv4 address in the address field.



The Müse Start Screen

The TouchPro software can now be launched.

Getting Started

- | | |
|---|--------------------------------------|
| 1 | Place Apollo in the Work Area |
| 2 | Power On Apollo |
| 3 | Power On the Instructor Workstation |
| 4 | Connect to Apollo's Wireless Network |

Step 1

Place Apollo in the Work Area



Select a work area with enough room for all equipment, providing ample space for easy access to the simulator. At least a 10'x 12' (3 meter x 4 meter) work area is recommended for movement and positioning of components around the simulator.

Step 2

Power On Apollo



- Locate the **ON/OFF** button beneath the skin covering Apollo's left hip.
- Press and hold the **ON/OFF** button for two seconds.

Step 3

Power On the Instructor Workstation

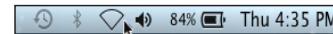
- Place the computer to be used as the Instructor Workstation near Apollo in a convenient location.
 - Connect the AC adapter to the Instructor Workstation and a surge-protected power outlet (optional).
- NOTE:** If the Instructor Workstation is running on battery power, ensure the battery is fully charged.
- Power on the Instructor Workstation.

Step 4 - Option 1

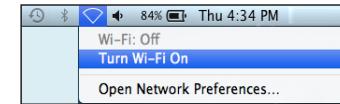
Connect to Apollo's Wireless Network Using the MacBook Laptop (Instructor Workstation)

Once the simulator and the Instructor Workstation are both powered on, they automatically establish a wireless connection.

To manually establish a wireless connection:



- Click the WiFi icon located in the top-right-hand corner of the screen.



- Select **Turn WiFi On**.



- Select the WiFi network for Apollo Prehospital called **APPXXXX** or Apollo Nursing called **APNXXXX** (XXX is the unit number of the simulator).



The WiFi dialog box appears.

- Enter *metadmin* into the **Password** field (XXXX is the unit number of the simulator). Then click **OK**.

Step 4 - Option 2

Connect to Apollo's Wireless Network Using the Ruggedized Tablet or Windows Laptop (Instructor Workstation)

Once the simulator and the Instructor Workstation are both powered on, they automatically establish a wireless connection.

Windows Laptop

To manually establish a wireless connection, follow steps 1 - 3 below, using a mouse-click.

Ruggedized Tablet

TIP: Tap or slide the input panel on the left margin of the tablet screen to display the onscreen keyboard. The wireless keyboard is stored on the back of the tablet.



- a. Press the power button (⊕) on the side of the tablet.
- b. Select the METI User account to login and enter *metiadmin* in the Password field.

NOTE: If the automatic wireless connection is not established, you will not be able to launch Müse.

To manually establish a wireless connection:

1. Tap the **Wireless Network** icon in the bottom Windows toolbar.
2. Select the Apollo Prehospital or Nursing wireless network i.e., APPXXXX, or APNXXXX (XXXX is the serial number for the unit). The network password is *metiadmin* and the password is case-sensitive.
3. Tap the **Connect** button.
The wireless connection is established.
4. Check for accurate time zone and daylight savings time settings.

Step 4 - Option 3

Connect to Apollo's Wireless Network Using the Vivo tablet



- a. Press the power button on the top-right edge of the tablet.
- b. Once the simulator and the tablet are both powered on, they automatically establish a wireless connection.

To manually establish a wireless connection:

1. Swipe down from the top of the tablet screen to access the menu heading.
2. Tap or swipe down on the WiFi icon to access the menu.
3. Tap the WiFi icon dropdown.
4. Tap the simulator network (Example: APPXXXX, where XXXX is the serial number for the unit).
5. If necessary, enter the password *metiadmin*, then tap **Connect**.
6. Tap the tablet square to minimize the windows. It may be necessary to first swipe up from the bottom of the tablet screen to show the tablet square.
7. Swipe the window right or left (off the screen) to close.

The WiFi icon will show it as connected (an exclamation point may show beside the icon, this is ok).

The Vivo tablet is connected and ready to use.

Getting Started

- 1** Place METIman in the Work Area
- 2** Connect the Lower Limbs to METIman
- 3** Power On METIman
- 4** Power On the Instructor Workstation
- 5** Connect to METIman's Wireless Network

Step 1

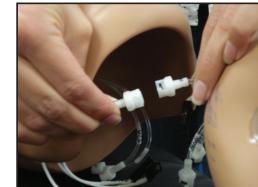
Place METIman in the Work Area



Select a work area with enough room for all equipment, providing ample space for easy access to the simulator. At least a 10'x 12' (3 meter x 4 meter) work area is recommended for movement and positioning of components around the simulator.

Step 2

Connect the Lower Limbs to METIman



- c. On each limb, match and connect the three white tubing connectors to the color-coded tubing.

- e. On each limb, carefully place tubes and cables in the hole on the lower leg.



- f. On each limb, align the holes on the knees and insert the locking pin.



- d. On each limb, match and connect the three black electrical connectors to the color-coded tubing.



- g. On each limb, screw the nut on to the locking pin, holding it in place.

Step 3**Power On METIman**

- Locate the **ON/OFF** button beneath the skin covering METIman's left hip.
- Press and hold the **ON/OFF** button for two seconds.

Step 5 - Option 1**Connect to METIman's Wireless Network Using the Laptop (Macintosh) Instructor Workstation**

- Click the **Airport** icon located in the top-right-hand corner of the screen.



- Select **Turn AirPort On**.



- Select the AirPort network for METIman Prehospital called **MMPXXX** or METIman Nursing called **MMNXXX** (XXX is the unit number of the simulator).



- Enter *metiadmin* into the **Password** field (XXX is the unit number of the simulator).



- Click **OK**.

The Airport dialog box appears.

Step 4**Power On the Instructor Workstation**

- Place the computer to be used as the Instructor Workstation near METIman in a convenient location.
 - Connect the AC adapter to the Instructor Workstation and a surge-protected power outlet (optional).
- NOTE:** If the Instructor Workstation is running on battery power, ensure the battery is fully charged.
- Power on the Instructor Workstation.

NOTE: If the Instructor Workstation is running on battery power, ensure the battery is fully charged.

Step 5 - Option 2**Connect to METIman's Wireless Network Using the Instructor Workstation (tablet)**

TIP: Tap or slide the input panel on the left margin of the tablet screen to display the onscreen keyboard. The wireless keyboard is stored on the back of the tablet.



- Press the power button (⊕) on the side of the tablet.
- Select the METI User account to login and enter *metiadmin* in the Password field.
- Once the simulator and the Instructor Workstation are both powered on, they automatically establish a wireless connection.

NOTE: If the automatic wireless connection is not established, you will not be able to launch Müse.

To manually establish a wireless connection:

- Tap the **Wireless Network** icon in the bottom Windows toolbar.
- Select the METIman Prehospital or Nursing wireless network i.e., MMPXXX, or MMNXXX (XXX is the serial number for the unit). The network password is *metiadmin* and the password is case-sensitive.
- Tap the **Connect** button.
The wireless connection is established.
- Check for accurate time zone and daylight savings time settings.

Apollo

User Interface

Introduction

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USING MÜSE

The Müse software is a browser-based application that can communicate directly with the simulator.

With the software, users can run SCEs, create scenarios and SCEs, import and export educational content and perform administrative functions.

NOTE: For optimal Müse performance, no other software programs should be open while Müse is running.

IMPORTANT: Only one Müse application window or tab and one TouchPro window or tab can be used per Instructor Workstation at a time.

IMPORTANT: Do NOT use any of the browser's navigational tools (i.e., back and forward buttons) while operating Müse.

Starting the Application

Once the simulator is powered on and the Instructor Workstation is connected to the simulator network, the Müse software can be launched.

To launch the software:

1. Using the Laptop or Tablet Instructor Workstation, launch the web browser.

The Müse Start Screen appears.



The Müse Start Screen

2. Select **Müse**.

The Login screen appears.



The Müse Login Screen

The icons in the bottom left corner of the screen provide access to additional information about the software:

Clicking the **Info** icon to access the Info menu. From the Info menu, users can select from the following options:

- Select **About** to access information about the Müse software version, the type of simulator and the serial number.
- Select **User Guide** to download the user guide (English version). To access the User Guide in other languages, please visit www.caehealthcare.com and click the **Support** link.
- Select **Support** for CAE Healthcare Support contact information.

Click the globe-shaped **Language** icon in the bottom left corner to change the language of the Müse software.

3. On the Login screen, enter the **Username** and **Password** in the appropriate fields and click **Login** to access Müse.

The default **Username** is *admin* and the default **Password** is *admin*.



The Müse Login Fields

Müse opens to the Home page.

Navigating the Home Page

From the Home page, users can run, create, edit, search for and print SCEs.

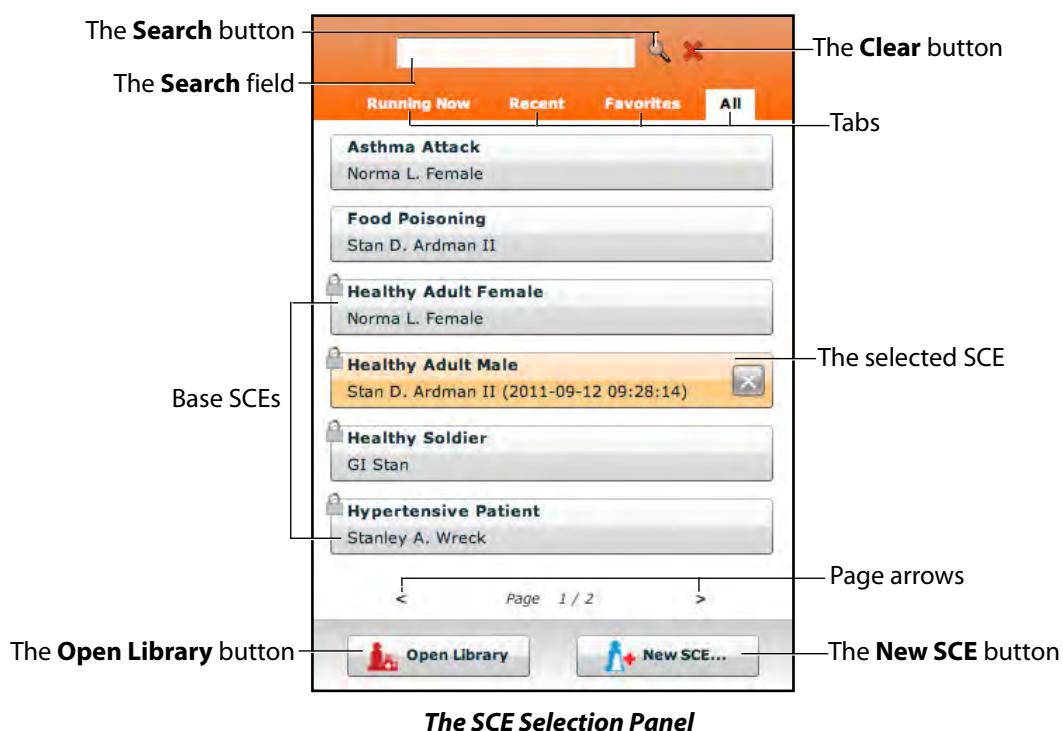
The Home page can be accessed by clicking the **Home** button in the upper right corner of the Müse software or, on any screen without a **Home** button, by clicking the **Return** button in the upper left or right corner of the screen.

The Home Page

The SCE Selection Panel

SCEs are process tools that enable the facilitator to execute a learning strategy using simulation. Preconfigured CAE Healthcare SCEs provide an extensive overview and outline of the learning exercise and require minimal additional faculty development time for use. Each SCE is comprised of a patient and up to four scenarios.

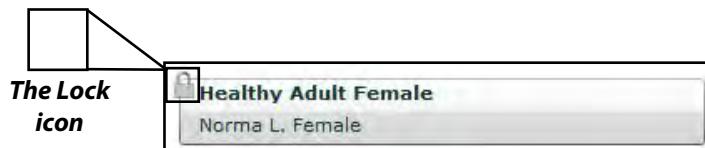
Available SCEs appear in the SCE Selection panel on the Home page.



The SCE Selection panel has four tabs that access SCEs: Running Now, Recent, Favorites and All.

- **Running Now** tab: Lists the SCE that is currently running and is only available when an SCE is running. **Note:** Only one SCE is allowed to run at a time.
- **Recent** tab: Lists all the recently run or edited SCEs.
- **Favorites** tab: Lists all SCEs that have been selected as favorites and is only displayed after favorites have been selected. To add a favorite SCE to your profile, click the **Add to Favorites** button at the top of any SCE on the Home page. Managing favorites is achieved in the Account Profile portion of the software.
- **All** tab: Lists all SCEs, including user-created SCEs and all SCEs from available learning modules.

The **Lock** icon indicates a locked SCE. Locked SCEs are installed by CAE Healthcare and cannot be edited or deleted.



A Locked SCE

To search for an installed SCE, enter part of the name of an SCE in the **Search** field and click the **Search** button.

Click the page arrows to view additional pages of installed SCEs.

Click any SCE to select it. Once an SCE is selected, it appears in the SCE Summary panel.

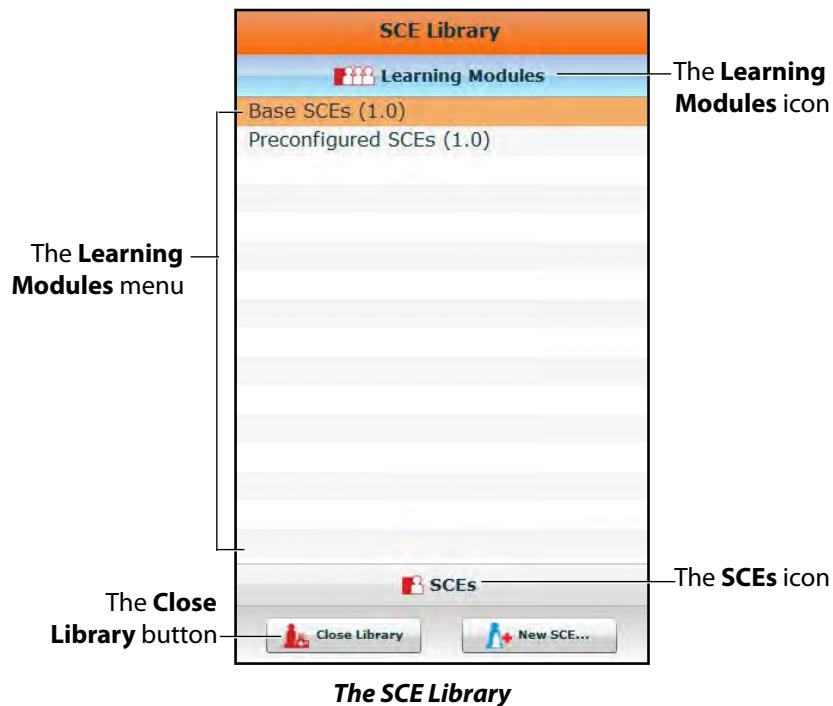
To run an SCE, click **Run** in the SCE Summary panel to execute the SCE.

To open the SCE Library, click the **Open Library** button.

To create a new SCE, click the **New SCE** button.

The SCE Library

The SCE Library lists all SCEs available on your workstation. Access SCEs from your library by clicking the **Open Library** button at the bottom of the SCE Selection panel. The SCE Library appears.



The Learning Modules menu is open by default. The Learning Modules menu lists Base SCEs, Preconfigured SCEs, and all installed learning modules. Click the desired learning module name to access its SCEs, or click Base SCEs or Preconfigured SCEs. The selected SCEs appear.

Clicking the **SCEs** icon reveals the SCEs menu, which lists all user-created SCEs.

Clicking the **Learning Modules** icon again reveals the Learning Modules menu.

To open an SCE, click the name of the SCE.

Click **Close Library** to exit the SCE Library.

The CPR Monitor

The CPR monitor is used to monitor the efficacy of CPR interventions and is available from the Run screen (only if the optional chest compression module has been installed).

To use the CPR monitor, click the **CPR Monitor** button at the bottom of the Run screen.



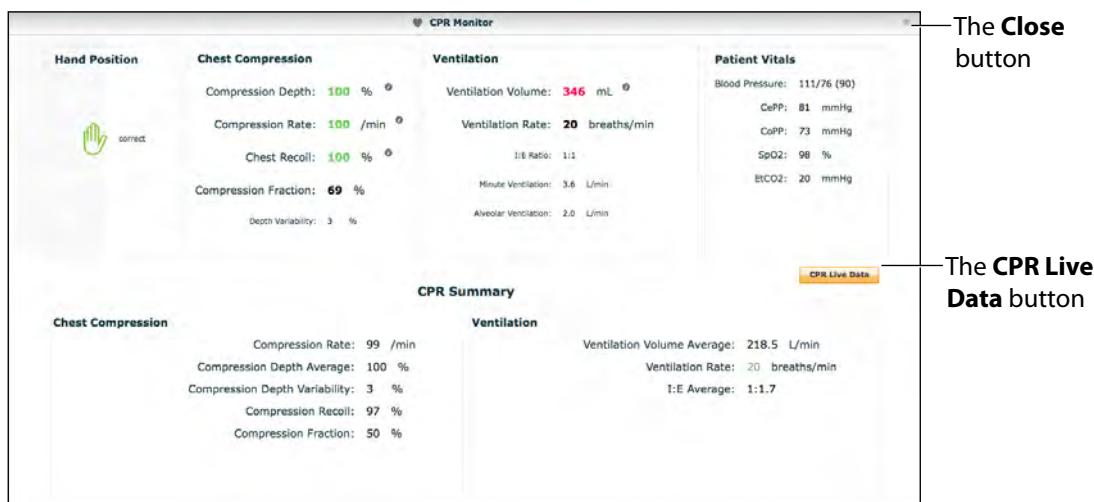
The CPR Monitor Button

The CPR Monitor appears displaying the live data view.



The CPR Monitor - Live Data View

Click the **CPR Summary** button to display the summary view.



The CPR Monitor - Summary View

Click the **CPR Live Data** button to return to the live data view.

The CPR Monitor displays several statistics, including current hand position, compression and ventilation rates, compression depth, ventilation volume, and compression-ventilation ratio.

CPR data is recorded in the Event Logs.

To close the CPR Monitor, click the **Close** button.

Using the Event Recorder to Save States

The Event Recorder can be used to save conditions, interventions and parameter changes as states.

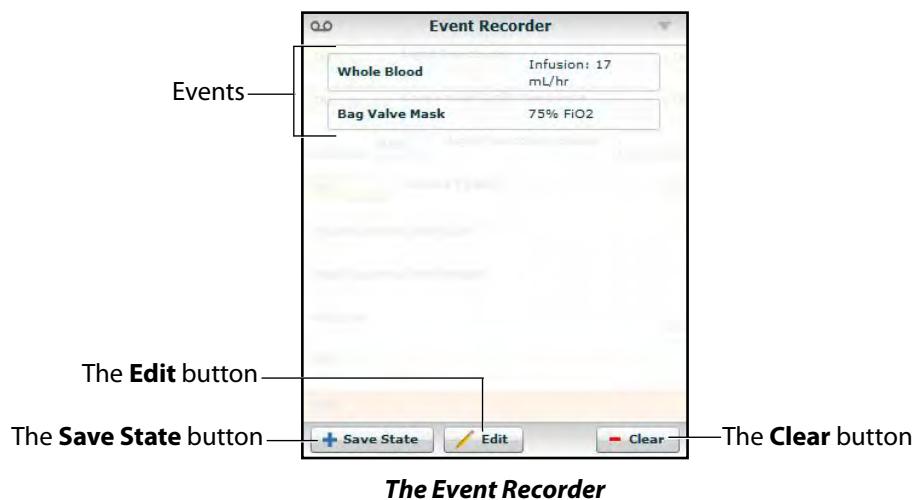
To save a state using the Event Recorder:

1. Apply the desired conditions, interventions and parameters.
2. Click the **Event Recorder** button at the bottom of the Müse screen.



The Event Recorder Button

The Event Recorder appears, displaying all events that have occurred since the start of the SCE.



WARNING: The **Clear** button deletes all recorded events. This action cannot be undone.

3. Review the list of events.

If you wish to remove any events from the state to be saved:

Vivo Getting Started Guide

Welcome to Vivo, the facilitator-driven software that puts you in full control of your simulations. This guide will help you get started using the Vivo tablet with the simulator. Remember to make sure the tablet is fully charged prior to each use.

Setup

1. Power on the simulator first, and wait at least 3 minutes while the simulator establishes a wireless network. The power light will turn solid when ready.
2. Power on the Vivo tablet. The power button is located on the top-right side of the tablet.

Once the simulator and the tablet are both powered on, they automatically establish a wireless connection.

For the initial (first-time) startup, or if the auto-connect does not occur, perform the following steps to establish a WiFi connection to the simulator:

1. Swipe down from the top of the tablet screen to access the menu heading.
2. Tap or swipe down on the WiFi icon to access the menu.

3. Tap the WiFi icon dropdown.
4. Tap the simulator network (Example: MMPxxx, where xxx is the serial number for the unit).
5. If necessary, enter the password *metiadmin*, then tap **Connect**.
6. Tap the tablet square  to minimize the windows. It may be necessary to first swipe up from the bottom of the tablet screen to show the tablet square .
7. Swipe the Vivo window right or left (off the screen) to close.

The WiFi icon will show it as connected (an exclamation point may show beside the icon, this is ok).

The Vivo tablet is connected and ready to use.

IMPORTANT: Before running Vivo on the tablet, ensure that no instance of Müse is open for the simulator using Vivo. Only one instance of either Müse or Vivo can be open at any given time across all platforms, laptop or tablet.

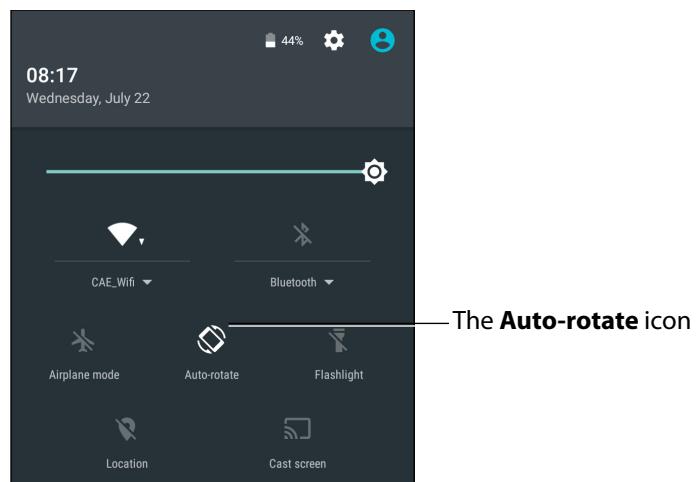
Tips

- The tablet must have a WiFi connection to the simulator in order to run Vivo. To verify the Vivo tablet is connected to the simulator WiFi, swipe down from the top of the tablet screen to access the menu heading. Then, tap or swipe down on the WiFi icon to access the menu. The simulator should be shown under the WiFi icon.



The WiFi Icon

- Prior to running Vivo, it is recommended to lock the screen orientation in landscape view for optimal performance. To lock the screen in landscape view:
 - Hold the tablet landscape and swipe down from the top of the screen to access the menu heading. Then, tap or swipe down on the menu heading to access the menu.
 - Tap on the **Auto-rotate** icon to lock the landscape view.



The Menu

- If Vivo is closed accidentally, tap the tablet square  to show any available running windows. If available, select the Vivo window.
- Various screens have a *back* button. Tap the *back* button to return to previous screen.



The Back Button

Opening Vivo - Running A Simulated Clinical Experience (SCE)

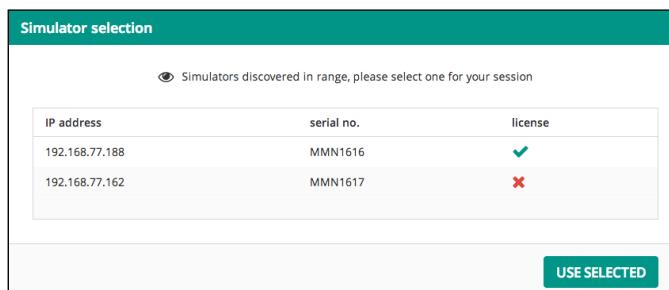
IMPORTANT: Before running Vivo on the tablet, ensure that no instance of Müse is open for the simulator using Vivo. Only one instance of either Müse or Vivo can be open at any given time across all platforms, laptop or tablet.

Tap the Vivo icon to launch Vivo.



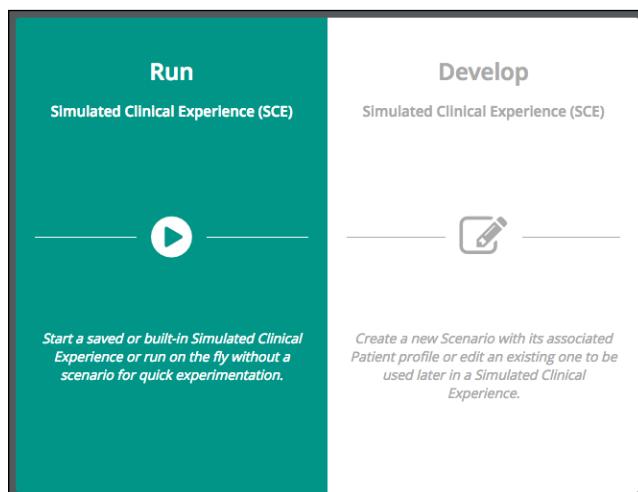
The Simulator Selection window may open before the Start screen. If so, tap to highlight the desired simulator, then tap **Use Selected**.

If the Simulator Selection window does not appear, then Vivo is automatically connected to the only available simulator and is ready to use.



The Simulator Selection Window

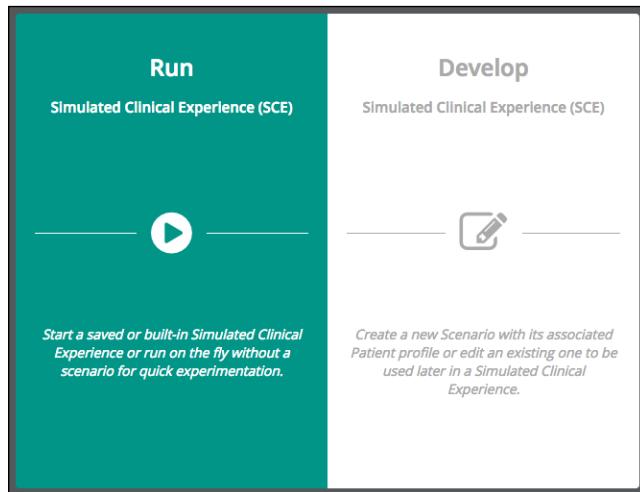
The Start screen will open.



The Start Screen

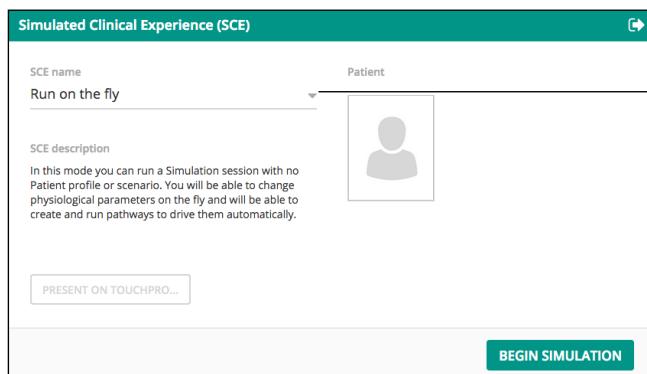
Run an SCE

To run an SCE, from the Start screen, tap the **Run** (SCE) icon.



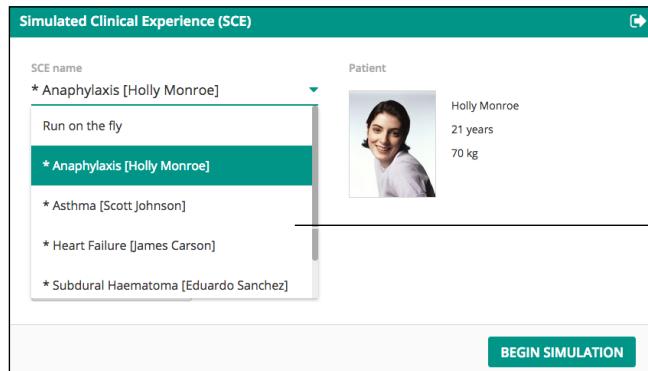
The Start Screen

The SCE selection window will open. Tap on the **SCE name** dropdown to select an SCE and see its description; or choose run on the fly. Then tap **BEGIN SIMULATION**.



The SCE Selection Window

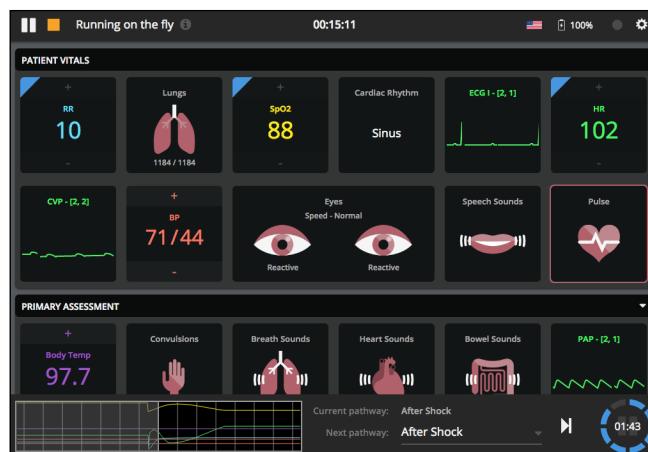
TIP: Vivo comes with preconfigured SCEs for selecting and running simulations.



The preconfigured SCEs

The SCE Selection Window

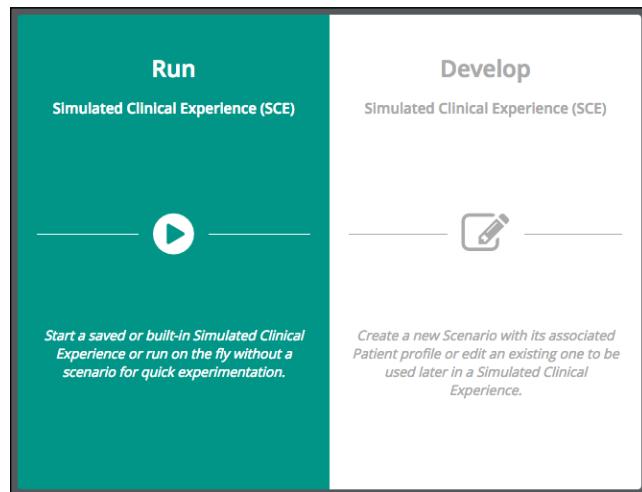
Vivo opens to the Run screen and the SCE is running.



The Run Screen

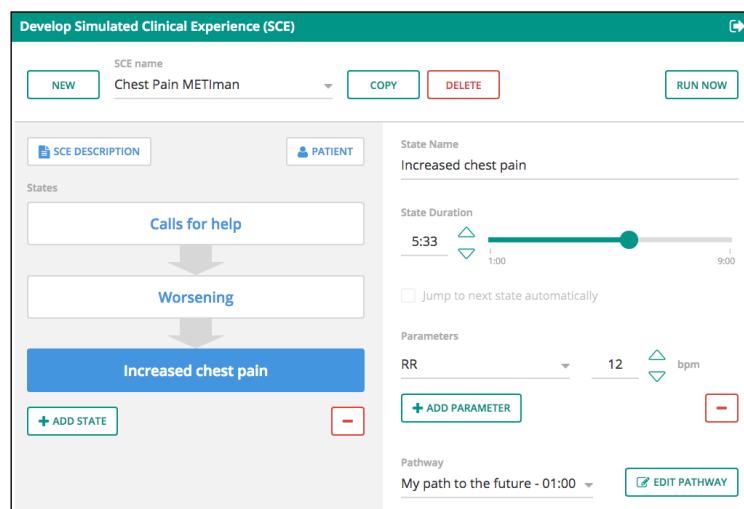
Develop an SCE

To develop an SCE, from the Start screen, tap the **Develop** (SCE) icon.



The Start Screen

The **Develop** SCE window will open.



The Develop SCE Window

SCEs can be created, copied, adjusted, saved, deleted, and run as desired.

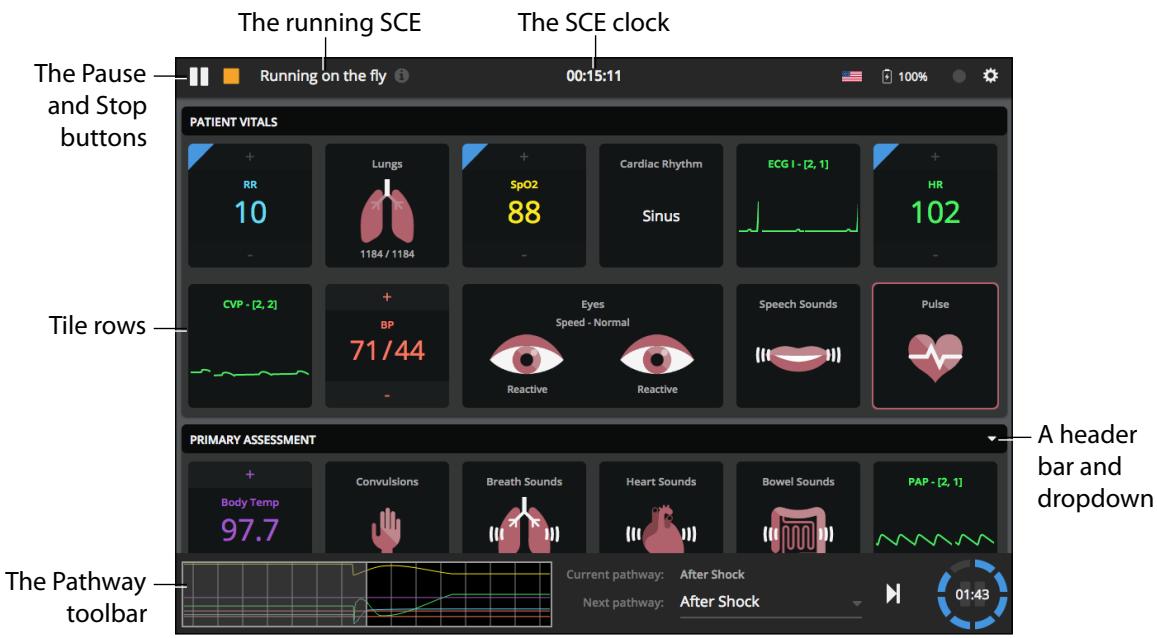
Using Vivo

The Run Screen

When an SCE is running, Vivo is facilitator-driven and fully adjustable. The top toolbar shows the play/pause/stop buttons, identifies what SCE is running, and shows the SCE clock.

The tile rows show the parameters and headers. Tile rows can be viewed or collapsed by tapping on the black header bar or on the dropdown of each row.

The bottom toolbar shows the Pathway(s) and countdown timer.

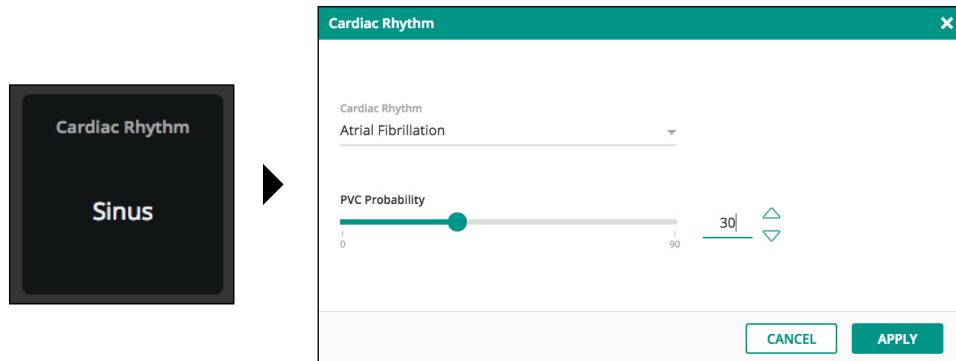


The Run Screen

TIP: Vivo can also be used with a TouchPro™ Patient Monitor to display patient physiology.

Tiles and Windows

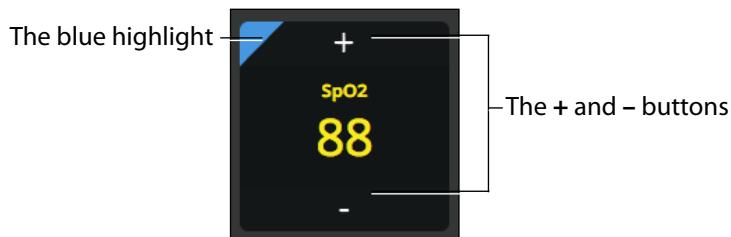
Tap on a tile to adjust the parameter. The parameter window will open and can be applied as desired. Dropdowns, scroll lists, and slider bars are available based on each parameter.



The Tile and Parameter Window

For parameters with a + / – option, the parameter can be adjusted directly by tapping on the + or –.

A blue highlight in the corner of the parameter identifies that a change has been made to that parameter.



The Tile With +/– and Highlight

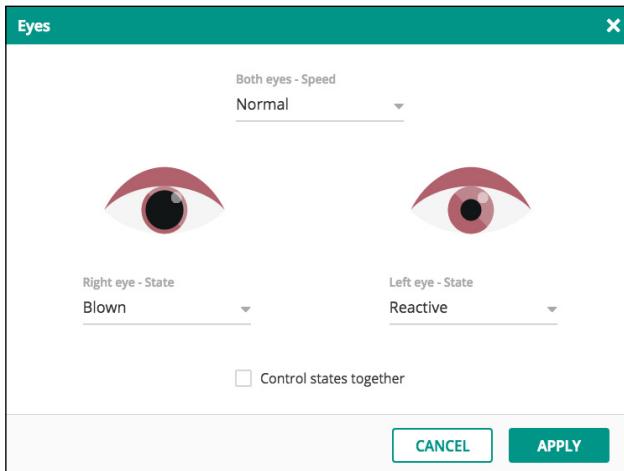
For parameters with a left and right option (lungs, eyes) the left and right parameters can be adjusted independently or together.

For example, tap on either side or both sides of the Patient Vitals Lungs tile to highlight the selection.



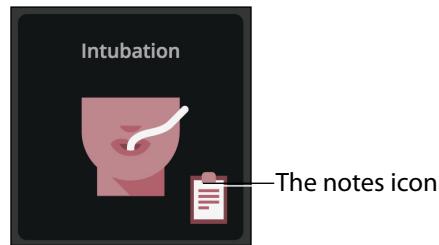
The Tile with One Side Highlighted

Tap on the Eyes tile to open the parameters windows and control the eyes independently or together.



The Eyes Parameter Window

Tiles with a notes icon allow for data capture. Tap the tile to open the data capture window. Refer to the *Right-Swipe and Left-Swipe* section for more information on the data capture window.



The Tile With Notes Icon

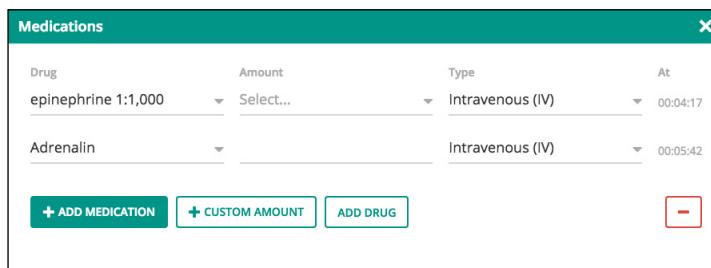
Right-Swipe and Left-Swipe

Swipe right on the Run screen to open the **Medications** window. Then, tap **ADD MEDICATION** to select the drug, amount, and type. Custom amounts are also available to enter.

NOTE: Adding medications only enters that medication into the log and does not affect the physiology.

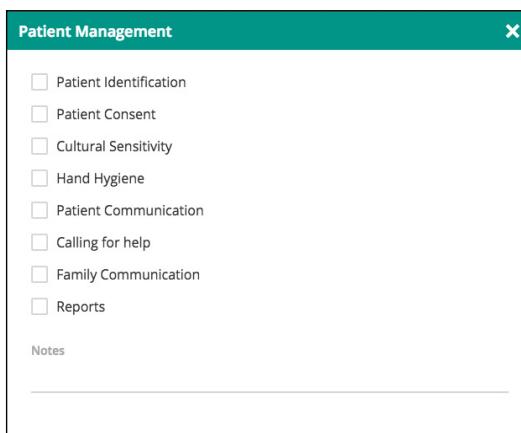
Tap the red **-** and then the red **X** to remove a drug.

Tap the **X** or swipe the window left to close the window.



The Medications Window

Swipe left on the Run screen to open the data capture window. The data capture window allows for checkoffs and note taking.



The Data Capture Window

Depending on the previous action, swiping left opens the data capture window for the most recently accessed data.

For example:

If no right-swipe has been made, then the **Patient Management** window will open with a left-swipe.

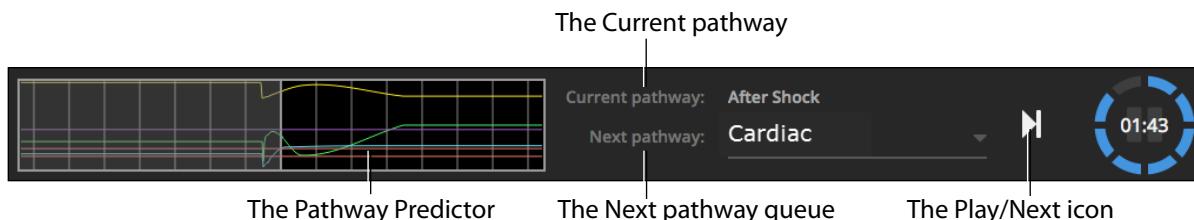
If **Medications** are accessed with a right-swipe, then the **Drugs** window will open with a left-swipe.

If the **Intubation** tile (with notes icon) is accessed, then the **Intubation** window will open with a left-swipe.

Tap the **X** or swipe the window right to close the window.

Pathways

The Pathway toolbar is located at the bottom of the Vivo screen. The Pathway toolbar shows the pathway predictor, the current and next Pathway, and the countdown timer.



The Pathway Toolbar

For preset SCEs, select a Pathway in the **Next Pathway** dropdown to queue up the next Pathway. Tap on the Play/Next icon to play the next Pathway.

The countdown timer shows the time remaining to next Pathway. Tap on the countdown timer to pause and resume.

Run on the fly SCEs have the same Pathway features, plus the ability to adjust the pathway predictor.

Tap the pathway predictor to access the **Pathway Editor**. Pathways can be created, copied, run, and fully customized.

When parameters are in (or added) to the Pathway, those parameters can be adjusted by dragging any point on the parameter to any position.

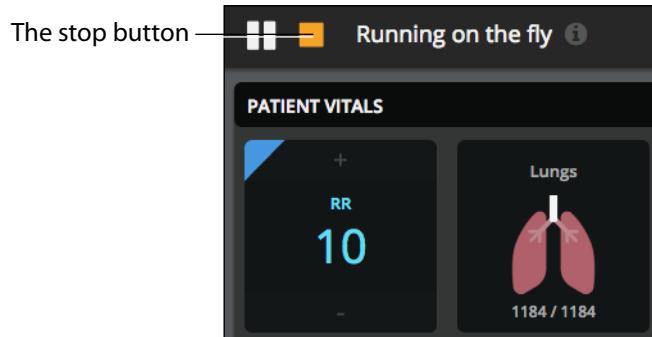
TIP: If more than one parameter is in the Pathway, make sure to tap and select the desired parameter **tab** before adjusting the parameter.



The Pathway Editor

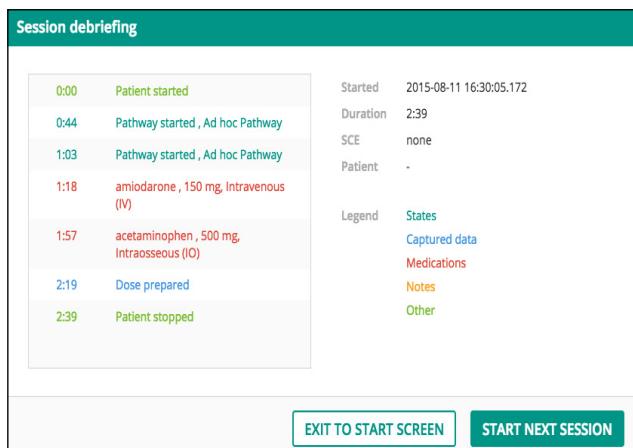
Stopping An SCE

To stop an SCE, tap on the stop button. Then tap **OK** on the verification popup.



The Stop Button

The **Session Debriefing** window will appear.



The Debriefing Window

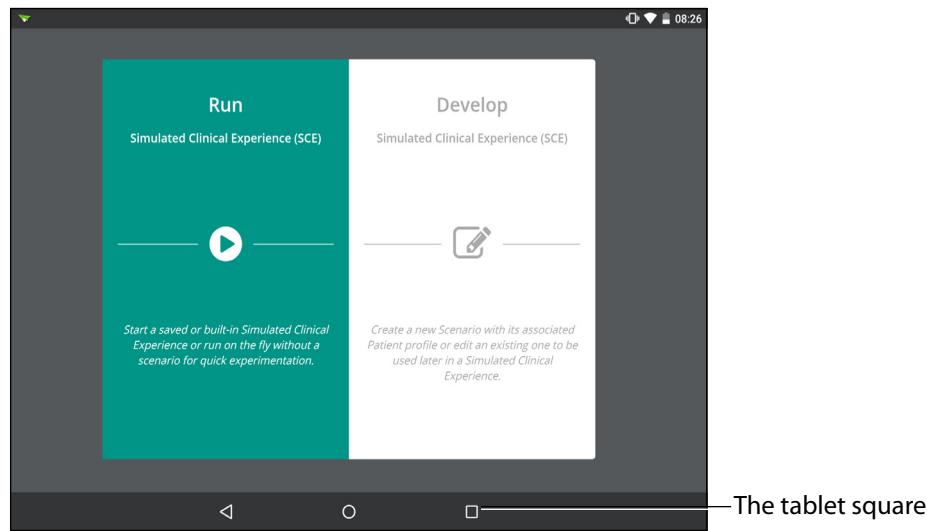
When finished debriefing, select **Exit To Start Screen** or **Start Next Session**.

IMPORTANT: Be sure to complete debriefing before exiting the debriefing window. Returning to debriefing window or accessing a debriefing log is not available.

Exiting Vivo

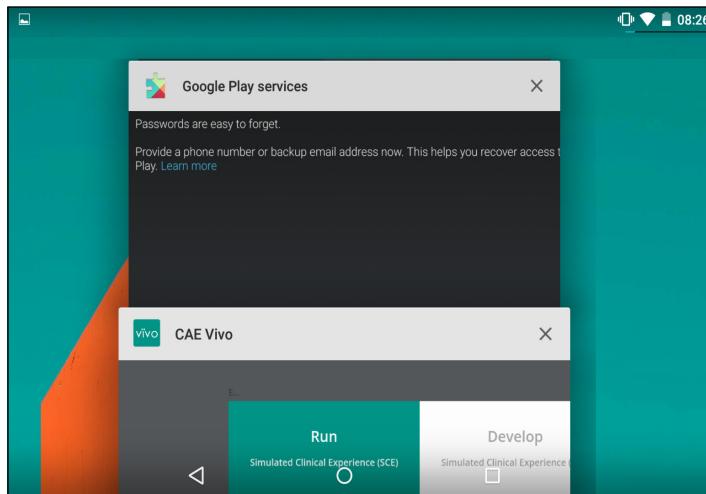
IMPORTANT: Stop the running SCE and return to the Start screen prior to exiting Vivo.

To exit Vivo, tap the tablet square  to shrink the window. It may be necessary to first swipe up from the bottom of the tablet screen to show the tablet square .



The Tablet

Swipe the Vivo window right or left (off the screen) to exit.



The Open Windows

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USING THE TOUCHPRO PATIENT MONITOR

The TouchPro Patient Monitor software enables users to view patient physiology.

The software can be used from the Instructor Workstation or on another computer provided the computer has joined the simulator's wireless network.

IMPORTANT: Only two TouchPro software screens can be open at a time.

Scan or click the QR code to access the *Using TouchPro* video tutorial on caehealthcare.com.

Accessing the TouchPro Patient Monitor Software

Like the Müse software, the TouchPro Patient Monitor software is compatible with computers that have touch-screen capabilities.

To run the TouchPro Patient Monitor software, the Instructor Workstation must be connected to the simulator's network.

IMPORTANT: An SCE must be running on the Müse software for any physiological data to be displayed on the TouchPro Patient Monitor software. The TouchPro Patient Monitor software can only show one Patient at a time.

To launch TouchPro Patient Monitor from the Instructor Workstation:

1. With the Müse software running, open a new tab in the web browser and go to the **Home** page of the web browser.

The Müse Start Screen appears.



The Müse Start Screen

2. Select the **TouchPro Patient Monitor** icon.

When TouchPro Patient Monitor software launches, the simulated patient monitor appears.



The TouchPro Display

NOTE: The capnogram waveform is not displayed on the TouchPro Patient Monitor software from the Instructor Workstation. Capnogram information can be found on the clinical patient monitor if one is connected to the simulator.

Modifying the TouchPro Patient Monitor Display

The layout of the waveforms and numeric data shown on the software can be customized.

The software can show up to six waveforms plus an additional four numeric readouts.

Selecting a Preconfigured Layout

There are five preconfigured CAE Healthcare Layouts:

ICU-Arterial Line Only - preconfigured with waveform and numeric readouts for ECG Lead II, ECG Lead V, ABP, Pleth, and a numeric readout for Body Temperature.

EMS-ED-Telemetry - preconfigured with a waveform and numeric readout for ECG Lead II and numeric readouts for SpO₂, and noninvasive blood pressure (NIBP).

ICU-OR No CVP - preconfigured with waveform and numeric readouts for ECG Lead II, ECG Lead V, ABP, PAP and Pleth, and numeric readouts for NIBP, Thermodilution C.O., Blood Temperature, and Body Temperature.

ICU-OR - preconfigured with waveform and numeric readouts for ECG Lead II, ECG Lead V, ABP, PAP, CVP and Pleth, and numeric readouts for NIBP, Thermodilution C.O., Blood Temperature, and Body Temperature.

Saturation-Pulse - preconfigured with numeric readouts for SpO₂ and pulse.

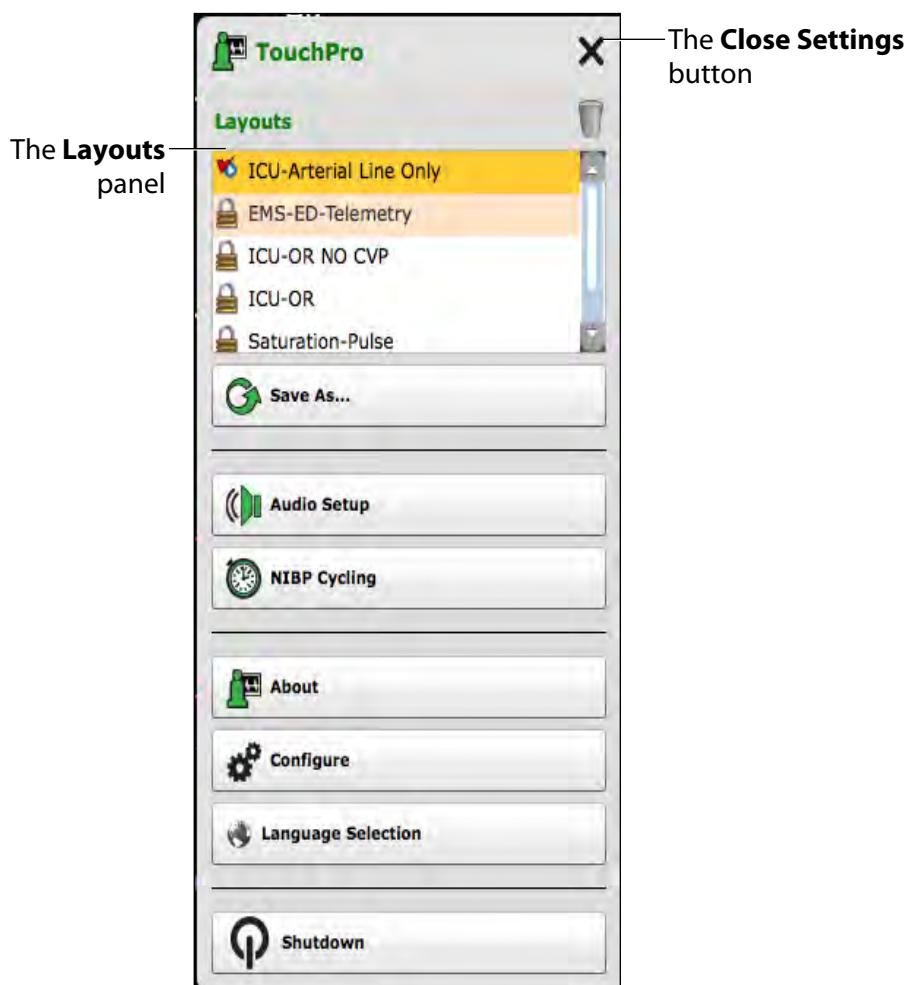
To select a preconfigured layout:

1. Click the **Settings** button in the bottom right corner of the display.



The Settings Button

The TouchPro Settings menu appears.



The TouchPro Settings Menu

2. Select a layout from the Layouts panel.
3. Click the **Close Settings** button.

The Settings menu closes and the selected layout appears.

NOTE: Preconfigured layouts must be enabled in the Müse TouchPro Setup for the currently running SCE to be accessible in the Layouts panel.

Changing a Waveform or Numeric Display

Waveforms and numeric displays can be changed to suit the user's needs.

To change a waveform or numeric display:

1. Click the waveform or numeric to be changed.

The Wave Vital Selection menu or the Numeric Vital Selection menu appears, displaying all the available waveforms or numerics.



The Wave Vital Selection Menu

2. Select the desired waveform or numeric.

The new waveform or numeric is reflected on the screen.

From the **Wave Vital Selection** menu, the alarm, color and scale can be set for the waveform using the **Set Alarm**, **Set Color** and **Set Scale** buttons. From the **Numeric Vital Selection** menu, the color and alarm for the numeric can also be established using the **Set Color** and **Set Alarm** buttons.

Adding a Waveform

The TouchPro software supports up to six waveforms.

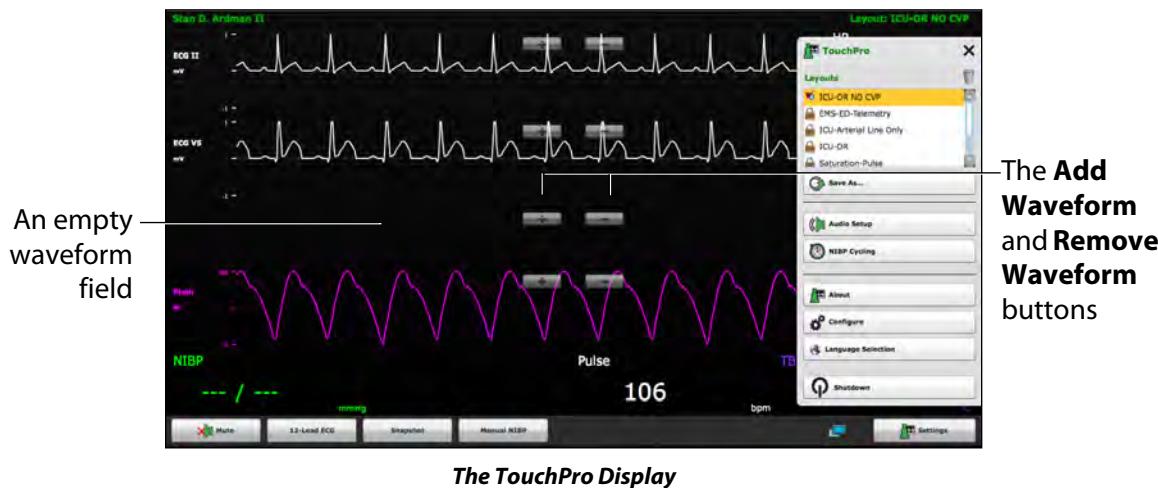
To add a waveform:

1. Click the **Settings** button in the bottom right corner of the TouchPro display.



The Settings Button

The Settings menu opens and the **Add Waveform** and **Remove Waveform** buttons appear.



2. Click the **Add Waveform** (+) button in the location above which you want the empty waveform to appear.

An empty waveform field appears.

3. Click the empty waveform field.

The Wave Vital Selection menu appears.



The Wave Vital Selection Menu

4. Select the desired waveform from the Wave Vital Selection menu.

The new waveform is displayed.

Adding a Numeric Display

The TouchPro software contains four numeric display fields. All four numeric display fields are located on one row beneath the waveform displays.

When fewer than four numeric readouts are being displayed, the remaining fields are blank.

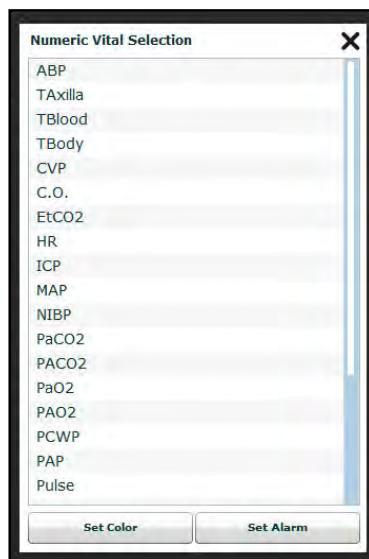
To add or change a numeric display field:

1. Click an existing or a blank numeric display field.



The TouchPro Display

The Numeric Vital Selection menu appears.



The Numeric Vital Selection Menu

2. Select the desired numeric (scroll for all listings).

The new numeric vital is displayed.

Moving a Waveform or Numeric Display

Waveforms and numerics can be moved on the screen to suit the user's needs.

To move a waveform or numeric, click the desired waveform or numeric and drag and drop the display to a desired location.



Saving a Layout

Once a layout has been configured, it can be saved and reused.

To save a layout:

1. Ensure the desired waveforms and numerics are in place.
2. Click **Settings**.
The Settings menu appears.
3. Click **Save As**.
The Save Layout window appears.

4. In the Save Layout window, in the **Layout Name** field, enter a name for the layout



The Save Layout Window

5. Click **Save**.
6. Click the **Close** button to exit the Settings menu.

Saved layouts can be deleted from the Settings menu by dragging and dropping them in the Trash.

NOTE: When a layout is saved, it is available for use only with the current SCE. To enable the layout for use with any other SCE, enable the layout from the TouchPro Setup panel for the desired SCE.

Sounds

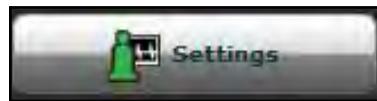
All sounds can be silenced by clicking the **Mute** button in the bottom left corner of the TouchPro display.



The Mute Button

To set up the audio for the TouchPro:

1. Click the **Settings** button in the bottom right corner of the TouchPro display.

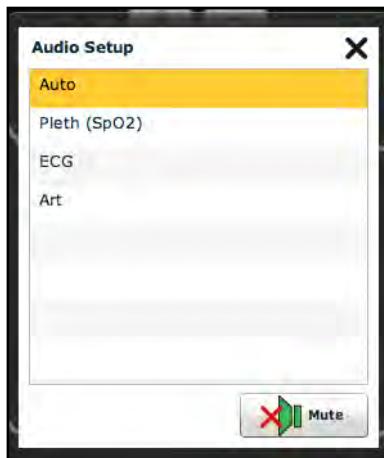


The Settings Button

The TouchPro Settings menu appears.

2. From the Settings menu, click **Audio Setup**.

The Audio Setup window appears.



The Audio Setup Window

From the Audio Setup window, select a waveform to set it as the pulse sound. Once a waveform is selected, the Audio Setup window automatically closes.

Clicking the **Mute** button from the Audio Setup window mutes all alarms. Click the **Mute** button again to return the alarms to their original state.

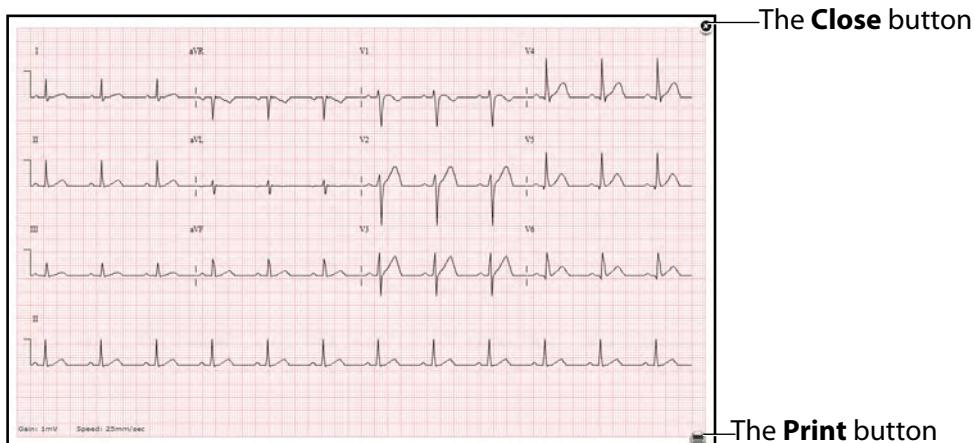
12-Lead ECG

To view a 12-lead ECG report, click the **12-Lead ECG** button at the bottom of the TouchPro screen.



The 12-Lead ECG Button

The report appears.



A 12-Lead ECG Report

The report can be printed or saved by clicking the **Print** button in the bottom right corner of the 12-lead ECG report.

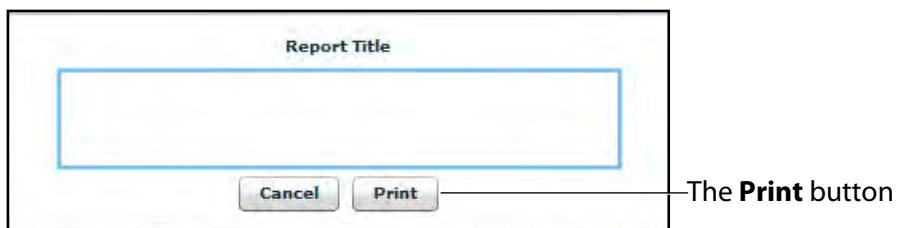
To close the report, click the **Close** button.

IMPORTANT: Prior to saving the report as a PDF or printing to a network printer, the print presets must be adjusted. The page orientation must be set to Landscape and the margins must be set to .25 inches on all sides. These settings vary in location depending on the operating system (i.e., Macintosh or Windows).

To save the report to a PDF file on a Macintosh Instructor Workstation:

1. From the 12-lead ECG report screen, click the **Print** button located in the bottom right corner of the 12-lead ECG report.

The Report Title window appears.



The 12-Lead Report Title Window

2. Enter a title for the 12-lead report.
3. Click **Print**.

The Page Setup window appears.

4. On Page Setup Window, click **OK**.

The Print window appears.

5. From the Print window, click the **PDF** drop-down menu in the lower left corner.

6. From the drop-down menu, select the **Save as PDF** option.

The Save window appears.

7. In the Title field, enter the 12-lead report title.

8. Click **Save**.

The report saves as a PDF on the Macintosh Instructor Workstation.

To save the report to a PDF file on a Windows Instructor Workstation:

1. From the 12-lead ECG report screen, click the **Print** button located in the bottom right corner of the 12-lead ECG report.

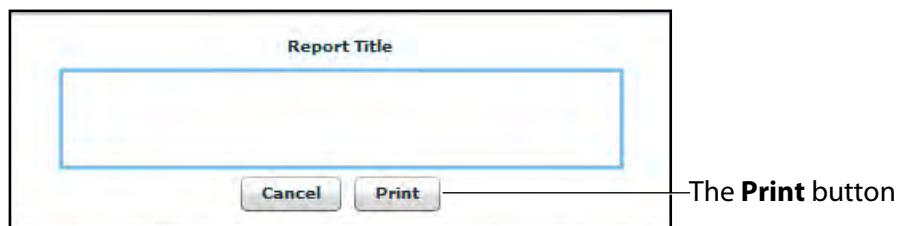
The Print dialog box appears.

2. From the drop-down menu, select Microsoft XPS Document Writer.

The report saves on the Windows Instructor Workstation.

To print a report:

1. From the 12-lead ECG report screen, click the **Print** button located in the bottom right corner of the 12-lead ECG report.



The 12-Lead Report Title Window

2. Enter a title for the 12-lead report.

The Print window appears.

3. From the Printer drop-down menu, select the appropriate network printer.

NOTE: A network printer must be configured in order to appear as an option.

4. From the Print window, click the **Print** button.

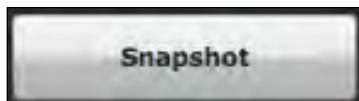
The report prints to the designated network printer.

Snapshot

A vital signs history window can be displayed using the **Snapshot** button.

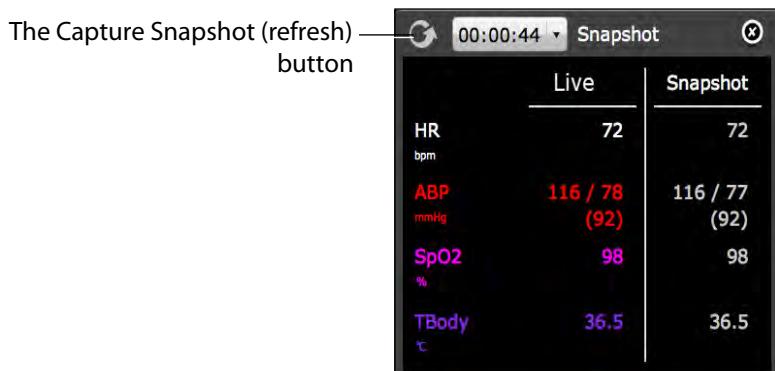
To capture the vital signs history:

1. Click the **Snapshot** button on the bottom of the TouchPro display.



The Snapshot Button

The **Snapshot** window appears displaying that snapshot and live data.



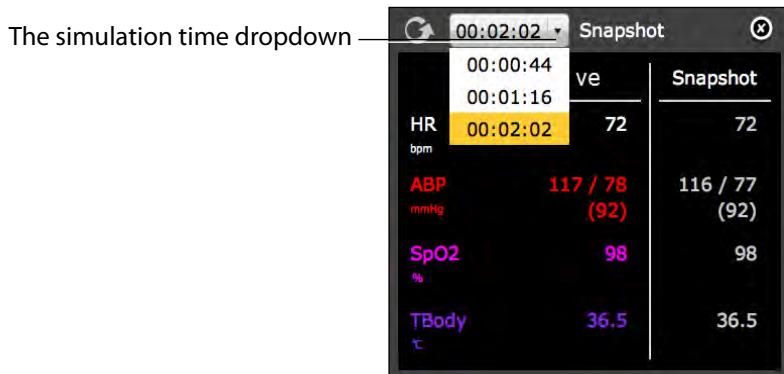
The Snapshot Window

2. To take another snapshot, click the Capture Snapshot (refresh) button.

IMPORTANT: The Capture Snapshot (refresh) button is used to take all subsequent snapshots.

The time when the snapshot was taken is displayed in the simulation time dropdown.

3. Click the simulation time dropdown to display and select any snapshot time.



The Snapshot Window

4. Click the X to close the Snapshot window.

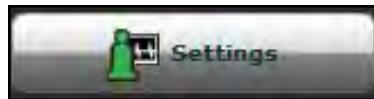
NIBP Cycling and Manual NIBP

When non-invasive blood pressure (NIBP) is displayed, the patient's NIBP can be updated at specified intervals using NIBP Cycling, or the current NIBP can be displayed immediately using the **Manual NIBP** button.

NIBP Cycling can be used to set the patient's NIBP to be updated at regular intervals.

To set NIBP cycling:

1. Click the **Settings** button in the bottom right corner of the TouchPro display.

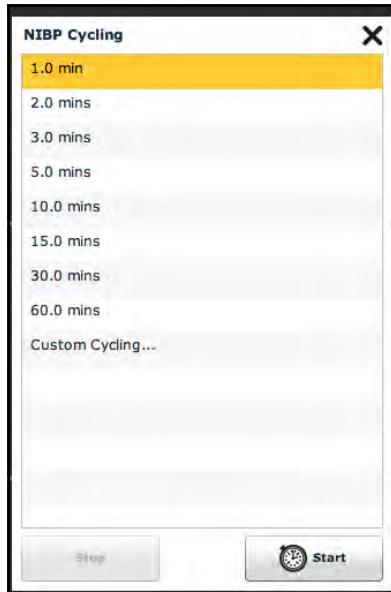


The Settings Button

The TouchPro Settings menu appears.

2. From the Settings menu, click **NIBP Cycling**.

The NIBP Cycling window appears.



The NIBP Cycling Window

3. From the NIBP Cycling window, select the desired interval for the cycling.
4. Click **Start**.

Custom cycling is also available.

To display the patient's current NIBP, click the **Manual NIBP** button.



The TouchPro Display

The current NIBP is displayed.

NOTE: Manual NIBP can be used at any time during cycling. However, this turns off auto-cycling.

Configuring the TouchPro Software

The background color and alarm suspension time can be set from the TouchPro Configure panel.

To access the Configure panel:

1. Click the **Settings** button in the bottom, right corner of the TouchPro screen.



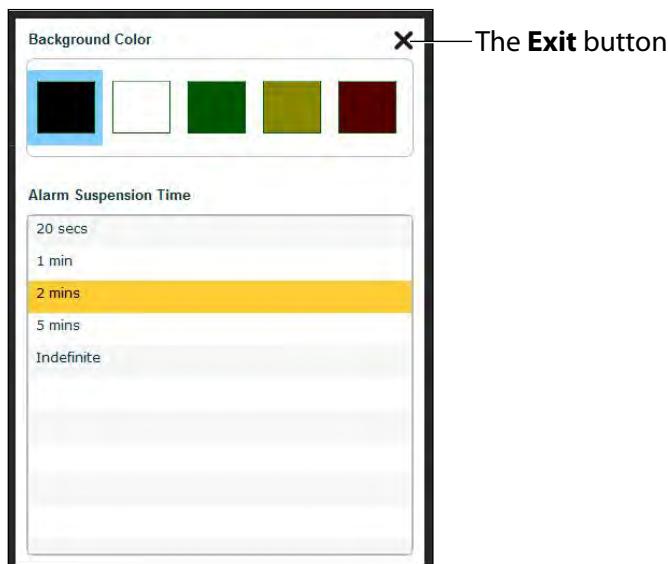
The Settings Button

The Settings menu appears.

2. From the Settings menu, click the **Configure** button.

The Configure window appears.

3. From the Configure window, set the background color and alarm suspension time.



The Configure Window

4. Click the **Exit** button to exit the Configure window when finished.

Changing the TouchPro Language

To change the language of the TouchPro software:

1. Click the **Settings** button in the bottom, right corner of the TouchPro screen.



The Settings Button

The Settings menu appears.

2. From the Settings menu, click the **Language Selection** button.

The Language Selection window appears.

3. From the Language Selection window, select a language.



The Language Selection Window

4. Click **Accept**.

The TouchPro software changes to the selected language.

Exiting the TouchPro Software

To exit TouchPro:

1. Click the **Settings** button from the bottom, right corner of the TouchPro screen.



The Settings Button

The Settings menu appears.

2. From the Settings menu, click **Shutdown**. A warning box appears asking if you want to exit.
3. Click **Shutdown**.

TouchPro shuts down and the Müse Start Screen appears.

Apollo

MUSE Tech Focus

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Müse System Requirements

Operating System Support

Müse 2.3 - 2.4 Supports	Müse 2.6 Supports	Müse 2.7 Supports
Windows 7 and 8	Windows 7, 8, and 10	Windows 7, 8, and 10
Mac OS X 10.6 - 10.11	Mac OS X 10.6 - 10.11	Mac OS X 10.9 - 10.11

Minimum Requirements

Any computer (Instructor Workstation) used to operate Müse or TouchPro must meet the following minimum requirements.

Any computer NOT associated with a simulator (SCE Development Workstation) used to operate Müse or TouchPro must also meet the following requirements, with the exception of ethernet/network connectivity.

Windows® Operating System

Windows 7

Firefox® 24 ESR or Internet Explorer® 9

Adobe Flash Player® 16, Adobe Reader 11

Hardware

Intel Core 2 Duo, 2.0 GHz, 4 GB DDR3 RAM

32 GB Hard Drive space available

1366x768 screen resolution

USB 2.0

Wireless 802.11b/g/n Ethernet card

100BASE-T Ethernet Adapter

Mac® Operating System

Mac OS X 10.6 (Mac OS X 10.9 for Müse 2.7)

Firefox 24 ESR

Adobe Flash Player® 16, Adobe Reader 11

Hardware

Intel Core 2 Duo, 2.0 GHz, 2 GB DDR3 RAM

8 GB Hard Drive space available

1024x768 screen resolution

USB 2.0

Wireless 802.11b/g/n Ethernet card

100BASE-T Ethernet Adapter

IMPORTANT: If your Mac operating system has been updated after installing Müse, please download and run the Muse patch utility available here:

www.caehealthcare.com/images/uploads/documents/Muse-Patch-Utility.pdf.

NOTE: Mac is a registered trademark of Apple Inc. Windows and Internet Explorer are registered trademarks of the Microsoft Corporation in the United States and/or other countries. Firefox is a registered trademark of the Mozilla Foundation. Adobe Flash Player is a trademark of Adobe Systems Inc.

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müse™

Version 2.7

<i>Build IDs</i>	
Müse	70 (16-1221-1001)
TouchPro	TPRO-16-1221-1001
Core Service	4.1.63

<i>Upgrade Compatibility</i>	
HPS, ECS, PediaSIM ECS, BabySIM, iStan, METIman, Caesar, Lucina, Athena, Apollo	Yes, from Muse 2.0 onward. Upgrading from Muse 1.1 (197) is also supported, but purchase and activation of a "Muse 2.0" license is required.

<i>Git Tags</i>	
PatientSimulatorMuse_2.7.70.0	(Branch: BR_MUSE_2-7)
PatientSimulatorCoreService_4.1.63.0	(Branch: BR_CORESERVICE_2-7-0)

What's New Since Müse 2.7.60?

- Choppy TouchPro animations on MSI all-in-one computers corrected [MUSE-4983]
- The alveolar anesthetic gas concentration controls now correctly work as overrides instead of factors [MUSE-4966]
- Default anesthetic gases alarms in Muse now fixed for certain sim types [MUSE-4964]
- Alarm on anesthetic gases in TouchPro are now triggered at the right value [MUSE-4963]
- Oxytocin now shows the right effect on Lucina [MUSE-4922]
- Medication Monitor now shows the correct unit [MUSE-4921]
- Vasopressin now shows the proper physiological effect on blood pressure [MUSE-4920]
- Thumb correctly no longer twitches on HPS when NMB set to 100% [MUSE-4888]
- PaCO2 maximum display value no longer limited to 50 [MUSE-5059]
- Install documentation now shows how to set default browser in Windows 10 to Internet Explorer [MUSE-5052]
- Müse install documentation update related to the release of the macOS Sierra (10.12) operating system;
- Müse now properly detects new Caesar SBC (EMAC) during Production software installation.

What's New in Muse 2.7?

- New for all simulator types except Apollo and Athena, for which these improvements were previously released
 - The realism of the ECG traces was dramatically improved, including (but not limited to) Apollo and Athena Lead I.
 - A new pulseless electrical activity (PEA) control was added to the simulator allowing any cardiac rhythm to be non-perfusing in modeled mode (e.g. there would be an ECG but no signs of perfusion such as pulses).
 - Controls were added allowing for direct override of the following vital signs:
 - Cardiac Output
 - PCWP
 - Usage data of various simulator features is gathered and can be accessed from the system settings page. This data will be utilized to help with maintenance and gather reliability data (for now it is local on the simulator but will eventually be sent to the cloud). Customers have the option of opting out of usage logging.
 - Muse is now compatible with the Windows 10 operating system.
 - The bug that was causing small distortions on the TouchPro waveforms has been fixed.
- New for all simulator types except METIman, Apollo and Athena, for which these improvements were previously released
 - Controls were added allowing for direct override of the following vital signs:
 - etco2
 - CVP
 - PAP
 - A new “fluid balance” widget is available for the run time screen which indicates the cumulative fluid volume change (e.g. due to bleeding or volume delivery).
 - Additional STEMI cardiac rhythms were added to the simulator.
 - A new control was added that allows for the specification of premature ventricular contraction (PVC) probability. This is represented in the ECG traces.
 - It is now possible to switch the patient weight and height data between metric and imperial units via the systems setting page.
 - It is now possible to specify custom doses for medications directly from the quick links section instead of having to go through the all medications menu.
 - A new snapshot feature was added to TouchPro that allows the vital signs at various periods of time to be captured and compared to the actual ones. This can be used, for example, to compare vitals before and after an intervention.
 - The ability to display anesthetic agent concentrations (e.g. Alveolar Isoflurane) was added to TouchPro.
- Other
 - Windows Instructor Workstation is now supported on all simulator types. Note: the one exception is the HPS rack-edit utility.
 - METIman/Apollo supports simplified ability to bring your own computing device (BYOD) (i.e. selecting simulator network and typing the IP address in the browser explorer). Note: this was previously supported on Athena.
- Bug Fixes/Minor Changes
 - Column headers in the Physiological Data Log now have tooltips.
 - The minimum value of Left/Right Ventricle Contractility was reduced to 0.

- A new configuration tool is available for tracking hardware variations.
- The patient name no longer appears in TouchPro.
- The Educator user group no longer has the User Management privilege.
- A single Müse installer for Windows can now perform either upgrade or full installation.
- It is no longer necessary to clear the browser cache after upgrading Müse (for future updates).
- The following issues were resolved:
 - Sometimes the scrollbar does not appear when selecting a patient picture.
 - After being resized, TouchPro numerics do not refresh until values change.
 - Event logs for medication administration in Russian do not display units correctly.
 - Epinephrine predefined doses are not displayed correctly.
 - The SCE list in Content Management does not display patient height.
 - The History log export fails with the Chrome browser on Windows.
 - If Scenario Designer is launched from Content Management, it closes unexpectedly after saving a scenario associated with an SCE.
 - Circular transitions in scenarios can cause the scenarios to halt.
 - Scenario Designer sometimes displays the old scenario name right after renaming.
 - Extremely long scenario names can cause the Return button to disappear.
 - The TouchPro window in Internet Explorer is titled "#."
 - Backup, Restore, and Upgrade buttons are not disabled during restoration.

Important Guidelines

- After installing or updating the browser cache must be cleared.
- Licenses
 - This software has a 90-day trial period.
 - A license unlock utility is available. Contact Engineering for further information.
 - A Müse v2 license is required to run Müse 2.7 after the trial period.
 - Installing this update does not restart ongoing Müse trial periods.
- Updating an existing installation
 - For METIman, Caesar, Lucina, Athena, Apollo simulators, updates are performed using the System Settings > System Update feature of the Müse software.
 - For HPS, ECS, PediaSIM ECS, BabySIM and iStan, updates are performed using an installer specific to the simulator type and operating system.
- New installation or replacing an existing installation
 - If the target computer already has Müse, performing the installation will **delete** all user-created content and installed learning modules (except those that are included with Müse) in the existing installation.
 - Müse SCE Development Software
 - The installation is performed using an installer specific to the simulator type and operating system.
 - Instructor Workstation
 - Replaces an existing installation when reimaging is not practical.
 - Simulator serial number and IP settings will be preserved.
- Running other software applications at the same time as Müse may affect performance.

Deliberate Exclusions

- Content sharing across simulator types is not supported.
- Medications cannot be administered via scenarios.
- Conditions, medications, and interventions cannot be set in the Patient Baseline.
- Medication responses designed in support of HPS6 software need to be fully validated in the context of the new base patients' physiology.
- Simultaneously editing content on multiple instructor workstations is not supported.
- Custom TouchPro layouts, custom variables, custom conditions, and medication preferences are not exported with SCEs.
- Running Müse in multiple tabs or windows on a single computer is not supported.

Technological Limitations

- Safari on OS X may have inconsistent screen updates in full screen mode. We recommend using Firefox or avoiding Safari full screen mode.
- Due to differences in terminology, non-English text is sometimes wrapped or truncated.
- Müse may fail to launch if the computer's system clock is set incorrectly during installation or afterwards.
- When opening a second tab in the web browser, the layout of Müse and TouchPro are not automatically adjusted, until the window is manually resized.

- The computer keyboard is not supported in the Flash-Player full-screen mode. Internet Explorer full screen mode (F11 key) does support the computer keyboard.

Known Issues

- The plethysmogram exhibits an unrealistic artifact when switching to a pulseless cardiac rhythm.
- The parameter Venous CO₂ Shift may not always lead to expected results and should be considered for use only for simulation of very specific pathologies. Patients saved after this parameter has been set in a simulation are not guaranteed to work well.
- With Cardiac Rhythm “Third Degree AV Block,” most cardiac cycles that include a ventricular beat do not produce palpable pulses.
- History Log timestamps are incorrect after a System Restore from backup.
- As far as scenarios are concerned, the defibrillation event has a duration of 2 seconds. This may cause unintended transitions and can be worked around by incorporating a 2 second delay into the scenario (using a time-in-state transition).
- Occasionally Learning Modules will not fully install all SCEs. To resolve, re-install the Learning Module.
- When showing a Patient Record in Internet Explorer on the Motion Computing tablet, sometimes the Patient Record does not immediately become the foreground window. Customer Service can provide customers with a workaround from the Muse Support Guide in the event this occurs.
- Custom interventions created in Muse 2.3 would not show up in that version due to a bug. However, they will show up once a system is updated to Muse 2.7. If the intervention is not desired, it can be deleted.
- Content created under Muse 2.6 where systolic blood pressure is an important factor should be checked for validity after updating to Muse 2.7.

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CAE Software & Firmware Revision Log

METiman (Blue Board)

Apollo (Blue Board)

Müse Ver. 2.7 (70) / Build ID 16-1221-1001

TouchPro Ver. 2.7 (TPRO-16-1221-1001)

Pre-Hospital

RHM STACK A (Right Side)

IP: 10.0.7.227

Mother Board:

API Version : v1.51

App Version : v1.42

FPGA Version : v0.33

Analog Board:

FPGA Version : v0.31

RHM STACK B (Left Side)

IP: 10.0.7.226

Mother Board:

API Version : v1.51

App Version : v1.38

FPGA Version : v0.33

Audio Board:

FPGA Version : v0.23

Nursing

RHM STACK A (Right Side)

IP: 10.0.7.227

Mother Board:

API Version : v1.51

App Version : v1.142

FPGA Version : v0.33

Analog Board

FPGA Version : v0.31

RHM STACK B (Left Side)

IP: 10.0.7.226

Mother Board:

API Version : v1.51

App Version : v1.38

FPGA Version : v0.33

Audio Board:

FPGA Version : v0.23

CAE Software & Firmware Revision Log

METIman (Green Board)

Müse Ver. 2.7 (70) / Build ID 16-1221-1001

TouchPro Ver. 2.7 (TPRO-16-1221-1001)

Note: Green RHM boards are not used in Apollo

Pre-Hospital

RHM STACK A (Right Side)

IP: 10.0.7.227

Mother Board:

API Version : v1.51

App Version : v1.43

FPGA Version : v0.26

Analog Board:

FPGA Version : v0.27

RHM STACK B (Left Side)

IP: 10.0.7.226

Mother Board:

API Version : v1.51

App Version : v1.38

FPGA Version : v0.26

Audio Board:

FPGA Version : v0.12

Nursing

RHM STACK A (Right Side)

IP: 10.0.7.227

Mother Board:

API Version : v1.51

App Version : v1.143

FPGA Version : v0.26

Analog Board

FPGA Version : v0.27

RHM STACK B (Left Side)

IP: 10.0.7.226

Mother Board:

API Version : v1.51

App Version : v1.38

FPGA Version : v0.26

Audio Board:

FPGA Version : v0.12

INSTALLING MÜSE INSTRUCTOR WORKSTATION UPDATES FOR APOLLO, ATHENA, LUCINA, METIMAN, CAESAR

Müse updates are available periodically and can be downloaded using any computer with an Internet connection. CAE Healthcare Instructor Workstations should NOT be connected to the Internet.

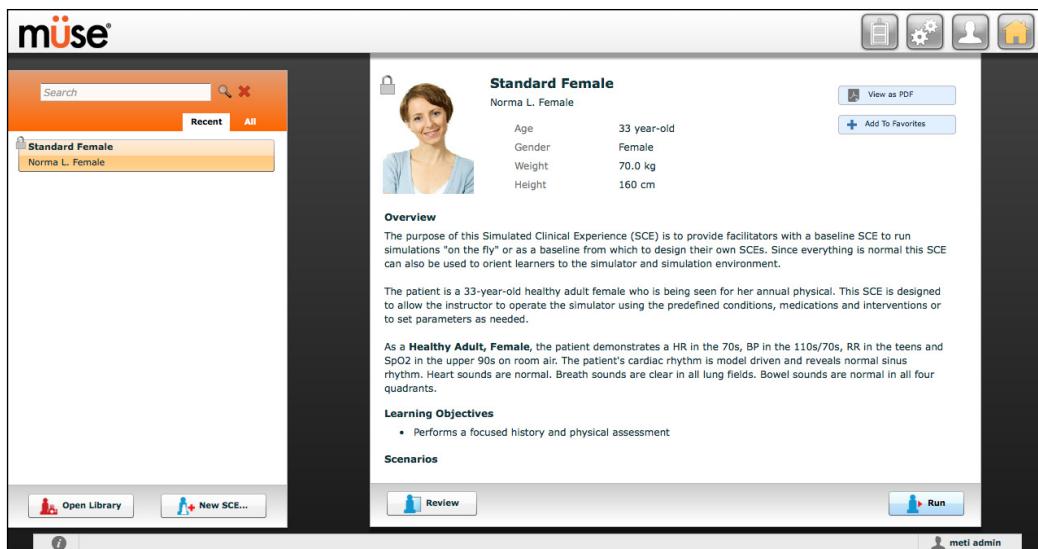
It is recommended to back up data to protect content and user information before proceeding. For more information on backing up data, refer to the *Back Up Data* section in the simulator's User Guide.

Once downloaded, a Müse update must be transferred to the Instructor Workstation via USB and then installed. Be sure to transfer the downloaded installation files from the USB drive to the desktop of the Instructor Workstation before installing. DO NOT attempt to install a Müse update directly from a USB drive.

To install a Müse update for Apollo, Athena, Lucina, METiman, or Caesar:

1. From the Instructor Workstation, log into Müse.

The Home page appears.



The Home Page

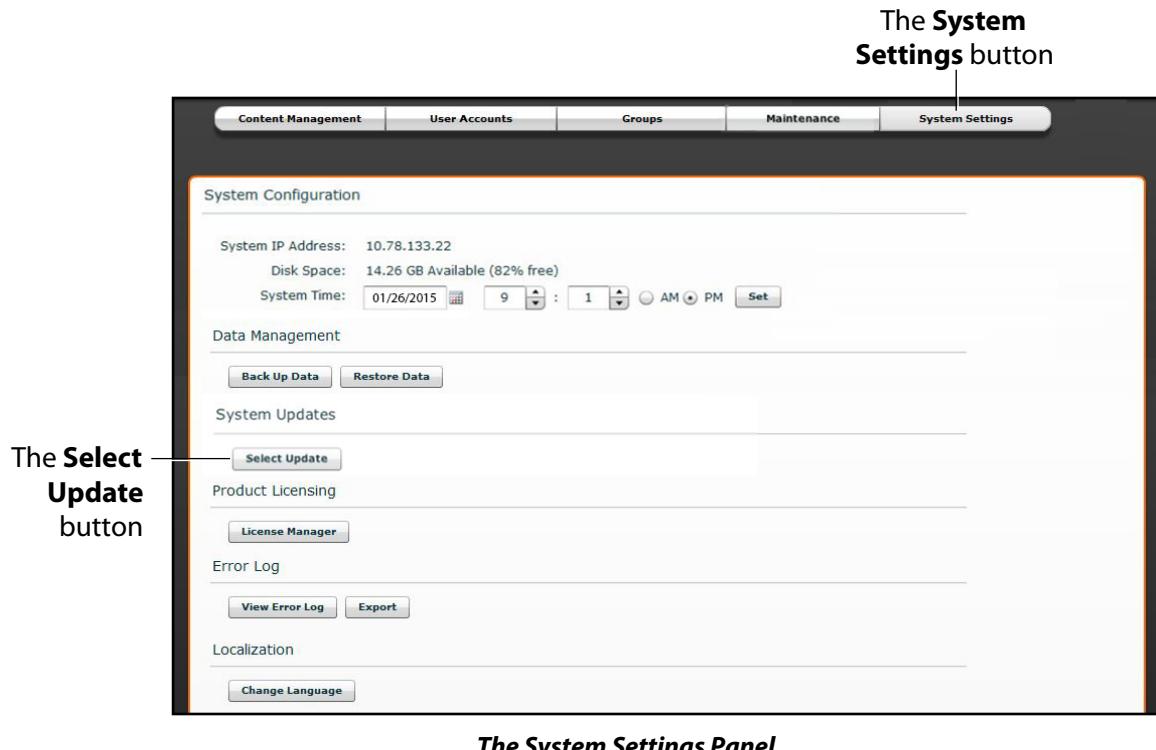
2. In the top, right-hand corner, click the System Administration button.



The System Administration Button

The System Administration screen appears.

3. Click the **System Settings** button.
4. Click the **Select Update** button.



A select file dialog box appears.

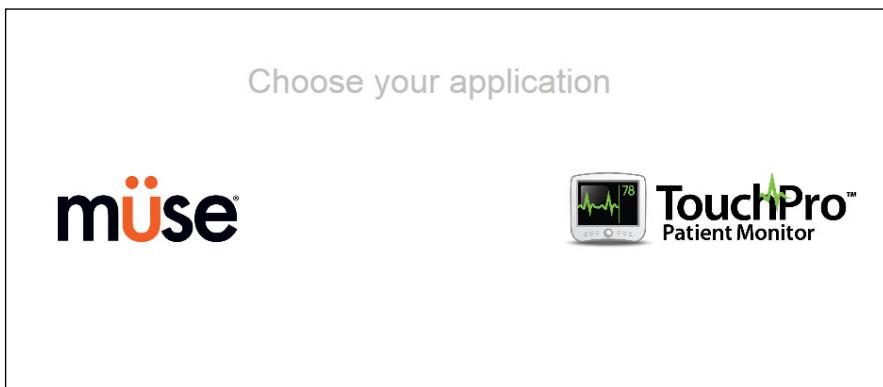
5. Navigate to the downloaded (*.msu) update file and double-click it to **Open**.

The Uploading Update box appears and the software performs the update (it may take a moment for the box to appear, this is normal).

Once the update has finished, a message appears telling you to reboot the simulator.

6. Log out of Müse and exit (close) the browser.
7. Shut down the Instructor Workstation and mannequin.
8. Power on the mannequin.
9. Wait approximately two minutes for the mannequin to complete the startup process.
10. Power on the Instructor Workstation.

11. Re-launch the Müse start screen. **Do not** click on the Müse selection at this time.



The Müse Start Screen

12. From the Müse Start screen, empty the cache.

In Firefox:

- a. From the **History** menu, select **Clear Recent History....**
- b. From the **Time range to clear** dropdown, select **Everything**.
- c. Next to **Details**, ensure the arrow is clicked showing all checkboxes and all checkboxes are selected.
- d. Click **Clear Now**.

In Internet Explorer:

- a. Select the **Tools** menu.
- b. Select **Delete Browsing History**.
- c. Ensure **Temporary Internet files, Cookies** and **History** are checked and **Preserve Favorites website data** is NOT checked.
- d. Click **Delete**.

For help emptying the cache in any other browser, please consult your browser's help menu.

The update has been performed, and the Müse software is ready to use.

IMPORTANT: The Müse software requires activation. The software can be used for 90 days without activation. At the end of the 90 days, the software must be activated for continued use. The software may be activated at any time after installation. For instructions on activating the software, see *Activating and Deactivating Müse* in the Documentation folder included with the downloaded Müse update file.

IMPORTANT: Features of the Müse software requires that your web browser's pop-up blocker be turned OFF (disabled). Please ensure the pop-up blockers on your Instructor Workstation's web browser and any TouchPro computer web browser are disabled. Please see your web browser's help menu for additional assistance.

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How to Check Installerlog.txt for Installation Errors

The following steps will provide access to the installation log report history for the simulator. It can be a particularly useful troubleshooting aid if multiple installation attempts have been executed on a particular unit without success.

On a **METIman, Caesar, Lucina, Athena or Apollo** patient simulator, use the following steps in the order shown below to access and check the installation report for errors:

1. Turn both the Workstation and Patient Simulator on.
2. Launch the **Terminal** application (located in Utilities) on the Instructor Workstation.
2. Type in the following command: "**ssh root@ip_address**"
(Use the IP address of the SBC in place of **ip_address**)
3. If prompted, type in "**yes**".
4. Once prompted for the password, type in: "**metiadmin**" or "**caeadmin**" for Lucina, Athena or Apollo.
5. Once at the command prompt is available, type in:
"cat /home/METI/installerlog.txt"
6. Check the contents of this installer log page for errors.

Note: This file can be copied and pasted into a document or emailed to allow sharing with customer service members or engineering.
(Click "Shell" at top menu bar "export text as" save to desktop.)

On an **HPS, ECS or iStan** patient simulator, use the following steps in the order shown below to access and check the installation report for errors:

1. Turn the Workstation on.
2. Launch the **Terminal** application (located in Utilities) on the Instructor Workstation.
3. Once at the command prompt is available, type in:
"cat /Library/Application\ Support/METI/MUSE-Server/installerlog.txt".
4. Check the contents of this installer log page for errors.

Note: This file can be copied and pasted into a document or emailed to allow sharing with customer service members or engineering.
(Click "Shell" at top menu bar "export text as" save to desktop.)

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Administrative Tools

The Müse software has administrative tools that allow users to manage logs, stored content, users and system settings. The administrative tools are accessed via the Administrative Tools buttons, located on the Home page.



The Administrative Tools Buttons

Click the **History** button to view and manage simulation session logs.

Click the **System Administration** button to manage stored content, user accounts, groups and system settings.

Click the **Account Profile** button to manage and determine preferences for the active account.

History

From the History screen, users can view and export simulation session logs. Each simulation session is listed with the Start Time, the title of the SCE and the Patient's name. In addition, the SCE Events, Physiological Data, CTG data, Traction data, and CPR data are available for review and export.

Start Time	SCE	Patient	SCE Events	Physiological Data	CPR Data	Clear all Logs
2016-02-04 14:26:56	Healthy Adult Male	Stan D. Ardman II				
2016-01-28 17:04:32	Healthy Adult Male	Stan D. Ardman II				

The History Screen

By clicking the **Simulation Events** link of a Simulation Session, users can view the entire log of the simulation and all the events that occurred during the SCE.

When the **Physiological Data** link of a Simulation Session is clicked, users can view all the physiological data that occurred during the SCE.

On the Simulation Events and Physiological Data screens, there is an **Export** button that, when clicked, exports the data to a CSV file that can be stored on an external device.

System Administration

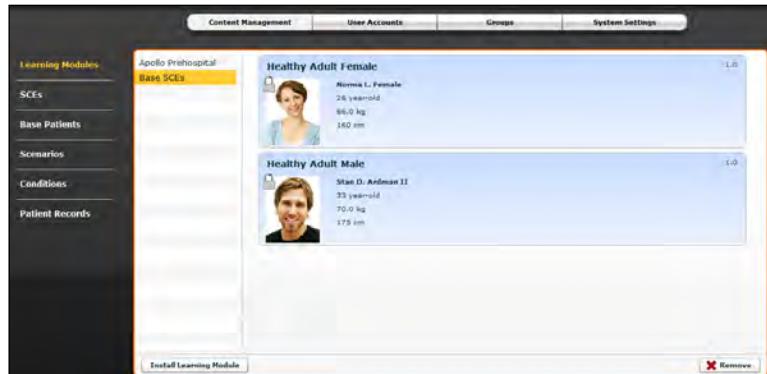
From the System Administration screen, users can control and access Content Management, User Accounts, Groups, and System Settings.

To access the System Administration screen, click the **System Administration** button from the Home page.



The System Administration Button

The System Administration screen is displayed.



The System Administration Screen

Content Management

To access the Content Management options, from the System Administration screen, click **Content Management**.

From the Content Management options, users can manage learning modules, SCEs, Base Patients, Scenarios, Conditions, Patient Records, and Vocalization List.



The System Administration Screen

Learning Modules

From the Learning Modules panel, learning modules can be installed or deleted.

When the Content Management button is selected, the Learning Modules panel appears by default. If another panel has been selected, return to the Learning Modules panel by clicking the **Learning Modules** link.



The Learning Modules Panel

To install a learning module:

1. Click **Install Learning Module**.

The Select file to upload dialog box appears.

2. Locate the correct learning module file on the external storage device or the hard drive location where the SCE file is saved. The file extension is **mlm**.

3. Select the file and click **Select** or **Open**.

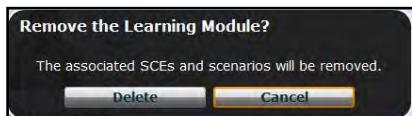
4. Refresh the screen by clicking the **Home** button in the Müse software and then return to the Learning Modules panel.

The learning module appears on the Learning Modules panel and is available for use.

To delete a learning module from Müse:

1. Select a learning module from the Learning Modules panel.
2. Click the **Remove** button.

The Remove Learning Module warning appears.



The Remove Learning Module Warning

3. Click **Delete**.

The learning module and all its SCEs are deleted.

NOTE: Preconfigured learning modules cannot be deleted. If a user attempts to delete them, a failure message appears.

SCEs

From the Content Management options, click **SCEs** to access the SCEs panel.

The SCEs panel appears.

The **SCEs** link
The **Import SCEs** button

The SCEs Panel

All user-created SCEs are listed in the SCEs panel.

On the SCEs panel, users can review, copy, delete, import and export the SCEs they have created.

NOTE: SCEs purchased from CAE Healthcare CANNOT be exported.

Click **Import SCE** to import an SCE from an external device or the hard drive location where the SCE file is saved. Click **Export** to export an SCE to an external device. The SCE file extension is **sce**.

Base Patients

From the Content Management options, click **Base Patients** to access the Base Patients panel.

The Base Patients panel appears.



The Base Patients Panel

All Patients are listed in the Base Patients panel.

From the Base Patients panel, users can rename, review, delete and export Patients they have created by clicking the respective buttons next to each Patient.

Click **Import Patient** to import a Patient file from an external device or the hard drive location where the SCE file is saved.

Use the **Rename** button next to a patient to give the patient a different name or the **Delete** button to delete the patient.

The **Export** button next to each patient can be used to export the Patient file to an external device. The Patient file extension is **.pat**.

NOTE: Preconfigured CAE Healthcare Base Patients have a lock symbol in the upper-left corner of the picture and CANNOT be renamed, deleted, or exported.

Scenarios

From the Content Management options, click **Scenarios** to access the Scenarios panel.

The Scenarios panel appears.



The Scenarios Panel

All Scenarios are listed in the Scenarios panel.

From the Scenarios panel, users can rename, review, delete, import and export scenarios they have created by clicking the respective buttons within each scenario. Locked scenarios can only be reviewed.

Users can also create new scenarios from the Scenarios screen by clicking the **Create New Scenario** button.

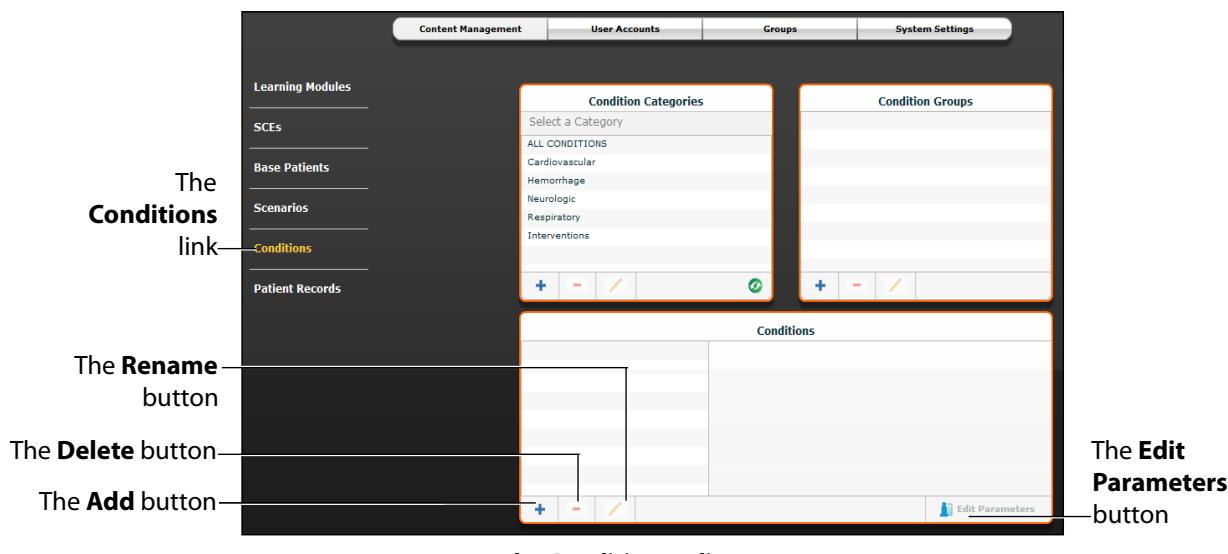
Click **Import** to import a scenario file from an external device or the hard drive location where the SCE file is saved. Click **Export** to export a scenario file to an external device. The scenario file extension is **mss**.

NOTE: Locked CAE Healthcare scenarios CANNOT be exported.

Conditions

From the Content Management options, click **Conditions** to access the Conditions Editor.

The Conditions Editor appears.



The Conditions Editor

All conditions can be viewed in the Conditions panel by selecting their associated categories and groups from the Condition Categories and Condition groups panels.

From the Conditions Editor, users can create new Conditions to be used in SCEs. To create a new condition:

1. From the Condition Categories panel, select a category.
NOTE: Conditions CANNOT be added to the **Interventions** category.
2. From the Condition Group panel, select a group.
3. In the Conditions panel, click the **Add** button.
The New Condition Name dialog box appears.
4. Enter a name for the condition in the New Condition Name dialog box.
5. Click **Save**. The condition is added to the selected Condition category and group.
6. From the Conditions panel, select the new Condition.
7. Click the **Edit Parameters** button.
The Parameters screen appears.
8. From the Parameters screen, select the desired Condition parameters.
9. Click **Complete**.

The condition is saved with the selected parameters.

New condition categories and groups can also be added by clicking the **Add** button in the Condition Categories and Condition Groups panels.

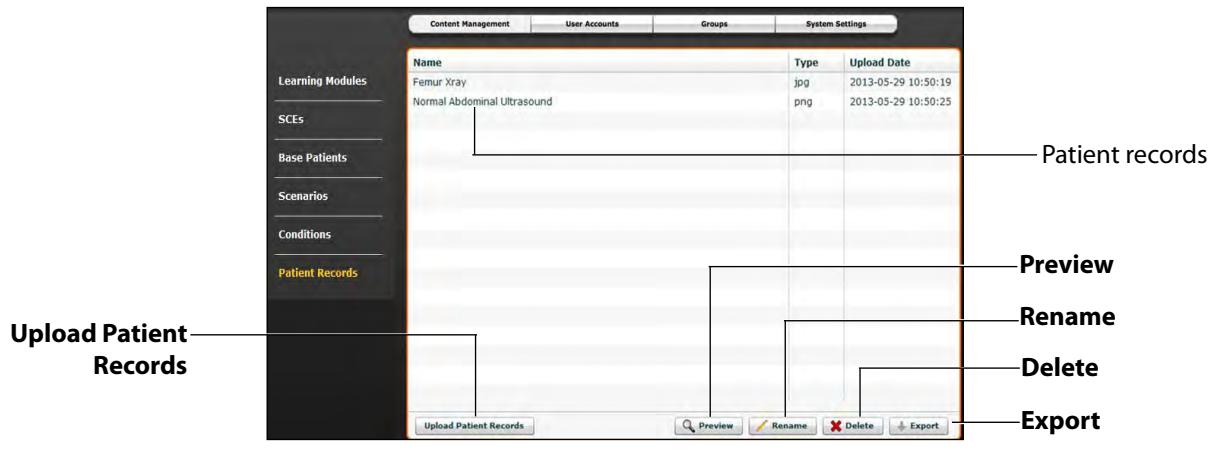
Use the **Delete** and **Rename** buttons in each panel to delete or rename a Condition, group or category.

NOTE: CAE Healthcare conditions, groups and categories cannot be deleted or renamed.

Patient Records

Patient records can be uploaded to Müse for display in the TouchPro software. Once uploaded, a patient record is available for use with any SCE.

Patient Records are managed from the Patient Records panel on the **Content Management** tab of the System Administration screen.



The following patient record file types can be uploaded to Müse:

- JPG or JPEG images
- GIF images
- PNG images
- XPS images
- PDF documents
- MPEG videos
- MOV videos
- MP3 audio files

A single patient record file cannot exceed 20MB.

To upload a patient record:

1. From Patient Records panel, click **Upload Patient Records**.
A file selection window appears.
2. Select the desired file and click **Open** or **OK**.

The file is uploaded and is available to display in the TouchPro software.

Müse can store at least 2GB of patient record files, depending on the disk space available. To ensure adequate space, please delete patient records when they are no longer needed.

To delete a patient record:

1. From the Patient Records panel, select the patient record to delete.
2. Click **Delete**.

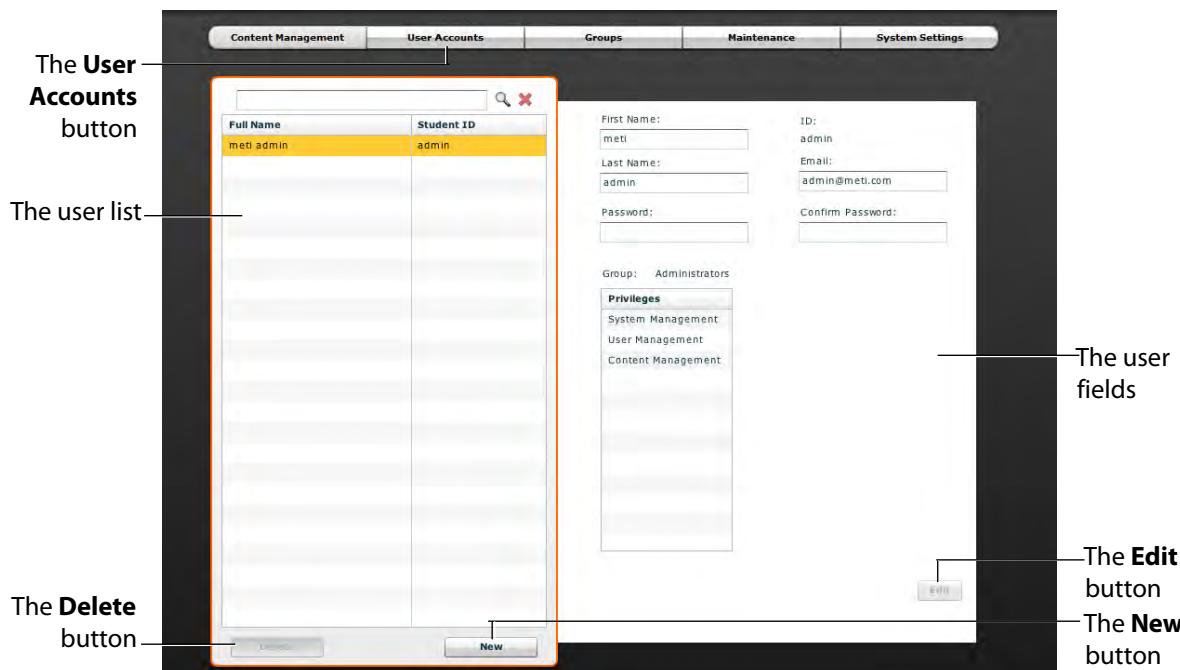
The patient record is deleted and is no longer available to display in the TouchPro software.

Individual patient records can also be previewed, renamed or exported by selecting the record and clicking **Rename**, **Export** or **Preview**.

User Accounts

To access the User Accounts panel, from the System Administration screen, click the **User Accounts** button. The User Accounts panel appears.

From the User Accounts panel, users can create, edit and delete users.



The User Accounts Panel

NOTE: User Accounts functions are available only to users with the User Management or System Management privilege.

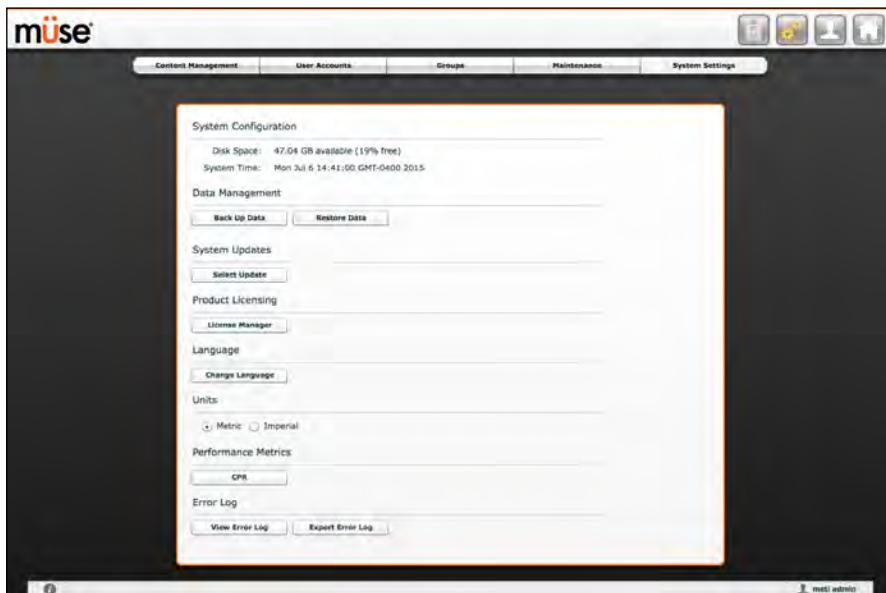
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System Settings

From the System Settings panel, users can manage the System Configuration, Data Management, System Updates, Product Licensing, Language, Units, Updates, Simulator Usage Log, Error Log, CPR, and Performance Metrics of the Müse software.

To access the System Settings panel, from the System Administration screen, click **System Settings**.

The System Settings panel appears.



The System Settings Panel

TIP: Height and weight can be set to display in Metric or Imperial units.

NOTE: System Settings functions are available only to users with the System Management privilege.

System Configuration

Under System Configuration, Disk Space and System Time are displayed.

Data Management

The Data Management feature allows users to back up data to an external device. Users can also restore the backup data.

Backing Up Data

Users should back up data frequently to protect and store content and user data.

To back up data:

1. On the System Settings panel, click the **Back Up Data** button.



The Back Up Data Button

A Save dialog box appears.

2. Select a location to save the backed-up data.
3. Click **Save**.

IMPORTANT: Always back up important content and data. A weekly backup should be done to protect content and user information.

Restoring Data

IMPORTANT: Restoring data ERASES all current data and replaces it with the backed-up data.

Users can restore data when the backed-up data needs to be replaced on the software. Restoring data only restores the last backup and does NOT merge the backup data with the current data.

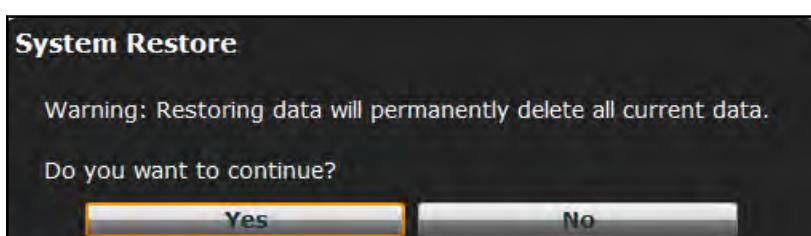
To restore backup data:

1. On the System Settings panel, click **Restore Data**.



The Back Up Data Button

The System Restore warning box appears stating that restoring data erases all current data and asks if you want to continue.



The System Restore Warning Box

IMPORTANT: Restoring data ERASES all current data and replaces it with the backed-up data.

2. Click **Yes**.
- A select file dialog box appears.
3. Locate the appropriate .bak backup file to restore.
 4. Click Select. The data is restored.

Note: The computer may require a restart.

Apollo

Vivo Tech Focus

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Vivo Technical Focus

This new user interface began shipping with all production METIman units starting in October 2015. Beginning March 2016, it has been standard for all Athena and Apollo produced. Not all units ship with a Tablet however. It is an option when a new simulator order is placed.

The customer can order a METIman, Athena or Apollo with the Workstations they would like. Currently there are a few options available for Mac, Windows or ruggedized Tablet. What type they order will be placed into SalesForce on the simulator Asset page.

To get familiar with Vivo, you can connect to the following Demo site using Google Chrome and get familiar with the controls. <http://caevivo.io>

The site will email you a link after you enter a serial number and an email address. Use MMP0000.

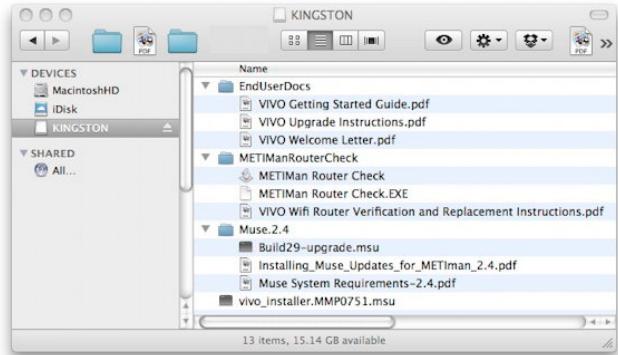
Please keep in mind that this site has limited connections available and is used by customers evaluating Vivo as well. Please use this during non-peak times.

Customers will be able to purchase a Vivo update for METIman and install it themselves. (147K351900 KIT, UPGRADE, Vivo) The upgrade kit DOES include the Vivo Tablet. A technician may certainly assist with installation if you are on site.

The system requirements are the same as those needed for Müse 2.4 or higher.

Vivo Update Overview:

- a) Customer is sent a configured Nexus Tablet and a USB stick with the System Upgrade. (*Configured using 910K351901*)
 - The USB stick contains:
 - Latest Müse Updater (v2.4 or later)
 - Custom Vivo updater for their S/N
 - All Introduction and Update documentation
- b) Customer confirms that the router is compatible (*All models with the exception of the D-Link WBR1310 will work.*)
- c) Customer updates to Müse 2.4 using standard system update (*See Müse Updates*)
- d) Customer installs Vivo using a custom .msu file.
Example: vivo_installer.MMP0856.msu
- e) Customer downloads Google Chrome onto Workstation if they want to use Vivo on that computer.
 Browser home address is the **SBC IP Address/vivo**. *Example: 192.168.xxx.5/vivo*



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VIVO UPDATE INSTRUCTIONS

This guide will help you update Müse for the simulator and the latest version of Vivo.

Before performing these steps, ensure the mannequin is powered on and the laptop (Instructor Workstation) is connected to the correct simulator WiFi network and you are able to run Müse.

IMPORTANT: The Vivo tablet should **not** be used to download, extract zip files, or install any Müse updates. Instead, use a separate computer (Instructor Workstation) to access Müse and perform updates.

Step 1:

Update Müse for the simulator.

The Vivo system update requires Müse version 2.7 or higher. If your Müse is not version 2.7 or higher, update Müse prior to updating Vivo.

To verify the Müse version:

1. Log in to Müse.
2. Click the Müse logo in the upper-left corner.
3. Ensure the Müse version is 2.7 or higher.



The Müse Version

To update Müse:

1. From the Müse home screen, click on the **System Administration** button.
2. Click on **System Settings**.
3. Click on **Select Update**.
4. Open the ***.msu** update file.

For more information on updating Müse, refer to document *Installing Müse Updates* located on the CAE Healthcare website under Support > Software Updates > **View update instructions**, or by clicking on **View update instructions** through this link: www.caehealthcare.com/software-updates.

IMPORTANT: After the Müse update is complete, close and exit Müse. Restart both the simulator and the laptop. After restarting, verify the Müse version is 2.7 or higher.

NOTE: Return to these instructions and continue with Step 2.

Step 2:

Update Müse for Vivo compatibility.

The Vivo update file can be downloaded using any computer with an Internet connection. CAE Healthcare Instructor Workstation laptops should NOT be connected to the Internet.

Once downloaded, the Vivo update file must be transferred to the Instructor Workstation laptop via USB and then installed. Be sure to transfer the downloaded file from the USB drive to the desktop of the Instructor Workstation laptop before installing. DO NOT attempt to install a Vivo update directly from a USB drive.

To update Müse for Vivo compatibility:

1. From the CAE Healthcare website under Support > Software Updates, select your simulator, then download and extract the Vivo update Zip file, for example **Vivo-x.x-update.zip** (where **x.x** represents the latest version number).
Or click this link: www.caehealthcare.com/software-updates.
2. After extracting the zip file, transfer the Vivo update ***.msu** file (for example, **vivo_upgrade_vx.x.msu**) to the desktop of the Instructor Workstation laptop.
3. Ensure Müse is open. From the Home page, in the top, right-hand corner, click the System Administration button.



The System Administration Button

The System Administration screen appears.

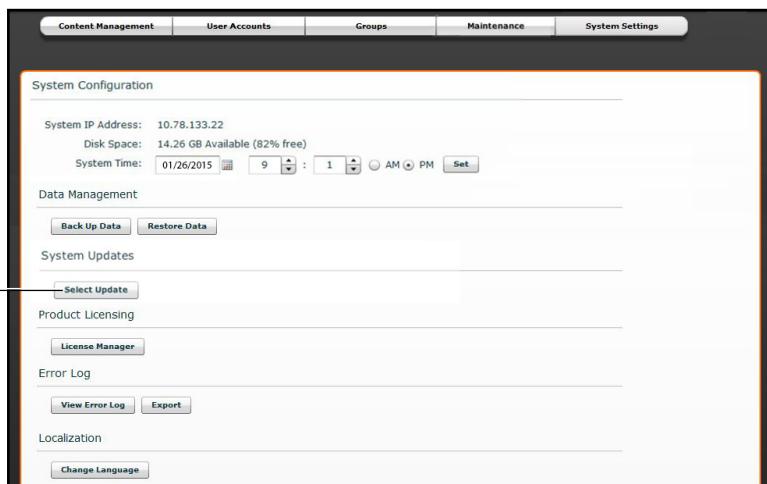
4. Click the **System Settings** button.



The System Administration Screen

The System Settings panel appears.

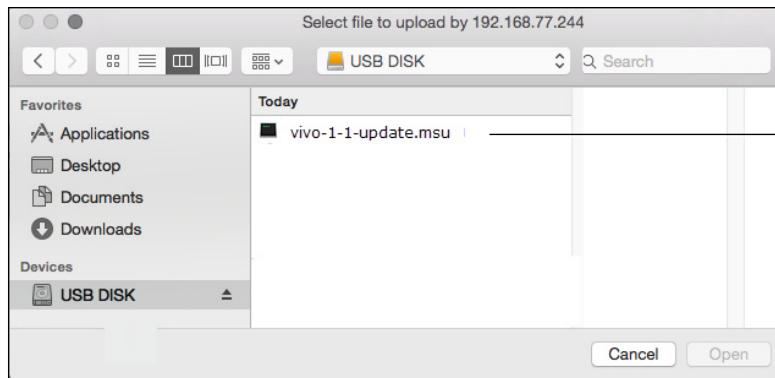
5. Click **Select Update.**



The System Settings Panel

A select file dialog box appears.

6. Navigate to the USB drive and open (double-click) the *.msu** file with “vivo update” in the name. For example, **vivo_upgrade_vx.x.msu**.**



The Update File Location

The Uploading Update box appears and the software performs the update. This may take a few minutes to complete.

Once the update has finished, a message appears telling you to reboot the simulator.

If the installation fails, restart the simulator and Müse and attempt the installation again; before contacting CAE Healthcare customer service.

After the Vivo update is complete, close and exit Müse, then restart the simulator.

IMPORTANT: Before running Vivo on the tablet, make sure that no application of Müse is open for the simulator using Vivo.

Only one application of either Vivo or Müse can be open at any given time across all platforms, laptop or tablet.

Step 3:

Update Vivo on the tablet.

After powering on the Vivo tablet, tap the icon to launch Vivo. An automatic notification to update the Vivo app will appear. Tap OK to update the Vivo tablet. The update will apply, then Vivo will restart.

Step 4:

Verify Vivo operation.

To verify Vivo is installed and operating correctly:

1. On the Vivo tablet, tap the icon to launch Vivo.



2. Select run on the fly SCE and **Begin Simulation**.
3. If Vivo is installed correctly, the simulator will start breathing and the mannequin will respond to the Vivo tablet.

For more information on using Vivo, refer to the *Vivo Getting Started Guide* included with the tablet and also available on the CAE Healthcare website under Support > User Guides > Vivo, or here: www.caehealthcare.com/support/user-guides.

Apollo

**Exploring Mannequin
(Disassembling Mannequin)**

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Apollo/METIman Color Codes

Basic Information

Wire Color Codes

Color Codes were used in the wiring of power to all electrical boards, definition are as below:

- RD/BL = (+) Battery Power
- BK/WT = (-) Battery Power
- RD = 5V Digital
- BK = RTN Digital
- RD/GN = 5V Analog
- OR = -12V Digital
- YL = 12V Digital
- GN = RTN or GND
- YL/GN = 12V Power Analog
- YL/GY = 12V Isolated
- WT/GY = Gnd Isolated
- WH/YL = 12V Source to Valve
- WH = General Control / Data Signals
- WT/RD = Control / Data Signals
- WT/BK = Control / Data Signals
- BN = Analog Sig
- WT/GN = VBatt Status
- WT & GN Twisted Pair = Audio OR other sensitive signal pairs

Note: Some wires may signify other than what is cited above, please refer to schematics for conformation.

Pneumatic Color Codes

Similar to wire color codes, the pneumatic lines have their respective color code:

- | | |
|--------------------------|-----------------------------------|
| ○ Black = 3-PSI | Bleeding System |
| ○ Yellow = 25-PSI | Unregulated |
| ○ Red = 8-PSI | Pulses * |
| ○ Blue = 10-PSI | CO ₂ |
| ○ Turquoise = 3 to 9-PSI | Various Regulated Pressure Levels |
| ○ Clear = All Fluids | Fluid Systems |

* Note: Exception - Some blue, yellow and red hose was used to provide easy identification of pulses at limbs connections.

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Upgrades and Updates

New 12v SBC

New 12V SBC's were cut into METIman production in August 2015.

Cut in serial numbers: MMN577 & MMP1229

They are the only approved SBC for Apollo which went into production in April 2016.

This new SBC requires RHM firmware updates of R40.1 or higher. No RHM installers are available at this time, so older systems being converted to the new 12V SBCs must be done by a technician using the RHM Viewer application.

When converting a system from a 5V SBC to a 12V SBC, the technician MUST install a power adapter cable, update RHM firmware and update the SalesForce Asset Record to reflect the SBC change. (Very important!)

For customers replacing their own SBCs, we must ship the same style (5V or 12V) SBC as they are currently using. In addition, the instalation of Vivo needs to be checked before sending out replacement SBCs.

- Vivo needs to be installed on all Apollo Systems
- Vivo needs to be installed on MMN577 & MMP1229 and higher
- Vivo needs to be installed on any system that has purchased Vivo separately.

The part numbers for the METIman SBCs configurations are the following:

- The original repaired 5V SBC P/N: 253K355300R
- The original repaired 5V SBC mounted to an electronics plate P/N: 253K350700R
- A repaired 12V SBC P/N is: 253K355301R
- A repaired 12V SBC P/N mounted to an electronics plate is: 253K350701R
- New 12V SBC with Power Adapter Cable P/N is: 253K355301
- New 12V SBC mounted to an electronics plate with Power Adapter Cable P/N is: 253K35070
- 12VDC METIman SBC PWR ADAPTER cable is: 024K358200
Cable comes automatically with new 12V SBCs, but not repaired SBCs. Order a cable with a repaired 12V SBC if converting a unit from a 5V version.

SBC POWER ADAPTER CABLE INSTALLATION INSTRUCTIONS

This new cable adapter goes in between the Power Control Board and the new SBC.

- 1) Unplug Torso Harness connector PC_P26 from the Power Controller
- 2) Plug new Adapter Cable connector PC_EXT-J26 into the now removed Torso Harness PC_P26.
- 3) Plug new Adapter Cable connector PC-26 into the Power Controller Board J26 (5V).
- 4) Plug new Adapter Cable connector PC-31 into the Power Controller Board J31 (12V).

Upgrades and Updates

Advanced Rib Cage

Chest Compressions:

The new “enhanced ribcage” is entered production in August 2015.

Cut-in serial numbers MMN0577, MMP1129 and all Apollo units.

It offers more accurate chest compression depth measurements and records proper hand placement. A new tab within Müse uses this additional feedback to display CPR analysis and metrics. It is anticipated that many customer sites will want this new ability, so this option will also be offered as a **paid upgrade** to existing customers.

(On new production units, the Torso Harness changed to better accommodate the wire changes.)

All existing METIman customers can upgrade their unit to support the “METIman Advance Compression Upgrade”. It works with both MMN and MMP models.

Deltek p/n	Salesforce p/n	Description	Price
147K350300	UPG-MMN01 & MMP01	Distributor Upgrade Kit	Sales Dept.
147K350300	UPG-MMN02 & MMP02	Direct Sale Upgrade Kit	Sales Dept.

It requires hardware and a tech on site to modify harness. (Travel cost extra if not a PM visit)
Domestic may swap ribcages, International will have to modify ribcage on site.

With the addition of ribcages (old and new) that have the new Hand-Placement and compression sensors, the following “rebuilt” rib assemblies have been created.

Note: Use care when ordering replacement ribcages for METIman. See S/N cut-ins.

Pre-TUV Torso Harness (Green Boards) MMN0000, MMP0000

- Standard Ribcage 253K352000R, MMN or 253K360400R, MMP
- Ribcage w/Hand Placement 253K35203R, MMN or 253K360403R, MMP

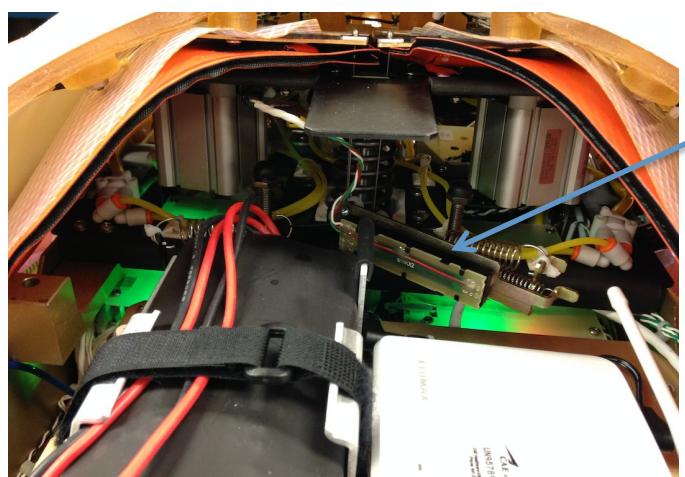
Post-TUV Torso Harness (Blue Boards) MMN0400, MMP0700

- Standard Ribcage 253K352001R, MMN or 253K360401R, MMP
- Ribcage w/Hand Placement 253K352004R, MMN or 253K360404R, MMP

Enhanced Torso Harness (Blue Boards) MMN0577, MMP1129 & all Apollo

- Ribcage w/Hand Placement 253K352002R, MMN or 253K360402R, MMP

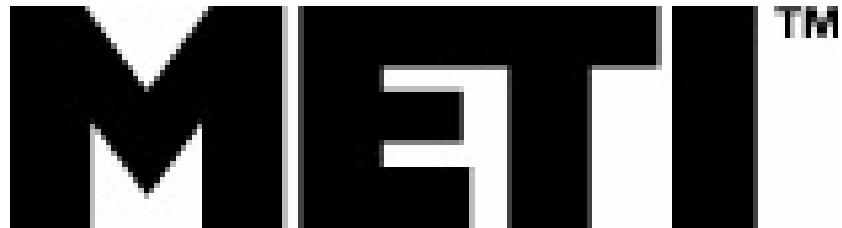
Note: The ribcages w/Hand Placement come with sensor data sheet and adapter cable.



New
Potentiometer

Human Patient Simulator

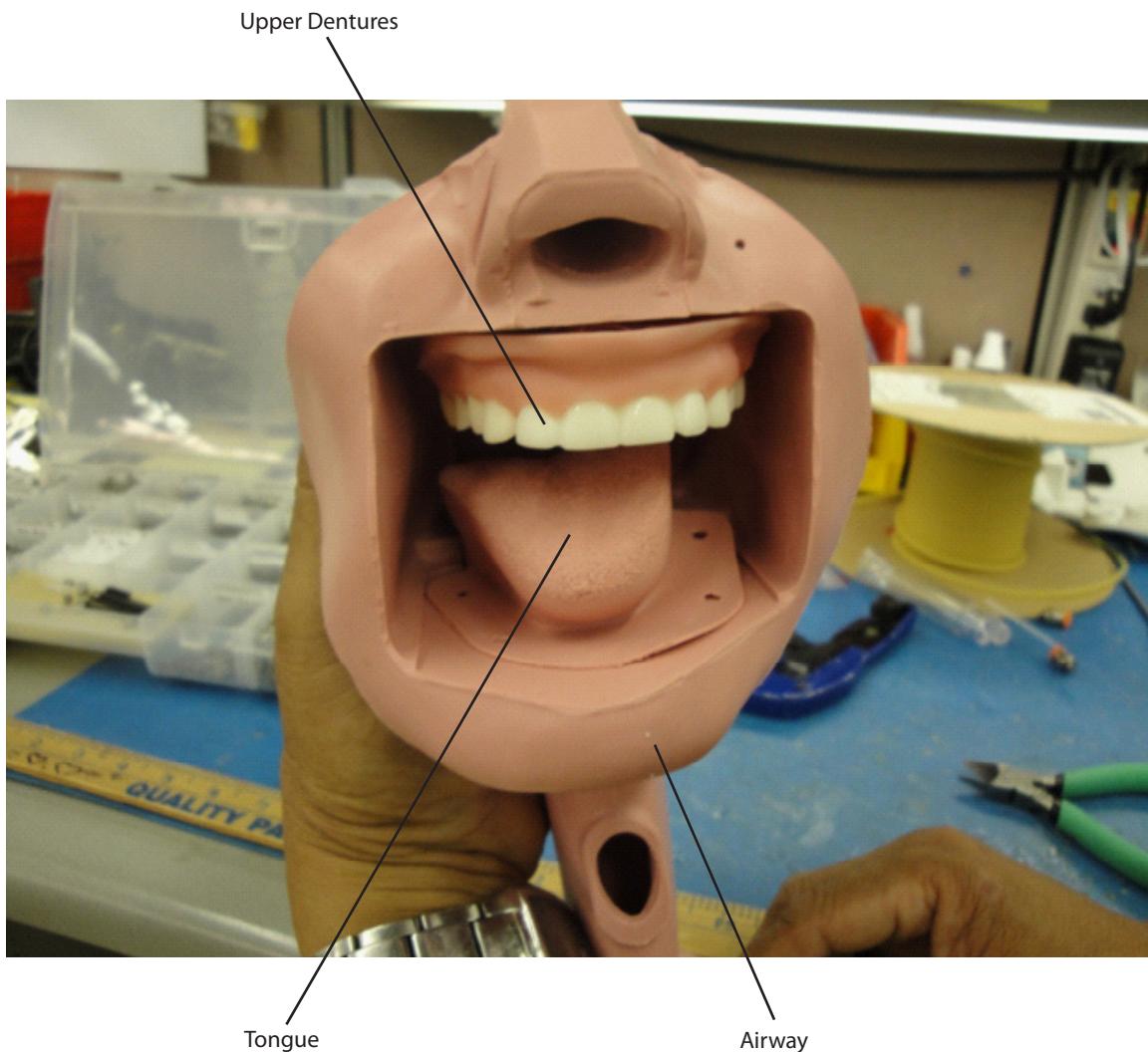
Mannequin Assembly Parts Manual METIman



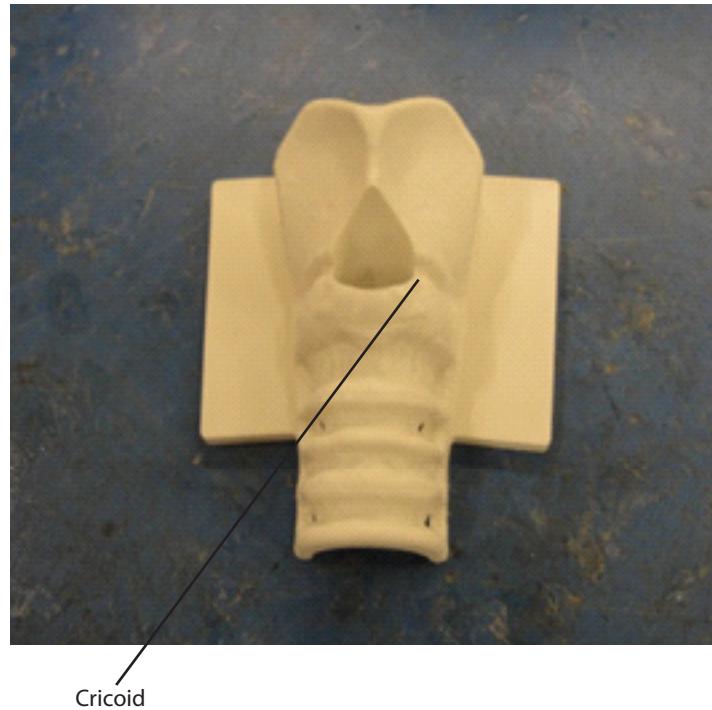
Medical Education Technologies, Inc. 2003, 2004

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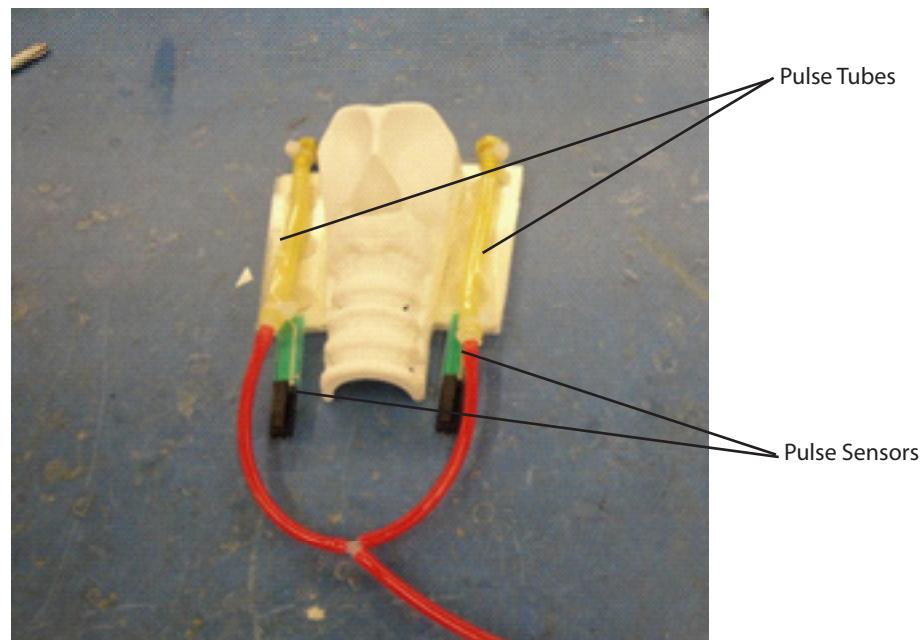
Airway



Airway



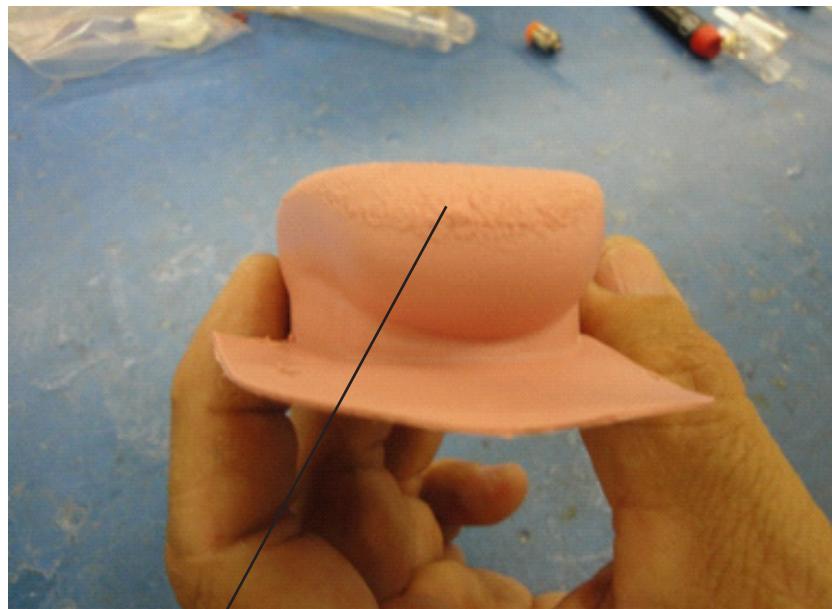
Cricoid



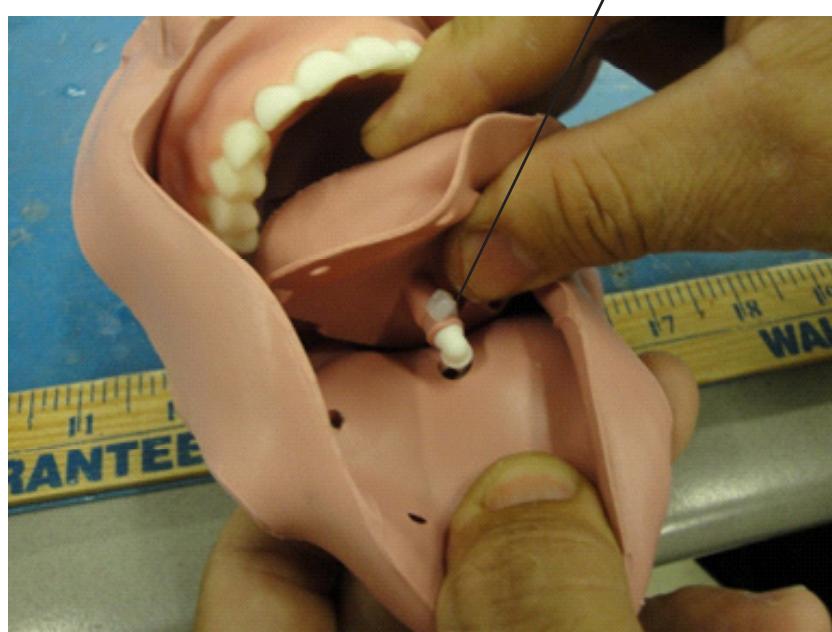
Pulse Tubes

Pulse Sensors

Airway

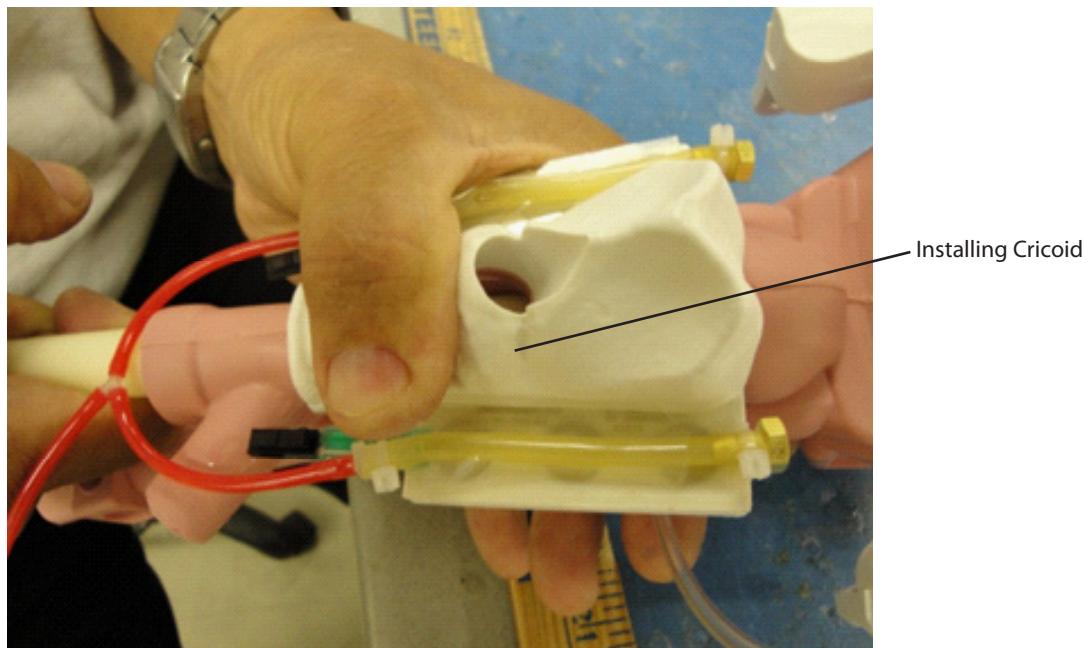
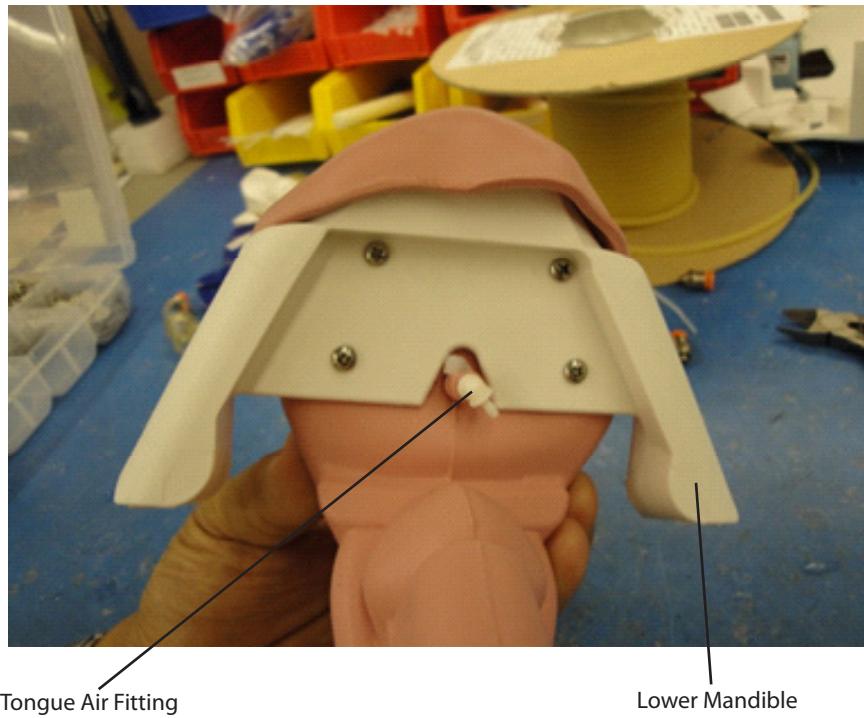


Tongue

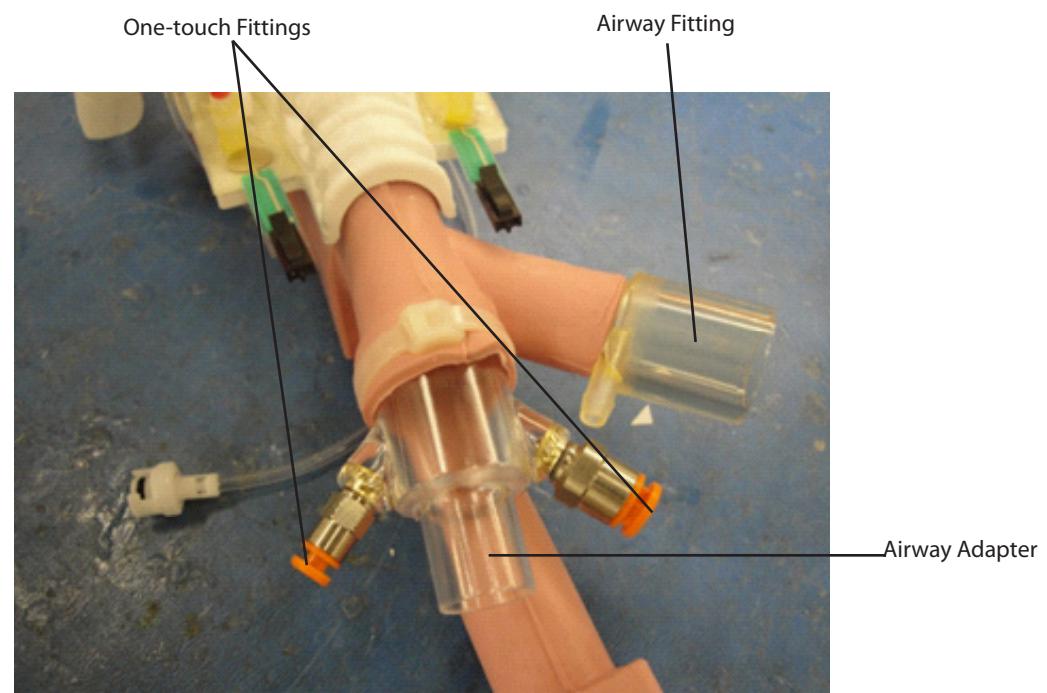
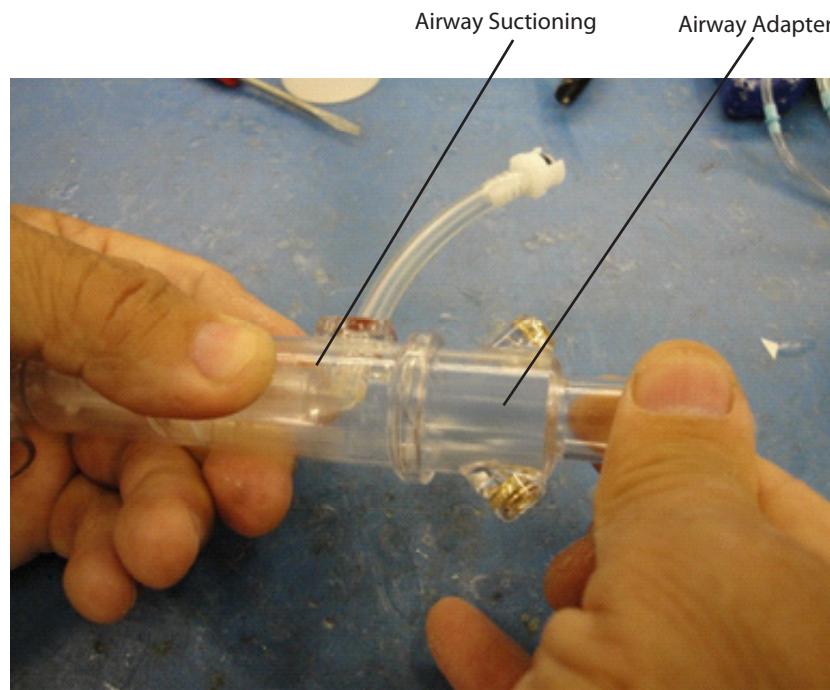


Tongue Air Fitting

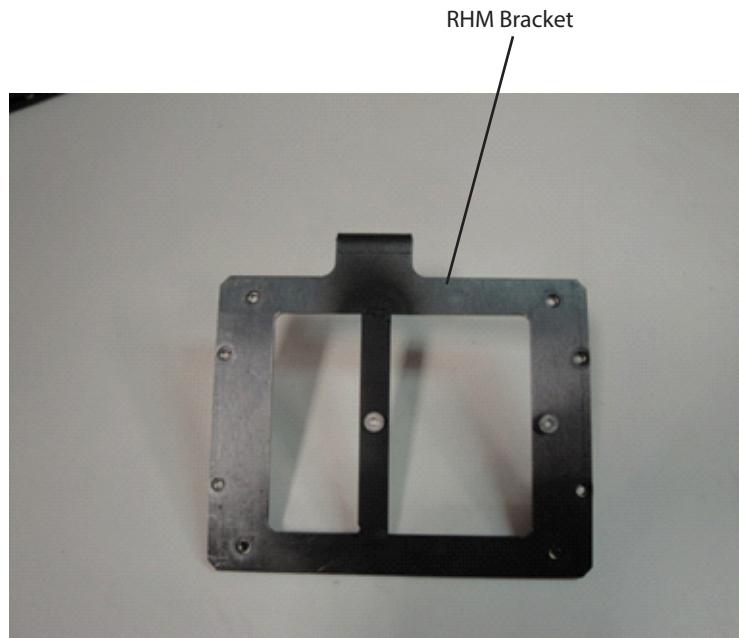
Airway



Airway



Cooling Fan

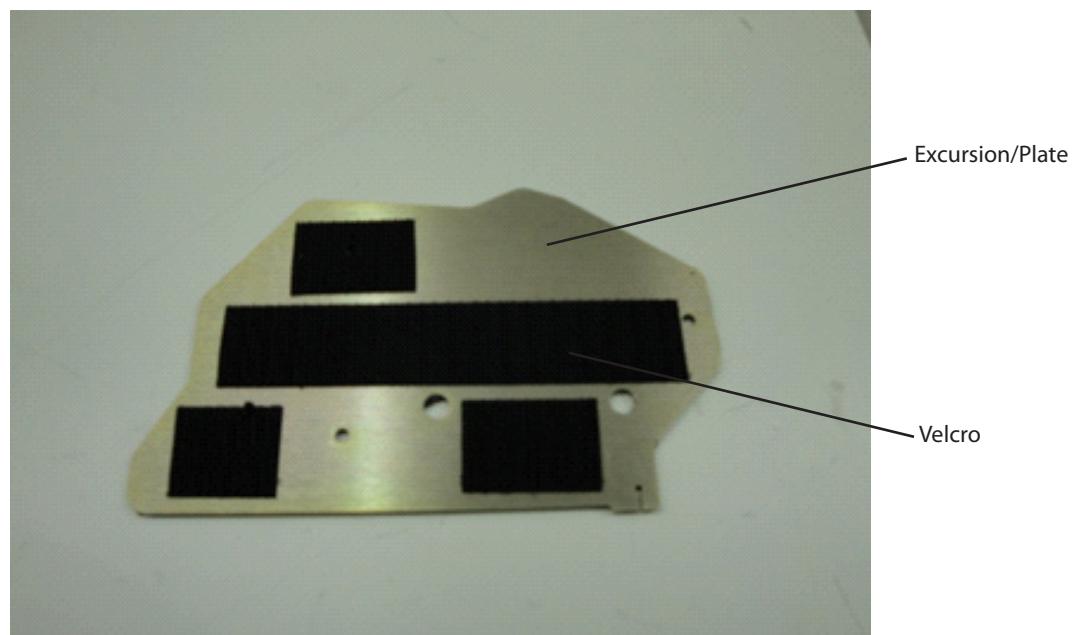
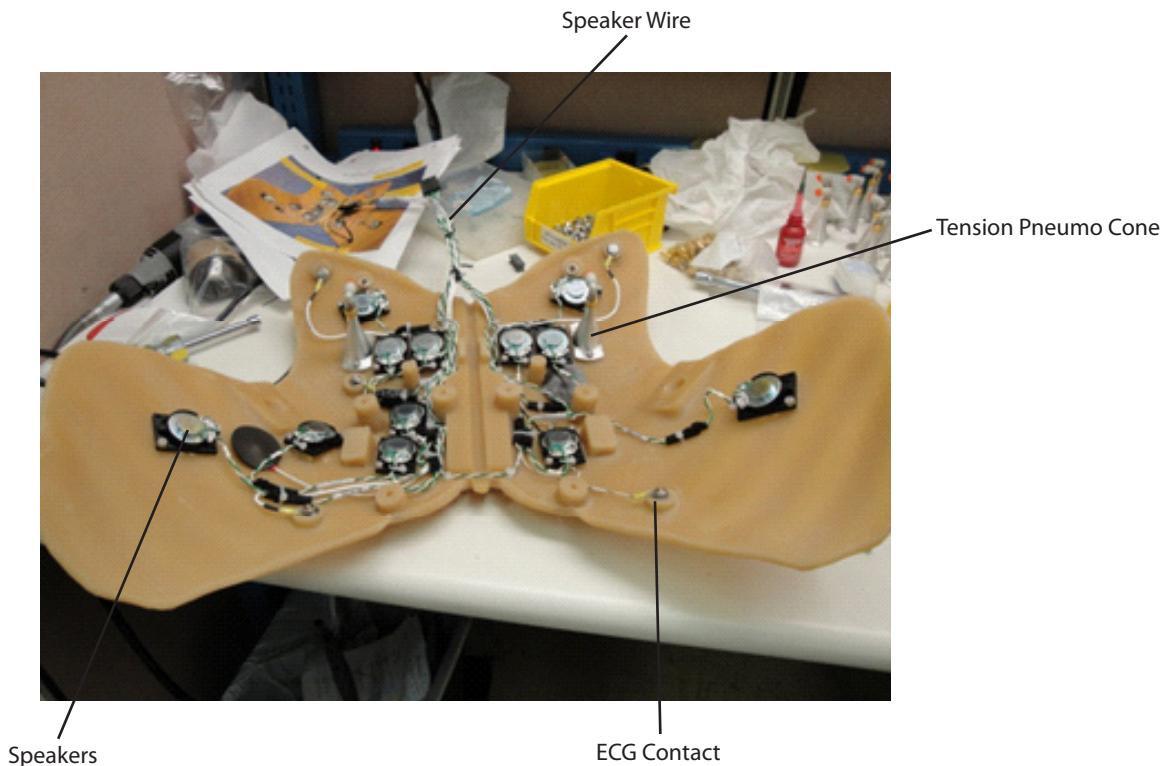


Rib Cage Assembly

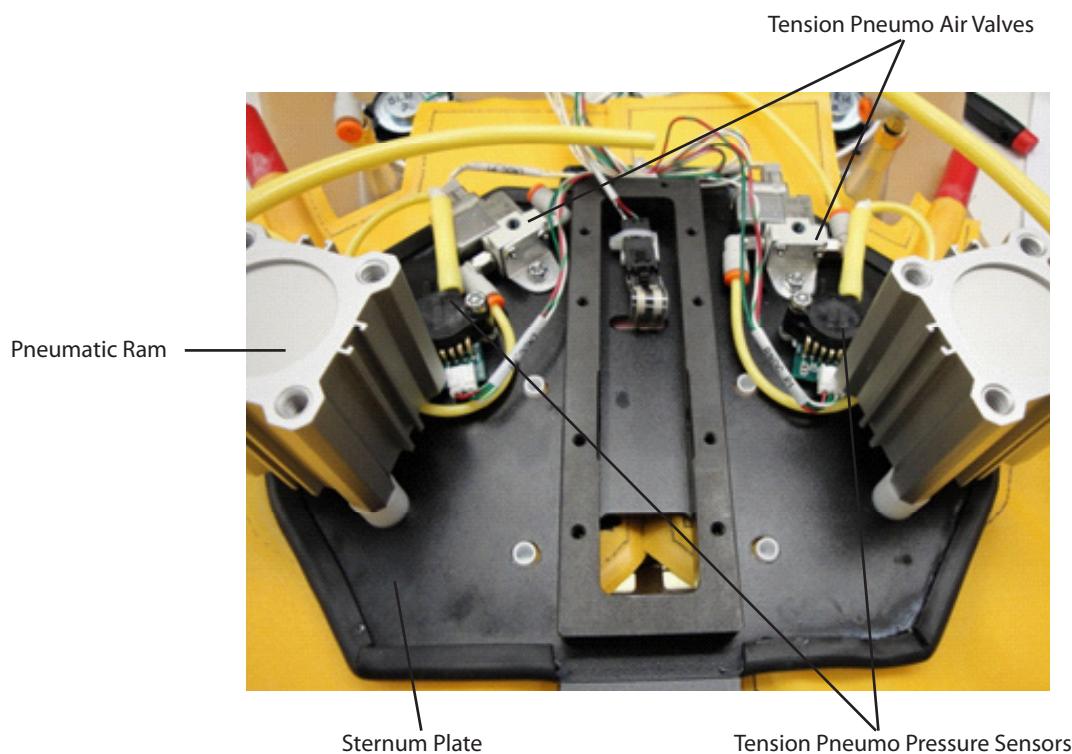
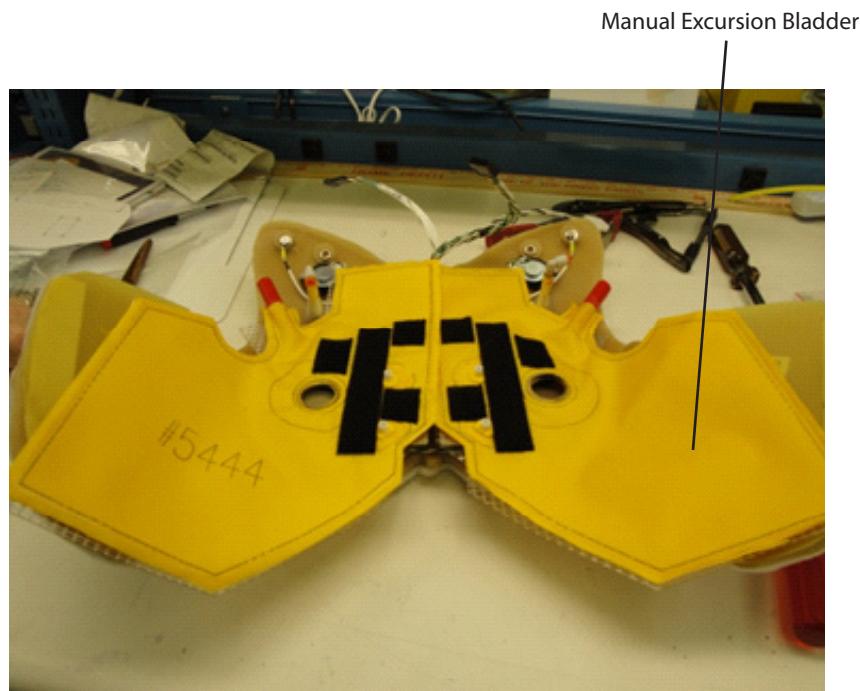


Rib Cage Assembled

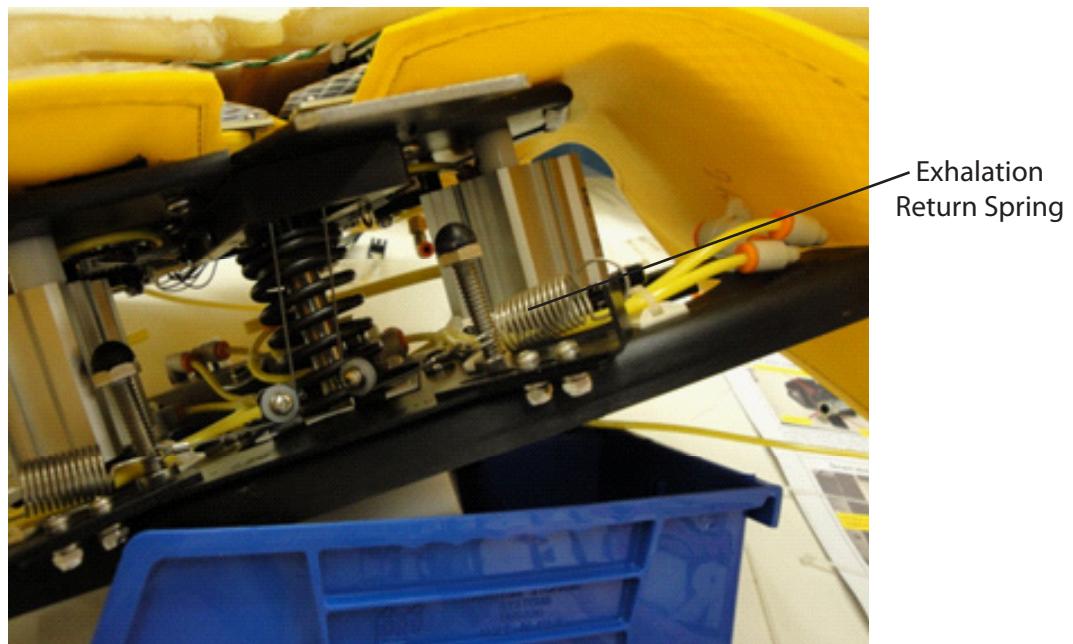
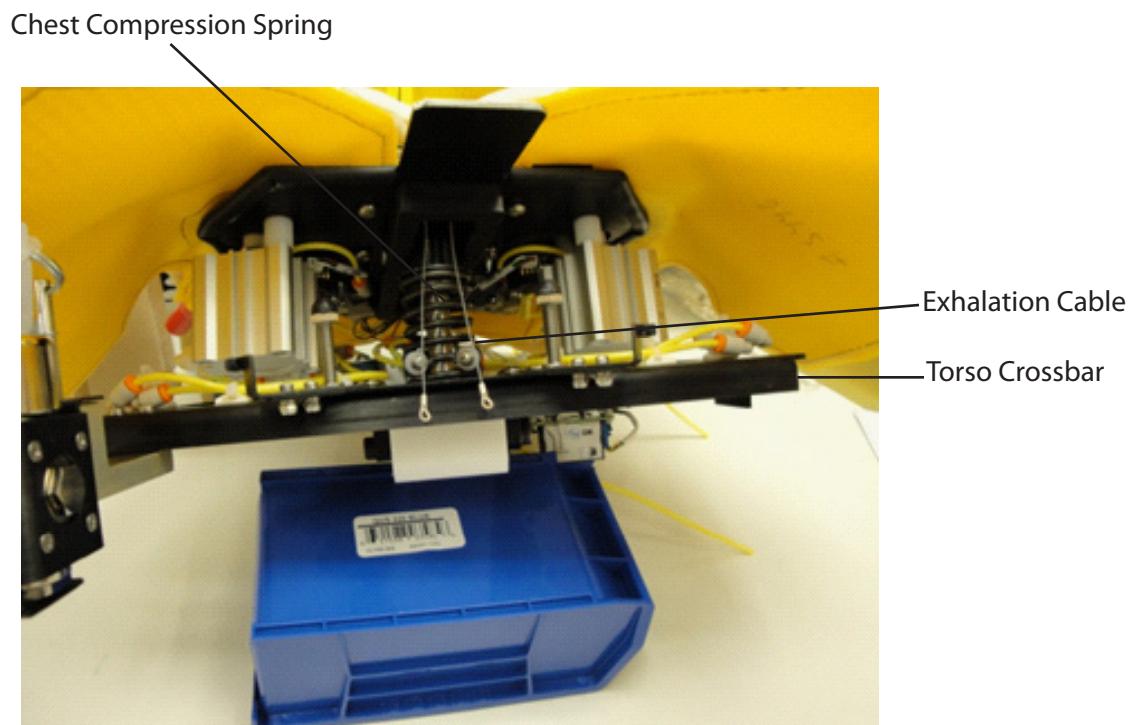
Rib Cage Assembly



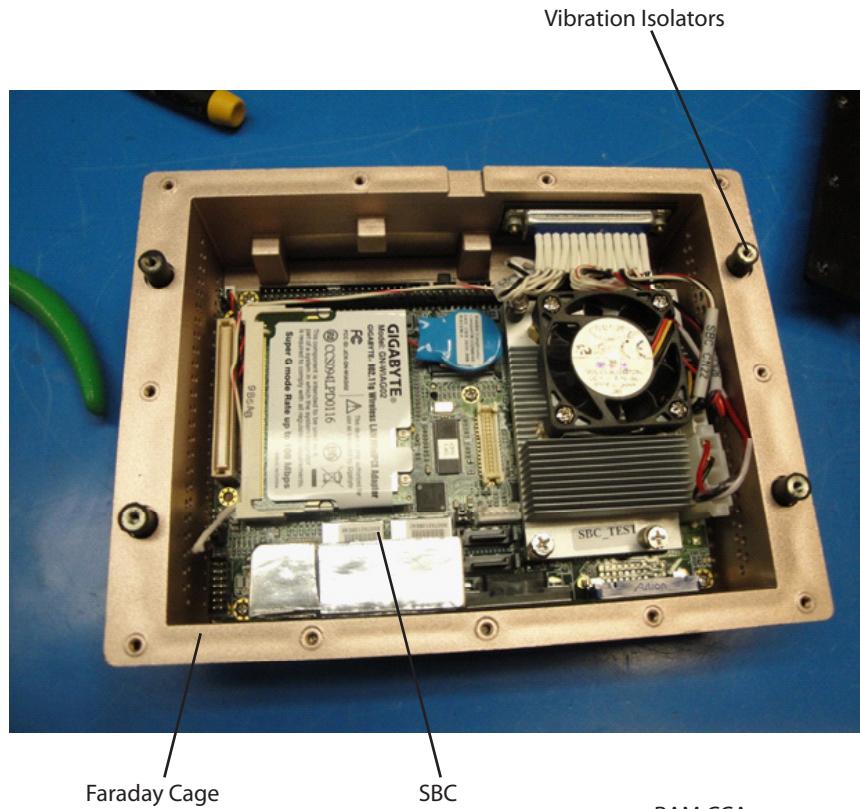
Rib Cage Assembly



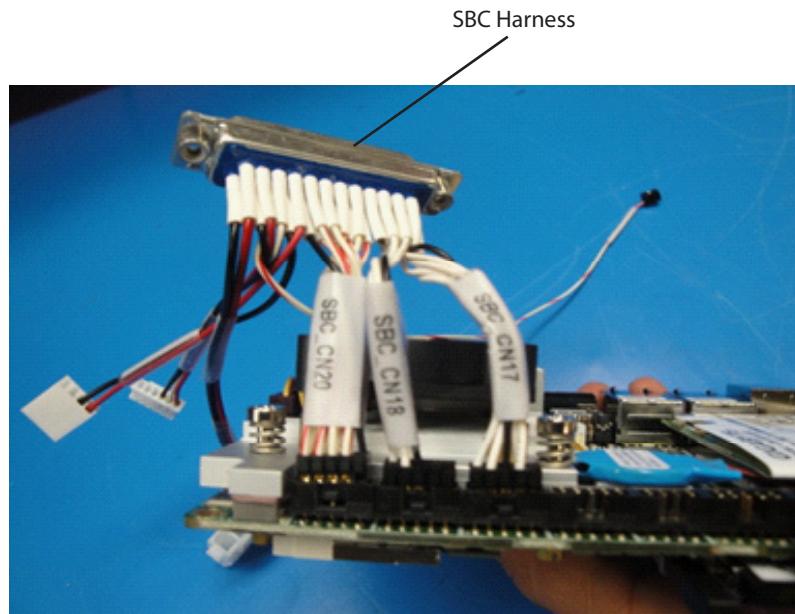
Rib Cage Assembly



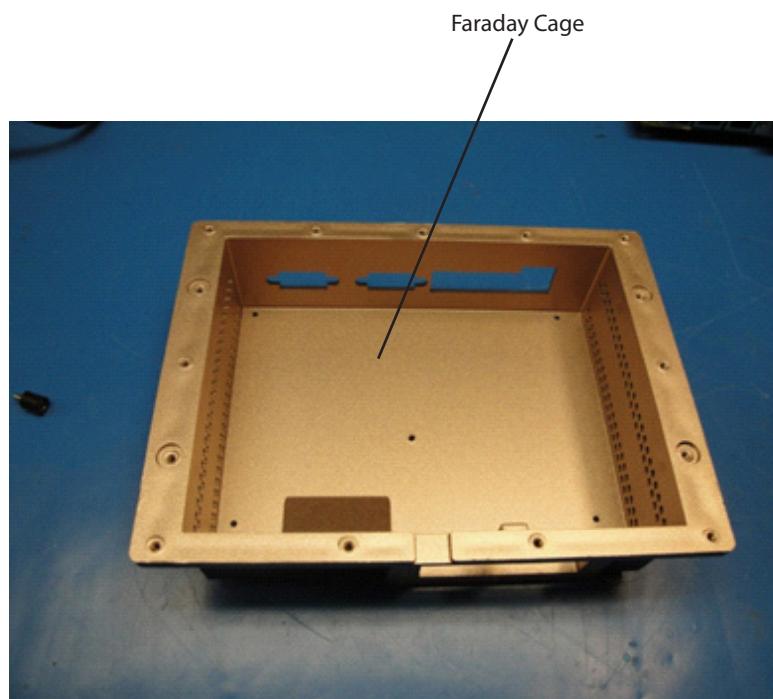
Single Board Computer



Single Board Computer



Single Board Computer



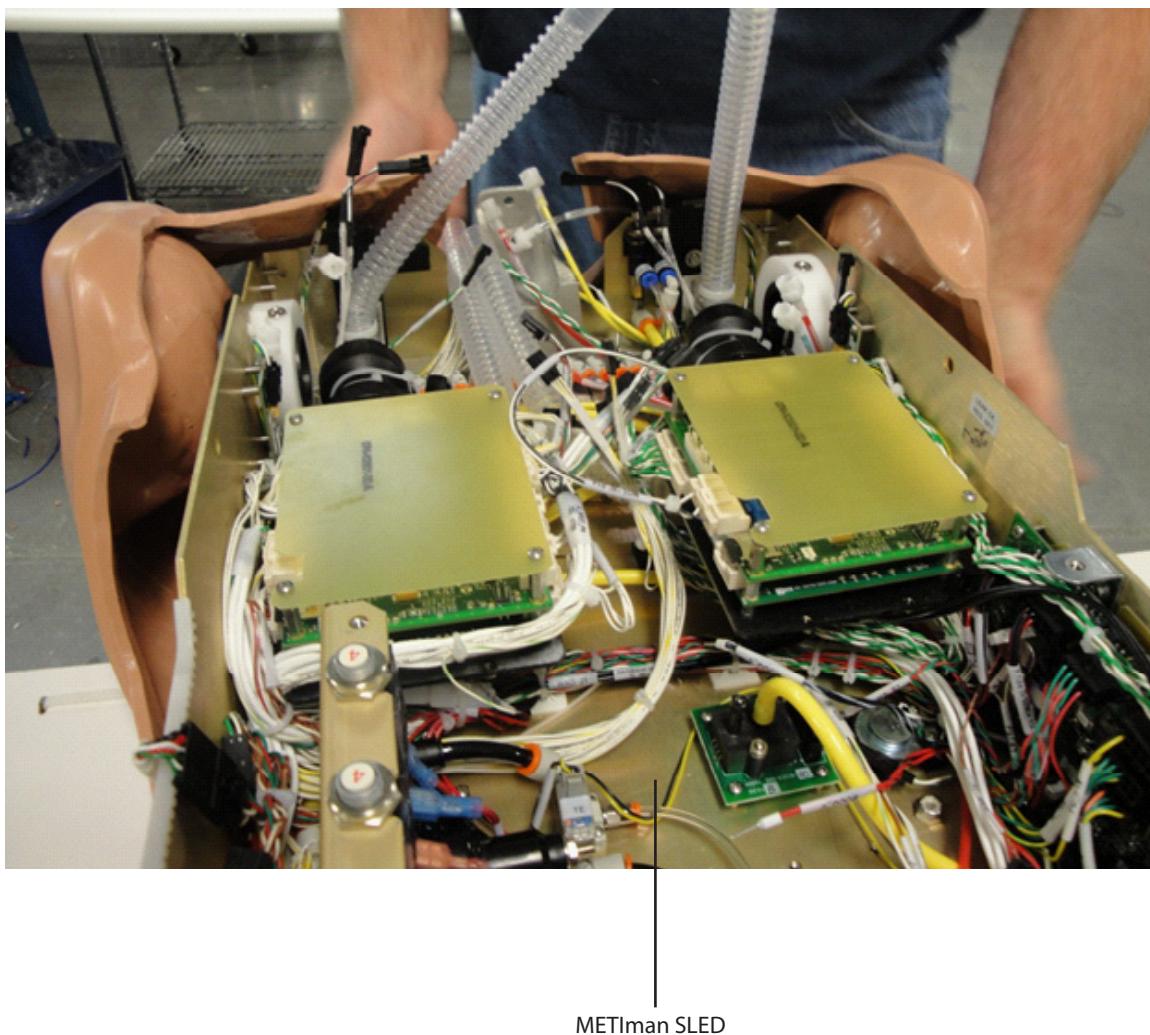
Single Board Computer



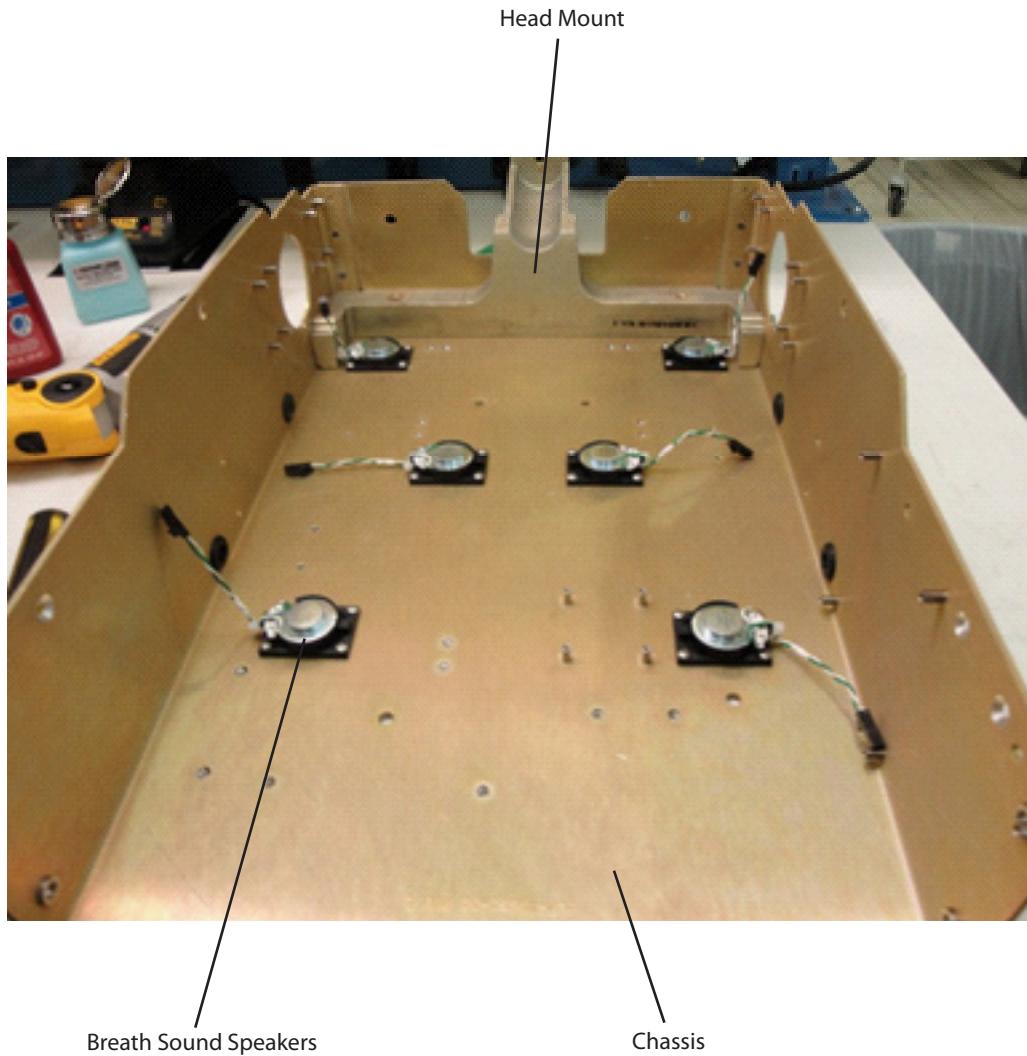
Faraday Cage and Lid



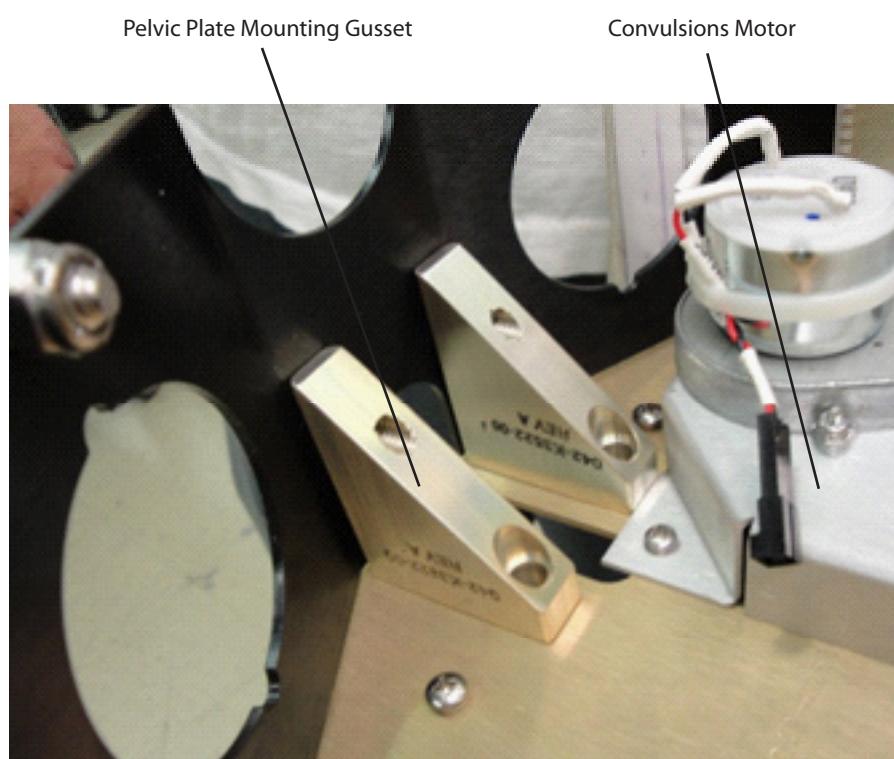
SLED



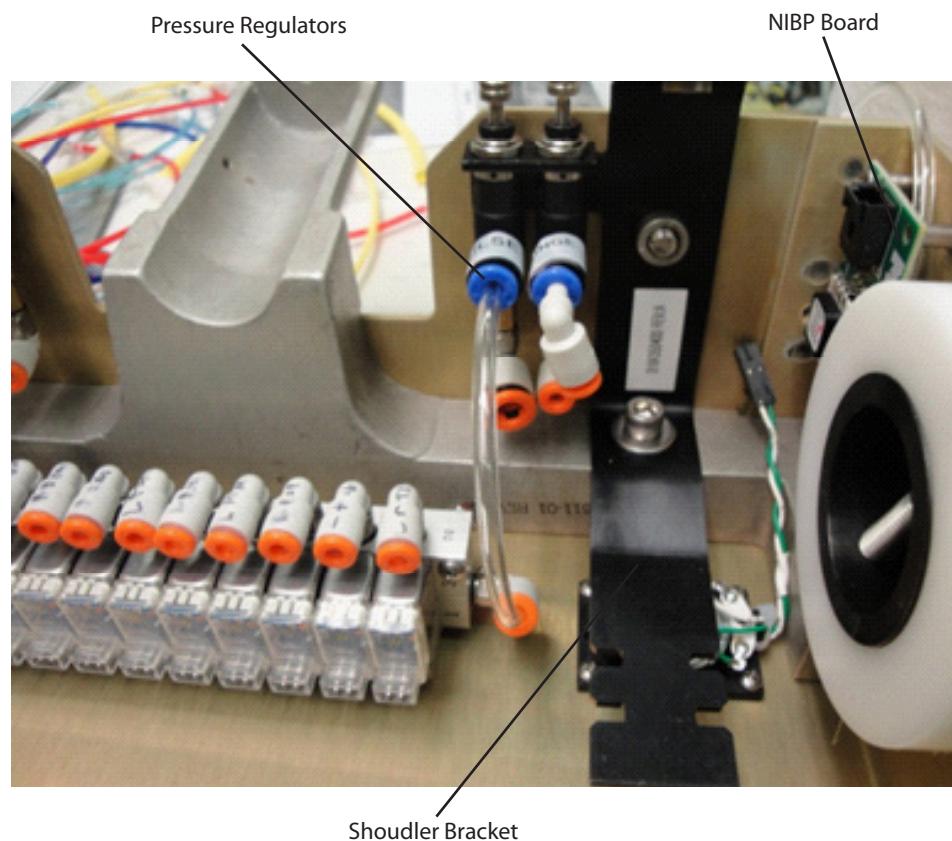
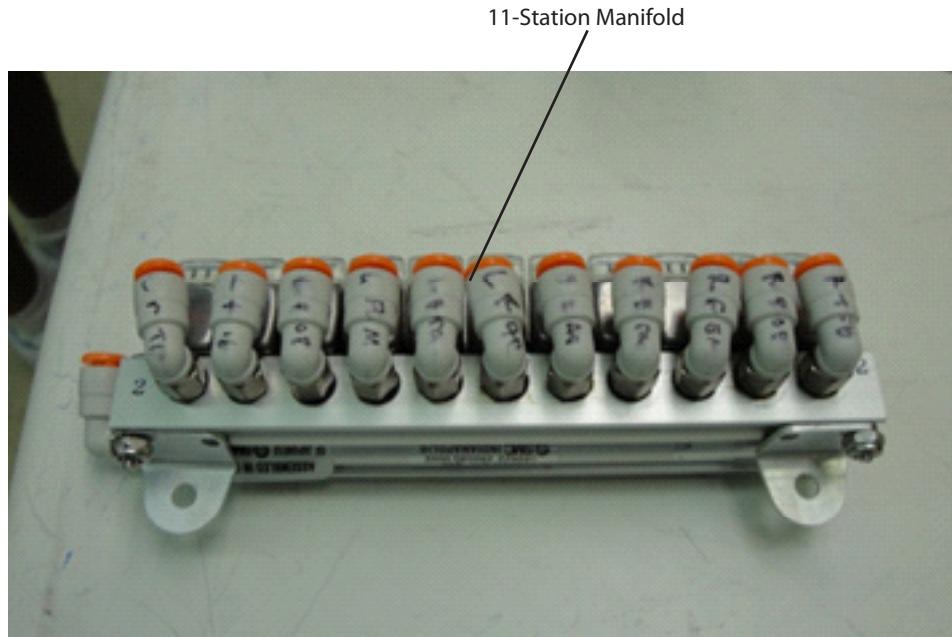
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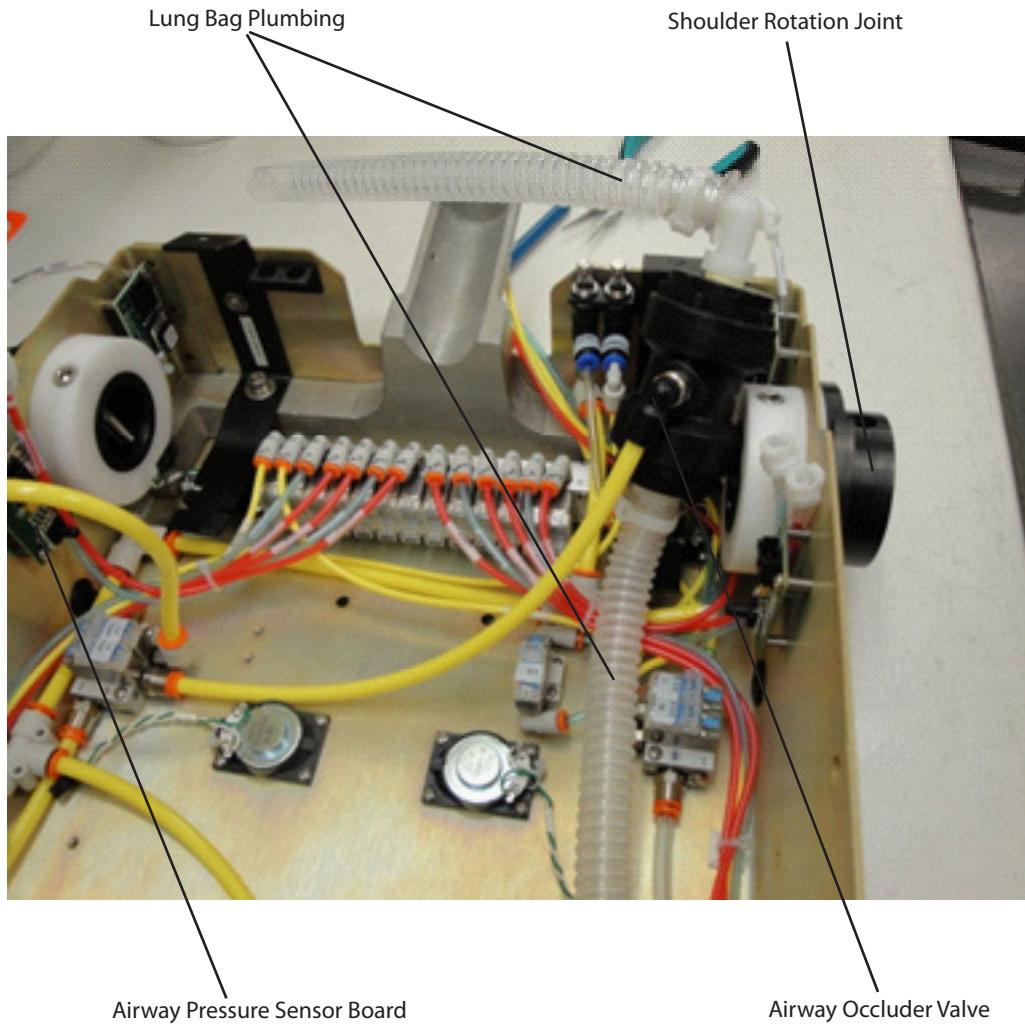
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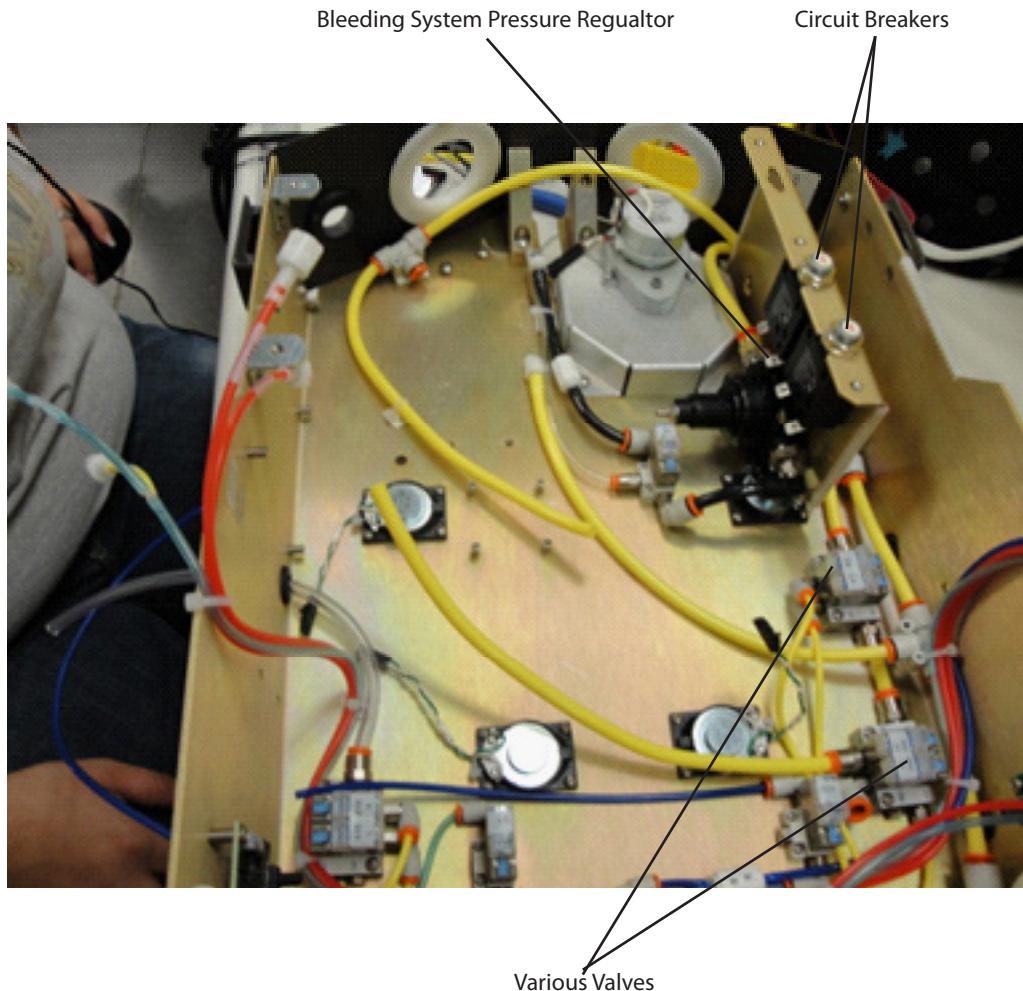
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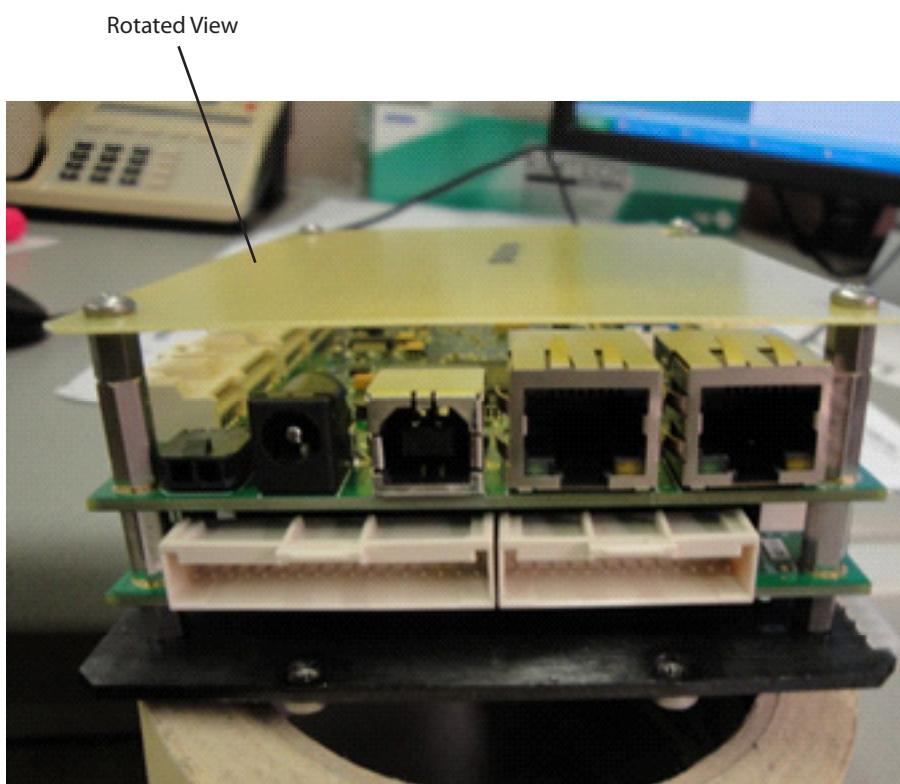
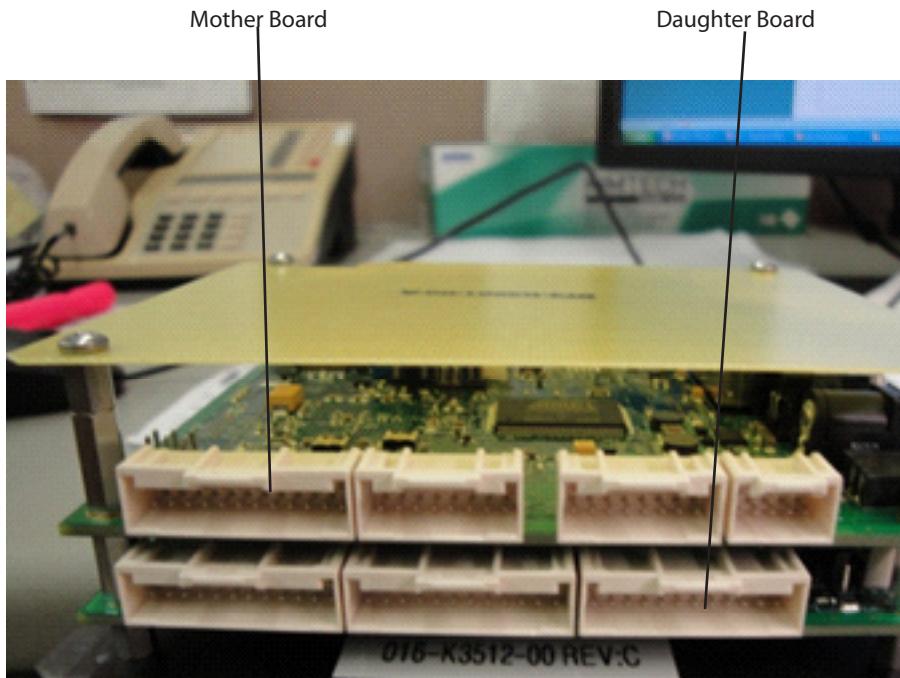
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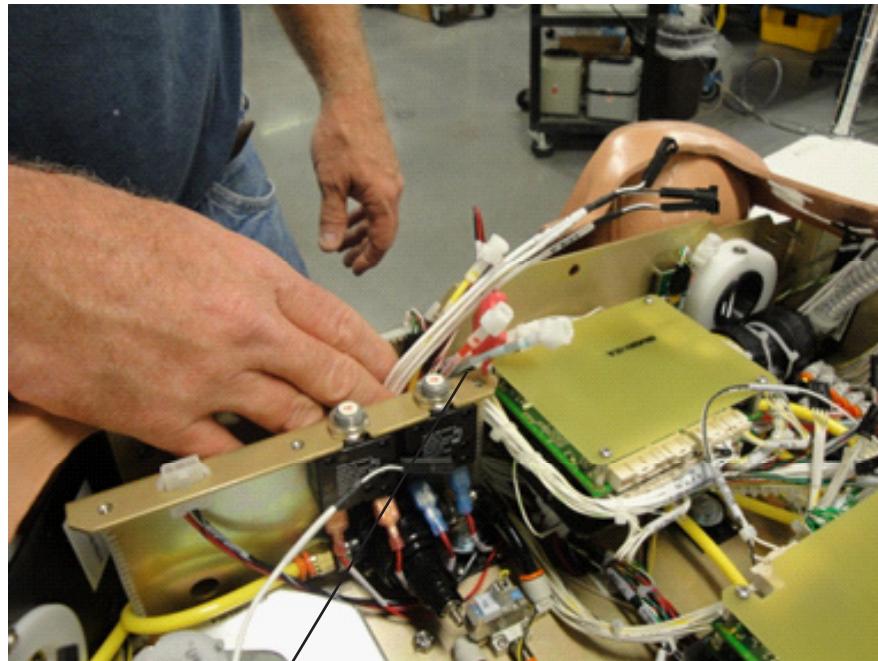
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SLED

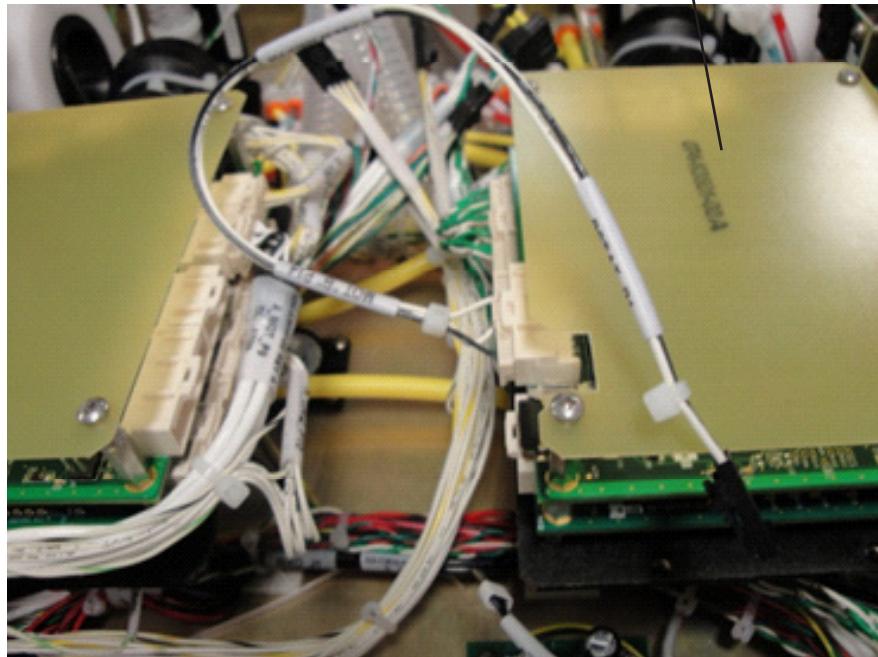


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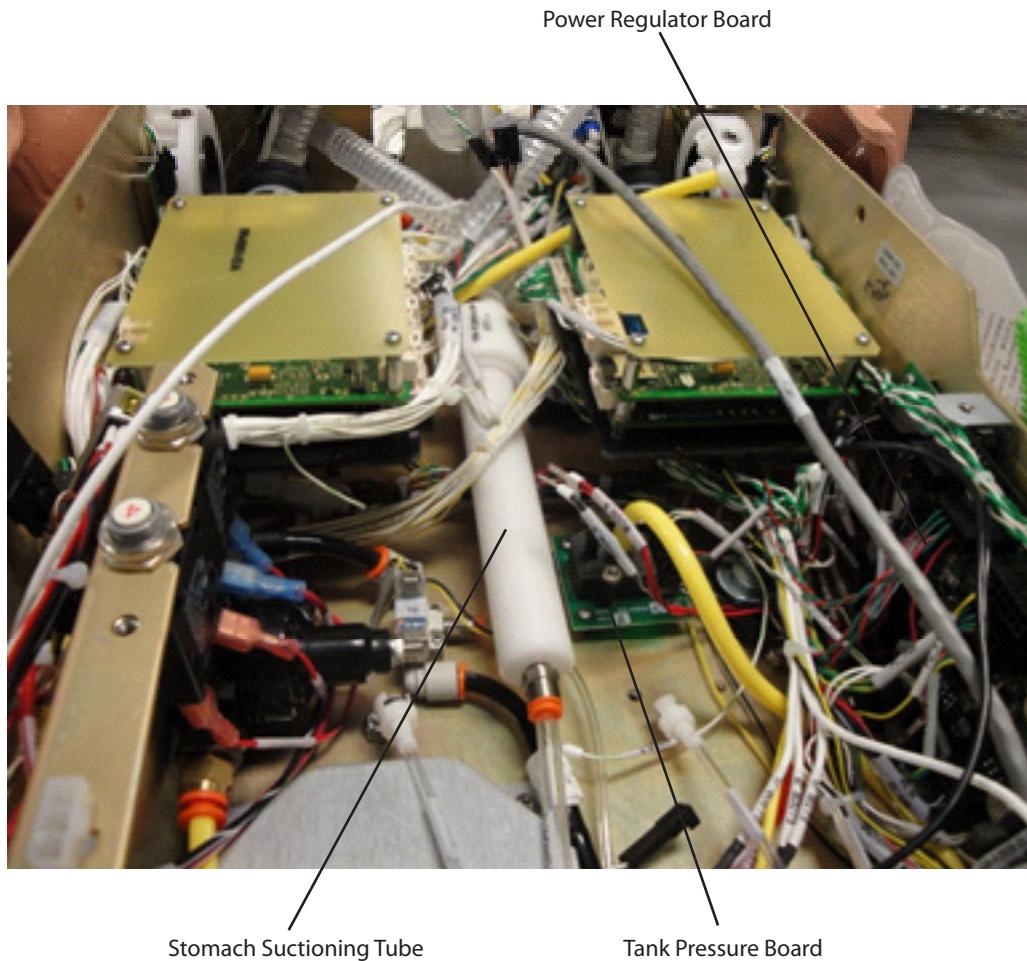


DAC Stack

Audio Stack



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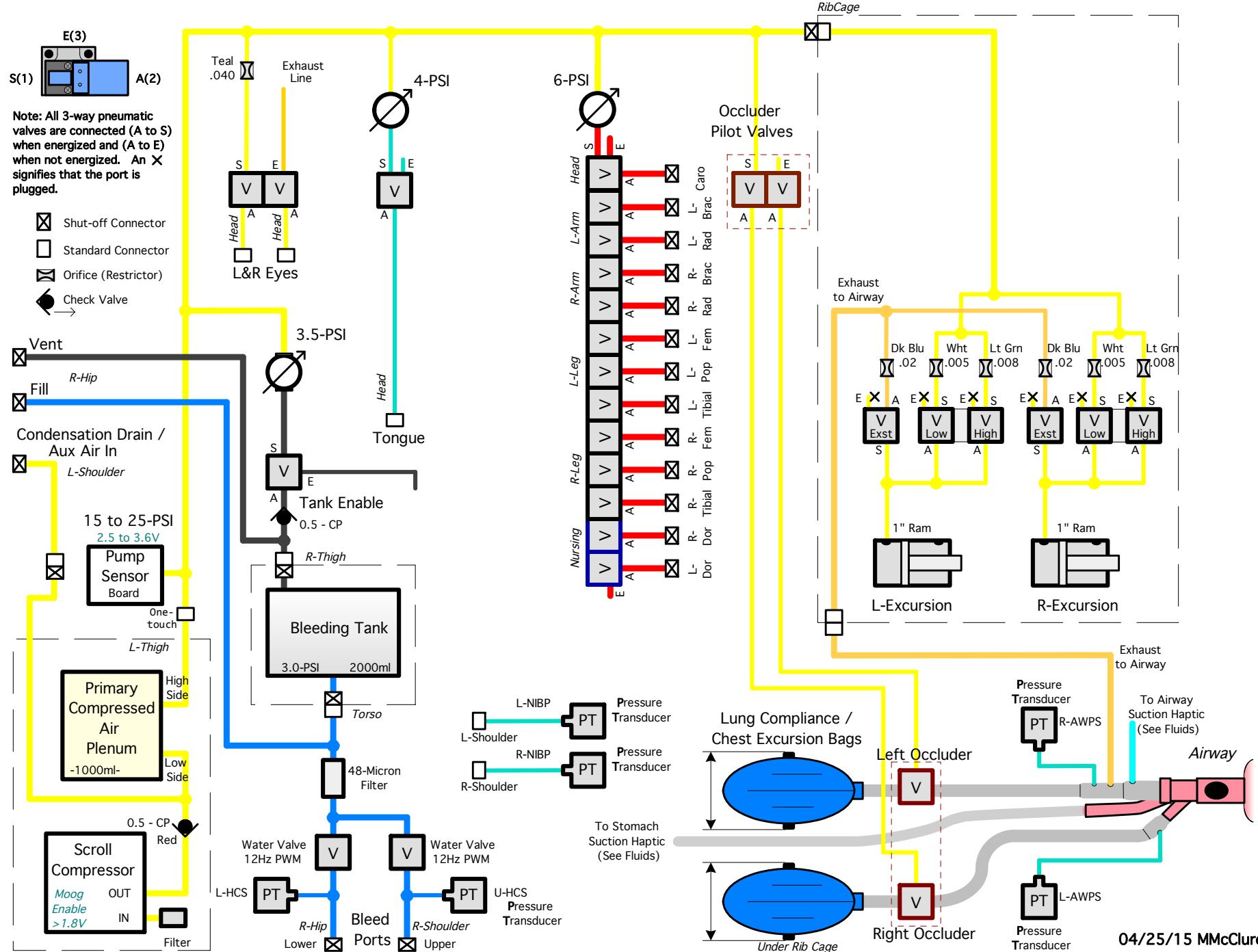


Apollo

Pneumatic Subsystems

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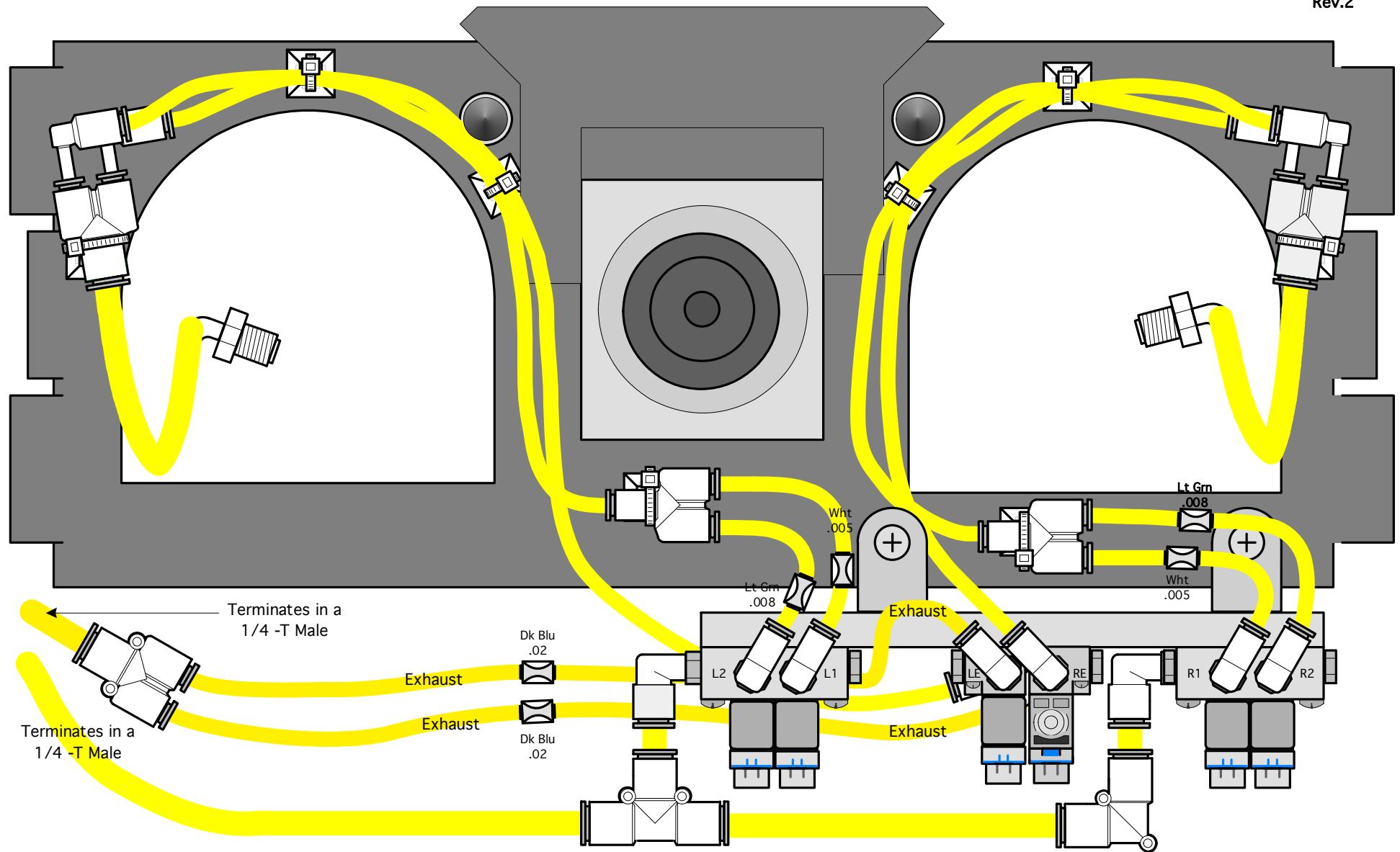
APN and MMN Torso Pneumatic Diagram



04/25/15 McClure

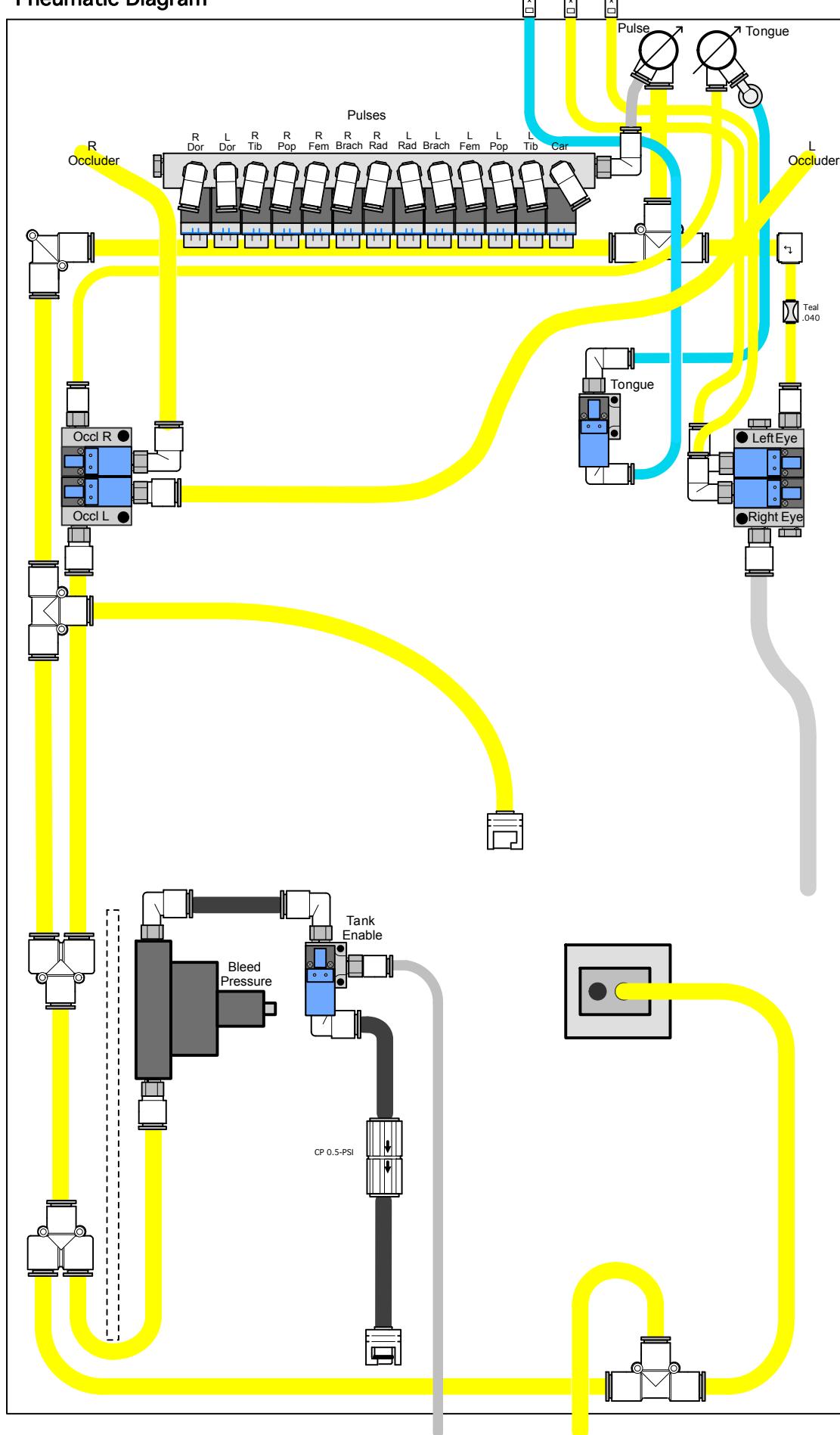
Nursing

METiman07/31/09
MMcClure
Rev.2



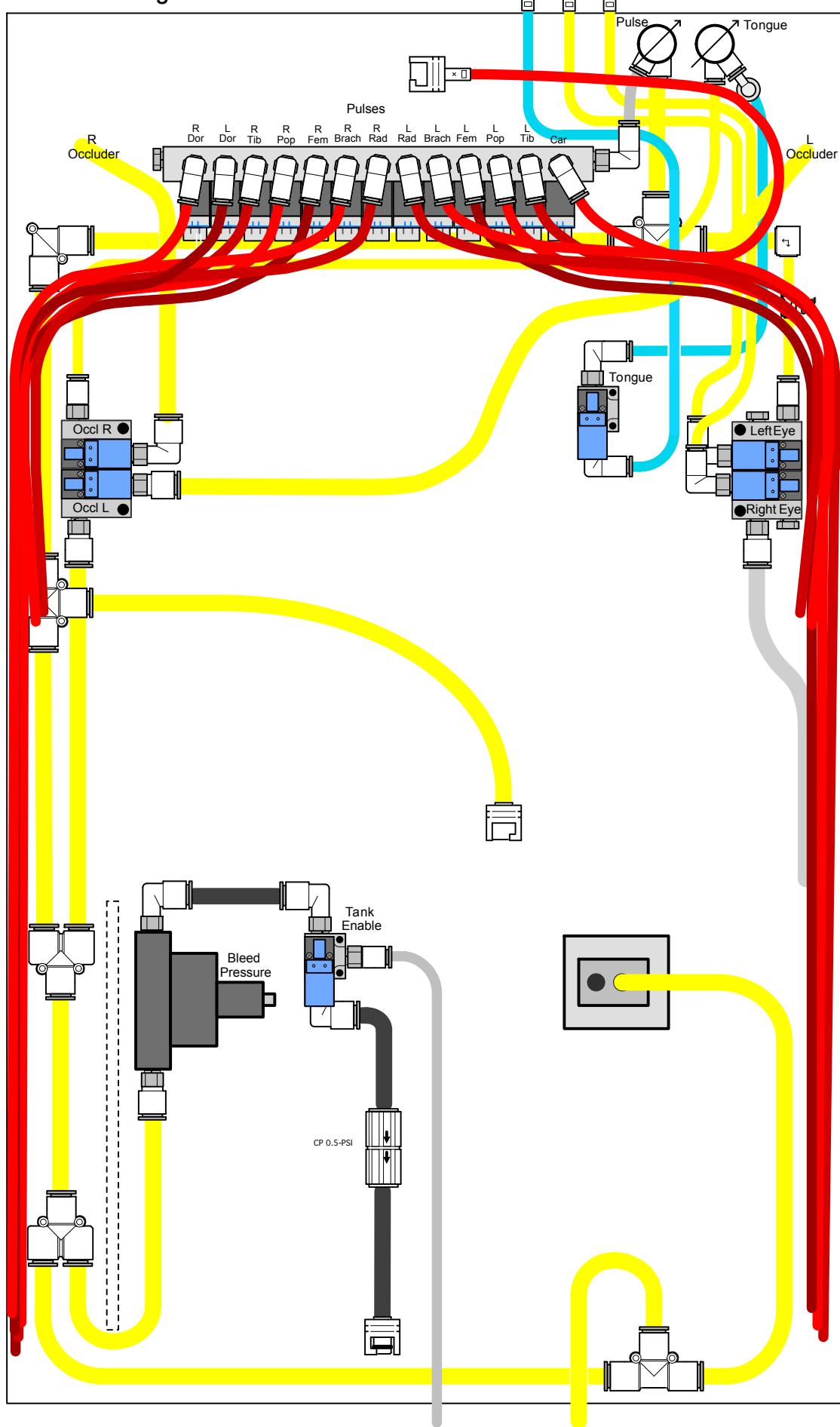
**APN and MMN Tray
Pneumatic Diagram**

METiman
08/28/09 MMcClure
Rev. 4

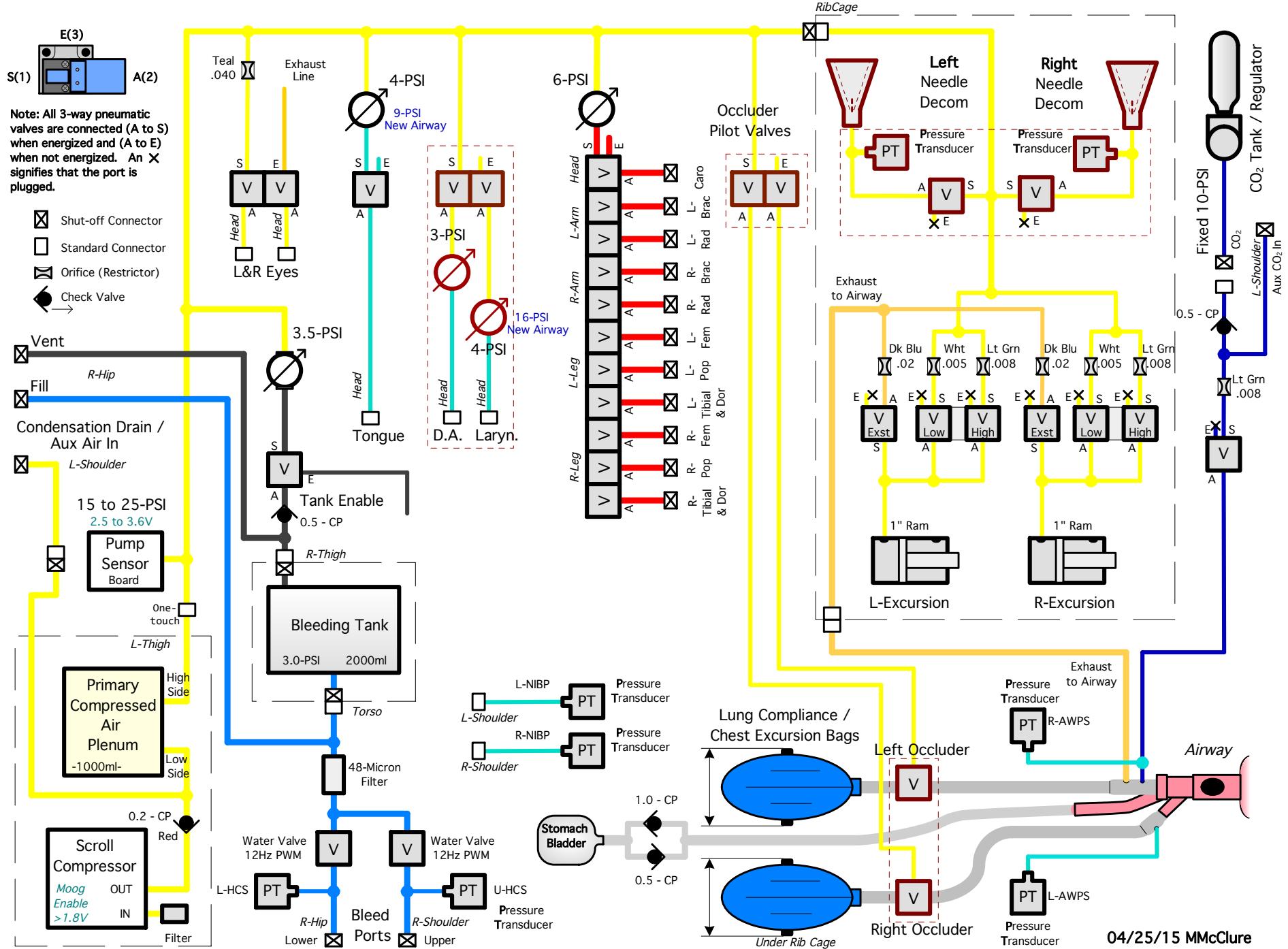


**APN and MMN Tray
Pneumatic Diagram**

METiman
08/28/09 MMcClure
Rev. 4



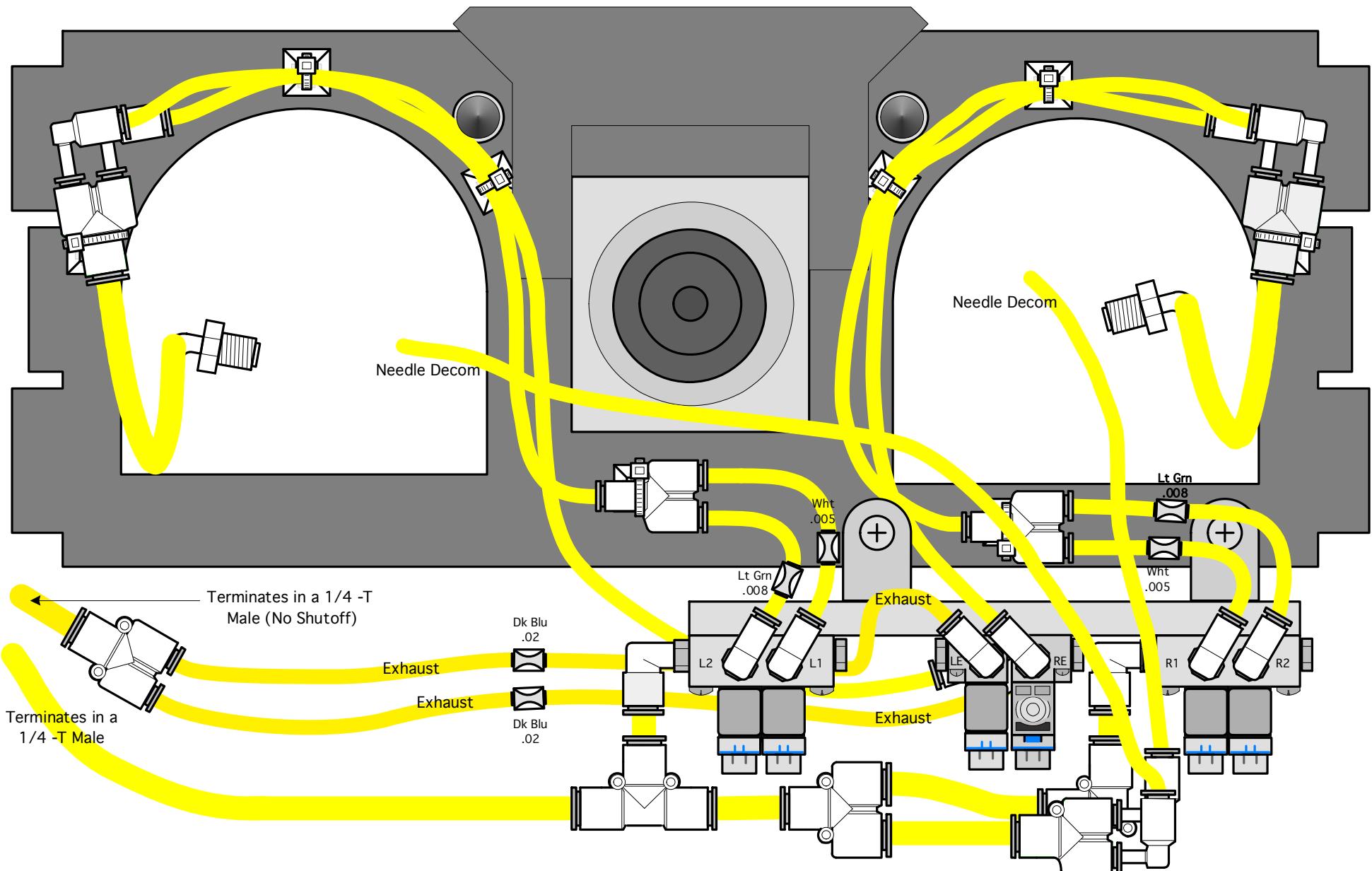
APP/MMP Torso Pneumatic Diagram



04/25/15 MMcClure

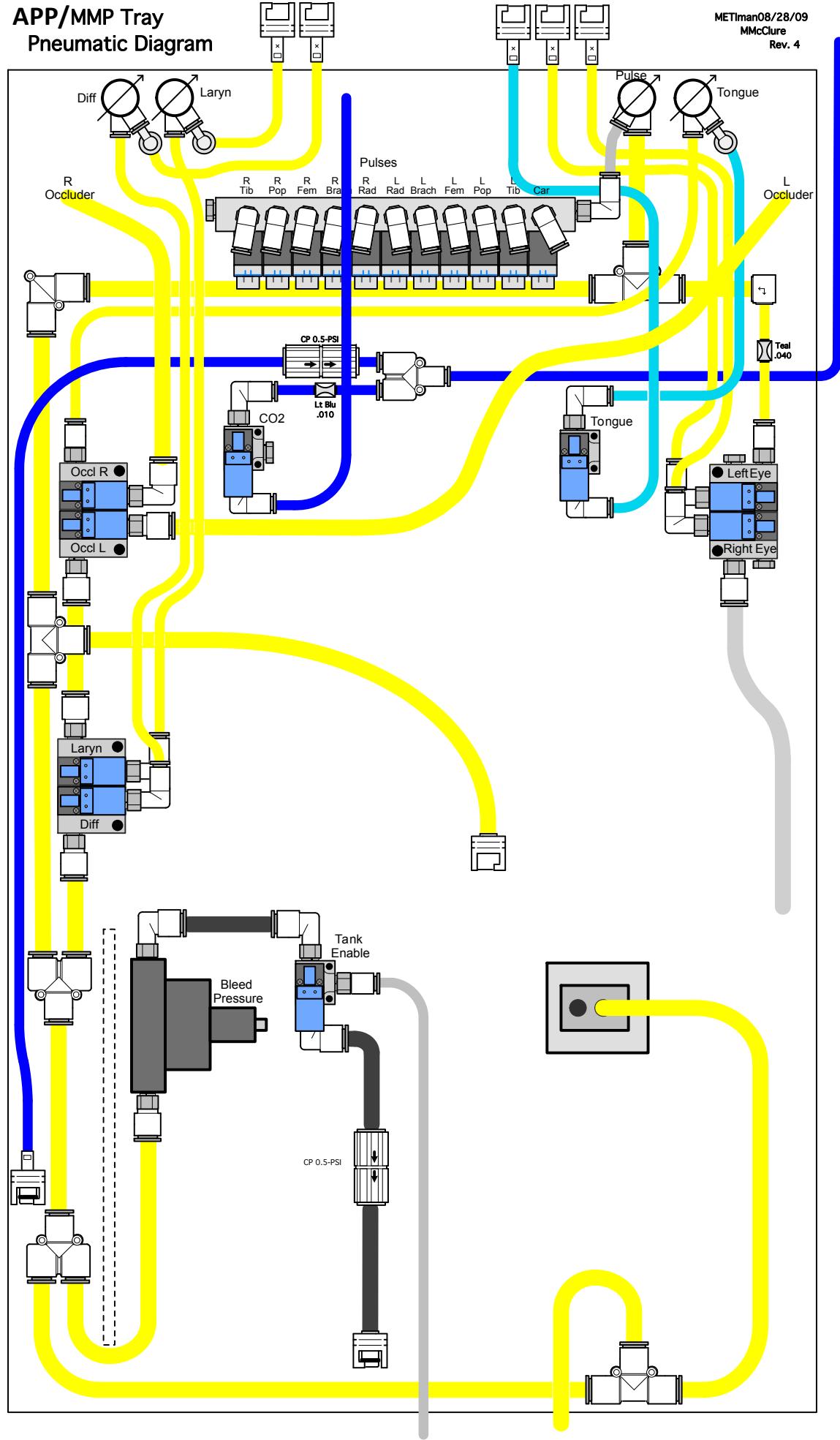
EMS

METIman 07/31/09
MMcClure
Rev.2



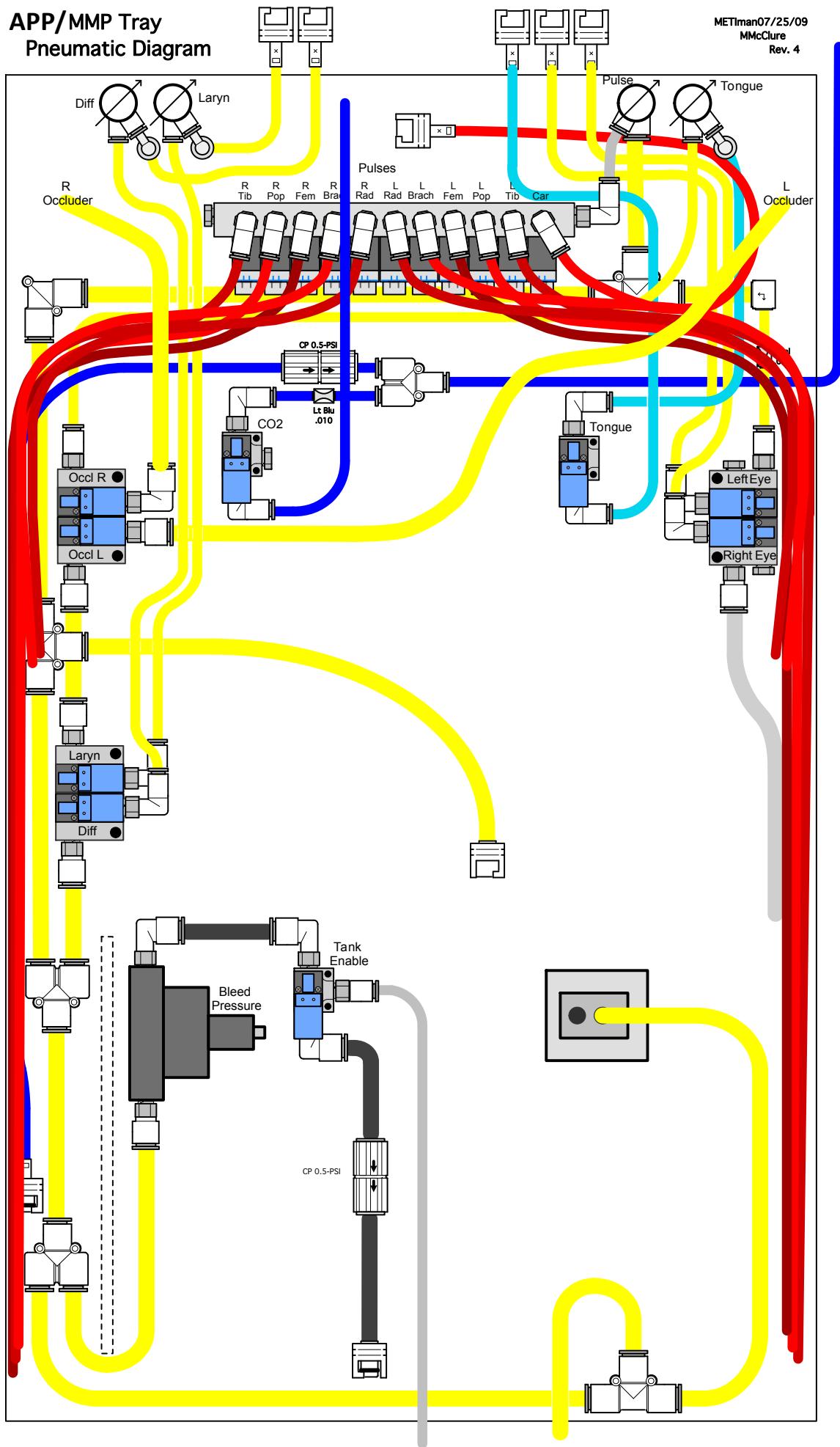
APP/MMP Tray Pneumatic Diagram

METiman08/28/09
MMcClure
Rev. 4



**APP/MMP Tray
Pneumatic Diagram**

METiman07/25/09
MMcClure
Rev. 4



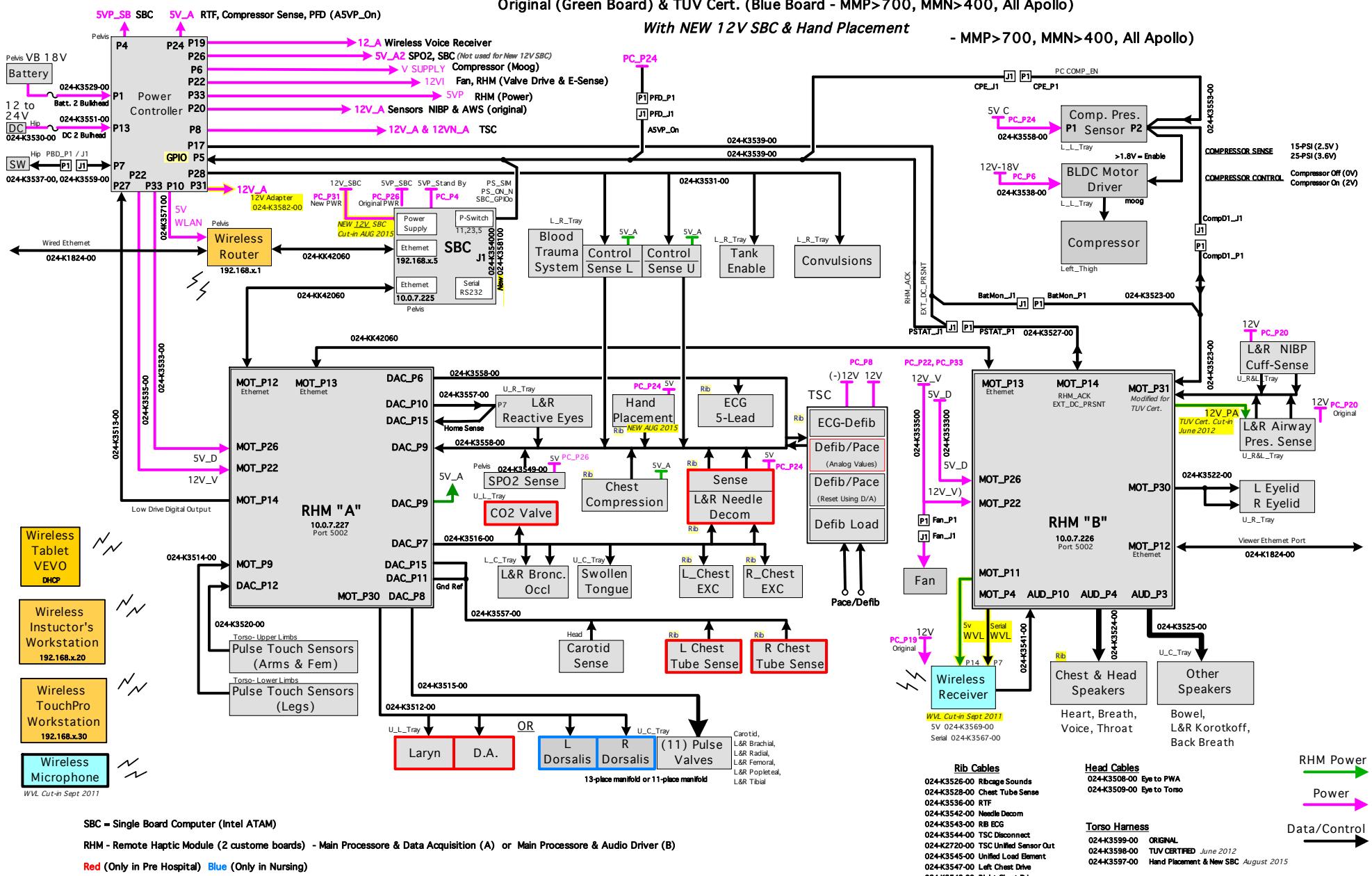
Apollo

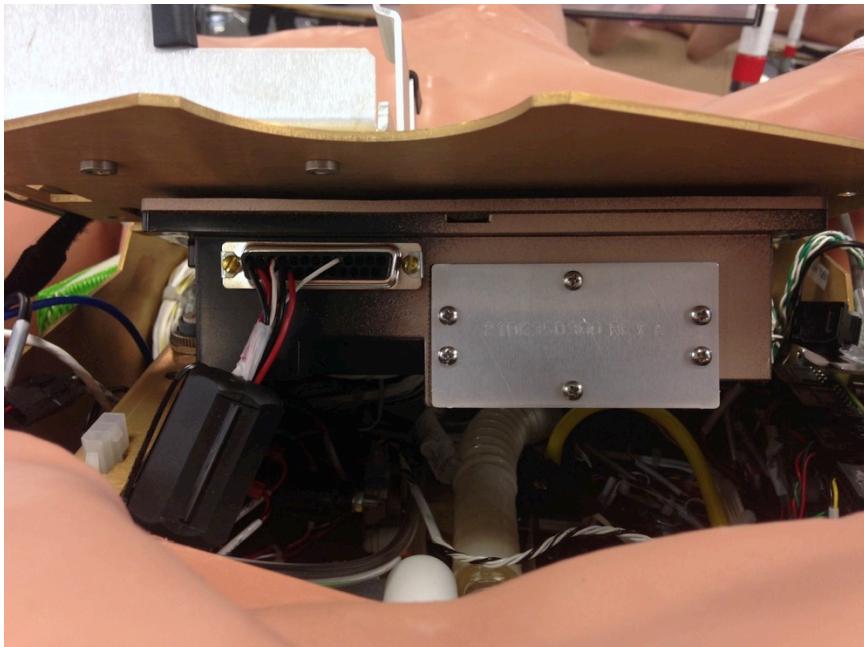
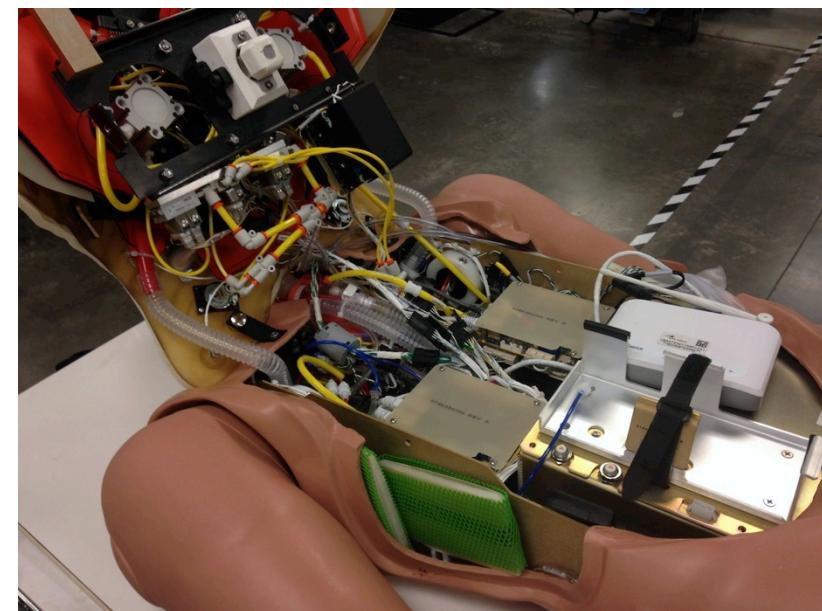
Electrical Subsystems

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Apollo & METiman - Wiring - Block Diagram

Original (Green Board) & TUV Cert. (Blue Board - MMP>700, MMN>400, All Apollo)

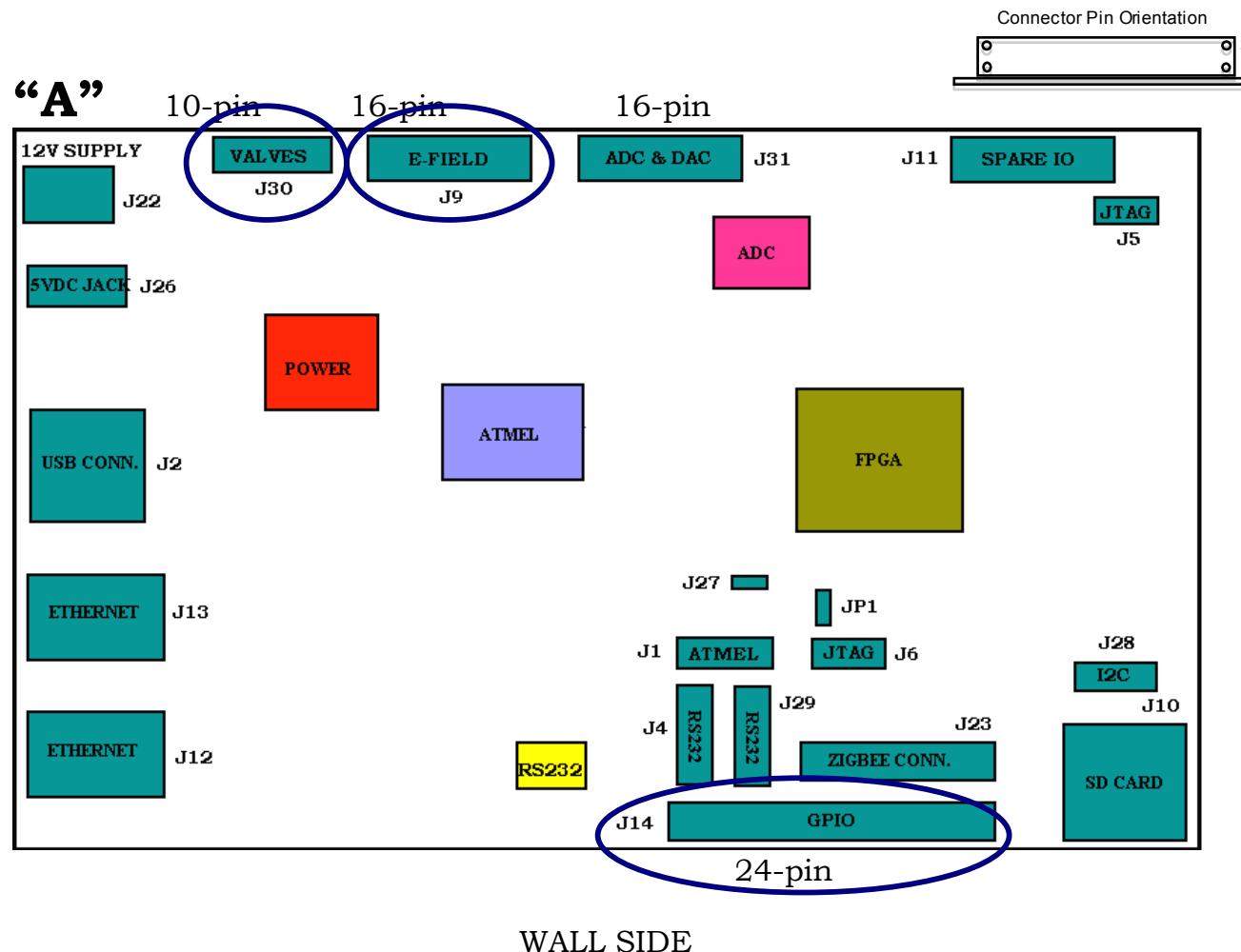




SECTION I

RHM “A”

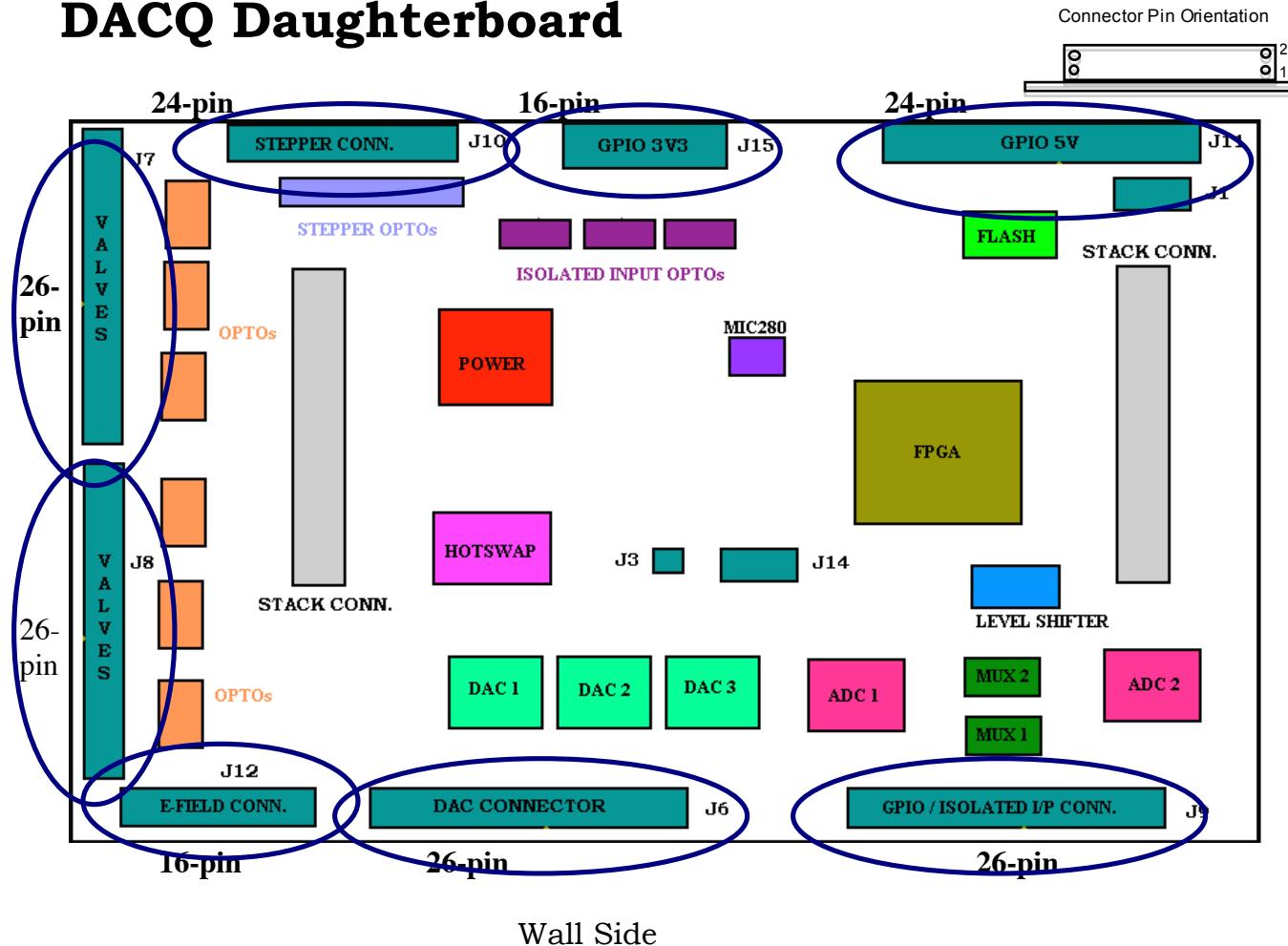
Motherboard



SECTION II

RHM “A”

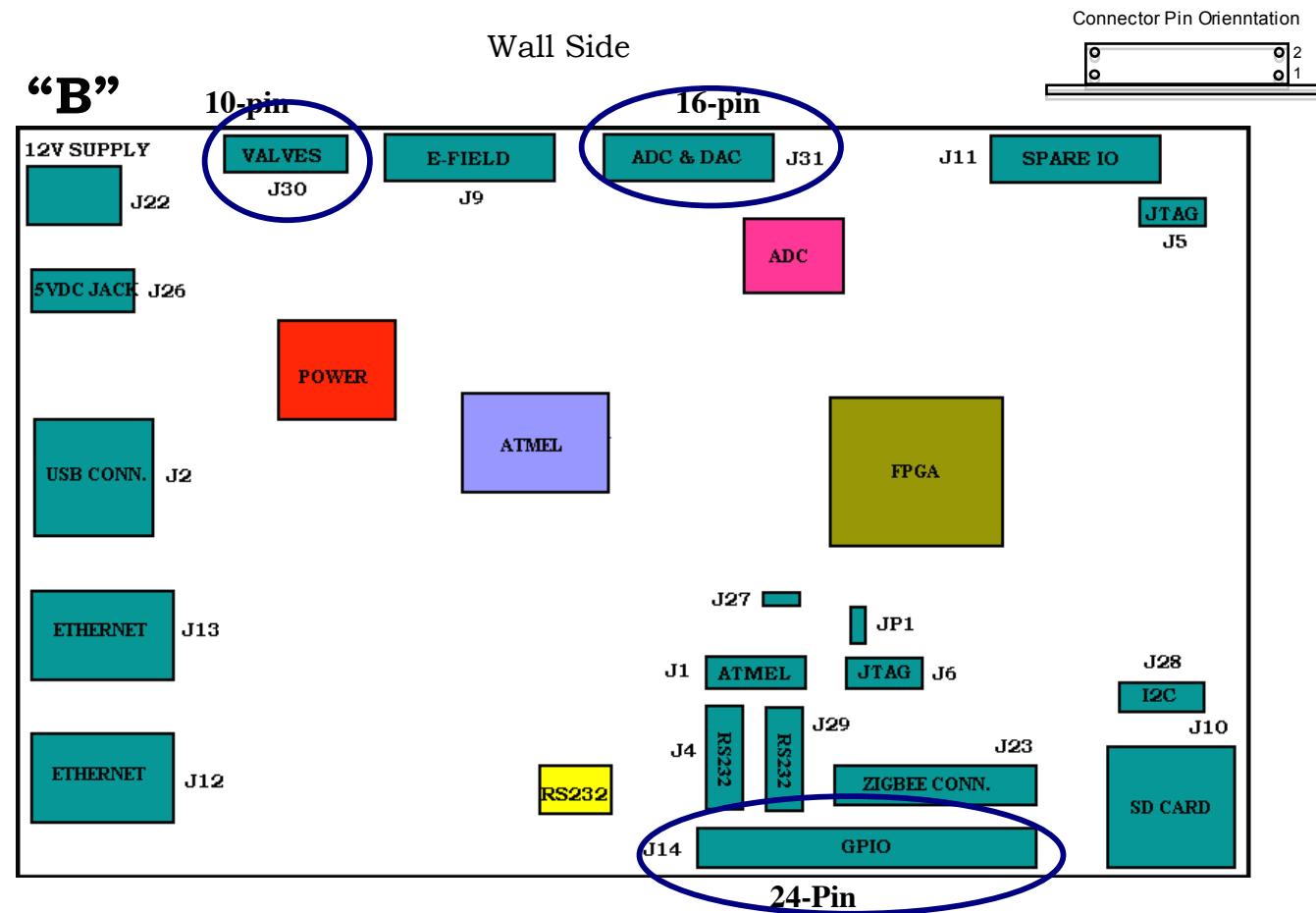
DACQ Daughterboard



SECTION III

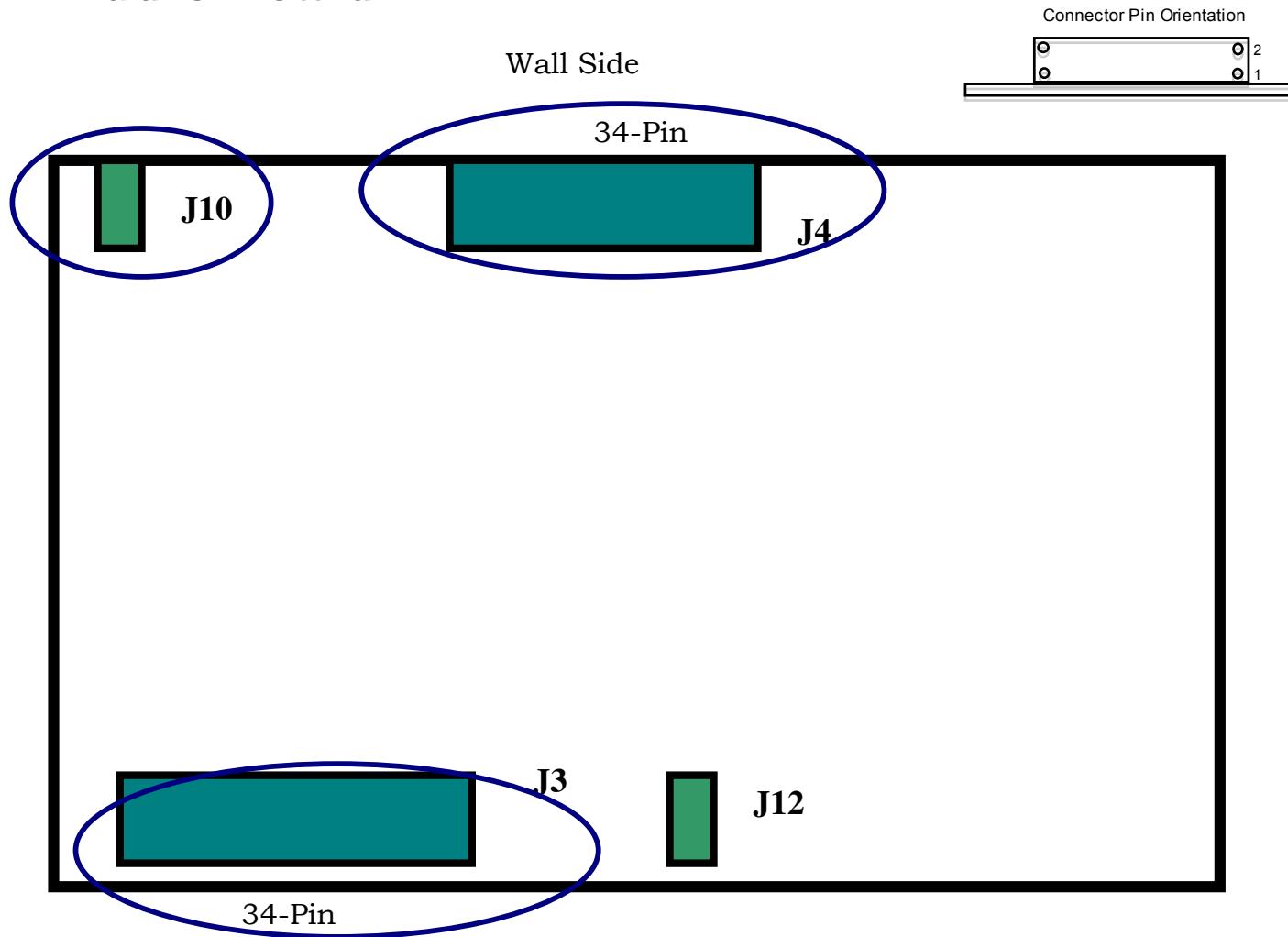
RHM “B”

Motherboard



SECTION IV

RHM “B” Audio Board



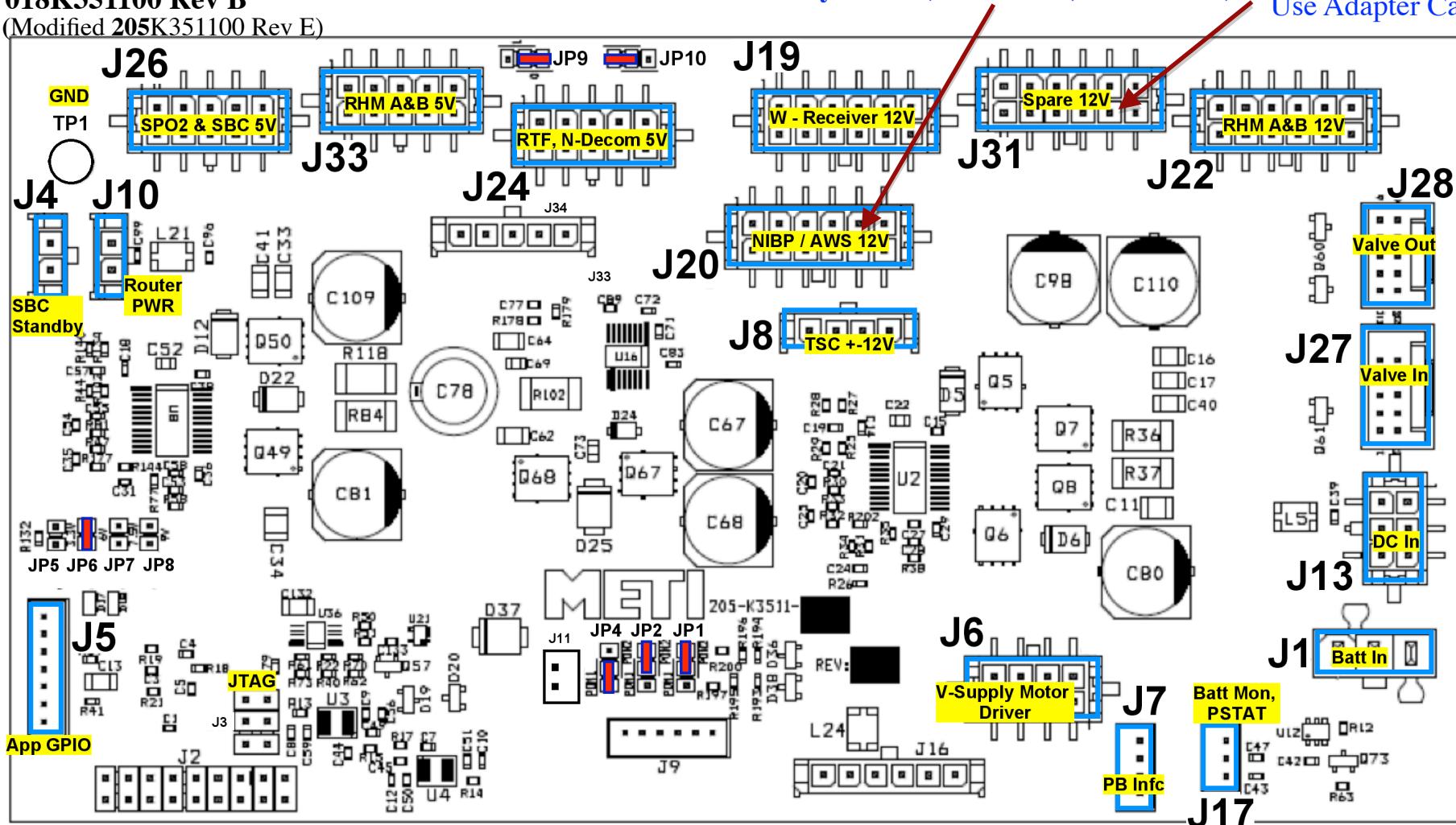
Apollo/METIman Power Controller

018K351100 Rev B

(Modified 205K351100 Rev E)

**Airway Pressure Board is Powered by RHM-B J31
on TUV Certified systems. (MMP>700, MMN>400)**

August 2015
12V for new SBC
Use Adapter Cable



Jumper Settings

- JP9 – Bypass Mode
- JP10 – DC Override
- JP6 – Wireless Power
- JP1 – 12V Power Mode
- JP2 – 5V Power Mode
- JP4 – Wireless Power Mode

Default*

SBC Bypass / Normal* (*Right*)
Ext DC Priority* / Potential Priority (*Left*)
3.3V / 5V* / 7V / 9V Router PWR
P On 1 / P On 2* (*Up*)
P On 1 / P On 2* (*Up*)
P On 1* / P On 2 (*Down*)

MMcClure 071116

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REV	DESCRIPTION	DATE	APPROVED
A	RCD, CHG ENG RELEASE	11/10/10	
B	PRE-TUV CORRECTIONS	05/15/12	
C	TUV UPDATE (BLUE BRDS)	05/29/12	
D	SUPPORT FOR ENHANCED CC ECO_____	02/10/16	

APPROVALS	DATE	 CAE Healthcare		
DRAWN BY M. McClure	01/31/09			
CM APPROVED M. McClure	10/10/15			
QA APPROVED		TITLE: METIMAN Cert (TUV) – RHM Data Acquisition & Control and Apollo		
ENGINEERING APPROVED M. McClure	01/31/09	SIZE A	DRAWING NUMBER 905-K3600-07	REV D
MFG/TEST APPROVED		SCALE None	SHEET 1 OF 11	

905-K3600-07_REV D

OD DATA ACQUISITION

Data Acquisition allows the SBC and RHM(s) to stimulate and monitor other sub-systems. These include the Pulses, ECG, Sounds, and the Control of Breathing. This document supports both original (Green) and enhanced (Blue) RHM boards that were created to support TUV certification (MMP>700, MMN>400).

RHM Stack A

MOTHER Board

DAC Green Blue

Device	CH	Test Point	Grn Board Connector	Blu Board Connector	Voltage Range	Default Value	Function
dac00	A		J31-8	J31-12	0 – 5V	0V	DAC_OUT_A SPARE
dac01	B		J31-7	J31-11	0 – 5V	0V	DAC_OUT_B SPARE
dac02	C		J31-12	J31-16	0 – 5V	0V	DAC_OUT_C SPARE
dac03	D		J31-9	J31-13	0 – 5V	0V	DAC_OUT_D SPARE
dac04	E		J31-10	J31-14	0 – 5V	0V	DAC_OUT_E SPARE
dac05	F		J31-11	J31-15	0 – 5V	0V	DAC_OUT_F SPARE
dac06	G		J31-14	J31-18	0 – 5V	0V	DAC_OUT_G SPARE
dac07	H		N/A	N/A	-	-	

ADC Green Blue A/D scaled Input 0 – 5V

Device	CH	Test Point	Grn.Board Connector	Blu.Board Connector	Voltage Range	Function
adc00	0		N/A	N/A	0 – 5V	N/A
adc01	1		J31-1	J31-5	0 – 5V	A_CH1 Spare
adc02	2		J31-2	J31-6	0 – 5V	A_CH2 Spare
adc03	3		J31-3	J31-7	0 – 5V	A_CH3 Spare
adc04	4		J31-4	J31-8	0 – 5V	A_CH4 Spare
adc05	5		J31-5	J31-9	0 – 5V	A_CH5 Spare
adc06	6		J31-6	J31-10	0 – 5V	A_CH6 Spare
adc07	7		N/A	N/A	0 – 5V	N/A
-	-		-	J31-3	12V	12V Power TUV Airway Pressure Board
-	-		-	J31-1	GND	12V Return
-	-		-	J31-4	12V	12V Power TUV Airway Pressure Board
-	-		-	J31-2	GND	12V Return

GPIO_ISO (VALVES)

Device	CH	VAL	Board Connector	Input/Output	Default Value	Function
dout00	0	0x0001	J30-5	Output	0V	VALVE1B_OUT Laryngo or L_Dorsalis
dout01	1	0x0002	J30-3	Output	0V	VALVE2B_OUT Airway Occl or L_Dorsalis

RHM Stack A
MOTHER Board - Continued -

GPIO

Device	ADDR	VAL	Board Connector	Input/Output	Default Value	Function
dout00	78	0x0001	J14-12	Output	0	GPIO_0 Tank Enable
dout01	70 72	0x6000 0x5000	J14-9	Output	0	GPIO_1 PWM – Bleed Upper
dout02	78		J14-10	Output	0	GPIO_2 Convulsion
dout03			J14-7	Output	0	GPIO_3 Spare
dout04	74 76	0x6000 0x5000	J14-8	Output	0	GPIO_4 PWM – Bleed Lower
dout05			J14-5	Output	0	GPIO_5 Spare
dout06			J14-6	Output	0	GPIO_6 Spare
dout07			J14-3	Output	0	GPIO_7 Spare
dout08			-	Output	0	GPIO_8 SD Card (Low = Inserted)
din00			-	Input	-	GPIO_0 SD Card (Low = Inserted)
din01			J14-20	Input	-	GPIO_1 Spare (GPI 0 on schematics)
din02			J14-17	Input	-	GPIO_2 Spare (GPI 1 on schematics)
din03			J14-18	Input	-	GPIO_3 Spare (GPI 2 on schematics)
din04			J14-15	Input	-	GPIO_4 Spare (GPI 3 on schematics)
din05			J14-16	Input	-	GPIO_5 Spare (GPI 4 on schematics)
din06			J14-13	Input	-	GPIO_6 Spare (GPI 5 on schematics)
din07			J14-14	Input	-	GPIO_7 Spare (GPI 6 on schematics)
din08			J14-11	Input	-	GPIO_8 Spare (GPI 7 on schematics)

E-FIELD

Device	CH	Test Point	Board Connector	Function
efs00	1		J9-2	E-FIELD SENSOR_1 L_Pop
efs01	2		J9-4	E-FIELD SENSOR_2 R_Pop
efs02	3		J9-6	E-FIELD SENSOR_3 L_Tibial
efs03	4		J9-8	E-FIELD SENSOR_4 R_Tibial
efs04	5		J9-10	E-FIELD SENSOR_5 L_Dorsalis
efs05	6		J9-12	E-FIELD SENSOR_6 R_Dorsalis Spare
efs06	7		J9-14	E-FIELD SENSOR_7 Spare

RS232 Communication

Device	CH	Test Point	Board Connector	Function
com00			J29	RS232 (Five Wire) Spare
			J4	RS232 (Three Wire) CON3 WVL Serial Interface

RHM Stack A

DACS Board (Analog)

DAC 0 (ECG)

Device	CH	Test Point	Board Connector	Voltage Range	Default Value	Function	
ecg00	A		N/A	0 – 5V		Self Test	
ecg01	B		J6-20	0 – 19mV	2.5mV	DAC1_OUTB	Spare
ecg02	C		J6-18	0 – 19mV	2.5mV	DAC1_OUTC	ECG_RA <i>mv Output</i>
ecg03	D		J6-16	0 – 19mV	2.5mV	DAC1_OUTD	ECG_C <i>mv Output</i>
ecg04	E		J6-14	0 – 19mV	2.5mV	DAC1_OUTE	Spare
ecg05	F		J6-21	0 – 19mV	2.5mV	DAC1_OUTF	Spare
ecg06	G		J6-19	0 – 19mV	2.5mV	DAC1_OUTG	ECG_LL <i>mv Output</i>
ecg07	H		J6-17	0 – 19mV	2.5mV	DAC1_OUTH	ECG_LA <i>mv Output</i>

DAC 1

Device	CH	Test Point	Board Connector	Voltage Range	Default Value	Function	
dac00	A		J6-10	0 – 5V	0V	DAC2_OUT_A	<i>Standard Output (TSC) LA</i>
dac01	B		N/A	0 – 5V	0V	DAC2_OUT_B	Self Test
dac02	C		J6-8	0 – 5V	0V	DAC2_OUT_C	Spare
dac03	D		J6-6	0 – 5V	0V	DAC2_OUT_D	Spare
dac04	E		J6-4	0 – 5V	0V	DAC2_OUT_E	Spare
dac05	F		J6-13	0 – 5V	0V	DAC2_OUT_F	Spare
dac06	G		J6-11	0 – 5V	0V	DAC2_OUT_G	<i>Standard Output (TSC) RA</i>
dac07	H		J6-9	0 – 5V	0V	DAC2_OUT_H	Spare

DAC 2

Device	CH	Test Point	Board Connector	Voltage Range	Default Value	Function	
dac08	A		J6-2	0 – 5V	0V	DAC3_OUT_A	SPARE
dac09	B		J6-5	0 – 5V	0V	DAC3_OUT_B	Spare
dac10	C		N/A	0 – 5V	0V	DAC3_OUT_C	Spare
dac11	D		J6-3	0 – 5V	0V	DAC3_OUT_D	Spare
dac12	E		J6-1	0 – 5V	0V	DAC3_OUT_E	Spare
dac13	F		N/A	0 – 5V	0V	DAC3_OUT_F	Spare
dac14	G		N/A	0 – 5V	0V	DAC3_OUT_G	Spare
dac15	H		N/A	0 – 5V	0V	DAC3_OUT_H	ECG Reference Voltage (19mv)

RHM Stack A

DACS Board - Continued -

ADC 0

A/D scaled Input 0 – 10V

Device	CH	Test Point	Board Connector	Voltage Range	Function	
adc00	0		N/A	0 – 10V	ADC1_0_IN	Self Test
adc01	1		J9-26	0 – 10V	ADC1_1_IN	Pace Amplitude
adc02	2		J9-25	0 – 10V	ADC1_2_IN	Defib Amplitude
adc03	3		J9-24	0 – 10V	ADC1_3_IN	Spare
adc04	4		J9-23	0 – 10V	ADC1_4_IN	Spare / *Chest Compression Potentiometer
adc05	5		J9-22	0 – 10V	ADC1_5_IN	Sensor,Chest Compression / *Hand Placement
adc06	6		J9-21	0 – 10V	ADC1_6_IN	Left Eye Light Sense
adc07	7		J9-20	0 – 12V	ADC1_7_IN	Right Eye Light Sense

* Latest configuration Production or Rib Cage Upgrade

ADC 1

A/D scaled Input 0 – 5V

Device	CH	Test Point	Board Connector	Voltage Range	Function	
adc08	0		N/A	0 – 5V	ADC2_0_IN	Self Test
adc09	1		J9-7	0 – 5V	ADC2_1_IN	ch2 From Operational Amp (Muxed AMP 1 to 4)
adc10	2		J9-6	0 – 5V	ADC2_2_IN	ch3 Left Needle Decompression Sense
adc11	3		J9-5	0 – 5V	ADC2_3_IN	ch4 Right Needle Decompression Sense
adc12	4		J9-4	0 – 5V	ADC2_4_IN	ch5 Spare
adc13	5		J9-3	0 – 5V	ADC2_5_IN	ch6 SPO2
adc14	6		N/A	0 – 5V	ADC2_6_IN	Self Test
adc15	7		N/A	0 – 5V	ADC2_7_IN	Self Test

AMP_ADC

Mux and Differential Amp to ADC2_1 (Instrument Amp)

Device	CH	Test Point	Board Connector	Voltage Range	Function	
amp01	1B		J9-18	0 – 5V	AMP_01_B	Spare
	1A		J9-17		AMP_01_A	Spare
amp02	2B		J9-16	0 – 5V	AMP_02_B	Spare
	2A		J9-15		AMP_02_A	Spare
amp03	3B		J9-14	0 – 5V	AMP_03_B	Hemorrhage Sense Lower (B) Data 2
	3A		J9-13		AMP_03_A	Hemorrhage Sense Lower (A) Data 2
amp04	4B		J9-12	0 – 5V	AMP_04_B	Hemorrhage Sense Upper (B) Data 3
	4A		J9-11		AMP_04_A	Hemorrhage Sense Upper (A) Data 3

Threshold for tourniquet occurs at 0x4B00 Hex as displayed on viewer after Amplification.

(0x4B00 = 1200 decimal = 1.46V)

RHM Stack A

DACS Board - Continued -

GPIO_ISO (Valve)

Device	CH	VAL	Board Connector	Input/Output	Default Value	Function	
dout00	Grp1-0	0x0001	J7-30	Output	0V	VALVE1B_OUT (SIG)	Sphincter
dout01	Grp1-1	0x0002	J7-28	Output	0V	VALVE2B_OUT (SIG)	Bronch Occl R
dout02	Grp1-2	0x0004	J7-26	Output	0V	VALVE3B_OUT (SIG)	Bronch Occl L
dout03	Grp1-3	0x0008	J7-24	Output	0V	VALVE4B_OUT (SIG)	Needle Rt
dout04	Grp1-4	0x0010	J7-22	Output	0V	VALVE5B_OUT (SIG)	Needle L
dout05	Grp1-5	0x0020	J7-20	Output	0V	VALVE6B_OUT (SIG)	EXHAUST RT
dout06	Grp1-6	0x0040	J7-18	Output	0V	VALVE7B_OUT (SIG)	DRIVE RHT 2
dout07	Grp1-7	0x0080	J7-16	Output	0V	VALVE8B_OUT (SIG)	DRIVE RHT 1
dout08	Grp1-8	0x0100	J7-14	Output	0V	VALVE9B_OUT (SIG)	EXHAUST LFT
dout09	Grp1-9	0x0200	J7-12	Output	0V	VALVE10B_OUT (SIG)	DRIVE LFT 2
dout10	Grp1-10	0x0400	J7-10	Output	0V	VALVE11B_OUT (SIG)	DRIVE LFT 1
dout11	Grp1-11	0x0800	J7-7	Output	0V	VALVE12B_OUT (SIG)	CO2
dout12	Grp1-12	0x1000	J7-8	Output	0V	VALVE13B_OUT (SIG)	TONGUE
dout13	Grp1-13	0x2000	J7-6	Output	0V	VALVE14B_OUT (SIG)	SPARE
dout14	Grp1-14	0x4000	J7-4	Output	0V	VALVE15B_OUT (SIG)	SPARE
dout15	Grp1-15	0x8000	J8-25	Output	0V	VALVE16B_OUT (SIG)	RIGHT_TIBIAL
dout16	Grp2-0	0x0001	J8-23	Output	0V	VALVE17B_OUT (SIG)	RIGHT_POPLITEAL
dout17	Grp2-1	0x0002	J8-21	Output	0V	VALVE18B_OUT (SIG)	RIGHT_FEMORAL
dout18	Grp2-2	0x0004	J8-19	Output	0V	VALVE19B_OUT (SIG)	RIGHT_BRACHIA
dout19	Grp2-3	0x0008	J8-17	Output	0V	VALVE20B_OUT (SIG)	RIGHT_RADIAL
dout20	Grp2-4	0x0010	J8-15	Output	0V	VALVE21B_OUT (SIG)	LEFT_RADIAL
dout21	Grp2-5	0x0020	J8-13	Output	0V	VALVE22B_OUT (SIG)	LEFT_BRACHIAL
dout22	Grp2-6	0x0040	J8-11	Output	0V	VALVE23B_OUT (SIG)	LEFT_FEMORAL
dout23	Grp2-7	0x0080	J8-9	Output	0V	VALVE24B_OUT (SIG)	LEFT_POPLITEAL
dout24	Grp2-8	0x0100	J8-7	Output	0V	VALVE25B_OUT (SIG)	LEFT_TIBIAL
dout25	Grp2-9	0x0200	J8-5	Output	0V	VALVE26B_OUT (SIG)	CAROTID_PULSE

GPIO 5V

Device	Addr	VAL	Board Connector	Input/Output	Default Value	Function	
dout24	40	0x0001	J11-3	Output	0V	GPIO_1_5V	Spare
dout25	40	0x0002	J11-4	Output	0V	GPIO_2_5V	Spare
dout26	40	0x0003	J11-5	Output	0V	GPIO_3_5V	Spare
dout27	40	0x0004	J11-6	Output	0V	GPIO_4_5V	Spare
dout28	40	0x0005	J11-7	Output	0V	GPIO_5_5V	Spare
dout29	40	0x0006	J11-8	Output	0V	GPIO_6_5V	Spare
din00	40	0x0001	J11-9	Input	-	GPIO1_5V	Spare
din01	40	0x0002	J11-10	Input	-	GPIO2_5V	Spare
din02	40	0x0003	J11-11	Input	-	GPIO3_5V	Spare
din03	40	0x0004	J11-12	Input	-	GPIO4_5V	Spare
din04	40	0x0005	J11-13	Input	-	GPIO5_5V	Spare
din05	40	0x0006	J11-14	Input	-	GPIO6_5V	Spare

RHM Stack A

DACS Board - Continued -

GPIO 3.3V

Device	Addr	VAL	Board Connector	Input/Output	Default Value	Function
dout30	Grp1-6	0x0007	J15-15	Output	0V	GPIO_7_3V3 TSC RESET
dout31	40	0x0008	J15-14	Output	0V	GPIO_8_3V3 Spare
dout32	40	0x0009	J15-13	Output	0V	GPIO_9_3V3 Spare
dout33	40	0x000A	J15-12	Output	0V	GPIO_10_3V3 Spare
dout34	40	0x000B	J15-11	Output	0V	GPIO_11_3V3 Spare
dout35	40	0x000C	J15-10	Output	0V	GPIO_12_3V3 Spare
dout36	40	0x000D	J15-21	Output	0V	GPIO_13_3V3 Spare
dout37	40	0x000E	J15-8	Output	0V	GPIO_14_3V3 Spare
dout38	40	0x000F	J15-7	Output	0V	GPIO_15_3V3 Spare
din08	40	0x0007	J15-24	Input	-	GPIO_7_3V3 R_ChestTube_Sense
din09	40	0x0008	J15-22	Input	-	GPIO_8_3V3 L_ChestTube_Sense
din10	40	0x0009	J15-20	Input	-	GPIO_9_3V3 Carotid_Pulse_Sense
din11	40	0x000A	J15-18	Input	-	GPIO_10_3V3 L_Eye_Home_Sense
din12	40	0x000B	J15-16	Input	-	GPIO_11_3V3 R_Eye_Home_Sense
din13	40	0x000C	J15-23	Input	-	GPIO_12_3V3 Spare
din14	40	0x000D	J15-21	Input	-	GPIO_13_3V3 Spare
din15	40	0x000E	J15-19	Input	-	GPIO_14_3V3 Spare
din16	40	0x000F	J15-17	Input	-	GPIO_15_3V3 Spare

STEPPER DRIVER

Device	CH	Test Point	Board Connector		
smc00			J10-22	STEPPER1_HOME_IN	N/U
			J10-20	STEPPER1_QUAD2_IN	L_Eye
			J10-18	STEPPER1_QUAD1_IN	L_Eye
			J10-16	STEPPER1_PHASE1_OUT	L_Eye
			J10-14	STEPPER1_PHASE2_OUT	L_Eye
			J10-12	STEPPER1_I11_OUT	L_Eye
			J10-10	STEPPER1_I01_OUT	L_Eye
smc01			J10-21	STEPPER2_HOME_IN	N/U
			J10-19	STEPPER2_QUAD2_IN	R_Eye
			J10-17	STEPPER2_QUAD1_IN	R_Eye
			J10-15	STEPPER2_PHASE1_OUT	R_Eye
			J10-13	STEPPER2_PHASE2_OUT	R_Eye
			J10-11	STEPPER2_I11_OUT	R_Eye
			J10-9	STEPPER2_I01_OUT	R_Eye

RHM Stack A

DACS Board - Continued –

E-FIELD

Device	CH	Test Point	Board Connector	Function	
efs00	1		J12-4	E-FIELD SENSOR_1	L_Brachial Sense
efs01	2		J12-6	E-FIELD SENSOR_2	R_Brachial Sense
efs02	3		J12-8	E-FIELD SENSOR_3	L_Radial Sense
efs03	4		J12-10	E-FIELD SENSOR_4	R_Radial Sense
efs04	5		J12-12	E-FIELD SENSOR_5	L_Femoral Sense
efs05	6		J12-14	E-FIELD SENSOR_6	R_Femoral Sense
efs06	7		J12-16	E-FIELD SENSOR_7	Spare Sense

RHM Stack B
MOTHER Board

DAC **Green** **Blue**

Device	CH	Test Point	Grn.Board Connector	Blu.Board Connector	Voltage Range	Default Value	Function
dac00	A		J31-8	J31-12	0 – 5V	0V	DAC_OUT_A COMPRESSOR CONTROL
dac01	B		J31-7	J31-11	0 – 5V	0V	DAC_OUT_B Spare
dac02	C		J31-12	J31-16	0 – 5V	0V	DAC_OUT_C Spare
dac03	D		J31-9	J31-13	0 – 5V	0V	DAC_OUT_D Spare
dac04	E		J31-10	J31-14	0 – 5V	0V	DAC_OUT_E Spare
dac05	F		J31-11	J31-15	0 – 5V	0V	DAC_OUT_F Spare
dac06	G		J31-14	J31-18	0 – 5V	0V	DAC_OUT_G Spare
dac07	H		N/A	N/A	-	-	

ADC **Green** **Blue** *A/D Scaled Input 0 – 5V*

Device	CH	Test Point	Grn.Board Connector	Blu.Board Connector	Voltage Range	Function		
adc00	0		N/A	N/A	0 – 5V			
adc01	1		J31-1	J31-5	0 – 5V	A_CH1	L Airway Pressure Sense	
adc02	2		J31-2	J31-6	0 – 5V	A_CH2	R Airway Pressure Sense	
adc03	3		J31-3	J31-7	0 – 5V	A_CH3	L BP Cuff Sense	
adc04	4		J31-4	J31-8	0 – 5V	A_CH4	R BP Cuff Sense	
adc05	5		J31-5	J31-9	0 – 5V	A_CH5	Compressor Pressure Sense	
adc06	6		J31-6	J31-10	0 – 5V	A_CH6	Battery Monitor	
adc07	7		N/A	N/A	0 – 5V			
-	-		-	J31-3	12V	12V Power	TUV	Airway Pressure Board
-	-		-	J31-1	GND	12V Return		
-	-		-	J31-4	12V	12V Power	TUV	Airway Pressure Board
-	-		-	J31-2	GND	12V Return		

GPIO_ISO (VALVE)

Device	CH	Test Point	Board Connector	Input/Output	Default Value	Function		
dout00	1		J30-5	Output	0V	VALVE1B_OUT	L_Eyelid	
dout01	2		J30-3	Output	0V	VALVE2B_OUT	R_Eyelid	

E-FIELD

Device	CH	Test Point	Board Connector	Function			
efs00	1		J9-2	E-FIELD_SENSOR_1	Spare		
efs01	2		J9-4	E-FIELD_SENSOR_2	Spare		
efs02	3		J9-6	E-FIELD_SENSOR_3	Spare		
efs03	4		J9-8	E-FIELD_SENSOR_4	Spare		
efs04	5		J9-10	E-FIELD_SENSOR_5	Spare		
efs05	6		J9-12	E-FIELD_SENSOR_6	Spare		
efs06	7		J9-14	E-FIELD_SENSOR_7	Spare		

RHM Stack B
MOTHER Board - Continued -

GPIO

Device	CH	Test Point	Board Connector	Input/Output	Default Value	Function
dout00			J14-12	Output	0	GPIO_0 PSTAT (High = Communication)
dout01			J14-9	Output	0	GPIO_1 Spare
dout02			J14-10	Output	0	GPIO_2 Spare
dout03			J14-7	Output	0	GPIO_3 Spare
dout04			J14-8	Output	0	GPIO_4 Spare
dout05			J14-5	Output	0	GPIO_5 Spare
dout06			J14-6	Output	0	GPIO_6 Spare
dout07			J14-3	Output	0	GPIO_7 Spare
dout08		-		Output	0	GPIO_8 SD Card (Low = inserted)
din00		-		Input	-	GPIO_0 SD Card (Low = inserted)
din01			J14-20	Input	-	GPIO_1 Spare DC Status (GPI 0 on schematics)
din02			J14-17	Input	-	GPIO_2 Spare (GPI 1 on schematics)
din03			J14-18	Input	-	GPIO_3 Spare (GPI 2 on schematics)
din04			J14-15	Input	-	GPIO_4 Spare (GPI 3 on schematics)
din05			J14-16	Input	-	GPIO_5 Spare (GPI 4 on schematics)
din06			J14-13	Input	-	GPIO_6 Spare (GPI 5 on schematics)
din07			J14-14	Input	-	GPIO_7 Spare (GPI 6 on schematics)
din08			J14-11	Input	-	GPIO_8 Spare (GPI 7 on schematics)

RS232 Communication

Device	CH	Test Point	Board Connector	Function
com00			J29	RS232 (Five Wire) Spare
			J4	RS232 (Three Wire) CON3 Spare

RHM Stack B

AUDIO Board

SOUND

Device	CH	Test Point	Board Connector	Function	
cdc00	1		P4-3	THROAT SOUNDS	Sound Channel (ch1)
cdc01	2		P4-5	HEART SOUNDS, UPPER 1	Sound Channel (ch2)
cdc02	3		P4-9	Heart Sounds, Upper 2	Sound Channel (ch3)
cdc03	4		P4-13	BREATH SOUNDS, CHEST, UPPER, LFT	Sound Channel (ch4)
cdc04	5		P4-17	BREATH SOUNDS, CHEST, UPPER, RT	Sound Channel (ch5)
cdc05	6		P4-21	Breath Sounds, Chest, Lower, Lft	Sound Channel (ch6)
cdc06	7		P4-25	Breath Sounds, Chest, Lower, Rt	Sound Channel (ch7)
cdc07	8		P4-27	Spare	Sound Channel (ch8)
cdc08	9		P3-9	BREATH SOUND, BACK,UPPER,LFT	Sound Channel (ch9)
cdc09	10		P3-11	Breath Sound, Back,Upper,Rt	Sound Channel (ch10)
cdc10	11		P3-15	Karotkoff Sound, Lft	Sound Channel (ch11)
cdc11	12		P3-19	Karotkoff Sound, Rt	Sound Channel (ch12)
cdc12	13		P3-23	BOWEL SOUND, I	Sound Channel (ch13)
cdc13	14		P3-27	Bowel Sound, II	Sound Channel (ch14)
cdc14	15		P3-31	Bowel Sound, III	Sound Channel (ch15)
cdc15	16		P3-33	BOWEL SOUND, IV	Sound Channel (ch16)
cdc16	17		P4-1	Voice / Mix	Sound Channel (ch17)
cdc17	18		P4-1	MIX	Sound Channel (ch18)
cdc18	19		P3-7	SPARE / MIX	Sound Channel (ch19)
cdc19	20		P3-7	MIX	Sound Channel (ch20)

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**Calibration numbers used for
Airway Sense and NIBP Sense
boards used on both METman /Apollo
and iStan.**

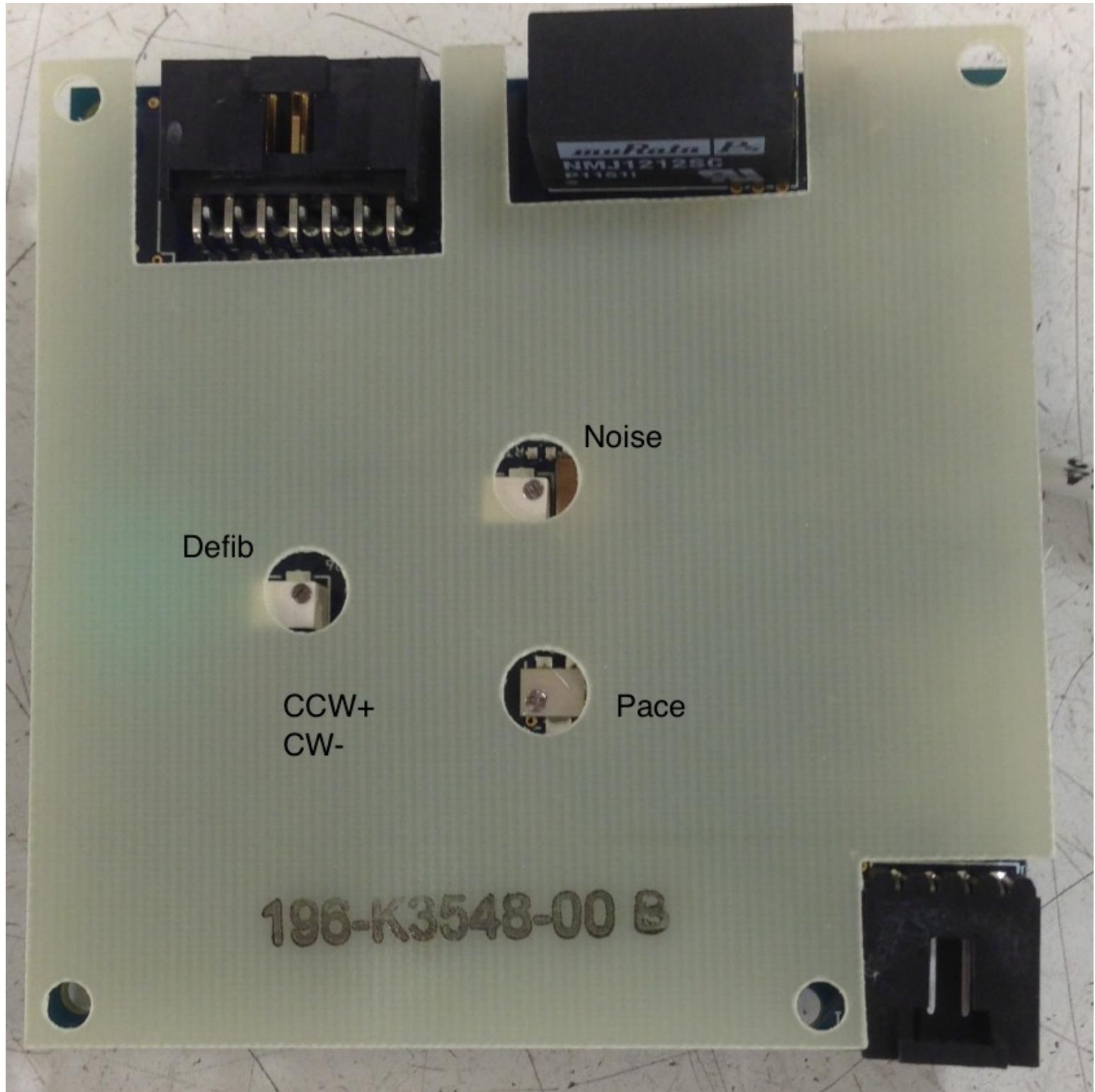
AIRWAY SENSE

PSI	cmH2O	MIN. V	MAX V.
0.0	0.0	0.000	0.400
0.4	28.1	2.270	3.050
1.0	70.3	6.080	7.020
1.4	98.4	8.620	9.660
1.8	126.6	11.600	12.000

NIBP SENSE

PSI	mmHg	MIN. V	MAX V.
0.0	0.0	0.078	0.325
0.5	25.9	0.381	0.642
2.0	103.4	1.291	1.593
4.0	206.9	2.504	2.861
7.0	362.0	4.320	4.760

TSC Calibration Pots



**Do not adjust the "Noise" pot. It has been calibrated for minimum signal noise level.
Turn Counter Clockwise to increase measured value. Clockwise to reduce.**

1

2

3

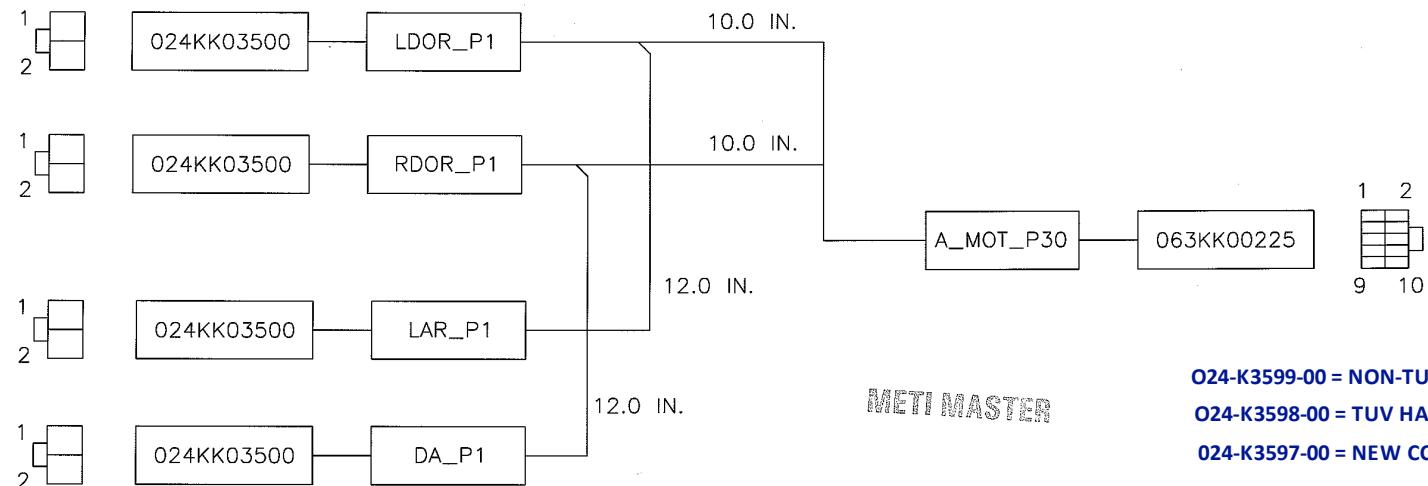
4

WIRE LIST

FROM	TO	COLOR	ITEM #	FUNCTION
P30-3	RDOR_P1-2	WH	ITEM X	R_DORSALIS PULSE (VALVE2B_OUT)
P30-4	RDOR_P1-1	WH/YL		R_DORSALIS PULSE (VALVE2A_OUT) (POWER)
RDOR_P1-2	DA_P1-2	WH		DA (AIRWAY OCCLUDER)
RDOR_P1-1	DA_P1-1	WH/YL		DA (AIRWAY OCCLUDER) (POWER)
P30-5	LDOR_P1-2	WH		L_DORSALIS PULSE (VALVE1B_OUT)
P30-6	LDOR_P1-1	WH/YL		L_DORSALIS PULSE (VALVE1A_OUT) (POWER)
LDOR_P1-2	LAR_P1-2	WH		LAR (LARYNGOSPASM)
LDOR_P1-1	LAR_P1-1	WH/YL		LAR (LARYNGOSPASM) (POWER)

REV	ECO DESCRIPTION	DATE	NAME
	PRELIMINARY	03/22/10	JCR
2	ECO #1431, ADDED CABLES TO HARNESS	03/18/11	GRH
3	ECO #1447, CHANGED LENGTH OF CABLE	05/02/11	GRH
D	ECO #1524, UPDATE BOM, ADD K3531	08/24/11	TY

D



C

B

A

REFER TO DOCUMENT 905-K3512-14_REV B TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.

METIman & Apollo

CONFIG -00	NEXT ASSY NO. 253-K5300-00	USED ON O.D.	FINISH: N/A	MATERIAL: N/A	METI TM P.O. Box 3041 Sarasota, Fl. 34230		
APPLICATION			UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING REMOVE ALL BURRS AND SHARP EDGES				
PROPRIETARY NOTICE			SURFACE TEXTURE: N/A TOLERANCES: XX=± .25 XXX=± N/A ANG=± N/A	CHECKED D. GITZLER DATE Q.A. APVD	ENG APVD C. MILEHAM MFG/TEST APVD	DATE	CA, METIMAN CABLES, OPERATION DISRUPT
					SIZE B	DWG. NO. 024-K3599-00	REV. D
					SCALE NONE		SHEET 1 OF 34

1

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3

4

1

2

3

4

WIRE LIST

FROM	TO	COLOR	ITEM #	FUNCTION
P14-12	PC_P27-1	WH	ITEM X	TANK ENABLE
P14-10	PC_P27-3	WH/YL		CONVULSION
P14-9	PC_P27-9	WH		PWM BLEED UPPER
P14-8	PC_P27-11	WH/YL		PWM BLEED LOWER

D

D

C

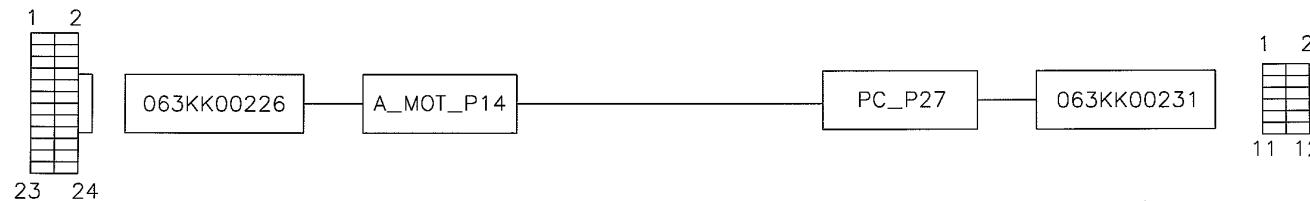
C

B

B

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REFER TO DOCUMENT 905-K3513-14_REV B TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.

METI ™		P.O. Box 3041 Sarasota, Fl. 34230
SIZE	DWG. NO.	REV.
B	024-K3599-00	D
SCALE	NONE	SHEET 2 OF 34

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WIRE LIST

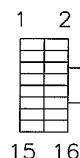
FROM	TO	COLOR	ITEM #	FUNCTION
P9-1	E-LPOP_J1-2	COAX	ITEM X	SHIELD PIGTAIL
P9-2	E-LPOP_J1-1	COAX		LEFT POPPLEAL
P9-3	E-RPOP_J2-2	COAX		SHIELD PIGTAIL
P9-4	E-RPOP_J2-1	COAX		RIGHT POPPLEAL
P9-5	E-LTIB_J3-2	COAX		SHIELD PIGTAIL
P9-6	E-LTIB_J3-1	COAX		LEFT TIBIAL SENSE
P9-7	E-RTIB_J4-2	COAX		SHIELD PIGTAIL
P9-8	E-RTIB_J4-1	COAX		RIGHT TIBIAL SENSE
P9-9	E-LDOR_J5-2	COAX		SHIELD PIGTAIL
P9-10	E-LDOR_J5-1	COAX		LEFT DORSALIS SENSE
P9-11	E-RDOR_J6-2	COAX		SHIELD PIGTAIL
P9-12	E-RDOR_J6-1	COAX		RIGHT DORSALIS SENSE

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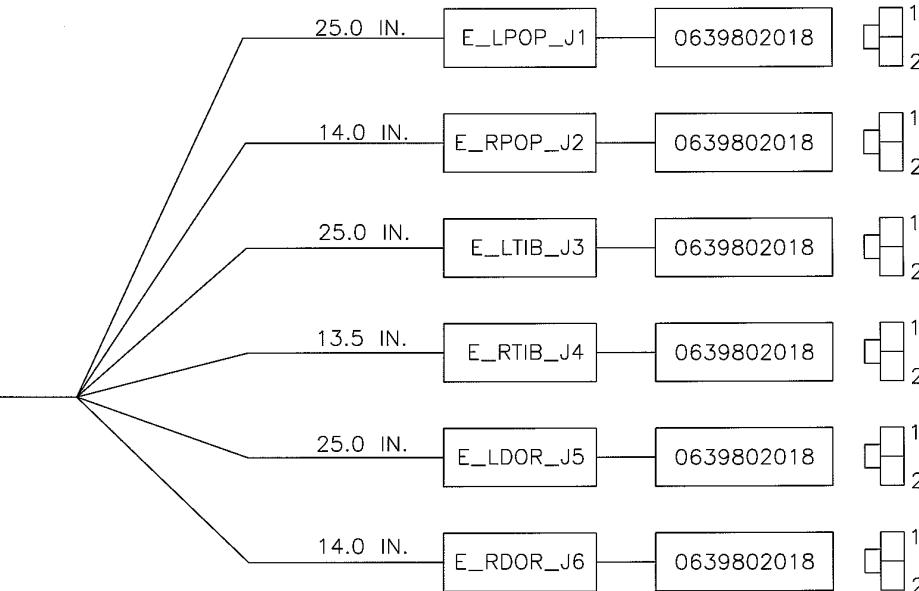
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063KK00220

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REFER TO DOCUMENT 905-K3514-14_REV B TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.

METI TM		P.O. Box 3041 Sarasota, Fl. 34230
SIZE	DWG. NO.	REV.
B	024-K3599-00	D
SCALE	NONE	SHEET 3 OF 34

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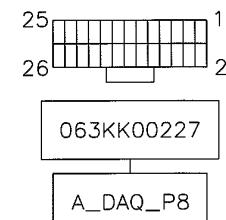
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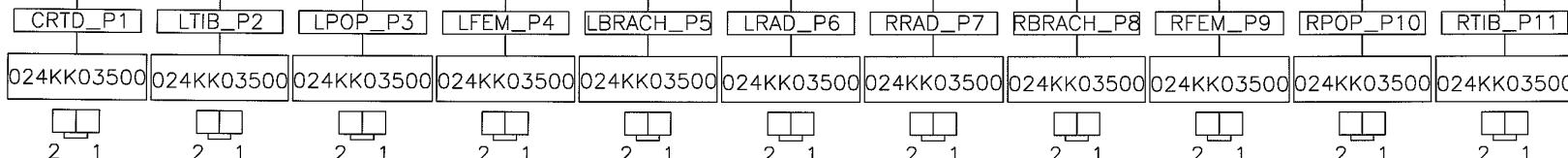
WIRE LIST

FROM	TO	COLOR	ITEM #	FUNCTION
DAC_P8-5	CRTD_P1-2 (-)	WH	ITEM X	CAROTID_PULSE
DAC_P8-6	CRTD_P1-1 (+)	WH/YL		CAROTID_PULSE (POWER)
DAC_P8-7	LTIB_P2-2 (-)	WH		LEFT_TIBIAL
DAC_P8-8	LTIB_P2-1 (+)	WH/YL		LEFT_TIBIAL (POWER)
DAC_P8-9	LPOP_P3-2 (-)	WH		LEFT_POPLITEAL
DAC_P8-10	LPOP_P3-1 (+)	WH/YL		LEFT_POPLITEAL (POWER)
DAC_P8-11	LFEM_P4-2 (-)	WH		LEFT_FEMORAL
DAC_P8-12	LFEM_P4-1 (+)	WH/YL		LEFT_FEMORAL (POWER)
DAC_P8-13	LBRACH_P5-2 (-)	WH		LEFT_BRACHIAL
DAC_P8-14	LBRACH_P5-1 (+)	WH/YL		LEFT_BRACHIAL (POWER)
DAC_P8-15	LRAD_P6-2 (-)	WH		LEFT_RADIAL
DAC_P8-16	LRAD_P6-1 (+)	WH/YL		LEFT_RADIAL (POWER)
DAC_P8-17	RRAD_P7-2 (-)	WH		RIGHT_RADIAL
DAC_P8-18	RRAD_P7-1 (+)	WH/YL		RIGHT_RADIAL (POWER)
DAC_P8-19	RBRACH_P8-2 (-)	WH		RIGHT_BRACHIAL
DAC_P8-20	RBRACH_P8-1 (+)	WH/YL		RIGHT_BRACHIAL (POWER)
DAC_P8-21	RFEM_P9-2 (-)	WH		RIGHT_FEMORAL
DAC_P8-22	RFEM_P9-1 (+)	WH/YL		RIGHT_FEMORAL (POWER)
DAC_P8-23	RPOP_P10-2 (-)	WH		RIGHT_POPLITEAL
DAC_P8-24	RPOP_P10-1 (+)	WH/YL		RIGHT_POPLITEAL (POWER)
DAC_P8-25	RTIB_P11-2 (-)	WH		RIGHT_TIBIAL
DAC_P8-26	RTIB_P11-1 (+)	WH/YL		RIGHT_TIBIAL (POWER)



14.0 IN.

9.5 IN.



REFER TO DOCUMENT 905-K3515-14_REV C TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.



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WIRE LIST

FROM	TO	COLOR	ITEM #	FUNCTION
DAC_P7-4	SPARE_P1-2	WH/GY	ITEM X	SPARE_P1
DAC_P7-2	SPARE_P1-1	WH/GY		SPARE_P1 (POWER)
DAC_P7-6	SPARE_P2-2	WH/GY		SPARE_P2
DAC_P7-3	SPARE_P2-1	WH/GY		SPARE_P2 (POWER)
DAC_P7-8	ST_P1-2 (-)	WH/GY		TONGUE
DAC_P7-5	ST_P1-1 (+)	WH/GY		TONGUE (POWER)
DAC_P7-7	CO2_P1-2 (-)	WH		CO2 (EMS)
DAC_P7-9	CO2_P1-1 (+)	WH/YL		CO2 (EMS) (POWER)
DAC_P7-10	LCD_P1-1	WH		CHEST DRIVE LFT 1
DAC_P7-11	LCD_P1-2	WH/YL		CHEST DRIVE LFT 1 (POWER)
DAC_P7-12	LCD_P1-3	WH		CHEST DRIVE LFT 2
DAC_P7-13	LCD_P1-4	WH/YL		CHEST DRIVE LFT 2 (POWER)
DAC_P7-14	LCD_P1-5	WH		CHEST EXHAUST LFT
C	DAC_P7-15	LCD_P1-6	WH/YL	CHEST EXHAUST LFT (POWER)
DAC_P7-16	RCD_P2-1	WH		CHEST DRIVE RHT 1
DAC_P7-17	RCD_P2-2	WH/YL		CHEST DRIVE RHT 1 (POWER)
DAC_P7-18	RCD_P2-3	WH		CHEST DRIVE RHT 2
DAC_P7-19	RCD_P2-4	WH/YL		CHEST DRIVE RHT 2 (POWER)
DAC_P7-20	RCD_P2-5	WH		CHEST EXHAUST RHT
DAC_P7-21	RCD_P2-6	WH/YL		CHEST EXHAUST RHT (POWER)
DAC_P7-22	ND_P1-2	WH		NEEDLE DECOM LFT
DAC_P7-23	ND_P1-1	WH/YL		NEEDLE DECOM LFT (POWER)
DAC_P7-24	ND_P1-4	WH		NEEDLE DECOM RHT
B	DAC_P7-25	ND_P1-3	WH/YL	NEEDLE DECOM RHT (POWER)
DAC_P7-26	BRO_P1-2	WH		BRONCH OCCLUDER LFT
DAC_P7-27	BRO_P1-1	WH/YL		BRONCH OCCLUDER LFT (POWER)
DAC_P7-28	BRO_P2-2	WH		BRONCH OCCLUDER RHT
DAC_P7-29	BRO_P2-1	WH/YL		BRONCH OCCLUDER RHT (POWER)
DAC_P7-30	SPHINCT_P1-2 (-)	WH		SPHINCTER (NURSING)
DAC_P7-32	SPHINCT_P1-1 (+)	WH/YL		SPHINCTER (NURSING) (POWER)

REFER TO DOCUMENT 905-K3516-14_REV C TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.

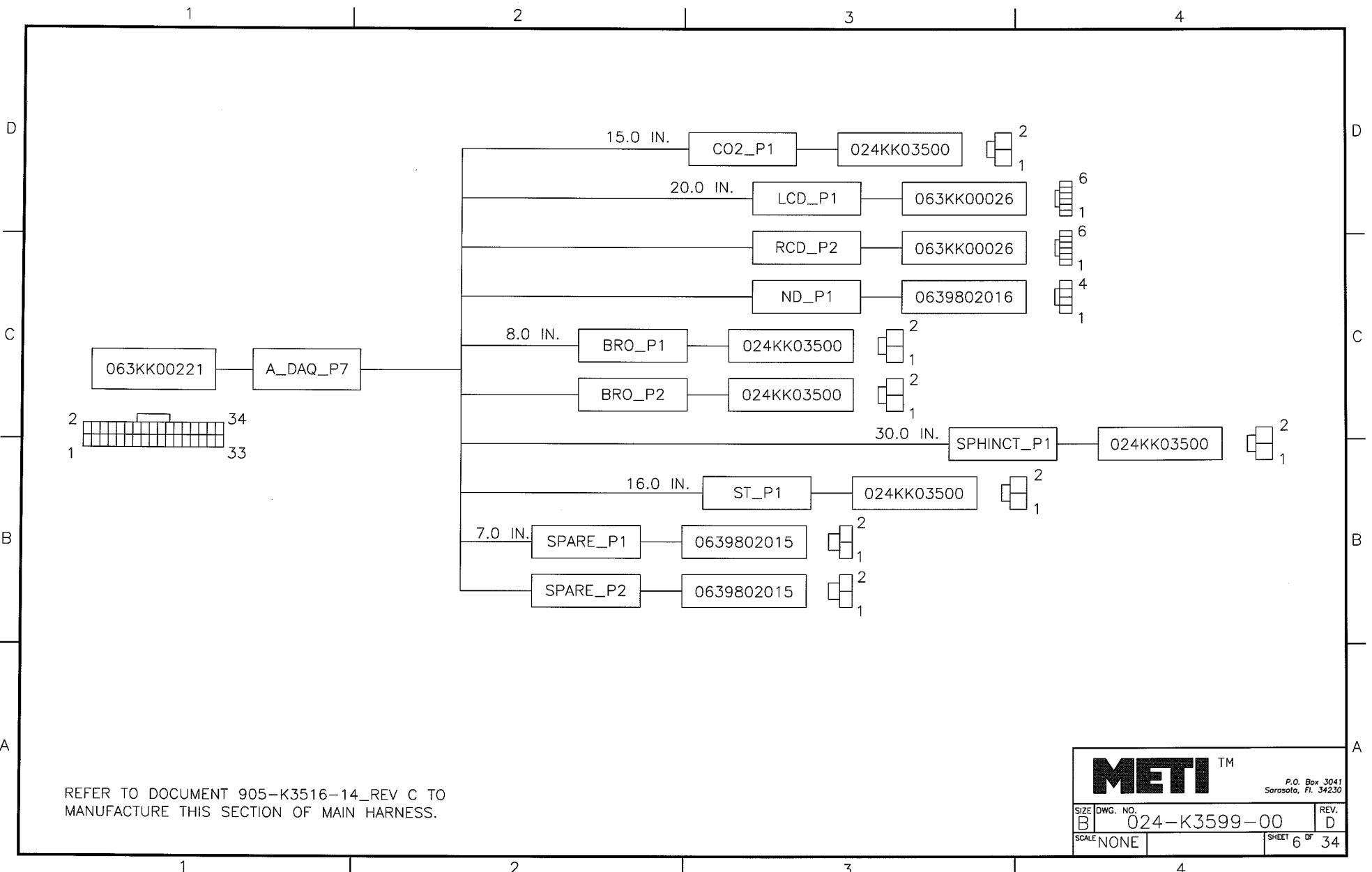
METI ™		P.O. Box 3041 Sarasota, Fl. 34230	
SIZE	DWG. NO.	REV.	D
B	024-K3599-00	SCALE	NONE
SHEET 5 OF 34			

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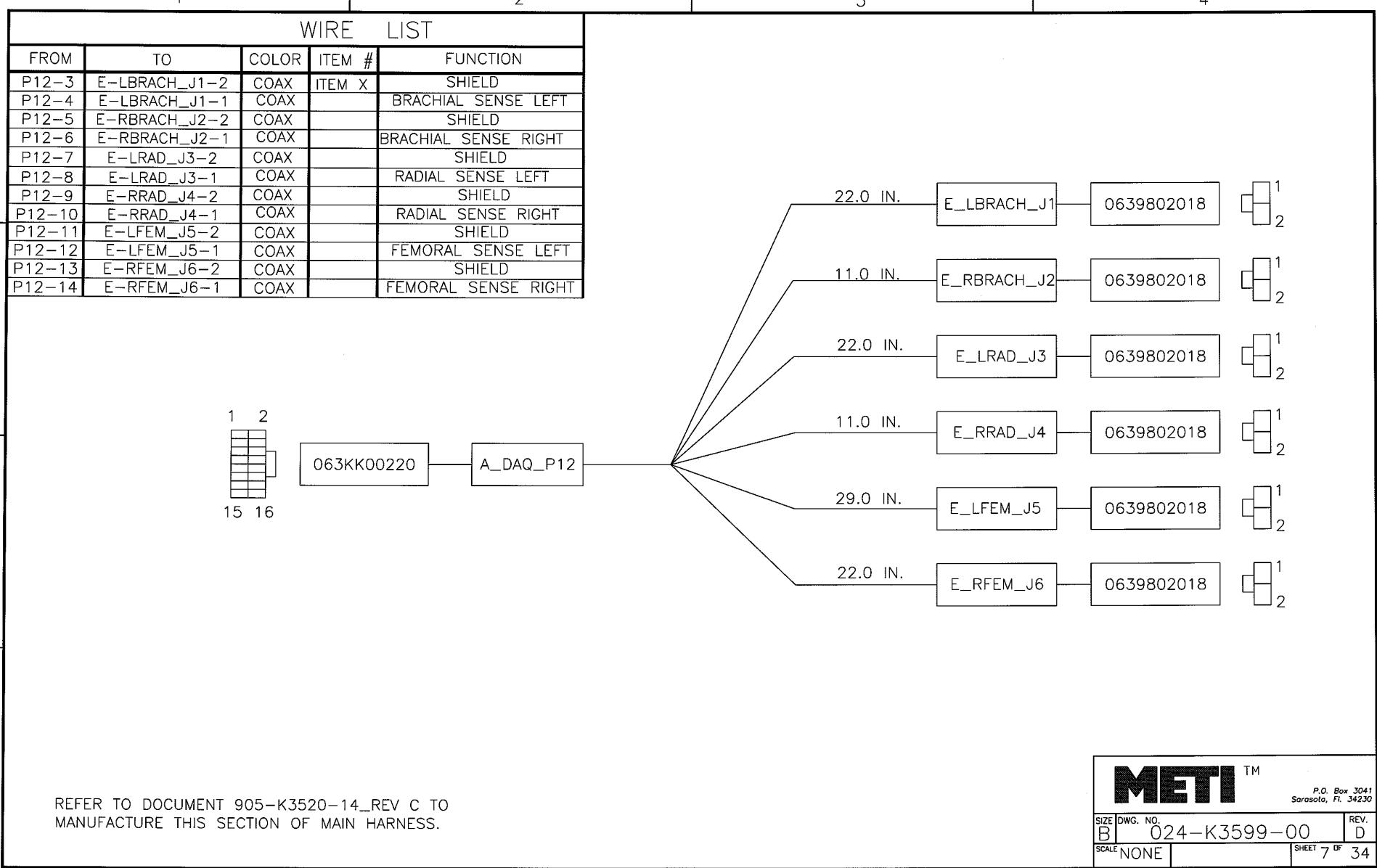
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METI™
P.O. Box 3041
Sarasota, Fl. 34230

SIZE	DWG. NO.	REV.
B	024-K3599-00	D
SCALE	NONE	SHEET 6 OF 34



REFER TO DOCUMENT 905-K3520-14_REV C TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.



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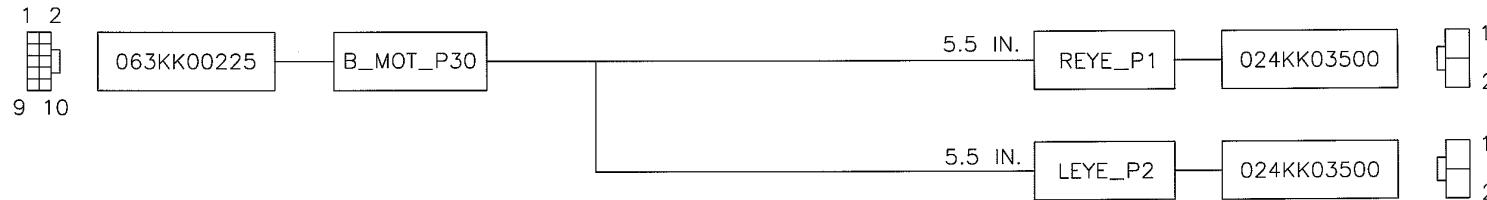
WIRE LIST				
FROM	TO	COLOR	ITEM #	FUNCTION
P30-3	REYE_P1-2	WH	ITEM X	R EYELID
P30-4	REYE_P1-1	WH/YL		R EYELID (POWER)
P30-5	LEYE_P2-2	WH		L EYELID
P30-6	LEYE_P2-1	WH/YL		L EYELID (POWER)

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REFER TO DOCUMENT 905-K3522-14_REV B TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.

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P.O. Box 3041
Sarasota, Fl. 34230

SIZE	DWG. NO.	REV.
B	024-K3599-00	D
SCALE	NONE	SHEET 8 OF 34

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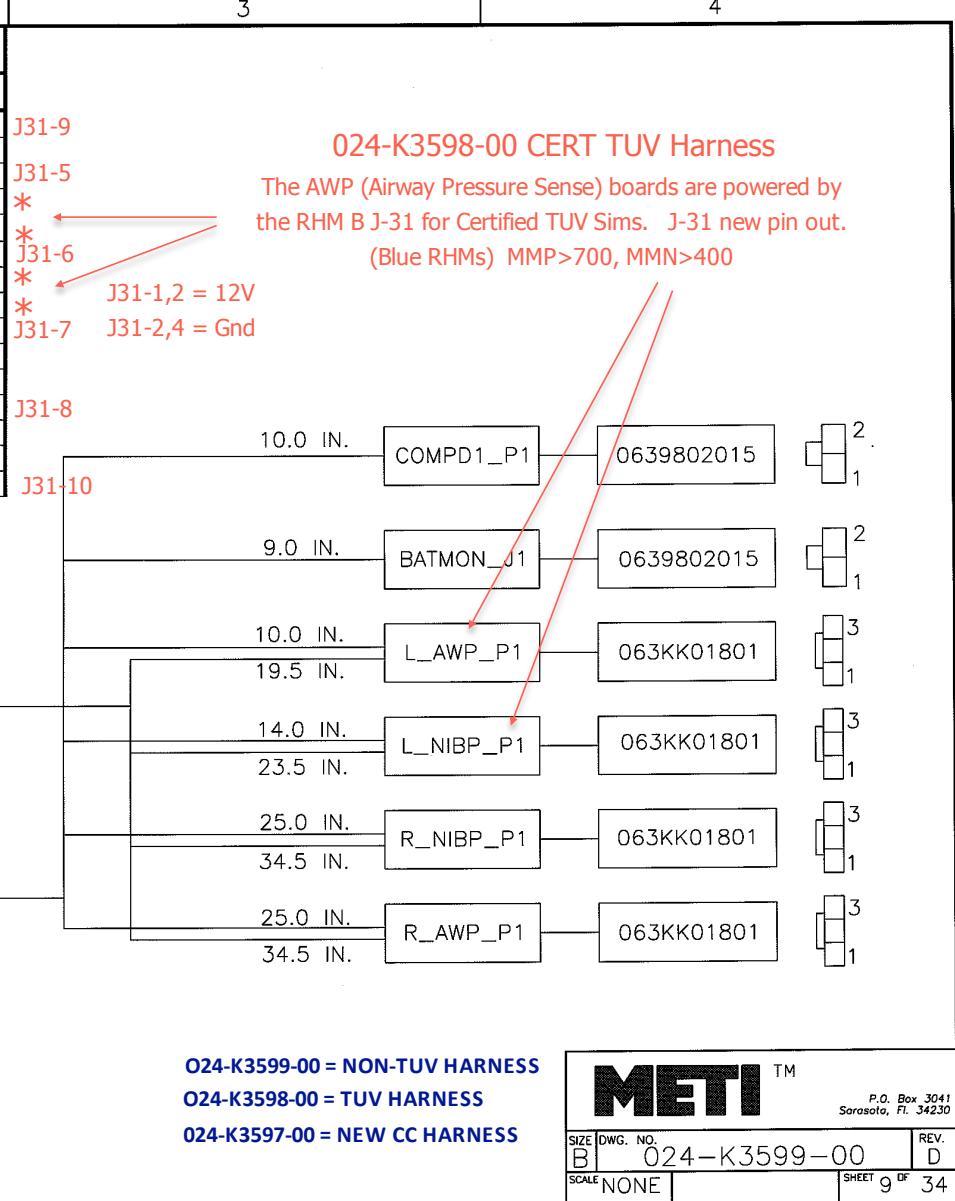
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WIRE LIST				
FROM	TO	COLOR	ITEM #	FUNCTION
MOT_P31-5	COMPDI_P1-1	WH	ITEM X	COMPRESSOR_SENSE (A_CH5)
MOT_P31-8	COMPDI_P1-2	WH		COMPRESSOR_CONTROL (DAC_OUTA)
MOT_P31-1	L_AWP_P1-1	WH		L_AIRWAY (A_CH1)
PC_P20-1	L_AWP_P1-2	GN		RTN (L_AIRWAY SENSOR BOARD)
PC_P20-7	L_AWP_P1-3	YL/GN		12V PWR (L_AIRWAY SENSOR BOARD)
MOT_P31-2	R_AWP_P1-1	WH		R_AIRWAY (A_CH2)
PC_P20-2	R_AWP_P1-2	GN		RTN (R_AIRWAY SENSOR BOARD)
PC_P20-8	R_AWP_P1-3	YL/GN		12V PWR (R_AIRWAY SENSOR BOARD)
MOT_P31-3	L_NIBP_P1-3	WH		L_BP_CUFF (A_CH3)
PC_P20-3	L_NIBP_P1-2	GN		RTN (L_NIBP SENSOR BOARD)
PC_P20-9	L_NIBP_P1-1	YL/GN		12V PWR (L_NIBP SENSOR BOARD)
MOT_P31-4	R_NIBP_P1-3	WH		R_BP_CUFF (A_CH4)
PC_P20-4	R_NIBP_P1-2	GN		RTN (R_NIBP SENSOR BOARD)
PC_P20-10	R_NIBP_P1-1	YL/GN		12V PWR (R_NIBP SENSOR BOARD)
MOT_P31-6	BATMON_J1-1	WH		BATTERY MONITOR (0-5V) (A_CH6)



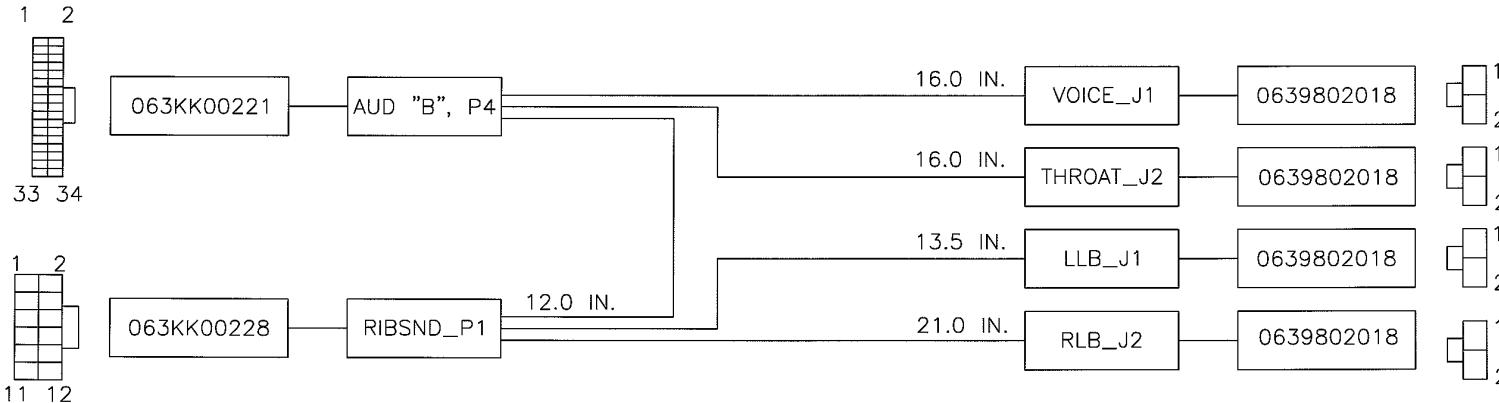
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REFER TO DOCUMENT 905-K3523-14_REV D TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.

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WIRE LIST

FROM	TO	COLOR	ITEM #	
AUD"B",P4-1	VOICE_J1-1	WH	ITEM X	VOICE AMPLIFIED SOUND CHANNEL(CH16/17)
AUD"B",P4-2	VOICE_J1-2	GN		GND-AUDIO
AUD"B",P4-3	THROAT_J2-1	WH		THROAT, AMPLIFIED SOUND CHANNEL(CH0)
AUD"B",P4-4	THROAT_J2-2	GN		GND-AUDIO
AUD"B",P4-5	RIB SND_P1-1	WH		HEART-UPPER, AMPLIFIED SOUND CHANNEL(CH1)
AUD"B",P4-6	RIB SND_P1-7	GN		GND-AUDIO
AUD"B",P4-9	RIB SND_P1-2	WH		HEART-LOWER, AMPLIFIED SOUND CHANNEL(CH2)
AUD"B",P4-10	RIB SND_P1-8	GN		GND-AUDIO
AUD"B",P4-13	RIB SND_P1-3	WH		BREATH-CHEST LEFT UPPER, AMPLIFIED SOUND CHANNEL(CH3)
AUD"B",P4-14	RIB SND_P1-9	GN		GND-AUDIO
AUD"B",P4-17	RIB SND_P1-4	WH		BREATH-CHEST RIGHT UPPER, AMPLIFIED SOUND CHANNEL(CH4)
AUD"B",P4-18	RIB SND_P1-10	GN		GND-AUDIO
AUD"B",P4-21	RIB SND_P1-5	WH		BREATH-CHEST LEFT LOWER, AMPLIFIED SOUND CHANNEL(CH5)
AUD"B",P4-22	RIB SND_P1-11	GN		GND-AUDIO
RIB SND_P1-5	LLB_J1-1	WH		BREATH-LEFT LOWER BACK
RIB SND_P1-11	LLB_J1-2	GN		GND-AUDIO
AUD"B",P4-25	RIB SND_P1-6	WH		BREATH-CHEST RIGHT LOWER, AMPLIFIED SOUND CHANNEL(CH6)
AUD"B",P4-26	RIB SND_P1-12	GN		GND-AUDIO
RIB SND_P1-6	RLB_J2-1	WH		BREATH-RIGHT LOWER BACK
RIB SND_P1-12	RLB_J2-2	GN		GND-AUDIO



REFER TO DOCUMENT 905-K3524-14_REV B TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.



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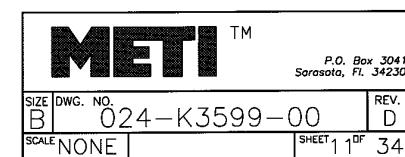
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WIRE LIST

FROM	TO	COLOR	ITEM #	FUNCTION
AUD"B",P3-9	LMB_J3-1	WH	ITEM X	BREATH-LEFT MIDDLE BACK, AMPLIFIED SOUND CHANNEL (CH8)
AUD"B",P3-10	LMB_J3-2	GN		GND-AUDIO
LMB_J3-1	LUB_J5-1	WH		BREATH-LEFT UPPER BACK (JUMPER)
LMB_J3-2	LUB_J5-2	GN		GND-AUDIO
AUD"B",P3-11	RMB_J4-1	WH		BREATH-RIGHT MIDDLE BACK, AMPLIFIED SOUND CHANNEL (CH9)
AUD"B",P3-12	RMB_J4-2	GN		GND-AUDIO
RMB_J4-1	RUB_J6-1	WH		BREATH-RIGHT UPPER BACK (JUMPER)
RMB_J4-2	RUB_J6-2	GN		GND-AUDIO
AUD"B",P3-15	LA_J1-1	WH		LEFT KOROTKOFF, AMPLIFIED SOUND CHANNEL (CH10)
AUD"B",P3-16	LA_J1-2	GN		GND-AUDIO
AUD"B",P3-19	RA_J1-1	WH		RIGHT KOROTKOFF, AMPLIFIED SOUND CHANNEL (CH11)
AUD"B",P3-20	RA_J1-2	GN		GND-AUDIO
AUD"B",P3-23	BWL_P1-1	WH		BOWEL-FIRST QUADRANT AMPLIFIED SOUND CHANNEL (CH12) BWL-Q1
AUD"B",P3-24	BWL_P1-2	GN		GND-AUDIO
AUD"B",P3-27	BWL_P1-3	WH		BOWEL-SECOND QUADRANT AMPLIFIED SOUND CHANNEL (CH13) BWL-Q2
AUD"B",P3-28	BWL_P1-4	GN		GND-AUDIO
AUD"B",P3-31	BWL_P1-5	WH		BOWEL-THIRD QUADRANT AMPLIFIED SOUND CHANNEL (CH14) BWL-Q3
AUD"B",P3-32	BWL_P1-6	GN		GND-AUDIO
AUD"B",P3-33	BWL_P1-7	WH		BOWEL-FOURTH QUADRANT AMPLIFIED SOUND CHANNEL (CH5) BWL-Q4
AUD"B",P3-34	BWL_P1-8	GN		GND-AUDIO

REFER TO DOCUMENT 905-K3525-14_REV D TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.

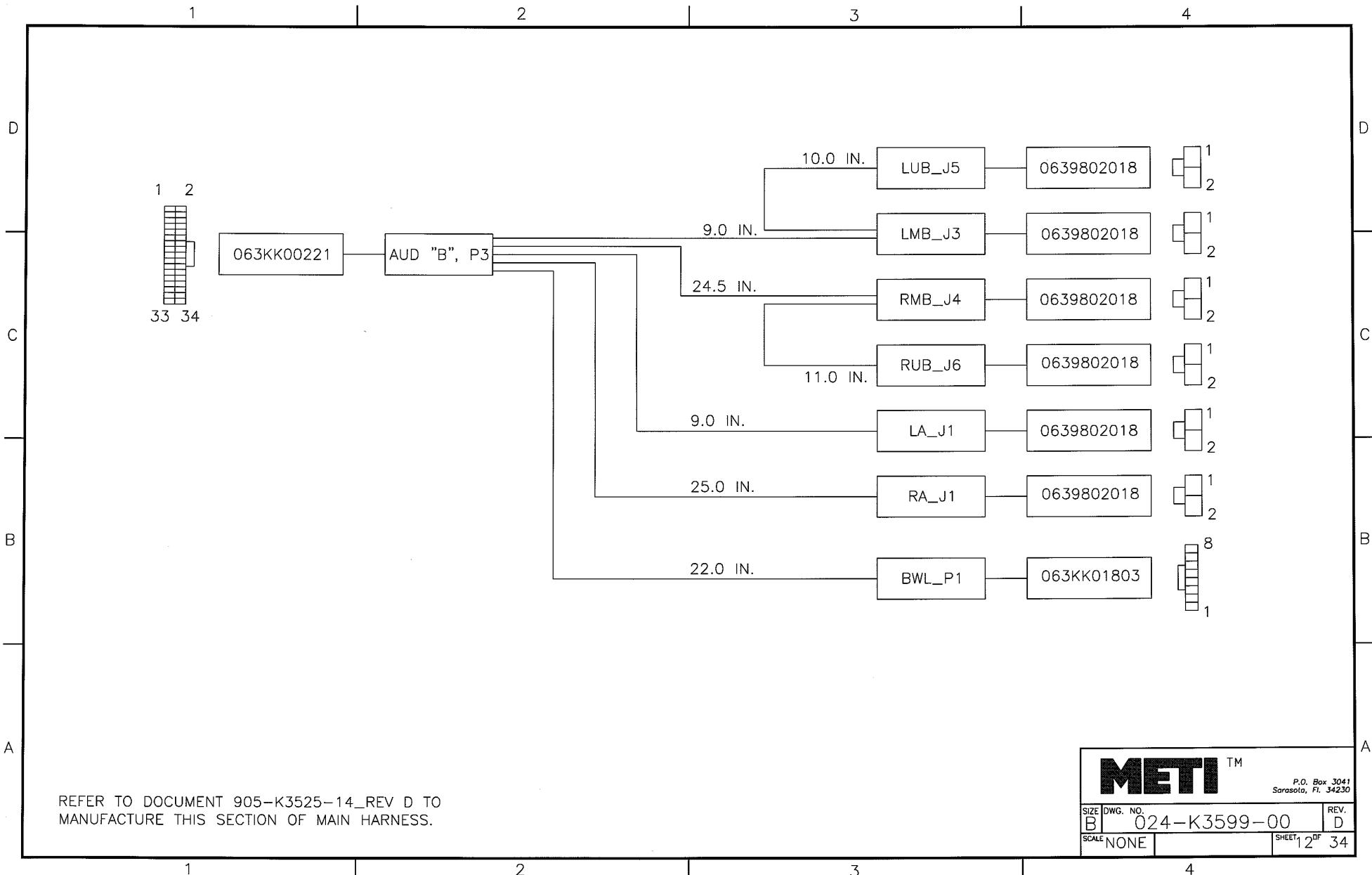


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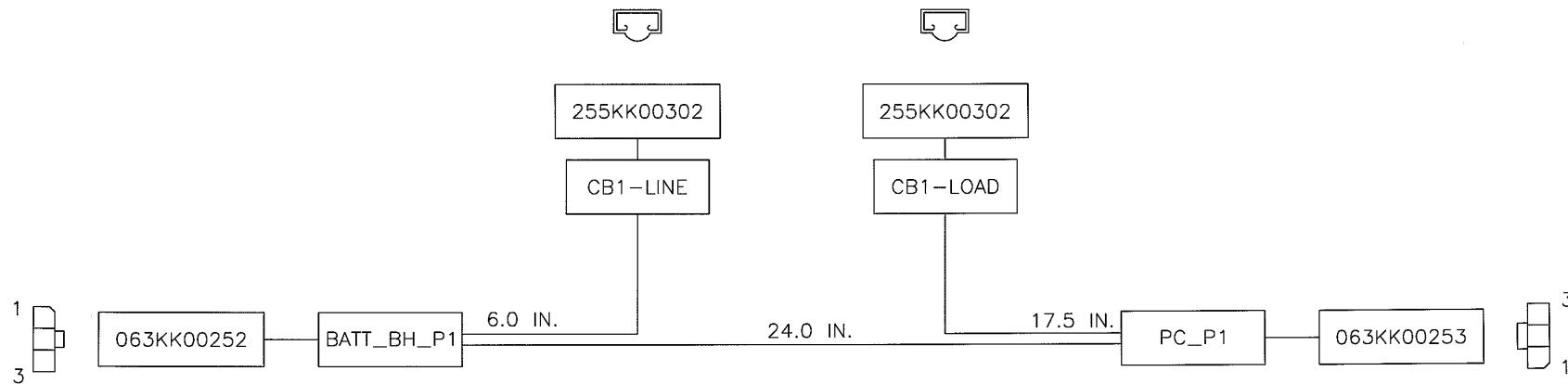
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WIRE LIST

FROM	TO	COLOR	ITEM #	FUNCTION
BATT_BH_P1-1	CB1-LINE	RD/BK	ITEM X	BULKHEAD BATTERY (+) PLUG-IN TO CIRCUIT BREAKER LINE INPUT 278-KK-00629
BATT_BH_P1-2	PC_P1-2	BK/WH		BULKHEAD BATTERY (-) PLUG-IN TO (-) BATT INPUT OF REGULATOR BOARD 276-KK-00641
CB1-LOAD	PC_P1-1	RD/BK		LOAD SIDE OF BREAKER TO BATTERY (+) INPUT OF REGULATOR BOARD 276-KK-00629



REFER TO DOCUMENT 905-K3529-14_REV C TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.



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WIRE LIST

FROM	TO	COLOR	ITEM #	FUNCTION
PC_P33-6	AMOT_P26-TIP	RD	ITEM X	+5V RHM "A" POWER
PC_P33-1	AMOT_P26-RING	BK		DC RTN
PC_P33-7	BMOT_P26-TIP	RD		+5V RHM "B" POWER
PC_P33-2	BMOT_P26-RING	BK		DC RTN

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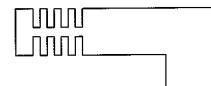
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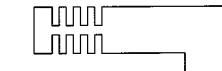
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14.0 IN.

BMOT_P26

024KK00092



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REFER TO DOCUMENT 905-K3533-14_REV B TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.

METI ™		P.O. Box 3041 Sarasota, Fl. 34230
SIZE	DWG. NO.	REV.
B	024-K3599-00	D
SCALE	NONE	SHEET 14 OF 34

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WIRE LIST

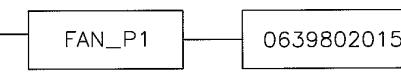
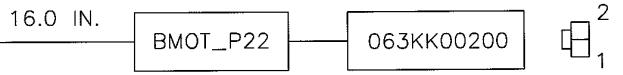
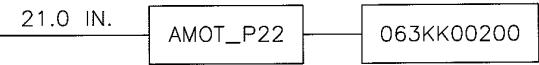
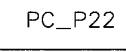
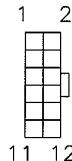
FROM	TO	COLOR	ITEM #	FUNCTION
PC_P22-7	AMOT_P22-1	YL	ITEM X	+12V RHM "A" VALVE CONTROL POWER
PC_P22-1	AMOT_P22-2	BK		DC RTN
PC_P22-8	BMOT_P22-1	YL		+12V RHM "B" VALVE CONTROL POWER
PC_P22-2	BMOT_P22-2	BK		DC RTN
PC_P22-12	FAN_P1-1	YL		+12V FAN
PC_P22-6	FAN_P1-2	BK		DC RTN

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REFER TO DOCUMENT 905-K3535-14_REV D TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.



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WIRE LIST

FROM	TO	COLOR	ITEM #	FUNCTION
MOOG_6	PC_P6-1	RD/BK	ITEM X	VSUPPLY #1
MOOG_6	PC_P6-2	RD/BK		VSUPPLY #2
MOOG_5	PC_P6-5	BK/WH		SUPPLY RTN # 1
MOOG_5	PC_P6-6	BK/WH		SUPPLY RTN # 2

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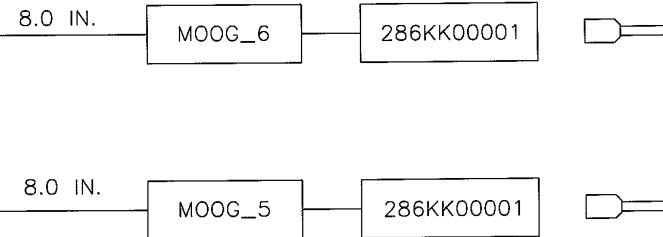
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PC_P6



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REFER TO DOCUMENT 905-K3538-14_REV D TO
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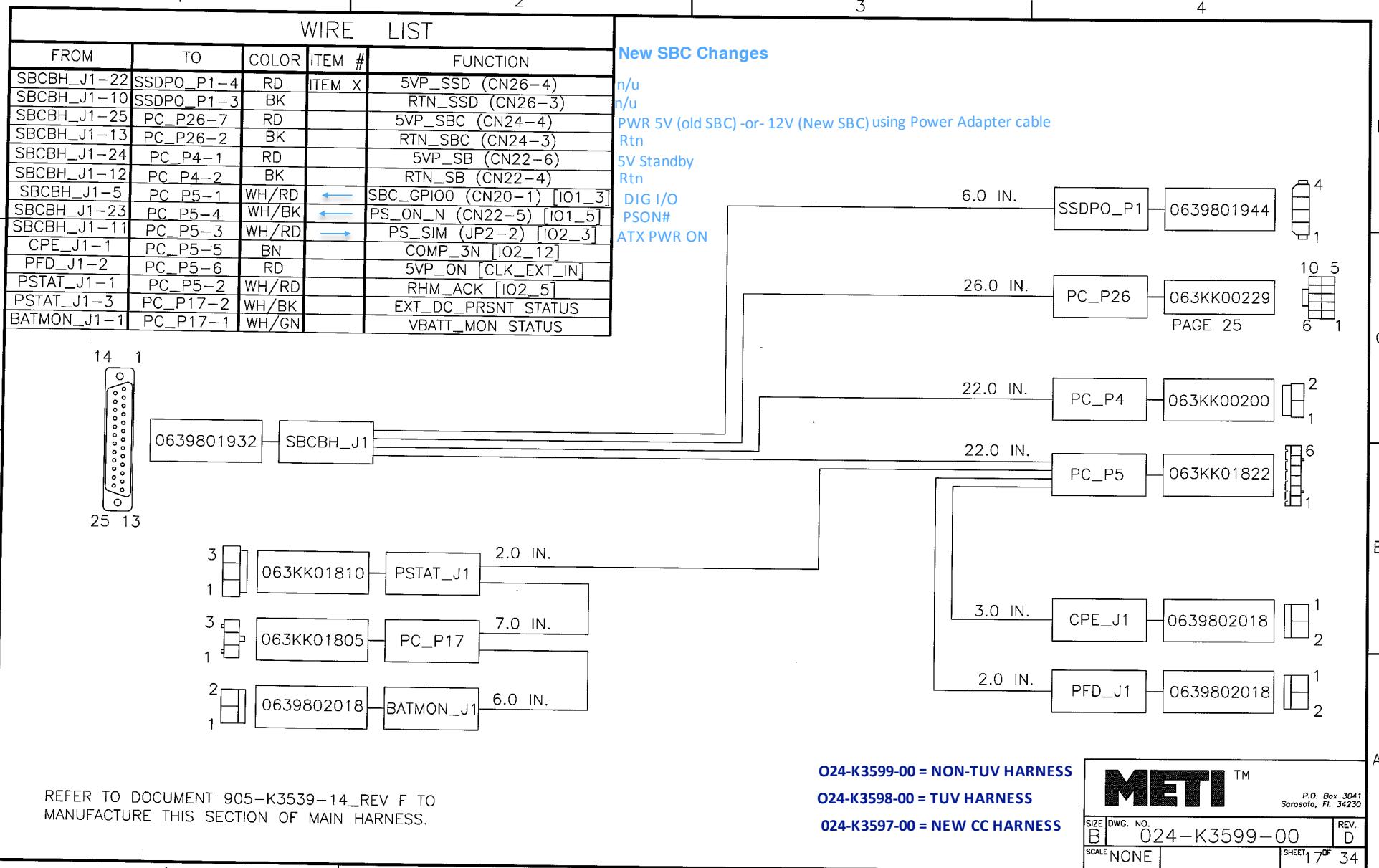
METI ™		P.O. Box 3041 Sarasota, Fl. 34230
SIZE	DWG. NO.	REV.
B	024-K3599-00	D
SCALE	NONE	SHEET 16 OF 34

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WIRE LIST

FROM	TO	COLOR	ITEM #	FUNCTION
AUD_B_P10-1	WVOICE_P1-3	WH	ITEM X	VOICE, AMPLIFIED SOUND CHANNEL (CH16/17)
AUD_B_P10-2	WVOICE_P1-4	GN		GND-AUDIO
PC_P19-7	WVOICE_P1-1	YL		+12V WIRELESS RECEIVER POWER
PC_P19-1	WVOICE_P1-2	BK		DC RTN

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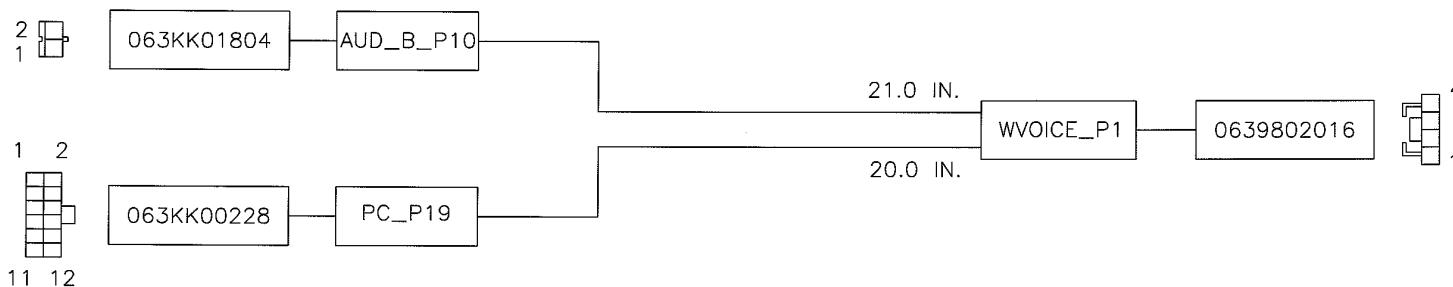
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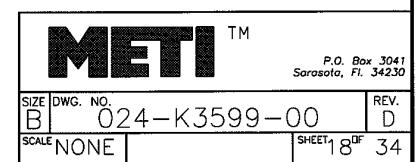
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REFER TO DOCUMENT 905-K3541-14_REV D TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.



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WIRE LIST

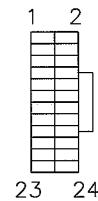
FROM	TO	COLOR	ITEM #	FUNCTION
B_MOT_P11-16	P2-CENTER	STRIPE	ITEM 1	5VP
B_MOT_P11-22	P2-OUTER	BLACK	ITEM 1	GND

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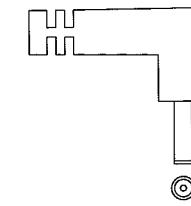
063KK00226

B_MOT_P11

18.0 IN.

WVL_P14

063KK00138



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REFER TO DOCUMENT 905-K3569-14_REV A TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.

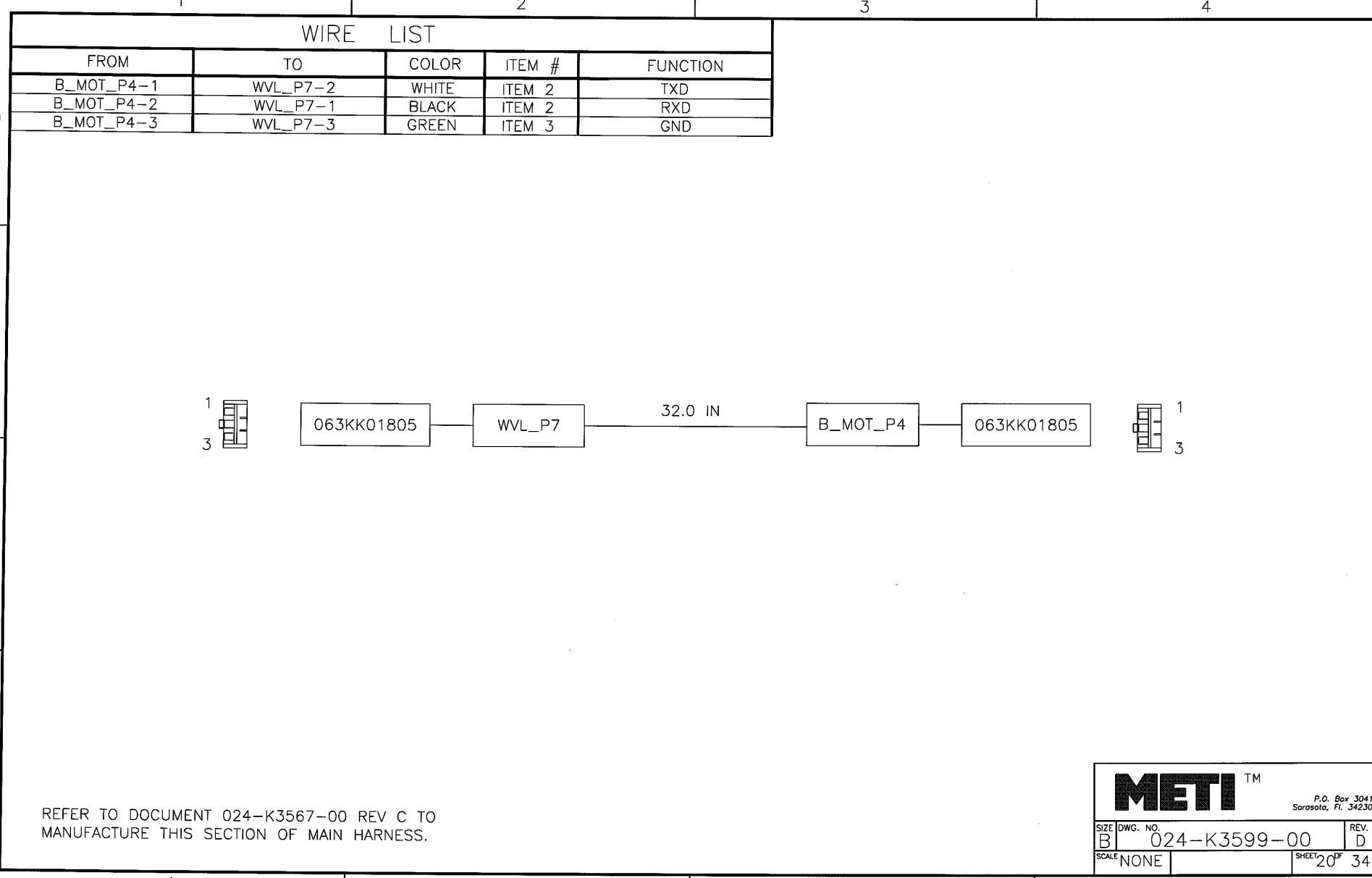
SIZE	DWG. NO.	P.O. Box 3041 Sarasota, Fl. 34230	REV.
B	024-K3599-00		D
SCALE	NONE	SHEET 19 OF	34

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WIRE LIST

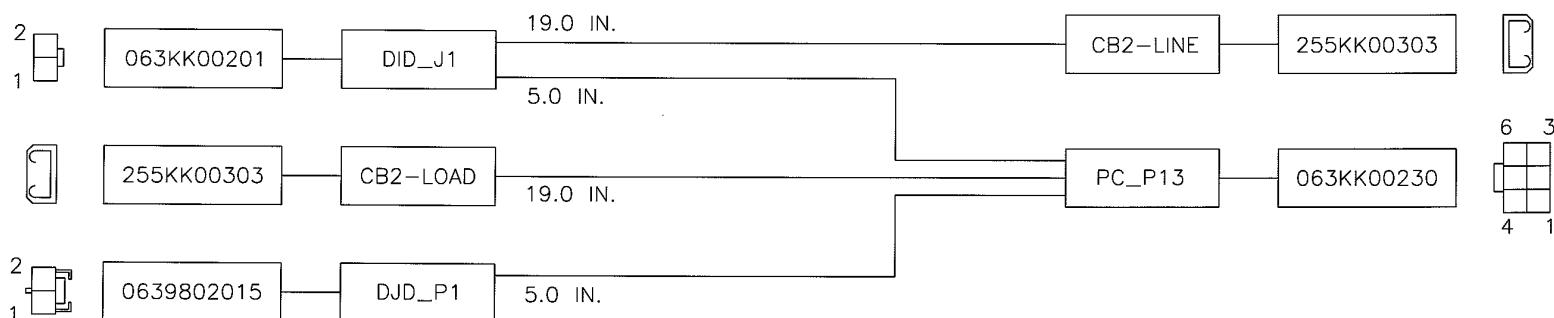
FROM	TO	COLOR	ITEM #	FUNCTION
DID_J1-1	CB2-LINE	RD/BK		DC(+) DISCONNECT PLUG-IN TO CIRCUIT BREAKER #2 LINE INPUT
DID_J1-2	PC_P13-1	BK/WH		DC(-) DISCONNECT PLUG-IN TO DC(-) INPUT OF POWER CONTROL BOARD
CB2-LOAD	PC_P13-2	RD/BK		LOAD SIDE OF BREAKER TO BOTH (+) DC INPUT OF POWER CONTROL BOARD
DJD_P1-1	PC_P13-3	WH/BK		DC_PLUGGED_IN_N
DJD_P1-2	PC_P13-6	WH		PB_3V3P_REF

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REFER TO DOCUMENT 905-K3551-14_REV E TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.



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WIRE LIST

FROM	TO	COLOR	ITEM #	FUNCTION
A_DAQ_P15-24	R_CT_P1-1	WH	ITEM X	CHEST TUBE SENSE RIGHT (GPI7_3V3)
A_DAQ_P11-16	R_CT_P1-2	WH/BK		GND (RETURN)
R_CT_P1-2	L_CT_P1-2	WH/BK		GND (RETURN)
A_DAQ_P15-22	L_CT_P1-1	WH		CHEST TUBE SENSE LEFT (GPI8_3V3)
A_DAQ_P15-20	CPS_J1-1	WH		CAROTID PULSE SENSE (GPI9_3V3)
A_DAQ_P11-18	CPS_J1-2	WH/BK		GND (RETURN)
A_DAQ_P10-1	REYES_P7-2	WH/GY		GND_ISOLATED
A_DAQ_P10-3	REYES_P7-14	WH/GY		GND_ISOLATED
A_DAQ_P10-8	REYES_P7-13	WH		5V_ISOLATED
A_DAQ_P10-9	REYES_P7-12	WH		STEPPER2I01
A_DAQ_P10-10	REYES_P7-8	WH		STEPPER1I01
A_DAQ_P10-11	REYES_P7-11	WH		STEPPER2I11
A_DAQ_P10-12	REYES_P7-7	WH		STEPPER1I11
A_DAQ_P10-13	REYES_P7-10	WH		STEPPER2_PHASE2
A_DAQ_P10-14	REYES_P7-6	WH		STEPPER1_PHASE2
A_DAQ_P10-15	REYES_P7-9	WH		STEPPER2_PHASE1
A_DAQ_P10-16	REYES_P7-5	WH		STEPPER1_PHASE1
A_DAQ_P10-24	REYES_P7-1	YL/GY		12V_ISOLATED
A_DAQ_P15-16	REYES_P7-4	WH		STEPPER2_HOME (GPI11_3V3) RIGHT EYE
A_DAQ_P15-18	REYES_P7-3	WH		STEPPER1_HOME (GPI10_3V3) LEFT EYE
A_DAQ_P15-15	TSCRD_P1-1	WH/GN		TSC RESET [GPIO_7_3V3]

REFER TO DOCUMENT 905-K3557-14_REV F TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.

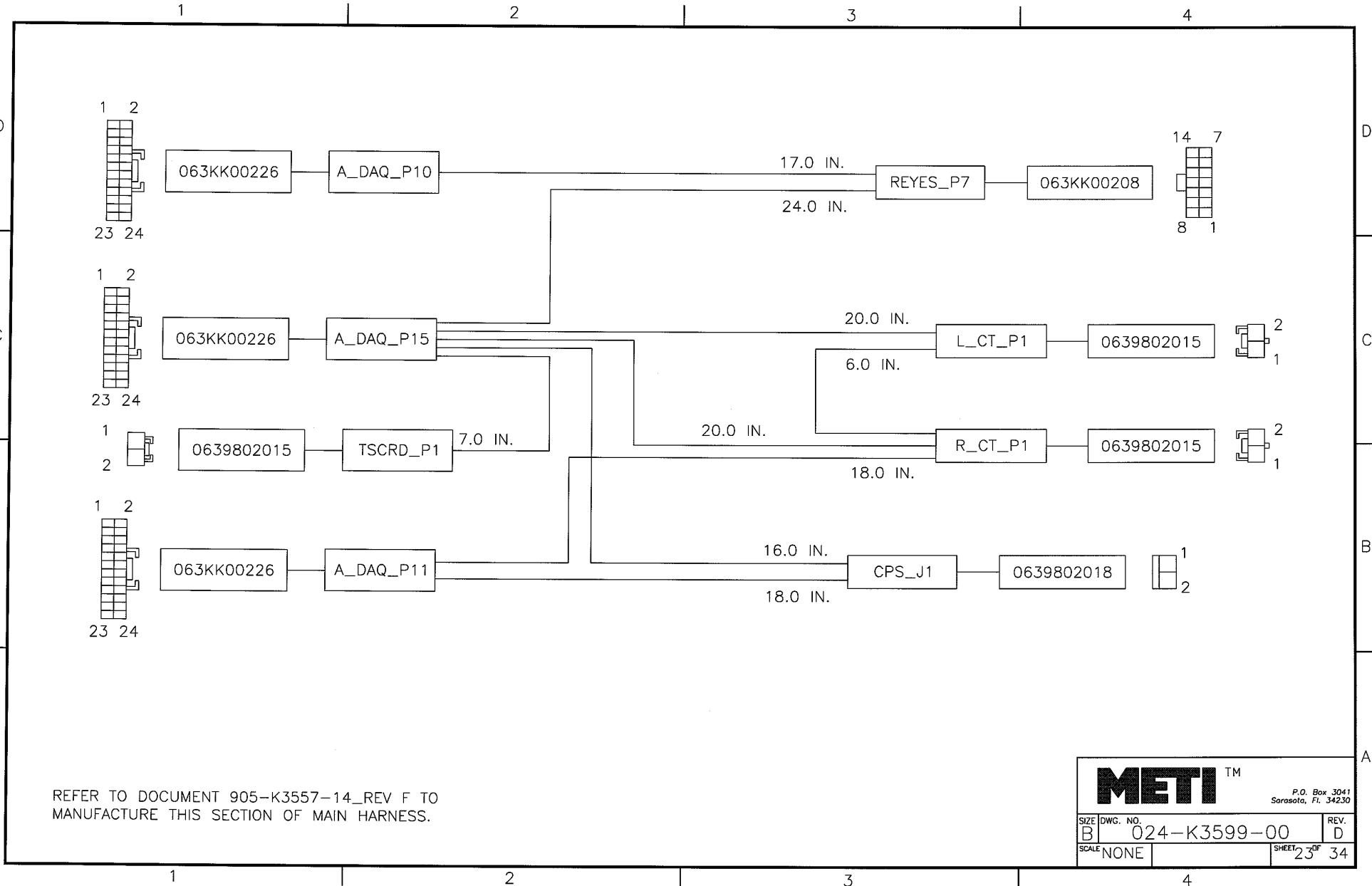


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WIRE LIST				
FROM	TO	COLOR	ITEM #	FUNCTION
A_DAQ_P6-15	ECG_P1-1	GN	ITEM X	ECG_RR (ECG GND)
A_DAQ_P6-16	ECG_P1-2	COAX		ECG_C
A_DAQ_P6-17	ECG_P1-3	COAX		ECG_LA
A_DAQ_P6-18	ECG_P1-4	COAX		ECG_RA
A_DAQ_P6-19	ECG_P1-5	COAX		ECG_LL
A_DAQ_P6-12	TSC_P1-1	GN		TSC GND REFERENCE
A_DAQ_P6-11	TSC_P1-2	WH/GN		ECG_RA DEFIB
A_DAQ_P6-10	TSC_P1-3	WH/GN		ECG_LL DEFIB
TSCRD_J1-1	TSC_P1-4	WH/GN		TSC RESET [GPIO_7_3V3]
A_DAQ_P9-4	SPO2D_P1-1	WH		SPO2 SENSE (ADC2_4_IN)
PC_P26-1	SPO2D_P1-2	BK		GND FROM POWER CONTROLLER
PC_P26-6	SPO2D_P1-3	RD		PWR (5V) FROM POWER CONTROLLER
PC_P26-2	SBCBH_J1-13	BK		GND FROM POWER CONTROLLER
PC_P26-7	SBCBH_J1-25	RD		PWR (5V) FROM POWER CONTROLLER
PC_P8-1	TSC_P1-5	YL/GN		12V_TSC
PC_P8-2	TSC_P1-6	GN		RTN_TSC
PC_P8-3	TSC_P1-8	GN		RTN_TSC
PC_P8-4	TSC_P1-7	OR		(-)12V_TSC
A_DAQ_P9-25	TSC_P1-9	WH		DEFIB AMPLITUDE 0-10V
A_DAQ_P9-26	TSC_P1-10	WH		PACE AMPLITUDE 0-10V
A_DAQ_P9-6	RTF_P1-1	WH		R-N-DECOM
A_DAQ_P9-7	RTF_P1-4	WH		L-N-DECOM
A_DAQ_P9-8	RTF_P1-7	RD/GN		POWER TO CHEST COMP 5V ANLOG
A_DAQ_P9-22	RTF_P1-8	WH	*	* Hand Placement Sensor (USES VOLTAGE DIVIDER ON DACS)
A_DAQ_P9-9	BS_P1-1	GN		HEMORRHAGE SENSOR RTN GND ANALOG
A_DAQ_P9-10	BS_P1-2	RD/GN		HEMORRHAGE SENSOR POWER 5V ANALOG
A_DAQ_P9-11	BS_P1-4	WH/BN		HEMORRHAGE SENSE LOWER(A), TWIST WITH UPPER(B)
A_DAQ_P9-12	BS_P1-3	BN		HEMORRHAGE SENSE LOWER(B)
A_DAQ_P9-13	BS_P1-6	WH/BN		HEMORRHAGE SENSE UPPER(A), TWIST WITH UPPER(B)
A_DAQ_P9-14	BS_P1-5	BN		HEMORRHAGE SENSE UPPER(B)
A_DAQ_P9-19	N/U	--		NOT USED
A_DAQ_P9-20	LSENSE_P8-2	WH		R EYE SENSE (USES VOLTAGE DIVIDER ON DACS)
A_DAQ_P9-21	LSENSE_P8-1	WH		L EYE SENSE (USES VOLTAGE DIVIDER ON DACS)
PC_P24-2	RTF_P1-2	GN		AGND REF FOR L_DECOM
PC_P24-7	RTF_P1-3	RD/GN		5V ANALOG FOR L_DECOM
PC_P24-1	RTF_P1-5	GN		AGND REF FOR R_DECOM
PC_P24-6	RTF_P1-6	RD/GN		5V ANALOG FOR R_DECOM
PC_P24-3	COMP_P1-2	GN		GND ANALOG (COMPRESSOR SENSOR)
PC_P24-8	COMP_P1-1	RD/GN		POWER 5V ANALOG (COMPRESSOR SENSOR)
PC_P24-9	PFD_P1-2	RD		5VP_ON [CLK_EXT_IN]
* A_DAQ_P9-23	RTF_P1-9	WH		CHEST COMPRESSION SENSE (Uses Voltage Divider on DACS) ADC4
* PC_P24-3	RTF_P1-10	Gn		GND Analog
* PC_P24-8	RTF_P9-11	RD/GN		5V Analog

METIman with New CC and Hand Placement

- * Cable Stub 024K355800 Ref G
- Section of Main Harness 024K359700_A

This pin is Chest Compression
Force Sense on original Rib Cage

024-K3599-00 = NON-TUV HARNESS

024-K3598-00 = TUV HARNESS

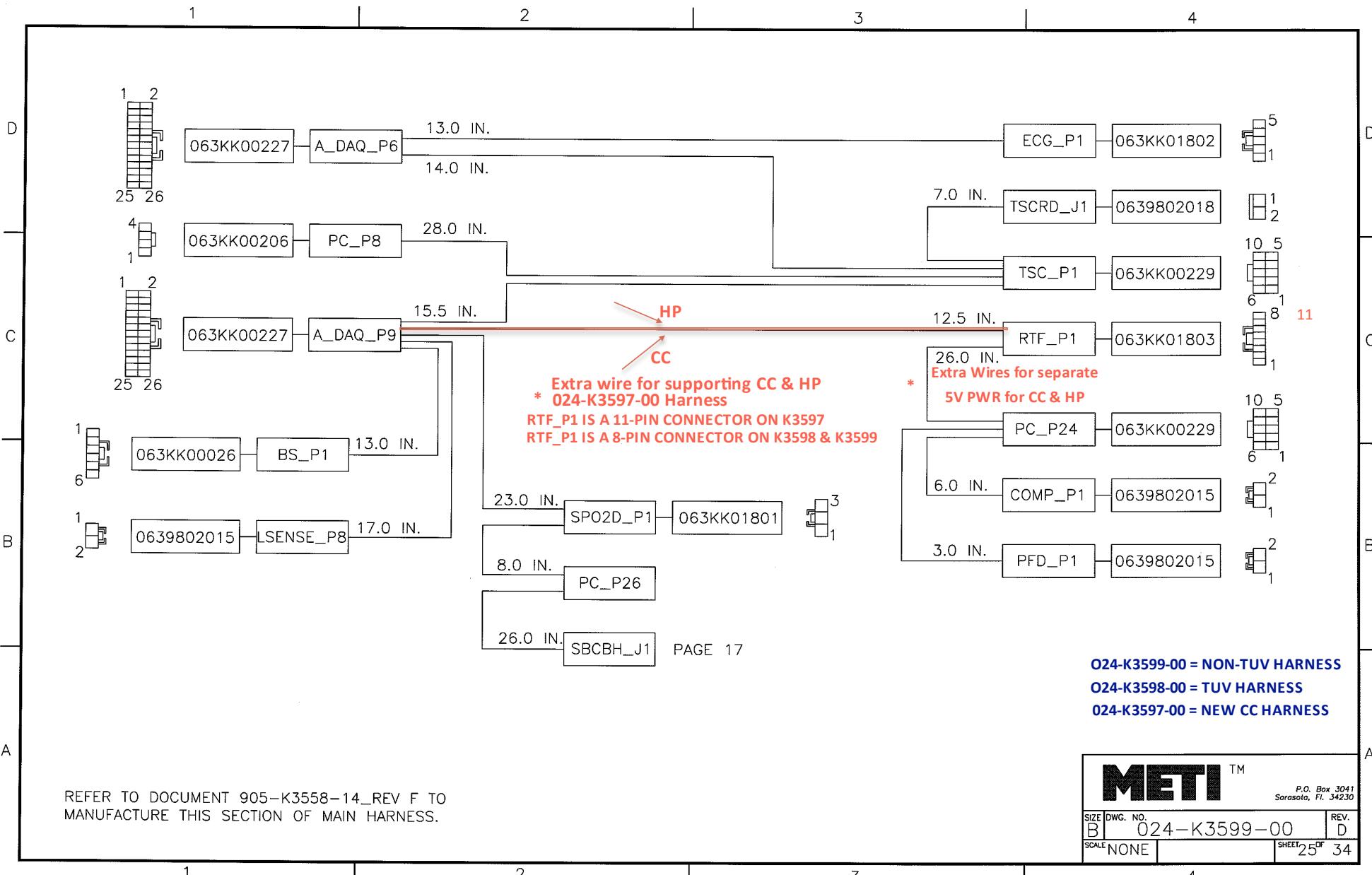
024-K3597-00 = NEW CC HARNESS

REFER TO DOCUMENT 905-K3558-14_REV F TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.

METI ™		P.O. Box 3041 Sarasota, Fl. 34230
SIZE	DWG. NO.	REV.
B	024-K3599-00	D
SCALE	NONE	24 OF 34

Note: For upgrades,
this PWR is spliced
for both sensors.

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WIRE LIST

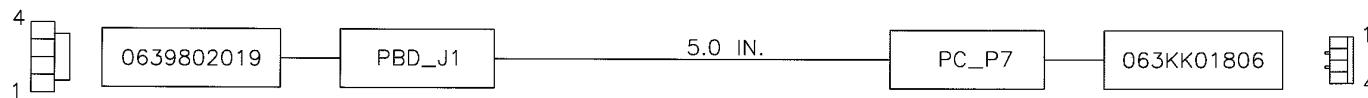
FROM	TO	COLOR	ITEM #	FUNCTION
PBD_J1-1	PC_P7-1	WH/BK	ITEM X	NORMALLY OPEN TERM1 (PB INPUT)
PBD_J1-2	PC_P7-2	WH		LED ANODE (MARKED BY '+')
PBD_J1-3	PC_P7-3	WH		LED CATHODE
PBD_J1-4	PC_P7-4	BK		NORMALLY OPEN TERM2 (GND)

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REFER TO DOCUMENT 905-K3559-14_REV A TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.

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WIRE LIST

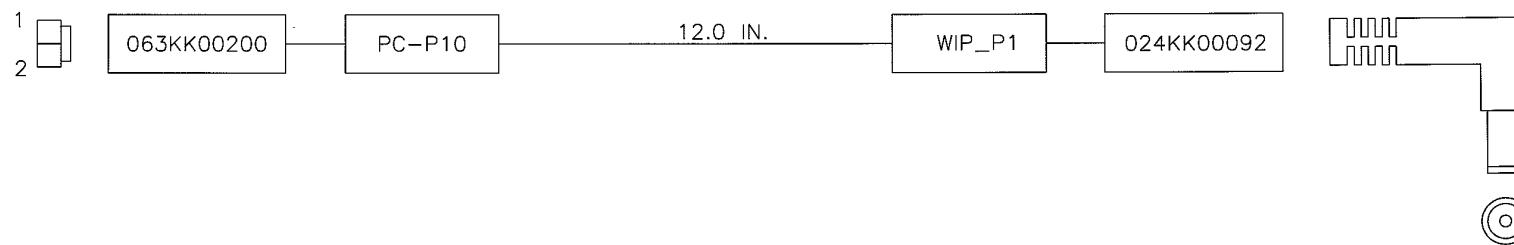
FROM	TO	COLOR	ITEM #	FUNCTION
PC_P10-1	WIP_P1 CENTER	RD	ITEM X	5V
PC_P10-2	WIP_P1 OUTER	BK		RTN

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REFER TO DOCUMENT 905-K3561-14 REV D TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.

METI ™		P.O. Box 3041 Sarasota, Fl. 34230
SIZE	DWG. NO.	REV.
B	024-K3599-00	D
SCALE	NONE	HEET 27 OF 34

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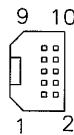
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WIRE LIST

FROM	TO	COLOR	ITEM #	FUNCTION
PC_P28-10	BTCL_P1-1	YL		BLOOD TRAUMA CONTROL LEFT
PC_P28-8	BTCL_P1-2	BK		BLOOD TRAUMA CONTROL LEFT RETURN
PC_P28-9	BTCR_P1-1	YL		BLOOD TRAUMA CONTROL RIGHT
PC_P28-7	BTCR_P1-2	BK		BLOOD TRAUMA CONTROL RIGHT RETURN
PC_P28-3	CONV_P1-2	BK		CONVULSION RETURN
PC_P28-1	CONV_P1-1	YL		CONVULSIONS
PC_P28-4	TANK_P1-2	BK		TANK ENABLE RETURN
PC_P28-2	TANK_P1-1	YL		TANK ENABLE



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063KK00225

PC_P28

19.0 IN.

BTCL_P1

0639802015

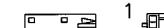


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18.0 IN.

BTCR_P1

0639802015

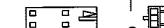


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12.0 IN.

CONV_P1

0639802015



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16.0 IN.

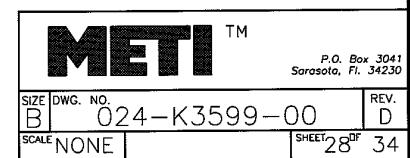
TANK_P1

024KK03500



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REFER TO DOCUMENT 024-K3531-00 REV B TO
MANUFACTURE THIS SECTION OF MAIN HARNESS.

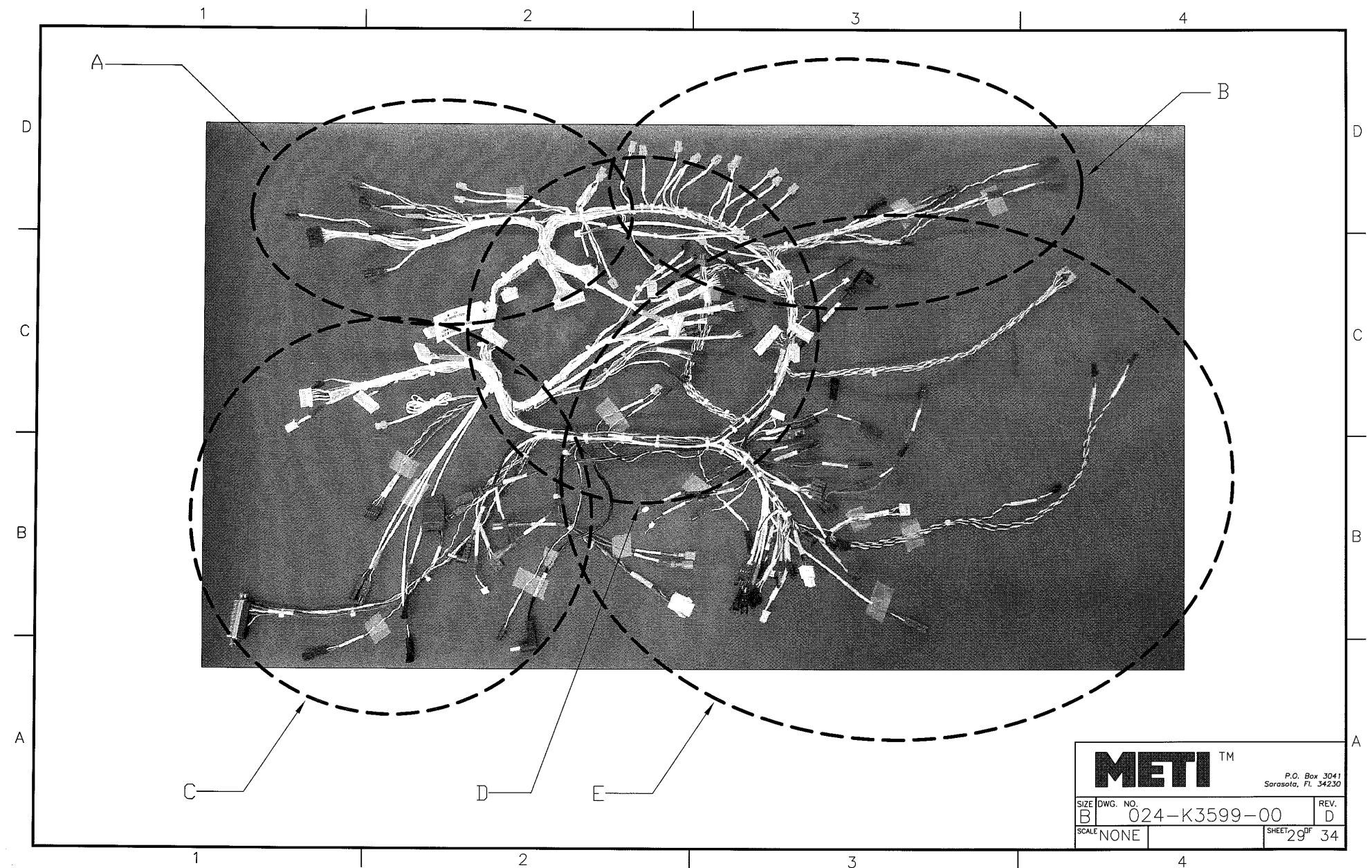


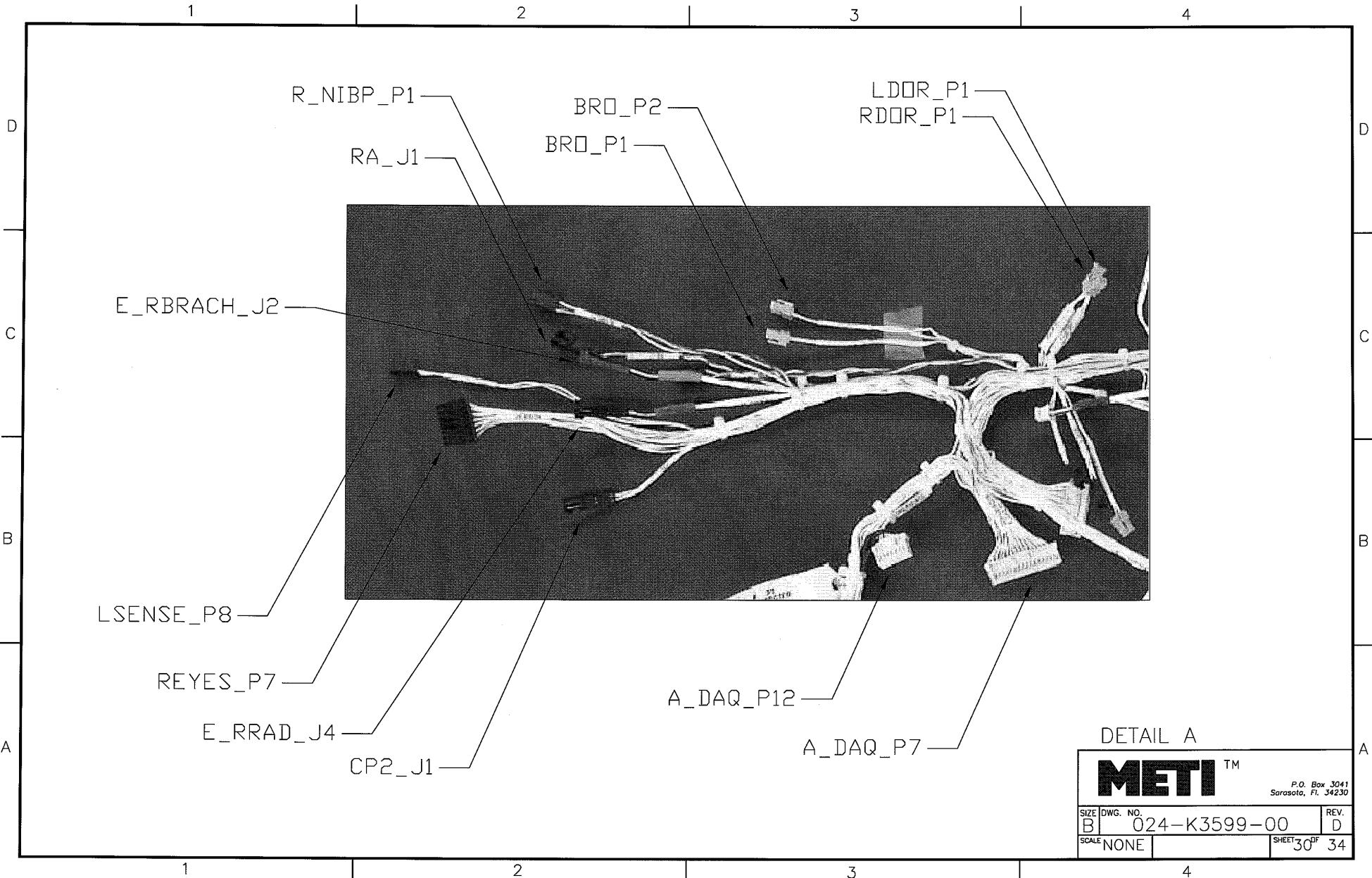
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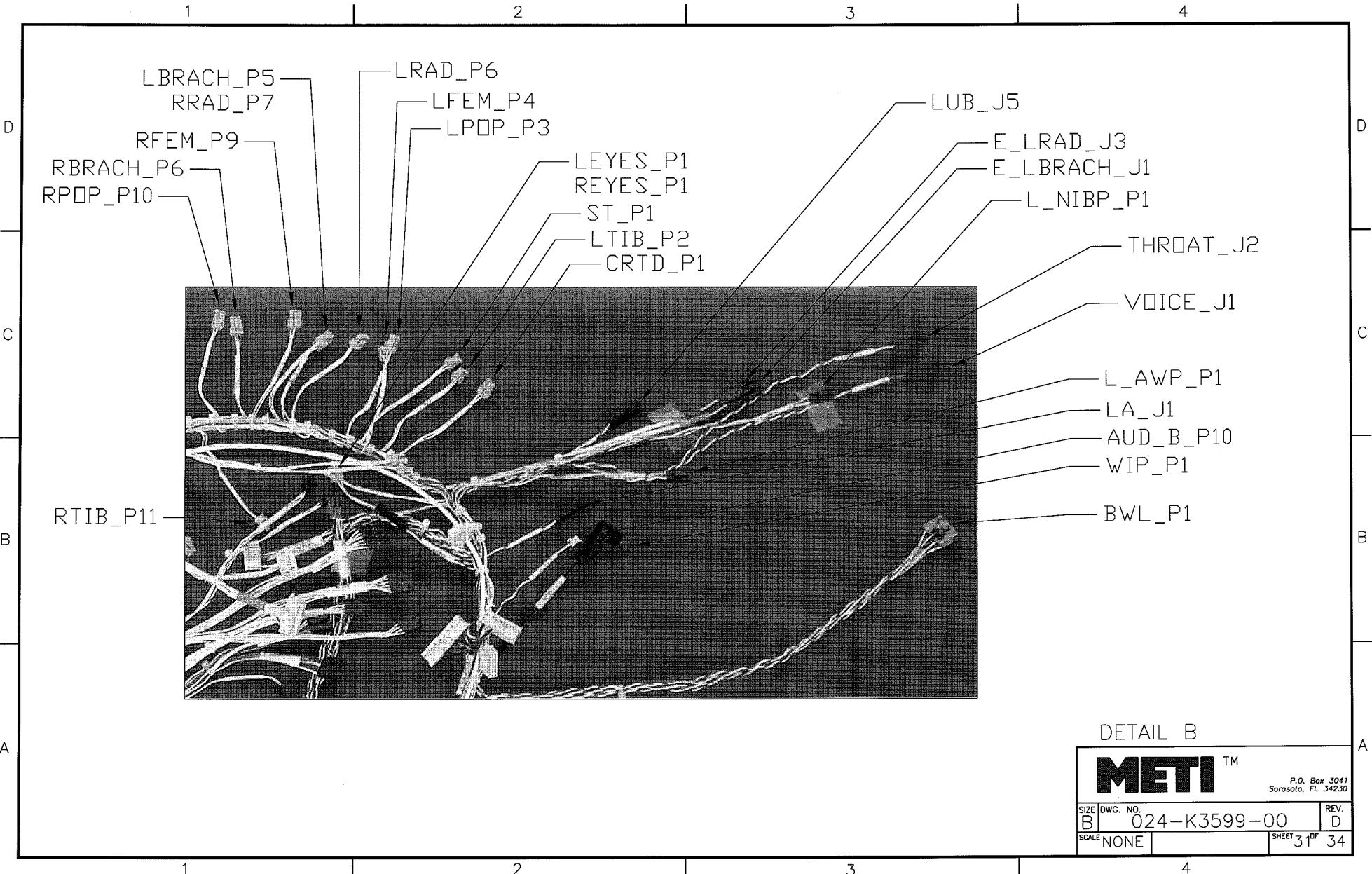
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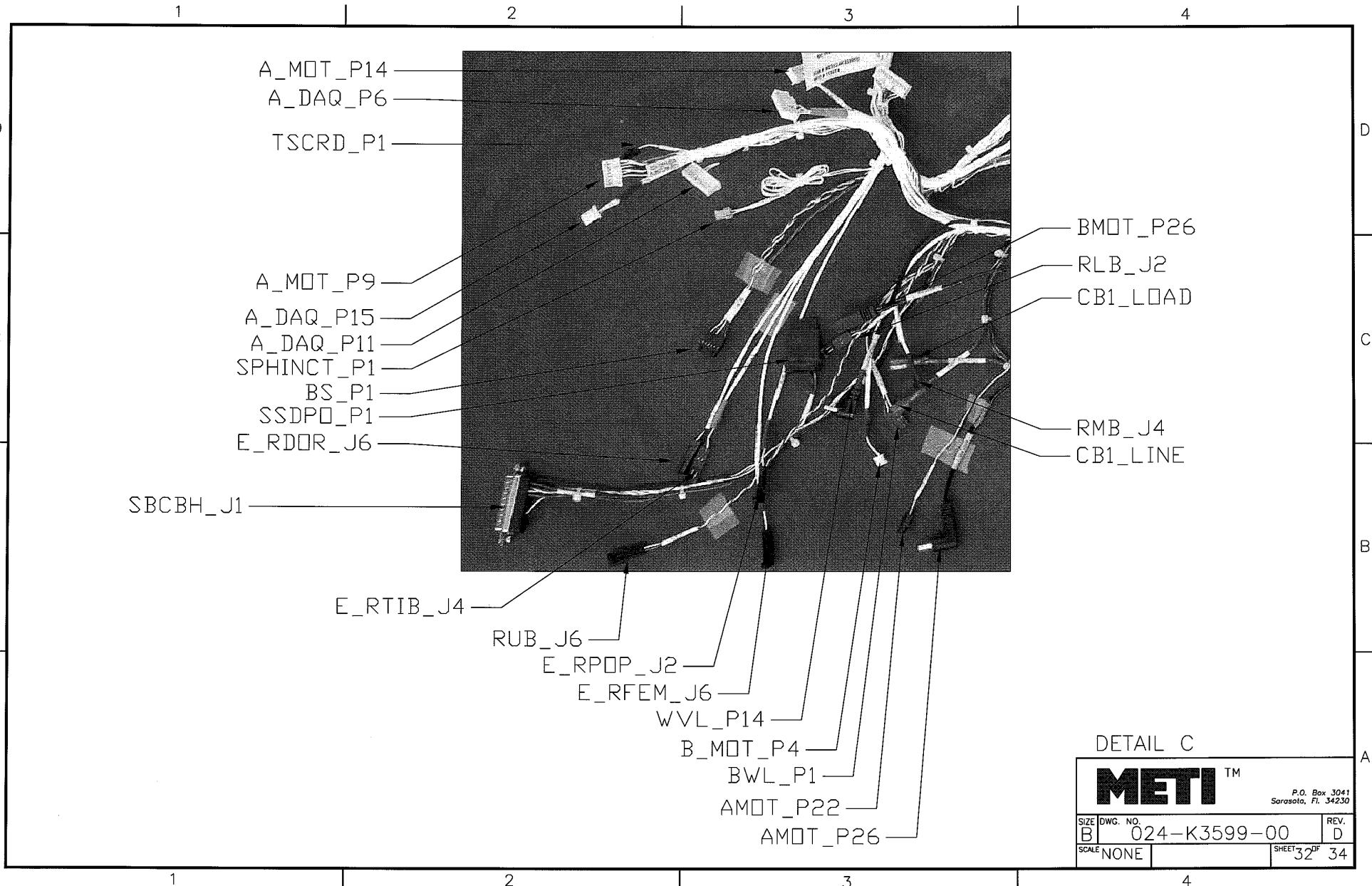
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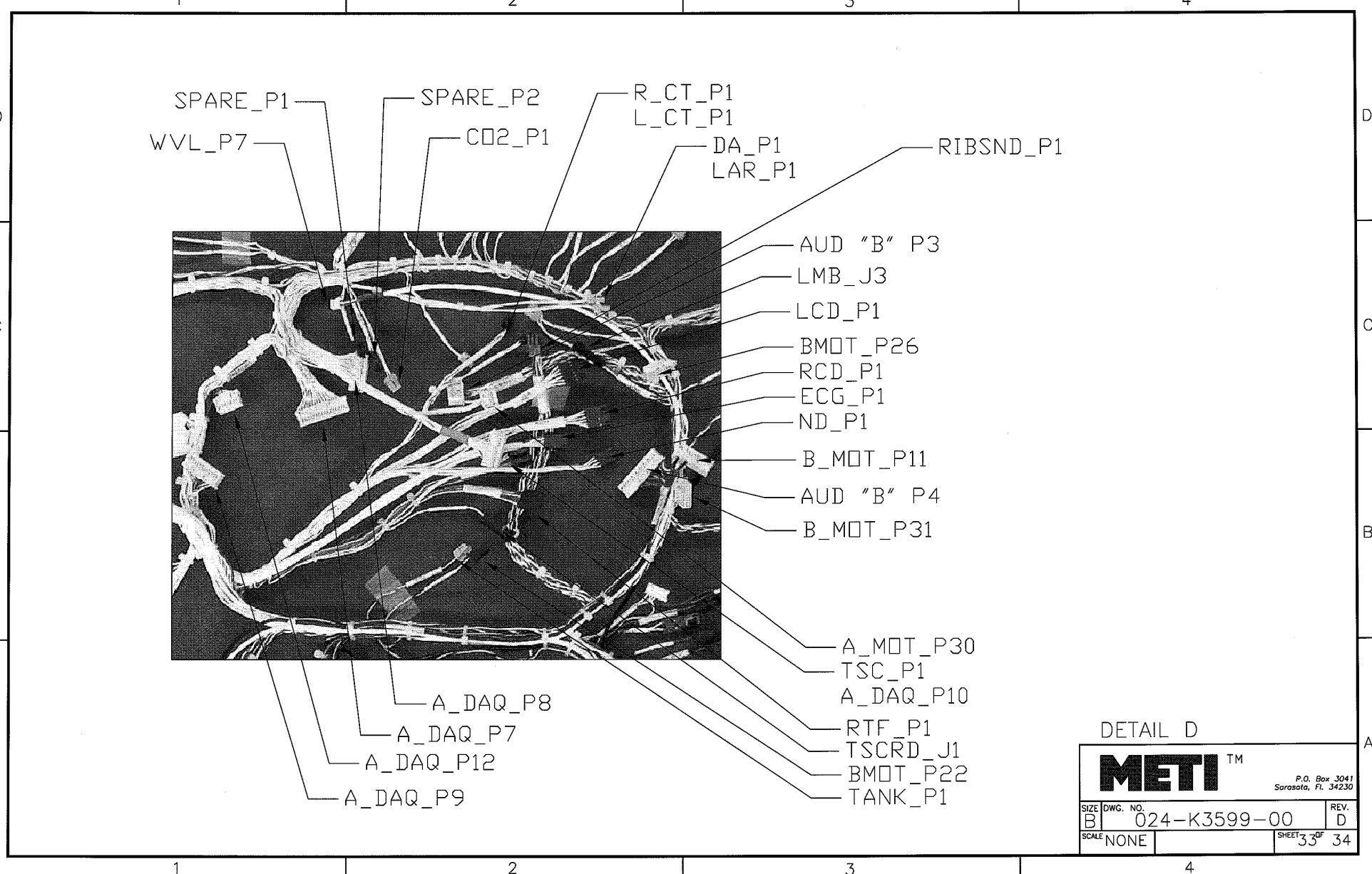
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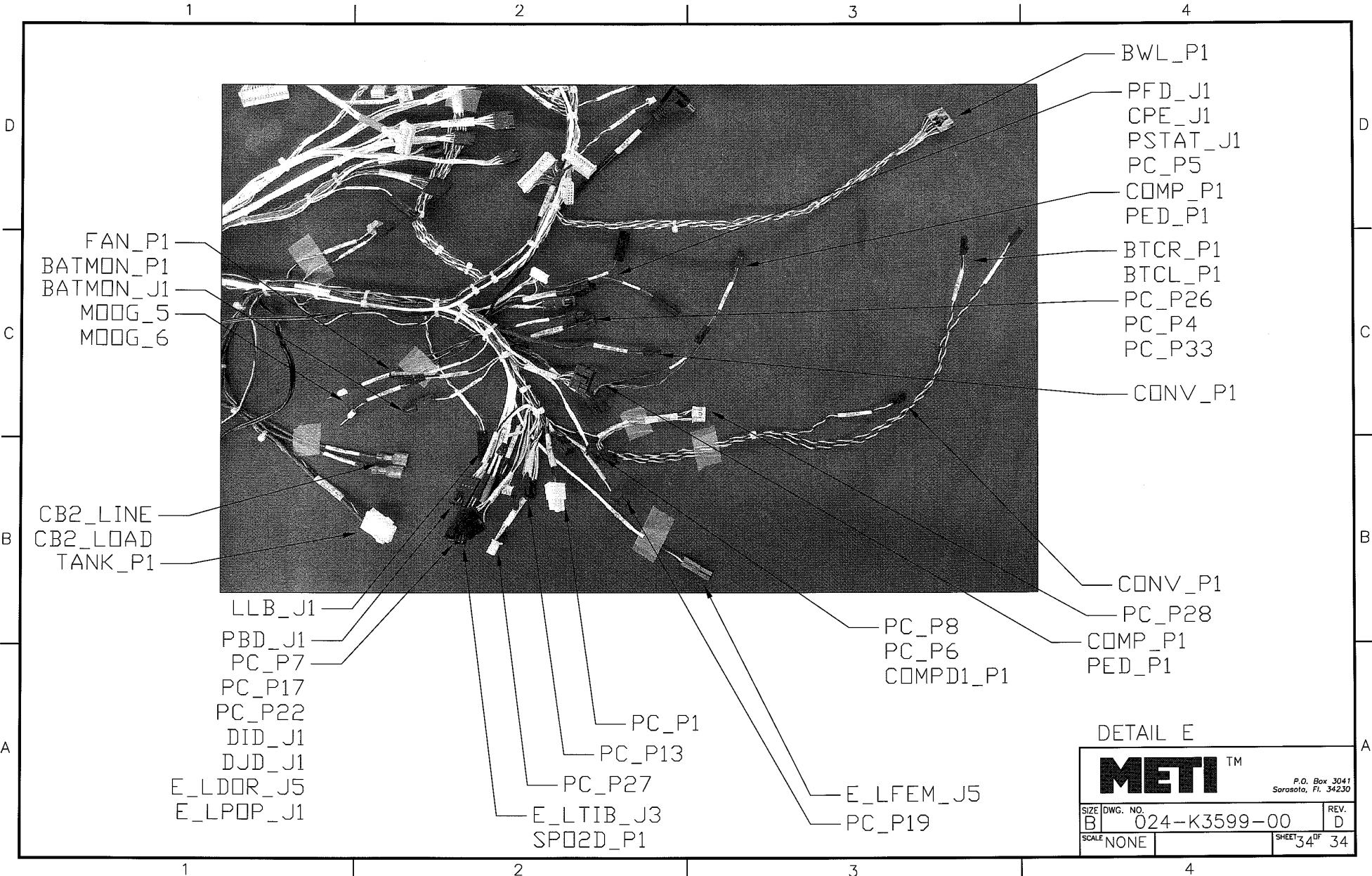








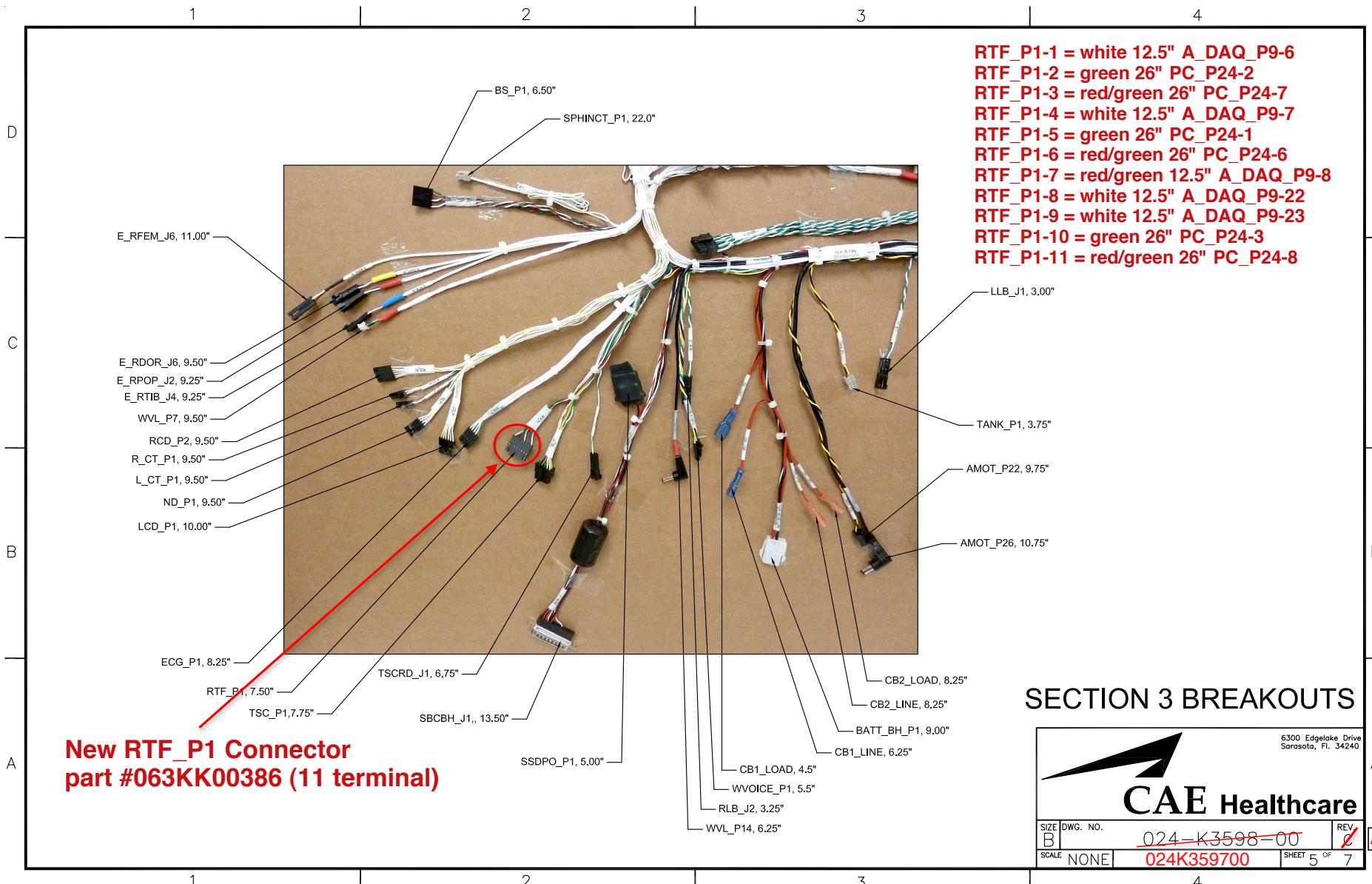




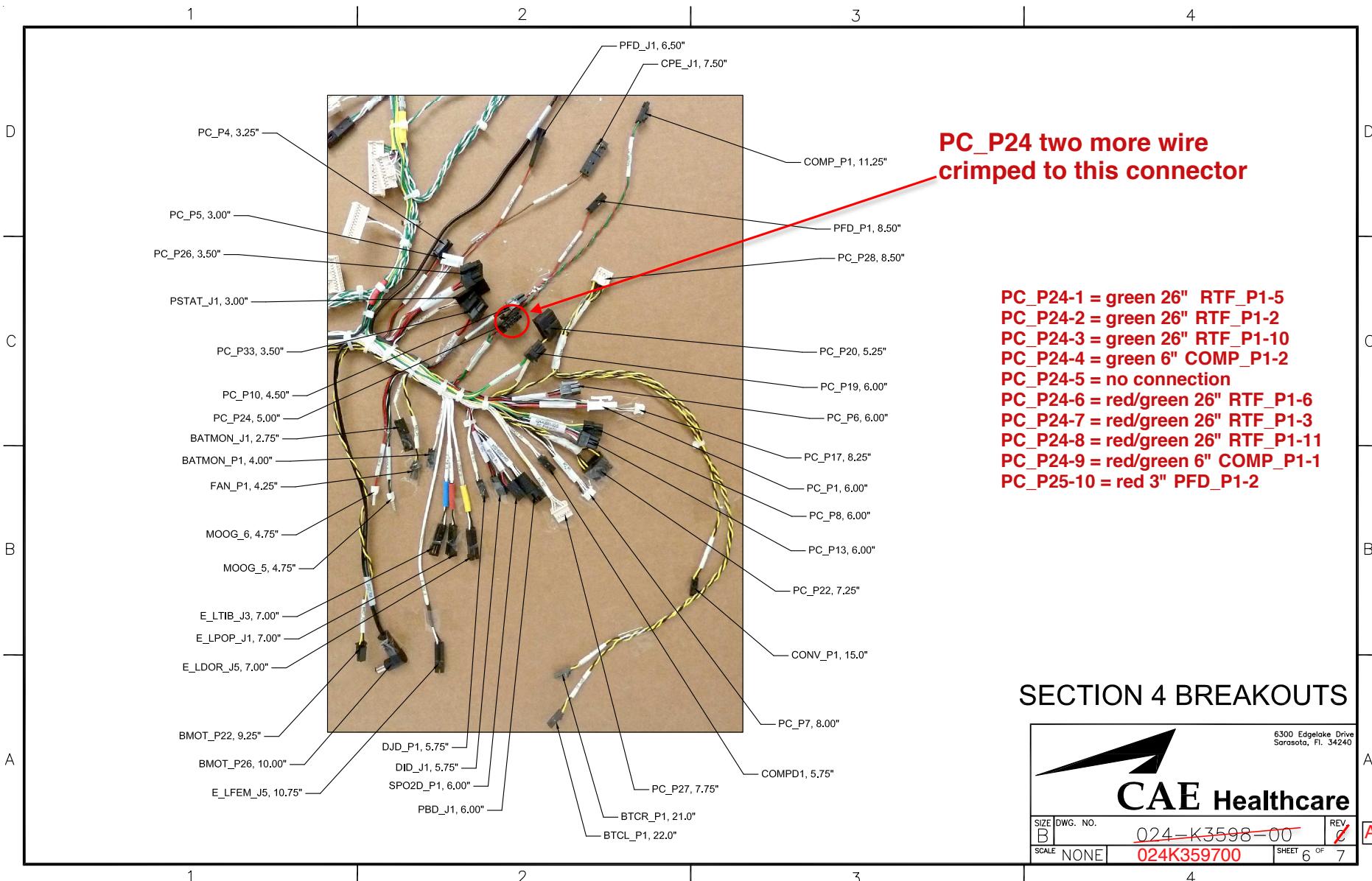
MODIFIED METIMAN CABLE HARNESS FOR NEW HAND PLACEMENT AND CHEST COMPRESSION

1	2	3	4																																																				
<p>D</p> <p>NOTES: UNLESS OTHERWISE SPECIFIED</p> <ol style="list-style-type: none"> 1. REFER TO 905 DOCUMENTS FOR MANUFACTURE OF INDIVIDUAL SECTIONS OF THE HARNESS. 2. WORKMANSHIP SHALL BE PERFORMED TO IPC-A-620, CLASS 2. AND TO ROHS COMPLIANCE SPECIFICATIONS. 3. EQUIVALENT PART NUMBERS MAY BE SUBSTITUTED WITH CAE ENGINEERING APPROVAL. 4. INSTALL CONNECTORS AND CRIMP CONTACTS PER MANUFACTURERS SPECIFICATIONS. 5. DIMENSIONS ARE REFERENCED FROM THE MAIN HARNESS LOOP TO THE BOTTOM OF CONNECTORS. <p>C</p> <p>B</p> <p>A</p>		<p>3</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">REV</th> <th style="width: 60%;">ECO DESCRIPTION</th> <th style="width: 15%;">DATE</th> <th style="width: 25%;">NAME</th> </tr> </thead> <tbody> <tr> <td>C</td> <td>ECO 1827, CHANGED BREAKOUT LOCATIONS</td> <td>6/6/13</td> <td>JBK</td> </tr> <tr> <td>A</td> <td>ECO 2133, CHANGED RTF CONNECTOR</td> <td>11/25/2014</td> <td>SB TY</td> </tr> </tbody> </table> <p>D</p>	REV	ECO DESCRIPTION	DATE	NAME	C	ECO 1827, CHANGED BREAKOUT LOCATIONS	6/6/13	JBK	A	ECO 2133, CHANGED RTF CONNECTOR	11/25/2014	SB TY	<p>4</p> <p>SEE SEPARATE PARTS LIST</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top; padding: 5px;">  <p>6300 Edgelake Drive Sarasota, Fl. 34240</p> <p>CAE Healthcare</p> </td> <td style="width: 50%; vertical-align: top; padding: 5px;"> <p>CA, METIMAN MAIN HARNESS</p> <p>024-K3598-00 REV C A</p> </td> </tr> <tr> <td colspan="2" style="text-align: center; padding: 5px;"> CONFIG -00 NEXT ASSY NO. 253-K3500-06 USED ON METIMAN FINISH: N/A MATERIAL: N/A </td> </tr> <tr> <td colspan="2" style="text-align: center; padding: 5px;"> APPLICATION </td> </tr> <tr> <td colspan="2" style="text-align: center; padding: 5px;"> CAE PROPRIETARY </td> </tr> <tr> <td colspan="2" style="text-align: center; padding: 5px;"> <small>NOTICE TO PERSONS RECEIVING THIS DOCUMENT AND/OR DATA: THIS DOCUMENT AND/OR DATA CONTAINS INFORMATION WHICH CAE HEALTHCARE HAS A PROTECTABLE INTEREST AND IS SUBJECT TO CHANGE WITHOUT NOTICE. THE USE, DUPLICATION, AND/OR DISCLOSURE BY PERSONS RECEIVING THIS DOCUMENT AND/OR DATA MAY BE SUBJECT TO RESTRICTIONS. USE OF THIS DOCUMENT AND/OR DATA CONTAINED HEREIN MAY BE USED IN ANY FORM TO DESIGN, MANUFACTURE, AND/OR TEST ANYTHING WITHOUT WRITTEN PERMISSION FROM CAE HEALTHCARE.</small> </td> </tr> <tr> <td style="width: 25%; vertical-align: top; padding: 5px;"> <small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING REMOVE ALL BURRS AND SHARP EDGES</small> </td> <td style="width: 75%; vertical-align: top; padding: 5px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">DRAW</th> <th style="width: 25%;">J. KOHUT</th> <th style="width: 15%;">DATE</th> <th style="width: 45%;">6/6/13</th> </tr> </thead> <tbody> <tr> <td>CHECKED</td> <td>T. STOCKNER</td> <td>DATE</td> <td>6/11/13</td> </tr> <tr> <td colspan="4">Q.A. APVD</td> </tr> <tr> <td colspan="4">ENG APVD</td> </tr> <tr> <td colspan="4">MFG/TEST APVD</td> </tr> </tbody> </table> </td> </tr> <tr> <td style="width: 25%; vertical-align: top; padding: 5px;"> <small>SURFACE TEXTURE: N/A</small> </td> <td style="width: 75%; vertical-align: top; padding: 5px;"> <small>X=± .5 XX=± .25 ANG=± N/A</small> </td> </tr> <tr> <td style="width: 25%; vertical-align: top; padding: 5px;"> <small>TOLERANCES:</small> </td> <td style="width: 75%; vertical-align: top; padding: 5px;"> <small>SIZE DWG. NO.</small> </td> </tr> <tr> <td style="width: 25%; vertical-align: top; padding: 5px;"> <small>None</small> </td> <td style="width: 75%; vertical-align: top; padding: 5px;"> <small>024K359700</small> </td> </tr> <tr> <td style="width: 25%; vertical-align: top; padding: 5px;"> <small>SCALE</small> </td> <td style="width: 75%; vertical-align: top; padding: 5px;"> <small>Sheet 1 of 7</small> </td> </tr> </table>	 <p>6300 Edgelake Drive Sarasota, Fl. 34240</p> <p>CAE Healthcare</p>	<p>CA, METIMAN MAIN HARNESS</p> <p>024-K3598-00 REV C A</p>	CONFIG -00 NEXT ASSY NO. 253-K3500-06 USED ON METIMAN FINISH: N/A MATERIAL: N/A		APPLICATION		CAE PROPRIETARY		<small>NOTICE TO PERSONS RECEIVING THIS DOCUMENT AND/OR DATA: THIS DOCUMENT AND/OR DATA CONTAINS INFORMATION WHICH CAE HEALTHCARE HAS A PROTECTABLE INTEREST AND IS SUBJECT TO CHANGE WITHOUT NOTICE. THE USE, DUPLICATION, AND/OR DISCLOSURE BY PERSONS RECEIVING THIS DOCUMENT AND/OR DATA MAY BE SUBJECT TO RESTRICTIONS. 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NO.</small>	<small>None</small>	<small>024K359700</small>	<small>SCALE</small>	<small>Sheet 1 of 7</small>
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CAE PROPRIETARY																																																							
<small>NOTICE TO PERSONS RECEIVING THIS DOCUMENT AND/OR DATA: THIS DOCUMENT AND/OR DATA CONTAINS INFORMATION WHICH CAE HEALTHCARE HAS A PROTECTABLE INTEREST AND IS SUBJECT TO CHANGE WITHOUT NOTICE. THE USE, DUPLICATION, AND/OR DISCLOSURE BY PERSONS RECEIVING THIS DOCUMENT AND/OR DATA MAY BE SUBJECT TO RESTRICTIONS. USE OF THIS DOCUMENT AND/OR DATA CONTAINED HEREIN MAY BE USED IN ANY FORM TO DESIGN, MANUFACTURE, AND/OR TEST ANYTHING WITHOUT WRITTEN PERMISSION FROM CAE HEALTHCARE.</small>																																																							
<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING REMOVE ALL BURRS AND SHARP EDGES</small>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">DRAW</th> <th style="width: 25%;">J. KOHUT</th> <th style="width: 15%;">DATE</th> <th style="width: 45%;">6/6/13</th> </tr> </thead> <tbody> <tr> <td>CHECKED</td> <td>T. STOCKNER</td> <td>DATE</td> <td>6/11/13</td> </tr> <tr> <td colspan="4">Q.A. APVD</td> </tr> <tr> <td colspan="4">ENG APVD</td> </tr> <tr> <td colspan="4">MFG/TEST APVD</td> </tr> </tbody> </table>	DRAW	J. KOHUT	DATE	6/6/13	CHECKED	T. STOCKNER	DATE	6/11/13	Q.A. APVD				ENG APVD				MFG/TEST APVD																																					
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<small>TOLERANCES:</small>	<small>SIZE DWG. NO.</small>																																																						
<small>None</small>	<small>024K359700</small>																																																						
<small>SCALE</small>	<small>Sheet 1 of 7</small>																																																						

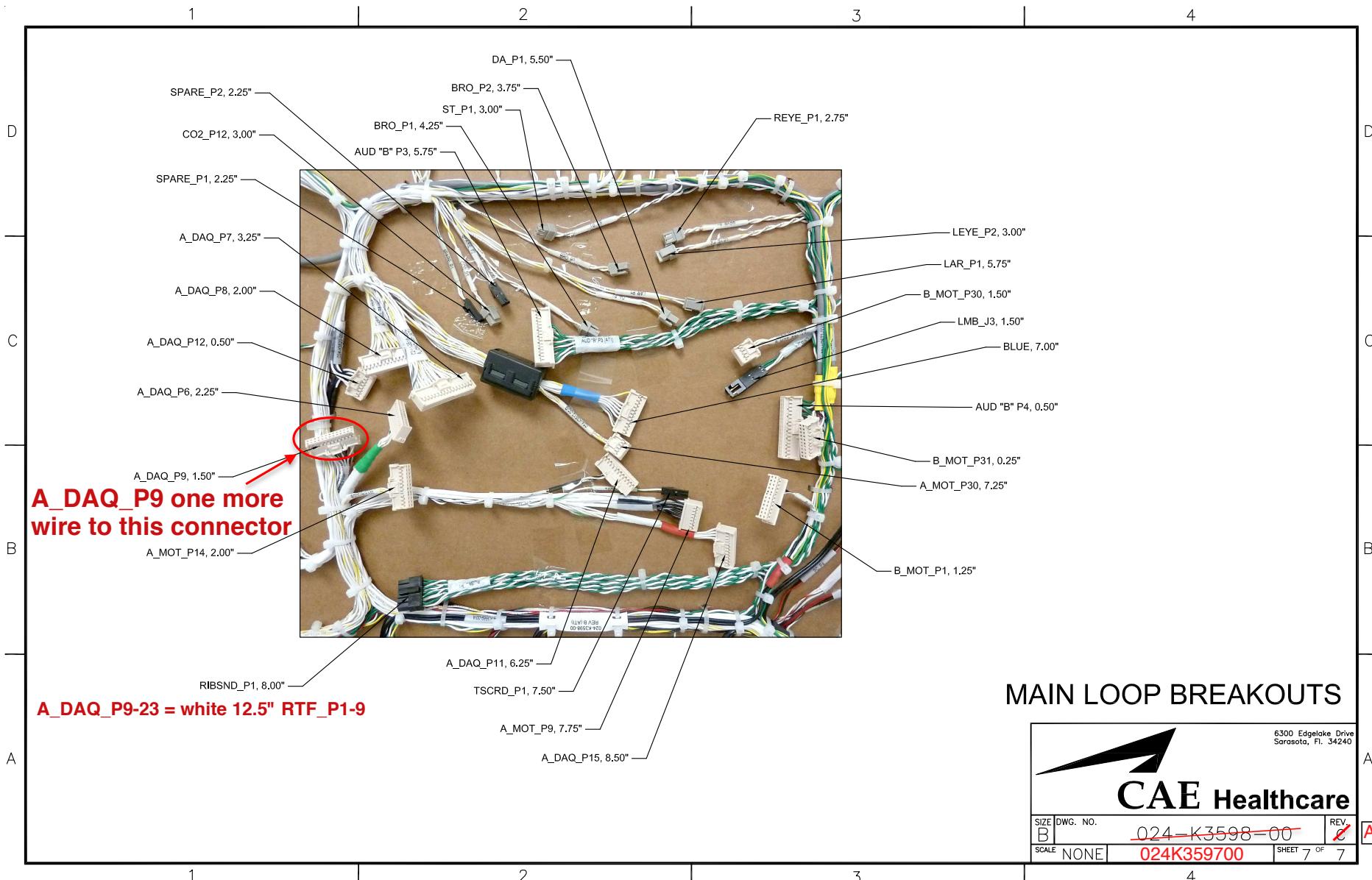
MODIFIED METIMAN CABLE HARNESS FOR NEW HAND PLACEMENT AND CHEST COMPRESSION



MODIFIED METIMAN CABLE HARNESS FOR NEW HAND PLACEMENT AND CHEST COMPRESSION

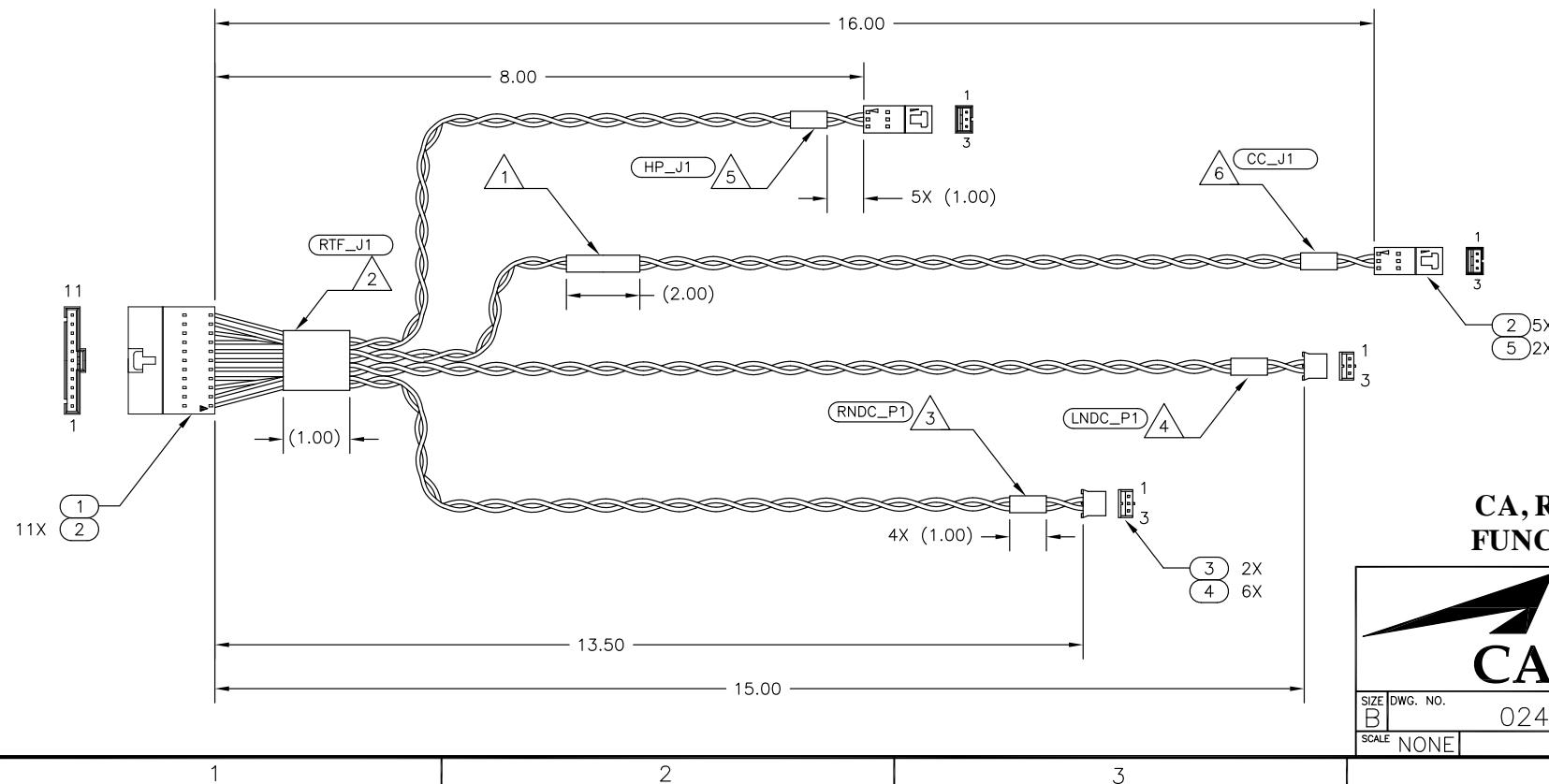


MODIFIED METIMAN CABLE HARNESS FOR NEW HAND PLACEMENT AND CHEST COMPRESSION



WIRF LIST

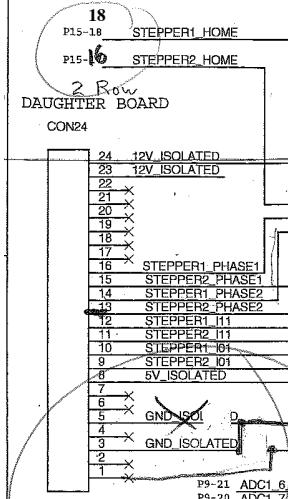
FROM	TO	COLOR	ITEM #	FUNCTION
RTF_J1-1	RNDC_P1-3	WHT	ITEM 6	R-N-DECOM OUT
RTF_J1-2	RNDC_P1-2	GRN	ITEM 7	AGND
RTF_J1-3	RNDC_P1-1	RED/GRN	ITEM 8	5V ANALOG
RTF_J1-4	LNDC_P1-3	WHT	ITEM 6	L-N-DECOM OUT
RTF_J1-5	LNDC_P1-2	GRN	ITEM 7	AGND
RTF_J1-6	LNDC_P1-1	RED/GRN	ITEM 8	5V ANALOG
RTF_J1-7	HP_J1-1	RED/GRN	ITEM 8	5V ANALOG
RTF_J1-8	HP_J1-3	WHT	ITEM 6	HP SENSE
RTF_J1-9	CC_J1-2	WHT	ITEM 6	CC SENSE
RTF_J1-10	CC_J1-1	GRN	ITEM 7	AGND
RTF_J1-11	CC_J1-3	RED/GRN	ITEM 8	5V ANALOG



CA, RB TRAUMA
FUNCTIONS, RTF

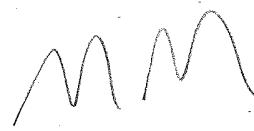
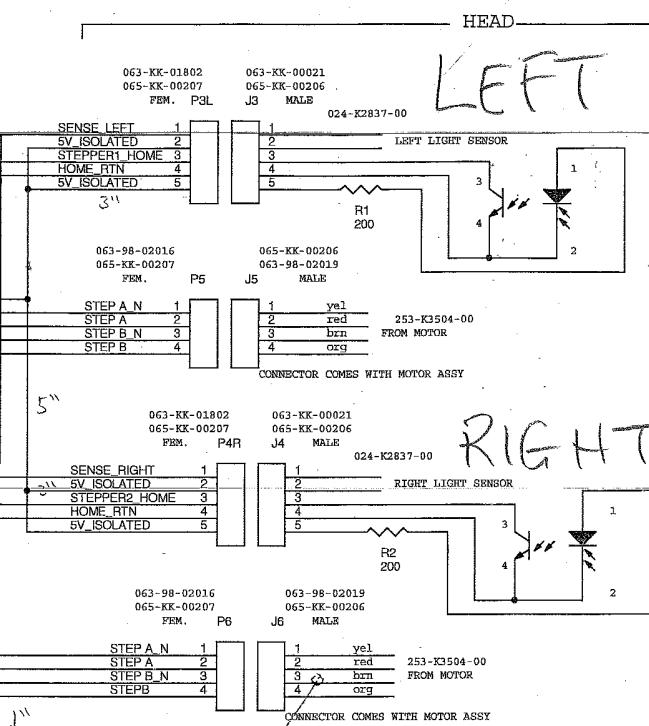
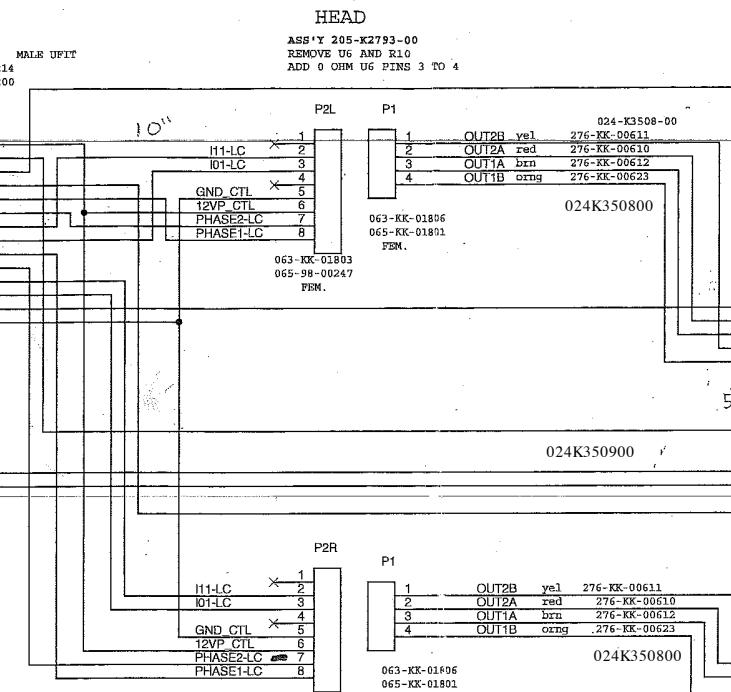


METIman Reactive Eyes Circuit



2 Row
NECK

024K359900 P7 J7
MALE UFIT
063-KK-00208 063-KK-00214
065-98-00248 065-KK-00200



Title	
	REACTIVE EYES, OD
Size B	Document Number <Doc>
	Date: Thursday, May 28, 2009 Sheet 1 of 1

WIRE LIST				REV	ECO DESCRIPTION	DATE	NAME
FROM	TO	COLOR	ITEM #	B	ECO2217, INITIAL RELEASE	4/6/15	JBK
HARNESS PC26-6	PC26-6	RED	ITEM 8				
HARNESS PC26-1	PC26-1	BLK	ITEM 7				
HARNESS PC26-7	PC31-9	YEL	ITEM 6				
HARNESS PC26-2	PC31-3	BLK	ITEM 7				

NOTES:
UNLESS OTHERWISE SPECIFIED

1. WORKMANSHIP SHALL BE PERFORMED TO IPC-A-620, CLASS 2, AND TO ROHS COMPLIANCE SPECIFICATIONS.
2. INSTALL CONNECTORS AND CRIMP CONTACTS PER MANUFACTURERS SPECIFICATIONS.
3. PERMANENTLY AND LEGIBLY MARK THERMAL LABEL (ITEM 9) WITH REFERENCE SHOWN.
4. EQUIVALENT PART NUMBERS MAY BE SUBSTITUTED WITH CAE ENGINEERING APPROVAL.
5. PERMANENTLY AND LEGIBLY MARK THERMAL LABEL (ITEM 9) WITH PART NUMBER AND REVISION.

CONFIG -00	NEXT ASSY NO. 253-K3596-00	USED ON METIMAN	FINISH: N/A	MATERIAL: N/A
APPLICATION				
CAE PROPRIETARY			UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING REMOVE ALL BURRS AND SHARP EDGES	DRAW JBK
			SURFACE TEXTURE: N/A	DATE 1/12/15
			TOLERANCES: .XX=± .25 .XXX=± N/A ANG=± N/A	CHECKED DATE
				Q.A. APVD DATE
				ENG APVD DATE
				MFG/TEST APVD DATE
				SIZE DWG. NO. B
				REV B
			SCALE NONE	SHEET 1 OF 1

6300 Edgelake Drive
Sarasota, FL 34240

CAE Healthcare
CA, 12VDC METIMAN SBC
PWR ADAPTER

Used with 12V SBCs. Initial Cut-in on MMP1229, MMN577

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Apollo

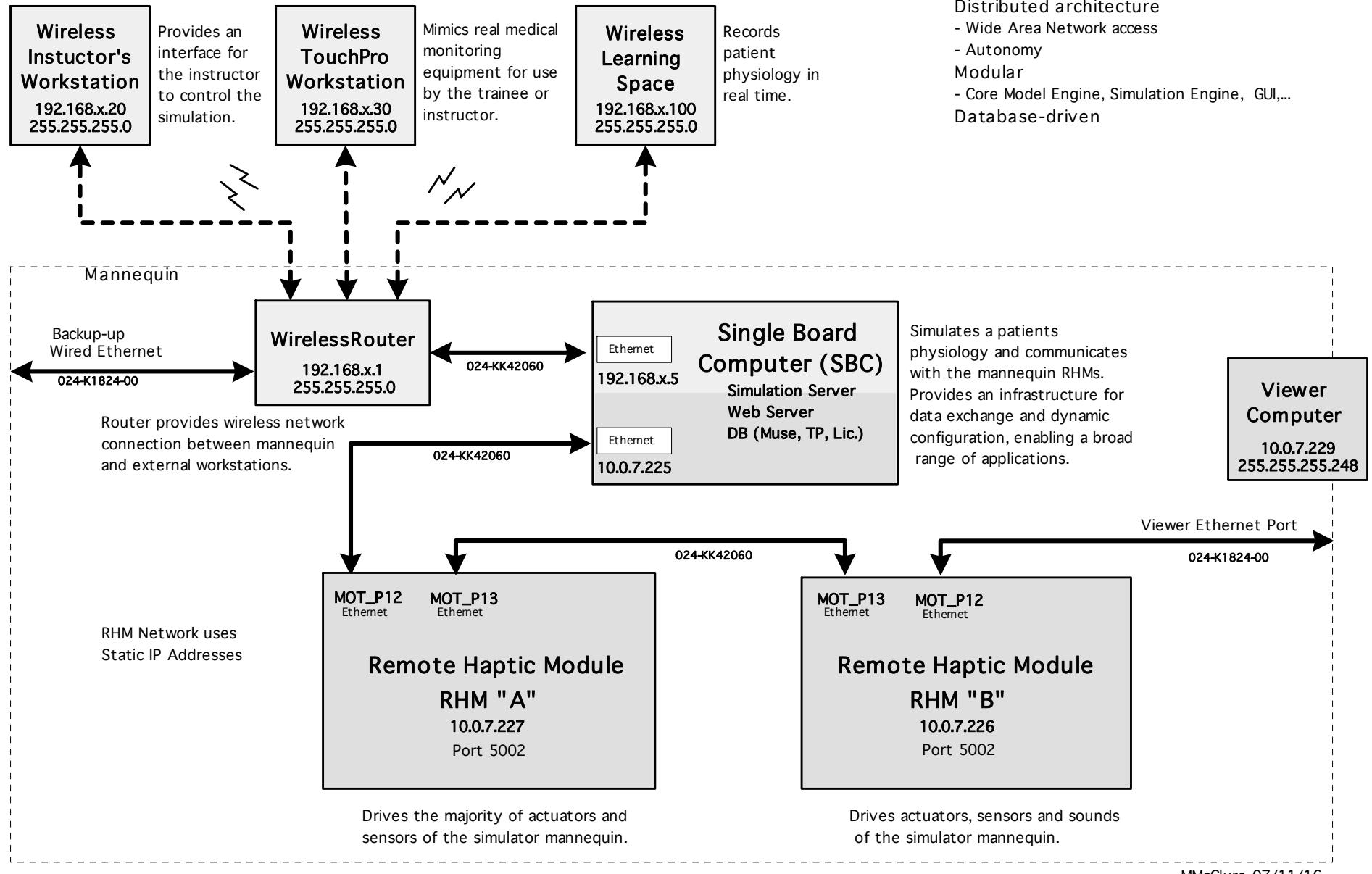
Network Layout & Tools

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Apollo Network

Apollo External Network Addressing

IPv4 - Static IP address - Third octet is same for all external devices in system network



MUSE ARCHITECTURE

Browser-Based User Interface

- Makes use of recent advances in web technologies

Distributed architecture

- Wide Area Network access

Autonomy

Modular

- Core Model Engine, Simulation Engine, GUI,...

Database-driven

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System Configuration (METIman Data)

The Simulator IP Address information can be found in three locations.

- In Salesforce under the System Configuration Tab
- On Intranet – <http://srqprodsupport.caecorp.cae.com/ptracker/PatientSimulatorData.html#>
- With Simulator Data Package

salesforce.com.	
MMP580	
Serial Number	MMP580
Parent Account	Product Family
Account	METIman Pre-Hospital
Customer Service Representative	Status
Customer Service Representative	Purchase Date
Asset Region	System Ship Date ? 11/10/2011
Asset Region	CAE System Installation Date ?
▼ System Configuration	
Host IP (Muse/Linux/SBC)	192.168.10.5
Wireless Router IP	192.168.10.1
Remote (Wireless) Workstation IP	10.127.XXX.XXX
Instructor Workstation IP ?	192.168.10.21
TouchPro Wireless IP	192.168.10.21
TouchPro Wired IP	192.168.10.30
	Host Subnet (Muse/Linux/SBC)
	Remote (Wireless) Workstation Subnet
	Instructor Workstation Subnet Mask ?
	TouchPro Wired Subnet Mask
	TouchPro Wireless Subnet Mask

System Configuration (METIman Data)

The screenshot shows a Mozilla Firefox browser window with the title "Patient Simulator IP Tracker". The address bar displays the URL "http://srqprods...ulatorData.html" and the domain "srqprodsupport.caecorp.cae.com". The CAE Healthcare logo is visible on the left. The main content area features a search bar with the text "mmp0580" and a table with four columns: Type, Sim Serial, Wireless Wkstn IP, and Wired Wkstn IP. The table contains one row with the data: MMP-Pre-Hospital, MMP0580, 192.168.10.20, and 192.168.10.21.

Type	Sim Serial	Wireless Wkstn IP	Wired Wkstn IP
MMP-Pre-Hospital	MMP0580	192.168.10.20	192.168.10.21

System Configuration (METIman Data)

MMP Prehospital Data Sheet

Simulator Serial Number: MMP0580
Simulator Type: Pre-Hospital

SBC Serial:
Router Serial:

SBC Network Setup

IP Address: 192.168.10.5
Subnet Mask: 255.255.255.0
Router IP: 192.168.10.1

Router

SSID: MMP0580
Subnet Mask: 255.255.255.0
Router IP: 192.168.10.1

Instructor Workstation IP

Wireless Interface: 192.168.10.20
Wired Interface: 192.168.10.21
Subnet Mask: 255.255.255.0
Router: 192.168.10.1

TouchPro Workstation IP

Wireless Interface: 192.168.10.30
Wired Interface: 192.168.10.31
Subnet Mask: 255.255.255.0
Router: 192.168.10.1

Date Created: 2011-09-20 15:33:16
Date Printed: 2014-03-02 09:21:51

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CAE Simulator Network Preference & Ping

Apple Network preferences

The Location menu in the Network Preferences pane within System Preferences allows you to save and quickly switch between multiple internet configurations. Location can be selected via the System Preferences or Location selection located under the Apple (⌘) menu.

Production Apple Workstation Configurations

Location: Public LAN	Network configuration for Internet access
Location: HPS LAN or METI LAN	Network configuration for patient simulators <ul style="list-style-type: none">• HPS – iStan, ECS, HPS• METI –METIman

Location: HPS LAN

IPV4 Manual IP Address: 10.127.x.x

Subnet Mask: 255.0.0.0

Router (Gateway): *Leave blank starting 2011*

U.S.E. Linux Port: 28997

Remote Control Port: 28999

Location: METI LAN

IPV4 Manual IP Address: 192.168.x.x

Subnet Mask: 255.255.255.0

Router (Gateway): *Leave blank starting 2011*

CAE Simulator Network Preference & Ping

Network Utility – Ping

Ping is a network administration tool used to test the reachability of a host on an Internet Protocol (IP) network and to measure the round-trip time for messages sent from the originating host to a destination computer. It verifies both the wiring and the network device. The name comes from sonar terminology for sending a pulse of sound and listening for the echo to detect objects underwater.

A successful ping has low latency (less than 30ms) and no dropped packets.

The Ping utility is available on Apple computers as well as Windows computers.

Apple Computer

- Open Application Utility called Terminal
- Type "ping" followed by a space and the IP address
- Press the Enter (or Return) key

Windows Computer

- Open a shell prompt (in Microsoft Windows, the Command Prompt or MS-DOS Prompt on Start Menu)
- Type "ping" followed by a space and the IP address
- Press the Enter (or Return) key

Apple Terminal is useful for monitoring the status of a network connection over longer periods of time. In Microsoft Windows, type "ping -t" instead of "ping" at the command line to launch the program in this continuously running mode. For both operating systems, use the Control-C key sequence to stop pinging and get the test statistics. (Packets transmitted, packets received, packets lost and round-trip time)

```
METI-Workstation-3:~ meti$ ping 10.0.7.226
PING 10.0.7.226 (10.0.7.226): 56 data bytes
64 bytes from 10.0.7.226: icmp_seq=0 ttl=64 time=1.666 ms
64 bytes from 10.0.7.226: icmp_seq=1 ttl=64 time=1.759 ms
64 bytes from 10.0.7.226: icmp_seq=2 ttl=64 time=1.728 ms
64 bytes from 10.0.7.226: icmp_seq=3 ttl=64 time=1.746 ms
64 bytes from 10.0.7.226: icmp_seq=4 ttl=64 time=1.662 ms
64 bytes from 10.0.7.226: icmp_seq=5 ttl=64 time=1.584 ms
64 bytes from 10.0.7.226: icmp_seq=6 ttl=64 time=1.737 ms
64 bytes from 10.0.7.226: icmp_seq=7 ttl=64 time=1.685 ms
64 bytes from 10.0.7.226: icmp_seq=8 ttl=64 time=1.627 ms
64 bytes from 10.0.7.226: icmp_seq=9 ttl=64 time=1.742 ms
64 bytes from 10.0.7.226: icmp_seq=10 ttl=64 time=1.638 ms
64 bytes from 10.0.7.226: icmp_seq=11 ttl=64 time=1.736 ms
64 bytes from 10.0.7.226: icmp_seq=12 ttl=64 time=1.741 ms
64 bytes from 10.0.7.226: icmp_seq=13 ttl=64 time=1.730 ms
64 bytes from 10.0.7.226: icmp_seq=14 ttl=64 time=1.724 ms
64 bytes from 10.0.7.226: icmp_seq=15 ttl=64 time=1.837 ms
^C
--- 10.0.7.226 ping statistics ---
16 packets transmitted, 16 packets received, 0.0% packet loss
round-trip min/avg/max/stddev = 1.584/1.709/1.837/0.060 ms
METI-Workstation-3:~ meti$
```

Checking Connectivity using MAC Workstation or Personal Computer

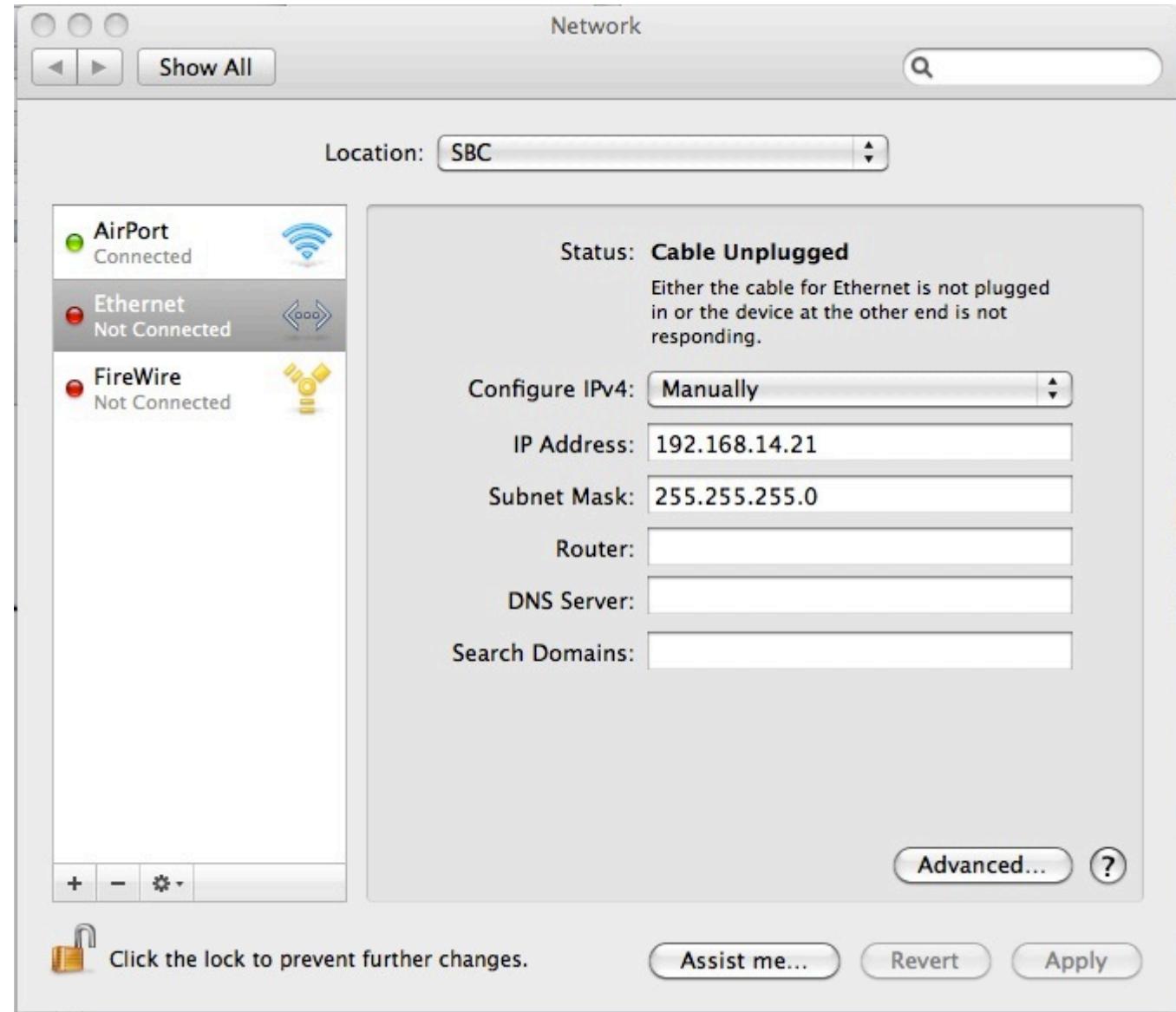
Checking Router and SBC

If the computer is not a MM Workstation, open Network Preferences and create a new location as SBC. Set the Wireless IP Address to the IP address shown on the Simulator Data Sheet. The first three octets of IP address MUST match documentation. Use Subnet Mask values displayed in this picture.

Note: if using same IP address as another computer that is turned on, there will be conflicts.

Use the Ping command from the Terminal Application or from the Network Utility to check for a drop in transmission rates or packet loss between the Workstation and the SBC or Router. Packet loss should be zero and round-trip transmission should occur in less than 8ms. Use IP Address shown in simulator documentation to ping to.

Can be tested on Wired Ethernet as well as the wireless for troubleshooting purposes. Make the required changes for the wired configuration and don't use the same IP Address as the wireless or there will be a conflict.



Checking Connectivity using MAC Workstation or Personal Computer

Checking RHM_s and SBC

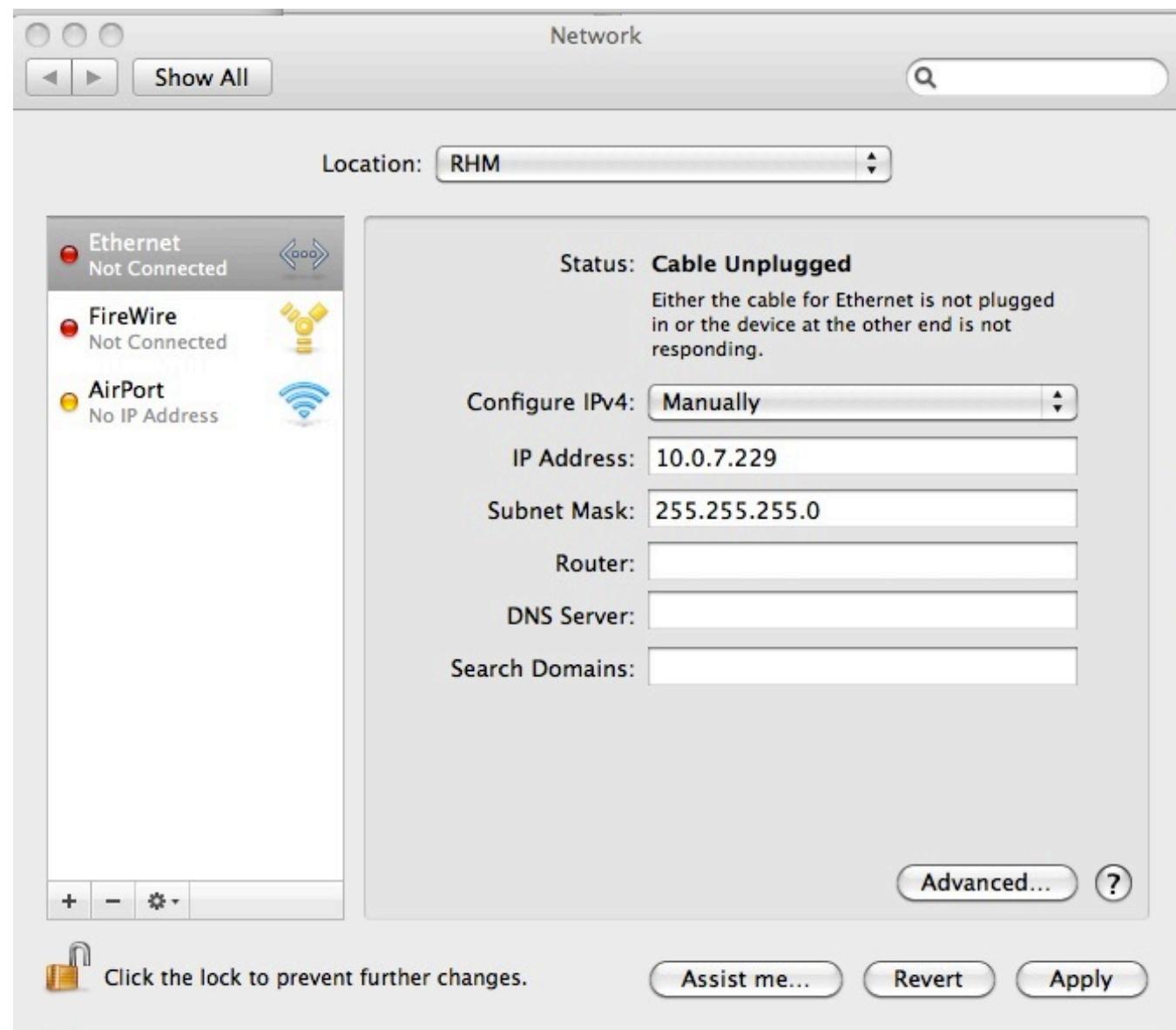
Open Network Preferences and create a new Wired Ethernet location as RHM. Set the Wired IP Address and Subnet Mask to values displayed in this picture.

Use the Ping command from the Terminal Application or from the Network Utility Application to check for a drop in transmission rates or packet loss between the Workstation and the SBC and the two RHM_s. Packet loss should be zero and round-trip transmission should occur in less than 8ms. Use IP Address shown below to ping the SBC, RHM_A or RHM_B.

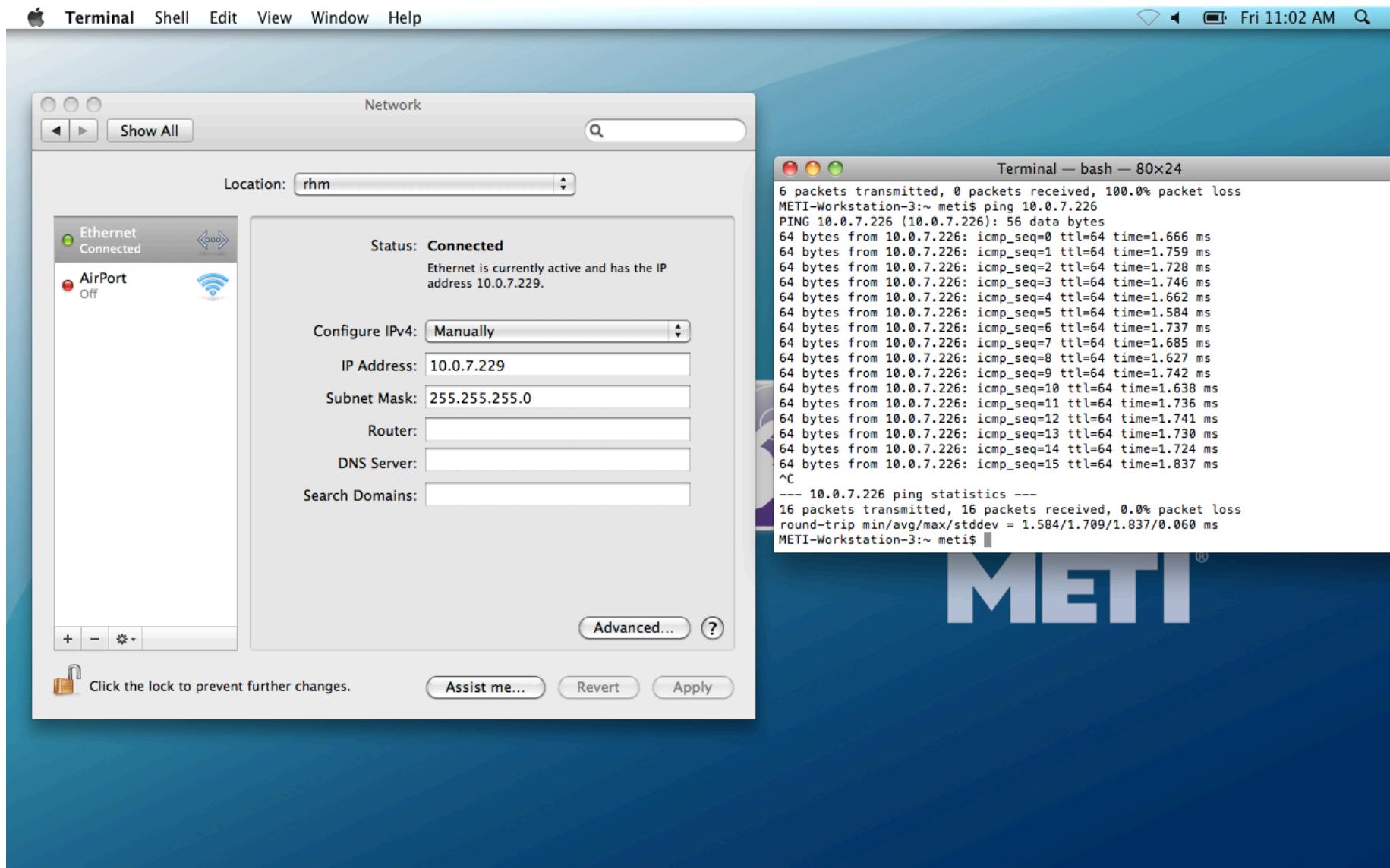
SBC: 10.0.7.225

RHM_A: 10.0.7.227

RHM_B : 10.0.7.226



Checking Connectivity using MAC Workstation or Personal Computer



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SSH to SBC for Information

The following are command lines that can show information regarding the SBC:

- SBC Report - is sometimes used to check why an installer has failed
- Check Date & Time - is sometimes used troubleshooting odd database issues
- Check SBC IP Address - is used from the RHM side of SBC if the external network IP Address can not be determined.

=====SBC Reports=====

Must have computer network set to SBC network configuration

<http://192.168.x.5/installerlog.txt> This may bring up report via web browser

ssh root@192.168.x.5 IP address of external network
password: metiadmin

cat /home/METI/installerlog.txt

Alternately - after password, type the following:

cd /home/METI
ls -al Directory listing
cat installerlog.txt Review file -

=====Check Date and Time=====

Must have computer network set to RHM network or to External network

METI-Administrators-MacBook:~ meti\$ **ssh root@192.168.39.5**

root@192.168.39.5's password: **metiadmin**

Last login: Wed Apr 11 17:39:24 2012 from 192.168.39.20

[~]>**date**

=====Check SBC IP Address=====

Must have computer network set to RHM network

ssh root@**10.0.7.225** IP address of internal Network
password: metiadmin
ifconfig

```
eth0    Link encap:Ethernet HWaddr 00:07:32:10:62:7F
        inet addr:10.0.7.225 Bcast:10.0.7.231 Mask:255.255.255.248
        inet6 addr: fe80::207:32ff:fe10:627f/64 Scope:Link
              UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
              RX packets:587216 errors:0 dropped:0 overruns:0 frame:0
              TX packets:586677 errors:0 dropped:0 overruns:0 carrier:0
              collisions:0 txqueuelen:1000
              RX bytes:35292136 (33.6 MiB) TX bytes:98920381 (94.3 MiB)
              Memory:fddc0000-fdde0000
```

```
eth1    Link encap:Ethernet HWaddr 00:07:32:10:62:80
        inet addr:192.168.14.5 Bcast:192.168.14.255 Mask:255.255.255.0
        inet6 addr: fe80::207:32ff:fe10:6280/64 Scope:Link
              UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
              RX packets:5213 errors:0 dropped:0 overruns:0 frame:0
              TX packets:19525 errors:0 dropped:0 overruns:0 carrier:0
              collisions:0 txqueuelen:1000
              RX bytes:1586319 (1.5 MiB) TX bytes:2567083 (2.4 MiB)
              Memory:fd9c0000-fd9e0000
```

Wireless Network Support

Wireless Networking Configuration

IEEE 802.11 is a set of standards carrying out wireless local area network (WLAN) computer communication in the 2.4, 3.6 and 5GHz frequency bands.

Athena, MFS, Caesar, Apollo, METIman and iStan, in typical operation, use a wireless network to provide operational control of the simulator. ECS and HPS only use wireless for remote operations. The network is based on the industry standard 802.11b/g (and 802.11n depending on hardware) specifications and utilizes standard TCP/IP and UDP/IP networking communication protocols. By default, these systems all operate on the 2.4GHz band.

The network is created and defined by the simulator, providing a dedicated network for each simulator. Client workstations need to first select the network, once the network connection has been established then the software is loaded by going to the defined IP address using a standard web browser (see minimum requirements).

For effective network communication we need to adhere to standard wireless guidelines:

- Range limit is a maximum of 150 ft
- Avoid line-of-sight blockage using steel, aluminum, and/or concrete
- Avoid environments with high level of interference.
- Avoid strong magnetic or electrical radiation emitting devices within 150 feet (Ultrasound, MRI, RF or other similar devices) that can produce interference in the local environment affecting the throughput performance of 802.11 channels
- Avoid adding to a congested network (5 or more existing wireless networks)

Network Interference

One of the most common issues of failure for wireless communication is Radio Frequency (RF) interference. In WLAN each 802.11 station transmits packets when there is no other station transmitting. If another station happens to be sending a packet, the other stations will wait until the medium is free. RF interference involves the presence of unwanted, interference RF signals that disrupts normal system operations. An interference RF signal of sufficient amplitude and frequency can appear as a bogus 802.11 station transmitting a packet. This causes legitimate 802.11 stations to wait indefinite periods of time until the interfering signal goes away.

To make matters worse, an interfering signal generally does not abide to the 802.11 protocols, so the interfering signal may start abruptly while a legitimate 802.11 station is in the process of transmitting a packet. If this occurs, the destination will receive the packet with errors and not reply to the source station with an acknowledgment. In return, the source station will attempt retransmitting the packet, adding overhead on the network. The worst-case scenario, 802.11 stations will hold off until the interfering signal goes completely away, which could be minutes, hours, or days.

Wireless Network Support

Sources of RF interference that may cause problems

For 2.4 GHz wireless LANs, there are several sources of interfering signals, including microwave ovens, wireless phones, Bluetooth enabled devices, and other wireless LANs. High voltage power lines, MRI and most of the hospital equipment are also a high source of interference in the 2.4 GHz frequency band. One of the most damaging of these are 2.4 GHz wireless phones that may be used at some sites. If one of these phones is in use within the same room as an 802.11b wireless LAN, then expect poor wireless LAN performance.

Microwave ovens operating within 10 feet or so of an access point or radio- equipped user will generally just cause 802.11b performance to drop. Bluetooth enabled devices, such as laptops and PDAs, will also cause performance degradations if operating in close proximity to 802.11 stations, especially if the 802.11 station is relatively far (i.e., low signal levels) from the station that it's communicating with. Other wireless LANs, such as the ones the site may be operating, can cause interference unless you coordinate the selection of 802.11b channels.

Be aware that some IT departments use network access control systems to detect and jam perceived rogue wireless devices. These systems can send Disassociate or De-authenticate control frames or jam the suspect wireless frequency to shut down Wi-Fi communications.

What can be done about RF interference? Here are tips you should consider:

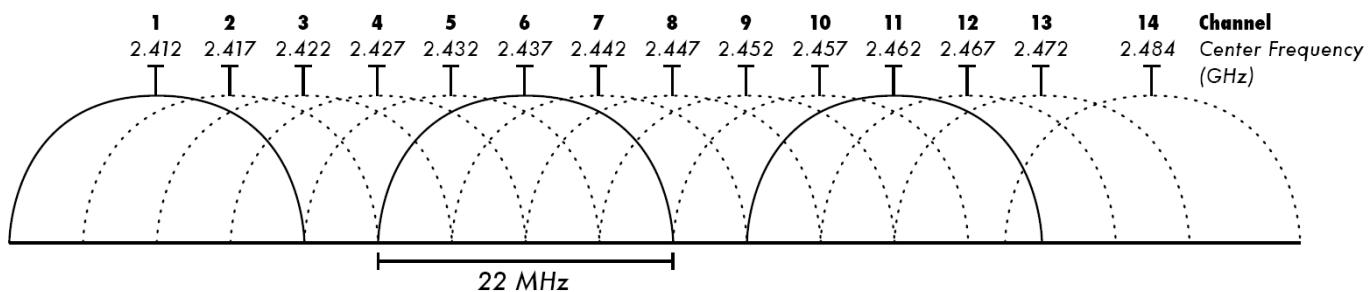
1. **Discuss with the future customer the implications and requirements of a wireless simulator.** Recommend the involvement of the on-site IT organization in order to analyze any issues with adding an additional wireless application at their facility. They may require additional data to help identify our CAE product as a "Known/Unauthorized" device so as to not disrupt simulator Wi-Fi communications.
2. **Establish the proper expectations.** CAE cannot be responsible for the poor operation of a wireless device located in an unfriendly-congested wireless environment.
3. **Discuss the potential for RF interference.** Discuss with the people within the facility and learn about other RF devices that might be in use that could interfere with the proper operation of the simulator.
4. **Discuss the possibility of having the simulator away from the interfering sources.**
5. **Set configuration parameters properly.** Discuss with the facility IT personnel, the option to configure CAE wireless simulator to accommodate to their environment such as defining a specific networking channel (defaults to auto channel selection) or adjusting the factory network configurations. METI Customer Support and Engineering teams will assist making any adjustments to ensure correct operation of the simulator. *See WiFi channel below.*
6. **Offer the option of using the simulator in a wired-mode connection.** All METI simulators are capable of operating wireless and in wired environment with minor changes to the Instructor Workstation configuration.

Wireless Network Support

WiFi Channels

The 2.4 GHz Wi-Fi signal range is divided into a number of smaller bands or "channels," similar to television channels. In most countries, Wi-Fi equipment provides a set of available channels to choose from. In the United States, for example, any of the Wi-Fi channels 1 - 11 can be chosen when setting up a wireless LAN (WLAN). Setting this Wi-Fi channel number appropriately provides one way to avoid sources of wireless interference. Channel 1, 6 and 11 are most common because they do not overlap.

Using a tool like the free Mac application **NetSpot** (<http://www.netspotapp.com/>) can help identify what the wireless environment looks like and which channels are being most used in the area. If too many devices are occupying the same channel, it may cause interference. The DLINK router used on most simulators automatically choose the quietest channel on power-up, but the Channel used can be manually set to a particular one if necessary.



Simulator Networking IP Details

Athena

Serial Number:	ATHXXXX
SSID:	ATHxxxx
Router IP:	192.168.x.1
Simulator IP:	192.168.x.5
Workstation IP:	192.168.x.20
TouchPro IP:	192.168.x.30
Subnet Mask:	255.255.255.0
Channel configuration:	Ch. 5 Default

Caesar

Serial Number:	CAESARXXXX
SSID:	caesarxxxx
Router IP:	192.168.x.1
Simulator IP:	192.168.x.5
Workstation IP:	192.168.x.20
TouchPro IP:	192.168.x.30
Subnet Mask:	255.255.255.0
Channel configuration:	Ch. 5 Default

Apollo/METIman

Serial Number:	APPXXXX
SSID:	APPxxxx
Router IP:	192.168.x.1
Simulator IP:	192.168.x.5
Workstation IP:	192.168.x.20
TouchPro IP:	192.168.x.30
Subnet Mask:	255.255.255.0
Channel configuration:	Automatic

MFS

Serial Number:	MFSXXXX
SSID:	mfsxxxx
Router IP:	192.168.x.1
Simulator IP:	192.168.x.5
Fetus	192.168.x.9
Workstation IP:	192.168.x.20
TouchPro IP:	192.168.x.30
Subnet Mask:	255.255.255.0
Channel configuration:	Ch. 5 Default

* Apollo can be APP or APN

* METIman can be MMP or MMN

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REV	DESCRIPTION	DATE	APPROVED
A	ECO2387, Engineering Realese		
B	Update DHCP section for Vivo Support		

APPROVALS	DATE	 CAE Healthcare		
DRAWN BY J. Kohut	2/12/15			
CM APPROVED M, McClure	10/23/16			
QA APPROVED		TITLE: Edimax BR-6228nS V2 Router Configuration		
ENGINEERING APPROVED		SIZE A	DRAWING NUMBER 905-K5100-64	REV B
MFG/TEST APPROVED		SCALE None	SHEET 1 OF 17	

TABLE OF CONTENTS

1.0	SCOPE	3
2.0	APPLICABLE DOCUMENTS.....	3
3.0	REQUIREMENTS.....	3
3.1	GENERAL INFORMATION.....	3
3.2	TEST EQUIPMENT/TOOLS LIST	3
3.3	PARTS LIST	3
4.0	SETUP PROCEDURE	4
4.1	SETUP COMPUTER FOR AUTOMATIC DHCP	4
4.2	ROUTER PREPARATION	5
4.3	CONNECT TO WIRELESS ROUTER WITH COMPUTER.....	5
4.4	PRELIMINARY ROUTER SETUP	6
4.5	FINAL ROUTER SETUP.....	12

1.0 SCOPE

This document describes the method and procedure for configuring the IP Address as well as additional information for the Edimax BR-6228nS V2 wireless router.

2.0 APPLICABLE DOCUMENTS

- N/A

3.0 REQUIREMENTS

3.1 General Information

*When computer operation sequences are shown they will be in italics as follows:
selection1 > selection2 > selection3 > etc.*

3.2 Test Equipment/Tools List

- N/A

3.3 Parts List

- Computer (Apple or Windows) with wireless LAN
- Edimax wireless router BR-6228nS V2 & source of power

4.0 SETUP PROCEDURE

4.1 Setup computer for automatic DHCP

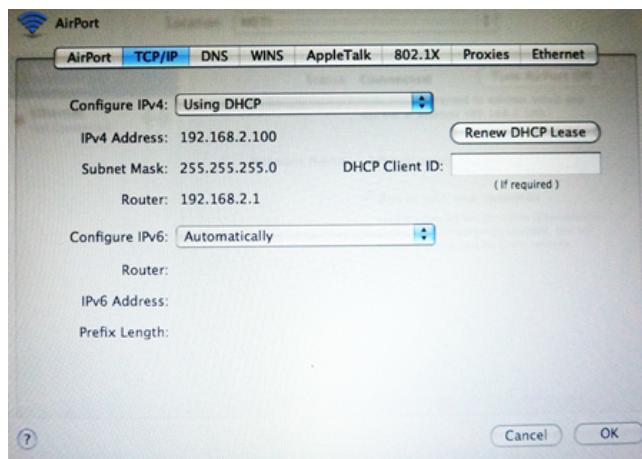
4.1.1 Apple computer:

4.1.1.1 Click on “apple icon”> system preferences> network> select “Wi-Fi”

4.1.1.2 Click on the “Lock icon” to unlock. If already unlocked proceed to 4.1.1.4

4.1.1.3 Enter user name (admin) and password (metiadmin) then press Unlock

4.1.1.4 Click on advance> TCP/IP> configure IPv4 > select “Using DHCP” > OK >apply



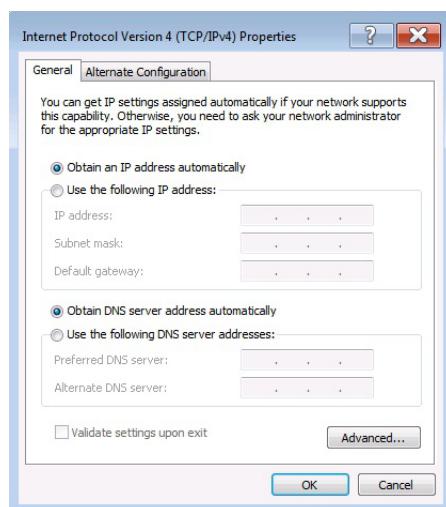
4.1.1.5 Close any open windows.

4.1.2 Windows computer:

4.1.2.1 START> Control Panel> View network status and tasks> Change adapter settings

4.1.2.2 “right click” Wireless Network Connection> Properties

4.1.2.3 Select “Internet Protocol Version 4 (TCP/IPv4)”> Properties> Obtain an IP address automatically> OK



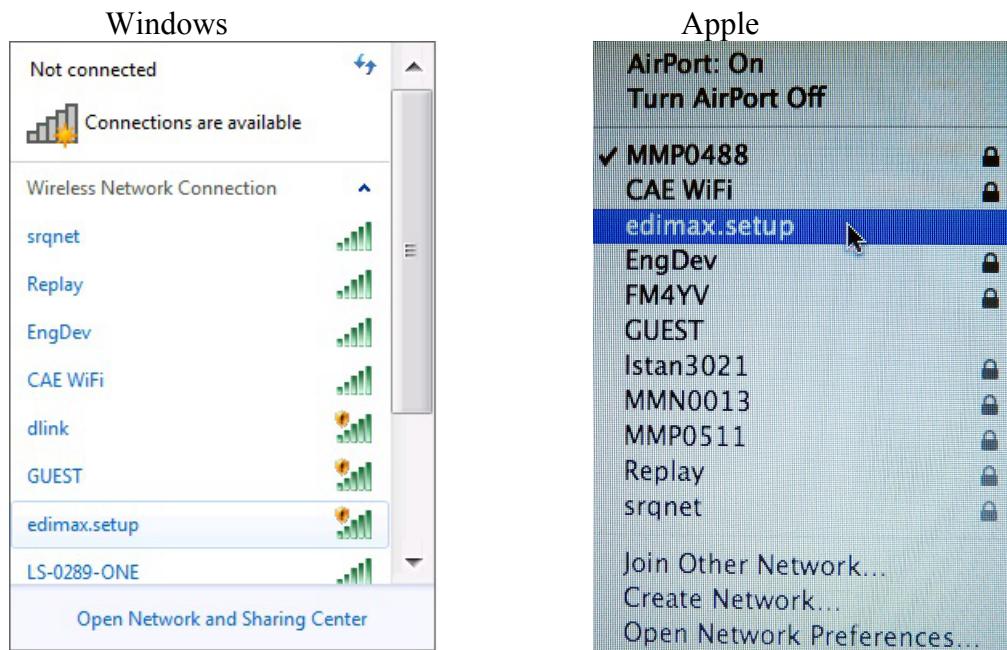
4.1.2.4 Close any open windows.

4.2 Router preparation

- 4.2.1 Connect power to the router's 5V DC power port (either mannequin or adapter power)

4.3 Connect to wireless router with computer

- 4.3.1 Click on the computer wireless icon and join the “edimax.setup” network (double click on edimax.setup).

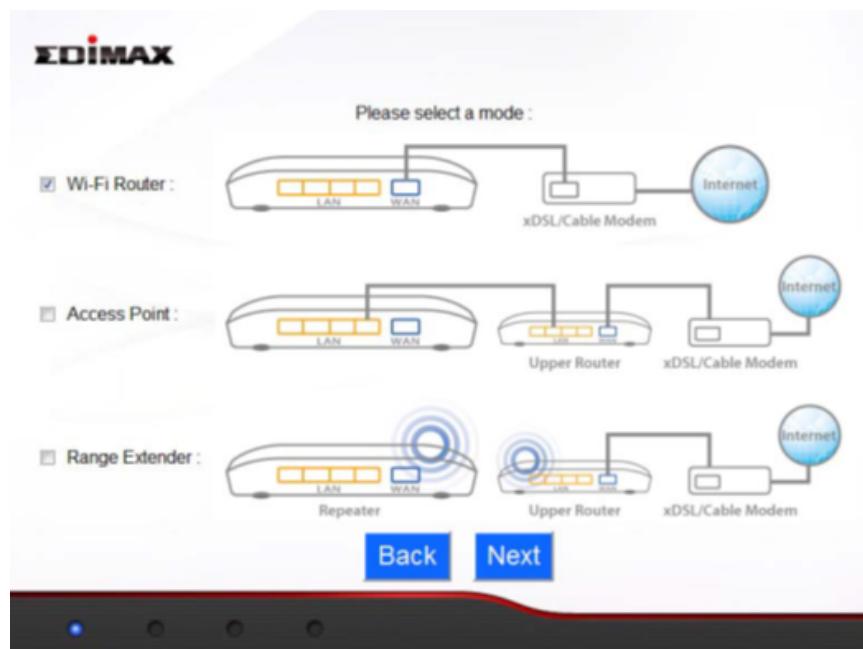


4.4 Preliminary router setup

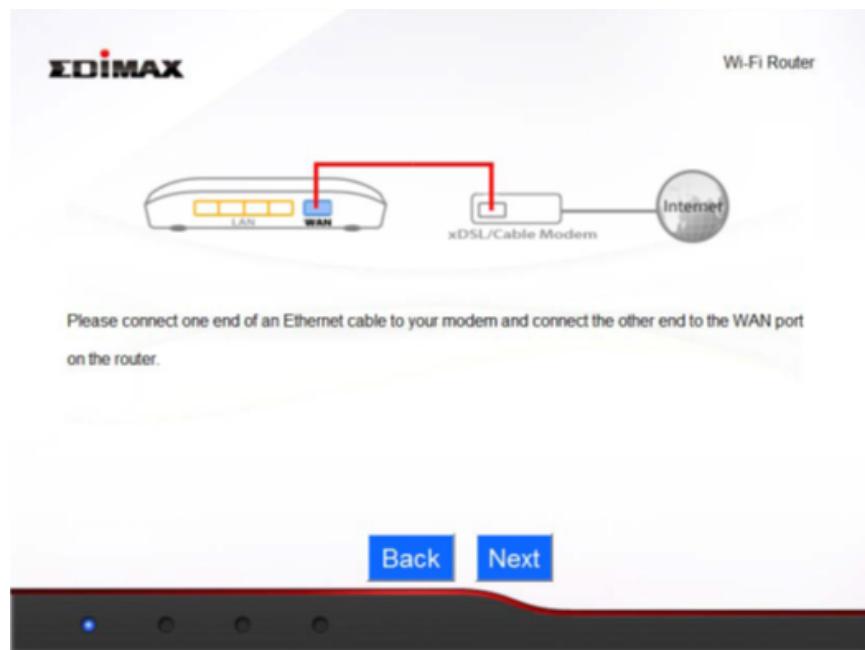
4.4.1 Open the web browser and if you do not automatically arrive at the “Get Started” screen shown below, enter the URL <http://edimax.setup> and click “Get Started” to begin the setup process.



4.4.2 Select the mode “Wi-Fi router” and click “Next” to continue.



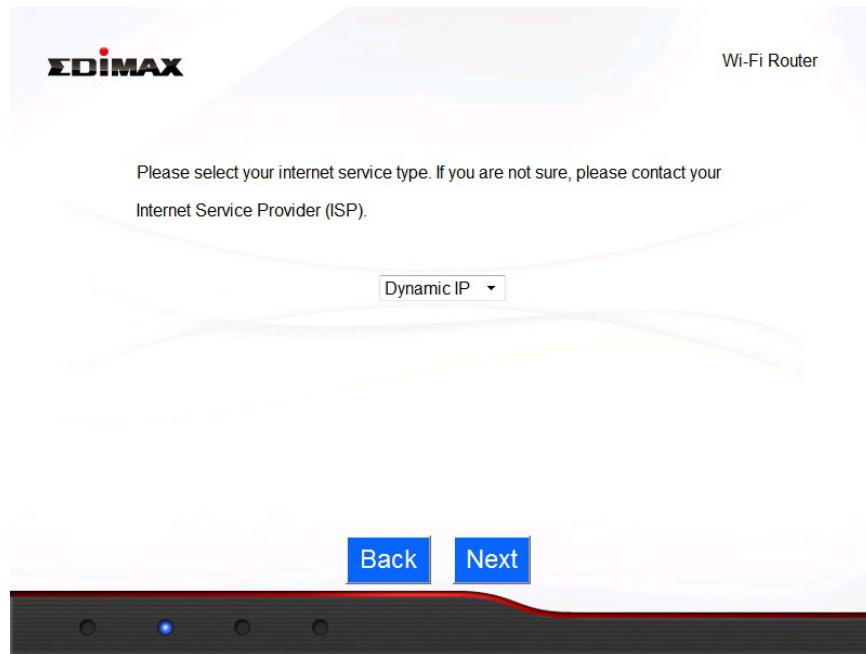
4.4.3 Click “Next” to continue.



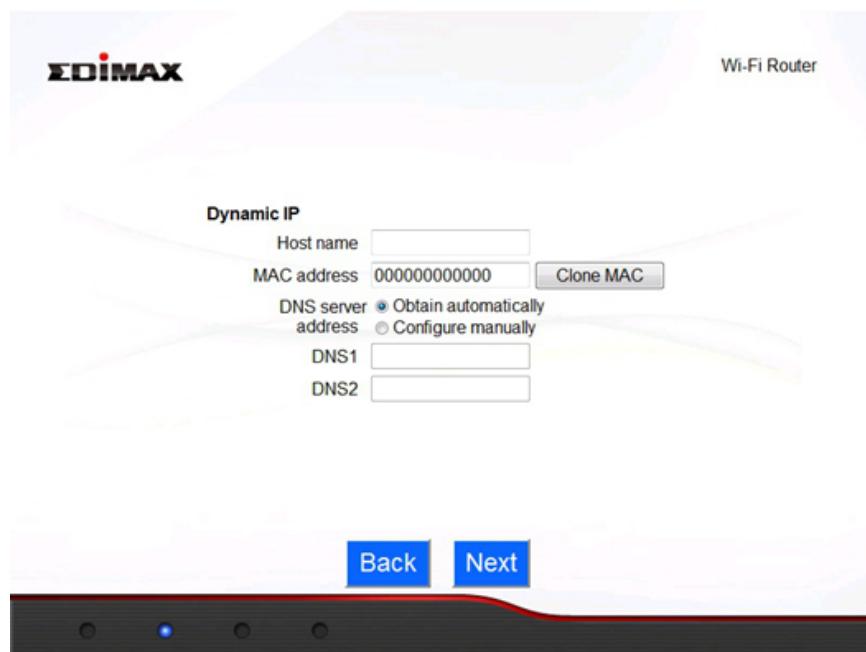
4.4.4 Select the mode “Configure manually” and click “Next” to continue.



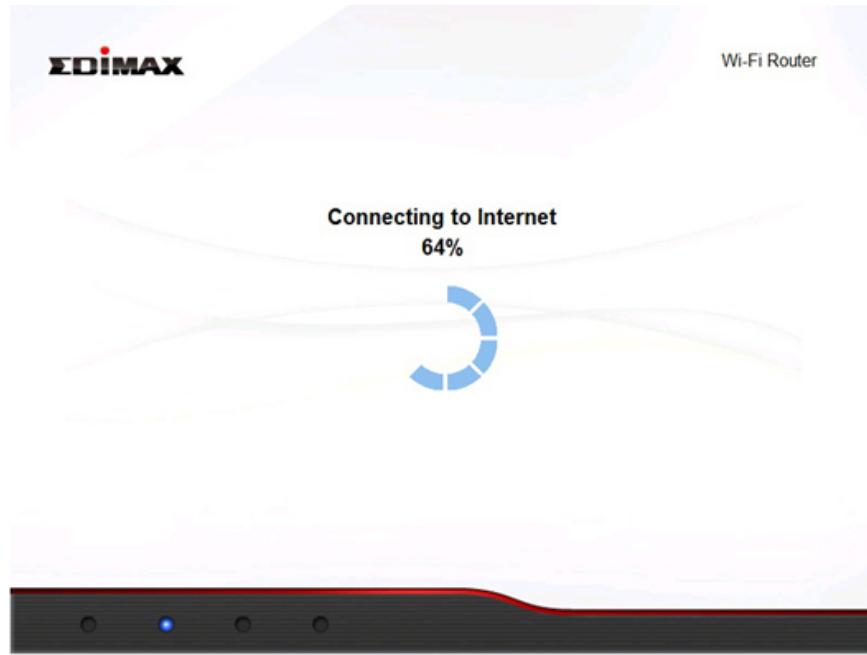
4.4.5 Select the mode “Dynamic IP” and click “Next” to continue.



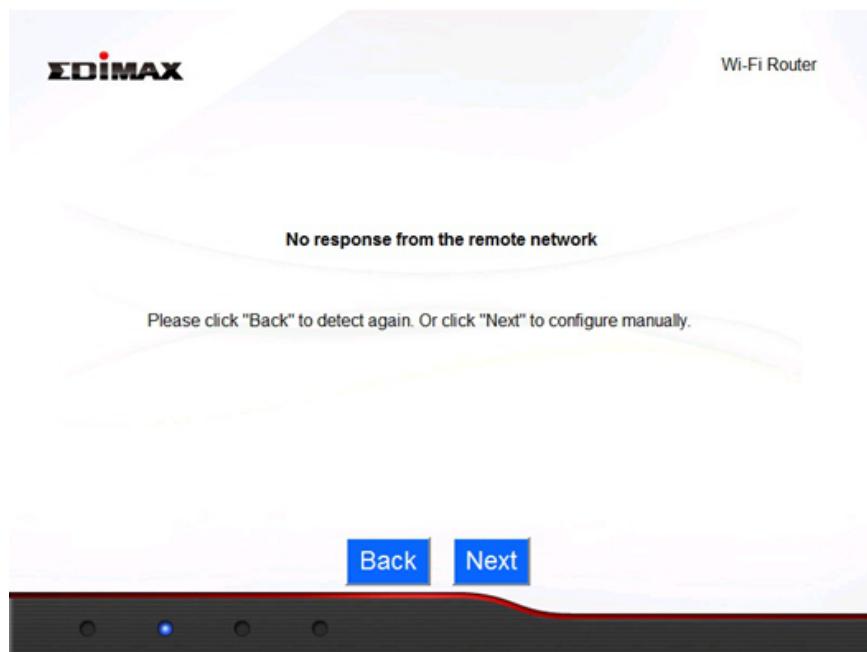
4.4.6 Click “Next” to continue.



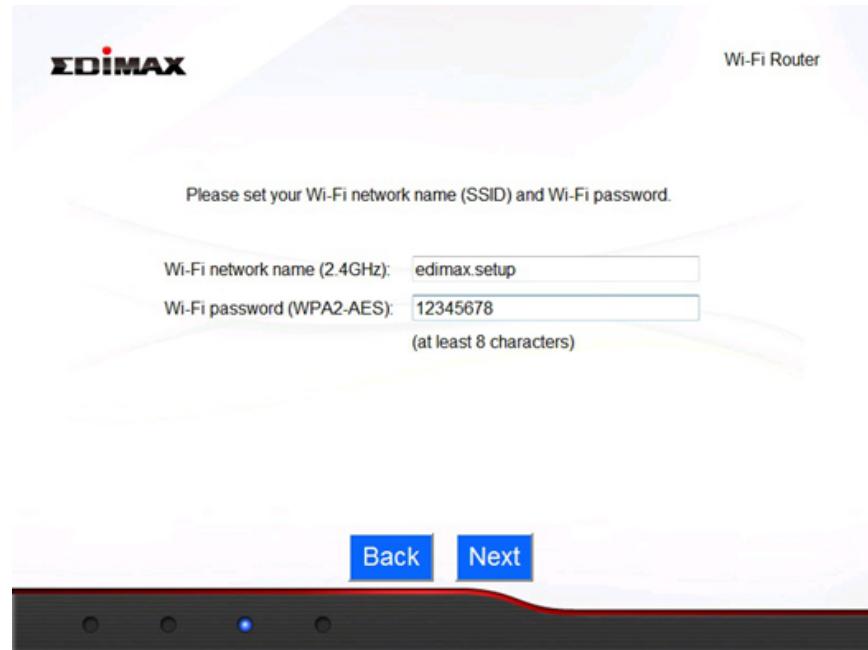
4.4.7 Wait for process to time out.



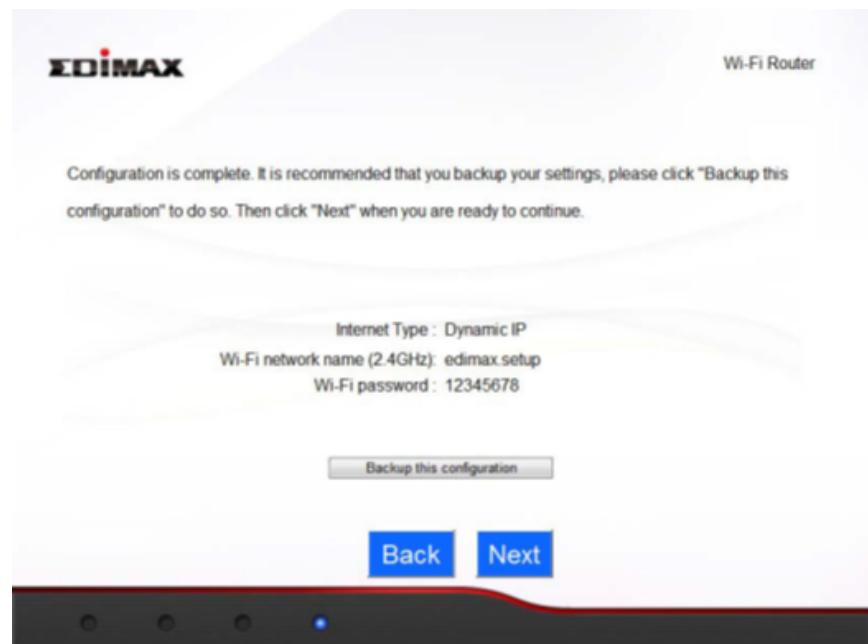
4.4.8 Click “Next” to continue.



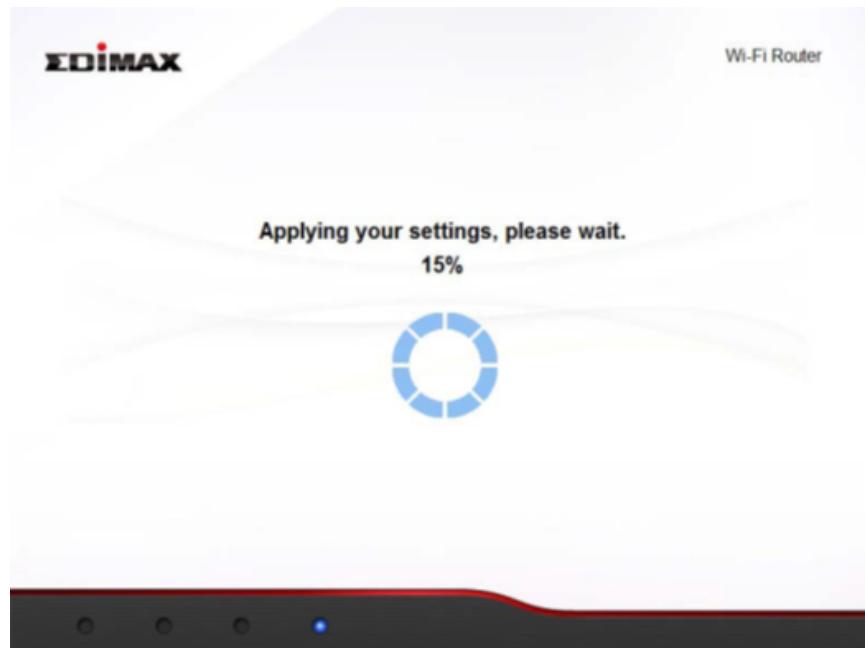
4.4.9 Enter “12345678” for password and click “Next” to continue.



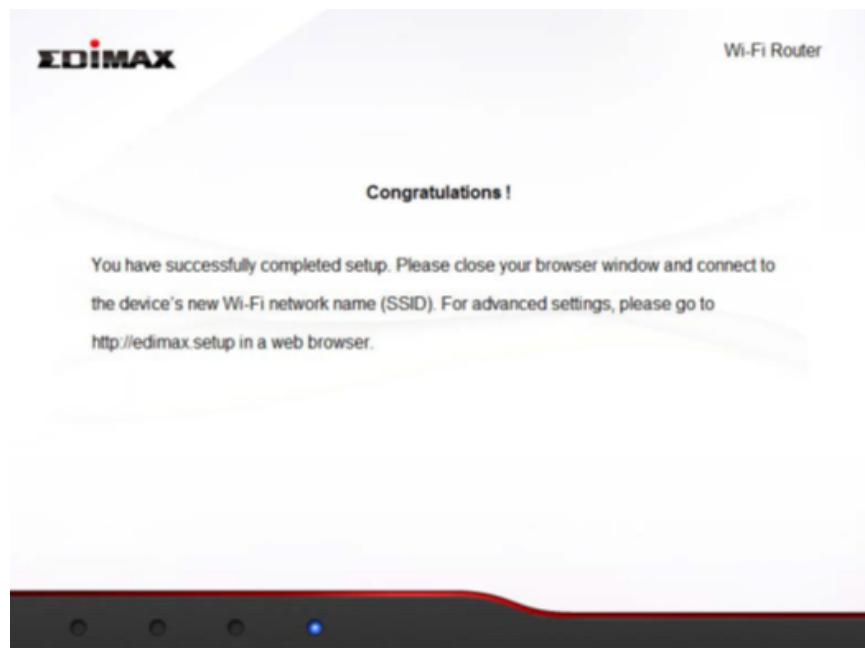
4.4.10 Click “Next” to continue.



4.4.11 Wait for router to update settings.



4.4.12 The initial router setup is finished.



4.5 Final router setup

4.5.1 Unplug the power to the router for at least 30 seconds than plug the power back in. Close browser and re-connect to Wi-Fi router using new settings:

ESSID: edimax.setup
Password: 12345678

4.5.2 Open the web browser and enter the URL **http://edimax.setup**

You will be prompted for a username and password. The default username is “admin” and the default password is “1234”. Click “OK” to continue.



4.5.3 Select “2.4GHz Wireless – Basic”.



4.5.4 In “Wireless Network Name:” type the serial number of the simulator. Use a serial number at least 8 characters in length. e.g. “istan0000”, “ECS00000”. The only exception to this is METIman, which should use a serial number of 7 characters in length, e.g. “MMP0000” or “MMN0000”. Apart from ECS and METIman simulators, the letters indicating simulator type should be in lowercase.

4.5.5 For “Encryption” select “WPA-Pre-shared key” and check “WPA2 Mixed”

4.5.6 In “Pre-Shared Key” type in the serial number of the simulator. Use a lowercase serial number at least 8 characters in length. e.g. “istan0000”, “ecs00000”. For METIman type in “metiadmin”.

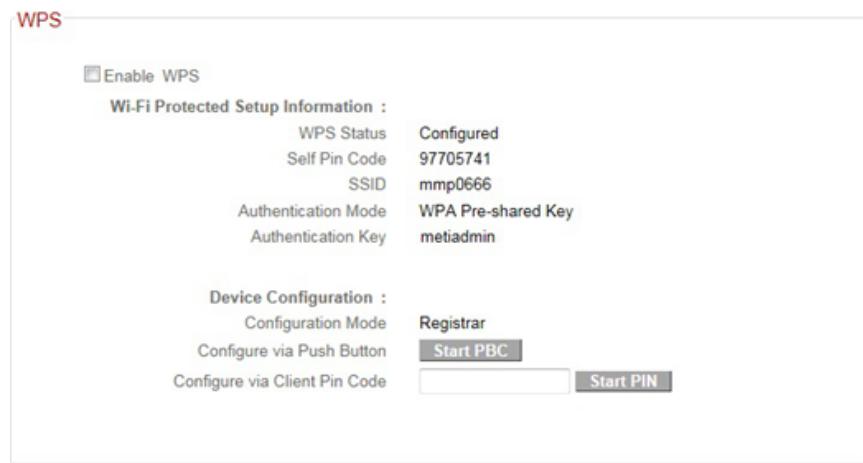
4.5.7 Click “Save Settings”.

The screenshot shows the 'Basic Settings' and 'Wireless Security' sections of a router's configuration page. In the 'Basic Settings' section, 'Band' is set to '2.4 GHz (b+g+n)', 'Wireless Network Name (ESSID)' is 'mmp0666', 'Broadcast ESSID' is checked, 'Channel Number' is 'Auto', and 'Wireless Clients' has a 'Show list' button. In the 'Wireless Security' section, 'Encryption' is set to 'WPA Pre-shared Key', 'WPA Unicast Cipher Suite' includes 'TKIP', 'AES', and 'WPA2 Mixed', 'Pre-shared Key Format' is 'Passphrase', and the 'Pre-shared Key' field contains 'metiadmin'. A 'Save Settings' button is at the bottom, and a note below it says 'Settings have been saved. Please [click here to restart](#) the router and bring the new settings into effect.'

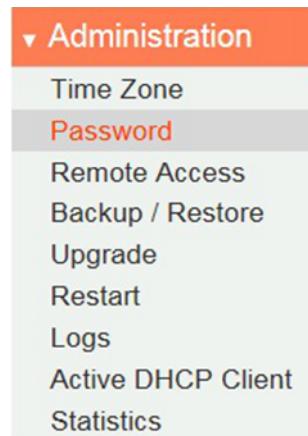
4.5.8 Select “WPS” to continue.



4.5.9 Uncheck “Enable WPS”.



4.5.10 Select “Administration – Password”.



4.5.11 Enter the current password for Admin “1234”.

4.5.12 Enter the New Password “metiadmin”.

4.5.13 Confirm the password with “metiadmin”.

4.5.14 Click “apply”.

Password

Current Password	1234
New Password	metiadmin
Confirmed Password	metiadmin

Apply

4.5.15 When the router requests a user and password, enter “admin” as user and “metiadmin” as password then click “OK”.



4.5.16 Select “LAN” to continue.



4.5.17 In “Router IP Address:” type in the IP address provided by IP Address Tracker for the router.

4.5.18 For iStan type in 255.0.0.0 for the Subnet Mask. For METIman set Subnet Mask to 255.255.255.0

4.5.19 Set “DHCP Server” to:

“Disabled” for iStan and ECS products

“Enabled” for Apollo and METIman (These products supports Vivo)

- For Vivo, set Range Start IP to 192.168.xxx.155
- For Vivo, set Range End IP to 192.168.xxx.177

4.5.20 Click on “Save Settings”.

Basic Settings

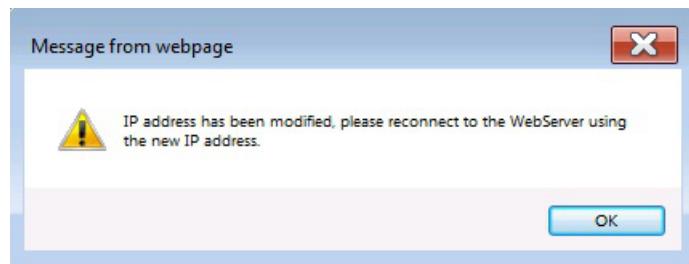
Band: 2.4 GHz (b+g+n)
Wireless Network Name (ESSID): mmp0666
Broadcast ESSID: Enable Disable
Channel Number: Auto
Wireless Clients: Show list

Wireless Security

Encryption: WPA Pre-shared Key
WPA Unicast Cipher Suite: WPA (TKIP) WPA2 (AES) WPA2 Mixed
Pre-shared Key Format: Passphrase
Pre-shared Key: metiadmin Hide

Save Settings

4.5.21 Click “OK” to continue.



4.5.22 Press “click here to restart” router (just below Save Settings button).

The screenshot shows a network configuration interface with the following sections:

- LAN IP**:
 - IP Address: 192.168.168.1
 - Subnet Mask: 255.255.255.0
 - 802.1d Spanning Tree: Disable
 - DHCP Server: Disable
 - Lease Time: Forever
- DHCP Server**:
 - Start IP: 192.168.2.100
 - End IP: 192.168.2.200
 - Domain Name: (empty)
- Static DHCP Lease Table**:
 - Only 16 sets of addresses are allowed.
 - Table headers: NO., MAC Address, IP Address, Select
 - Buttons: Delete Selected, Delete All
 - Checkboxes: Enable Static DHCP Leases
 - Buttons: New, MAC Address, IP Address, Add

Save Settings

Settings have been saved. Please [click here to restart](#) the router and bring the new settings into effect.

4.5.23 After the router reboots, it is now configured for operation with the system.

Warning:

**Check router firmware version and update if version is below 1.22.
Could cause an issue on ECS or possibly iStan simulators.**

When the Ethernet ports of the router are connected to the USE board, the multicast identification packets from the USE board get dropped after 29 transmissions (approximately 5 minutes). The packets only get dropped from the Ethernet ports, the wireless works fine. This upgrade for the router fixes that problem. It should be applied to routers with firmware below version 1.22.

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Apollo

Workstation, TouchPro, MPIC & DCS Setup

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Müse

Support Guide

This guide is available on server.

MFS1/Groups/Literature/Configuration Management/Released Drawings/905/

Only Table of Contents shown here

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MODIFIED BY Krishen Greenwell	2016-08-10			
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MFG/TEST APPROVED		SCALE N/A	SHEET 1 OF 117	



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1. Table of Contents

1. Table of Contents	4
1. Introduction	8
1.1. About Müse	8
1.1.1. Müse 2.7 - All simtypes.....	8
1.1.2. Müse 2.6 - Athena and Apollo only.....	8
1.1.3. Müse 2.4 (33) - METIman only	8
1.1.4. Müse 2.3 (39) – All simtypes except Lucina and METIman.....	8
1.1.5. Müse 2.3 (25) - Lucina	8
1.1.6. Müse 2.2.....	9
1.1.7. Müse 2.1 (16)	9
1.1.8. Müse 2.1 (15)	9
1.1.9. Müse 2.0.....	9
1.1.10. Build 221.....	9
1.1.11. Build 197.....	9
1.1.12. Build 167.....	9
1.2. Scope	10
1.3. Audience	10
1.4. Customer Support Roles	10
1.4.1. Tier 1	10
1.4.2. Tier 2	10
1.4.3. Tier 3	12
2. Müse for Mac OS	13
2.1. Installation in Mac OS For Müse SCE Development Software	13
2.1.1. Minimum System Requirements	13
2.1.2. Warnings	13
2.1.3. Prior to Installation.....	14
2.1.4. Mac Installation Procedure.....	14
2.1.5. Launching Müse SCE Development Software in Mac OS	17
2.2. Upgrading Müse in Mac OS	18
2.2.1. Warnings	18
2.2.2. Prior to Upgrading.....	18
2.2.3. Upgrading Müse	18
2.2.4. Launching Müse SCE Development Software after upgrading in Mac OS	25
2.2.5. Launching Müse for an Instructor Workstation after upgrading in Mac OS	25
2.3. Troubleshooting Müse for Mac	26
2.3.1. Mac Installation and Upgrading Troubleshooting	26
2.3.1.1. Problem: Dialog appears indicating "MySQL is not installed." during an installation.....	26
2.3.1.2. Problem: Dialog appears indicating "OS too old." during an installation.....	27
2.3.1.3. Problem: Dialog appears indicating "Not enough memory installed."	28
2.3.1.4. Problem: Dialog appears indicating "Wrong platform." during an installation.....	29
2.3.1.5. Problem: The customer has a different version of MySQL on their computer that needs to be manually removed	30
2.3.1.6. Problem: A dialog appears during upgrading indicating socketpolicy needs to be closed.....	31
2.3.1.7. Problem: The MySQL installer dmg does not mount when double clicking on it	31
2.3.2. Troubleshooting Launching Müse in Mac OS.....	32
2.3.2.1. Problem: Müse Start page does not load.....	32
2.3.2.2. Problem: Loading Müse shows missing plug-in message.....	33
2.3.2.3. Problem: Müse UI progress bar hangs on "Initializing"	34
2.3.2.4. Problem: Müse UI progress bar hangs on "loading database server"	36
2.3.2.5. Problem: Users sees the "software license has expired page" immediately prior to seeing the Login page.....	38

2.3.2.6. Problem: Müse displays a "System failed to load properly." Screen	39
2.3.2.7. Problem: After installing Müse Build 167 SCE Development Software for Mac, can't access institutional network.....	41
2.3.3. Troubleshooting Using Müse in Mac OS.....	42
2.3.3.1. Problem: Login fails.....	42
2.3.3.2. Problem: The user cannot see any SCEs on the Home Screen.....	43
2.3.3.3. Problem: The Müse User guide doesn't open.....	44
2.3.3.4. Problem: Message appears "Login session ended."	44
2.3.3.5. Problem: The customer cannot use Müse because there is not enough vertical space in the browser window to display the entire application	45
3. Müse SCE Development Software for Windows.....	46
3.1. Installation in Windows	46
3.1.1. Minimum System Requirements	46
3.1.2. Warnings	46
3.1.3. Prior to Installation.....	47
3.1.4. Windows Müse Installation Procedure (Müse 2.6 and above)	47
3.1.5. Windows Müse Installation Procedure (Müse 2.4 and prior).....	51
3.1.6. Windows Müse Upgrade Procedure (Müse 2.4 and prior).....	55
3.1.7. Launching Müse in Windows.....	57
3.1.8. Tips for Running Müse in Windows.....	57
3.2. Troubleshooting Müse for Windows	59
3.2.1. Windows Installation Troubleshooting.....	59
3.2.1.1. Problem: Dialog appears indicating "...tmp\IIS75\iis75-setup-x86.exe is not a valid Win32 application."	59
3.2.1.2. Problem: Message appears "Error creating process <dism /Online/Enable-Feature /FeatureName:IIS-CGI/FeatureName:..."	60
3.2.1.3. Problem: Message appears "An error occurred while installing system components for Muse. Setup cannot continue until all system components have been successfully installed" with a details pane that states"Setup has detected that the file 'C:\Users\<username>\AppData\Local\Temp\<tmp folder.tmp>\PHP52\php_5.2.14-nts-Win32-VC6-x86.msi' has either changed since it was initially published or may be corrupt"	61
3.2.1.4. Problem: Dialog appears indicating "Unable to satisfy all prerequisites for Müse. ..." and Details indicates wrong MySQL version.....	62
3.2.1.5. Problem: Dialog appears indicating "Unable to satisfy all prerequisites for Müse. ..." and Details indicates wrong PHP version.....	63
3.2.1.6. Problem: Dialog appears indicating "A different Müse simulator type is installed, uninstall the current simulator type then try again."	64
3.2.1.7. Problem: The customer started the installation, but no installer window was shown.....	65
3.2.1.8. Problem: The customer started the installation but the installer aborts with "Error: Setup has detected that the publisher of file 'C:\Users\<username>\AppData\Local\Temp\< tmp folder.tmp \MySQL51\mysql-essential-5.1.46-win32.msi' cannot be verified.....	65
3.2.1.9. Problem: A dialog appears during upgrading indicating socketpolicy needs to be closed.....	66
3.2.2. Troubleshooting Launching Müse in Windows.....	67
3.2.2.1. Problem: The user cannot see the Müse welcome page when loading Müse from the Start Menu.	67
3.2.2.2. Problem: When the user first launches Müse they get an error message that the Flash plug-in is not installed.....	68
3.2.2.3. Problem: It takes too long to start Müse, or the software runs too slowly.....	68
3.2.2.4. Problem: Müse loading screen is stuck on "Loading database server..." message.....	69
3.2.2.5. Problem: User is presented with "Establishing Connection..." right before where the login prompt should appear.....	69
3.2.2.6. Problem: Users sees the "software license has expired page" immediately prior to seeing the Login page.....	70
3.2.2.7. Problem: The customer got a page that displays "System failed to load properly"	72
3.2.3. Troubleshooting Using Müse in Windows	73
3.2.3.1. Problem: Login fails.....	73
3.2.3.2. Problem: The user cannot see any SCEs on the Home Screen	74

3.2.3.3. Problem: The Müse User guide doesn't open.....	74
3.2.3.4. Problem: The customer cannot use Müse because there is not enough vertical space in the browser window to display the entire application.....	75
3.2.3.5. Problem: The customer encountered an error while attempting to restore a backup using "Restore Data" function in System Settings.....	76
3.2.3.6. Problem: The customer encountered an error while attempting to login to Muse. The system reports: "Processing failure: An error occurred in the processing request, please contact customer support.", then presents a login window on top of the Muse home screen.....	77
3.2.3.7. Problem: When playing patient's record with IE browser in Motion tablet, the pop out window does not stand out as an activated window.....	78
4. Müse for METIman, Caesar and MFS Simulators.....	79
4.1. Problem: The customer encountered an error while attempting to start Müse.	79
5. Reinstalling Muse when Muse is not working.....	80
6. Activating Müse Software	81
6.1. What are Licensing, Activation and Deactivation?	81
6.2. Offline versus Online Activation and Deactivation.....	82
6.3. Configuring a Instructor Workstation For Online Activation And Offline Deactivations 82	
6.3.1. Configuring a Instructor Workstation For Online Activation.....	83
6.3.2. Configuring a Instructor Workstation For Online Deactivation.....	83
6.4. Initiating Activation	85
6.5. Online Activation Customer Procedure.....	86
6.5.1. Enter License Key	87
6.5.2. Activate Online.....	87
6.6. Offline Activation Customer Procedure.....	88
6.6.1.1. Enter License Key	89
6.6.1.2. Customer initiates a successful Offline Activation.....	89
6.6.1.3. Customer resumes a pending Offline Activation	91
6.7. Initiating Deactivation	93
6.8. Online Deactivation Customer Procedure	94
6.8.1.1. Customer initiates a successful Online Deactivation	95
6.9. Offline Deactivation Customer Procedure.....	97
6.9.1.1. Customer initiates a successful Offline Deactivation.....	98
6.9.1.2. Customer resumes a pending Offline Deactivation	99
6.10. Licensing Troubleshooting.....	101
6.10.1. Problem: License Manager link does not appear on the Müse start page.....	101
6.10.2. Problem: The License Expired screen is still shown even after successfully activating Müse. 101	
6.10.3. Problem: An Error dialog that says "Error" or "No Available Seats" appears when activating online	102
6.10.4. Problem: An Error dialog stating "Invalid License Key. Please Try Again" is displayed during a activation or deactivation.....	102
6.10.5. Problem: An Error dialog that says "Invalid License Key" is displayed during an activation or deactivation.....	103
6.10.6. Problem: An Error dialog that states "Invalid Authentication or Deauthentication Key. Please Try Again" is displayed after typing in the authentication or deauthentication key provided by CAE Healthcare.	104
6.10.7. Problem: An Error dialog that states "Unable to activate online. Please check your internet connection, or use Offline Activation" is displayed during an online activation or online deactivation.....	105
6.10.8. Problem: The customer cannot remember their license key.....	106
6.10.9. Problem: The customer cannot remember their authentication key or registration key	
106	

Important notice about Mac OS X Updates and Müse

Updating the Mac operating system (OS X) of your **Mac SCE Development Workstation** or **Mac Instructor Workstation** has an adverse effect on the **Müse** software. This is a known issue for OS X 10.8 (Mountain Lion) through OS X 10.11 (El Capitan). **Also OS X 10.12**

To address this, after the Mac OS X system is updated, run the **Müse Patch Utility**.

NOTE: Ensure Müse is closed before proceeding.

How to Run the Müse Patch Utility:

1. Download the Müse Patch Utility from the CAE Healthcare website:
www.caehealthcare.com/home/software_updates/MPU.zip.
2. Double-click to expand the file, then double-click “Müse Patch Utility” application.
3. Click OK to continue, then enter an Administrator username and password when prompted.
4. Wait for the utility to complete.
5. Restart the computer.

**Every operating system update since OS X 10.8 breaks the operation of Muse due to missing SW components and other changes. If a customer installs a new operating system, they will lose functionality in the Müse Workstation and SCE Development software often halting MySQL.
This applies to the All patient simulators.**

**HS6 users may also loose function with these applications as well. They will need to have guidance and instructions with the OSX Recovery Procedure that focuses on Java and other application needs of HS6.
(See 905K217552_C)**

As a reminder, customers with service and maintenance plans have already agreed not to install operating system upgrades on any Müse instructor workstations. Customers who have installed Müse SCE Development software on their personal computers are advised not to install OS X updates if they want to maintain full Müse functionality.

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REV	DESCRIPTION	DATE
A	Production release	2010-06-11
B	Corrections	2010-06-29
C	Support for PediaSIM ECS and workstations for new units	2010-09-20
D	Support for iStan and BabySIM	2010-11-29
E	Support for METIman	2011-05-26
F	Addition of firmware update for iMac and MacBook Pro	2011-06-10
G	ECO1512, Update Procedures	2011-08-09
H	Disable remember wireless networks; corrections	2011-08-29
J	ECO 1566; Uncheck "Remember Network"	2011-10-24
K	ECO 1580; Support for HPS [Adult] Müse upgrades	2011-12-07
L	ECO 1590; Add Preferred Network	2012-01-19
M	Removed browser-specific dependencies	2014-05-28
N	ECO 2576. Added section to update Adobe Flash	2016-03-30
O	ECR 2577. Muse 2.7. Updated simtypes. Changed Airport references to Wi-Fi.	2016-07-28

Setup Procedure Mac Simulator Workstation

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MFG/TEST APPROVED		SCALE N/A	SHEET 1 OF 7	

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TABLE OF CONTENTS

1. SCOPE	3
2. PREPARATION	3
2.1. APPLICABLE DOCUMENTS	3
2.2. EQUIPMENT REQUIRED.....	3
3. PROCEDURE	4
3.1. IMAGE COMPUTER.....	4
3.2. CONFIGURE NETWORK SETTINGS.....	4
3.3. CONFIGURE BROWSER.....	6
3.4. UPDATE U.S.E. BOARD AND ACTIVATE OPTIONAL FEATURES.....	6
3.5. EXECUTE ACCEPTANCE TEST PROCEDURE	7

1. Scope

This document describes the procedure for setting up a Macintosh computer as an **Instructor Workstation** or **Remote Workstation** for HPS (**adult Müse upgrades only**), ECS, PediaSIM ECS, BabySIM, iStan, METIman (Prehospital and Nursing), Caesar, Lucina (MFS), Athena, Apollo (Prehospital and Nursing). It applies to computers that are upgrades to existing simulator units and to computers associated with new simulator units.

This document does NOT apply to workstations for new HPS production or any workstation for PediaSIM HPS. To set up such products, it is only necessary to follow the steps described in document 905K350007, “Apple Computer Imaging.”

This document does NOT apply to HPSv6 standalone “workstation kits” (those not configured to work with a simulator). To set up such products, it is only necessary to follow the steps described in document 905K350007, “Apple Computer Imaging.”

2. Preparation

2.1. Applicable Documents

- 905-K3500-07 Apple Computer Imaging
- 905-K3501-64 Muse Browser Configuration
- 905-K2170-35 ATP, Mac Simulator Workstation
- Sales Order
- Simulator Data Sheet or IP Tracker Spreadsheet

2.2. Equipment Required

- Mac Instructor Workstation to configure

3. Procedure

3.1. Image Computer

- 3.1.1. Follow the steps described in document 905-K3500-07, "Apple Computer Imaging."
- 3.1.2. If the computer being set up is an iMac or MacBook Pro, check for available firmware updates by continuing on with step 3.1.21. Otherwise, if the computer is a MacBook, proceed to Section 3.2.
 - 3.1.2.1. Log out of the *HPS User* or *METI User* account, and log in as *METI Administrator* with password *metiadmin*.
 - 3.1.2.2. Change the network location to *Public LAN*.
 - 3.1.2.3. Connect to the *sqrnet* wireless network.
 - 3.1.2.4. From the Apple menu, select *Software Update*. The system will check for available updates.
 - 3.1.2.5. If *iMac EFI Firmware Update* or *MacBook Pro EFI Firmware Update* is displayed, make sure it [and nothing else] is checked, click *Install*, and follow the prompts.
 - 3.1.2.6. Open Apple > System Preferences. Click Flash Player > Updates.
 - 3.1.2.7. Ensure "Never check for updates" radio button is selected.
 - 3.1.2.8. Click the top-most "Check Now" button (NPAPI Plug in).
 - 3.1.2.9. If available, update Flash Player to the latest version.
 - 3.1.2.10. Update Adobe Flash Player per Adobe Instructions.
 - 3.1.2.11. Uncheck any and all Optional Offers and click "Install now" when ready.

3.2. Configure Network Settings

- 3.2.1. Log into the METI Administrator account. Open the Network Preferences window by selecting *System Preferences* from the Apple menu and then clicking on *Network*.
- 3.2.2. If present, click on the lock icon, and authenticate with name *admin* and password *metiadmin*.
- 3.2.3. Set the *Location* to *HPS LAN* or *METI* (whichever exists), and click the *Apply* button.

- 3.2.4. If the computer being set up is an **Instructor Workstation** (not Remote Workstation), configure the Ethernet network adapter. Otherwise, skip to Step 3.2.5.
- 3.2.4.1. Click to select the *Ethernet* network adapter on the left.
 - 3.2.4.2. Beside *Configure IPv4*, confirm that *Manually* is selected.
 - 3.2.4.3. Set the Ethernet *IP Address*.
- For **HPS (adult Müse upgrades only)**, **ECS**, **PediaSIM ECS**, or **BabySIM**, set the *IP Address* to the one specified on the Simulator Data Sheet for the **Instructor Workstation**.
- For **iStan**, **METIman**, **Caesar**, **Lucina (MFS)**, **Athena** or **Apollo** set the *IP Address* to the one specified on the Simulator Data Sheet or IP Tracker Spreadsheet for the **Instructor Workstation Ethernet/Wired** IP address.
- 3.2.4.4. Set the *Subnet Mask* to 255.255.255.0 for **METIman**, **Caesar**, **Lucina (MFS)**, **Athena** or **Apollo** and 255.0.0.0 for **HPS**, **ECS**, **PediaSIM ECS**, **BabySIM** or **iStan**.
 - 3.2.4.5. Leave all other fields blank.
- 3.2.5. Click to select the *Wi-Fi* network adapter on the left.
- 3.2.6. If the computer being set up is for **HPS (adult Müse upgrades only)**, **ECS**, **PediaSIM ECS**, or **BabySIM**, turn off Wi-Fi by clicking "Turn Wi-Fi Off" button, then proceed to Step 3.2.8
- 3.2.7. If the computer being set up is a **Remote Workstation**, or an **iStan**, **METIman**, **Caesar**, **MFS**, **Athena** or **Apollo Instructor Workstation**, configure the Wi-Fi network adapter.
- 3.2.7.1 Click the *Advanced...* button.
 - 3.2.7.1.1 Click on the *plus* sign to add network.
 - 3.2.7.1.2 Click on *Show Network* or *Choose a Network* to list available networks.
 - 3.2.7.1.3 Select the network for the Simulator and enter the password.
 "metiadmin" for **METIman** and **Caesar**
 "caeadmin" for **Lucina (MFS)**
 <wireless network name> for all other simtypes
 - 3.2.7.1.4 Uncheck "Remember Networks this computer has joined."
 - 3.2.7.1.5 Remove all networks with the *minus* sign except for the Simulator network.
 - 3.2.7.2. Click to select the *TCP/IP* tab.
 - 3.2.7.3. Beside *Configure IPv4*, confirm that *Manually* is selected.
 - 3.2.7.4. Set the *IPv4 Address*.

For **HPS (adult Müse upgrades only), ECS, PediaSIM ECS, or BabySIM**, set the *IPv4 Address* to the one specified on the Simulator Data Sheet for the **Remote Workstation**.

For **iStan, METIman, Caesar, MFS, Athena or Apollo Instructor Workstation**, set the *IPv4 Address* to the one specified on the Simulator Data Sheet or IP Tracker Spreadsheet for the **Instructor Workstation AirPort/Wireless/Client** IP address.

3.2.7.5. Set the *Subnet Mask* to 255.255.255.0 for **METIman, Caesar, MFS, Athena or Apollo** and 255.0.0.0 for **HPS, ECS, PediaSIM ECS, BabySIM or iStan**.

3.2.7.6. Leave all other fields blank (including *Router*).

3.2.7.7. Click the *OK* button.

3.2.7.8. Ensure "Show Wi-Fi status in menu bar" is checked.

3.2.8. Click the *Apply* button.

3.2.9. Close the System Preferences window.

3.2.10. Restart the computer.

3.3. Configure Browser

3.3.1 Follow the steps described in document 905-K3501-64, "Muse Browser Configuration."

3.3.2. Shut down the computer.

3.4. Update U.S.E. Board and Activate Optional Features

This section applies only to **Instructor Workstations** (not Remote Workstations) for **new ECS, PediaSIM ECS, BabySIM, and iStan units** (not Muse upgrades). If the computer is for a **METIman, Caesar, MFS, Athena or Apollo Instructor Workstation**, the setup process is complete.

Follow the steps in this section to update the U.S.E. Board. For ECS, this will also detect and activate the installed optional features (convulsions and blood-on-board) in Muse.

3.4.1. For **ECS, PediaSIM ECS, and BabySIM**, power on the PCU. For iStan, skip to Step 3.4.3.

3.4.2. For **ECS, PediaSIM ECS, and BabySIM**, connect the Instructor Workstation's Ethernet port to the corresponding port on the PCU.

3.4.3. Power on or restart the computer.

3.4.4. Delete the simulator-update instructions from the *HPS User* account.

If the Instructor Workstation being set up is for a **new ECS**, drag the file *Installing the ECS with Muse Simulator Update.pdf* from the *Documentation* folder on the Desktop to the Trash, and empty the Trash.

If the Instructor Workstation being set up is for a **new PediaSIM ECS**, drag the file *Installing the PediaSIM ECS with Muse Simulator Update.pdf* from the *Documentation* folder on the Desktop to the Trash, and empty the Trash.

If the Instructor Workstation being set up is for a **new BabySIM**, drag the file *Installing the BabySIM with Muse Simulator Update.pdf* from the *Documentation* folder on the Desktop to the Trash, and empty the Trash.

If the Instructor Workstation being set up is for a **new iStan**, drag the file *Installing the iStan with Muse Simulator Update.pdf* from the *Documentation* folder on the Desktop to the Trash, and empty the Trash.

- 3.4.5. Log out of the *HPS User* account, and log in as *METI Administrator* with password *metiadmin*.

- 3.4.6. Install the simulator update, where applicable.

For **ECS**, open *Installing the ECS with Muse Simulator Update.pdf*, located on the desktop. Follow steps 3a through 3e in the aforementioned document, and then quit the *Preview* application.

For **PediaSIM ECS**, open *Installing the PediaSIM ECS with Muse Simulator Update.pdf*, located on the desktop. Follow steps 3a through 3e in the aforementioned document, and then quit the *Preview* application.

For **BabySIM**, open *Installing the BabySIM with Muse Simulator Update.pdf*, located on the desktop. Follow steps 3a through 3e in the aforementioned document, and then quit the *Preview* application.

For **iStan**, take no action. (No updates are required for Muse Compatibility.)

- 3.4.6. Drag all icons on *METI Administrator*'s Desktop to the Trash, and empty the Trash.

3.5. Execute Acceptance Test Procedure

Follow the steps described in document 905-K2170-35, “Acceptance Test Procedure, Mac Simulator Workstation.”

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REV	DESCRIPTION	DATE
A	Production release	2012-08-16
B	ECO 2043; Support for MFS	2014-06-26
C	ECR 2577: Muse 2.7 and VIVO 2.2. Added Lucina, Athena, Apollo simtypes. Set gateway of USE-board Windows IWS to 10.0.0.1.	2016-07-28

Setup Procedure
Windows Simulator Workstation

APPROVALS	DATE			
LAST EDITED BY K. Greenwell	2016-07-28			
CM APPROVED				
QA APPROVED		DESCRIPTION Setup Procedure, Windows Simulator Workstation		
ENGINEERING APPROVED		SIZE A	DOCUMENT NUMBER 905-K2172-34	REV C
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TABLE OF CONTENTS

1. SCOPE.....	3
2. PREPARATION.....	3
2.1. APPLICABLE DOCUMENTS.....	3
2.2. EQUIPMENT REQUIRED.....	3
3. PROCEDURE	4
3.1. IMAGE COMPUTER	4
3.2. CONFIGURE NETWORK SETTINGS.....	4
3.3. CONFIGURE PREFERRED NETWORK.....	5
3.4. CONFIGURE INTERNET EXPLORER.....	7
3.5. EXECUTE ACCEPTANCE TEST PROCEDURE.....	7

1. Scope

This document describes the procedure for setting up a **Windows computer as an Instructor Workstation or Remote Workstation**. It applies to computers that are upgrades to existing simulator units and to computers associated with new simulator units.

The simulator types supported in this process document are:

- First-Generation (USE board)
 - HPS
 - ECS
 - PediaSIM ECS
 - BabySIM
 - iStan
- Second-Generation (SBC/MPIC)
 - METIman (Prehospital & Nursing)
 - Caesar
 - Lucina (MFS)
 - Athena
 - Apollo (Prehospital & Nursing)

2. Preparation

2.1. Applicable Documents

- 905-K0008-64 Muse Windows Installation
- 905-K3501-64 Muse Browser Configuration
- 905-K4500-35 ATP Windows Simulator Workstation
- Simulator Data Sheet or IP Tracker Spreadsheet

2.2. Equipment Required

- Windows Instructor Workstation to configure running Windows 7

3. Procedure

3.1. Image Computer

NOTE: If the machine is not imaged (e.g. does NOT already have a METI User account), please file as NCR. Otherwise if machine is imaged continue onto step 3.1.1.

3.1.1. For First Generation simulators as defined in Section 1, follow the steps described in the document “905-K0008-64 Muse Windows Installation”, then continue onto section 3.2. For Second Generation simulators, proceed directly to step 3.2.

3.2. Configure Network Settings

3.2.1. Start menu → *Control Panel*

3.2.2. Click *Network and Internet*

3.2.3. Click on *Network and Sharing Center*

3.2.4. Click *Change adapter settings* on the left side

3.2.5. If the computer being set up is an **Instructor Workstation** (not Remote Workstation), configure the Ethernet network adapter by proceeding to 3.2.5.1. Otherwise, skip to Step 3.2.6.

3.2.5.1. Right click on *Local Area Connection* and click *Properties*

3.2.5.3 Select *Internet Protocol Version 4 (TCP/IPv4)* and click *Properties*

3.2.5.4 Click *Use the following IP address*

3.2.5.5. Set the Ethernet *IP Address*.

For **HPS, ECS, PediaSIM ECS, or BabySIM**, set the *IP Address* to the one specified on the Simulator Data Sheet for the **Instructor Workstation**.

For **iStan, METIman, Caesar, Lucina (MFS), Athena or Apollo** set the *IP Address* to the one specified on the Simulator Data Sheet or IP Tracker Spreadsheet for the **Instructor(s) Workstation Ethernet/Wired** IP address.

3.2.5.6. Set the *Subnet Mask* to 255.255.255.0 for **METIman, Caesar, Lucina (MFS), Athena or Apollo** and 255.0.0.0 for **HPS, ECS, PediaSIM ECS, BabySIM or iStan**.

3.2.5.7. Set the *Default gateway* to 10.0.0.1 for **HPS, ECS, PediaSIM ECS, BabySIM or iStan**; for **METIman, Caesar, Lucina (MFS), Athena or Apollo** leave *Gateway* blank.

3.2.5.8. Leave all other fields blank.

3.2.5.9. Click OK then click Close

3.2.6. If the computer being set up is an **Instructor Workstation** for **HPS, ECS, PediaSIM ECS**, or **BabySIM**, right click the *Wireless Network Connection* and click *Disable* to turn off the Wireless Network

If the computer being set up is a **Instructor Workstation** for **iStan, METIman, Caesar, Lucina (MFS), Athena or Apollo**, or a **Remote Workstation**, configure the Wireless Network Connection by proceeding to 3.2.6.1; otherwise, skip to Step 3.2.8.

3.2.6.1. Right click on the *Wireless Network Connection* and click *Properties*

3.2.6.2 Select Internet Protocol Version 4 (TCP/IPv4) and click Properties

3.2.6.3. Click *Use the following IP address*

3.2.6.4. Set the *IP Address*.

For **HPS, ECS, PediaSIM ECS**, or **BabySIM Remote Workstations**, set the *IP Address* to the one specified on the Simulator Data Sheet for the **Remote Workstation**.

For **iStan, METIman, Caesar, Lucina (MFS), Athena or Apollo** set the *IP Address* to the one specified on the Simulator Data Sheet or IP Tracker Spreadsheet for the **Instructor Workstation AirPort/Wireless/Client** IP address.

3.2.6.5. Set the *Subnet Mask* to 255.255.255.0 for **METIman, Caesar, Lucina (MFS), Athena or Apollo** and 255.0.0.0 for **HPS, ECS, PediaSIM ECS, BabySIM or iStan**.

3.2.6.6. Set the *Default gateway* to 10.0.0.1 for **HPS, ECS, PediaSIM ECS, BabySIM or iStan**; for **METIman, Caesar, Lucina (MFS), Athena or Apollo** leave *Gateway* blank.

3.2.6.7. Leave all other fields blank.

3.2.7. Click *OK* then click *Close*

3.2.8. Click “X” to close window

3.2.9. Restart the computer.

3.3. Configure Preferred Network

METHOD 1 (Use if Simulator is in the building and accessible)

3.3.1.1 Turn on the Patient Simulator to be selected

3.3.1.2 Click on the Task Bar icon for Wireless. (Looks like a bar graph)

3.3.1.3 Click on “Open Network and Sharing Center”

3.3.1.4 Select “Connect to a Network”

3.3.1.5 Highlight (select) the S/N of the desired network and select the Connect button

3.3.1.6 Enter the security password

- "metiadmin" for METIman and Caesar
- "caeadmin" for MFS
- <wireless network name> for all other simtypes

3.3.1.7 Select “Manage Wireless Network”

3.3.1.8 Remove all but the preferred network (simulator).

3.3.1.9 Verify by connecting to Simulator. Start MUSE and load an SCE. Open new browser tab and view Touch Pro patient monitor display. Shut down SW and simulator when complete.

METHOD 2 (Use if Simulator has already shipped)

3.3.2.1 Click on the Task Bar icon for Wireless. (Looks like a bar graph)

3.3.2.2 Click on “Open Network and Sharing Center”

3.3.2.3 Select “Set up a new connection or network”

3.3.2.4 Highlight “Manually Connect to a Wireless Network” then press “Next”.

3.3.2.5 Enter all required data below.

HPS, iStan, ECS, PediaSIM ECS, BabySIM

- Do NOT configure the network (format of network name and password was not strictly kept for these machines)
- Schedule followup call with customer with Customer Service to configure TouchPro machine once it arrives at customer site.

METIman (Prehospital, Nursing), Caesar, Lucina (MFS), Athena, Apollo

- Network Name: <simulator serial number> (e.g. MMP0192, caesar9999, MFS0123)
- Security Type: WPA-Personal
- Encryption Type: TKIP
- Security Key / Passphrase:
 - "metiadmin" for METIman, Apollo

- <simulator serial number> for Caesar
- "caeadmin" for MFS, Athena

Note: Select box for displaying characters to verify text entered.

- Select box for "Start this connection automatically"
- **Do Not** select box for "Even if network is not broadcasting"
- Click Next then close

3.3.2.6 Select "Manage Wireless Network"

3.3.2.7 Remove all but the preferred network (simulator).

3.3.2.8 Click "X" to close windows

3.3.2.9 Verify TouchScreen Calibration by tapping screen in various locations and verifying the screen shows the "tap indication" at the same location on screen. After calibration close all windows and shut down the machine.

If the calibration fails due to a faulty screen, fill out an NCR form and return the computer to stock. If the calibration is successful continue to the next step.

3.4. Configure Internet Explorer

3.3.1 Follow the steps described in document 905-K3501-64, "Muse Browser Configuration."

3.3.2. Shut down the computer.

3.5. Execute Acceptance Test Procedure

Follow the steps described in document 905-K4500-35, "ATP Windows Simulator."

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REV	DESCRIPTION	DATE
A	Production release	6/11/10
B	Corrections	6/29/10
C	Support for PediaSIM ECS	9/21/10
D	Support for BabySIM and new master images	11/29/10
E	Corrections for METIman	5/26/11
F	ECO 1580; Support for HPS; Added changes for IE9	12/6/11
G	ECO 1672; Corrections for METIman; Support for Caesar	8/8/12
H	Changed default Mac browser to Firefox	2014-05-28
J	ECO 2043; Support for MFS. Added info on setting homepage for legacy simulator types using Windows-based Instructor Workstations.	2014-06-26
K	ECR 2577; Set up browser plugin for Firefox tab homepages. Add info on Firefox 45.2. Change homepage for USE-board sims to localhost.	2016-08-01

Müse Browser Configuration

APPROVALS	DATE			
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CM APPROVED				
QA APPROVED			TITLE Müse Browser Configuration	
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TABLE OF CONTENTS

1. SCOPE	3
1.1. APPLICABLE DOCUMENTS	3
2. MAC PROCEDURE.....	3
2.1. SET BROWSER PREFERENCES (FIREFOX)	3
2.2. CREATE BOOKMARK (FIREFOX)	4
2.3. CONFIGURE ADDRESS BAR (FIREFOX)	5
2.4. SET UP TAB HOMEPAGES (FIREFOX).....	6
3. WINDOWS PROCEDURE.....	7
3.1. SET INTERNET OPTIONS.....	7
3.2. CREATE FAVORITE	9
3.3. CONFIGURE TOOLBAR	10

1. Scope

This document describes the procedure for configuring a web browser for Müse.

1.1. Applicable Documents

- Simulator Data Sheet or IP Tracker Spreadsheet

2. Mac Procedure

The following steps apply to the Firefox web browser (Section 2.1) which is the approved browser for use with Müse on the Mac. For Windows, please skip ahead to Section 3, "Windows Procedure."

2.1. Set Browser Preferences (Firefox)

- 2.1.1. Log into the *HPS User* or *METI User* account.
- 2.1.2. Launch Firefox by clicking its icon in the Dock.
- 2.1.3. From the menubar select Firefox > About Firefox. Mentally note what version is being used. Some screenshots below are for Firefox 24.5.0 ESR, some are for Firefox 45.2.0 ESR. Either is acceptable.
- 2.1.4. Open Firefox's Preferences by clicking *Preferences* in the *Firefox* menu.
- 2.1.5. For "When Firefox starts:", select "Show my home page", if it is not already selected.
- 2.1.6. For "Home Page" (Figures 1 and 2 below):

For **HPS, ECS, PediaSIM ECS, BabySIM or iStan** enter <http://localhost> in the *Home Page* field.

For **METIman, Caesar, Lucina (MFS), Athena, or Apollo** enter the IP address assigned to the **simulator** into the *Home Page* field, in the form: <http://192.168.x.5>:

- **METIman or Apollo:** see simulator datasheet or IP Tracker spreadsheet under *SBC Network Setup > IP Address*
- **Caesar:** see simulator datasheet or IP Tracker spreadsheet under *SBC Network Setup > Wireless Interface*
- **Lucina (MFS) or Athena:** see simulator datasheet or IP Tracker spreadsheet under *MPIC Network Setup > Wired Torso*)

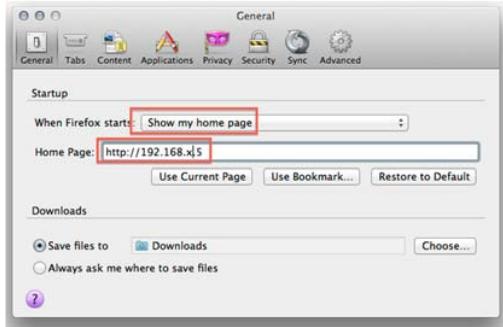


Figure 1 Firefox Preferences in version 24.5.0



Figure 2 Firefox Preferences in version 45.2.0

2.1.7. Close the Firefox Preferences window.

2.1.8. From the *File* menu, select *New Window*, and verify that the IP address displayed at the top of the browser matches the home page specified in Step 2.1.6.

2.1.9. Proceed to section 2.2, Create Bookmark.

2.2. **Create Bookmark (Firefox)**

2.2.1. From the *Bookmarks* menu, select *Bookmark This Page* (Figure 3).



Figure 3 Adding a bookmark in Firefox 24.5.0. Firefox 45.2.0 is similar.

2.2.2. Name the bookmark *Müse* (the "ü" character can be created by typing Option-u, then typing the letter "u"), ensure *Bookmarks Menu* is selected for Folder, leave the Tags field empty, then click *Done* (Figure 4).

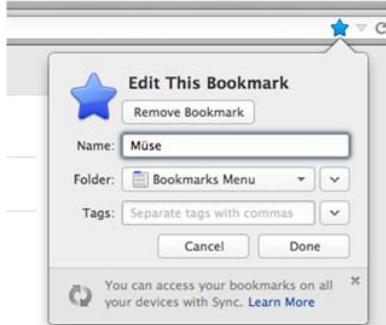


Figure 4 Adding a bookmark in Firefox 24.5.0. Firefox 45.2.0 is similar.

2.3. Configure Address Bar (Firefox)

2.3.1. Click View > Toolbars > Customize (Figure 5):

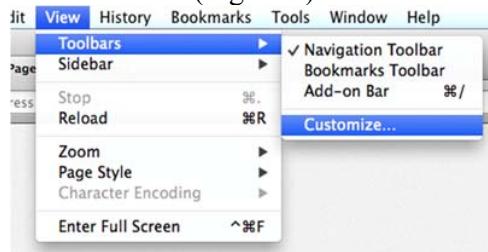


Figure 5 Adding a bookmark in Firefox 24.5.0. Firefox 45.2.0 is similar.

2.3.2. Drag the Reload, Stop, Google Search, Bookmark and Home icons to the White Toolbar Customization area, then click Done (Figure 6):

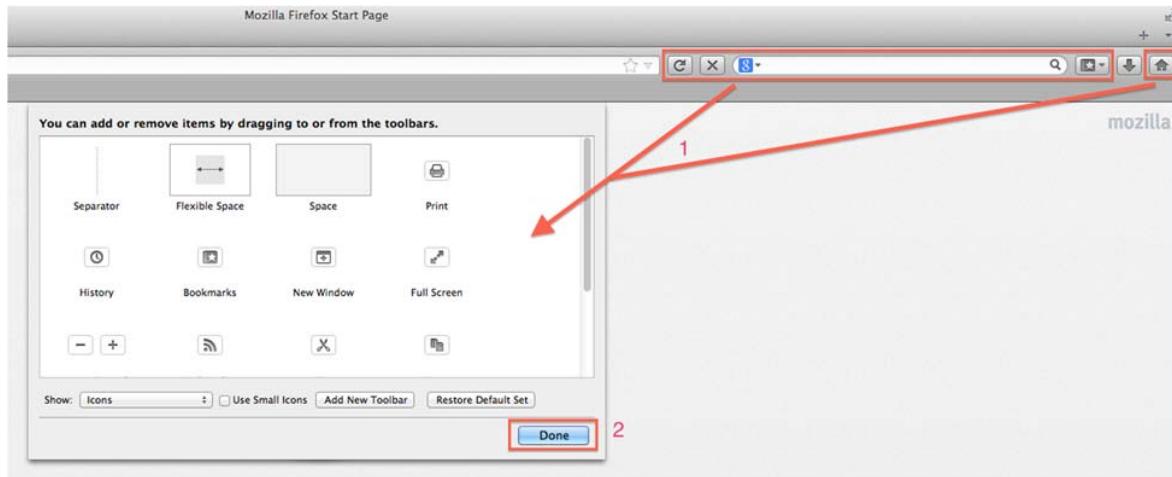


Figure 6 Customizing toolbars in Firefox 24.5.0. Firefox 45.2.0 is similar

2.4. Set up tab homepages (Firefox)

2.4.1. If using Firefox version 24.5.0, go to step 2.4.2. If using Firefox version 45.2.0, go to step 2.4.3.

2.4.2. Firefox 24.5.0:

2.4.2.1 Type "about:config" in browser address to get advanced settings.

2.4.2.2 Select: Browser.newtab.url

2.4.2.3 Enter the Müse URL info entered in step 2.1.6 when prompted.

2.4.3. Firefox 45.2.0:

2.4.3.1 Change to Automatic to get internet access.

2.4.3.2 Firefox / Tools / Add-ons

2.4.3.3 Add-ons Manager opens

2.4.3.4 Search "New Tab"

2.4.3.5 Install "New Tab Override (browser.newtab.url replacement)"

2.4.3.6 After installing, a "Preferences" box appears. Click on this box. Find the Option selection and change it to "Homepage".

2.4.3.7 Close Tab.

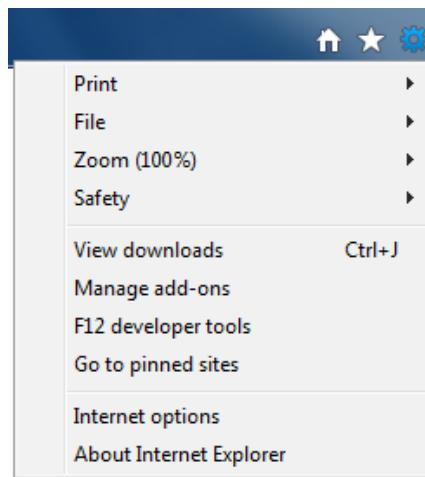
2.4.4. Macintosh Procedure (Firefox) is complete.

3. Windows Procedure

The following steps apply to the Internet Explorer web browser, which is the standard browser for use with Müse on Windows. For Mac, see section 2, “Macintosh Configuration”.

3.1. Set *Internet Options*

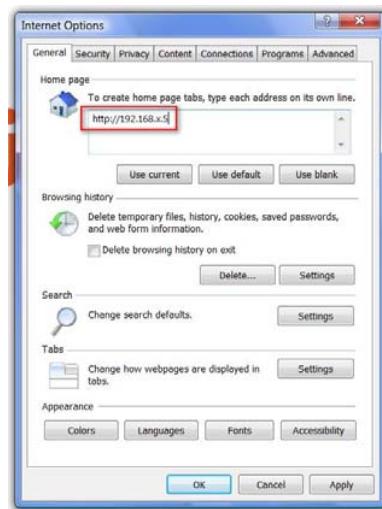
- 3.1.1. Launch Internet Explorer by clicking the icon on the Start menu.
- 3.1.2. Open Internet Options by selecting *Internet Options* from the *Tools (Wheel icon)* menu.



3.1.3. Set the home page.

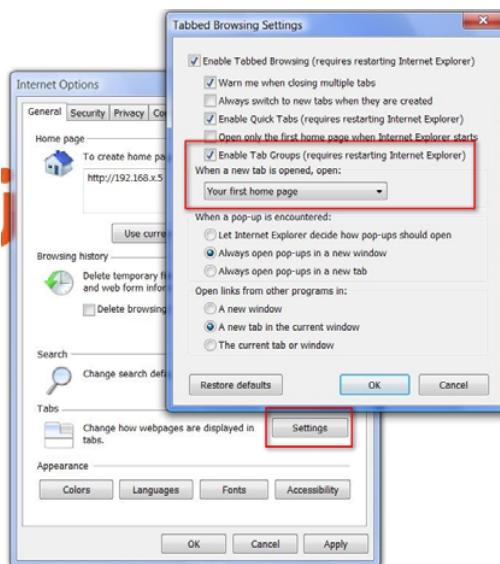
For **HPS**, **ECS**, **PediaSIM ECS**, **BabySIM** or **iStan** enter <http://localhost> in the *Home Page* field.

For **METIman**, **Caesar**, **Lucina (MFS)**, **Athena**, or **Apollo** enter the IP address assigned to the **simulator** in the *Home Page* field, in the form: <http://192.168.x.5>



3.1.4. Click the *Settings* button under the *Tabs* heading in the Internet Options window.

3.1.5. Under the heading *When a new tab is opened...*, select *Your first home page*.



3.1.6. Close the Tabbed Browsing Settings window and Internet Options window.

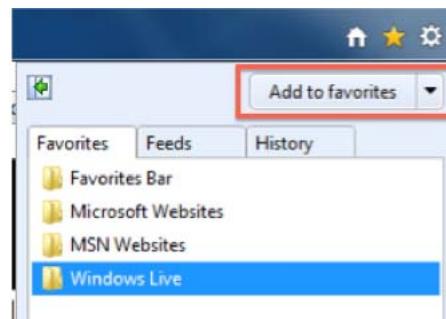
3.1.7. Close Internet Explorer and Open it again.

3.1.8. Click on the blank tab, and verify that the IP address displayed at the top of the browser matches the home page specified in Step 3.1.3.

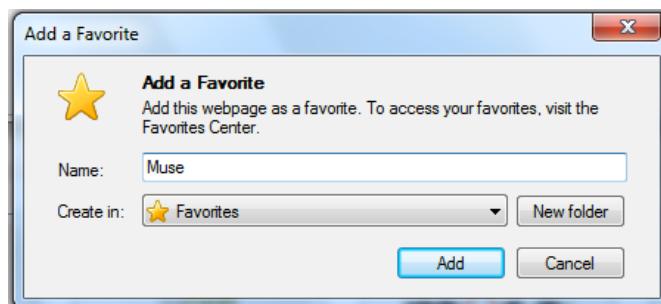


3.2. Create Favorite

3.2.1. Open the home page and click on the *Favorites Button* (Star Icon) and then click *Add to Favorites*.

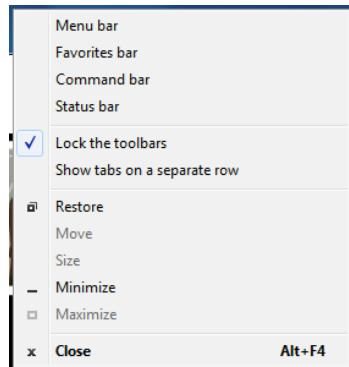


3.2.2. Name the favorite *Muse*. Under the heading *Create in*, select *Favorites* (not *Favorites Bar*), and then click the *Add* button.



3.3. Configure Toolbar

3.3.1. Right click the IE Toolbar. (The IE Toolbar is the empty blue area on the top of IE)
Uncheck the *Menu Bar*, *Favorites Bar*, *Command Bar* and *Status Bar*. Check *Lock the toolbars*.
Verify that the menu matches the image below.



Windows Procedure is completed.

REV	DESCRIPTION	DATE	APPROVED
A	RCD, CHG ENG RELEASE	11/03/2011	
B	ECO 1580; CHANGED THE NETWORK STEPS, TITLE	12/07/2011	

Windows 7 TouchPro Computer *Setup Procedure*

APPROVALS	DATE	 CAE Healthcare		
LAST EDITED BY N. Skoro	12/07/2011			
CM APPROVED				
QA APPROVED		TITLE Setup Procedure, Windows 7 TouchPro Computer		
ENGINEERING APPROVED		SIZE A	DRAWING NUMBER 905K350964	REV B
MFG/TEST APPROVED		SCALE N/A	SHEET 1 OF 8	

Printed documents are not controlled. Verify revision level before using this document.

TABLE OF CONTENTS

Introduction	3
1. Configure Simulator Specific Information.....	3
1.1 Configure Computer Name.....	3
1.2 Configure TouchPro Unique IP Addresses.....	3
1.3 Configure Internet Explorer Home Page	5
1.4 Configure Preferred Network	6
METHOD 1 (Use if Simulator is in the building and accessible)	6
METHOD 2 (Use if Simulator has already shipped)	7
2 FINALIZE THE COMPUTER	8

Introduction

The purpose of this document is to define the METI manufacturing process to configure Windows 7 based TouchPro computers (Part 253KK0953) coming from Ross Technologies to work with a specific METI simulator.

The METI Simulator Types supported in this process document are:

- Metiman (Prehospital & Nursing)
- HPS
- iStan
- ECS Adult
- Pediasim ECS
- Babysim

Note: For this entire procedure use Wireless Mouse and Keyboard shipped with the computer to verify operation.

1. Configure Simulator Specific Information

1.1 Configure Computer Name

Step 1. Go to Control Panel > System and Security > System

Step 2. Under Computer name, domain and workgroup settings click “Change Settings”

Step 3. Under the Computer Name Tab click the “Change...” button

Step 5. Set the Computer name: <serial #TP>

ex. Computer Name: MMP0001TP

Step 6. Click OK

Step 7. Close Close to exit out of System Properties

Step 8. Click Restart Now

1.2 Configure TouchPro Unique IP Addresses

Step 1. Click on the Wireless icon on the windows task bar (bottom right)

Step 2. Select “Open Network and Sharing Center”

Step 3. Click “Change Adapter Settings”

- **METIman**

- Right Click on **Wireless Network Connections**
- On Pop-up window, Select Properties
- Select Internet Protocol Version 4 (IPv4) and then select Properties button.
- Select “Use the following IP address” radio button.
- Using the METIman Data Sheet as reference, enter the Touch Pro “**Client**” IP address and subnet mask
- Leave all other fields blank
- Select OK and then Close window
- Right Click on **Local Area Connection**
- On Pop-up window, Select Properties
- Select Internet Protocol Version 4 and then select Properties button.
- Select “Use the following IP address” radio button.
- Using the METIman Data Sheet as reference, enter the Touch Pro (**Wired Interface**) IP address and subnet mask
- Leave all other fields blank
- Select OK and then Close the Local Area Connection Properties window

- **Non-Metiman**

- Right Click on **Wireless Network Connections**
- On Pop-up window, Select Properties
- Select Internet Protocol Version 4 (IPv4) and then select Properties button.
- Select “Use the following IP address” radio button.
- Using the Simulator IP Tracker as reference, enter the Touch Pro “**Client**” (**Wireless interface**) IP address and subnet mask

NOTE: If TouchPro IP Address information is not stated on the IP Tracker, create and manually write down the wireless and wired IP addresses used onto the sheet. Choose these two IP addresses by looking for the lowest IP address on sheet and then using the next two lower addresses. Example: If lowest IP address on IP Tracker

sheet is 10.127.65.95, use 10.127.65.94 for TouchPro wireless and 10.127.65.93 for TouchPro wired. Use the same Subnet Mask listed on sheet.

- Leave all other fields blank
- Select OK and then Close window
- Right Click on **Local Area Connection**
- On Pop-up window, Select Properties
- Select Internet Protocol Version 4 and then select Properties button.
- Select “Use the following IP address” radio button.
- Using the Simulator IP Tracker Sheet as reference, enter the Touch Pro (**Wired Interface**) IP address and subnet mask.
NOTE: Use self-created IP Addresses from above if IP Tracker does not include this information.
- Leave all other fields blank
- Select OK and then Close the Local Area Connection Properties window

NOTE: A warning will appear regarding multiple gateways. Select “Yes” to save this configuration.

Step 4. Close all open windows.

1.3 Configure Internet Explorer Home Page

Step 1. Start Internet Explorer

Step 2. Click on Tools (wheel icon or “tools” text) on the IE command line

Step 3. Click on Internet Options

Step 4. Update Home page address

- If the TouchPro computer is for **HPS, ECS, PediaSIM ECS, or BabySIM** enter the IP address assigned to the simulator's **Instructor Workstation Ethernet** (10.x.x.x) in the *Home page* field.
- If the TouchPro computer is for **iStan**, enter the IP address assigned to the simulator's **Instructor Workstation Airport** (10.x.x.x) in the *Home page* field.
- If the TouchPro computer is for **METIman**, enter the IP address assigned to the **simulator** (192.168.x.5) in the *Home page* field.

Step 5. Click OK

Step 6. Click on the Home Page icon (house) and verify the correct IP address loads

Step 7. Click Favorites icon (star) and “add to Favorites...” Rename website name as “METI” and then click Add.

1.4 Configure Preferred Network

METHOD 1 (Use if Simulator is in the building and accessible)

Step 1: Turn on the Patient Simulator to be selected

Step 2: Click on the Task Bar icon for Wireless. (Looks like a bar graph)

Step 3: Click on “Open Network and Sharing Center”

Step 4: Click “Change Adapter Settings”

Step 5: Select “Connect to a Network”

Step 6: Highlight (select) the S/N of the desired network and select the Connect button

Step 7: Enter the security password

- “metiadmin” for METIman units
- “s/n that appears on wireless information” for Non-Metiman units

Step 8: Select “Manage Wireless Network”

Step 9: Remove all but the preferred network (simulator).

Step 10: Verify by connecting to Simulator. Start MUSE and load an SCE. Open new browser tab and view Touch Pro patient monitor display. Shut down SW and simulator when complete.

METHOD 2 (Use if Simulator has already shipped)

Step 1: Click on the Task Bar icon for Wireless. (Looks like a bar graph)

Step 2: Click on “Open Network and Sharing Center”

Step 3: Select “Set up a connection or network”

Step 4: Highlight “Manually Connect to a Wireless Network” then press “Next”.

Step 5: Enter all required data below.

Non-Metiman

- Do NOT configure the network

METIman

- Network Name: MMX##### (ex MMP0192) (Upper Case)
- Security Type: WPA-Personal
- Encryption Type: TKIP
- Security Key / Passphrase: metiadmin (lower case)
Note: Select box for displaying characters to verify text entered.
- Select box for “Start this connection automatically”
- **Do Not** select box for “Even if network is not broadcasting”
- Click Next then close

Step 6: Select “Manage Wireless Network”

Step 7: Remove all but the preferred network (simulator).

Step 8: Click “X” to close windows

Step 9: Verify TouchScreen Calibration by tapping screen in various locations and verifying the screen shows the “tap indication” at the same location on screen.

Step 10: Shut Down Computer

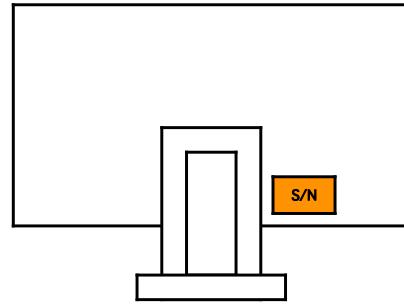
2 FINALIZE THE COMPUTER

Step 1: Put METI S/N label on the back of the monitor.

- MMX####TP

Step 2: Repack Computer carefully and include all items used.

- Power Cord
- Keyboard
- Mouse



No additional changes are required for computers coming from Ross Technologies.

MAC Dual-monitor Setup and Configuration

Used for connecting a Waveform or TouchPro Display Monitor to an Instructor Workstation

Same process is used for connecting a projector or other display to workstation

1.0 Dual-monitor Setup and Configuration

- 1.1 Log into the "hps" account.
- 1.2 Plug the monitor into the computer using the supplied VGA adapter, ensure the monitor is powered.
- 1.3 Open "System Preferences"
 - 1.3.1 Click the Apple logo in the top left corner
 - 1.3.2 Select the "System Preferences..." option
 - 1.3.3 Select the "Displays" preference
- 1.4 Click the "Detect Displays".
- 1.5 Click "Gather Windows".
- 1.6 Select the second window; has only two tab options in it: Display and Color.
- 1.7 Ensure the display is set to a resolution of "1024 x768".
- 1.8 Ensure the display is set to a refresh rate of "75 Hertz".
- 1.9 Click "Arrangement"; Ensure the "Mirror Displays" option is **NOT CHECKED**.
- 1.10 You should see the current background image on the second display.

** If an image does not display check all the connections and try again.
- 1.11 Close all the windows.

Note: At sites with updated HPS6 to MUSE installations, the original Waveform Display is often used for remote display of the waveforms instead of a Wireless TouchPro Computer. To offer a more "user friendly" method to operate this setup, install a second browser (i.e. Firefox) and configure it to bring up the TouchPro browser on the second display.

This page has been intentionally left blank.

R40.1 Release (METIman Firmware)

Blue Board

- Analog FPGA
 - bana0031.bin
- Audio FPGA
 - baud0023.bin
- Nursing Firmware
 - A Stack
 - mmna0042.img
 - B Stack
 - mmpb0038.img
- Pre-Hospital Firmware
 - A Stack
 - mmpa0042.img
 - B Stack
 - mmpb0038.img
- RHM FPGA
 - brhm0033.bin

Green Board

- Analog FPGA
 - xana0027.bin
- Audio FPGA
 - xaud0012.bin
- Nursing Firmware
 - A Stack
 - mmna0043.img
 - B Stack
 - mmpb0038.img
- Pre-Hospital Firmware
 - A Stack
 - mmpa0043.img
 - B Stack
 - mmpb0038.img
- RHM FPGA
 - xrhm0026.bin

R40_1 vernotes.txt

R40.1 Release (METIman Firmware)

Micro SD Card Content (Sounds 5-19-2011)

000 Normal bowel.raw	506 Male Six.raw	613 Female Dull.raw
001 Hyperactive bowel.raw	507 Male Seven.raw	614 Female Grunt.raw
002 Hypoactive bowel.raw	508 Male Eight.raw	615 Female I Can't Breathe.raw
100 Heart normal 75 bpm.raw	509 Male Nine.raw	616 Female Loud Cough.raw
101 Heart normal 85 bpm.raw	510 Male Ten.raw	617 Female My Belly Hurts.raw
102 Heart early systolic murmur 75 bpm.raw	511 Male Countdown.raw	618 Female My Chest is Tight.raw
103 Heart late diastolic murmur 75 bpm.raw	512 Male Aching.raw	619 Female My Leg Hurts.raw
104 Heart late systolic murmur 75 bpm.raw	513 Male Dull.raw	620 Female My Stomach Hurts.raw
105 Heart mid systolic murmur 75 bpm.raw	514 Male Grunt.raw	621 Female No.raw
106 Heart pan systolic murmur 75 bpm.raw	515 Male I Can't Breathe.raw	622 Female Ouch.raw
107 Heart S3 75 bpm.raw	516 Male Loud Cough.raw	623 Female Ow That Hurts.raw
108 Heart S3 & S4 75 bpm.raw	517 Male My Belly Hurts.raw	624 Female Pressure.raw
109 Heart S4 90 bpm.raw	518 Male My Chest is Tight.raw	625 Female Scream.raw
200 Normal breath inspiration.raw	519 Male Leg Hurts.raw	626 Female Sharp.raw
201 Normal breath expiration.raw	520 Male My Stomach Hurts.raw	627 Female Short Loud Cough.raw
202 Crackles breath inspiration.raw	521 Male No.raw	628 Female Short Soft Cough.raw
203 Crackles breath expiration.raw	522 Male Ouch.raw	629 Female Soft Cough.raw
204 Muffled breath inspiration.raw	523 Male Ow That Hurts.raw	630 Female Sometimes.raw
205 Muffled breath expiration.raw	524 Male Pressure.raw	631 Female Stabbing.raw
206 Gurgling breath inspiration.raw	525 Male Scream.raw	632 Female Yes.raw
207 Gurgling breath expiration.raw	526 Male Sharp.raw	700 Male Crying.raw
208 Pleural rub breath inspiration.raw	527 Male Short Loud Cough.raw	701 Male Gagging.raw
209 Pleural rub breath expiration.raw	528 Male Short Soft Cough.raw	702 Male Gasping.raw
210 Rhonchi breath inspiration.raw	529 Male Soft Cough.raw	703 Male Groaning.raw
211 Rhonchi breath expiration.raw	530 Male Sometimes.raw	704 Male Long Loud Cough.raw
212 Wheeze breath inspiration.raw	531 Male Stabbing.raw	705 Male Long Soft Cough.raw
213 Wheeze breath expiration.raw	532 Male Yes.raw	706 Male Mumbling.raw
300 Korotkoff phase1.raw	600 Female Zero.raw	707 Male Wheezing.raw
301 Korotkoff phase2.raw	601 Female One.raw	800 Female Crying.raw
302 Korotkoff phase3.raw	602 Female Two.raw	801 Female Gagging.raw
303 Korotkoff phase4.raw	603 Female Three.raw	802 Female Gasping.raw
304 Korotkoff phase5.raw	604 Female Four.raw	803 Female Groaning.raw
400 Stridor inspiration.raw	605 Female Five.raw	804 Female Long Loud Cough.raw
401 Stridor expiration.raw	606 Female Six.raw	805 Female Long Soft Cough.raw
500 Male Zero.raw	607 Female Seven.raw	806 Female Mumbling.raw
501 Male One.raw	608 Female Eight.raw	807 Female Wheezing.raw
502 Male Two.raw	609 Female Nine.raw	999 METI.raw
503 Male Three.raw	610 Female Ten.raw	999 METI34.raw
504 Male Four.raw	611 Female Countdown.raw	999 Sarasota.raw
505 Male Five.raw	612 Female Aching.raw	System

There are 119 Sound Files and one System folder (*Containing calibration data and temporary files for tests and upgrades*)

REV	DESCRIPTION	DATE	APPROVED
2	RCD, CHG ENG RELEASE		

APPROVALS	DATE			
DRAWN BY Mark McClure				
CM APPROVED				
QA APPROVED		TITLE: METiman RHM Programing		
ENGINEERING APPROVED		SIZE A	DRAWING NUMBER 905-K6100-64	REV A
MFG/TEST APPROVED		SCALE None	SHEET 1 OF 14	

905-K6100-64_REV 2

TABLE OF CONTENTS

1.0 SCOPE.....	3
2.0 APPLICABLE DOCUMENTS	3
3.0 REQUIREMENTS	3
3.1 GENERAL INFORMATION	3
3.2 SUPPORT EQUIPMENT	3
3.3 EQUIPMENT LIST	3
3.4 TEST CONDITIONS	3
4.0 CONNECTING THE RHM VIEWER.....	4
4.1 CONNECTORIZATION	4
4.2 POWER UP	4
4.3 START WINDOWS & VIEWER APPLICATION	4
4.4 CONNECT TO RHM	5
5.0 PERSONALIZATION OF RHM.....	5
① <i>COMPATIBILITY MODE</i>	5
5.1 STACK "A"- ANALOG BOARD FPGA	6
① <i>NEW RHM "A" STACK.....</i>	6
5.2 STACK "A"- RHM FPGA	8
5.3 STACK "A"- RHM FIRMWARE (MMP OR MMN)	10
5.4 STACK "B" AUDIO BOARD FPGA	12
5.5 STACK "B" RHM FPGA & RHM FIRMWARE	14

1.0 SCOPE**2.0 APPLICABLE DOCUMENTS**

RHM Viewer Installation

3.0 REQUIREMENTS**3.1 General Information**

Once RHM circuit cards have passed LabView bench testing, their firmware has to be updated to support a METIman PreHospital (MMP) or Nursing (MMN) simulator. Similarly, the motherboards have different firmware when used in Stack "A" or Stack "B". This process is referred as **Personalization** of the firmware, and can be accomplished with the help of the RHM-Viewer. This document will cover the personalization of the RHM stacks.

3.2 Support Equipment

n/a

3.3 Equipment List

Use the following equipment or equivalent

Equipment Description	Mfg.	Model No.
Computer (PC or MAC with Widows Installed)	n/a	n/a
RHM Viewer Software Installed	n/a	n/a
Ethernet Cable	n/a	n/a

3.4 Test Conditions

n/a

4.0 CONNECTING THE RHM VIEWER

4.1 Connectorization

4.1.1 Connect an Ethernet cable between the RHM Viewer PC host and the RHM.

- Note 1: If this is the initial programming of a new boards within a METIman tray assembly, verify no Ethernet connection is made between the two stacks.
- On a completed METIman simulator, an Ethernet port is provided via an extender cable located at the left shoulder joint area of the mannequin. This will allow access to both RHM for updates and viewing, but can only be used “**after**” initial programming is completed.

4.1.2 Connect an external 5V power supply or the standard power cables from the Power Controller to P26 on the Mother Board/s for programming and operation. The 12V power to P22 is optional during programming, but will be required for operating other features during **functional** RHM tests and METIman operation.

\

4.2 Power Up

4.2.1 Apply power to the RHM stack to be programmed.

4.2.2 Verify a red LED on top board blinks continuously indicating the processor is running.

4.2.3 View other LEDs (Micro SD, Ethernet, etc). Two will flash during boot, one flashes continuously and others stay lit. *Details will be provided on future update of document.*

4.3 Start Windows & Viewer Application

4.3.1 For Macs, click on VMware icon on Dock and then click on the “play” icon to start the virtual Windows machine.

4.3.2 Click on the METI Support user name icon and type password “metiadmin”.

4.3.3 For Macs, locate the RHM-Viewer shortcut icon on the Desk Top and double click on it. For PCs, start Windows, locate the RHM-Viewer application and double click on it.

4.3.4 The Viewer application will start. If the option is set, it will attempt to reconnect to the last RHM connected. Close RHM tab by clicking on the “X” and follow directions in next section to choose which RHM to connect to.

4.4 Connect to RHM

- 4.4.1 Click on **File** located on the top menu bar and then select **Connect to RHM...**
- 4.4.2 The following window will appear with an IP Address populated. Change this address to either **10.0.7.227 for RHM “A”** (located on Patient right) or **10.0.7.226 for RMB “B”** (located on Patient left).



- 4.4.3 Verify the Port Number field is set to “5002” and then click on “**OK**”. The Viewer User Interface tab will now appear for the RHM selected. A green dot on the tab header will blink while interface is connected to the RHM. The firmware and FPGA bitstream versions will appear on the System Info window on the left side of the display.
- 4.4.4 To update the firmware and FPGAs **proceed** to section 5.0.

5.0 PERSONALIZATION OF RHM

① Compatibility Mode

When updating boards containing the default “test” firmware (v1.23) with a more recent image, the Compatibility Mode box in the Update Window must be checked. Any firmware image from release 1.29A or older, must be updated with the Compatibility Mode Box checked. See 1.29A firmware versions below:

RELEASE 1.29A	
STACK A	STACK B
FIRMWARE: 29	FIRMWARE: 27
DB FPGA: 20	DB FPGA: 12
MB FPGA: 21	MB FPGA: 21

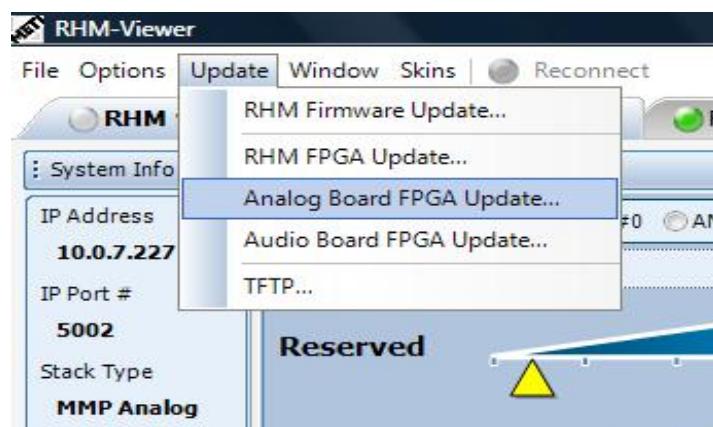
5.1 Stack “A” – Analog Board FPGA

① New RHM “A” Stack

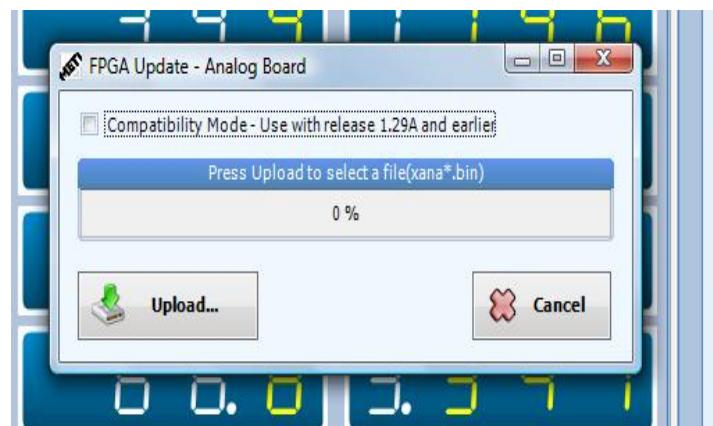
To program (personalize) a new RHM “A” stack, you must first connect to it using the IP address of the RHM “B” stack (**10.0.7.226**).

Note: All motherboards are initially programmed and bench tested with the same “B” stack firmware image.

- 5.1.1 Connect to RHM and select **Update** on the top Menu Bar. When the drop down window opens, select **Analog Board Update**. The following window will open.

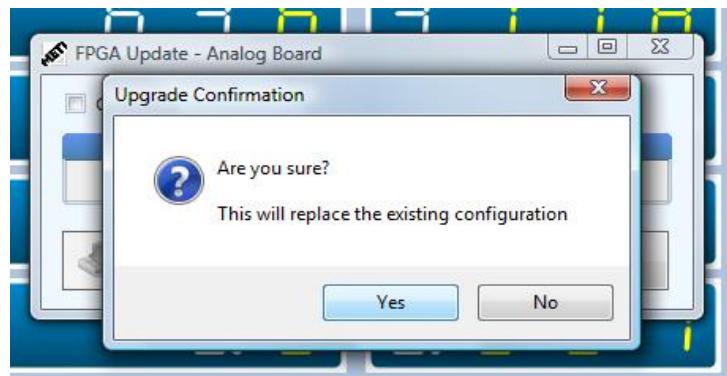


- 5.1.2 Select **Upload** and explore into the file directory structure to find the appropriate firmware. Select the “**Analog FPGA**” folder. For Green board select the **xanaxxxx.bin** bitstream file and click on **Open**. For Blue board select **bananxxxx.bin**

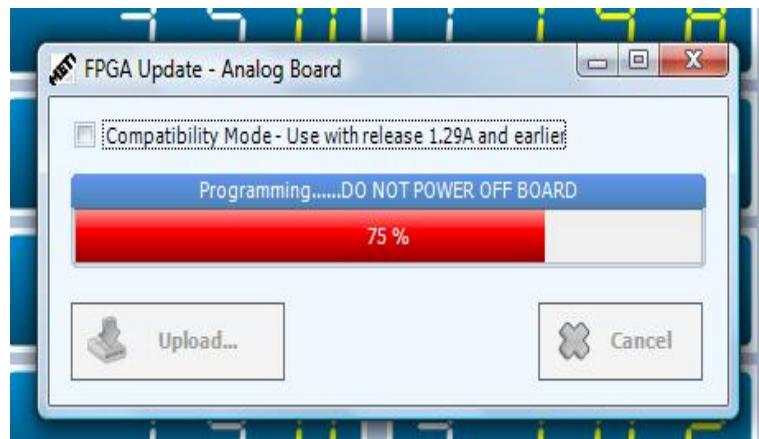


- ① **Note:** Please review the “**METI Software & Firmware Revision Log**” document for the proper Firmware/FPGA images upload

- 5.1.3 A pop up window will ask you to confirm the upgrade. Click “Yes”.



- 5.1.4 First the file will be uploaded and then the board will be programmed.
“DO NOT TURN OFF POWER DURING THE UPGRADE PROCESS!”



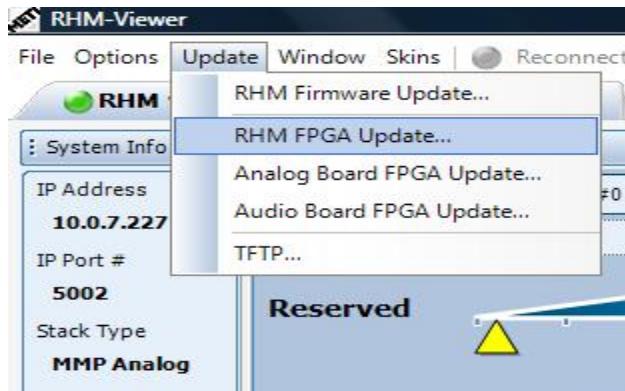
- 5.1.5 When the program bar reaches 100%, the update is complete. Wait until the window pops up indicating that “**The device was updated successfully...**” before proceeding.
Note: On green boards, the window that pops up may indicate “**The device took to long to respond**”. This is acceptable as well.



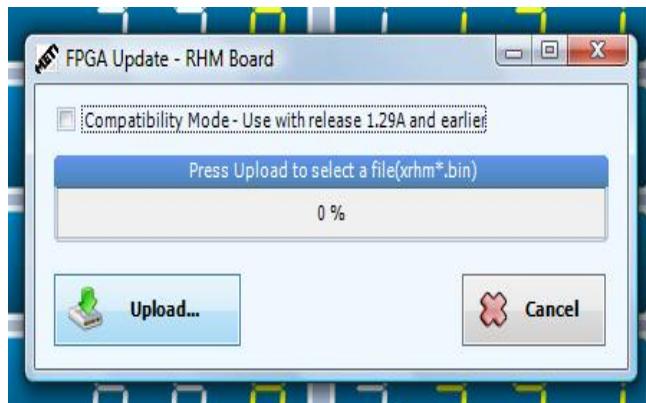
- 5.1.6 Cycle Power to reboot. Close the RHM Tab by clicking on the “OK” and wait 30 seconds before trying to reconnect.

5.2 Stack “A” – RHM FPGA

- 5.2.1 Connect to RHM and select **Update** on the top Menu Bar. When the drop down window opens, select **RHM FPGA Update**. The following window will open.

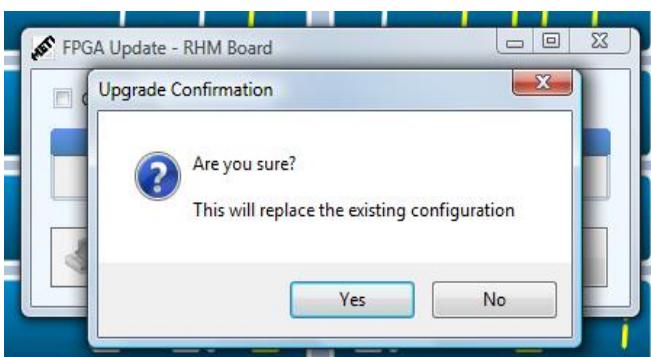


- 5.2.2 Select **Upload** and then drill into the directory structure to find the appropriate firmware. Select the “RHM FPGA” folder. For Green board, select the **xrhmxxxx.bin** bitstream file and click on **Open**. For Blue board, select **brhmxxxx.bin**.

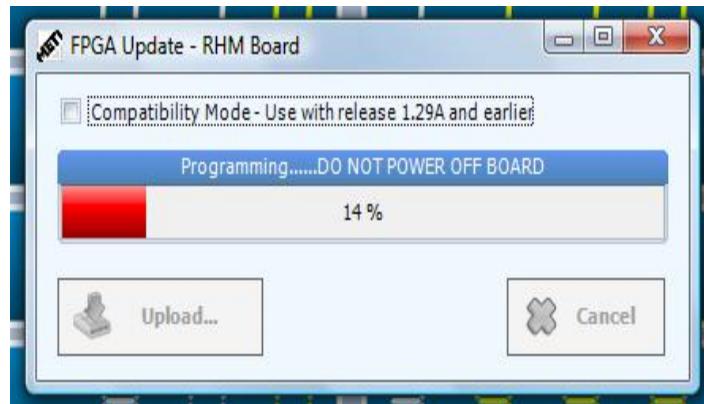


Note: Please review the “METI Software & Firmware Revision Log” document for the proper Firmware/FPGA images upload

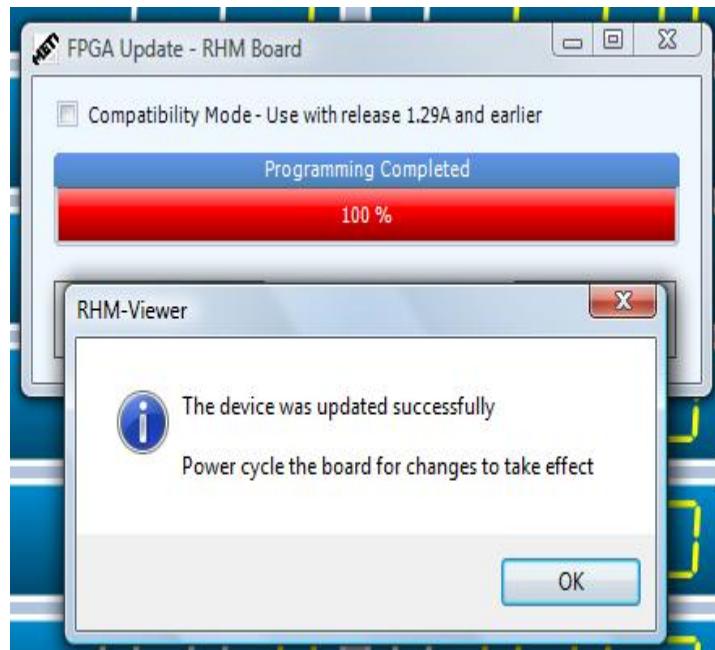
- 5.2.3 A pop up window will ask you to confirm the upgrade. Click **Yes**.



- 5.2.4 First the file will be uploaded and then the board will be programmed.
"DO NOT TURN OFF POWER DURING THE UPGRADE PROCESS!"



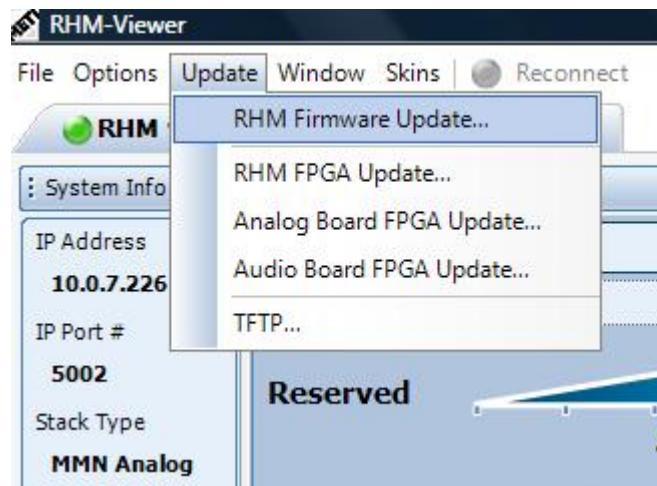
- 5.2.5 When the program bar reaches 100%, the update is complete. Wait until the window pops up indicating that "***The device was updated successfully...***" before proceeding.
Note: On green boards, the window that pops up may indicate "***The device took to long to respond***". This is acceptable as well.



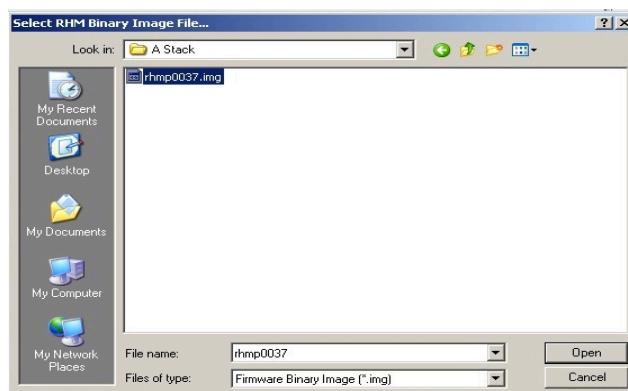
- 5.2.6 Cycle Power to reboot. Close the RHM Tab by clicking on the "**OK**" and wait 30 seconds before trying to reconnect.

5.3 Stack “A” – RHM Firmware (MMP or MMN)

- 5.3.1 Connect to RHM and select **Update** on the top Menu Bar. When the drop down window opens, select **RHM Firmware Update**. The following window will open.

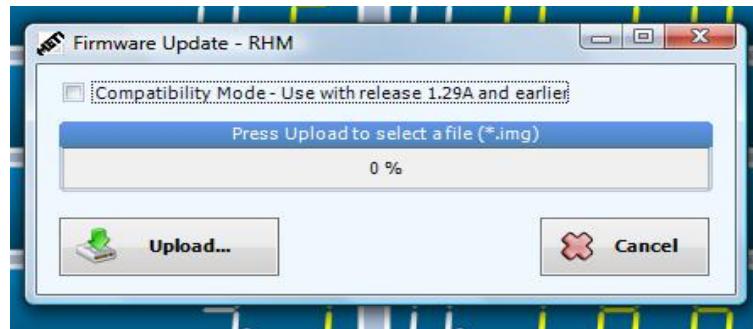


- 5.3.2 Look at the System Info window on the left side of the screen to identify the current firmware version. Select Compatibility Mode if current firmware image is from release 1.29A or earlier.
- 5.3.3 Select **Upload** and then drill into the directory structure to find the appropriate firmware. Select either the “Nursing Firmware” folder or the “Pre-Hospital Firmware” folder. From this folder, select the “A Stack” folder. For the Green board, select the **rhmpxxxx.img** image file and click on **Open**. For the Blue boards, select **mmnxxxx.img** for nursing or **mmpaxxxx.img** for pre-hospital.



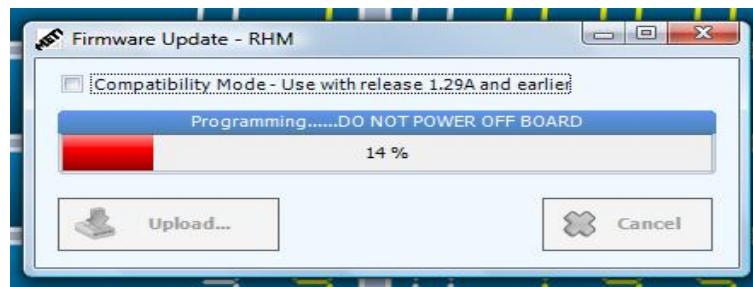
- ① **Note:** Please review the “*METI Software & Firmware Revision Log*” document for the proper Firmware/FPGA images upload

- 5.3.4 A pop up window will ask you to confirm the upgrade. Click Yes.

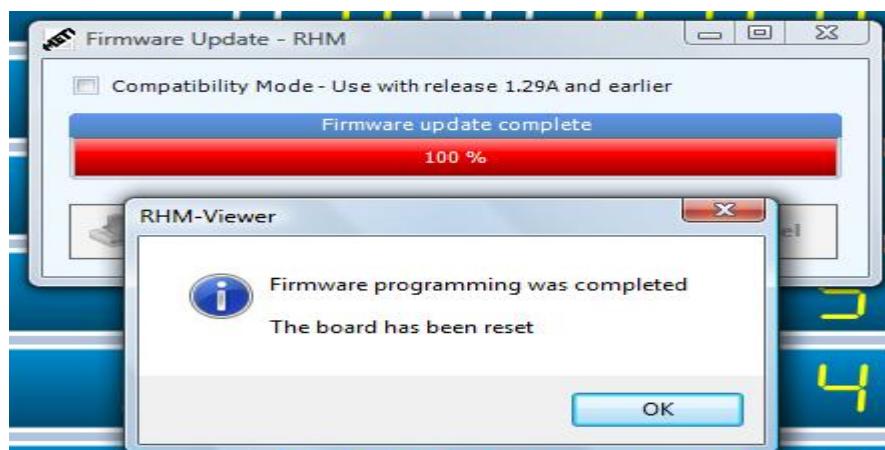


- ① **Note:** Please review the “*METI Software & Firmware Revision Log*” document for the proper Firmware/FPGA images upload

- 5.3.5 First the file will be uploaded and then the board will be programmed.
“DO NOT TURN OFF POWER DURING THE UPGRADE PROCESS”



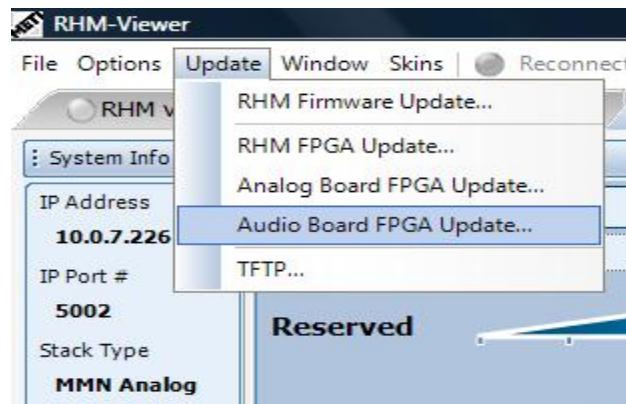
- 5.2.7 When the program bar reaches 100%, the update is complete. Wait until the following window pops up indicating that “*The device was updated successfully...*” before proceeding. **Note:** On green boards, the window that pops up may indicate “*The device took to long to respond*”. This is acceptable as well.



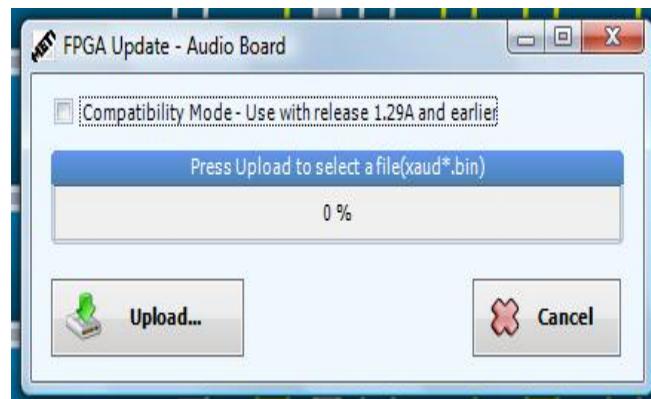
- 5.3.6 Cycle Power to reboot the RHM. Close the RHM Tab by clicking on the “OK” and wait 30 seconds before trying to reconnect. *Attempting reconnection before the RHM is ready results in an error message. If this was a new board, make sure that the IP Address has now been changed to 10.0.7.227.*

5.4 Stack “B” Audio Board FPGA

- 5.6.1 Connect to RHM and select **Update** on the top Menu Bar. When the drop down window opens, select **Audio Board Update**. The following window will open.

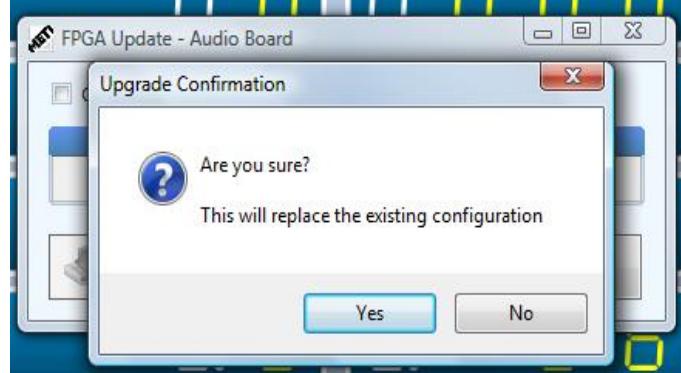


- 5.6.2 Select **Upload** and drill into the directory structure to find the appropriate firmware. Select the “Audio FPGA” folder. Select the **xaudxxxx.bin** bitstream file and click on **Open**. For Blue board, select **baudxxxx.bin**.

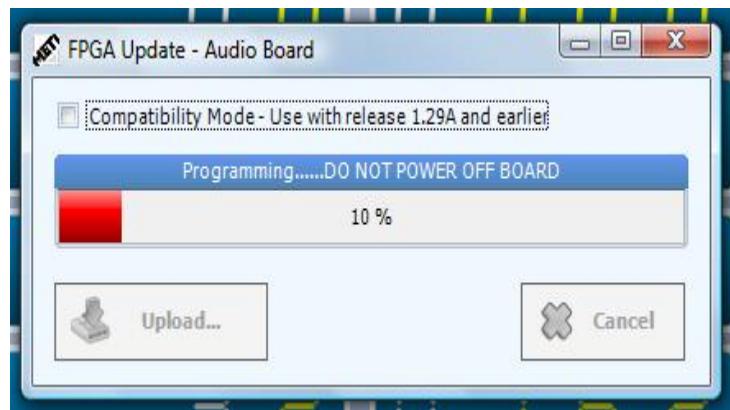


- ① *Note: Please review the “METI Software & Firmware Revision Log” document for the proper Firmware/FPGA images upload*

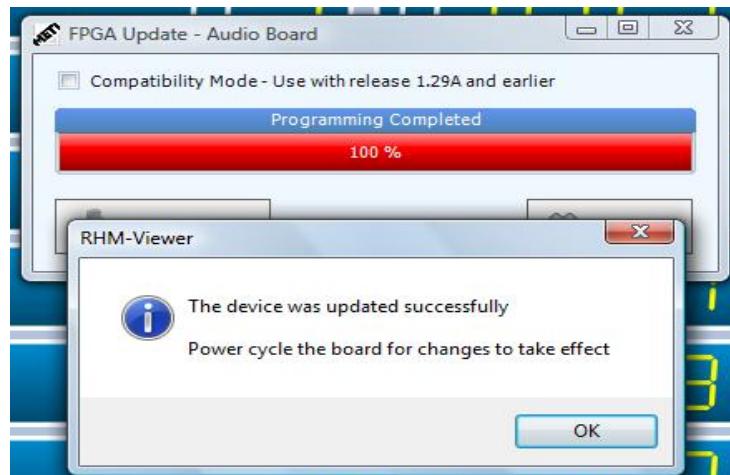
- 5.6.3 A pop up window will ask you to confirm the upgrade. Click **Yes**.



- 5.6.4 First the file will be uploaded and then the board will be programmed.
“DO NOT TURN OFF POWER DURING THE UPGRADE PROCESS”



- 5.6.5 When the program bar reaches 100%, the update is complete. Wait until the window pops up indicating that “**The device was updated successfully...**” before proceeding.
Note: On green boards, the window that pops up may indicate “**The device took to long to respond**”. This is acceptable as well.



- 5.6.6 Cycle Power to reboot. Close the RHM Tab by clicking on the “X” and wait 30 seconds before trying to reconnect.

5.5 Stack “B” RHM FPGA & RHM FIRMWARE

- 5.5.1 In order to program the RHM FPGA Board for stack B perform similar steps as shown in step 5.2. **Note:** For Green board, select the **xrhmxxxx.bin** bitstream file and click on Open. For Blue board, select **brhmxxxx.bin**.
 - 5.5.2 In order to program the RHM Firmware Board perform similar steps as shown in step 5.3
Note: For the Green board, select the **rhmpxxxx.img** image file and click on Open. For the Blue boards, select **mmnbxxxx.img** for nursing or **mmpbxxxx.img** for pre-hospital.
- ① ***Note: Please review the “METI Software & Firmware Revision Log” document for the proper Firmware/FPGA images upload***

CAE Healthcare

Installing and Updating The Müse® SCE Development Software

Welcome to Müse SCE Development Software. This document contains system requirements, installation instructions, update instructions, and tips for the Müse SCE Development Software.

Full Install - The Müse SCE Development Software **Full Install** is intended for use with computers that do NOT have previous versions of Müse installed. If Müse is already installed on the computer, performing this Müse installation removes all user-created content and all installed learning modules. Please note that only the Müse installer for your specific simulator type and operating system should be used.

Update - The Müse SCE Development Software **Update** is intended for use with computers on which the Müse SCE Development Software is already installed. Updating Müse preserves all user-created content and installed learning modules. Be sure to install the correct Müse updater for your operating system. Only the Müse updater for the specific simulator type already installed can be used.

WARNING: The Müse SCE Development Software does **NOT** support operation with a simulator and should **NEVER** be installed on any simulator workstation (Instructor Workstation, Remote Workstation, or dedicated TouchPro client).

IMPORTANT: Be sure to read the *Prior to Installation*, *Prior to Updating*, and *Warnings* information before starting any installation or update.

For **Mac®** instructions, click here: [Full Install](#) or [Update](#)

For **Windows®** instructions, click here: [Full Install](#) or [Update](#)

Table of Contents

[Operating System Support](#)

[Minimum Requirements](#)

[Mac Full Install](#)

[Mac Update](#)

[Windows Full Install](#)

[Windows Update](#)

[Tips for Running Müse in Windows](#)

[Customer Service](#)

Operating System Support

Muse 2.7 Supports:

- Windows 7, 8 , and 10
- Mac OS X 10.9 - 10.12

Minimum Requirements

Windows Operating System

- Windows 7
- Firefox 24 ESR or Internet Explorer® 9
- Adobe Flash Player 16
- Adobe Reader 11

Hardware

- Intel Core 2 Duo, 2.0 GHz
- 4 GB DDR3 RAM
- 32 GB Hard Drive Space Available
- 1366x768 Screen Resolution
- USB 2.0
- Wireless 802.11b/g/n Ethernet Card
- 100BASE-T Ethernet Adapter

Mac Operating System

- Mac OS X 10.9
- Firefox® 24 ESR
- Adobe Flash Player® 16
- Adobe® Reader 11

Hardware

- Intel Core 2 Duo, 2.0 GHz
- 2 GB DDR3 RAM
- 8 GB Hard Drive Space Available
- 1024x768 Screen Resolution
- USB 2.0
- Wireless 802.11b/g/n Ethernet Card
- 100BASE-T Ethernet Adapter

Mac Full Install

Warnings

- If Müse is already installed on the computer, performing this Müse installation removes all user-created content and all installed learning modules.
- Only the Müse installer for your specific simulator type and operating system should be used.
- If there is a local web server on the computer, this installation process replaces the index page with the Müse Start screen.
 - To check for an existing index page, open a web browser and go to `http://localhost/`.
- Müse installs MySQL version 5.1.46 on Windows computers and requires the user to install MySQL version 5.1.46 on Mac computers.
 - In Windows, if MySQL is already installed, it must be uninstalled prior to installing Müse. Please note that uninstalling MySQL removes any existing databases. To check if MySQL is installed, from the **Start** menu, select **Control Panel**, click **Uninstall a Program** and review the list of installed software. If MySQL is listed, select it and click **Uninstall**.
 - In Mac OS, if MySQL is installed, it does not need to be uninstalled. However, if MySQL is installed, the MySQL root user must NOT have a password.
 - To check if MySQL is installed, from the **Applications** folder, navigate to the **Utilities** folder and double-click the Terminal application to open it. Once the Terminal application is open, enter `ls -l /usr/local/mysql` at the Terminal prompt. If the contents of the folder are listed, then MySQL is installed.
 - If MySQL is installed, check for a root password by entering `/usr/local/mysql/bin/mysql -uroot` at the Terminal prompt. If MySQL reports **access denied**, there is a password. If presented with a **mysql>** prompt, there is not a password. Enter `quit` at the **mysql>** prompt to exit MySQL.
 - If a root password is set for MySQL, enter `/usr/local/mysql/bin/mysqladmin -uroot -p"current password" password ""` at the Terminal prompt, where *current password* is the current password. If the current root password is unknown, please contact your system administrator.
- In Windows, Müse installs PHP version 5.2.14.
 - If PHP is already installed, it must be uninstalled prior to installing Müse. To check if PHP is installed, from the **Start** menu, choose **Control Panel**, click **Uninstall a Program** and review the list of installed software. If PHP is listed, select it and click **Uninstall**.
- In Windows, Müse must be uninstalled via the Windows Control Panel before Müse for another simulator type can be successfully installed.
- In Windows, Müse must be uninstalled before it can be successfully reinstalled.
- At various times during installation or operation of Müse, you may be prompted by security software (e.g., firewall and antivirus software) to allow operation to continue.

Prior to Installation

- Visit <http://get.adobe.com/flashplayer/> to download the latest version of Adobe Flash Player. When prompted, save the Adobe Flash Player installer file to an easily accessible location. Once the installer file has finished downloading, double-click the installer file and follow the on-screen prompts until Flash Player has finished installing.
- Visit <http://get.adobe.com/reader/> to download the latest version of Adobe Reader. When prompted, save the Adobe Reader installer file to an easily accessible location. Once the installer file has finished downloading, double-click the installer file and follow the on-screen prompts until Adobe Reader has finished installing.
- If installing Müse on a Mac computer, download the installer for MySQL version 5.1.46 for Mac from <http://downloads.mysql.com/archives/mysql-5.1/mysql-5.1.46-osx10.5-x86.dmg>. Save the installer file to an easily accessible location (see the *Mac Installation Procedure* section for

installation instructions).

- Ensure that the system clock is set correctly.
- Disable pop-up blocking in your web browser. The Müse installer and the Patient Records feature of Müse require that pop-up blocking be turned off. For assistance, consult your browser's help menu.

Mac Full Installation Procedure

1. If MySQL is already installed on the computer, ensure that there is no root password set (see the *Warnings* section for instructions).
2. Navigate to the location where the downloaded MySQL version 5.1.46 installer file, **mysql-5.1.46-osx10.5-x86.dmg**, is saved (see the *Prior to Installation* section for download instructions).
3. Double-click the **mysql-5.1.46-osx10.5-x86.dmg** file. A Finder window opens.
4. Control-click **mysql-5.1.46-osx10.5-x86.pkg** in the Finder window and choose **Open**. A dialog may appear indicating mysql-5.1.46-osx10.5-x86.pkg is from an unidentified developer; if so, click **Open**. The MySQL installer launches. Note, the window may appear in the background. Click on it to bring it to the foreground.
5. Follow the on-screen prompts until the MySQL software is finished installing. During the MySQL installation process, if informed that a newer version is already installed, please contact [CAE Healthcare Customer Service](#).
6. Control-click **MySQL.prefPane** in the Finder window, then choose **Open**. A dialog may appear indicating MySQL.prefPane is from an unidentified developer; if so, click **Open**. The System Preferences window appears. Note, the window may appear in the background. Click on it to bring it to the foreground.
7. If a window appears stating that the preference pane is already installed, click **Cancel**. Otherwise, select **Install for this user only** when prompted.
8. If a message appears saying the System Preferences must quit and reopen, click **OK**. The MySQL window appears.
9. In the MySQL window, ensure MySQL is **running**. If MySQL is not running, click the **Start MySQL Server** button. System Preferences will ask for a user name and password. Enter the user name and password of an Administrator user for the machine.
10. Close the MySQL window.
11. Close the System Preferences window.
12. Navigate to the Müse disk image file. It will have a filename like muse-mac-XXX-SCE-Y.Y.Y.Y.dmg, e.g. muse-mac-ATH-SCE-2.7.64.0.dmg. Double-click on it. A Finder window will open.
13. Locate the Müse installer package in the Finder window. It will have an icon like a box and a name like muse-mac-XXXX-SCE.pkg, e.g. muse-mac-ATH-SCE.pkg. Control-click on it, then choose **Open**. A dialog may appear indicating muse-mac-XXXX-SCE.pkg is from an unidentified developer; if so, click **Open**. The Müse installer will launch. Note, the window may appear in the background. Click on it to bring it to the foreground.
14. Follow the on-screen prompts to complete the Müse installation. At one step of the installation, you may have to click **Install for all users of this computer** to enable the **Continue** button. Also note the **Change Install Location** button has no effect except to go back one step. After a few minutes, a message is displayed saying the software was successfully installed. Installation may take up to 10 minutes, despite the displayed estimated time remaining.
15. When prompted, select **Restart** to restart the computer.
16. Open a web browser (Firefox) and enter <http://localhost/> in the address field. The Müse Start screen appears (DO NOT click on the MUSE selection at this time).
17. From the Müse Start screen, empty the cache:

- In Firefox, from the **History** menu select **Clear Recent History....** Then from the **Time range to clear** dropdown select **Everything**. Ensure the arrow next to **Details** is clicked showing all checkboxes and all checkboxes are selected. Click **Clear Now**.
18. The update has been performed and the Müse software is ready to use.
19. To launch TouchPro, if desired, open a new browser tab or window, enter *http://localhost/* in the address field and click the **TouchPro** icon.

IMPORTANT: The Müse software requires activation. The software can be used for 90 days without activation. At the end of the 90 days, the software must be activated for continued use. The software may be activated at any time after installation. For instructions on activating the software, see *Activating and Deactivating Müse* in the Documentation folder included with the downloaded Müse installer file.

Mac Update

Warnings

- Be sure to install the correct Müse updater for your operating system.
- Only the Müse updater for the specific simulator type already installed can be used.
- At various times during installation or operation of Müse, you may be prompted by security software (e.g., firewall and antivirus software) to allow operation to continue.

Prior to Updating

- Ensure that the system clock is set correctly.
- Disable pop-up blocking in your web browser. The Müse updater and the Patient Records feature of Müse require that pop-up blocking be turned off. For assistance, consult your browser's help menu.
- If updating Müse on a Windows computer, restart the computer immediately prior to updating the Müse software.

Mac Update Procedure

1. From the **Apple** menu, select **System Preferences**. The System Preferences window appears. Select **MySQL** to ensure MySQL is **running**. If MySQL is not running, click the **Start MySQL Server** button. System Preferences will ask for a user name and password. Enter the user name and password of an Administrator user for the machine.
2. Close the System Preferences window.
3. Navigate to the Müse disk image file. It will have a filename like *muse-mac-XXX-SCE-upgrade-Y.Y.Y.Y.dmg*, e.g. *muse-mac-ATH-SCE-upgrade-2.7.64.0.dmg*. Double-click on it. A Finder window will open.
4. Locate the Müse installer package in the Finder window. It will have an icon like a box and a name like *muse-mac-XXXX-SCE-upgrade.pkg*, e.g. *muse-mac-ATH-SCE-upgrade.pkg*. Control-click on it, then choose **Open**. A dialog may appear indicating *muse-mac-XXXX-SCE-upgrade.pkg* is from an unidentified developer; if so, click **Open**. The Müse installer will launch. Note, the window may appear in the background. Click on it to bring it to the foreground.
5. Follow the on-screen prompts to complete the Müse installation. At one step of the installation, you may have to click **Install for all users of this computer** to enable the **Continue** button.

Also note the **Change Install Location** button has no effect except to go back one step. After a few minutes, a message is displayed saying the software was successfully installed. Installation may take up to 10 minutes, despite the displayed estimated time remaining.

6. When prompted, select **Restart** to restart the computer.
7. Open a web browser (Firefox) and enter <http://localhost/> in the address field. The Müse Start screen appears (DO NOT click on the MUSE selection at this time).
8. From the Müse Start screen, empty the cache:
 - o In Firefox, from the **History** menu select **Clear Recent History...**. Then from the **Time range to clear** dropdown select **Everything**. Ensure the arrow next to **Details** is clicked showing all checkboxes and all checkboxes are selected. Click **Clear Now**.
9. The update has been performed and the Müse software is ready to use.
10. To launch TouchPro, if desired, open a new browser tab or window, enter <http://localhost/> in the address field and click the **TouchPro** icon.

Windows Full Install

Warnings

- If Müse is already installed on the computer, performing this Müse installation removes all user-created content and all installed learning modules.
- Only the Müse installer for your specific simulator type and operating system should be used.
- If there is a local web server on the computer, this installation process replaces the index page with the Müse Start screen.
 - o To check for an existing index page, open a web browser and go to <http://localhost/>.
- Müse installs MySQL version 5.1.46 on Windows computers and requires the user to install MySQL version 5.1.46 on Mac computers.
 - o In Windows, if MySQL is already installed, it must be uninstalled prior to installing Müse. Please note that uninstalling MySQL removes any existing databases. To check if MySQL is installed, from the **Start** menu, select **Control Panel**, click **Uninstall a Program** and review the list of installed software. If MySQL is listed, select it and click **Uninstall**.
 - o In Mac OS, if MySQL is installed, it does not need to be uninstalled. However, if MySQL is installed, the MySQL root user must NOT have a password.
 - To check if MySQL is installed, from the **Applications** folder, navigate to the **Utilities** folder and double-click the Terminal application to open it. Once the Terminal application is open, enter `ls -l /usr/local/mysql` at the Terminal prompt. If the contents of the folder are listed, then MySQL is installed.
 - If MySQL is installed, check for a root password by entering `/usr/local/mysql/bin/mysql -uroot` at the Terminal prompt. If MySQL reports **access denied**, there is a password. If presented with a **mysql>** prompt, there is not a password. Enter `quit` at the **mysql>** prompt to exit MySQL.
 - If a root password is set for MySQL, enter `/usr/local/mysql/bin/mysqladmin -uroot -p"current password" password ""` at the Terminal prompt, where *current password* is the current password. If the current root password is unknown, please contact your system administrator.
- In Windows, Müse installs PHP version 5.2.14.
 - o If PHP is already installed, it must be uninstalled prior to installing Müse. To check if PHP is installed, from the **Start** menu, choose **Control Panel**, click **Uninstall a Program** and review the list of installed software. If PHP is listed, select it and click **Uninstall**.
- In Windows, Müse must be uninstalled via the Windows Control Panel before Müse for another

simulator type can be successfully installed.

- In Windows, Müse must be uninstalled before it can be successfully reinstalled.
- At various times during installation or operation of Müse, you may be prompted by security software (e.g., firewall and antivirus software) to allow operation to continue.

Prior to Installation

- Visit <http://get.adobe.com/flashplayer/> to download the latest version of Adobe Flash Player. When prompted, save the Adobe Flash Player installer file to an easily accessible location. Once the installer file has finished downloading, double-click the installer file and follow the on-screen prompts until Flash Player has finished installing.
- Visit <http://get.adobe.com/reader/> to download the latest version of Adobe Reader. When prompted, save the Adobe Reader installer file to an easily accessible location. Once the installer file has finished downloading, double-click the installer file and follow the on-screen prompts until Adobe Reader has finished installing.
- If installing Müse on a Mac computer, download the installer for MySQL version 5.1.46 for Mac from <http://downloads.mysql.com/archives/mysql-5.1/mysql-5.1.46-osx10.5-x86.dmg>. Save the installer file to an easily accessible location (see the *Mac Installation Procedure* section for installation instructions).
- Ensure that the system clock is set correctly.
- Disable pop-up blocking in your web browser. The Müse installer and the Patient Records feature of Müse require that pop-up blocking be turned off. For assistance, consult your browser's help menu.

Windows Full Installation Procedure

1. Ensure MySQL and PHP are NOT installed on the computer (see the *Warnings* section for instructions).
2. Navigate to the location where the Müse application (*.exe) file is saved.
3. Double-click the Müse file. The Müse installer launches.
4. Follow the on-screen prompts.
5. Müse will update, then a Finish window will appear. Click **Finish**.
6. Click **Restart** to restart the computer
7. If using *Windows 10*, the default browser must be set to *Internet Explorer* or *Firefox*:
 1. In the Search Windows field, type in *default*. Select **Default Programs** from the list of items that appear.
 2. A window will appear titled *Choose default apps*. Scroll down to the section titled *Web browser*. Click on **Microsoft Edge**.
 3. In the menu that appears, select **Internet Explorer** or **Firefox**.
 4. Close the window.
8. From the **Start** menu, select **All Programs**. Select **METI** and click **Müse**. The Müse Start screen appears. (DO NOT click on the MUSE selection at this time)
9. From the Müse Start screen, empty the cache:
 - In Firefox, from the **History** menu select **Clear Recent History....** Then from the **Time range to clear** dropdown select **Everything**. Ensure the arrow next to **Details** is clicked showing all checkboxes and all checkboxes are selected. Click **Clear Now**.
 - In Internet Explorer, click the **Tools** menu and select **Delete Browsing History**. In the Delete Browsing History menu, ensure **Preserve favorites website data** is unchecked and ensure **Temporary Internet files, Cookies and History** are checked, then click **Delete**.

- For help emptying the cache in any other browser, please consult your browser's help menu.
10. The update has been performed and the Müse software is ready to use.
 11. To launch TouchPro, if desired, open a new browser tab or window, enter *http://localhost/* in the address field and click the **TouchPro** icon.

IMPORTANT: The Müse software requires activation. The software can be used for 90 days without activation. At the end of the 90 days, the software must be activated for continued use. The software may be activated at any time after installation. For instructions on activating the software, see *Activating and Deactivating Müse* in the Documentation folder included with the downloaded Müse installer file.

Tips for Running Müse in Windows

- In Internet Explorer, if you are presented with a message bar that says, "Intranet settings are now turned off by default. Intranet settings are less secure than Internet settings. Click for options," click the message and select **Don't show this message again**.
- Browser toolbars take up screen space, which may prevent the full Müse application from being displayed. It is recommended to hide all unnecessary toolbars.
- Internet Explorer users are advised to use the browser in full-screen mode. Press the F11 key on your computer's keyboard to enable full-screen mode.

Windows Update

Warnings

- Be sure to install the correct Müse updater for your operating system.
- Only the Müse updater for the specific simulator type already installed can be used.
- At various times during installation or operation of Müse, you may be prompted by security software (e.g., firewall and antivirus software) to allow operation to continue.

Prior to Updating

- Ensure that the system clock is set correctly.
- Disable pop-up blocking in your web browser. The Müse updater and the Patient Records feature of Müse require that pop-up blocking be turned off. For assistance, consult your browser's help menu.

Windows Update Procedure

1. Navigate to the location where the Müse application (*.exe) file is saved.
2. Double-click the Müse file. The Müse installer launches.
3. Follow the on-screen prompts.
4. Müse will update, then a Finish window will appear. Click **Finish**.
5. Click **Restart** to restart the computer.
6. If using *Windows 10*, the default browser must be set to *Internet Explorer* or *Firefox*:
 1. In the Search Windows field, type in *default*. Select **Default Programs** from the list of

- items that appear.
2. A window will appear titled *Choose default apps*. Scroll down to the section titled **Web browser**. Click on **Microsoft Edge**.
 3. In the menu that appears, select **Internet Explorer** or **Firefox**.
 4. Close the window.
7. From the **Start** menu, select **All Programs**. Select **METI** and click **Müse**. The Müse Start screen appears (DO NOT click on the MUSE selection at this time).
8. From the Müse Start screen, empty the cache:
1. In Firefox, from the **History** menu select **Clear Recent History....** Then from the **Time range to clear** dropdown select **Everything**. Ensure the arrow next to **Details** is clicked showing all checkboxes and all checkboxes are selected. Click **Clear Now**.
 2. In Internet Explorer, click the **Tools** menu and select **Delete Browsing History**. In the Delete Browsing History menu, ensure **Preserve favorites website data** is unchecked and ensure **Temporary Internet files, Cookies** and **History** are checked, then click **Delete**.
 3. For help emptying the cache in any other browser, please consult your browser's help menu.
9. The update has been performed and the Müse software is ready to use.
10. To launch TouchPro, if desired, open a new browser tab or window, enter <http://localhost/> in the address field and click the **TouchPro** icon.

Tips for Running Müse in Windows

- In Internet Explorer, if you are presented with a message bar that says, "Intranet settings are now turned off by default. Intranet settings are less secure than Internet settings. Click for options," click the message and select **Don't show this message again**.
- Browser toolbars take up screen space, which may prevent the full Müse application from being displayed. It is recommended to hide all unnecessary toolbars.
- Internet Explorer users are advised to use the browser in full-screen mode. Press the F11 key on your computer's keyboard to enable full-screen mode.

Customer Service

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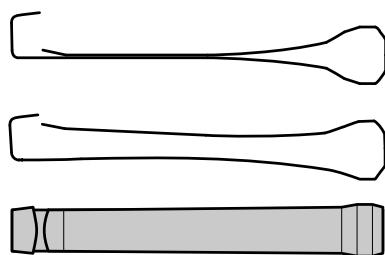
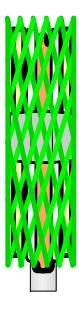
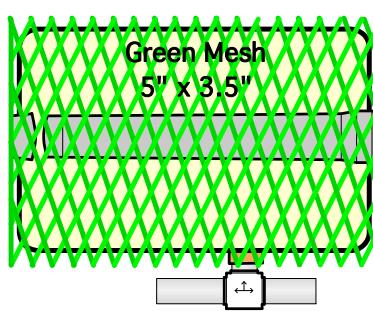
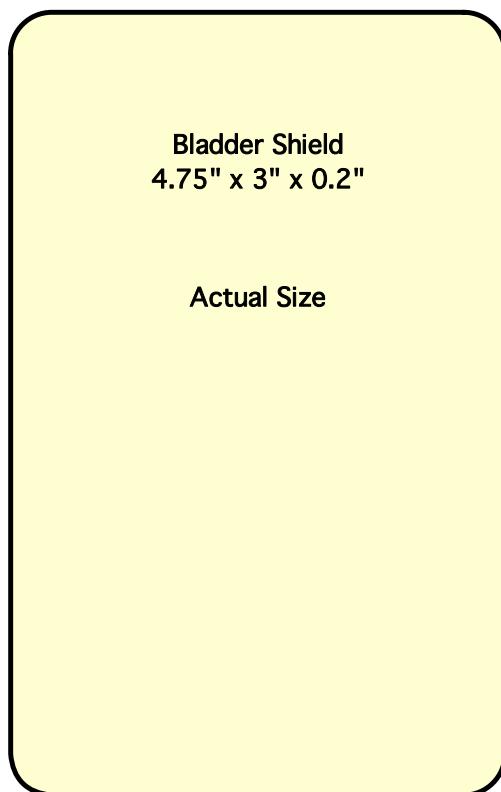
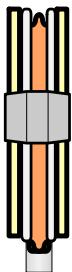
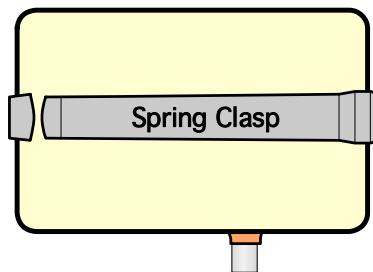
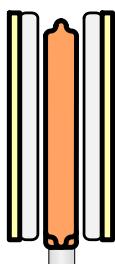
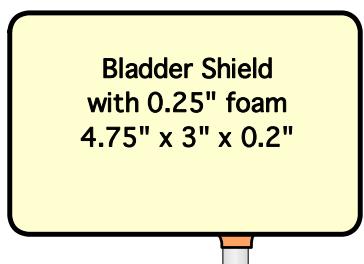
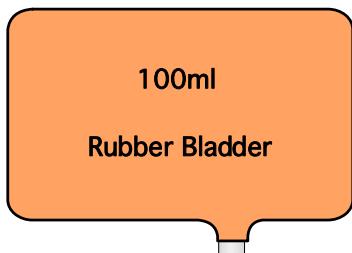
Apollo

Trauma Fluids & IV

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Pressure Bladders - Fluids

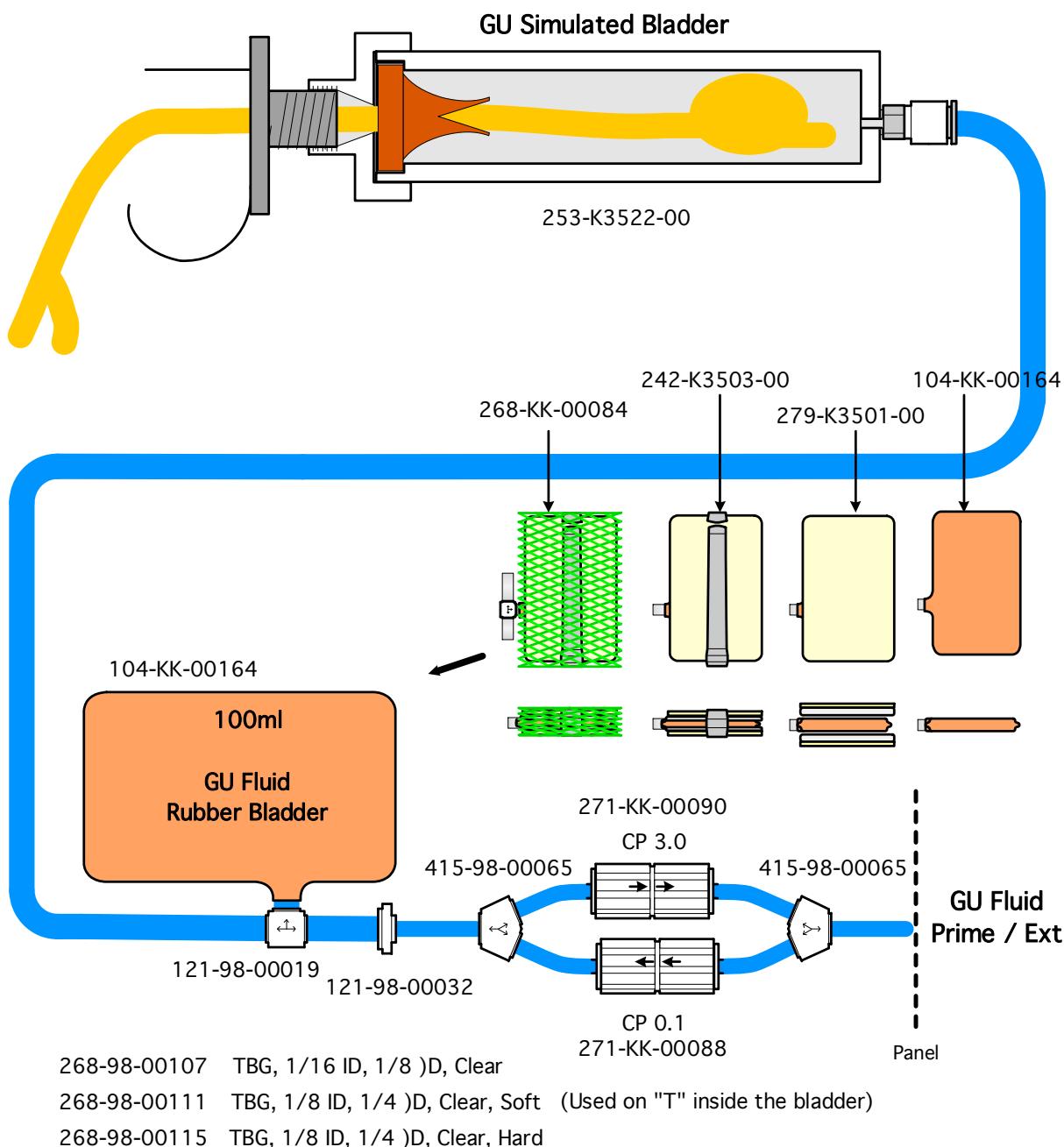
05/22 MMcClure
Rev. 2



Secretions - GU Nursing

02/09/10 MMcClure
Rev. 1

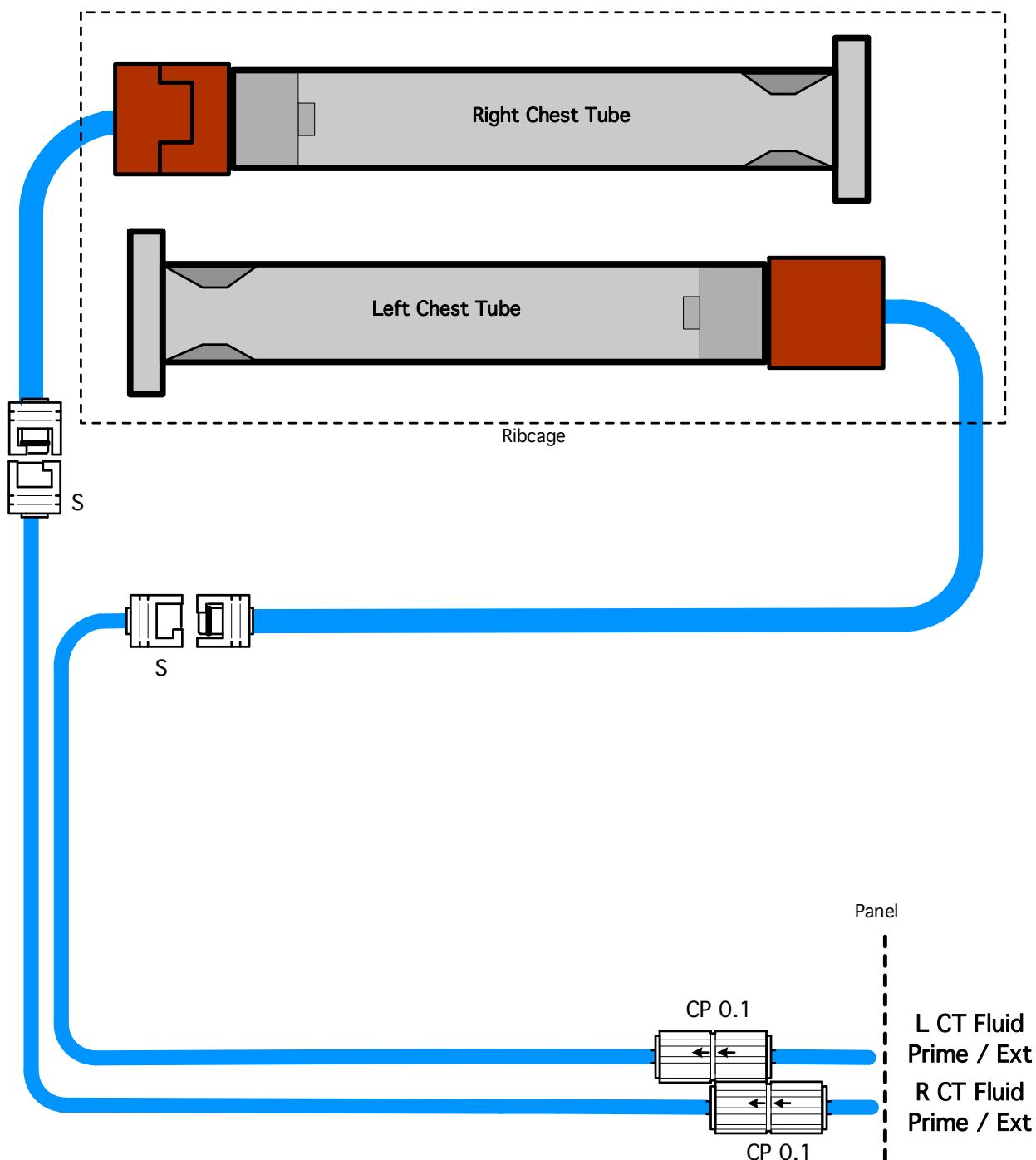
Side View
(Not to scale)



Secretions - Nursing Chest Tube

METiman
01/18/10 MMcClure
Rev. 4

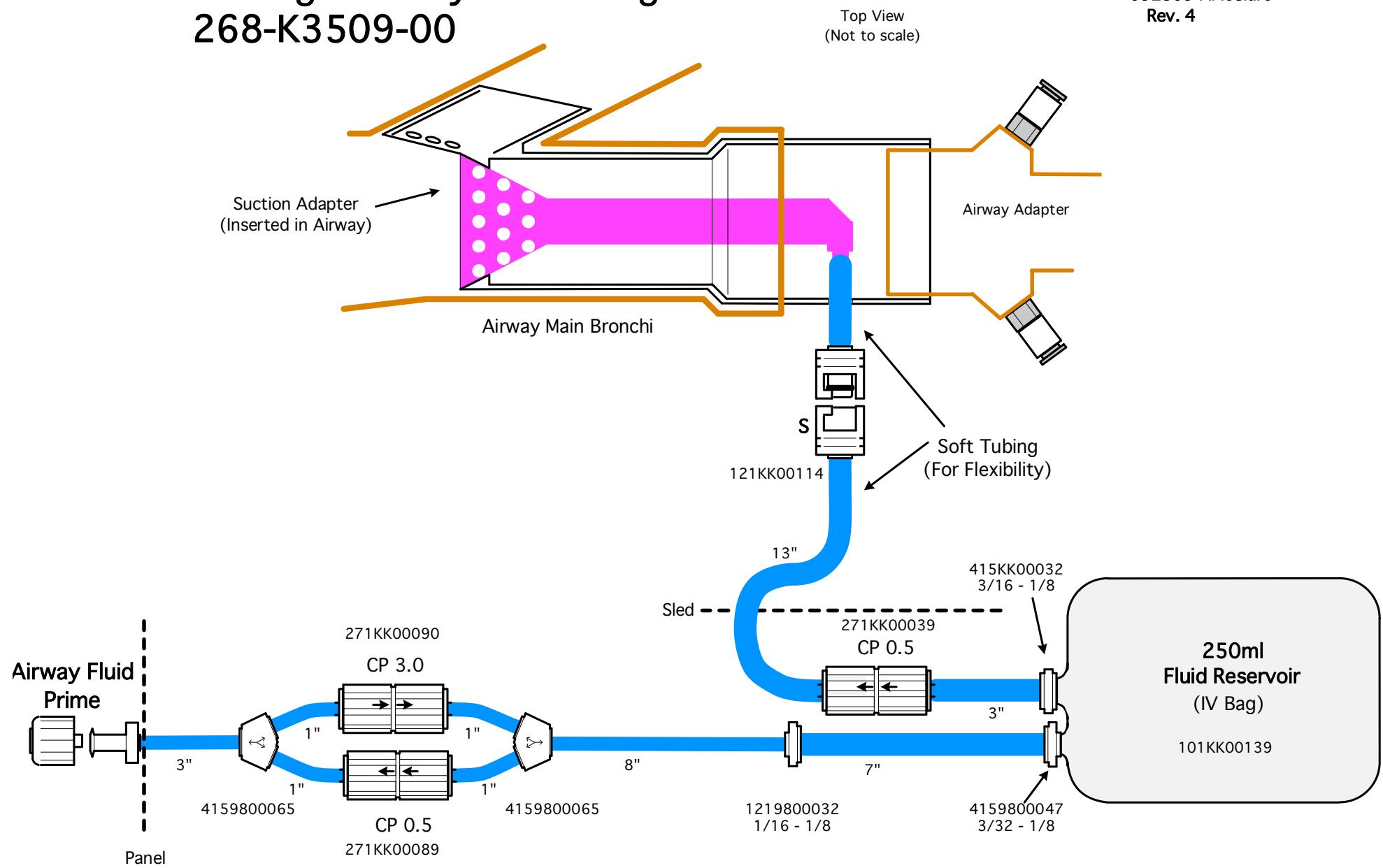
Top View
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Nursing - Airway Suctioning

268-K3509-00

092309 MMcClure
Rev. 4

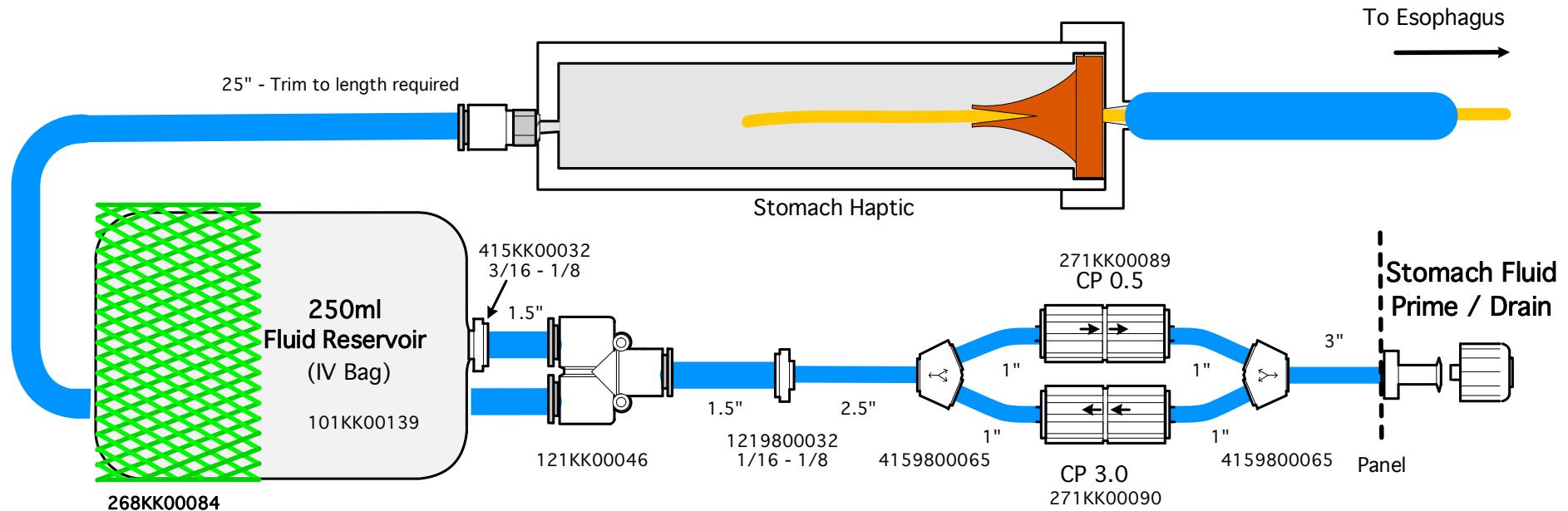


View
(Not to scale)

Nursing - NG Tube Support

268-K3510-00

3/07 MMcClure
Rev. 6



TBG, 1/8ID, 1/4OD, Clear, HRD 2689800115
TBG, 1/16ID, 1/8OD, Clear 2689800107

Apollo and METIman TECH TIP

Troubleshooting Nasogastric Insertion on Nursing

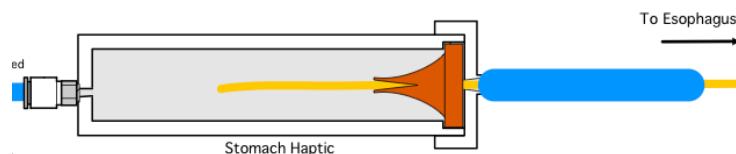
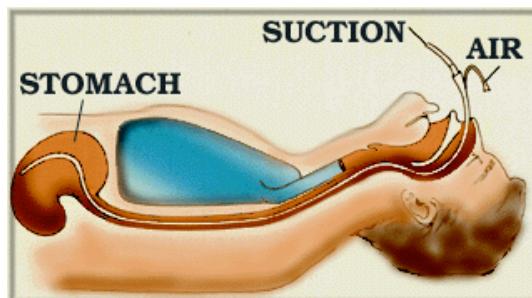
When placing a Nasogastric tube into the stomach, the catheter can take the wrong route or get stuck along the way. The following information can help determine the issue.

A 14-Fr Nasogastric Tube gets inserted through the nasal opening, down the back of the throat, through the esophagus and into the stomach. On our Apollo/METIman simulator, the depth to which the catheter should be inserted is **23 to 26 inches (58 to 66 cm)**. This places the catheter tip within the stomach haptic.

- Make sure the Stomach Fluid Reservoir (IV Bag) on left side of patient has all air removed and only contains **60mml** of water per user manual. The bag can become pressurized during mechanical ventilation, which will cause the duckbill valve to remain tightly shut.
- Lubricate the catheter with silicon and even squirt some silicon on the back of the throat as well.
- If the catheter has a curl to it, make sure to insert the tube such that the hose curls toward the back of the throat.
- While inserting, care must be taken to ensure that the tube has not passed through the larynx into the trachea then down into the bronchi (Airway Suctioning haptic).
- Make sure that the hose does not coil-up in the back of the throat.

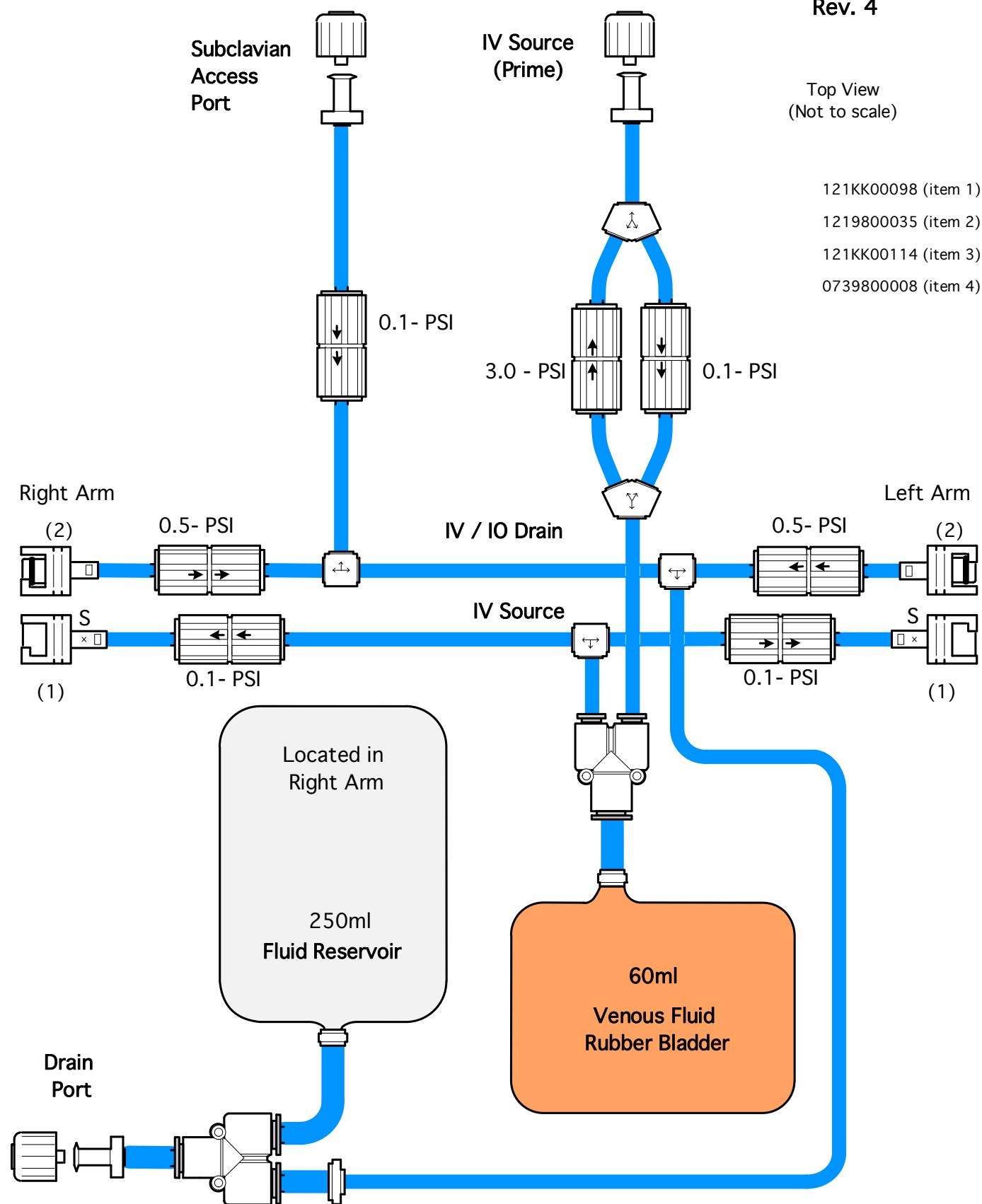
If the catheter becomes stuck as you insert (can't get to correct operational depth), the following information can help determine where the blockage or issue may be.

- **8.0" (20cm)** – This is the approximate depth of the esophageal clamp “expander” component located on the outside of the Nursing airway. Helps keep passageway open.
- **14.0" (35.5cm)** – This is the approximate depth of the Airway Suction haptic in the bronchi. (Catheter went the wrong way?)
- **18.5" (47cm)** – This is the approximate location of the Head Esophagus in-line Connector. Verify no sharp bends in tube path.
- **20.0" (51cm)** – This is the approximate location of the Lip Seal / Duckbill Valve at the entrance of the stomach haptic. (Catheter can get stuck if bag/reservoir is pressurized or if more lubrication is needed to push through the rubber duckbill valve.)
- **23 to 26 " (58 to 66 cm)** – Depth for normal operation

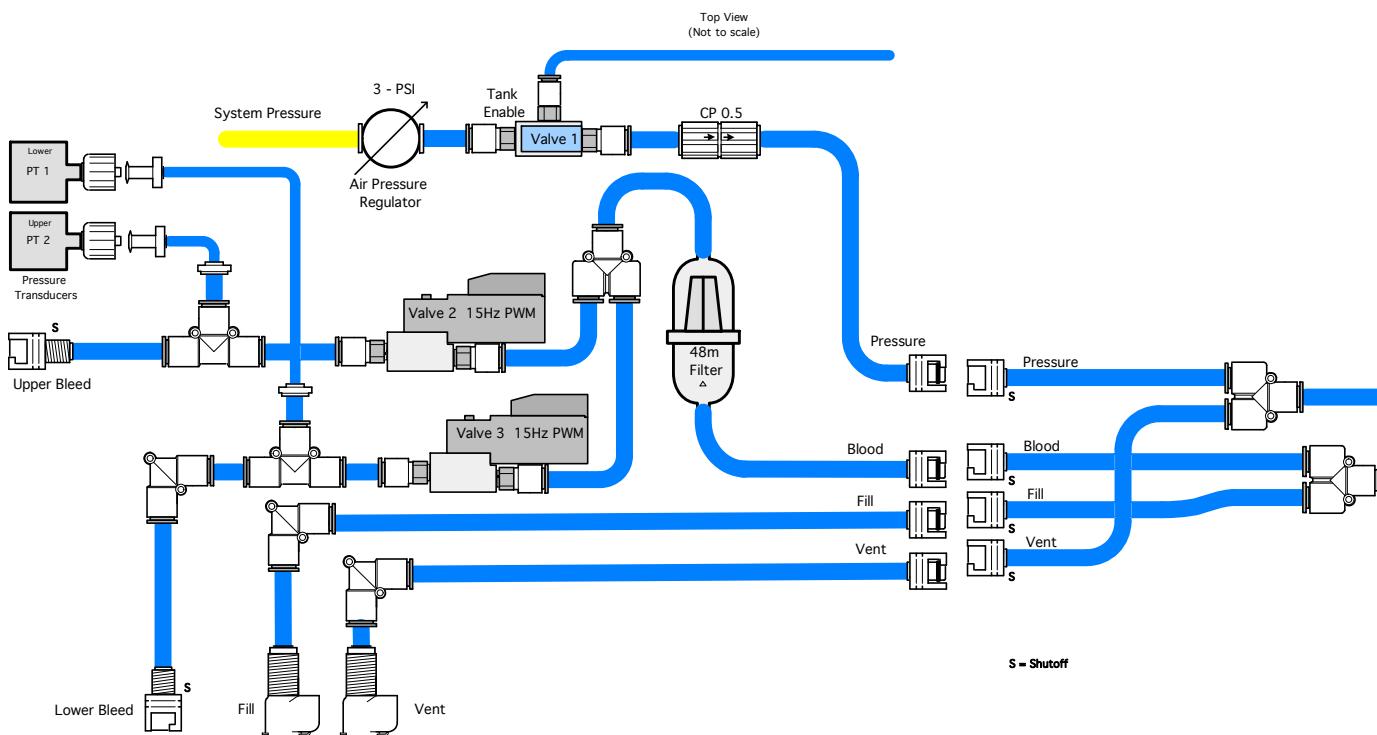


APN/MMN IV Access - Torso

Disruptive Concepts
7/1/09 MMcClure
Rev. 4



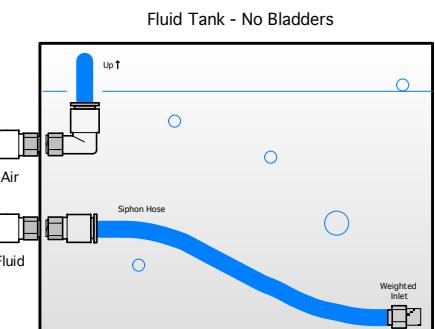
OD - Bleeding - Torso



OD - Bleeding - Leg

03/02MMcClure
Rev. 1

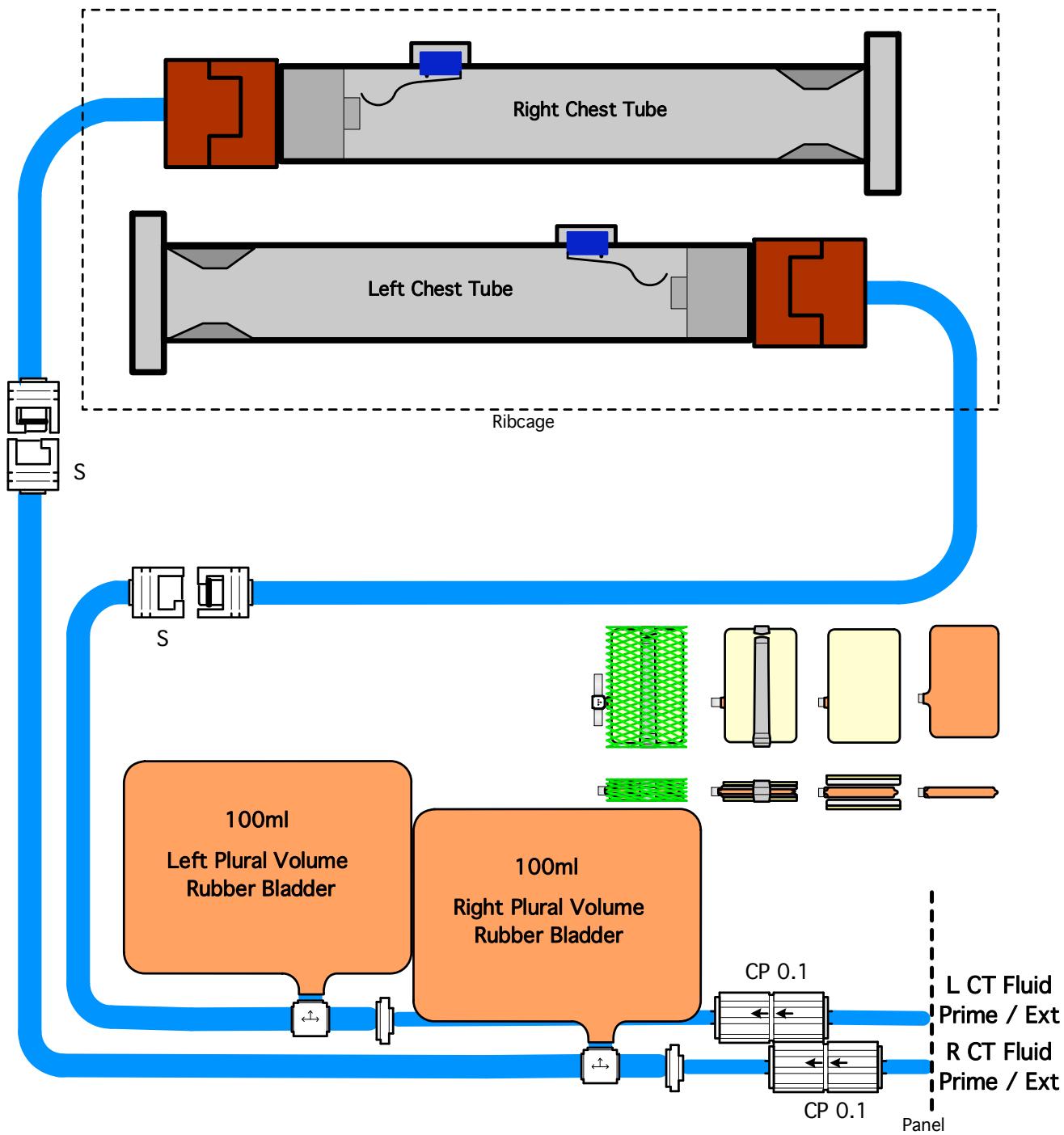
Side View
(Not to scale)



Secretions - EMS Chest Tube

METiman
01/18/10 MMcClure
Rev. 3

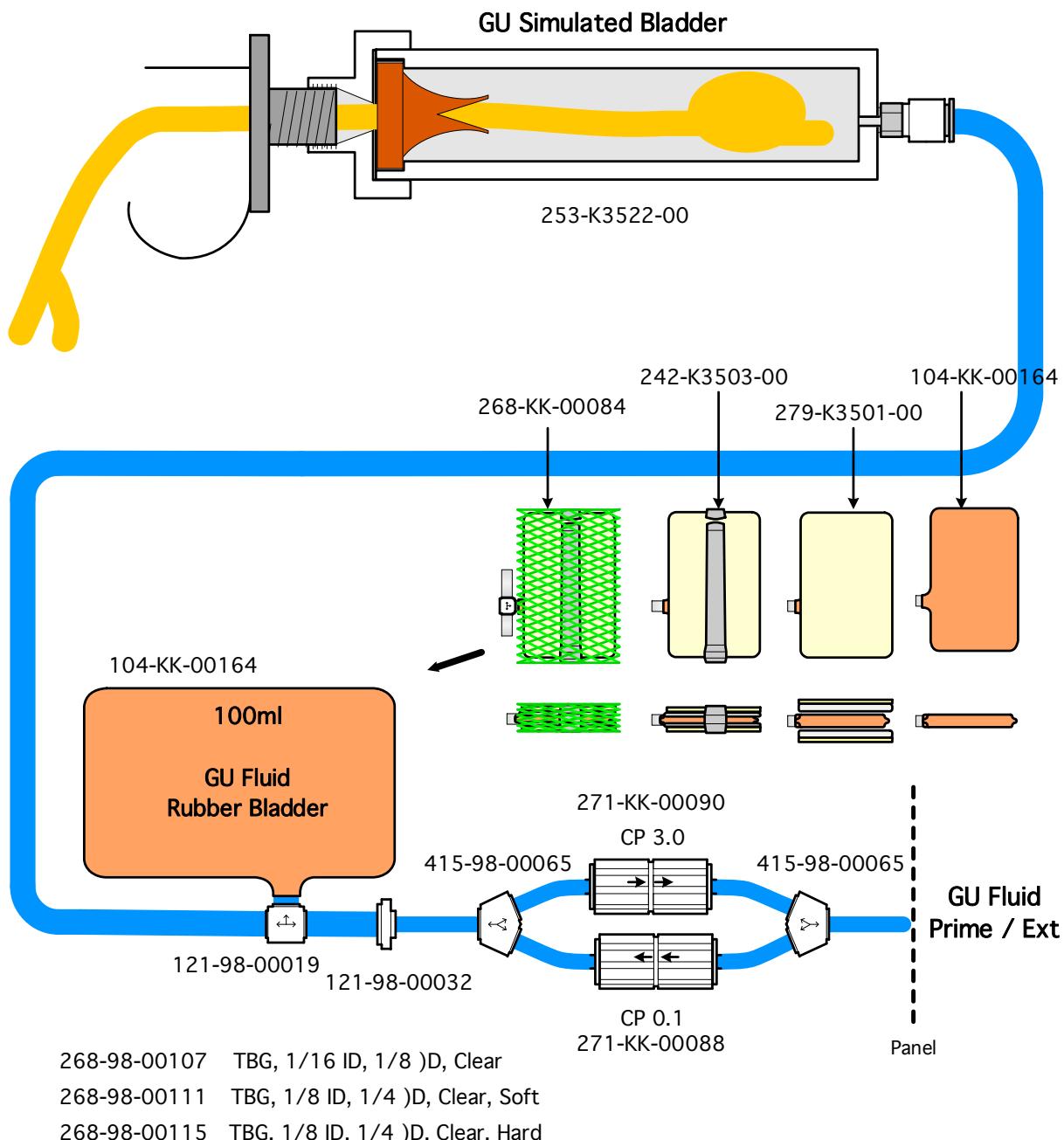
SideView
(Not to scale)



Secretions - GU Prehospital

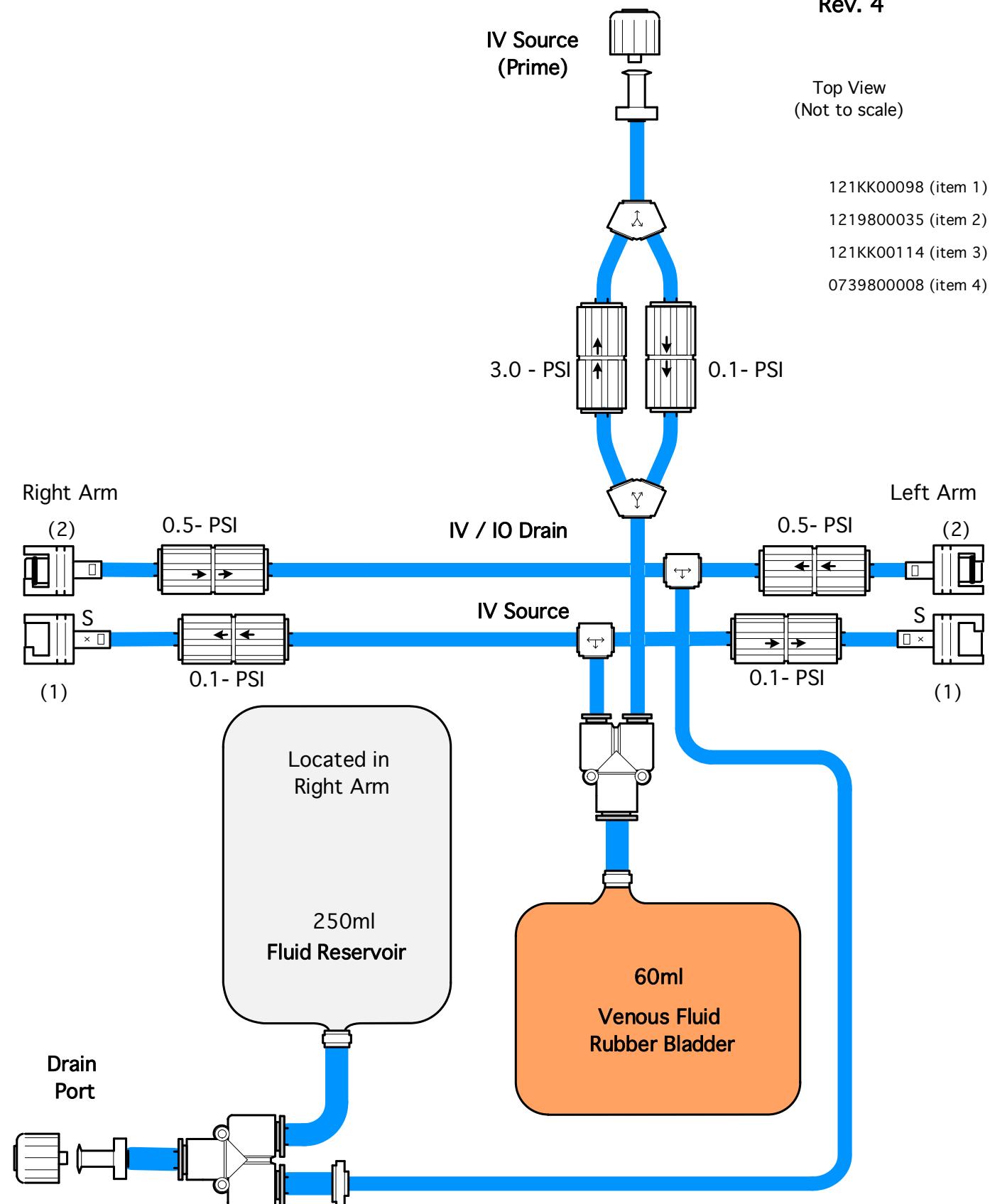
02/08/10 MMcClure
Rev. 6

Side View
(Not to scale)



APP/MMP IV Access - Torso

Disruptive Concepts
7/1/09 MMcClure
Rev. 4



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Apollo

Repair Procedures

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How to replace the head on a METIMan or Apollo

Erstellt von Christian Gordillo
Erstelltdatum 06/12/2013 10:20:00

Please send comments and remarks to:

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Summary

This documentation describes the steps to replace a head and airway assembly on a METIMan. The same documentation can be used on iStan mannequins with minor changes.

Applications

MMN, MMP, iStan

Requirements:

Head-airway assembly (with atlas joint, head skin, secretion mask, mask foam, secretion pins)
Scalpel, Philips screwdriver, Loctite 401 super glue, silicone glue, Silicon lubricant, sharp jeweller's screwdriver, wrench 10 mm, puncher 5mm

Caution

Treat the airway with extreme care, any damage can cause leaks which will destroy the airway's function.

Be extremely careful related to the correct positioning of the airway to ensure correct function.

Date

V1.0 Created on 12/6/13 10:20 AM

Removal of old head

1. To access the connections of the airway and neck, open the chest skin of the patient.



2. The next steps explain how to remove the head skin. Do this carefully to be able to reuse this skin on the new head assembly.
3. Carefully pull head skin from the chin towards the front of the head. Stop at the height of the eyelids.



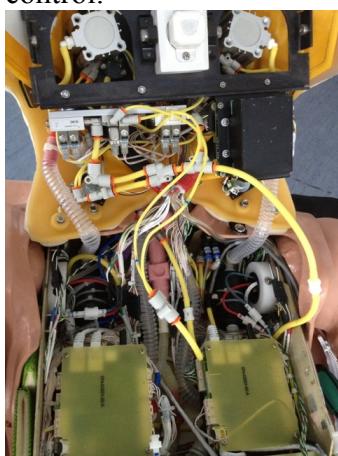
-
4. Dispatch the skin from the white plastic eyelid with a scalpel and remove the headskin completely.



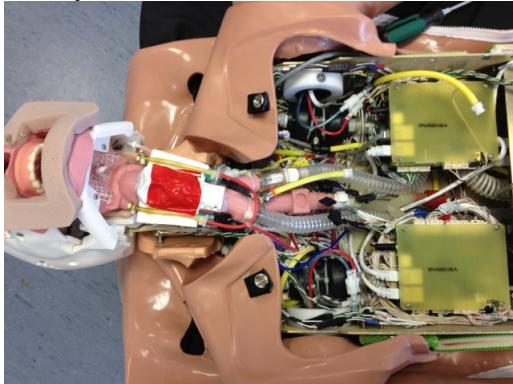
5. Remove neckskin by pulling it over the head.
6. Remove ribcage by unscrewing the ribcage assembly from the mannequin tray.



7. Now you can lift the ribcage assembly to get access to the airway and esophagus
8. We recommend to remove the ribcage completely to have easier access to the head's connections and to replace the new airway easier. To do this, disconnect the yellow pressure tubes and the cables for defibrillation and ECG and valve control.



9. Now you have full access to the head and its connections.



10. Disconnect left and right bronchus and esophagus.



11. Disconnect blue CO₂ line, the red carotid pulse line and pulse sensors and the clear line of the airway pressure sensor.
12. Disconnect cables for voice and eye control and pneumatic and secretion lines.



-
13. Now you can lift the airway and access the nut attaching the neckspine to the thorax. Remove this nut and the structure stabilizing the neck to take off the head.

Preparation of new head

1. Before remounting the new head, we need to prepare the secretion mask.
2. With a sharp small screwdriver, open up the orifices to mount the secretion pins.
3. Glue the pins with Loctite 401 into the orifices.

Installation of new head

1. Perform the steps of the removal of the old head in the opposite order to mount the new head

Mounting of new head skin

1. Punch a hole into the mouth foam to pass the nose secretion tube.



2. Glue the mouth foam to the airway with silicon glue. This foam will ensure a good seal during bag mask ventilation
3. Mount secretion mask and connect the secretion lines.
4. Remount the head skin after passing the secretion lines through the respective orifices.
 - a. If a new heads skin needs to be used, carefully punch holes into the skin where secretion lines and pins are located.
5. Reglue the skin to the eyelids.
6. Fix the secretion tubes with a drip of Loctite 401. Make sure that no glue enters into the orifice of the tube or pin.

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REV	DESCRIPTION	DATE	APPROVED
A	MMP Customer Service Work Instructions for New Airway Replacement	08/26/13	

APPROVALS	DATE	 CAE Healthcare		
WRITTEN BY A. PUENTE	08/26/13			
CM APPROVED				
QA APPROVED		TITLE: GUIDE, BASIC, TRU-CORP AIRWAY, MMP		
ENGINEERING APPROVED		SIZE A	DRAWING NUMBER 905-K2711-52	REV A
MFG/TEST APPROVED		SCALE None	SHEET 1 OF 16	

Printed documents are not controlled. Verify revision level before using this document.

TABLE OF CONTENTS

1.0 SCOPE	3
2.0 APPLICABLE DOCUMENTS	3
3.0 REQUIREMENTS.....	3
3.1 GENERAL INFORMATION	3
3.2 SUPPORT EQUIPMENT.....	3
3.3 EQUIPMENT LIST.....	3
4.0 PROCEDURE	3

1.0 SCOPE

The intent of these work instructions is to show how to switch the old airway to the new one. Before doing so, the technician must review the ‘Support Equipment’ and ‘Equipment List’ sections in order to accomplish this effort.

2.0 APPLICABLE DOCUMENTS

The required documents are the BOM, document number 147-K35-1000 and the Acceptance Test Procedure, document number 905-K3500-35. The ATP sections needed to test the functionality of the airway after installation are the following: **4.8, 4.13, 4.14, and 4.19**.

3.0 REQUIREMENTS

3.1 General Information

In the past, the previous airway was known to be less resistant to wear and tear and capable a limited amount of intubation tubes. In order to improve its functionality, the new airway is made of a stronger material, thereby, increasing its reliability and capability to handle various intubation devices.

3.2 Support Equipment

EXACTO KNIFE

CUTTERS

ZIP TIES: P/N 258KK00019 and P/N 258KK00014

SIL POXY

LOCTITE 770

LOCTITE 401

10MM WRENCH

DOUBLE SIDED TAPE, PN: 252-98-00135

5/64 ALLEN WRENCH

10mm RATCHETING WRENCH

5/64 ALLEN WRENCH

GLOVES

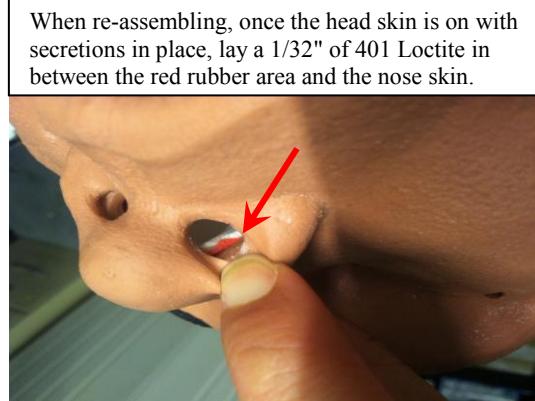
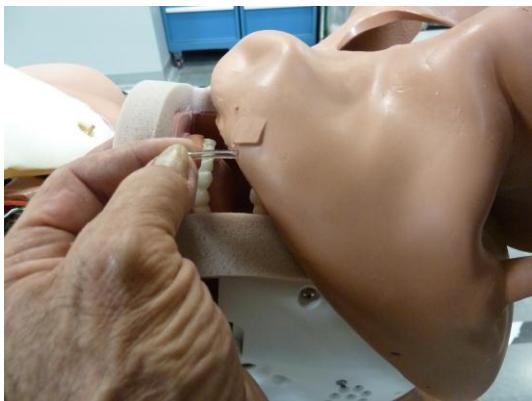
3.3 Equipment List

Use the following equipment or equivalent

Equipment Description	Mfg.	Model No.
ASSY, TRU-CORP AIRWAY, O.D.		253-K3630-00
ATLAS, METIMAN		104-K3553-00
MASK, AIRWAY		127-K3500-00

4.0 PROCEDURE

1. First, remove the chest, neck, and head skin. When removing the head skin, make sure **NOT** to remove it all the way, as shown in the figure below. Then, carefully remove head secretions.



2. Make sure to use an exacto knife while carefully removing the skin around the eyes. This will allow the technician to fully remove the head skin.

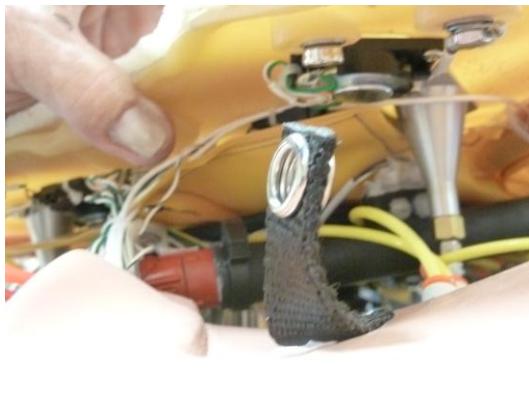
When re-assembling, clean the surface area around the eyes of any excess glue for a clean surface when re-installing head skin. Then prime eye area with Loctite 770 before placing a $1/32"$ of Loctite 401.



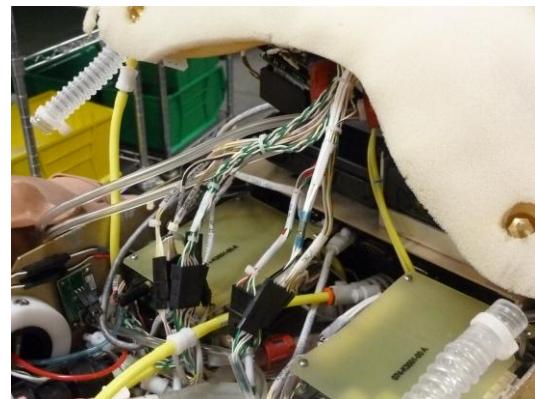
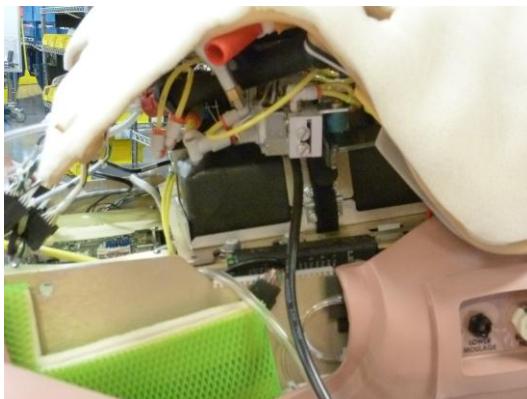
3. Then, remove neck skin and foam.

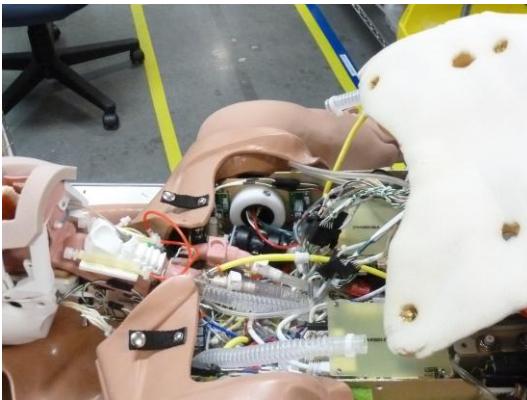


4. When removing the ribcage make sure to snap off the fasteners. Then unscrew both sides of the sled, as shown below.



5. After loosening both sides, slightly lift up the ribcage and carefully place it over the groin area in order to clear the airway work area. **Keep all of the ribcage electrical connectors plugged in.**





6. But disconnect the electrical connectors that are attached to the airway and head.



Figure 1: Connectors: Throat, voice, and left sensor



Figure 2: Right eyes



Figure 3: Cricoid left and righ pulses

7. And pneumatic connections



Figure 4: (Top to bottom) Exhaust, primary bronchial tube, airway pressure, cricoid pneumatic pulses

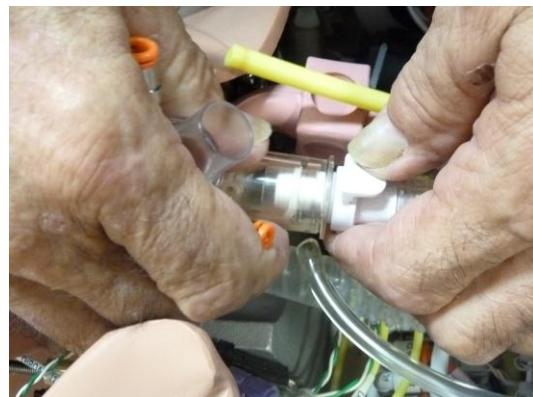


Figure 5: Secondary bronchial tube



Figure 6: Left and right eye, tongue, difficult airway, laryngo and fluids for eyes, nose, and mouth

8. Then remove neck screws, from the atlas, using a 5/64 allen wrench and a 10mm ratcheting wrench to remove the nut that directly holds the head in the sled.





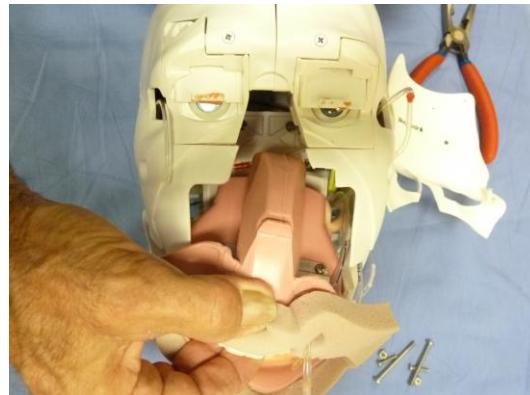
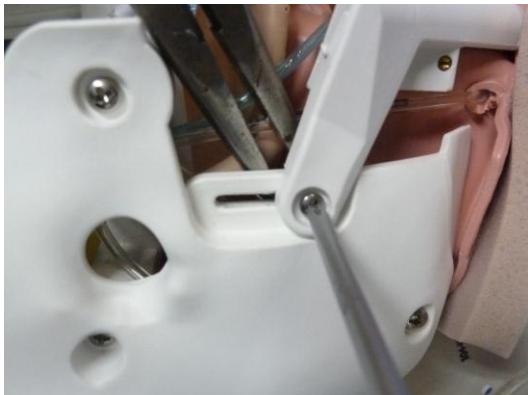
NOTE: Use 242 Loctite for neck screws, as shown in figure above.

9. Once the head is taken off, disassemble the mask and cut the tube off from one side only.



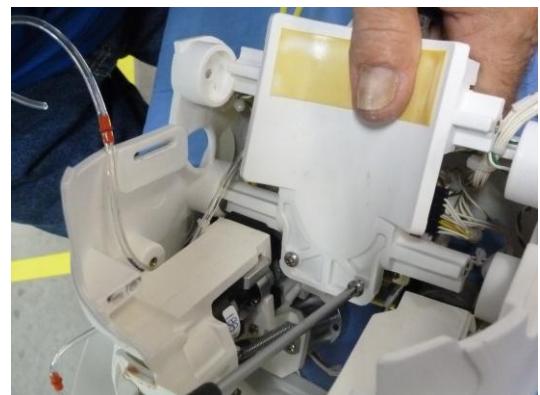
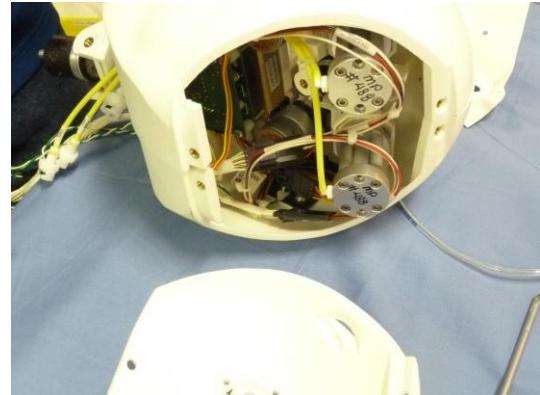
10. Completely remove the mouthpiece by unscrewing the jaw. Then remove secretions that go through the airway, as this will clear the work area when replacing the Atlas, part number 104-K35-5300, and cut off the zip tie.

When re-assembling: Create the hole on the airway and foam, for the tube, after gluing the foam back on.

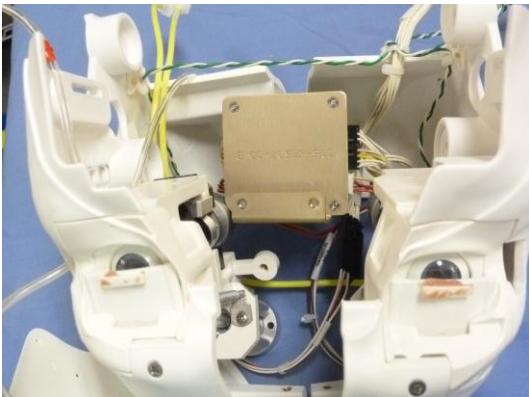


11. Remove the old Atlas by loosening the screws from the skull and by taking the top off.





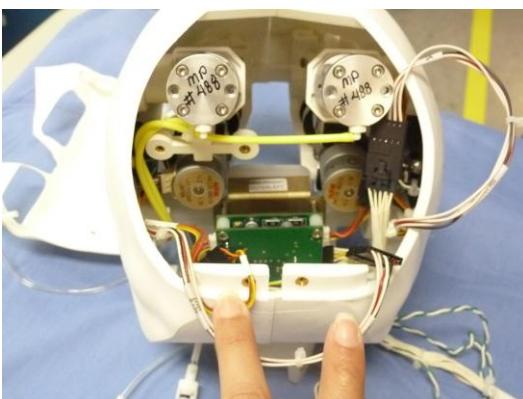
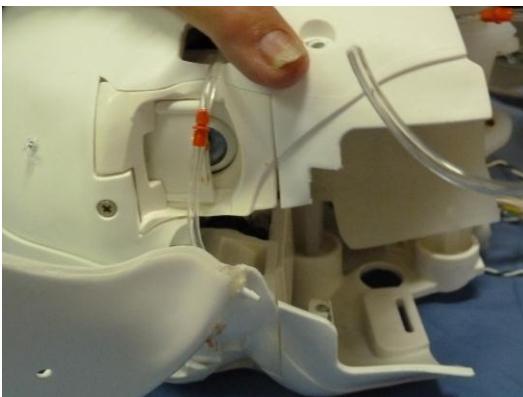
12. Then install the new Atlas and screw in one side **ONLY**. Verify Part number and revision to be, 104K355300 REV B, before installing. Cut a 3in. strip of VHB tape and place across the Atlas in order to secure the difficult airway, as shown in the image above.



(New Atlas is black)



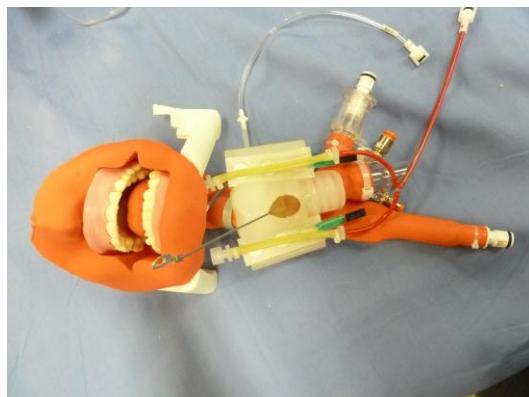
13. Align the head before screwing in the center screws, and then screw in the other side.



NOTE: When re-installing the head be careful not to pinch any airlines.



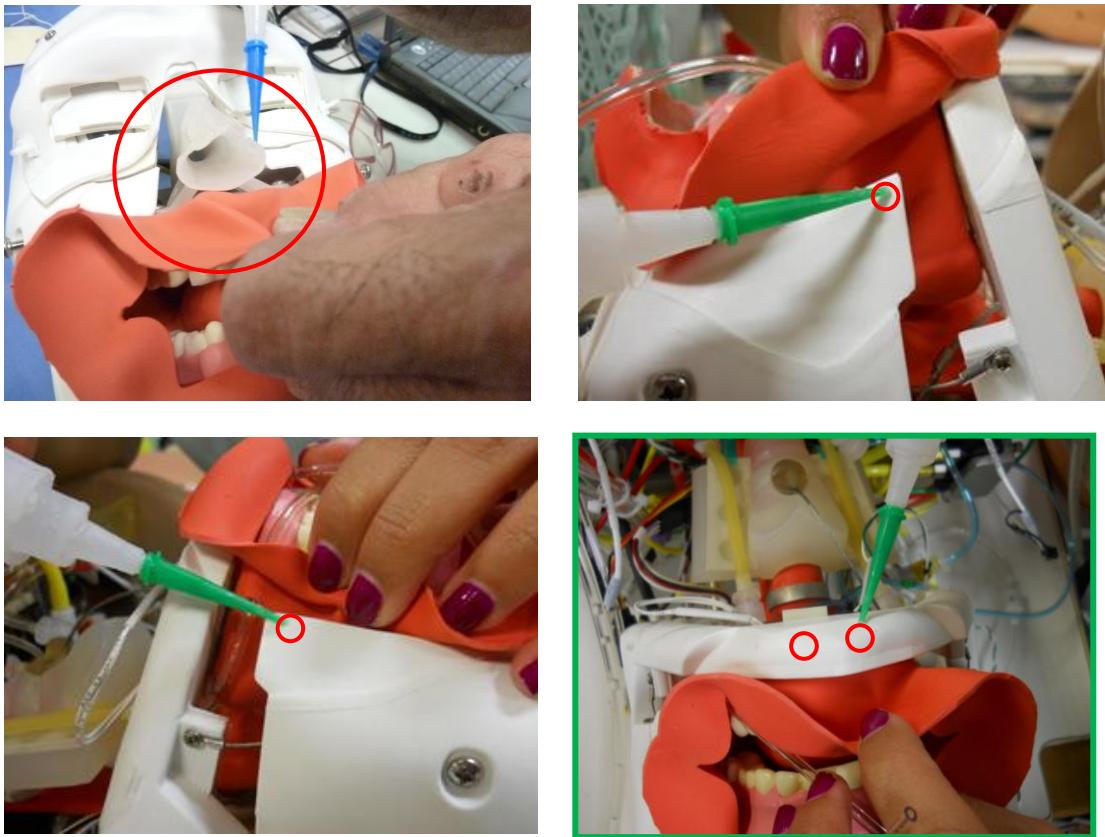
14. Once the atlas is mounted, the new airway is ready to be installed.



15. Make sure to align the center of the head with the nasal passage gap, as shown below.



16. Repeat steps **10.** and **9.** in reverse order, then apply a $1/32$ " inch of 401 Loctite around the nasal passage in order to secure the airway around it and in the locations shown below. Carefully, press down own airway flaps to secure those areas and wait for it to dry.



17. Afterwards, place sil poxy around the edge of the mouth to glue the foam, as shown below. Wait 30 minutes for the silpoxy to set before starting the re-assembling process.



18. Finally, the head is ready to be mounted: Follow steps **8.** through **5.** in reverse order.
19. Before mounting the chest back on the mannequin make sure the regulator reads 16 psi +/- .2.

Unscrew ribcage strap on right side of the mannequin in order to lift up the flap see **Figure 8.** Unplug the tubing connected to the 'LA' regulator and plug-in the tubing coming from the pressure Gauge, see **Figure 9** and **10.** Then, start-up computer and mannequin, connect to Muse, click on lung, and press 'Laryngospasm' to 'ON'. Check pressure gauge and adjust

regulator, as shown in **Figure 11**, until it reads 16psi +/- .2. Release air and repeat 3 thru 4 times until reading stays consistent.



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11

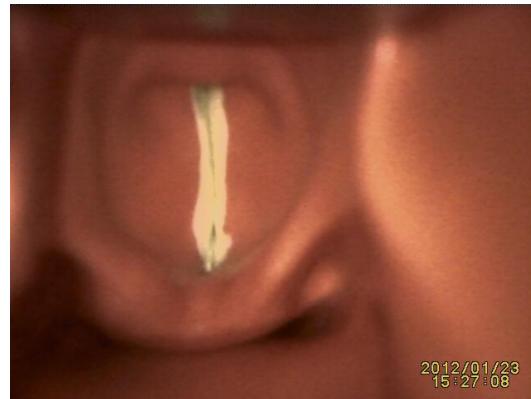


Figure 12

Afterwards, run through ATP "All Pneumatics" section 4.8.5 and verify that the vocal chords close properly, please see Figure 12.

20. Then unscrew ribcage strap in order to lift up the flap, see **Figure 13**, and verify pressure reads 9psi, as shown in **Figure 10**. If necessary, adjust regulator as shown in **Figure 14**, until 9psi reading is achieved. Release air and repeat 3 thru 4 times until reading stays consistent.

Then, start-up computer and mannequin, connect to Muse, click on lung, and on the "Swollen Tongue" options choose "Swollen" and tongue should swell.

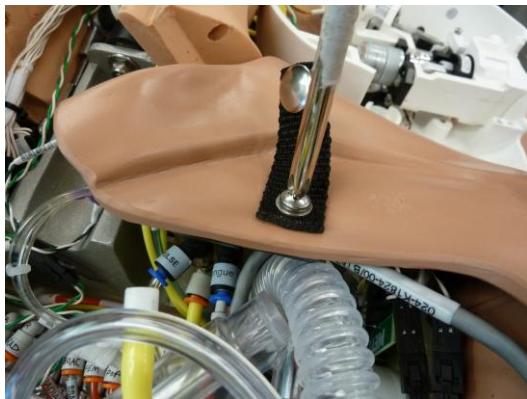


Figure 13



Figure 14

21. Continue with step 4. in reverse order, for step 3., after attaching the two bronchial corrugated tubes to the airway, mount P/N 258KK00019 tie wrap around both tubes as shown in **Figure 15**. Ensure that the tubes are straight out of the airway as shown. Place neck foam around the head mechanical, electrical, and pneumatic connections.

To keep the cricoid oriented straight on the mannequin, place one P/N 258KK00014 tie wrap into the neck foam holes, **Figure 16**. Feed the tie wrap into neck foam hole making sure the tie wrap is between the bronchial tubes **Figure 17** and **18**. Route and wrap the tie wrap until the neck foam is holding the cricoid straight.



Figure 15

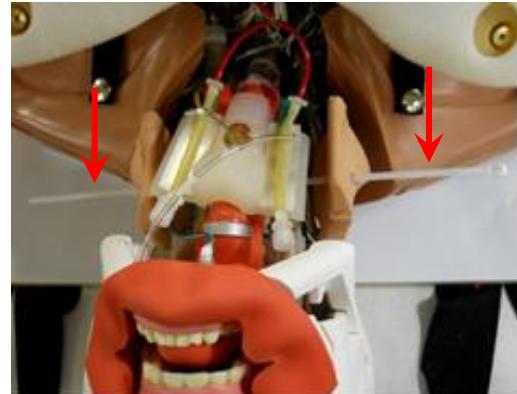


Figure 16

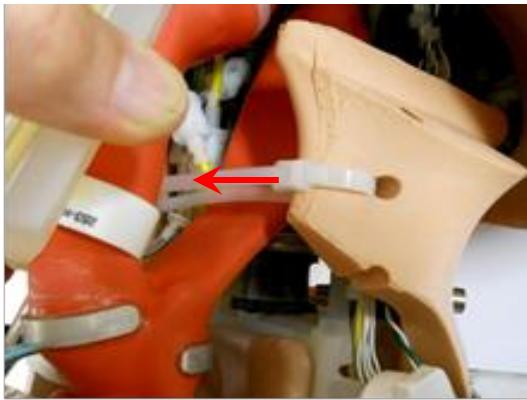


Figure 17

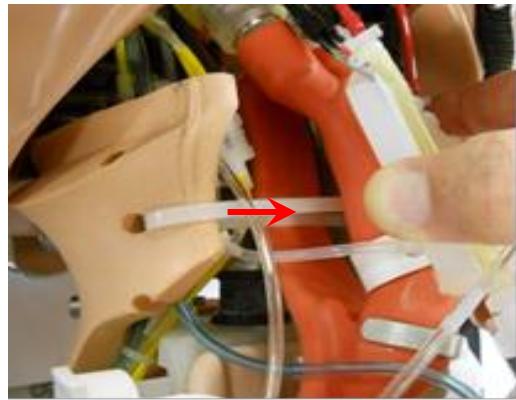


Figure 18

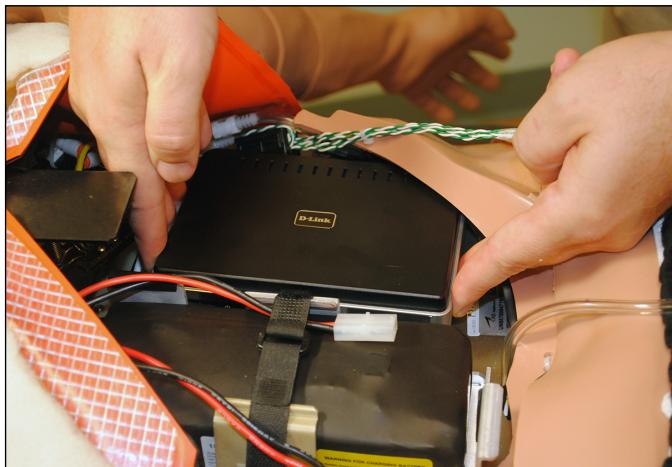
22. Finally, continue with steps **2.** and **1.** in reverse order to finish the assembly process.

To remove the current METIman Wifi Router:

1. Ensure the mannequin is off, and Vivo and Müse are closed.
2. Unzip the chest skin, lift the abdominal insert out, and remove the support bar.

TIP: It may be necessary to first remove the battery for easier access to the router. Refer to the METIman *User Guide* for battery removal.

3. Locate the router, then lift the router up to release it from the velcro attachments.
- TIP:** Make a note of the connections for the power cable and two LAN cables.



The Router and Connections

4. Disconnect the power cable and two LAN cables.

To install the new METIman Wifi Router:

1. Connect the included Power Adapter cable to the router and the existing power cable.
2. Connect the two LAN cables to the **new** router (it is recommended to use ports 2 and 3).
3. Choose the new velcro locking mate that adheres to the existing velcro on the mannequin plate, and press to connect the velcro together. Ensure the peel-away tape is facing up.
4. Remove the peel-away tape from the velcro and firmly place the new router onto the velcro.
5. Attach the cable tie mount to the mannequin plate, and secure the power cable with the cable tie.

***The Router***

6. Replace the support bar, abdomen insert, battery (if necessary), and chest skin.

TIP: To verify proper connection of router, leave the mannequin skin open and verify the router has green power and WiFi indicator lights when the mannequin is powered on.

7. Power on the mannequin and wait approximately one minute to fully power on and establish a WiFi network.
8. On the tablet or laptop (Instructor Workstation), verify the WiFi has automatically connected to METIman.
It may be necessary to connect to the METIman WiFi by selecting the METIman wireless network; for example MMPXXX or MMNXXX, where XXXX is the simulator's unit number.
9. Run Vīvo or Müse to verify proper operation.

REV	DESCRIPTION	DATE	APPROVED
1	PRELIMINARY	11/27/14	
A	RCD, CHG ENG RELEASE	05/02/16	

APPROVALS	DATE	 CAE Healthcare		
DRAWN BY Damion Lyn / Mark McClure	11/22/2014			
CS APPROVED Mark McClure	05/02/2016	TITLE: RIBCAGE REPLACEMENT, METIMAN		
MFG/TEST APPROVED MFG, Name Here		SIZE A	DRAWING NUMBER 905-K3507-07	REV A
ENGINEERING APPROVED Mark McCure	11/22/2014	SCALE None	CONFIDENTIAL NO	SHEET 1 OF 5
QA APPROVED QA, Name Here				

TABLE OF CONTENTS

CAE HEALTHCARE CUSTOMER SERVICE	2
1.0 SCOPE	3
2.0 APPLICABLE DOCUMENTS.....	3
3.0 REQUIREMENTS	3
3.1 GENERAL INFORMATION.....	3
3.2 TEST EQUIPMENT/TOOLS LIST.....	3
3.3 PARTS LIST	3
4.0 PROCEDURE	3
4.1 REMOVING THE CHEST ASSEMBLY	3
4.2 INSTALLING THE NEW CHEST ASSEMBLY.....	4

For any questions or comments, please contact CAE Healthcare Customer Service.

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1.0 SCOPE

This document describes the process of how to replace a METIman Ribcage assembly.

2.0 APPLICABLE DOCUMENTS

- N/A

3.0 REQUIREMENTS

3.1 General Information

N/A

3.2 Test Equipment/Tools List

- #2 Phillips screwdriver

3.3 Parts List

- 1@ Rib Cage CAE P/N 253Kxxxxxx (Depends on S/N)

4.0 PROCEDURE

4.1 Removing The Chest Assembly

4.1.1 Unzip the chest skin then fold over the head. (**Note:** Protect the hair and eyebrow paint by placing a protective layer of fabric between the face and the chest skin.)

4.1.2 Remove the abdomen from the mannequin. (Disconnect the electrical connector.)

4.1.3 Unclip the black straps from the underside of the upper left and right side of the chest. See Fig. 1

4.1.4 Lift the ribcage on the left side to reveal the Phillips screw securing the Rib Assembly to the METIman sled. Remove this screw and repeat the process for the right side. See Fig. 2



Fig. 1



Fig. 2

4.1.5 Slowly and careful lift the rib cage assembly while sliding toward the mannequin's head. Use caution to avoid cables getting damaged by metal brackets.

- 4.1.6 Tilt the ribcage up vertically and lean against chest skin covered head. See Fig. 3 Disconnect all electrical and pneumatic connections from the chest. Pay close attention to pneumatic connections as they may appear similar during reassembly.

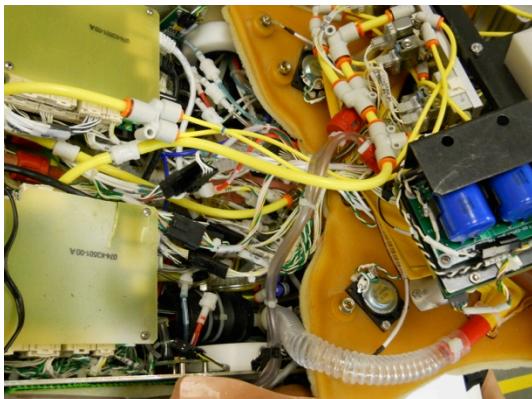
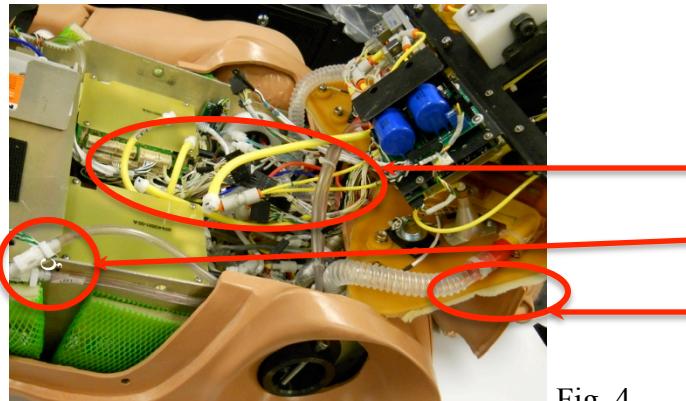


Fig. 3

- 4.1.7 Remove the ribcage to a safe, level location.

4.2 Installing the New Chest Assembly

- 4.2.1 Rest the chest assembly on the head as shown below in Fig. 4



Electrical / airlines connectors

Left / Right chest tubes connections

Lung bag connections

Fig. 4

- 4.2.2 Connect all electrical and air lines to their corresponding connectors from the chest to the torso as shown on the wiring labels.

- 4.2.3 Rotate the rib cage back into a horizontal position – keeping it toward the head as much as possible. Be careful not to rest the TSC board on the B-stack black power connector while laying the ribcage assembly down onto the torso. See Fig. 5

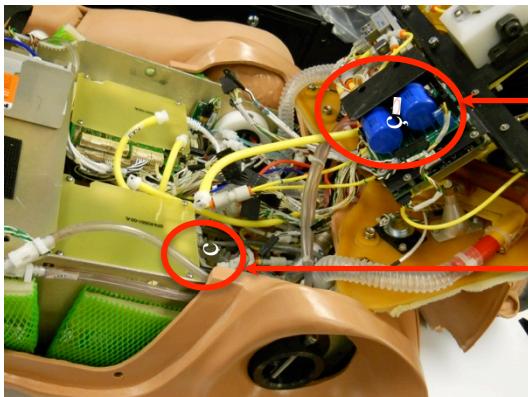


Fig. 5

- 4.2.4 As you lower and center the support bracket onto the tray, be careful to not pinch any electrical wires or pneumatic tubing. Make sure the Abdomen cable is laid toward the wireless router area.
- 4.2.5 Locate the screw hole under the lower left and right underside of the chest to secure the chest to the torso. Note: You may have to slide the assembly a bit to align the screw holes. See Fig. 6.
- 4.2.6 Secure the black strap from the underside of the upper left and right side of the torso to the chest. See Fig. 7.



Fig. 6

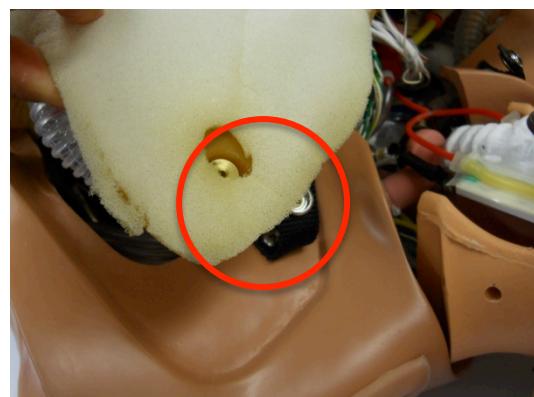


Fig. 7

- 4.2.7 Reconnect the Abdomen electrical connector and place the Abdomen back onto the mannequin.
- 4.2.8 Fold the chest skin on the chest and zip both zipper on the lower left and right side.

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REV	DESCRIPTION	DATE	APPROVED
1	PRELIMINARY	12/30/2015	
A	RCD, CHG ENG RELEASE	05/17/2016	

APPROVALS	DATE	 CAE Healthcare		
DRAWN BY Mark McClure	12/28/15			
CS APPROVED Mark McClure	12/28/15	TITLE: SBC REPLACE / REPAIR, METIMAN		
MFG/TEST APPROVED				
ENGINEERING APPROVED		SIZE A	DRAWING NUMBER 905-K3506-07	REV A
QA APPROVED		SCALE None	CONFIDENTIAL NO	SHEET 1 OF 7

TABLE OF CONTENTS

CAE HEALTHCARE CUSTOMER SERVICE.....	2
1.0 SCOPE	3
2.0 APPLICABLE DOCUMENTS.....	3
3.0 REQUIREMENTS.....	3
3.1 GENERAL INFORMATION	3
3.2 TEST EQUIPMENT/TOOLS LIST	3
3.3 PARTS LIST	3
4.0 PROCEDURE	3
4.1 RIB CAGE ACCESS	3
4.2 ELECTRONICS TOP PLATE REMOVAL / REPLACE.....	4
4.3 SBC REPLACEMENT OR REPAIR.....	5
4.4 COMPUTER “CMOS” BATTERY REPLACEMENT.....	5
4.5 UPDATE BIOS DATE AFTER BATTERY CHANGE	6
5.0 VERIFY PERFORMANCE.....	7
5.1 POWER UP AND RUN MUSE.....	7

For any questions or comments, please contact CAE Healthcare Customer Service.

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1.0 SCOPE

This procedure documents three different repairs for a bad Single Board Computer (SBC).

- 1) The removal and replacement of the Electronics Top Plate, which includes the Wireless Router and Single Board Computer (SBC). [Fast and Easiest method – customer]
- 2) The removal /replacement of the SBC itself.
- 3) The replacement of the CMOS battery within the SBC (if this is the failure).

Note: This procedure does not cover converting a 5v SBC to a 12v SBC.

2.0 APPLICABLE DOCUMENTS

- 905-K3507-07, Ribcage Replacement, METIman

3.0 REQUIREMENTS

3.1 General Information

When handling electronic circuit cards, wear a properly terminated static strap to avoid damaging electronics with Electro Static Discharge (ESD).

3.2 Test Equipment/Tools List

- #2 Phillips Screwdriver
- #1 Phillips Screwdriver
- ¼" Standard Screwdriver
- Needle Nose Pliers (additional – If replacing the CMOS battery)
- USB Keyboard (additional – If replacing the CMOS battery)
- VGA Monitor with 15-pin connector (additional – If replacing the CMOS battery)

3.3 Parts List

- Replacement Electronics Top Plate, 253K350700R (5v) or 253K350701R (12v)
Note: This procedure does not cover converting a 5v Top Plate to a 12v Top Plate

Or

- Replacement SBC, 253K355300R (5v) or 253K355301R (12v)
Note: This procedure does not cover converting a 5v SBC to a 12v SBC

Or

- Replacement CMOS Battery 3.3v, 011KK00011

4.0 PROCEDURE

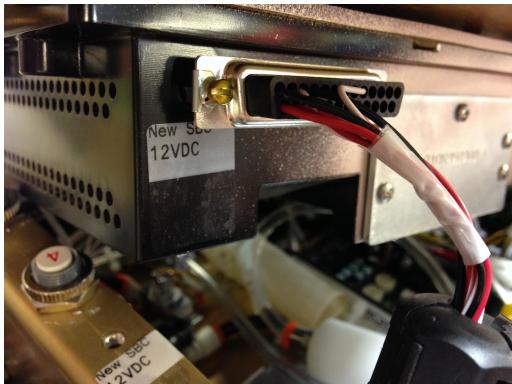
4.1 Rib Cage Access

- 4.1.1 Follow the steps in the METIman Rib Cage removal procedure (905- K3507-07) to disconnect the Rib Cage from the Tray and to tilt it up and out of the way. This gives better access to the Electronics Top Plate and associated cabling.

There is no need to completely remove the Rib Cage from the mannequin to replace a SBC.

4.2 Electronics Top Plate Removal / Replace

- 4.2.1 Unplug power to mannequin. Remove the Lithium Battery from the battery holder. Place in a safe location.
- 4.2.2 Note the location of the two Ethernet Port connections that are being used on the router (Take picture). Remove the grey and the white Ethernet cables from these ports and then unplug the power jack from the router.
- 4.2.3 Remove the five screws that hold this top plate to the mannequin tray. (There are three on the right side and two on the left side.) Place screw hardware in a safe location.
- 4.2.4 Begin lifting the Electronics Top Plate assembly upwards enough to gain access to the SBC Ethernet connections (facing the head). The lower left Torso body may have to be pulled outward to assist in lifting the plate. Unplug the Ethernet cable on the patient's right side that leads into the torso toward the head.
- 4.2.5 Carefully lift the plate higher and tilt to expose the main electrical harness connector.
Caution: Do not pull on these wires or they could break or pull out of their socket.
Note how the cable is routed to this location for reassembly. Two Standard or Phillips screws hold the electrical connector to the SBC. This hardware may be “captured”, but many cable assemblies have screws that are removable. (Be careful not to drop screws in tray.) Place screw hardware in a safe location.



- 4.2.6 Remove the Electronics Top Plate assembly and place in a safe work location.
- 4.2.7 A) If a replacement Electronics Top Plate has been sent, there is no reason to disassemble this assembly any further. Inspect the replacement Electronics Top Plate. If a Wireless Router was not included, gently separate the router from the original Electronics Top Plate and place onto the new plate with its Ethernet cable. The router is held in place by Velcro strips.
B) If a replacement SBC was sent – not an Electronics Top Plate, got to section 4.3.
- 4.2.8 Reinstall Electronics Top Plate, cables and Rib Cage in the opposite order of these instructions. Skip to section 5.0 for verifying the operation of the new assembly.

4.3 SBC Replacement or Repair

- ① If an SBC “Adam” (just the computer) was sent for replacement with no Electronics Plate, the following instructions will be used to remove and replace the component.
 - 4.3.1 Unplug the Ethernet cable from the SBC that connects to the Wireless Router. Gently separate the Wireless Router from the original Electronics Top Plate to get access to all the screws holding the SBC in place. Place the router and short Ethernet cable in a safe location.
 - 4.3.2 Remove the 5 Phillips screws. These secure the shock mounts of the SBC to the plate. If you have any problems removing, contact Customer Service.
 - 4.3.3 Once the SBC has been removed from the plate, move it and its screw hardware to a safe location that won’t allow it to be confused with the replacement SBC. They will look identical.
 - 4.3.4 A) If the SBC is being replaced, install the new SBC onto the Electronics Top Plate using the screw hardware removed in previous steps.
B) If the SBC needs to be opened for battery replacement, go to section **4.4**.
 - 4.3.5 Reinstall Electronics Top Plate, cables and Rib Cage in the opposite order of these instructions. Skip to section **5.0** for verifying the operation of the new assembly.

4.4 Computer “CMOS” Battery Replacement

- ① If it has been determined that the CMOS battery within the SBC has gone dead and the Bios information is no longer accurate. The following instructions will be used for replacing the battery. *Note: ESD protection is required when accessing computer motherboard.*
 - 4.4.1 Remove all 10 or 11 Phillips screws from the lid of the SBC. Place the lid and the screw hardware in a safe location. Locate the coin-sized battery within a shrink-wrapped package. It will be placed inside the SBC using a small about of adhesive tape. Follow the red and black wires to a white electrical connector. Note its location and the polarity (which way it is facing).
 - 4.4.2 Unplug the connector. DO NOT pull from the wires alone as this could damage the component. A pair of needle nose pliers could be helpful in removing connector from board header.



- 4.4.3 Install new battery into the same connector location.

Important: The date will need to be corrected in the Bios before Müse will function.

This step needs to be done after reconnecting the main harness to the SBC, but before the Electronics Top Plate has been screwed back onto the mannequin tray so that the Keyboard and Monitor connectors can be accessed. *See section 4.5 for these instructions.*

- 4.4.4 Reinstall SBC Lid, Electronics Top Plate, and cables, update the Bios and install Rib Cage in the opposite order of these instructions. Proceed to section **5.0** for verifying the operation of the new assembly.

4.5 Update Bios Date after Battery Change

- ① If the CMOS Battery has been removed, the date and time will need to be reset. This will be done after the Electronics Top Plate has been electrically connected in the METIman.
- 4.5.1 Connect Keyboard and Monitor to the SBC. (The Electronic Top Plate must be raised a bit for access.)



- 4.5.2 Plug in power and Power on METIman while observing the Monitor. Press DEL on the Keyboard and hold down as the SBC begins to boot-up to enter SETUP.
- 4.5.3 Select Standard CMOS Features from the menu. (Follow onscreen instructions)
- 4.5.4 Update the Date and Time. (Follow onscreen instructions)
- 4.5.5 Press F10 to Save & Exit SETUP.
- 4.5.6 After the METIman has booted up, power down again by pressing the On/Off button. Cycle power one more time to verify the SBC now boots up completely on its own.
- 4.5.7 Remove video and keyboard cables, lower the electronics plate and reinstall the five screws holding it down. Be careful not to pinch any cables. (See section 4.2.) Install Rib Cage in the opposite order of these instructions. (See section 4.1.) Proceed to section **5.0** for verifying the operation of the new assembly.

5.0 VERIFY PERFORMANCE

5.1 Power Up and Run Muse

- 5.1.1 Plug the mannequin into power.
- 5.1.2 Press the power button on METIman. Verify the green-lighted switch begins to blink.
- 5.1.3 After two to three minutes the switch should stop blinking and stay lit.
- 5.1.4 Turn on Workstation and verify the Müse Start Page appears.
- 5.1.5 Select Müse and begin a “healthy patient” SCE. Verify that the mannequin is breathing and blinking. Select Convulsions and verify you have control of feature. Select Eye Blinking and verify you have control of the feature.

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MFG/TEST APPROVED N/A		SIZE A	DRAWING NUMBER 905-K3508-07	REV A
ENGINEERING APPROVED N/A		SCALE None	CONFIDENTIAL NO	SHEET 1 OF 8
QA APPROVED N/A				

TABLE OF CONTENTS

CAE HEALTHCARE CUSTOMER SERVICE	2
1.0 SCOPE	3
2.0 APPLICABLE DOCUMENTS.....	3
3.0 REQUIREMENTS	3
3.1 GENERAL INFORMATION.....	3
3.2 TEST EQUIPMENT/TOOLS LIST.....	3
3.3 PARTS LIST	3
4.0 PROCEDURE	3
4.1 RIB CAGE ACCESS	3
4.2 STACK REPLACEMENT – REMOVAL	4
4.3 STACK REPLACEMENT – REASSEMBLY.....	5
4.4 RIB CAGE REINSTALLATION.....	5
5.0 VERIFY PERFORMANCE	6
5.1 POWER UP AND RUN MUSE	6

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1.0 SCOPE

This procedure documents how to replace Remote Haptic Modules (RHMs) in a METIman patient simulator. There are two RHMs stacks in this product. They are referred to as the “A” Stack and the “B” Stack and each contain two boards. The boards and firmware differ on each stack and also if it is a Pre-hospital or a Nursing version METIman.

The “A” Stack is on the patient’s right side with the “B” stack on the left side.

The serial number of the system dictates if it uses the green or the blue RHM boards (different circuit layouts). By default, any MMP with a S/N above 700 and any MMN with a S/N above S/N 400 uses “Blue” colored boards.

Note: It is now also possible to convert a system originally using green RHMs to blue version.
See board and cable part numbers below.

2.0 APPLICABLE DOCUMENTS

- 905-K3507-07, Ribcage Replacement, METIman

3.0 REQUIREMENTS

3.1 General Information

When handling electronic circuit cards, wear a properly terminated static strap to avoid damaging electronics with Electro Static Discharge (ESD).

3.2 Test Equipment/Tools List

- #2 Phillips Screwdriver
- #1 Phillips Screwdriver
- 3/16” Nut Driver or Socket

3.3 Parts List

- Mother Board (MOT), Green - 205K610100 or Blue - 205K610400
- Analog Board (DAC), Green - 205K610200 or Blue - 205K610500
- Audio Board (AUD), Green - 205K610300 or Blue - 205K610600
- Green to Blue RHM conversion cable – 024K359000 (as needed)

4.0 PROCEDURE

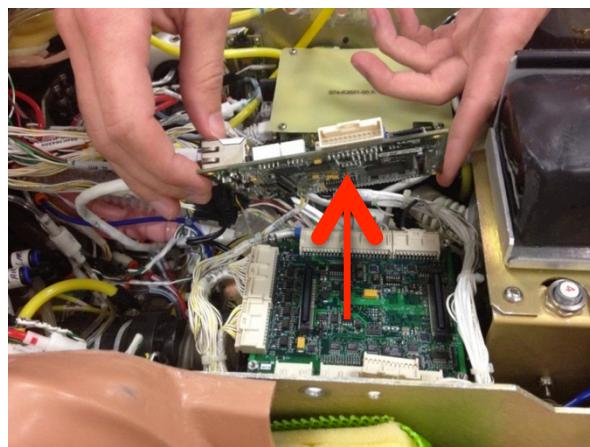
4.1 Rib Cage Access

- 4.1.1 Follow the steps in the METIman Rib Cage removal procedure (905-K3507-07) to disconnect the Rib Cage from the Mannequin Tray and to tilt it up to be out of the way. This provides access to the RHMs and associated cabling.

There is no need to completely remove the Rib Cage from the mannequin.

4.2 Stack Replacement – Removal

- 4.2.1 Disconnect the Mannequin Battery and unplug the power connector to the left hip.
- 4.2.2 Identify the RHM Stack to be replaced. The “A” stack is on the patient’s right side and contains a Mother Board and an Analog (DAC) Board. The “B” stack is on the patient’s left side and contains a Mother Board and an Audio Board.
- 4.2.3 Remove all four screws that retain the protective top cover plate (074K350100). Place the Phillips screws and the cover in safe location.
- 4.2.4 Unscrew and remove the four $\frac{3}{16}$ ” standoffs that hold the Mother Board secure. Place them in a safe location.



- 4.2.5 Carefully separate the Mother Board from the circuit card below. (There are two electrical connectors between the boards.) This will allow the board to move, making it easier to access the edge mounted cable connectors.
- 4.2.6 Disconnect all power and signal cables from the Mother Board. Most connectors have a locking tab that need to be pressed to allow separation. Please note the labels present on each cable connector. You may want to add additional marks on the connector or take a picture as needed. (Some cables will fit additional connector locations so care must be taken during reassembly.)
- 4.2.7 Once all connectors are removed, place the circuit card into a static protective bag and place in a safe location. These boards are easily damaged by static discharge.
- 4.2.8 This now gives access to the lower circuit card. (Analog board for Stack “A” and the Audio board for the Stack “B”.) Remove the four standoffs hardware that holds the lower board secure.
- 4.2.9 Disconnect all signal cables from the lower Board. Most connectors have a locking tab that need to be pressed to allow separation. Please note the labels are present on each connector or you may want to mark the connector or take a picture. (Some cables will fit additional connector locations so care must be taken during reassembly.)

4.2.10 Once all connectors are removed, place the circuit card into a static protective bag and place in a safe location. These boards are easily damaged by static discharge.

4.3 Stack Replacement – Reassembly

- ① METIman systems built before MMP0700 and MMN0400 were equipped with “Green” RHM boards. Verify that the boards replacing the original are the same color as the ones removed. If “Blue” boards are being used to replace the now discontinued “Green” boards, a special cable will need to be installed. This cable should be installed while the RHM boards are out of the tray
- 4.3.1 Compare the board color of the replacement RHMs. If they are the same, proceed with the following steps. **If switching from green to blue boards, install the adapter cable first, using steps provided in the Appendix – located at the end of this document.**
- 4.3.2 The following steps can be used for either “A” Stack or “B” Stack. Remove the new lower board from its static protective bag and connect to the appropriate Torso Harness connections and secure the board to the assembly with the four standoffs.
- 4.3.3 Remove the new top board from its static protective bag. Connect the motherboard to the Torso Harness connections and then secure the board to the assembly with the four standoffs. Use care when aligning and reconnecting the motherboard to the daughter board. The pins must match up completely.
- 4.3.4 Unless instructed otherwise, swap the SD Micro memory card from the original board to the new board. This disk may contain configuration data specific to your simulator.

Caution: The “green” and “blue” RHMs have different style SD Micro retainers. The Green boards utilize a simple “push in to engage” mechanism. The Blue boards have a latch that opens. Carefully flip the locking SD latch up on the “blue” RHM board by sliding the latch toward the board edge and then lifting. Insert the Micro SD Card into the latch with the terminals facing upward. Carefully fold the latching connector with the Micro SD Card over and lock it into place by sliding it in the direction away from the board edge.

- 4.3.5 Using the four remaining screws, secure the top cover plate back onto the RHM stack.
- 4.3.6 Place the original RHM boards into the static protective bags and pack carefully to avoid any damage when items are shipped back to the support center.

4.4 Rib Cage Reinstallation

- 4.4.1 Follow the steps in the METIman Rib Cage removal procedure (905-K3507-07) to rotate the rib cage back into a horizontal position and secure with hardware. As you lower and center the support bracket onto the tray, be careful not to pinch any electrical wires or pneumatic tubing.

5.0 VERIFY PERFORMANCE

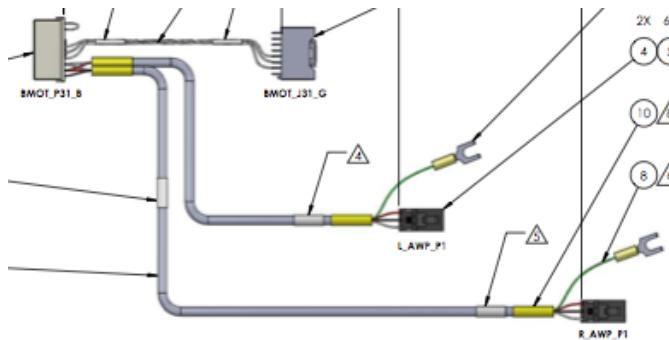
5.1 Power Up and Run Muse

- 5.1.1 Plug the mannequin into power.
- 5.1.2 Press the power button on METIman. Verify the green-lighted switch begins to blink.
- 5.1.3 After two to three minutes the power switch should stop blinking and stay lit.
- 5.1.4 Turn on Workstation and verify the Müse Start Page appears.
- 5.1.5 Select Müse and begin a “healthy patient” SCE. Verify that the mannequin is breathing and blinking.
- 5.1.6 Select Convulsions and verify you have control of the feature. (“A” Stack).
- 5.1.7 Select Eye Blinking and verify you have control of the feature. (“B” Stack).
- 5.1.8 Recheck system features that led to the recommendation of replacing an RHM stack.

APPENDIX

Changing from Green to Blue RHMs

- 1) Remove adapter cable (024K359000) from the package and identify the four connector ends. “BMOT_J31_G”, “BMOT_P31_B”, “L_AWP_P1” and “R_AWP_P1”.



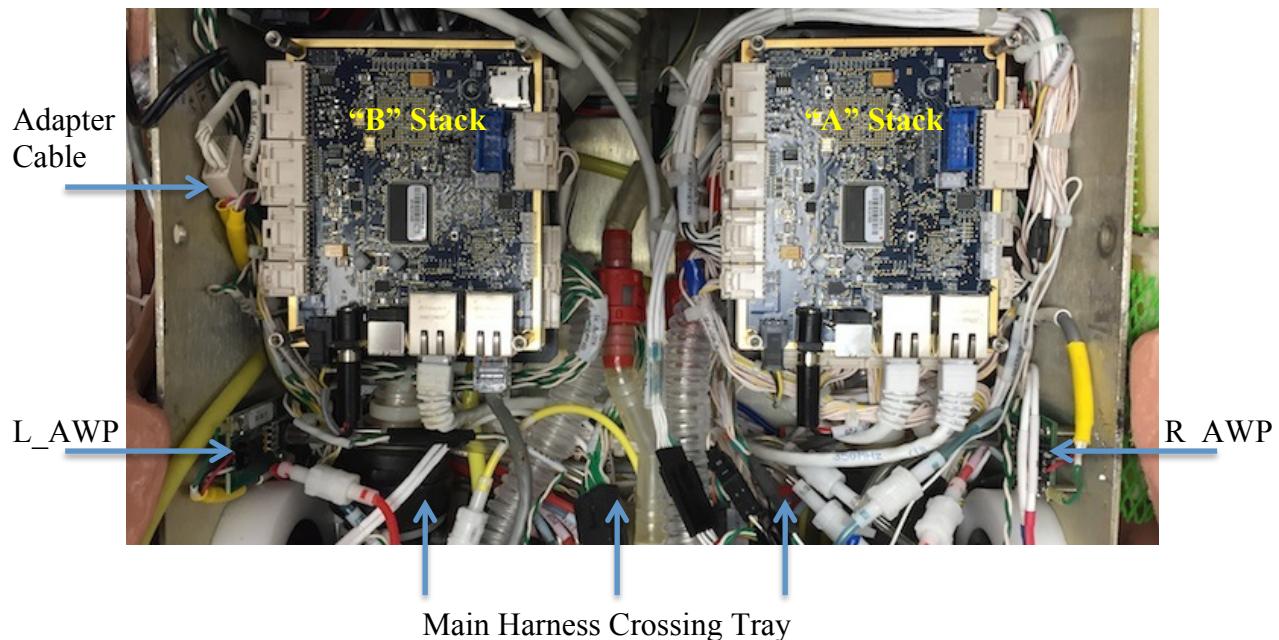
- 2) Plug “BMOT_J31_G” into the Torso harness at the “B” Stack RHM location.
- 3) Run the grey-shielded cables forward toward head.
- 4) Disconnect the original cable connector attached to the Left Airway Pressure Sense board and plug “L_AWP_P1” into the board. Secure the cable shield lug onto a screw.



- 5) Run the remaining grey-shielded cable across the tray along the main cable harness.
- 6) Disconnect the original cable connector attached to the Right Airway Pressure Sense board and plug “R_AWP_P1” into the board. Secure the cable shield lug onto a screw.



- 7) Remove the new lower board from its static protective bag and connect to the appropriate Torso Harness connections and secure the board to the assembly with the four standoffs.
- 8) Remove the new “A” Stack top board from its static protective bag. Connect the motherboard to the Torso Harness connections and then secure the board to the assembly with the four standoffs. Use care when aligning and reconnecting the motherboard to the daughter board. The pins must match up completely.
- 9) Remove the new “B” Stack top board from its static protective bag. Connect the motherboard to “BMOT_P31_B” (adapter cable) and the remaining Torso harness connections and then secure the board to the assembly with the four standoffs.
 - Dress the adapter cable neatly against the tray to avoid strain or interference from Rib Assembly Base when it gets reinstalled later.
 - Use care when aligning and reconnecting the motherboard to the daughterboard. The pins must match up completely.



- 10) Dress the RHM Adapter cable neatly into the tray following main harness. Fold the original AWP connectors back along the harness to avoid future confusion. Add tie-wraps to secure the new cable changes along the original harness when everything is complete.
- 11) Return to Step 4.3.4 in the main body of procedure to complete the RHM installation.

Apollo

Test Procedures

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REV	DESCRIPTION	DATE	APPROVED
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MM Readlined *

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TABLE OF CONTENTS

1.0 SCOPE	3
2.0 APPLICABLE DOCUMENTS.....	3
3.0 TEST REQUIREMENTS	3
3.1 GENERAL INFORMATION.....	3
3.2 TEST EQUIPMENT.....	3
3.3 EQUIPMENT LIST.....	3
3.4 TEST CONDITIONS.....	3
4.0 SET-UP PROCEDURE.....	4
4.1 CONFIGURATION VERIFICATION	4
4.2 VISUAL INSPECTION.....	4
4.3 CONTINUITY CHECK	4
4.4 VOLTAGE CHECK.....	5
4.5 PUMP CONTROL CHECK.....	7
4.6 BASIC PNEUMATIC PRESSURE SET-UP.....	7
4.7 SOFTWARE CONFIGURATION / APPLICATION CHECK	7
4.8 PNEUMATIC PRESSURE SET-UP WITH EFFECTOR SITE CHECKS	8
4.9 NIBP – QUICK CHECK	9
4.10 BRONCHIAL OCCLUDER, AIRWAY PRESSURE & CO2 – QUICK CHECK	9
4.11 IV LEAK CHECK	10
4.12 GU LEAK CHECK	10
4.13 CHEST TUBE LEAK CHECK	10
4.14 AIRWAY SUCTION LEAK CHECK (MMN ONLY)	11
4.15 NG TUBE SUPPORT LEAK CHECK (MMN ONLY)	11
4.16 BLEEDING LEAK CHECK	11
4.17 HEAD SECRETIONS LEAK CHECK.....	12
4.18 WIRELESS VOICE SET-UP	12
4.19 RIB CAGE INSTALLATION AND CHEST EXCURSION CHECK	12
4.20 RIBCAGE FEATURES QUICK CHECK (NEW PRODUCTION UNITS)	13
4.21 FINAL	13

1.0 SCOPE

This document describes the physical, functional, performance tests, the test equipment and procedures used to verify that each METIman for acceptance under the contract meets the specified requirements.

Insert N/A on the Data Record for any test involving an option not included with the simulator under test.

2.0 APPLICABLE DOCUMENTS

905-K3504-07	Setup, Compressor, METIman
905-K3____-07	Programing RHMs, METIman
905-K3____-07	Duping SD Micros, METIman
905-K3500-07	Mac OS X Computer Imaging, METIman
905-K3501-07	CompactFlash Imaging, METIman
905-K3502-07	Router Setup, METIman
905-K3503-07	Software Install and Simulator Setup, METIman
905-K3500-80	ATP DATA RECORD

3.0 TEST REQUIREMENTS

3.1 General Information

This procedure is arranged in a manner such that if the sequence is followed, total test time is minimized. The actual sequence of tests however is at the discretion of the METI Test Engineer/Technician.

3.2 Test Equipment

The Technician will ensure all equipment used in testing the simulator is operable.

3.3 Equipment List

Use the following equipment or equivalent

<u>Equipment Description</u>	<u>Mfg. &</u>	<u>Model no.</u>
Defib/Pace Monitor	Life Pak	11
Digital Volt Meter (DVM)	Fluke	77
Pressure Gauge Assembly, 60-psi Digital	CEComp	DPG1000B60psi-5
RTF mmHg Test Fixture	METI	980-K1311-00
Leak Check Test Fixture	METI	980-K
Clinical Supplies Kit	METI	147-K1627-00
Compressed Air	N/A	

3.4 Test Conditions

- 3.4.1 Temperature: Room Ambient (25 C +5 C)
- 3.4.2 Altitude: Sea level
- 3.4.3 Vibration: None
- 3.4.4 Line Voltage: 120Vac 60Hz

4.0 SET-UP PROCEDURE

4.1 Configuration Verification

4.1.1 Verify an IP data sheet is included for the SBC, Instructor's Workstation, and Router. **Check**

4.2 Visual Inspection

4.2.1 Examine the electrical and pneumatic connections for proper assembly. **Check**

4.2.2 Verify that RHM covers are in place to protect the circuit cards. **Check**

4.2.3 Set JP9 to the SBC Bypass mode then verify all other jumpers JP1 through JP8 & JP10 are set to Default Operation. See Diagram 1 for details. **Check**

4.2.4 Disconnect the following electrical power connectors from their mates:
(Leave these off until the power has been checked in section 4.3.) **Check**

- EYES_P7 (5V) *Reactive Eyes*
- L_AWP_P1 (12V) *Airway Sense*
- R_AWP_P1 (12V) *Airway Sense*
- L_NIBP_P1 (12V) *NIPB*
- R_NIBP_P1 (12V) *NIPB*
- RHMA, MOT_P22 (12V)
- RHMA, MOT_P26 (5V)
- RHMB, MOT_P22 (12V)
- RHMB, MOT_P26 (5V)
- WRD_P1 (5v) *Router*
- WVL_P14 (5V) *Receiver*
- SBCBH_J1 (5V) *Computer*
- COMP_P1 (5V) *Sensor*
- TSC_P1 (12V, -12V) *To RibCage*
- RTF_P1 (5V) *To RibCage*
- PC_P6 (19V) *VSupply*
- BS_P1 (5V) *Hemorrhage Sense*
- Power Adapter "DC Brick"
- Internal Battery Pack

4.3 Continuity Check

4.3.1 Use the table below to check for critical wiring errors in the electrical system. Verify that no errors exist. **Check**

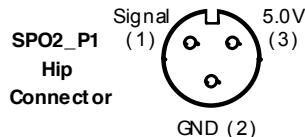
DVM Red Lead	DVM Black Lead	Resistance Specification	Description	
P22-1	P22-2	> 2KΩ	(+) 12V	Short Check
P26-1 (Tip)	P26-2 (Ring)	> 2KΩ	(+) 5V	Short Check
P22-1	P26-1 (Tip)	> 2KΩ	(+) 12V	Short Check
P22-1	Chassis	> 2KΩ	(+) 12V	Short Check
P26-1	Chassis	> 2KΩ	(+) 5V	Short Check
P22-2	P26-2 (Ring)	< 2Ω	GND	Isolation Check
P22-2	Chassis	> 2MΩ	GND	Isolation Check
DC_IN (Tip)	DC_IN (Ring)	> 2MΩ	Input	Short Check
BATT_IN-1	BATT_IN-2	> 2MΩ	Input	Short Check

4.4 Voltage Check

- 4.4.1 Connect the Electrical AC/DC Power Brick and Cable to the METIman Power Input.
- 4.4.2 Turn the METIman Power Switch to ON by holding down the button for two seconds and verify that two leds on the Power Controller light and that all power supply output voltages in the table below are present on the cables and within specification.

Check

DVM Red Lead	DVM Black Lead	Voltage Specification	Description	
A_MOT_P22-1	A_MOT_P22-2	(+) 12.0 ± 0.2V	(+) 12V	Valve Power
B_MOT_P22-1	B_MOT_P22-2	(+) 12.0 ± 0.2V	(+) 12V	Valve Power
A_MOTP26 – TIP	A_MOTP26 – Ring	(+) 5.2 ± 0.025V	(+) 5.2V	RHM Power
B_MOTP26 – TIP	B_MOTP26 – Ring	(+) 5.2 ± 0.025V	(+) 5.2V	RHM Power
WIP_P1_Tip	WIP_P1_Ring	(+) 5.0 ± 0.2V	(+) 5V	Router
WVL_P14_Tip	WVL_P14_Ring	(+) 5.0 ± 0.25V	(+) 5V	W Voice
SBCBH_P1-25	SBCBH_P1-13	(+) 5.0 ± 0.2V	(+) 5V	Computer
SPO2_P1-3	SPO2_P1-2	(+) 5.0 ± 0.2V	(+) 5V	SPO2
TSC_P1-5	TSC_P1-6	(+) 12.0 ± 0.25V	12V	TSC
TSC_P1-7	TSC_P1-6	(-) 12.0 ± 0.25V	-12V	TSC
RTF_P1-6	RTF_P1-2	(+) 5.0 ± 0.2V	(+) 5V	PWR DCOM
R_NIBP_P1-1	R_NIBP_P1-2	(+) 12.0 ± 0.2V	(+) 12V	Cuff P Sense
L_NIBP_P1-1	R_NIBP_P1-2	(+) 12.0 ± 0.2V	(+) 12V	Cuff P Sense



- 4.4.3 Turn off power. Plug power P22 and P26 into both RHM's. Turn power back on and verify green leds light on the boards and the following RHM provided output voltages.

Check

EYES_P7-13	EYES_P7-14	(+) 5.0 ± 0.2V	(+) 5V	Eyes Sense
COMP_P1-1	COMP_P1-2	(+) 5.0 ± 0.2V	(+) 5V	Comp P Sense
BS1_P1-2	BS1_P1-1	(+) 5.0 ± 0.2V	(+) 5V	P Sense
R_AIR_P1-3	R_AIR_P1-2	(+) 12.0 ± 0.2V	(+) 12V	AWP Sense
L_AIR_P1-3	L_AIR_P1-2	(+) 12.0 ± 0.2V	(+) 12V	AWP Sense

L&R Airway Pressure Sense boards get power from RHMB J31 on TUV Certified systems.
(MMP>700, MMN>400)

*

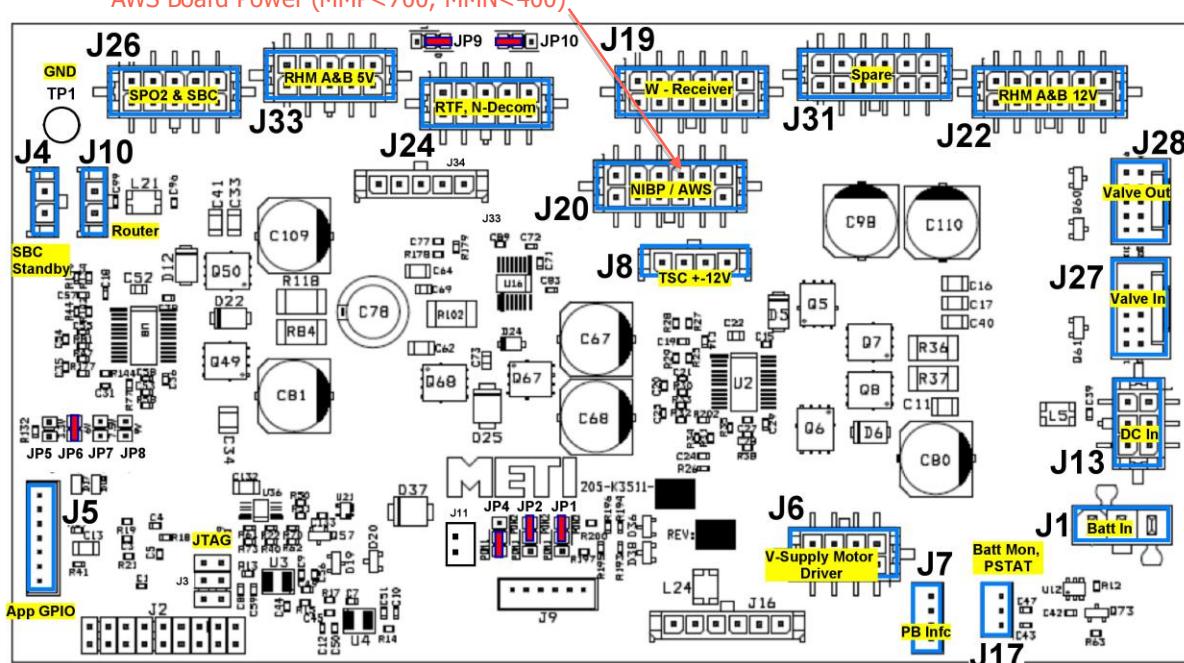
4.4.4 Turn off power. Plug remaining connectors that were unplugged in step 4.2.4 back in.

4.4.5 Turn the power back on and use the table below and Diagram 1 to measure “loaded” voltages on the Power Controller. Verify that all voltages are present and within specification.

Check

DVM Red Lead	DVM Black Lead	Voltage Specification	Description	
Probe voltages on backside of connectors while connected in circuit.				
PC_P22-7	PC_TP1	(+) 12.0 ± 0.2V	(+) 12V	Valve Power
PC_P33-7	PC_TP1	(+) 5.0 ± 0.25V	(+) 5V	RHM Power
MOOG_P1-6	MOOG_P1-5	(+) 19.0 ± 1V	(+) 19V±2V	Compressor

*



Jumper Settings

- JP9 – Bypass Mode
- JP10 – DC Override
- JP6 – Wireless Power
- JP1 – 12V Power Mode
- JP2 – 5V Power Mode
- JP4 – Wireless Power Mode

Default*

- SBC Bypass / Normal* (Right)
- Ext DC Priority* / Potential Priority (Left)
- 3.3V / 5V* / 7V / 9V
- P On 1 / P On 2* (Up)
- P On 1 / P On 2* (Up)
- P On 1* / P On 2 (Down)

Diagram 1

Pump Control Check

- 4.5.1 Verify the compressor has been calibrated by looking for the test sticker on the Moog BLDC Motor Driver. If it has not been calibrated follow procedure 905-K3504-07 for “field” calibration. **Check**
- 4.5.2 Connect a 30-PSI pressure gauge to the ‘External Air Input’ connector at the left shoulder panel then turn on the simulator power. Within 30 seconds, the compressor will start-up and begin pressurizing the plenum tank. It is controlled by RHM_B. Create a draw on the pneumatic system by depressing the center valve of the Rib Cage Air Supply connector. Verify that the compressor cycles on at 15-PSI \pm 1 and off at 25-PSI \pm 1. **Check**
- 4.5.3 Allow the pressure to charge then wait for the system pressure to settle - approximately 25.0-PSI. Monitor the pressure “drop” from this value for 1 minute and verify that the pressure does not decrease more than 0.5-PSI. **Check**

4.5 Basic Pneumatic Pressure Set-up

- 4.6.1 Connect a 60-PSI digital pressure gauge to the Pulse Regulator output using a 4mm pneumatic adapter. Adjust the Pulse Regulator to 8-PSI \pm 1-PSI then tighten the locking nut. After verifying the pressure setting, return the pulse hose to the regulator fitting. **Check**
- 4.6.2 Connect a 60-PSI digital pressure gauge to the black Tank hose connection. Attach the Test Fixture “Valve Power Jumper” from PC_J31 to the Tank Enable valve. Valve will turn on. Adjust the Bleeding & Secretions air pressure regulator (in the right hip tray area) to 3-PSI \pm 0.3-PSI then tighten the locking nut. After verifying the pressure setting, return black hose to the fitting. Remove the power jumper and replace the valve connector. **Check**

4.7 Software Configuration / Application Check

- 4.7.1 Verify SBC, RHMs and the Router have all been programmed and that the SPB is set with the customer’s unique IP Address. If any of these are not configured, use procedures below to set-up. **Check**

905-K6100-64	Programing RHMs, METIman
905-K3 ____-07	Duping SD Micros, METIman
905-K3500-07	Mac OS X Computer Imaging, METIman
905-K3501-07	CompactFlash Imaging, METIman
905-K3502-07	Router Setup, METIman
905-K3503-07	Software Install and Simulator Setup, METIman

- 4.7.2 Set JP9 to the “Normal” position. *See Diagram 1.* **Check**
- 4.7.3 Install Electronics Plate containing the SBC and the router onto the METiman frame.
- 4.7.4 Power on METiman simulator and then the Instructors Workstation.
- 4.7.5 For a MAC, click on Airport Signal Icon at the top of the screen. Verify that the Airport is On and the serial number of the unit under test is selected on the list. The icon should be dark gray when proper selections are made. **Check**
- 4.7.6 To access the Muse software, start a Web Browser and enter the unique IP address per IP Tracker document into its address field.
- 4.7.7 From the Login screen, click the Muse icon to login to the software. The default Username and Password is lower case **admin**. Select Login.
Note: If you have previously been connected, the software may skip this screen.
- 4.7.8 The Home screen will appear with a default Simulated Clinical Environment (SCE). Select the Run button in the lower right corner to start the simulation.
- 4.7.9 The Run screen will now appear.
- 4.7.10 The mannequin frame should now "come to life" with the appropriate blood pressures, palpable pulse support and breathing rhythm displayed on the UI. The physiologic models located on the internal Single Board Computer (SBC) are now affecting the mannequin activities. **Check**

4.8 Pneumatic Pressure Set-up with Effector Site Checks

- 4.8.1 To calibrate the remaining METIMan pneumatic pressures, each regulator must be adjusted while that function is turned on. Since all regulators used for this are a non-relieving style, the output pressure must be bled off between adjustments. Tighten each regulator-locking nut before moving to next calibration.
- 4.8.2 Use the following steps to set/check the remaining pressures.
- * 4.8.3 Connect a 30-PSI gauge to the hose labeled Tongue. Click on Lung then click on Swollen Tongue button to enable.
(MMN Only) Calibrate pressure to 4-PSI.
(MMP Only) Calibrate pressure to 9-PSI. **(4-PSI for the older style airway)** **Check**
- 4.8.4 Click again to disable. Verify that the pressure turns off. Remove gauge. **Check**
- 4.8.5 **(MMP Only)** Move the 30-PSI gauge to the hose labeled Difficult Airway. Click on Lung then click on Airway Occluder button to enable. Calibrate pressure to 3-PSI.

- * 4.8.6 Click again to disable. Verify that the pressure turns off. **Check**
- 4.8.7 (**MMP Only**) Move the 30-PSI gauge to the hose labeled Laryngospasm. Click on Lung then click on Laryngospasm button to enable. Calibrate the pressure to 16-PSI. **Check**
On older style airway - only set to 4-PSI
- 4.8.8 Click again to disable. Verify that the pressure turns off. **Check**
- 4.8.9 Move the 30-PSI gauge to the connector on the right hip labeled Fill. Click on the Blood Droplet then click on Channel 1: Bleeding button. Verify $3\text{-PSI} \pm 0.5\text{-PSI}$ **Check**
- 4.8.10 Move the 30-PSI gauge to the hose labeled Left Eyelid. Press the **Next** button to increment to “**Left Eye Blinking**”. Verify the pressure switches from a low (< 4- PSI) to a high (> 15- PSI) repeatedly. **Check**
- 4.8.11 Move the 30-PSI gauge to the hose labeled Right Eyelid. Press the **Next** button to increment to “**Right Eye Blinking**”. Verify the pressure switches from a low (< 4- PSI) to a high (> 15- PSI) repeatedly. **Check**
- 4.8.12 Verify a Pulse can be felt at all pulse locations. **Check**
- 4.8.13 Verify that the control of each pulse is correct by shutting down each pulse one at a time and checking for pulse on mannequin. Click on the Heart and then click on each pulse location (dot). Solid dot indicates pulse is enabled. **Check**

4.9 NIBP – Quick Check

- 4.9.1 Hook up the 300 mmHg Pressure Gauge and Bulb Assembly to the Left NIBP pneumatic connector (in shoulder panel). Close the valve on the bulb and pump up the cuff until the radial pulse disappears and then an additional 30 mmHg.
- 4.9.2 Let the cuff pressure drop slowly by opening the valve on the bulb slightly. Note the pressure displayed on the cuff gauge at which the radial pulses come back and verify that it matches the Muse Patient Display ABP systolic within ± 5 mmHg. **Check**
- 4.9.3 Place stethoscope on arm, just below the elbow joint. Monitor as you continue to let the cuff pressure drop slowly. Verify Korotkoff sounds can be heard down to approximately 75 ± 5 mmHg and that the brachial pulse comes back at pressures below 30mmHg. **Check**
- 4.9.4 Repeat 4.9.1 to 4.9.3 for the Right arm.

4.10 Bronchial Occluder, Airway Pressure & CO2 – Quick Check

- 4.10.1 Click on Lung and then click on the Bronchial Occlusion button for right lung (left side of UI). Blow air in the right bronchial tube at the lung connector and verify that airway is blocked. **Check**

- 4.10.2 Click the button again and verify that the right airway is open again. **Check**
- 4.10.3 Click on Lung and then click on the Bronchial Occlusion button for left lung (right side of UI). Blow air in the bronchial tube at the lung connector and verify that airway is blocked. **Check**
- 4.10.4 Click the button again and verify that the left airway is open again. **Check**
- 4.10.5 Attach test lung bags onto ends of bronchial tubes and intubate airway. Use a BVM to supply airway pressure. (Alternately, place hand over the mannequin's mouth and blow into both the left and right bronchial tubes at the same time.) Verify that on MMP units the CO₂ valve turns on while tubes are pressurized. On Both MMP and MMN units, verify that the Lung Volume widget indicates a change. **Check**

4.11 IV Leak Check

- 4.11.1 Place lure fitting caps on the IV Drain and Subclavian IV inlets.
- 4.11.2 Pressurize the IV Fluid Source access port to 2.0-PSI. Due to the venous bladder and the IV Drain Bag inflating, this may take a fair amount of volume to stabilize at 2.0-PSI. Verify the pressure holds for 15 seconds. **Check**
- 4.11.3 Evacuate all air from the IV Source Port and IV Drain Bag. Replace cap.

4.12 GU Leak Check

- 4.12.1 Ensure that the cap is on the GU fitting in the shoulder panel. Insert a Foley Catheter into the simulator's simulated bladder. The catheter tip (balloon cuff) must pass all the way into the "bladder".
- 4.12.2 Inflate Foley cuff with 10cc of air.
- 4.12.3 Pressurize the catheter to 2-PSI. Verify the pressure holds for 15 seconds. **Check**
- 4.12.4 Remove the Foley Catheter.

4.13 Chest Tube Leak Check

- 4.13.1 Pressurize the Left Chest Tube access port to 2.0-PSI. On MMN units this will take minimal volume. Due to the bladder on MMP units, this may take a fair amount of volume to stabilize at 2.0-PSI. For either, verify the pressure holds for 15 seconds. **Check**

4.13.2 Connect a male test connector into the left Chest Tube female “shut-off” connector and verify pressure drops to 0-PSI. **Check**

4.13.3 Pressurize the Right Chest Tube access port to 2.0-PSI. On MMN units this will take minimal volume. Due to the bladder on MMP units, this may take a fair amount of volume to stabilize at 2.0-PSI. For either, verify the pressure holds for 15 seconds.

Check

4.13.4 Connect a male test connector into the right Chest Tube female “shut-off” connector and verify pressure drops to 0-PSI. **Check**

4.14 Airway Suction Leak Check (MMN Only)

4.14.1 Disconnect the Airway Suction connector from the Nursing Airway Adapter (1/4 turn Shut Off style).

4.14.2 Pressurize the Airway Suction access port on the shoulder to 2.0-PSI. Inject air volume at a pressure greater than 3-PSI and then pause to let stabilize. Due to the bladder, this may take a fair amount of volume to stabilize at 2.0-PSI. Verify the pressure holds for 15 seconds.

Check

4.14.3 Reconnect the Airway Suction connector and verify that the pressure drops and that moderate squeezing on bag will exhaust the air volume. **Check**

4.14.4 Use a syringe to remove all remaining air volume from the bag style bladder.

4.15 NG Tube Support Leak Check (MMN Only)

4.15.1 Pressurize the Stomach access port on the shoulder to 2.0-PSI. Inject air volume at a pressure greater than 3-PSI and then pause to let stabilize. Due to the bladder, this may take a fair amount of volume to stabilize at 2.0-PSI. Verify the pressure holds for 15 seconds. Reinstall Cap.

Check

4.15.2 Allow the NG access port to vent and then syringe to remove all remaining air volume from the bag style bladder. Verify that air can continue to be drawn through this port, even after the bag has been deflated fully. Reinstall Cap.

Check

4.16 Bleeding Leak Check

4.16.1 Turn on Tank Enable (Power Cable) and verify $3\text{-PSI} \pm 0.5$ on the Fill Port. Turn Tank enable back off and verify the pressure holds for 60 seconds. **Check**

4.16.2 Pressurize the lower and upper Wound Umbilical ports to 3-PSI. Verify no pressure drop in 15 seconds. **Check**

4.17 Head Secretions Leak Check

- 4.17.1 Pressurize the individual IV Fluid Source access ports and verify they exit at the correct outlet. **Check**

4.18 Wireless Voice Set-Up

- 4.18.1 Power up the simulator and verify the receiver is plugged in and powered up. **Check**
- 4.18.2 On the Muse User Interface (Mac) click on Run. Set the Vocal volume to $\frac{3}{4}$ on the slider. Connect a Test Speaker to the “Voice” connector, located in the neck area if the head is not already installed.
Note: Starting a simulation and setting volume is not necessary at this time.
- 4.18.3 Use the Wireless Voice Tuning procedure (905-K3503-34) to set the wireless receiver and transmitter.
- 4.18.4 Turn the microphone / transmitter for the METIman unit on. Speak into the microphone and verify that a voice arises from the speaker. Verify no inappropriate background noise. **Check**
- 4.18.5 Turn the microphone / transmitter back off. Listen at speaker for audible background noises. Verify that no distracting noises can be heard. **Check**

Place the completed Radio Frequency information label near the METIman S/N label.

4.19 Rib Cage Installation and Chest Excursion Check

- 4.19.1 The simulators head should be completely installed at this point.
- 4.19.2 Make sure that RHM covers are in place and tray cables and hose are properly dressed. Place Ribcage across frame being very careful not to pinch hose or cabling as connections are made and cabling moved into place. Connect the Pneumatic Source line, Excursion Exhaust line and the following electrical connectors:

Left Chest Excursion Control	(MMP & MMN)
Right Chest Excursion Control	(MMP & MMN)
Chest Sounds	(MMP & MMN)
Rib Trauma Features (RTF)	(MMP Only)
Needle Decompression Control	(MMP Only)
TSC (Defib/Pace Out)	(MMP Only)
ECG	(MMP Only)

Note: Be careful dressing in the cables and hose during this process to avoid pinching under the plate or bunching under the TSC or the Chest Compression rod areas. For MMN, fold unused cables neatly under the SBC.

- 4.19.3 Power the simulator back up and restart Muse.

4.19.4 With “**METI****man**” active, observe the mannequin’s rib cage. Verify that there is smooth, parallel movement, up and down. **Check**

4.19.5 Verify no rubbing or binding sounds and that all hoses and cables are dressed clear of rams and compression assemblies. **Check**

4.20 Ribcage Features Quick Check

4.20.1 Press downward on chest and verify that an artifact can be generated on the ABP pressure waveform. **Check**

4.20.2 Monitor ECG with patient monitor and verify good ECG waveforms. **Check**

4.20.3 Defib and Pace simulator. Look for altered waveforms on the Muse Patient Display that indicate pacing spikes or a defib spike. **Check**

4.20.4 (MMP Only) Verify needle decompression by enabling the feature then adding approximately 800ml to the left and then the right lungs. Verify lung movement stops. **Check**

4.20.5 Place needle in left cone and verify rush of air and that within 10 seconds, the left chest movement returns. **Check**

4.20.6 Place needle in right cone and verify rush of air and that within 10 seconds, the right chest movement returns. **Check**

4.21 Final

4.21.1 Verify or place Test Stickers on Patient Left Side of Tray. **Check**

4.21.2 Enclose a copy of the Set-Up Data Record in the work process folder.

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METIMAN, ACCEPTANCE TEST PROCEDURE

4.0

ACCEPTANCE TEST PROCEDURE

		Limits/Specs	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(ATP 6)	Failure Count
4.1	Power On									
4.1.1	Turn on the simulator power using the momentary button located in the left hip panel. Press for two seconds. PWR LED should begin blinking as system boots up. Wait for solid green LED before attempting a connection with a workstation.									0
4.1.2	Verify the simulator cooling fan is operational by feeling for exhausted air in the lower groin area. Check at the corrugated hose outlet.									0
4.1.3	Turn on the Wireless Instructor's Workstation with its power button.									0
4.1.4	Verify the Instructor's Workstation IP Addresses match the IP Tracker data sheet for this unit.									0

		Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
4.2	Application and Browser Check								
4.2.1	If configuring a Mac, continue onto step 4.2.2. If configuring a Windows-based machine, go to step 4.2.6.								0
	Configuration for a Mac Machine								
4.2.2	Click on Airport (Mac OS X 10.6) or WiFi (Mac OS X 10.7) signal icon at the top of the screen. Verify that the Airport or WiFi is On and the serial number of the unit under test is selected on the list. The icon should be dark gray when proper selections are made. <i>Note: If a password is required, enter metiadmin</i>								0
4.2.3	Launch Safari. The application will load and launch its configured Home Page.								0
4.2.4	Verify Safari is configured correctly. <ul style="list-style-type: none">• Home Page configured for SBC IP Address (Muse Login Screen)• New Windows and New Tabs set to load Home Page• Home Page saved in Bookmarks Menu• Hide Bookmarks Bar and Tab Bar (Only Toolbar and Status Bar displayed)• Back/Forward Buttons removed from Toolbar• Home Button added to Toolbar								0
4.2.5	Go to step 4.2.10.								0
	Configuration for a Windows Machine								
4.2.6	Click on the Wireless Networks icon in the right-most side of the taskbar (looks like a bar graph).								0
4.2.7	Verify Wireless Network Connection shows the serial number of the unit, with the words Connected beside it. The serial number should show up in boldface when connected. <i>Note: If a password is required, enter metiadmin</i>								0
4.2.8	Launch Internet Explorer. The application will load and launch its configured Home Page.								0
4.2.9	Verify Internet Explorer is configured correctly. <ul style="list-style-type: none">• Homepage configured for the SBC IP address (Muse login screen)• New Windows and New Tabs set to load Home Page• Home Page saved in Favorites• Menu Bar, Favorites Bar, Command Bar and Status bar hidden								0
	Continue Application and Browser Configuration Check								
4.2.10	From this screen, click the Muse icon to log in to the software. The default Username and Password is lower case admin . Select Login. <i>Note: If you have previously been connected, the software may skip this screen.</i>								0
4.2.11	The METIman home screen will appear with a default Simulated Clinical Environment (SCE). In the lower menu bar, click on the About button and record the Simulator Serial Number. Press the More Info button to view the Version Number and the MUSE Build ID. Record in the Notes Section of this document. Click Return Arrow when done.								0
4.2.12	Verify that the METIman Software Version and Build ID recorded in Step 4.2.11 is the latest available. See METI Server\Groups\Literature\Configuration Management\Released Drawings\905\905-K0036-99_B METI Software Revision Log.pdf .								0
4.2.13	Open a new Web Browser window or tab. From the Login screen, click the TouchPro icon to login to the patient monitor software.								0

4.2.14	Click on the Setting Button and then the "About..." button to view the Software Version number and Build ID. Record the Version and the Build ID in the Notes Section of this document. Click the "X" to close the window.								0
4.2.15	Verify that the TouchPro Software Version and Build ID recorded in Step 4.2.14 is the latest available. See METI ServerGroups\Literature\Configuration Management\Released Drawings\905\905-K0036-99_B METI Software Revision Log.pdf								0
4.2.16	SD Card Test – Refer to document 905-K6110-34 to perform SD Card Test.								0
4.2.17	Run SDCardATEST.MSU								0
4.2.18	Run SDCardBTEST.MSU								0

4.3	Patient Simulator Connection	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.3.1	Return to the METiman home screen and press the New SCE... button. A window with installed patients will appear. Click on the Create button located on Stan D. Ardman. Next, Enter the name "A TEST" for the SCE, then hit Save.								0
4.3.2	Click the Run button in the lower-right corner of the SCE Editor screen. The Run screen will now appear. From this screen, a user can view physiological status and events and perform overrides and interventions on the patient. With Run selected, the simulator should now "come to life" with the ECG, blood pressures and heart and breathing rates shown on the Patient Display widgets.								0
4.3.3	Click on the Setup button located in the upper left (above the ECG). The Widgets window will open. Using the trackpad, drag the Lung Volume widget over the RR display and release. Verify left and right lung volumes are graphically shown rising and falling.								0
4.3.4	Click on the Setup button to close the window.								0

4.4	Spontaneous Breathing	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.4.1	With "METiman" active, observe the mannequin's chest. Verify that there is a smooth, symmetric movement of the left and right side, up and down.								0
4.4.2	Listen to chest for scraping or binding noise. Verify that none can be heard.								0
4.4.3	Watch the mannequin's chest and count the number of breaths taken over 30 seconds. Multiply this value by two to calculate the respiratory rate (BPM). Verify this Respiratory Rate value for METiman is 11 ± 2 breaths per minute and record your results in the notes section.	11 ± 2 BPM							0

4.5	TouchPro Display - Physiologic Data and Sound Check	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.5.1	If the TouchPro Display application is not active in a second browser window, Open a new Web Browser window or tab. From this Login screen, click the TouchPro icon to login to the patient monitor.								0
4.5.2	Verify the ECG waveform is displayed scrolling across the screen without clipping.								0
4.5.3	Record the Arterial (ABP) - systolic/diastolic pressure from the TouchPro Display in the Notes Section of this document. Note: If ABP is not displayed as default, click on a waveform placeholder and select ABP waveform from the Wave Vital Selection list.								0
4.5.4	Compare the recorded values from step 4.5.3 with the actual model values displayed on the Patient Status Display in MUSE. The recorded invasive blood pressure values must match within ±3mmHg.	±3mmHg							0
4.5.5	On the computer's menu bar (top of screen for Apple), click on the Speaker Icon and increase the volume slider toward the top. Verify that a tone is played for every ECG beat. Verify sound at Touchpro Monitor if so equipped. Note: This sound comes from Workstation speaker and the Wireless TouchPro Monitor.								0

4.6	SpO2 Probe Test	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.6.1	Connect METI SpO2 finger probe cable to the connector on the left hip.								0
4.6.2	If the TouchPro Display application is not active in a second browser window, Open a new Web Browser window or tab. From this Login screen, click the TouchPro icon to login to the patient monitor.								0
4.6.3	Verify that there is no pleth waveform or value displayed on the SpO2 section of the TouchPro Display.								0

4.6.4	Slip the probe onto any finger of the mannequin and verify that the SpO2 waveform and value appear on TouchPro Display and that it matches the value displayed on the Patient Display ± 2 . Also verify that "SPO2 probe is on" is logged.	± 2							0
4.6.5	Remove probe from finger and verify the SpO2 waveform and value disappear from TouchPro Display. Also verify that "SPO2 probe is off" is logged.								0
4.6.6	Remove SpO2 cable from the mannequin. Verify that the SpO2 values resume.								0

4.7	Reactive Eyes Check	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.7.1	From the Run screen, click on the Brain and then click on the patient's right eye Closed button. Verify only the left eye blinks.								0
4.7.2	Click on the patient's left eye Closed button. Verify neither eye blinks.								0
4.7.3	Click both the right and left eye Blinking buttons then click on the blink speed Slow button. Verify both eyes blink at the same time.								0
4.7.4	Click on the patient's right Reactive button and select Pinpoint. Verify right pupil has contracted to approximately 2mm.								0
4.7.5	Click on the patient's left Reactive button and select Pinpoint. Verify left pupil has contracted to approximately 2mm. Left and right pupil size should be similar.								0
4.7.6	Click the patient's right Pinpoint button and change to Reactive. Click the patient's left Pinpoint button and change to Reactive. Verify both pupils change in ambient light and both equal in size. <i>Note: Sensitive to shadows and indirect light.</i>								0
4.7.7	Verify both pupils will contract to at least 3mm when light is shined into either eye sensor independently.								0

4.8	Pneumatics Check	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.8.1	From the Run screen, click on the Lung and then click on the Swollen Tongue button. Verify the tongue has swollen.								0
4.8.2	Click on the Swollen Tongue button again and verify that the tongue returns to a deflated state.								0
4.8.3	(MMP Only) Click on the Airway Occluder button. Verify the throat becomes blocked and it is difficult to intubate.	MMP Only							0
4.8.4	(MMP Only) Click on the Airway Occluder button again and verify the throat returns to normal.	MMP Only							0
4.8.5	(MMP Only) Click on the Laryngospasm button. Verify the white vocal cords visually pinch off the airway. Verify that the lungs do not inflate when BVM is applied to mannequin.	MMP Only							0
4.8.6	(MMP Only) Click on the Laryngospasm button again and verify the vocal cords return to normal.	MMP Only							0
4.8.7	Verify each pulse turns on when the correct location is pressed. Locations are: Left: Left Dorsalis Pedis Left Tibial Posterior Left Popliteal Left Femoral Left Radial Left Brachial Carotid Right: Right Dorsalis Pedis Right Tibial Posterior Right Popliteal Right Femoral Right Radial Right Brachial								0
4.8.8	For each of the following pulse locations, verify that the physical pulse can be disabled. Click on the Heart and then click on each pulse location (dot) to shut off. <i>Note: Solid dot indicates pulse is enabled and the open dot indicates that pulse is off.</i>								0
4.8.9	Verify left Dorsalis Pedis pulse is present and then turns off.								0
4.8.10	Verify left Tibial Posterior pulse is present and then turns off. <i>Note: On MMP the Dorsalis and Tibial pulse turn off together.</i>								0
4.8.11	Verify left Popliteal pulse is present and then turns OFF/ON.								0
4.8.12	Verify left Femoral pulse is present and then turns OFF/ON.								0
4.8.13	Verify left Radial pulse is present and then turns OFF/ON.								0
4.8.14	Verify left Brachial pulse is present and then turns OFF/ON.								0
4.8.15	Verify Carotid pulses are present and then turn OFF/ON.								0
4.8.16	Verify right Brachial pulse is present and then turns OFF/ON.								0
4.8.17	Verify right Radial pulse is present and then turns OFF/ON.								0
4.8.18	Verify right Femoral pulse is present and then turns OFF/ON.								0
4.8.19	Verify right Popliteal pulse is present and then turns OFF/ON.								0
4.8.20	Verify right Tibial Posterior pulse is present and then turns OFF/ON.								0
4.8.21	Verify right Dorsalis Pedis pulse is present and then turns off. <i>Note: On MMP the Dorsalis and Tibial pulse turn off together.</i>								0

(ATP 1) (ATP 2) (ATP 3) (ATP 4) (ATP 5) (ATP 6)

4.9	Return to Flow (NIBP)	Limits/Specs	(P/F/NA)	Failure Count						
4.9.1	Hook up the 300 mmHg Pressure Gauge and Bulb Assembly to the left NIBP pneumatic connector. Close the valve on the bulb and pump up the cuff until the left radial pulse disappears and then an additional 30 mmHg.									0
4.9.2	Let the cuff pressure drop slowly by opening the valve on the bulb slightly. Record the pressure displayed on the cuff gauge at which the radial pulse comes back.									0
4.9.3	Confirm that the value recorded in 4.9.2 matches the Patient Status Display ABP systolic within ± 5 mmHg.	± 5 mmHg								0
4.9.4	Continue letting the cuff pressure drop while feeling for a brachial pulse. Verify the pulse returns when cuff pressure drops between 30mmHg and 10mmHg.	between 30mmHg and 10mmHg								0
4.9.5	Hook up the 300 mmHg Pressure Gauge and Bulb Assembly to the right NIBP pneumatic connector. Close the valve on the bulb and pump up the cuff until the right radial pulse disappears and then an additional 30 mmHg.									0
4.9.6	Let the cuff pressure drop slowly by opening the valve on the bulb slightly. Record the pressure displayed on the cuff gauge at which the radial pulse comes back.									0
4.9.7	Confirm that the value recorded in 4.9.6 matches the Patient Status Display ABP systolic within ± 5 mmHg.	± 5 mmHg								0
4.9.8	Continue letting the cuff pressure drop while feeling for a brachial pulse. Verify the pulse returns when cuff pressure drops between 30mmHg and 10mmHg.	between 30mmHg and 10mmHg								0

4.10	Korotkoff Sounds Check	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
4.10.1	Hook up the 300 mmHg Pressure Gauge and Bulb Assembly to the left NIBP pneumatic connector. Close the valve on the bulb and pump up the cuff until the left radial pulse disappears and then an additional 30 mmHg.								0
4.10.2	Place stethoscope on left arm, just below the elbow joint. Let the cuff pressure drop slowly (2mmHg/sec) by opening the valve on the bulb slightly. Monitor the pressure displayed on the cuff gauge and verify each of the following sounds start: Phase I – Clear, repetitive, tapping sounds (Systolic) Phase II – Longer beats, with some swishing sounds Phase III – Crisp, more intense rhythm sounds Phase IV – Muffled, less distinct sounds Phase V – Sounds disappear completely (Diastolic)	117 ± 5 109 ± 5 99 ± 5 84 ± 5 75 ± 5							0
4.10.3	Hook up the 300 mmHg Pressure Gauge and Bulb Assembly to the right NIBP pneumatic connector. Close the valve on the bulb and pump up the cuff until the right radial pulse disappears and then an additional 30 mmHg.								0
4.10.4	Place stethoscope on right arm, just below the elbow joint. Let the cuff pressure drop slowly (2mmHg/sec) by opening the valve on the bulb slightly. Monitor the pressure displayed on the cuff gauge and verify each of the following sounds start: Phase I – Clear, repetitive, tapping sounds (Systolic) Phase II – Longer beats, with some swishing sounds Phase III – Crisp, more intense rhythm sounds Phase IV – Muffled, less distinct sounds Phase V – Sounds disappear completely (Diastolic)	117 ± 5 109 ± 5 99 ± 5 84 ± 5 75 ± 5							0

4.11	Portability Check (A)	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
4.11.1	With fully charged battery installed in tray and plugged in, disconnect AC Adapter from simulator. Disconnect external air supply from simulator if one has been connected.								0
4.11.2	Verify pulses and breathing pneumatics continue to function normally.								0
4.11.3	Leave set in this mode until section 4.19.								0

4.12	Chest Compression Check	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
4.12.1	For a METIman with the Chest Compression Upgrade (potentiometer to measure the depth), follow steps 4.12.1 through 4.12.8. For METIman without the upgrade skip to 4.12.9. From the Muse run screen, open the CPR monitor.								0
4.12.2	Compress the chest by applying pressure in the middle of the sternum; at the intersection of the midline and nipple line. Verify that hand position feedback is "correct".								0

4.12.3	Compress the chest by applying pressure offset 2" from the middle of the sternum (i.e. medial to the left, medial to the right, cranial towards the head and caudal towards the feet). Verify that hand position feedback is "incorrect".								0
4.12.4	For a few cycles, compress the chest to its full depth and release it; allowing it to fully recoil. Verify that the compression depth bar graph shows full compression.	100%							0
4.12.5	For a few cycles, compress the chest to its full depth and release it; allowing it to fully recoil. Verify that the chest recoil % feedback shows 100% recoil.								0
4.12.6	For a few cycles, compress the chest partially (~½ to ~¾ of maximum depth) and fully release it. Verify that the compression depth bar graph shows partial compression.								0
4.12.7	For a few cycles, compress the chest to its full depth and partially release it; preventing it from fully recoiling (maintaining ~¼ of maximum depth). Verify that the chest recoil % feedback shows partial recoil.								0
4.12.8	Repeatedly fully compress the chest at a rate of 100 to 120 compressions per minute. Verify that the compression rate feedback indicates 100 to 120 compressions per minute.	100-120							0
4.12.9	For a METIman without the Chest Compression Upgrade: Put downward pressure on the mannequin's lower sternum and hold that pressure. Verify the log indicates "chest compression started" that the respiratory system stops while the chest is compressed.								0
4.12.10	Release the pressure on the chest. Verify that the respiratory system starts breathing again.								0
4.12.11	From the Run screen, click on the heart and then on the Cardiac Rhythm: Set button. Select Asystole from the list of overrides. Press on the mannequin's sternum repeatedly to a depth of approximately 2" at a rate of 100 – 120 per minute. Verify that an increase in blood pressure above 60mmHg appears on the ABP.	> 60mmHG							0
4.12.12	Reset to normal (Modeled).								0

		Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
4.13	Bag Mask Ventilation Check		(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.13.1	Lift neck skin and verify the Cricoid Plug is inserted.								0
4.13.2	From the Run screen, click on the Lung and then on the NMB: Set button. Enter 100 and click Accept.								0
4.13.3	Wait until SpO2 drops to 92 then place Mask on mannequin's face and ventilate at a rate of approximately 20 BPM.								0
4.13.4	Verify distinct and symmetric chest excursions. Also verify log indicates, "Ventilation started".								0
4.13.5	Verify that left and right lung volumes increase to at least 1400ml.	Lung V ≥ 1400mmHg							0
4.13.6	Verify that the SpO2 value increases with mask ventilation. Continue ventilation until the saturation reaches 97.	≥ 97							0
4.13.7	Click on the NMB: Set button. Click on the Override button so that it changes back to Modeled then click Accept. Verify the mannequin begins breathing on own again after several seconds.								0
4.13.8	From the Muse run screen, open CPR monitor. For a few cycles, ventilate using a bag mask valve (BVM). Verify that the ventilation volume bar graph increases when a ventilation is delivered.								0

		Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
4.14	Bronchial Occluder and Miss-Intubation Check		(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.14.1	If the Lung Volume widget is not selected for the Patient Status Display, click on the Setup button and drag the widget over the SpO2 spot.								0
4.14.2	Intubate the mannequin with the appropriate sized (7.5- 8.0) ET Tube. CAUTION: The Nursing simulator does not support standard depth intubations. Insert tube to a depth of no more than 23cm as measured at the teeth and inflate cuff.								0
4.14.3	From the Run screen, click on the Lung and then on the NMB: Set button. Enter 100 and click Accept. Click the patient's right Bronchial Occlusion button to on.								0
4.14.4	Ventilate using a BVM resuscitator. Verify that the right chest does not rise and the right Lung Volume widget on the Patient Status Display indicates no change in volume.								0
4.14.5	Click the patient's right Bronchial Occlusion button to off and the patient's left Bronchial Occlusion button to on.								0
4.14.6	Ventilate using a BVM resuscitator. Verify that the left chest does not rise and the left Lung Volume widget on the Patient Status Display indicates no change in volume.								0
4.14.7	Click the patient's right Bronchial Occlusion button to on again. Now both lungs are occluded. Ventilate and verify that there is strong airway resistance and that there is no chest excursion or lung volume change.								0
4.14.8	Click the patient's right and left Bronchial Occlusion buttons to off. Ventilate mannequin and verify good symmetric chest excursion and that both left and right Lung Volumes on the widget are changing similarly.								0

4.14.9	(MMP Only) Let air out of ET Tube cuff and push to a depth of 27cm to achieve a main stem intubation. Inflate cuff and ventilate mannequin again. Verify no chest excursion on the left side of the mannequin and that the Lung Volume widget indicates no volume change for left lung – only volume on right. <i>Note: Insert an N/A for METman Nursing systems.</i>	MMP Only								0
4.14.10	Remove ET Tube if MMN system. Otherwise, let air out of ET Tube cuff and pull back to a depth of 23cm and inflate cuff in preparation for CO2 test.									0
4.14.11	Click on the Stop button in the top right hand corner of the Run Screen. Select the Stop Simulation when choice appears.									0

4.15	Exhaled CO2 (MMP Only)	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.15.1	From the Muse window, select the Run button in the lower right corner to start a new simulation. Connect a CO2 Test Cartridge to the CO2 regulator and plug into system. Connect a CO2 sampling device between the ET Tube and the BVM.								0
4.15.2	From the Run screen, click on the Lung and then on the NMB: Set button. Enter 100 and click Accept. Ventilate patient at a rate of 10-BPM with a 2-second squeeze profile to keep airway pressures low.								0
4.15.3	(MMP Only) Observe the End Title CO2 values displayed on physiological monitor. Displayed Inspired CO2 will vary and should be ignored. The Expired End Title CO2 value displayed should be greater than 10 mmHg.	MMP Only CO2 > 10mmHg							0
4.15.4	Click on the NMB: Set button. Click on the Override button so that it changes back to Modeled then click Accept. Remove ET Tube.								0

4.16	ECG Check	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.16.1	Connect the physiological monitor's ECG leads to the mannequin's 5 chest contacts.								0
4.16.2	When the simulator stabilizes, the heart rate should be between 65 - 75 bpm. A healthy Sinus ECG waveform should be present on both the physiologic monitor and the Patient Status Display.								0
4.16.3	Using the physiological monitor controls, step through the waveform configurations and view Lead III, Lead V, Lead I and Lead II. Verify a Sinus waveform is displayed for each setting.								0

4.17	Pacing Check	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.17.1	Connect the Pacing Equipment cables to the mannequin's Electrode Posts located on the chest of the mannequin. Set the rate to 60ppm and the current to 30ma.								0
4.17.2	Increase the pacing current to 60ma. Verify a pacing event occurs in the Event Log with a 60ma amplitude.								0
4.17.3	Verify the log message corresponds to the current setting selected on the Pacing Equipment while slowly raising the current in 20ma steps from 80ma to 120ma then back down.	Actual ± 0							0

4.18	Defibrillation Check	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.18.1	Connect the "Hands Free" Defib cable to the mannequin's Electrode Posts located on the chest.								0
4.18.2	Set the "Lead Select" on the defibrillator unit for "Paddles". Verify an ECG is present on the defibrillator's display.								0
4.18.3	Set the defibrillator for 50 joules and defibrillate the mannequin. Verify the Event Log indicates a defibrillation of 50. Also, verify the ECG signal returns on the defibrillator's display.	Actual ± 0							0
4.18.4	Set the Defibrillator for 100 joules and defibrillate the mannequin. Verify the Event Log indicates a defibrillation of 100. Also, verify the ECG signal returns on the defibrillator's display.	Actual ± 0							0
4.18.5	Set the Defibrillator for 200 joules and defibrillate the mannequin. Verify the Event Log indicates a defibrillation of 200. Also, Verify the ECG signal returns on the defibrillator's display.	Actual ± 0							0
4.18.6	Set the Defibrillator for 300 joules and defibrillate the mannequin. Verify the Event Log indicates a defibrillation of 300. Also, Verify the ECG signal returns on the Defibrillator's display.	Actual ± 0							0
4.18.7	Set the Defibrillator for 360 joules and defibrillate the mannequin. Verify the Event Log indicates a defibrillation of 360. Also, Verify the ECG signal returns on the Defibrillator's display.	Actual ± 0							0
4.18.8	Set the Defibrillator back to 50 joules and defibrillate the mannequin. Verify the Event Log indicates a defibrillation of 50. Also, verify the ECG signal returns on the Defibrillator's display.	Actual ± 0							0

			(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	
		Limits/Specs	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	Failure Count
4.19	Portability Check (B)								
4.19.1	Click the Stop button and then confirm Stop Simulation. Using the Power Button, cycle the simulator power off then back on. Verify the simulator powers back up using battery power only.								0
4.19.2	Start an SCE and then Plug the AC adapter cable back into the wall and reconnect power plug to simulator. Verify simulation continues without interruption.								0
4.19.3	Unplug the battery, wait approximately 15 seconds, then plug the battery back in. Verify no interruption in the simulation. <i>Note: CO2, Air and the battery can be disconnected for the remainder of the tests.</i>								0

			(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	
		Limits/Specs	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	Failure Count
4.20	Pneumothorax Check (MMP Only)								
4.20.1	(MMP Only) From the Run screen, click on the Lung and then click the patient's right Needle Decompression enable button to On. (Left side of screen.) Click the Intraplural Vol: Right button and enter approximately 1800ml then click Accept.	MMP Only							0
4.20.2	(MMP Only) Verify the right chest is moving noticeably less than the left.	MMP Only							0
4.20.3	(MMP Only) Insert needle into right upper chest. Air should start flowing out. Measure the duration of airflow. It should take less than 10 seconds to let all the volume of air out.	MMP Only < 10 Sec							0
4.20.4	(MMP Only) Verify the right chest movement returns and moves symmetric with left and that "Needle decompression performed" is logged.	MMP Only							0
4.20.5	(MMP Only) Click the patient's right Needle Decompression enable button back to Off.	MMP Only							0
4.20.6	(MMP Only) Click the patient's left Needle Decompression enable button to On. (Right side of screen.) Click the Intraplural Vol: Left button and enter approximately 1800ml then click Accept.	MMP Only							0
4.20.7	(MMP Only) Verify the left chest is moving noticeably less than the right.	MMP Only							0
4.20.8	(MMP Only) Insert needle into left upper chest. Air should start flowing out. Measure the duration of airflow. It should take less than 10 seconds to let all the volume of air out.	MMP Only < 10 Sec							0
4.20.9	(MMP Only) Verify the left lung movement returns and moves in symmetric with right.	MMP Only							0
4.20.10	(MMP Only) Click the patient's left Needle Decompression enable button back to Off.	MMP Only							0

			(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	
		Limits/Specs	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	Failure Count
4.21	Head Secretions Check (MMP Only)								
4.21.1	(MMP Only) Connect the IV Line from an IV bag containing distilled water to the Eyes port on the Left Shoulder Panel. Open roller clamp on line and verify that fluid drips from the two outlets on the mannequin near the eyes. <i>Note: For all secretion and bleeding tests, be sure to have a towel to capture the fluid. Be careful to avoid water flowing into the head, mannequin assembly or onto the floor where it could be a safety hazard.</i>	MMP Only							0
4.21.2	(MMP Only) Close clamp and remove line from port. Connect syringe and withdraw all remaining fluid from eyes feature. Place cap on Luer fitting.	MMP Only							0
4.21.3	(MMP Only) Connect the IV Line from an IV bag containing distilled water to the Nose port on the Left Shoulder Panel. Open roller clamp on line and verify that fluid drips from the outlet near the mannequin's nose.	MMP Only							0
4.21.4	(MMP Only) Close clamp and remove line from port. Connect syringe and withdraw all remaining fluid from nose feature. Place cap on Luer fitting.	MMP Only							0
4.21.5	(MMP Only) Connect the IV Line from an IV bag containing distilled water to the Mouth port on the Left Shoulder Panel. Open roller clamp on line and verify that fluid drips from the outlet near the mannequin's mouth.	MMP Only							0
4.21.6	(MMP Only) Close clamp and remove line from port. Connect syringe and withdraw all remaining fluid from mouth feature. Place cap on Luer fitting.	MMP Only							0

			(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	
		Limits/Specs	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	Failure Count
4.22	Drug Administration Line Check (MMN Only)								
4.22.1	(MMN Only) Verify Luer cap is installed on the Subclavian IV. Connect a 60cc syringe to the IV Drain Port located on the Right Shoulder Panel. Keep drawing air /fluid out of the system until a vacuum is formed – making it difficult to pull plunger. (May take many cycles.) Replace the Drain Port cap.	MMN Only							0
4.22.2	(MMN Only) Connect a 60cc syringe filled with water to the Subclavian IV port and prime the line with approximately 10cc.	MMN Only							0
4.22.3	(MMN Only) Connect a full IV bag containing distilled water to the Subclavian IV port and raise it ~3 ft above the mannequin. Open the roller clamp to let the fluid flow. Verify no leaks are detected as the fluid makes its way to the internal reservoir bag. Check	MMN Only							0

4.22.4	(MMN Only) Verify that the fluid flows through the IV line by monitoring the IV drip rate. A minimum of 15 drips every 30 seconds should be verified.	MMN Only > 30dr/min.							0
4.22.5	(MMN Only) Close the roller clamp to stop the flow and remove the IV bag line from the port. Verify water does not flow out from the Subclavian IV port. Replace Luer cap on port. <i>Note: Drug Administration Line and reservoir will be purged with air after IV Arm Checks</i>	MMN Only							0

4.23	IV Check	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.23.1	Connect Test Veins at the left and right arm IV Drain Connectors located at the elbow joint. This will allow testing the "Stick Arm" capabilities without compromising the actual veins in the simulator's arms. <i>Note: The Test Vein is installed between the ¼ turn Female Shut-off on the lower arm and the ¼ turn male connector on the upper arm.</i>								0
4.23.2	Connect an empty 60cc syringe to the IV Fill port and remove trapped air/fluid in system by pulling back until all has been removed - making it difficult to pull plunger. Connect a 60cc syringe filled with distilled water to the IV Fill port and inject all 60cc. Verify no leaks are detected as the fluid makes its way through both arms (above and below the rotational joint) and to the internal reservoir bladder.								0
4.23.3	Remove the syringe from the from the IV Fill port. Verify water does not continuously flow from the fill port indicating a wrong or missing check valve. Replace the cap.								0
4.23.4	Place a needle catheter into the left Test Vein fixture and verify "flash" occurs as evidenced by fluid slowly dripping out from the catheter. <i>Note: Test Vein with Luer fitting should be used to preserve mannequin haptics.</i>								0
4.23.5	Connect a full IV bag to the catheter inserted in Left Arm Test Vein and raise it > 3ft above the mannequin. Open the roller clamp and verify that the fluid flows through the IV line by monitoring the IV drip rate. A minimum of 15 drips every 30 seconds should be verified.	> 30dr/min.							0
4.23.6	Close roller clamp and remove catheter from test vein.								0
4.23.7	Place the catheter into the right Test Vein and verify "flash" occurs as evidenced by fluid slowly dripping out from the catheter / Luer fitting.								0
4.23.8	Connect a full IV bag to the catheter inserted in Right Arm Test Vein and raise it > 3ft above the mannequin. Open the roller clamp and verify that the fluid flows through the IV line by monitoring the IV drip rate. A minimum of 15 drips every 30 seconds should be verified.	> 30dr/min.							0
4.23.9	Close roller clamp and remove catheter from test vein.								0

4.24	Purge System	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.24.1	Perform the following steps to purge fluid from IV system. • Connect an external empty 1L IV bag to the Drain Port. • Connect a 60cc syringe to IV Fill Port and withdraw all fluid. • Slowly push 2 @ 60cc of air into the IV Fill Port. Replace cap. • Slowly push 60cc of air into Subclavian IV Port (if applicable). Replace cap. • Evacuate all remaining air from the IV Fill Port using a syringe. Replace cap. • Disconnect external IV Bag and evacuate all air from the IV Drain Port using a syringe. Replace cap.								0

4.25	GU Check	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.25.1	Connect a Foley Catheter to a urinary bag or other receptacle then insert Foley Catheter into patient's male genitalia. <i>Note: Always use silicon lubricant. The catheter must be inserted a minimum of 8 inches before inflating the cuff.</i>								0
4.25.2	Connect a full IV bag to the GU port and raise it > 3ft above the mannequin. Open the roller clamp and verify that the fluid flows through the IV line by monitoring the IV drip rate. A minimum of 15 drips every 30 seconds should be verified after fluid begins exiting catheter.	> 30dr/min.							0
4.25.3	Close the roller clamp then remove the IV line from the port. Remove the Foley Catheter from the simulator when all flow has stopped. Connect a 60cc syringe filled with distilled water to the GU Port and inject all 60cc. Verify no leaks are detected as the fluid pressurizes the internal reservoir bladder.								0
4.25.4	Disconnect Syringe from the GU Port and verify that water does not flow from the port.								0
4.25.5	Reinsert the Foley Catheter into patient's male genitalia. Verify that fluid flows into the urine bag when catheter passes sphincter.								0

4.25.6	Remove the Foley Catheter and connect an empty 60cc syringe to the GU port and remove trapped fluid in system by pulling back until all has been removed. Replace cap on port.								0
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4.26	Chest Tube Check	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.26.1	Fully insert a "chest tube" in the chest feature opening on the right side of the mannequin. Note: Always use silicone lubricant. For Chest Secretions and Bleeding Tests, be sure to have a towel to capture the fluid. Be careful to avoid water flowing into the mannequin or onto the floor where it could be a safety hazard.								0
4.26.2	Connect a full IV bag to the Chest Tube Right port on the Right Shoulder Panel and raise it > 3ft above the mannequin. Open the roller clamp and verify that the fluid flows through the IV line by monitoring the IV drip rate. A minimum of 15 drips every 30 seconds should be verified after fluid begins exiting the "chest tube". Note: MMP units contain a bladder that will fill to approximately 60CC when IV line is connected. Will delay flow from the "chest tube".	> 30dr/min.							0
4.26.3	Pull the "chest tube" outward two inches and verify flow from the "chest tube" and the IV drip rate stops. Note: MMP units contain a bladder that will fill to approximately 60CC. It may take a minute for the IV drip rate to stop on a MMP whereas it should be immediate on a MMN unit.								0
4.26.4	Close the roller clamp, then remove the IV line from the port. Verify water does not flow out from the Chest Tube Right port.								0
4.26.5	(MMP Only) From the Run screen, click on the Lung, click the Intraplural Vol: Right button and enter 510ml then click Accept.	MMP Only							0
4.26.6	(MMP Only) Verify the right chest is moving noticeably less than the left.	MMP Only							0
4.26.7	(MMP Only) Watch the Intraplural Vol displayed on the UI for at least 15-seconds and verify that it holds steady at 510ml.	MMP Only							0
4.26.8	(MMP Only) Reinsert the "chest tube" fully into the chest feature opening. Verify that a burst of fluid flows for a brief period as the charged pressure bladder deflates. Also verify that the message "Chest tube inserted" is logged.	MMP Only							0
4.26.9	(MMP Only) Verify that the Intraplural Vol displayed on the UI begins to drop and when it decreases below 500ml, the right chest excursion returns to normal.	MMP Only							0
4.26.10	(MMP Only) Pull the "chest tube" outward two inches. Watch the Intraplural Vol displayed on the UI for at least 15-seconds and verify that it now holds steady.	MMP Only							0
4.26.11	Reinsert the "chest tube" fully into the chest feature opening. Using an empty syringe, slowly push air into port until only air flows through the "Chest Tube". Replace cap.								0
4.26.12	Fully insert a "chest tube" in the chest feature opening on the left side of the mannequin. Note: Always use silicon lubricant.								0
4.26.13	Connect a full IV bag to the Chest Tube left port on the Right Shoulder Panel and raise it > 3ft above the mannequin. Open the roller clamp and verify that the fluid flows through the IV line by monitoring the IV drip rate. A minimum of 15 drips every 30 seconds should be verified after fluid begins exiting the "chest tube". Note: MMP units contain a bladder that will fill to approximately 60CC when IV line is connected. Will delay flow from the "chest tube".	> 30dr/min.							0
4.26.14	Pull the "Chest Tube" outward two inches and verify flow from the "chest tube" and the IV drip rate stops. Note: MMP units contain a bladder that will fill to approximately 60CC. It may take a minute for the IV drip rate to stop on a MMP whereas it should be immediate on a MMN unit.								0
4.26.15	Close the roller clamp, then remove the IV line from the port. Verify water does not flow out from the Chest Tube Left port.								0
4.26.16	(MMP Only) From the Run screen, click on the Lung, click the Intraplural Vol: Left button and enter 510ml then click Accept.	MMP Only							0
4.26.17	(MMP Only) Verify the left chest is moving noticeably less than the right.	MMP Only							0
4.26.18	(MMP Only) Watch the Intraplural Vol displayed on the UI for at least 15-seconds and verify that it holds steady at 510ml.	MMP Only							0
4.26.19	(MMP Only) Reinsert the "chest tube" fully into the chest feature opening. Verify that a burst of fluid flows for a brief period as the charged pressure bladder deflates. Also verify that the message "Chest tube inserted" is logged.	MMP Only							0
4.26.20	(MMP Only) Verify that the Intraplural Vol displayed on the UI begins to drop and when it decreases below 500ml, the left chest excursion returns to normal.	MMP Only							0
4.26.21	(MMP Only) Pull the "chest tube" outward two inches. Watch the Intraplural Vol displayed on the UI for at least 15-seconds and verify that it now holds steady.	MMP Only							0
4.26.22	Reinsert the "chest tube" fully into the chest feature opening. Using an empty syringe, slowly push air into port until only air flows through the "Chest Tube". Replace cap.								0

4.26.23	Additional water trapped in Left and Right Chest Tube haptics need to be removed by inserting a 1/8" id (1/4"OD) hose into each chest tube opening and using a syringe to suction it out.								0
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4.27	Airway Suctioning Check (MMN Only)	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.27.1	(MMN Only) Connect a 60cc syringe filled with distilled water to the Airway Fill port located on the Left Shoulder Panel and slowly inject 40cc.	MMN Only							0
4.27.2	(MMN Only) Remove syringe and verify that water does not flow out from the Airway Fill port. Replace cap on port.	MMN Only							0
4.27.3	(MMN Only) Connect a #14f airway suction catheter to 100 – 150mmHg vacuum. Insert catheter into the upper airway via the mouth or cricoid. Apply suction when catheter encounters resistance (simulating narrowing passage after airway bifurcation.) Verify fluid is removed.	MMN Only							0
4.27.4	(MMN Only) Connect empty syringe to Airway Fill port and remove all water using a syringe.	MMN Only							0
4.27.5	(MMN Only) Connect a 60cc syringe filled with air to the Airway Fill port and inject 40cc. Reinsert the airway suction catheter back into the upper airway and apply suction. When all water has stopped coming out, remove suction catheter then remove any remaining air from the Airway Fill port using a syringe. Replace the Luer cap.	MMN Only							0

4.28	Gastric Suction Check (MMN Only)	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.28.1	(MMN Only) Verify the Gastric Bladder is empty by connecting 60cc syringe and extracting any air or water. Do this four times to ensure bag is empty. <i>Note: When fluid bladder is empty, Air will be drawn through the stomach/esophagus. You will not feel a strong vacuum when bag is empty.</i>	MMN Only							0
4.28.2	(MMN Only) Connect a 60cc syringe filled with distilled water to the Gastric Fill port located on the Left Shoulder Panel and slowly inject 60cc.	MMN Only							0
4.28.3	(MMN Only) Remove syringe and verify that water does not flow out from the Gastric Fill port. Replace Luer cap on port.	MMN Only							0
4.28.4	(MMN Only) Connect a #14f stomach suction catheter to vacuum. Insert catheter down to the stomach via the nose (approximately 24" to 30"). Apply 100 - 150mmHg of suction when catheter is inserted into the stomach. Verify fluid is removed.	MMN Only							0
4.28.5	(MMN Only) Connect empty syringe to Gastric Fill port and remove all water.	MMN Only							0
4.28.6	(MMN Only) Connect a 60cc syringe filled with air to the Airway Fill port and inject 60cc. Reinsert the airway suction catheter back into the upper airway and apply suction. When all water has stopped coming out, remove suction catheter.	MMN Only							0
4.28.7	(MMN Only) Remove any remaining air from the Gastric Bladder using a syringe attached to the Airway Fill port. Replace the Luer cap.	MMN Only							0
4.28.8	(MMN Only) From the Run screen, click on the Lung and then click on the Swollen Tongue button. Verify the tongue has swollen.	MMN Only							0
4.28.9	(MMN Only) Click on the Swollen Tongue button again and verify that the tongue returns to a deflated state.	MMN Only							0

4.29	Blood Trauma Check	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.29.1	One METI Trauma Fill Tank is provided with each system to support the bleeding feature. Pour approximately 1/2 gallon of distilled water into the assembled METI Trauma Fill Tank.								0
4.29.2	Connect the Trauma Fill Tank's umbilical to the mannequin. The mating Vent "white" and Fill "beige" connectors can be found on the mannequin's Right Hip Panel. Both connections must be made for correct operation.								0
4.29.3	Unlock the pump handle by turning counter-clockwise and stroke up and down 25 to 30 times to compress the air in the tank. Verify no leaks occur at the in-line filter or hose fittings as the water is transported to the mannequin.								0
4.29.4	When sufficient water has been transported to the on-board reservoir (2 to 3-minutes), water will appear at the Overflow Bottle. Immediately release pressure from the Trauma Fill Tank by turning the yellow Pressure Relief knob clockwise until all air pressure is gone. Verify Relieve Valve operation.								0
4.29.5	Disconnect the Trauma Fill Tank umbilical from the mannequin and store the assembly out of the way.								0
4.29.6	Connect a Wound Umbilical to the Upper Moulage connector (shoulder). Place the end of the hose into a receptacle that can hold at least 12 oz of fluid. Connect a second Wound Umbilical to the Lower Moulage connector (hip). Place the end of the hose into a receptacle that can also hold at least 12 oz of fluid.								0
4.29.7	On MUSE, return to the METIman home screen. Verify SCE "A TEST" created in step 4.3.1 is still selected. Select Stop.								0

4.29.8	Click on the Review button. Click the Baseline button then click on the Blood Drop icon when the image loads. Click on the Bleeding Type: Upper button and select Venous then click on the Bleeding Size: Upper button and select Large. Click on the Bleeding Type: Lower button and select Venous then click on the Bleeding Size: Lower button and select Large. Click on the Save Button then click on the Patient Return button (arrow) in the top left of the window. Finally, click on the Run button that appears on the right.								0
4.29.9	When the run screen appears, click on the Blood Drop. Click the Bleeding: Upper On/Off button to On. Verify a large steady stream of fluid flows from the haptic. Click the On/Off button back to Off. <i>Note: There will be a delay when system has not been primed.</i>								0
4.29.10	Click the Bleeding: Lower On/Off button to On. Verify a large steady stream of fluid flows from the haptic. Click the On/Off button back to Off. <i>Note: There will be a delay when system has not been primed.</i>								0
4.29.11	Repeat the steps of 4.28.8 to set the bleeding baseline to Arterial: Large.								0
4.29.12	When the run screen appears, click on the Blood Drop. Click the Bleeding: Upper On/Off button to On. Verify a Large Pulsing stream of fluid flows from the haptic. Click the On/Off button back to Off.								0
4.29.13	Pinch the Wound Umbilical to stop the flow and verify that a "Hemorrhage Control Applied" event is generated for the Upper.								0
4.29.14	Click the Bleeding: Lower On/Off button to On. Verify a Large Pulsing stream of fluid flows from the haptic. Click the On/Off button back to Off.								0
4.29.15	Pinch the Wound Umbilical to stop the flow and verify that a "Hemorrhage Control Applied" event is generated for the Lower.								0

		Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
4.30	Voice and Throat Sounds Check		(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.30.1	From the METiman Home Page, select a Female SCE and then click on Run. Click on the Speech Bubble and then click on "My chest is tight". Verify the patient says, "My chest is tight" in a female voice.								0
4.30.2	Click Stop, select "A TEST" SCE and then click on Run. Click on the Speech Bubble and then click on "My chest is tight". Verify the patient says, "My chest is tight" in a male voice.								0
4.30.3	Press the Sounds button in the lower screen. Click on Vocal Sounds then click on the drop-down menu and select Long Soft Cough. Verify a repeating soft cough can be heard using the default sound amplitude of 70%. Close Window.								0
4.30.4	Click on Throat Sounds then click on the drop-down menu and select Stridor. Verify that the mannequin outputs a Stridor sound that is synchronous with breathing and audible from 6-feet away when using the default sound amplitude of 70%.								0
4.30.5	"Wireless Voice Transmitter". Verify that batteries have been installed in the transmitter and then turn on the device. Restart the SCE.								0
4.30.6	For WVL, In the Notes Section, record the Simulator pair ID and Firmware Version located on a sticker in the battery door of the handset.								0
4.30.7	For Lectrosonics, In the Notes Section, record the Block and Frequency Switch Settings from the Transmitter.								0
4.30.8	Verify that the simulator pair ID (WVL or Lectrosonics) matches the base station sticker in the battery door of the base station.								0
4.30.9	Verify the settings in 4.29.6 or 4.29.7 matches the data recorded on the Radio ID Label (located on simulator frame).								0
4.30.10	Set the On/Off switch on the microphone to the On position and then speak into the microphone and verify that your voice arises from the mannequin's head.								0
4.30.11	Turn off the transmitter to conserve battery life.								0

		Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
4.31	Heart Sounds Check		(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.31.1	Verify Heart sounds can be heard at all heart sound locations using the default sound amplitude of 80%.								0
	• Aortic (Right Upper) • Pulmonary (Left Upper) • Tricuspid (Apex) • Mitral (Lower Left Sternal Border)								
4.31.2	Click on Heart Sounds then click on the drop-down menu and select Late Systolic Murmur. Verify the heart location sounds changes to this murmur.								0

		Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
4.32	Breath Sounds Check		(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	

4.32.1	Click on the All Breath Sounds drop-down menu and select Normal. Verify the Left and Right breath sounds can be heard at all breath sound locations using the default sound amplitude of 50%. Anterior <ul style="list-style-type: none"> • Left Upper • Left Mid • Left Axilia • Left Lower • Right Upper • Right Mid • Right Axilia • Right Lower Posterior <ul style="list-style-type: none"> • Left Upper • Left Mid • Left Lower • Right Upper • Right Mid • Right Lower 								0
4.32.2	Click on the Breath Left Upper drop-down menu and select Crackles. Verify left upper speaker locations changes to this sound.								0
4.32.3	Click on the Breath Right Upper drop-down menu and select Gurgling. Verify right upper speaker locations changes to this sound.								0
4.32.4	Click on the Breath Left Lower drop-down menu and select Plural Rub. Verify left lower speaker locations changes to this sound.								0
4.32.5	Click on the Breath Right Lower drop-down menu and select Wheezing. Verify right lower speaker locations changes to this sound.								0

4.33	Bowel Sounds Check	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.33.1	Verify that bowel sounds can be heard at the correct sound locations using the default sound amplitude of 50%. <ul style="list-style-type: none"> • IV Upper Right • I Upper Left • III Lower Right • II Lower Left 								0
4.33.2	Click on Bowel Sounds then click on the LUQ Bowel drop-down menu and select None. Verify LUQ speaker location goes silent.								0
4.33.3	Click on the LLQ Bowel drop-down menu and select None. Verify LLQ speaker location goes silent.								0
4.33.4	Click on the RUQ Bowel drop-down menu and select None. Verify RUQ speaker location goes silent.								0
4.33.5	Click on the RLQ Bowel drop-down menu and select None. Verify RLQ speaker location goes silent.								0
4.33.6	Click on the All Bowel drop-down menu and select Hyperactive. Verify all speaker locations turn on.								0

4.34	Convulsions Check	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.34.1	Click on the All Bowel drop-down menu and select Hyperactive. Verify all speaker locations turn on.								0
4.34.2	Click on the Convulsions button again and verify that the shaking stops								0
4.34.3	Select Stop.								0

4.35	Final	Limits/Specs	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
4.35.1	Select the System Administration button then click on the SCEs tab. Click on the Delete button for "A Test". Confirm by pressing the Delete SCE button. Click on the Home button.								0
4.35.2	If simulator sales order contains Learning Modules, install and verify.								0

5.0

MISCELLANEOUS FAILURES

5.1	Miscellaneous Failures	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)	Failure Count
			(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	(P/F/NA)	
5.1.1		NA	NA	NA	NA	NA	NA	0
5.1.2		NA	NA	NA	NA	NA	NA	0
5.1.3		NA	NA	NA	NA	NA	NA	0
5.1.4		NA	NA	NA	NA	NA	NA	0
5.1.5		NA	NA	NA	NA	NA	NA	0

6.0

SUMMARY

METiman Acceptance Test Results	(ATP 1)	(ATP 2)	(ATP 3)	(ATP 4)	(ATP 5)	(ATP 6)
Failures Per Acceptance Test	0	0	0	0	0	0
Passes Per Acceptance Test	0	0	0	0	0	0
NA Per Acceptance Test	5	5	5	5	5	5
Total Recorded Results	5	5	5	5	5	5
Results Remaining to be Entered	253	253	253	253	253	253

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Apollo

Software Licensing

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Introduction to CAE Healthcare Software Licensing

Overview

In 2011, CAE Healthcare began introducing a secure licensing mechanism into its patient simulator software products. The licensing mechanism prevents loss of revenue from violations of end-user license agreements and provides new opportunities for selling and distributing software.

Software that uses the licensing mechanism must be activated by the customer with a license key. All software that is installed on a computer before distribution, such as a new Instructor Workstation, is activated by CAE Healthcare prior to its shipment.

Installation Seats

Each license has one or more installation seats. For each installation seat, the software may be activated on a single computer. Our secure system is keyed to the hardware signature of the computer. If the customer wishes to free an installation seat, a deactivation process is available.

Trial-Period

In most cases, software with the licensing mechanism will operate for a pre-determined trial period before which activation is required. For Müse the trial period has been extended to 90 days. This gives additional time to audition Müse using the SCE Development download from our web page and also assists with the production building and test process.

A software installation may be activated at any time during the trial period or after the trial period has expired. Note that you will not be able to use the SW once the trial period has expired.

Global Process

When a customer purchases a software product that uses the licensing mechanism, either Operations, Quality or Sales (depending on the type of Sale executed) are responsible for generating the license keys associated with that particular purchase as stipulated in the associated Sales Order. Customer information on the Licensing System is synchronized with SalesForce so that records on both systems are up to date.

The customer should receive a physical (paper) copy of the license key certificate associated to the purchased product (applicable to any new orders fulfilled and shipped by CAE Healthcare); customers that already have Müse will receive a notification that a SW update is available for their product and any required license key will be sent to them electronically (via email) along side with the location where they can get their SW update. These emails will be sent to the “Software Upgrade” POCs listed in SalesForce to whom previous (or new) Sales Orders have (are) been (being) fulfilled.

It is a Sales and Customer Service joint responsibility to ensure that SalesForce includes the most up to date information on our customer and their products at all times. Such agencies need to establish within their own organizations the necessary processes and procedures to ensure that this is effectively done.

To activate a software installation, the customer starts the software and enters the license key on the new License Manager screen. Activation is performed online instantly (whenever a live internet connection is available) or offline (via email or telephone through our Customer Service department). Video tutorials and documentation have been established for our customers in order to illustrate these procedures.

Customer Service is responsible for assisting customers with offline activation/deactivation of Software and with solving any documented customer problems. Any undocumented modes of failure of the software, licensing mechanism or licensing system need to be escalated through Customer Service to Engineering for further support.

Customer Service will also assume the ownership of issuing rescue licenses to any customer in need; this means providing one more additional seat(s) to a customer for their active license. A typical case whereby a customer would need a rescue license would be if for instance they had somehow lost or damaged an Instructors or SCE Development Workstation which had a Müse version using the only seat of a specific license.

Manufacturing is responsible for activating Müse installations on any new simulators by the same methods available to our customers. This is an integral part of the Quality Assurance process set in place to ensure that systems that ship from our facility are defect free and ready to use by the time they reach our customer's hands.

Müse SW will be available for use to all CAE Healthcare and adjunct faculty personnel. A special utility has been created for internal distribution, which allows one to run an unlicensed version of the Müse SW for the simulator platform of choice - this removes the burden of the activation process from the user and our Customer Service organization, which needs to be more focused in serving our customers' needs rather than those of our own personnel; with this, we also avoid the overhead of creating license keys for all simulator platforms for everyone in need as well as the support aspects of an activation service call which could be required whenever changing between Müse simulator platforms installations. This utility will be offered to anyone that has signed a term of responsibility acknowledging its receipt and agreeing not to distribute it to anyone outside the company on-compliance with this term of responsibility may lead to disciplinary action, which can result in employment termination.

Synopsis of roles and responsibilities of all agencies

Sales

- Ensure accuracy of product and customer data integrity in SalesForce.
- Sales Order execution, which needs to explicitly call out specific License Key information for fulfillment.
- Order fulfillment (SCE Development SW)

Manufacturing and Quality Assurance

- License Key Issuance.
- Ensure that any simulator system going out the door is activated.
- Ensure that systems going out the door include a copy of the License Key certificate (physical or electronic) for customer reference.
- Order fulfillment (Simulator Licenses/SCE Development SW when bundled with a simulator purchase)

Customer Service

- Ensure accuracy of simulator and customer data integrity in SalesForce.
- General support for both online and offline activation and deactivation of CAE Healthcare Software to CAE Healthcare customers and distributors.
- Rescue licenses.
- Loaner/Replacement units.

Engineering

- Global maintenance of the CAE Healthcare Software License Server.
- Global access to License Server
- Tier three support for Customer Service.
- Training to all agencies.

Academy

- Customer education and training on CAE Healthcare Software Licensing.

Information Technologies

- Ensure regular backups and up-keep of the CAE Healthcare Software License Server.
- Müse setup on CAE Healthcare computer asset for all new employees provided the term of responsibility is signed with Human Resources.
- Overseeing the automated syncing process between SalesForce and the CAE Healthcare License Server.

Human Resources

- Record keeping for anyone within (or affiliated to) CAE Healthcare of the term of responsibility associated with the receipt and handling of Müse software and corresponding utility needed to run it in its “unlicensed” mode.

Processes and Procedures

The following processes and procedures have been established in support of the CAE Healthcare software licensing infrastructure:

- *Offline Activation and Deactivation*
- *License Server Access*
- *Loaner or Replacement Units*
- *Rescue Licenses*
- *Müse Sales Order Fulfillment*
- *Müse SW for CAE Healthcare Personnel*
- *Operations – Issuing a Müse License*

These highlight roles and responsibilities of key agencies and individuals in ensuring best practices needed for a successful integration of this new functionality onto new and existing CAE Healthcare products. The complete list of documents defining these processes and procedures is included in the Related Documents section below.

Applicable Software

The use of this licensing feature began with Müse v1.1 Build 167. This feature component has been a part of all subsequent builds of the Müse application.

Note that TouchPro is always associated with a Müse installation, so it will not be licensed separately. Also note that Müse Learning Modules do not yet support licensing.

Upgrading Müse Build 134

Simulators (Instructor Workstations and METIman internal computers) with Müse Build 134 can be upgraded to Müse Build 167. Detailed instructions are provided with the installer. Upgrading will begin a 90-day trial period.

Upgrading Müse Build 150 – SCE Development Software (Standalone)

Müse v1.1 Build 150 SCE Development Software was designed to stop operating 6 months after installation. Müse Build 150 was to be upgraded to Müse Build 167. Detailed instructions are provided with the installer. Updating to Müse Build 167 will eliminate the 6-month timer and begin a 30-day trial period.

New Installation of Müse – SCE Development Software (Standalone)

All Müse Builds of SCE Development Software (Standalone) can be installed on Macintosh or Windows computers that meet the minimum system requirements. Refer to the “*Müse Systems Requirements*” document listed in the Related Documents section below. New installations of Müse will have a 90-day trial period.

Frequently Asked Questions

Can I run different versions of Müse on my SCE Development Workstation?

Yes, however you can only have one simulator platform installation of Müse at any instance of time. Every time a simulator platform change is required the user should follow the steps below:

1. Backup your current Müse installation (to perform a Müse DB backup please refer to your User's Manual).
2. Deactivate current Müse installation (Recommended - this ensures this seat license is freed up. No longer required.)
3. Install the new version of Müse you intend to use.
4. Activate your new Müse installation.

If you are running an “unlicensed” version of Müse (and you do not have a license key to activate your Müse installation) points # 2 and 4 above do not apply. In this case you should execute point #1 and #3 in sequence and then re-run the “unlicensing” utility provided.

Do Remote Workstations require SW activation?

No, SW activation is only required for simulator Instructor Workstations or SCE Development workstations.

Are the online and offline activation modes available for all products?

No – METIMan, Caesar, Lucina and Athena are an exception to the rule due to the internal placement of the computer running Müse; for this product Müse can only be activated offline.

Where do I get SW from?

As a CAE Healthcare employee you will get your SW either through I.T. who may install it on your CAE Healthcare computer or via a link from the CAE Healthcare web site. Receipt of the tool that enables the use of an “unlicensed” version of the official Müse release will be established as described in the process definition established in “*Process Definition: SW for CAE Healthcare Personnel*” listed in the Related Documents section below.

How can my customer find the number of seats still available with his/her license?

Every time one activates SW on a particular workstation where Müse is installed one seat out of the total number of seats allocated to this specific license is consumed (this number is referenced in the license certificate every customer should receive with his/her product). Because a number of activation and deactivations can occur for a particular license at any given point in time, information on the number of seats available for it can only be provided to a customer by a CAE Healthcare Customer Service representative.

Can my customer perform online activation of the SW once the trial period has expired?

Yes, this activation is completely independent of Müse and can be performed at any given point in time. Note that online activation is not applicable to a METIMan, Caesar, Lucina and Athena Instructors Workstation.

With the next release of Müse SW will my customer have to activate the SW again?

Customers running Müse on any their simulator platform will be able to download their respective SW update packages off of our website, and install them without the need for any further SW activation. License keys are reissued again when CAE Healthcare decides to release a new major version of Müse. (v2.0, a paid upgrade - can coexist in the field with the original version 1.1xx.) To summarize, free incremental updates do not require any SW activation, whereas a major Müse SW upgrades will require updating the license.

Note: Staying under a service contract allows for the free upgrade of Müse. Systems that are no longer under an assurance plane will have the opportunity to pay for an incremental or major Müse upgrades.

Related Documents

CAE Healthcare Internal Documentation

Document	Part #	Location
METI Licensing System User Guide	905K000599	Document officially released under revision control ¹
Müse Support Guide	905K350252	Document officially released under revision control ¹
Simulator Workstation – Setup Procedure	905k217034	Document officially released under revision control ¹
Simulator Workstation – Acceptance Test Procedure	905k217035	Document officially released under revision control ¹
Simulator Workstation – ATP Data Record	905k217081	Document officially released under revision control ¹
Mac OS X Computer Imaging	905k350007	Document officially released under revision control ¹
Müse Browser Configuration	905k350164	Document officially released under revision control ¹
METIMan Simulator Setup	905K350307	Document officially released under revision control ¹
Müse Activation for Production	905k350152	Document officially released under revision control ¹
Process Definition: Müse Activation and Deactivation	905k353060	Document officially released under revision control ¹
Process Definition: License Server Access	905K353160	Document officially released under revision control ¹
Process Definition: Loaner & Replacement Units	905k353260	Document officially released under revision control ¹
Process Definition: Rescue Licenses	905k353360	Document officially released under revision control ¹
Process Definition: Müse Sales Order Fulfillment	905k353460	Document officially released under revision control ¹
Process Definition: Müse SW for METI Personnel	905k353560	Document officially released under revision control ¹
Process Definition: Operations – Issuing a Müse License	905k353660	Document officially released under revision control ¹
KIT, MUSE SOFTWARE AND LICENSING SYSTEM DOCUMENTATION	147K353000	Document officially released under revision control ¹

ACTIVATING AND DEACTIVATING MÜSE

The Müse software requires activation. Once installed, Müse can be used for 90 days without activation. At the end of the 90 days, Müse must be activated for continued use. Müse may be activated at any time after installation.

Once installed and authenticated, if the Müse software needs to be transferred to a different workstation, the software on the old workstation must be deactivated before the new workstation can be activated.

Activating or Deactivating Müse for an Instructor Workstation

Müse Instructor Workstations specified below can be activated and deactivated online or offline:

- Online activation or deactivation requires temporary modification of the Instructor Workstation's network settings.
- The following Müse workstations can be activated online or offline:
 - BabySIM
 - ECS
 - HPS
 - iStan
 - PediaSIM

All other Müse Instructor Workstations must be activated **offline**.

- Offline activation or deactivation requires contacting CAE Healthcare Customer Service.

Activating or Deactivating Müse SCE Development Software for an SCE Development Workstation

The Müse SCE Development Software can be activated and deactivated online or offline:

- If the SCE Development Workstation is connected to the Internet, CAE Healthcare recommends activating and deactivating the software online.
- If the SCE Development Workstation is not connected to the Internet, the software can be activated or deactivated offline.

Activating Müse

The following Müse workstations can be activated online or offline:

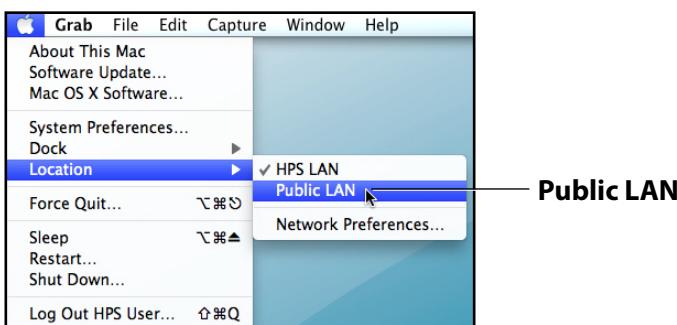
- BabySIM
- ECS
- HPS
- iStan
- PediaSIM

All other Müse Instructor Workstations must be activated **offline**.

Activating Online

To activate Müse online:

1. If activating an Instructor Workstation, follow *steps a* through *d* below. If activating an SCE Development Workstation, skip to *step 2*.
 - a. From the **Apple® Menu**, scroll over **Location** and select **Public LAN**.



The Apple Menu

- b. On right side of the menu bar at the top of the screen, click the **Wi-Fi** icon.



The Menu Bar

The **Wi-Fi** menu appears.

- c. From the **Wi-Fi** menu, ensure that Wi-Fi is turned **On**.

NOTE: On some older Mac® computers, Wi-Fi is called AirPort.



The Wi-Fi Menu

If Wi-Fi is not turned **On**, select **Turn Wi-Fi On**.



The Wi-Fi Menu

- d. Select a wireless network with Internet access.



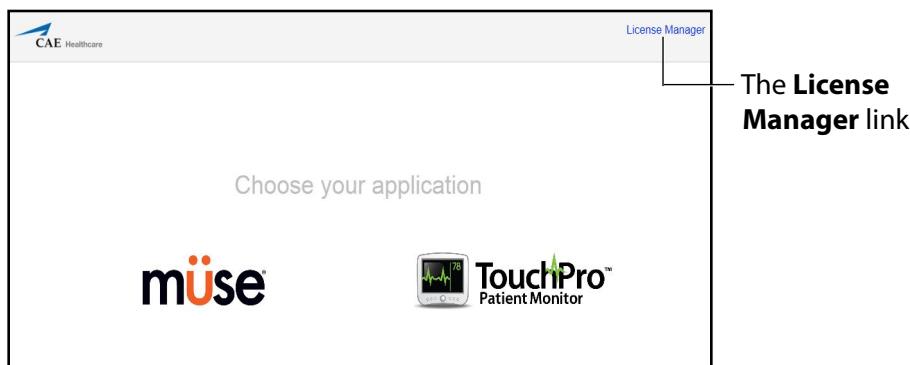
The Wi-Fi Menu

It may be necessary to enter a password to join the wireless network.

Contact your network administrator or IT professional to complete this step, if necessary.

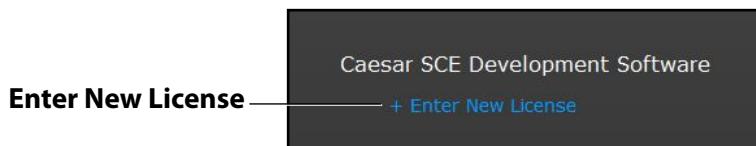
Once the Instructor Workstation is connected to an Internet-enabled wireless network, proceed to step 2.

2. Launch Müse.
3. From the Müse start screen, click the **License Manager** link.



The Müse Start Screen

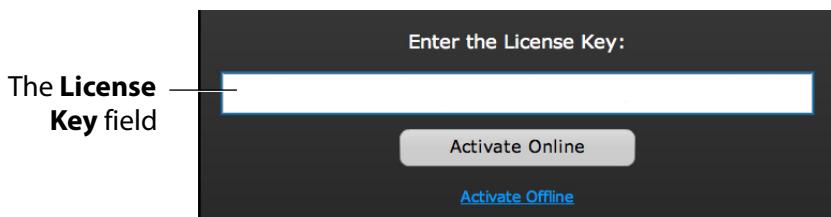
The License Manager appears.



The License Manager

4. Click **Enter New License**.

The Product Activation screen appears.



The Product Activation Screen

5. In the **License Key** field, enter the license key provided by CAE Healthcare.

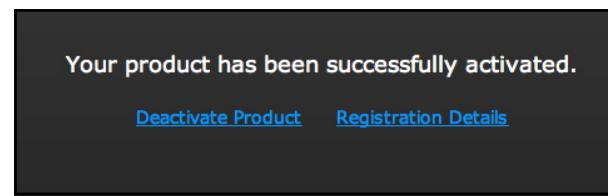
6. Click **Activate Online**.



The Product Activation Screen

The Activating Product message appears.

After a few moments, the successful activation message appears.



The Successful Activation Message

NOTE: It may take up to one minute after the activation process for activation to take effect.

7. If activating an SCE Development Workstation, no further action is needed.
The workstation is activated and is ready to run Müse.

If activating an Instructor Workstation, proceed to *step 8*.

8. Re-connect the Instructor Workstation to the simulator network:
 - a. Ensure the simulator is powered on.
 - b. From the **Apple** menu, scroll over **Location** and select **HPS LAN**.



The Apple Menu

- c. On right side of the menu bar at the top of the screen, click the **Wi-Fi** icon.



The Menu Bar

The **Wi-Fi** menu appears.

- d. From the **Wi-Fi** menu, if using a wireless simulator such as iStan, select the simulator's wireless network. The simulator network is labeled with the simulator name and unit number (e.g., iStan113).



The Wi-Fi Menu

If using a wired simulator (i.e., ECS, PediaSIM ECS, BabySIM, HPS or PediaSIM HPS), select **Turn Wi-Fi Off**.

NOTE: On some older Mac computers, Wi-Fi is called AirPort.



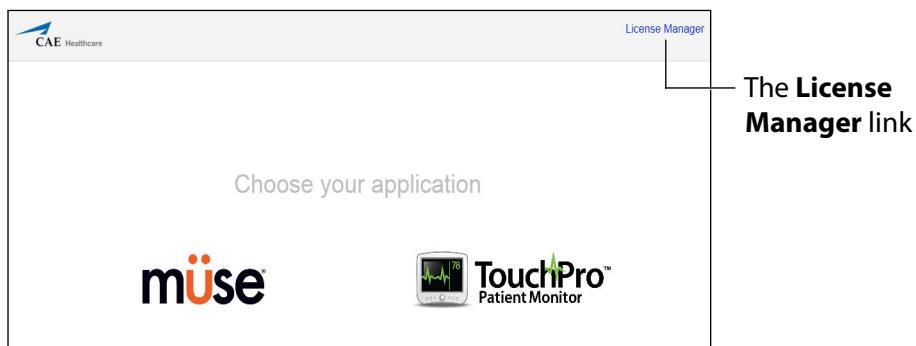
The Wi-Fi Menu

The Instructor Workstation can now connect to the simulator and is ready to run Müse.

Activating Offline

To activate Müse offline:

1. Launch Müse.
2. From the Müse start screen, click the **License Manager** link.



The Müse Start Screen

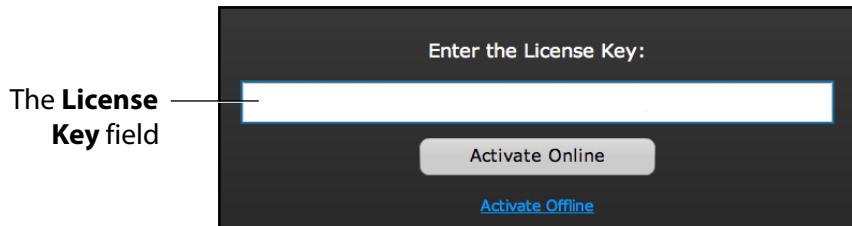
The License Manager appears.



The License Manager

3. Click **Enter New License**.

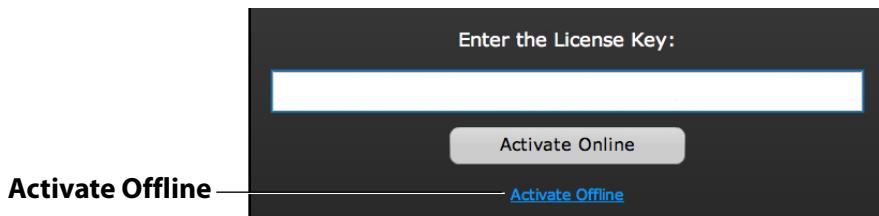
The Product Activation screen appears.



The Product Activation Screen

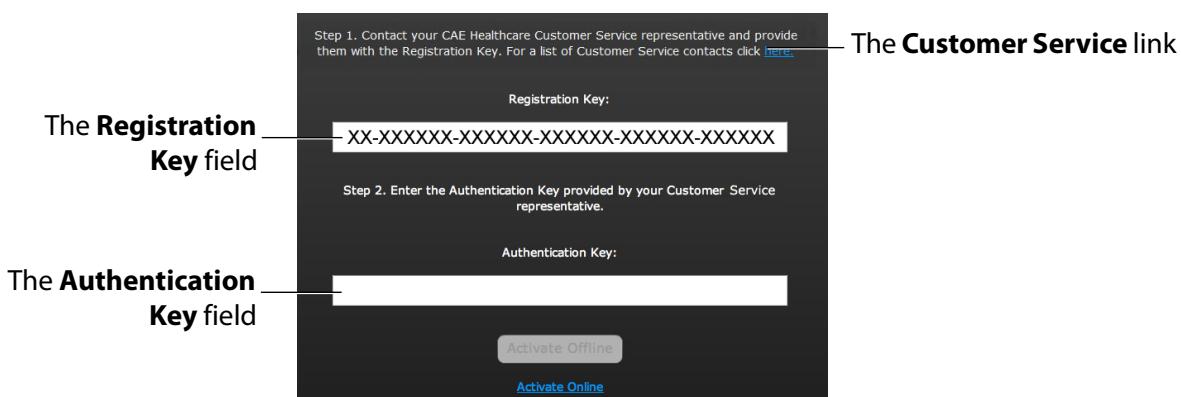
4. In the **License Key** field, enter the license key provided by CAE Healthcare.

5. Click the **Activate Offline** link.



The Product Activation Screen

The **Registration Key** and **Authentication Key** fields appear.



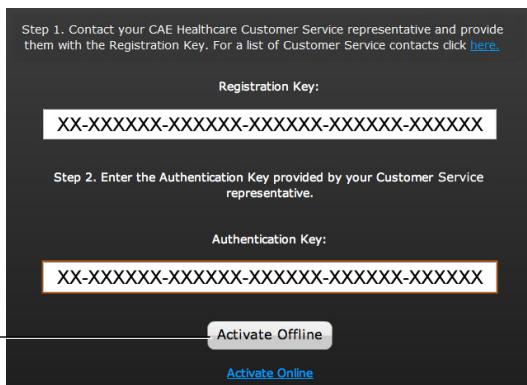
The Product Activation Screen

6. Call or email CAE Healthcare Customer Service and provide the registration key, which is pre-populated in the **Registration Key** field.

For CAE Healthcare Customer Service contact information, click the Customer Service link near the top of the Product Activation screen. When contacting Customer Service, please be sure to indicate whether you are requesting Activation or Deactivation.

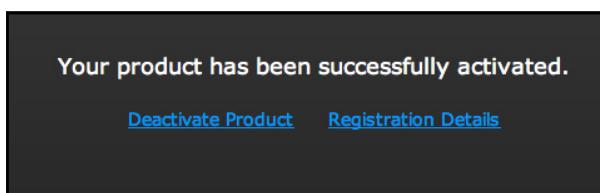
7. In the **Authentication Key** field, enter the authentication key provided by CAE Healthcare Customer Service.

8. Click **Activate Offline**.



The Product Activation Screen

The successful activation message appears.



The Successful Activation Message

NOTE: It may take up to one minute after the activation process for activation to take effect.

Deactivating Müse

The following Müse workstations can be activated online or offline:

- BabySIM
- ECS
- HPS
- iStan
- PediaSIM

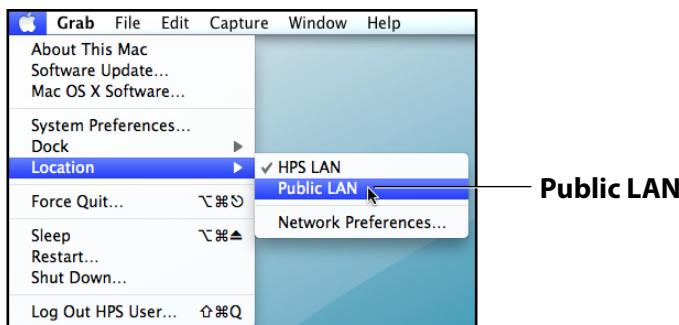
All other Müse Instructor Workstations must be activated **offline**.

IMPORTANT: Deactivating a workstation causes the Müse software on the workstation to stop functioning. Only deactivate a workstation when you are sure you no longer need to use it with the Müse software.

Deactivating Online

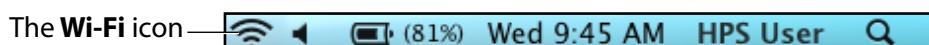
To deactivate a Müse workstation online:

1. If deactivating an Instructor Workstation, follow steps *a* through *d* below. If deactivating an SCE Development Workstation, skip to step 2.
 - a. From the **Apple** menu, scroll over **Location** and select **Public LAN**.



The Apple Menu

- b. On right side of the menu bar at the top of the screen, click the **Wi-Fi** icon.



The Menu Bar

The **Wi-Fi** menu appears.

- c. From the **Wi-Fi** menu, ensure that Wi-Fi is turned **On**.

NOTE: On some older Mac computers, Wi-Fi is called AirPort.



The Wi-Fi Menu

If Wi-Fi is not turned **On**, select **Turn Wi-Fi On**.



The Wi-Fi Menu

- d. Select a wireless network with Internet access.



The Wi-Fi Menu

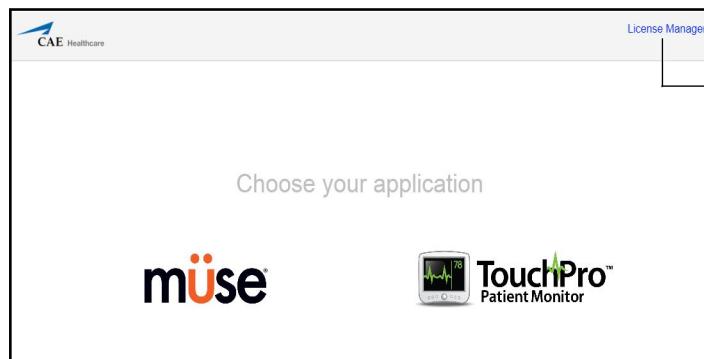
It may be necessary to enter a password to join the wireless network.

Contact your network administrator or IT professional to complete this step, if necessary.

Once the Instructor Workstation is connected to an Internet-enabled wireless network, proceed to step 2.

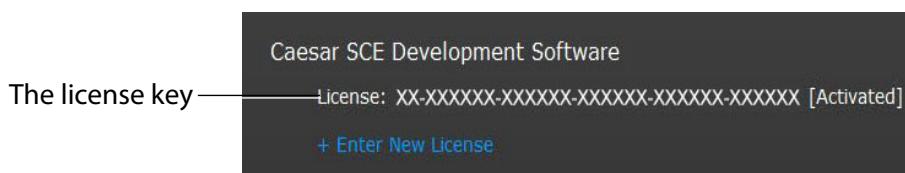
2. Launch Müse.

- From the Müse start screen, click the **License Manager** link.



The Müse Start Screen

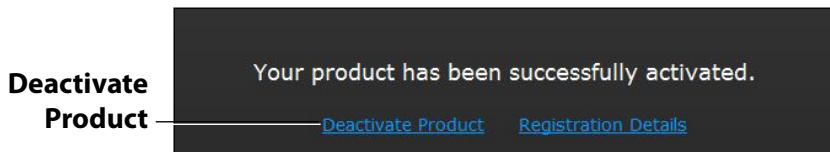
The License Manager appears.



The License Manager

- From the License Manager, make a note of the license key to be deactivated. This license key will be needed if you wish to activate a new workstation.
- Click on the license key to be deactivated.

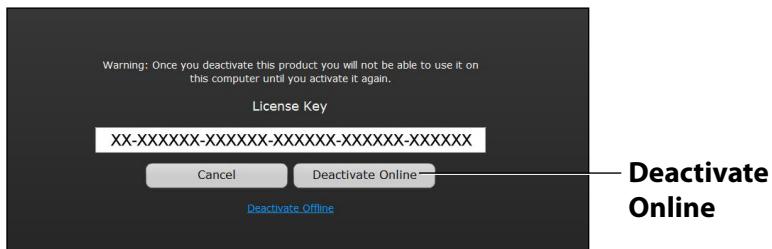
The Product Activation screen appears.



The Product Activation Screen

6. On the Product Activation screen, click the **Deactivate Product** link.

The Product Deactivation screen appears. The license key field is pre-populated.

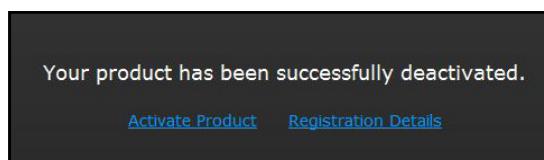


The Product Deactivation Screen

7. Click **Deactivate Online**.

The Deactivating Product message appears.

After a few moments, the successful deactivation message appears.



The Successful Deactivation Message

NOTE: It may take up to one minute after the deactivation process for deactivation to take effect.

8. If deactivating an SCE Development Workstation, no further action is needed. The workstation has been deactivated.

If deactivating an Instructor Workstation, proceed to step 9.

9. Re-connect the Instructor Workstation to the simulator network:

a. Ensure the simulator is powered on.

b. From the **Apple** menu, scroll over **Location** and select **HPS LAN**.



The Apple Menu

- c. On right side of the menu bar at the top of the screen, click the **Wi-Fi** icon.



The Menu Bar

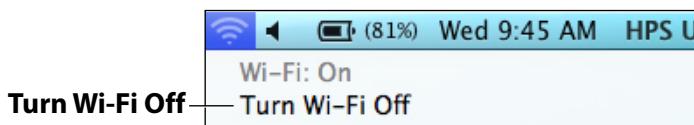
The **Wi-Fi** menu appears.

- d. From the **Wi-Fi** menu, if using a wireless simulator such as iStan, select the simulator's wireless network. The simulator network is labeled with the simulator name and unit number (e.g., iStan113).



The Wi-Fi Menu

If using a wired simulator (i.e., ECS, PediaSIM ECS, BabySIM, HPS or PediaSIM HPS), select **Turn AirPort Off**.



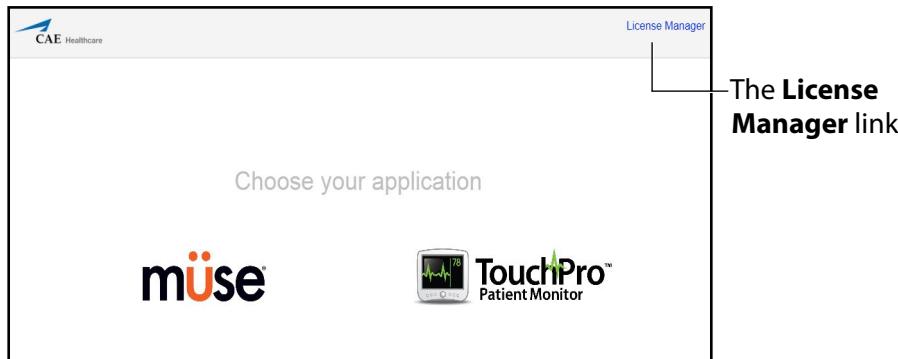
The Wi-Fi Menu

The Instructor Workstation has been deactivated and restored to its original network settings.

Deactivating Offline

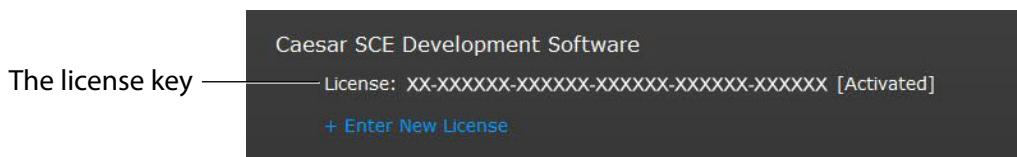
To deactivate a Müse workstation offline:

1. From the Müse start screen, click the **License Manager** link.



The Müse Start Screen

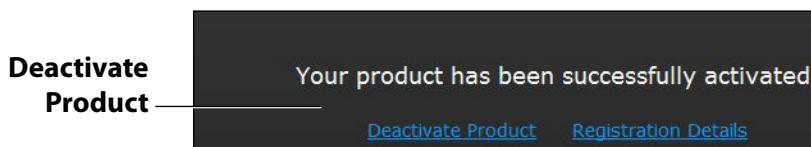
The License Manager appears.



The License Manager

2. From the License Manager, make a note of the license key to be deactivated. This license key will be needed if you wish to activate a new workstation.
3. Click the license key to be deactivated.

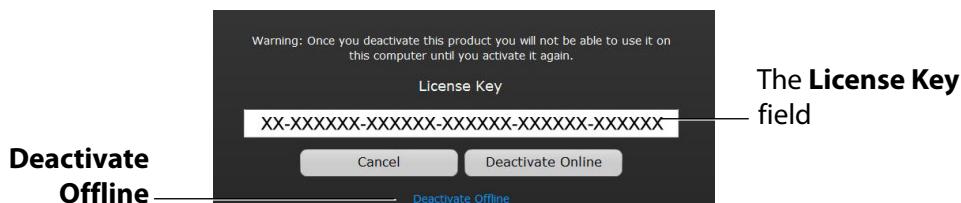
The Product Activation screen appears.



The Product Activation Screen

4. Click **Deactivate Product**.

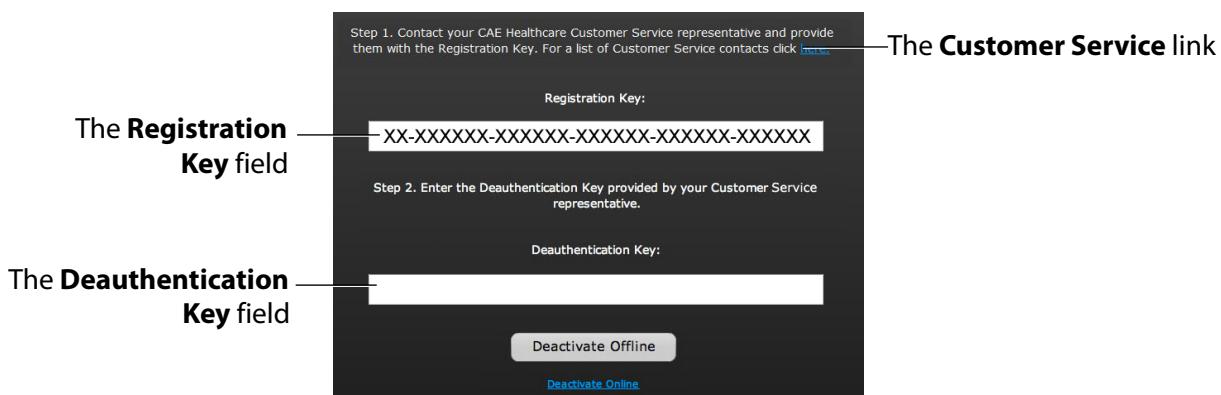
The Product Deactivation screen appears. The **License Key** field is pre-populated.



The Product Deactivation Screen

5. Click **Deactivate Offline**.

The **Registration Key** and **Deauthentication Key** fields appear.



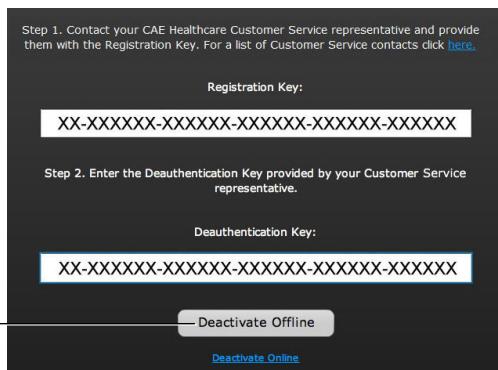
The Product Deactivation Screen

6. Call or email CAE Healthcare Customer Service and provide the registration key, which is pre-populated in the **Registration Key** field.

For CAE Healthcare Customer Service contact information, click the Customer Service link near the top of the Product Deactivation screen. When contacting Customer Service, please be sure to indicate whether you are requesting Activation or Deactivation.

7. In the **Deauthentication Key** field, enter the deauthentication key provided by Customer Service.

8. Click **Deactivate Offline.**



The Product Deactivation Screen

A confirmation key appears.



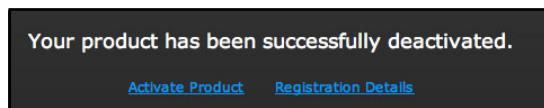
The Product Deactivation Screen

9. Provide the confirmation key to Customer Service.

IMPORTANT: You MUST complete this step in order to complete your product deactivation. If you do not complete this step, you will be unable to activate a new SCE Development Workstation in place of the old workstation.

10. Click **Complete.**

The successful deactivation message appears.



The Successful Deactivation Message

NOTE: It may take up to one minute after the deactivation process for deactivation to take effect.

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Apollo

Maintenance, Tips & Tricks

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Recommended Sizes for Clinical Supplies

Apollo

Item	HPS®	PediaSIM® HPS	iStan®	METIman® PreHospital	METIman® Nursing	ECS®	Caesar™	PediaSIM ECS®	BabySIM®	Fidelis™ Lucina
Urinary Catheter	14 - 16 Fr	10 Fr	16 Fr	16 Fr	14 - 16 Fr	14 - 16 Fr		10 Fr		14 - 16 Fr
Nasogastric Tube Insertion	14 Fr **	10 Fr **	14 Fr **	14 Fr **	14 Fr *	14 Fr **		10 Fr **	8 Fr **	14 Fr **
Gastric Lavage / Gavage					14 Fr *					
Airway Suctioning					14 Fr *					
ETT	7.0 - 8.0 mm	5 mm Uncuffed	7.0 - 7.5 mm	7.0 - 7.5 mm		7.0 - 7.5 mm	7 mm	5 mm Uncuffed	3.5 mm Uncuffed	6.5 - 7.5 mm
LMA Unique	#3	#2	#4	#4			#3	#2	#1.5	#4, #5
King LTS-D LT-D			#4	#4			#4			#4
Combitube	37 Fr		37 Fr	37 Fr		37 Fr	37 Fr			41 Fr
Oropharyngeal Airway	90 mm	60 mm	90 mm	90 mm	90 mm	90 mm		60 mm	43 mm	90 mm
Nasal-Pharyngeal Airway	30 Fr 7.5 mm	24 Fr 6 mm	30 Fr 7.5 mm	30 Fr 7.5 mm	30 Fr 7.5 mm	30 Fr 7.5 mm		24 Fr 6 mm	20 Fr 5 mm	28 Fr
Tracheostomy Tube	6 mm	3.5 mm	6 mm	6 mm	6 mm	6 mm		3.5 mm		
IV Cannula	18 - 22 g	20 - 22 g		18 - 22 g	18 - 22 g	18 - 22 g	16 g	20 - 22 g	20 - 22 g	14 - 20 g
Chest Tube	24 - 28 Fr	20 Fr	28 Fr	28 Fr	26 - 28 Fr	28 Fr		20 Fr	12 Fr	
Needle Decompression	14 g 6 cm	14 g 6 cm	14 g 6 cm	14 g 6 cm		14 g 6 cm	14 g 6 cm	14 g 6 cm	14 g 6 cm	
Pericardiocentesis	16 - 18 g 10 - 15 cm					16 - 18 g 10 - 15 cm				
i-gel Supraglottic Airway										#4
Intrauterine Balloon										24 Fr

* With fluid return

**Insertion only

Recommended Sizes for Simulator Clothing

Apollo

Item	HPS®	PediaSIM® HPS	iStan®	MMP® APP	MMN® APN	ECS®	Ceasar®	PediaSIM ECS®	BabySIM®
Diaper/Nappy									US = 12 - 15 lbs UK = 12 - 15 lbs E = 5.4 - 6.8 kg
Bra	US = 44 UK = 44 E = 100		US = 46 UK = 46 E = 105	US = 46 UK = 46 E = 105	US = 46 UK = 46 E = 105	US = 44 UK = 44 E = 100	US = 46 UK = 46 E = 105		
Underwear, Male	US = 40 UK = XL / 38 - 42 E = 8	US = 12 UK = 11 E = 146 - 152	US = 44 UK = XL / 38 - 42 E = 8	US = 40 UK = XL / 38 - 42 E = 8	US = 40 UK = XL / 38 - 42 E = 8	US = 40 UK = XL / 38 - 42 E = 8	US = 40 UK = XL / 38 - 42 E = 8	US = 12 UK = 11 E = 146 - 152	9 months
Underwear, Female	US = 10 UK = M E = 38	US = 12 UK = 11 E = 146 - 152	US = 10 UK = L E = 40	US = 10 UK = M E = 38	US = 12 UK = 11 E = 146 - 152	9 months			
Shirt, Male	US = XXL UK = XXL / 44 - 46 E = 111 - 116	US = M UK = 36 - 38 E = 46 - 48	US = XXL UK = XXL / 44 - 46 E = 111 - 116	US = XXL UK = XXL / 44 - 46 E = 111 - 116	US = XXL UK = XXL / 44 - 46 E = 111 - 116	US = XXL UK = XXL / 44 - 46 E = 111 - 116	US = XXL UK = XXL / 44 - 46 E = 111 - 116	Medium	9 months
Shirt, Female	US = XXL UK = XXL / 44 - 46 E = 111 - 116	US = M UK = 36 - 38 E = 46 - 48	US = M UK = 36 - 38 E = 46 - 48	US = XXL UK = XXL / 44 - 46 E = 111 - 116	US = XXL UK = XXL / 44 - 46 E = 111 - 116	US = XXL UK = XXL / 44 - 46 E = 111 - 116	US = XXL UK = XXL / 44 - 46 E = 111 - 116	Medium	9 months
Pants / Trousers, Male	US = 40W x 34L UK = 40W x 34L E = 102 x 62	US = 10 UK = 10 E = 140 - 146	US = 40W x 34L UK = 40W x 34L E = 102 x 62	US = 40W x 34L UK = 40W x 34L E = 102 x 62	US = 40W x 34L UK = 40W x 34L E = 102 x 62	US = 40W x 34L UK = 40W x 34L E = 102 x 62	US = 40W x 34L UK = 40W x 34L E = 102 x 62	US = 10 UK = 10 E = 140 - 146	9 months
Pants / Trousers, Female	US = 22W long UK = 24 E = 50	US = 10 UK = 10 E = 140 - 146	US = 22W long UK = 26 E = 52	US = 22W long UK = 24 E = 50	US = 22W long UK = 24 E = 50	US = 22W long UK = 24 E = 50	US = 22W long UK = 26 E = 52	US = 10 UK = 10 E = 140 - 146	9 months
Shoes	US = 11 Male UK = 11 - 12 E = 45 - 46	US = 6 UK = 5 E = 36.5 - 37	US = 11 Male UK = 11 - 12 E = 45 - 46	US = 11 Male UK = 11 - 12 E = 45 - 46	US = 11 Male UK = 11 - 12 E = 45 - 46	US = 11 Male UK = 11 - 12 E = 45 - 46	US = 11 Male UK = 11 - 12 E = 45 - 46	US = 6 UK = 5 E = 36.5 - 37	

US = United States **UK** = United Kingdom **E** = Europe

CARE AND MAINTENANCE

Maintaining Apollo requires careful treatment of the electronic and mechanical components. Each time Apollo is assembled or disassembled, make sure all components are properly handled and either removed from or placed into storage correctly.

Apollo Warranty Programs

General Information

CAE Healthcare patient simulator products come with a one-year Manufacturer's Warranty (excluding batteries and consumables). All warranties begin at date of shipment or CAE Healthcare installation. You may upgrade your first year Warranty to an Enhanced Warranty and receive remedial and planned maintenance. To prevent equipment downtime and delays after your warranty expires, we encourage you to contract for extended maintenance services for all subsequent years.

Units Out of Agreement

For units no longer under warranty requiring repairs, the Time and Materials service plan will apply.

To place an out-of-warranty unit under a warranty contract, CAE Healthcare reserves the right to have the patient simulator inspected by a CAE Healthcare-approved technician at the customer's expense. If necessary, the unit would have to be repaired at the customer's expense prior to issuance of a warranty contract.

The repairs required, as the result of the examination, will be quoted on a time and material basis.

How to Contact Customer Service

CAE Healthcare Customer Service Headquarters - United States and Latin America

Monday - Friday from 7:00 a.m. to 6:00 p.m. ET

Toll Free +1 (866) 462-7920

24-hour Hotline +1 (941) 342-5605

Fax +1 (941) 342-5600

Email Address: customerservice@caehealthcare.com

Web URL: www.caehealthcare.com

CAE Healthcare Customer Service - Canada

Monday - Friday from 8:00 a.m. to 5:00 p.m. ET

Toll Free +1 (877) 223-6273

Email Address: can.service@caehealthcare.com

CAE Healthcare Customer Service - Europe, Middle East and Africa (EMEA)

Monday - Friday from 8:00 a.m. to 5:00 p.m. CET

Phone +49 (0) 6131 4950354

Fax +49 (0) 6131 4950351

Email Address: international.service@caehealthcare.com

CAE Healthcare Customer Service - UK and Ireland

Monday - Friday from 9:00 a.m. to 5:00 p.m. GMT

Phone +44 (0)800-917-1851

Email Address: uk.service@caehealthcare.com

Principal hours of operation exclude holiday and non-business days.

Contract Period

Warranty contracts are not ordinarily offered for periods of less than one year. However, multiple-year warranty contracts may be arranged for up to an additional three years. Discounts are available for purchase of multiple-year contracts.

Limitations of Agreement

Your exclusive remedy for any defective patient simulator is limited to the repair or replacement of the defective patient simulator.

CAE Healthcare may elect which remedy or combination of remedies to provide at its sole discretion. CAE Healthcare shall have a reasonable time after determining that a defective material exists to repair or replace defective material. CAE Healthcare's replacement material will be manufactured from new and/or serviceable parts. CAE Healthcare's agreement applies to repaired or replaced materials for the balance of the applicable period of the original warranty or ninety days from the date of shipment of a repaired or replaced material, whichever is longer. CAE Healthcare warrants its LABOR for 30 days or the balance at the applicable period of the original warranty, whichever is greater.

CAE Healthcare shall not be liable under this warranty for incidental or consequential damages, or in the event of any unauthorized repairs or modifications have been made or attempted, or when the product, or any part thereof, has been damaged by accident, misuse or abuse. This warranty does not cover normal wear and tear, staining, discoloration or other cosmetic irregularities that do not impede or degrade product performance. Any damage or malfunction as a result of the installation of software or hardware, not authorized by CAE Healthcare, will be repaired under the Time and Materials service plan (see Time and Materials section).

CAE Healthcare's warranty does not cover products that have been received improperly packaged, altered or physically damaged. Products will be inspected upon receipt.

Some states in the USA do not allow the exclusion or limitations of incidental or consequential damages, so the limitations above may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

Return Materials Authorization (RMA)

No product may be returned directly to CAE Healthcare without first contacting CAE Healthcare for an RMA number. If it is determined that the product may be defective, you will be given an RMA number and instructions for product return. An unauthorized return, e.g., one for which an RMA number has not been issued, will be returned at your expense. Authorized shipments are to be shipped prepaid to the address on the RMA. Your original box and packaging materials should be kept for storing or shipping your product. To request an RMA, please contact Customer Service.

System Software Upgrade Support

Customers with current warranty contracts are entitled to receive upgrades to applications software previously purchased. Installation of the system software is the user's responsibility.

The System Software Upgrades Support includes software upgrades for base software and purchased optional software modules.

This does not apply for major upgrades or technological enhancements.

Pricing Structure

Time and Materials

For those systems not under agreement, service will be provided as required on a Time and Material basis:

Description	In-House	On-Site
Technical Support	As quoted at time of repair	CAE Healthcare's prevailing labor rate with a minimum of four hours labor
Material	As quoted at time of repair	As quoted at time of repair
Travel	N/A	Priced at CAE Healthcare's fully burdened cost plus fee

Principal period of on-site support (customer's local time) is:

- Monday through Friday, 8:00 AM to 5:00 PM (customer's time zone)
- Holiday and non-business days excluded
- Support outside the principle period is billed at the premium rate (hourly rate x 1.5)

A minimum of 48 hours notice is required for scheduling an on-site support call. Urgent on-site support with less than 48 hours notice will be charged at the premium hourly rate.

On-site time is described as the time period commencing from arrival at customer site through departure from customer site.

Breakdown

After each use, Apollo should be properly disassembled and stored in a secure place. To ensure that Apollo remains in good working condition, follow the prescribed CAE Healthcare breakdown procedures below. These procedures are estimated to take less than 30 minutes.

Breakdown Steps	
1	Stop A Running SCE
2	Clean the Simulator and the Fluid System
3	Shut Down the Software
4	Power off the Simulator

Step 1: Stop A Running SCE

Stop a running SCE using the **Stop** button in the upper right corner of the Müse software

Step 2: Clean the Simulator and the Fluid System

Refer to the Maintenance Advice on the following pages for detailed instructions.

Step 3: Shut Down the Software

To shut down the Müse software:

- a. Stop any running SCEs.
- a. Click the Account Name in the lower, right-hand corner of the screen. The Logout/Shutdown dialog box appears.
- b. Click **Logout** to exit the software.

To shut down Vívó, refer to the *Using Vívó* section of this guide.

To shut down the TouchPro software (optional):

- a. Click the **Settings** button from the bottom, right-hand corner of the TouchPro screen.
- b. From the Settings menu, click **Shutdown**. A warning box appears asking if you want to exit.
Click **Shutdown**.

Step 4: Power Off the Simulator

- c. Carefully pull back the skin on Apollo's left hip and hold the power button for two seconds. The light on the button will blink, indicating shutdown is in progress. Allow up to 30 seconds for complete shutdown. The light will turn off when shutdown is complete.
If the simulator fails to shut down when these steps are performed correctly, press and hold the power button for five seconds to force the system to shut down.
- d. Carefully put the skin back into place for storage.

Scan or click the QR code to access the *Shutting Down Simulator* video tutorial on caehealthcare.com.

Maintenance Advice

Simple care and maintenance helps to ensure that your simulator stays in good working condition. Many problems are caused by inadequate or improper maintenance. Perform a thorough check of the various components each time the simulator is used. Failure to follow these guidelines can lead to damage not covered by warranty.

General Simulator Care

Avoid the use of writing instruments and sharp objects near the patient simulator to prevent unattractive markings on or tears in the skin.

Lubricate airway adjuncts, urinary catheters and chest tubes with silicone spray (NOT a water-based lubricant) prior to insertion.

A mild detergent and warm water will remove most marks and stains. Gently rub the soiled area with a soft cloth. Do NOT use solvents or abrasive pads.

Prior to using moulage of any kind, CAE Healthcare suggests the application of a very light coating of petroleum jelly, followed by a light dusting of baby powder, to the simulator's skin. This application makes cleaning the skin easier.

If any of Apollo's fluid systems have been used, flush out the simulator as described in the following pages. Failure to flush the systems may cause damage to the simulator.

Storage

With regular use, the breakdown procedure and general cleanup should be sufficient to prepare the simulator for storage.

In addition, be certain to follow these instructions:

- Storage temperature should not exceed 122° F (50° C) or fall below 41° F (5° C).
- If a soft-sided simulator case is being used, the simulator should lie flat.
- The simulator should NEVER be stored or shipped with fluids in the system.

Care of Electronic Equipment

Install any CAE Healthcare software updates as soon as they become available.

Airway Inspection

Apollo is equipped with an anatomically accurate airway that supports the practice of difficult airway management techniques. In the process of performing these techniques improperly or aggressively, the upper airway can be damaged.

Because damage can occur, occasional visual inspection of the airway is recommended. Using the light of a laryngoscope blade or a flashlight, visually examine the airway. While tears in the upper airway resulting from intubation may be obvious, needle holes in the lower trachea resulting from techniques such as transtracheal jet ventilation may not be readily apparent.

If damage to the airway is found, small cuts or tears may be repairable with silicone adhesive. However, for permanent repair of damaged simulators, contact CAE Healthcare Customer Service.

Replacing the Battery

After approximately four hours of use, the simulator's battery must be removed to be recharged or replaced with a charged battery.

WARNING : When handling Apollo's batteries, be sure to adhere to all the cautions and warnings.

To replace the battery:

1. Unzip the chest skin.



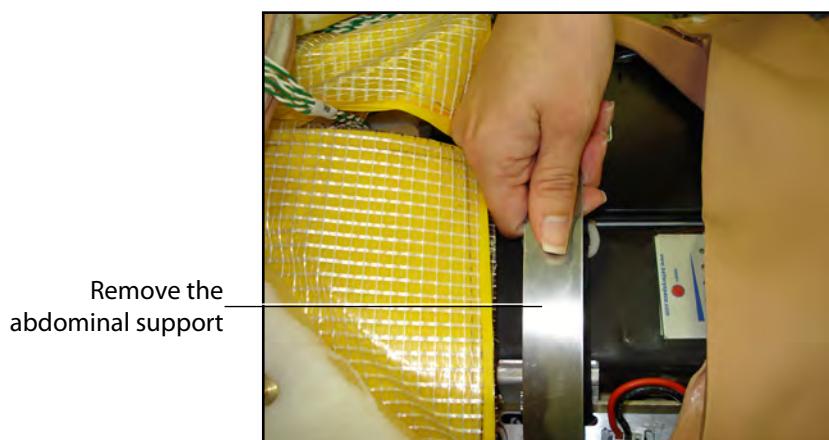
Unzipping the Chest Skin

2. Lift the abdominal insert.



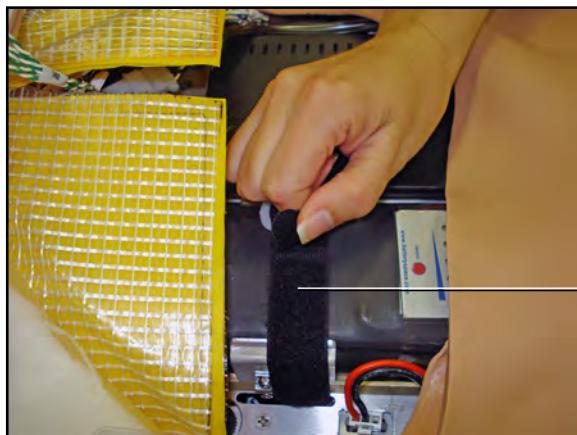
Lifting the Abdominal Insert

3. Remove the abdominal support.



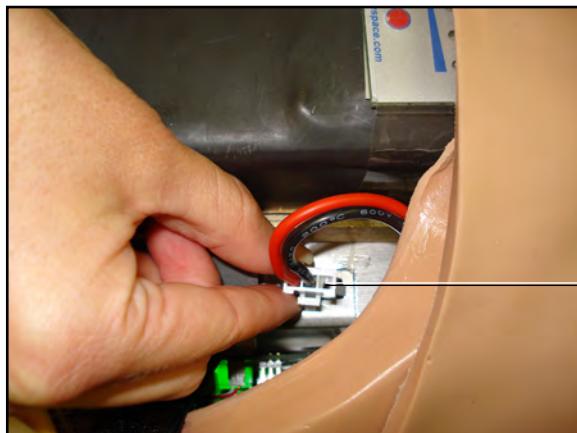
Removing the Abdominal Support

4. Release the Velcro battery tie-down.



Releasing the Battery Tie-Down

5. Disconnect the battery leads.



Disconnecting the Battery Leads

6. Remove the uncharged battery.



Removing the Battery

7. Insert a charged battery and affix the battery tie-down.
8. Connect the battery leads and replace the abdominal support, ensuring both ends are secure in the slits.
9. Replace the abdominal insert and chest skin.

Recharging the Battery

The battery should be recharged after approximately four hours of use.

To recharge the battery, disconnect and remove the battery from the simulator and connect to the external charger provided.

WARNING: When handling Apollo's batteries, be sure to adhere to all the cautions and warnings.

Recharging should take approximately four hours.

IMPORTANT: Never recharge the battery while it is connected to Apollo.

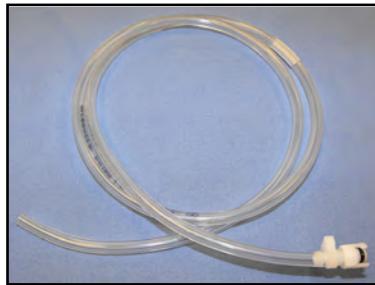
Draining Condensation from the Simulator

As part of a regular preventive maintenance schedule, condensation should be drained from the simulator.

Depending on environmental conditions, moisture may condense inside the compressed air lines and tanks within the simulator. It is recommended that this fluid be drained every 40 hours of operation. In outside, high-humidity conditions, the system should be drained more frequently.

To drain condensation:

1. Locate the Condensation Drain Hose included with the Inventory Kit.



Condensation Drain Hose

2. Bring the hose and a small bucket to the simulator location.
3. Locate the **EXTERNAL AIR** port on Apollo's left shoulder.
4. With assistance, place Apollo into a supine position.
5. Power on Apollo. Do NOT launch the Müse software.
6. Allow 60 seconds for the internal compressor to pressurize the system.
7. Power down Apollo.
8. With assistance, raise the left leg 45 degrees.
9. Place the tubing end of the Condensation Drain Hose into the small bucket and then connect the fitting onto the simulator's drain connector. There will be a sudden release of pressure into the bucket. Any condensation within the system drains with this exhaust.
10. Disconnect the Condensation Drain Hose from the simulator.

Cleaning the Simulator and the On-Board Bleeding System

NOTE: A small bucket is recommended to collect wastewater during cleaning and flushing operations.

To clean and maintain the simulator and On-Board Bleeding system:

1. Remove and clean the wound haptics.
2. Connect the beige-colored "fill" connector from the Trauma Fill Tank to the hip, but do not connect the white "vent" connection.
3. Open the yellow Pressure Relief knob clockwise on the Trauma Fill Tank or loosen its Fill Lid so the tank is able to vent during this draining process.
4. With the wound umbilicals in place, put the ends of both wound umbilicals into a wastewater bucket.
5. From the Müse home screen, click the **System Administration** button in the top right of the screen.

6. From the Maintenance screen, click **Flush System**. The fluid begins to drain.
7. Verify both channels produce a high, steady flow.
8. When fluid stops flowing from either wound umbilical, detach the Fill Tank from the simulator.
9. When fluid stops flowing from the lower wound umbilical, detach from the simulator.
10. When fluid stops flowing from the upper wound umbilical, detach from the simulator.
11. Click **Done** on the Maintenance screen. The fluids are now drained.
12. Empty the wastewater bucket.
13. Rinse out the Trauma Fill Tank and fill with approximately 1 liter of clean, distilled water.
14. Pump this fluid into the simulator.
15. Repeat Steps 3 through 7 and 9 through 15 until the fluid exiting the simulator runs clear.
16. Empty the Fill Tank and dry the wound umbilicals with a towel before storage.

NOTE: It takes two to three minutes for this final flush.

Once a month, it is advised to flush the system with a mix of 50% distilled water and 50% white vinegar to keep mineral and algae buildup to a minimum. Always perform the steps for Flushing the Simulator afterward to remove vinegar.

Cleaning the Trauma Fill Tank

To prolong the life of the Trauma Fill Tank assembly and the fluid reservoirs, wash and flush the tank and connections after each use with clean distilled water.

NOTE: A small bucket is recommended to collect wastewater during cleaning and flushing operations.

Do NOT store liquids in the Trauma Fill Tank. If simulated blood mixtures are stored in the tank, they may clog the system when they dry and possibly damage the seals, filter and other components.

1. Remove and rinse the Overflow Bottle.
2. Remove and rinse the Pump Assembly.
3. Rinse the tank to remove all traces of the simulated blood.
4. Pour 480 mL (16 oz) of distilled water into the tank and reinstall the Pump Assembly. (The Overflow Bottle holds 16 ounces.)
5. Place the Overflow Bottle lid with umbilical attached into the wastewater bucket.

6. Attach the fill (blue-labeled) and vent (yellow-labeled) fittings together at the other end of the umbilical.
7. Pump the tank 25 times while making sure the wastewater is going into the bucket.
8. Allow the tank to empty completely (the remaining air pressure will purge the fluid from the lines).
9. Reinstall the lid onto the Overflow Bottle and place the bottle back onto the tank assembly.
10. Remove the Pump Assembly and pour any remaining fluid out of the tank. Then, reinstall the pump.
11. Disconnect the fill and vent fittings from each other and wrap the Trauma Tank Umbilical around the neck of the tank.

Always depressurize the tank, remove trauma fluid and clean the tank before performing maintenance. The pump assembly may need periodic lubrication. Call CAE Healthcare Customer Service for details if the pump loses the ability to create pressure, squeaks loudly or is difficult to move.

Scan or click the QR code to access the *Cleaning the Trauma Fill Tank* video tutorial on caehealthcare.com.

Cleaning the In-Line Filter

To clean the in-line filter:

1. Grasp both ends of the in-line filter and twist counterclockwise.
2. Pull apart both ends of the filter to separate.
3. Remove the blue filter cone from the encasement. Do NOT remove the black rubber seal.
4. Using a 60 mL syringe with distilled water, push fluid from the outside of the blue filter cone to the inside, removing all debris.
5. Repeat process until all debris is removed.
6. Re-assemble the in-line filter, ensuring the black rubber seal is in place at the base of the blue filter cone.



The In-Line Filter

Troubleshooting the Trauma Fill Tank

Before making any repairs, ALWAYS depressurize the tank, remove all trauma solution and clean the tank.

Problem	Cause	Solution
Tank can be pressurized, but only air comes out.	Siphon tube has detached from insert.	Remove hose from tank and reinsert siphon tube.
Pressure does not build up. No fluid is transported to simulator.	(1) Pump assembly not sealed tightly into tank or (2) Damaged pump cylinder gasket or o-ring or (3) Tank pressure relief valve is set to "open."	(1) Thoroughly clean pump cylinder gasket or o-ring and surrounding area and apply a light coating of silicone to pump gasket or o-ring. (2) Contact CAE Healthcare for service. (3) Turn valve until it returns to a "sealed" position.
Simulator fill time is too long (more than 5 minutes).	(1) Not enough strokes applied to create pressure or (2) The in-line filter is dirty or (3) The umbilical is disconnected at Overflow Bottle or (4) Too much fluid in fill tank.	(1) Pump 25 to 35 times for best performance. (2) Clean filter. (3) Reconnect the overflow fitting. (4) The Trauma Fill Tank works best with 1 gallon (3.6 liters) of fluid inside. If greater amounts of fluid are used, tank may require additional pumps as fluid is transported to simulator.

Emptying and Flushing the Chest Tube Reservoir

Removing fluids from the Chest Tube reservoir and the Chest Tube system requires the same steps.

To empty the Chest Tube reservoir or flush the Chest Tube system, have a chest tube and a basin to catch fluid in place. Use a syringe to slowly push air through the appropriate **CHEST TUBE** port until only air flows through the chest tube.

Flushing the IV Lines

To flush the IV lines:

1. Connect an empty IV bag to the **IV DRAIN** port.
2. Using a syringe, slowly push air into the **IV FILL** port. The fluid drains out of the **IV DRAIN** port.
3. Continue to push air until empty.

Emptying the Genitourinary Reservoir

To empty the Genitourinary reservoir, have a catheter in place and a basin to catch fluid. Use a syringe to slowly push air through the **GU** port until only air flows through the catheter.

Emptying the Head Secretions Lines (Prehospital Only)

To remove fluid from the Head Secretions lines, connect a syringe to the **NOSE** port and vacuum out fluid until empty. Repeat this process for the **MOUTH** and **EYES** ports.

Emptying the Airway Secretions Reservoir (Nursing Only)

To empty the Airway Secretions reservoir, connect a 60 mL syringe to the **AIRWAY FILL** port and vacuum out fluid until empty.

Flushing the Subclavian Catheter (Nursing Only)

When flushing the Subclavian Catheter, the catheter must be in place.

To flush the Subclavian Catheter:

1. Connect an external drain to the **IV DRAIN** port and place a basin to catch fluid.
2. Using a syringe, slowly push air into the **IV FILL** port. The fluid drains out of the **IV DRAIN** port.
3. Continue to push air until empty.
4. Using the same syringe, push air through the Subclavian Catheter until empty.

Handling CO₂ Canisters (Prehospital Only)

Careful handling is required in the use of CO₂ canisters. Please read and follow all appropriate cautions and warnings.

Removing CO₂ Canisters from the Regulator

The following instructions describe how to safely remove the CO₂ canister from the regulator assembly for replacement or shipping.

CAUTION: If unsure that CO₂ canister is empty, eye and hand protection must be worn to protect from release of freezing gas or liquid.

1. Remove the CO₂ regulator assembly from the simulator.
2. While holding the regulator assembly firmly, slowly unscrew the CO₂ canister from the regulator. There is a small relief hole in the side of the regulator from which any remaining CO₂ will bleed. If this should happen, no harm will be done to system, but it is rather noisy and the rapid release of CO₂ gas can freeze the canister's surface and cause frostbite to unprotected skin.
3. Continue unscrewing the canister until it is free from the assembly.

Important Canister Information

The 16 Gram CO₂ Canister with threaded neck is available at most sports equipment retailers - most often used for bicycle tire inflators. We recommend purchasing Leland brand canisters (P/N 82122Z), which are also available from CAE Healthcare.

Punctured canisters are considered to be empty. No residue remains in the canister after use. The steel used is a low carbon type, which rusts if disposed in a landfill. If your community requires recycling, then place with normal household recycling.



CO₂ Canisters are considered by the U.S. Department of Transportation to be "Other Regulated Materials - Domestic" (ORM-D). Ground shipping containers must be clearly marked with this label. CO₂ Canisters are considered hazardous material when offered for air transportation, so different rules apply. Contact carrier for details and instructions.



Related CAUTIONS/WARNINGS

CO₂ Canister

- Store the CO₂ canisters in a dry location between 32° and 104° F (0 to 40°C).
- Do not expose the CO₂ canister to heat above 140° F, as rupture may occur.
- Never point the CO₂ canister towards your face or someone nearby.
- Use only CAE Healthcare specified CO₂ canisters.

CO₂ Regulator Assembly

- Care must always be taken when using high-pressure equipment.
- Do not disassemble or alter regulator.
- Dry completely if the regulator becomes wet.
- Discontinue use of this equipment if leakage or visible damage is evident.

Use of Equipment

- Canister end becomes punctured when screwed into regulator base and therefore should not be removed until empty.
- Unscrewing canister before it is empty will result in sudden release of all high-pressure gas with a possibility of liquid CO₂ spray. Unprotected skin could receive freezing burns.
- Wear protective gloves and eye protection when removing canister from regulator assembly.
- Remove CO₂ canister from regulator assembly when shipping simulator.

Scan or click the QR code to access the *Using a CO₂ Canister* video tutorial on caehealthcare.com.

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WIRELESS VOICE LINK

This information is intended to assist in preparing Wireless Voice Link (WVL) devices for use in conjunction with Apollo.

Cautions and Warnings

This device complies with part 15 of the FCC Rules and with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme aux normes d'Industrie Canada exempts de licence RSS (s). Son fonctionnement est soumis aux deux conditions suivantes:

1. Cet appareil ne doit pas provoquer d'interférences.
2. Cet appareil doit accepter toute interférence, y compris les interférences pouvant provoquer un fonctionnement indésirable de l'appareil.

Any modifications made to this device without the express approval of CAE could void the user's authority to operate this equipment.

What's Included

The WVL package includes the following items:

- Wireless Voice Link Handset (1)
- Olympus ME52W Standalone Microphone (1)
- AAA Alkaline Batteries (2)
- Quick Start Guide (1)

How It Works

The WVL is a radio pair that operates in the 2.4 GHz unlicensed radio band. The handset communicates wirelessly with the base station located inside the simulator. The base station converts the digitized microphone stream from the handset and outputs it via the base station to the headphone and line out jacks. The output projects through the head speakers inside the simulator.

To accommodate multiple WVL pairs in close proximity, each WVL is assigned two RF channels on which to operate. The RF channels divide up the 2.400 – 2.4835 GHz spectrum in 80 single frequencies to prevent the WVLs from interfering with each other.

Due to the nature of the unlicensed 2.4 GHz band, there may be other devices such as Wi-Fi, microwave ovens or Bluetooth® radios operating in the 2.4 GHz band as well. Therefore, two channels are used to transmit the audio stream redundantly to avoid interference. In case there is an interference in one channel, the other can be used to extract the audio stream.

To operate correctly, both the handset and base station should be set to the same frequency using the DIP switches located in the devices. If the interference is too high, the WVL firmware has the ability to change channels automatically to avoid interruption. This process occurs simultaneously in both the handset and the base station without the need for user intervention. The units revert back to the original frequency set on the DIP switches when both devices are restarted using the power switch.

Recommendations for Use

To receive the best sound quality from the WVL, please note the following recommendations:

- Do not separate the WVL pair with more than two walls.
- Use channels 0 through 11 for the best sound quality.
- Use channels 12 through 31 if more than 12 simulators are present in one area.

Wireless Voice Link Devices

There are two unique devices that make up a WVL pair: the handset device and the base station device. The base station device is located inside the simulator, while the handset device is battery powered and carried by the user. The handset transmits voice input through a microphone to the base station receiver, where it is transmitted to the speakers in the simulator's head. The two different devices can be identified by their cases.

The handset device has a cover that extends over the length of the antenna.



WVL Handset

The base station device antenna is almost fully exposed.

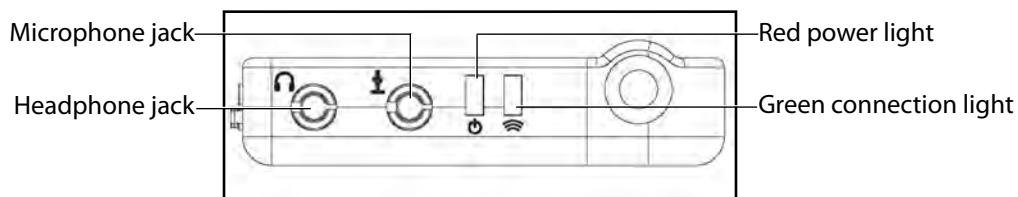


WVL Base Station

Physical Features

The following features are located on the top of the WVL devices:

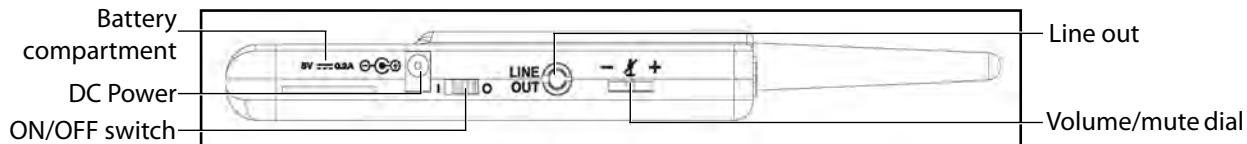
- **Headphone jack:** Used to plug in headphones or an iPhone compatible headphone/microphone combination
- **Microphone jack:** Used to plug in a standalone microphone
- **Red power light:** Indicates when the unit is powered on by blinking. Also indicates when the Mute button is activated by solidly staying on.
- **Green connection light:** Indicates an RF link connection between the handset and base station by blinking.



WVL Front View

The following features are located on the side of the WVL devices:

- **Battery compartment:** Houses two AAA batteries and the DIP switch.
- **DC power jack:** Accommodates a 5VDC/0.2A power source.
- **ON/OFF switch:** Turns WVL handset power on or off.
- **Line out jack:** Connects the WVL to the simulator's audio amplifier.
- **Volume/mute dial:** Controls microphone gain and microphone mute on the handset.



WVL Side View

On the WVL handset, the volume/mute dial controls the microphone volume or mutes the microphone.

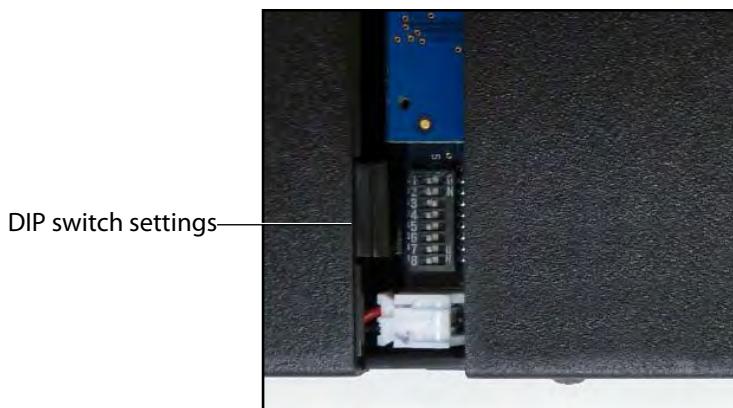
On the WVL base station, the dial serves as the volume control for the speakers inside the simulator. Moving the dial toward the plus sign increases the volume. Moving the dial toward the minus sign decreases the volume and setting. On the handset, pressing straight down on the volume dial in the center mutes the microphone.

Preparing the Base Station in the Simulator

When using the base station in the simulator, ensure the batteries are removed and the following items are attached:

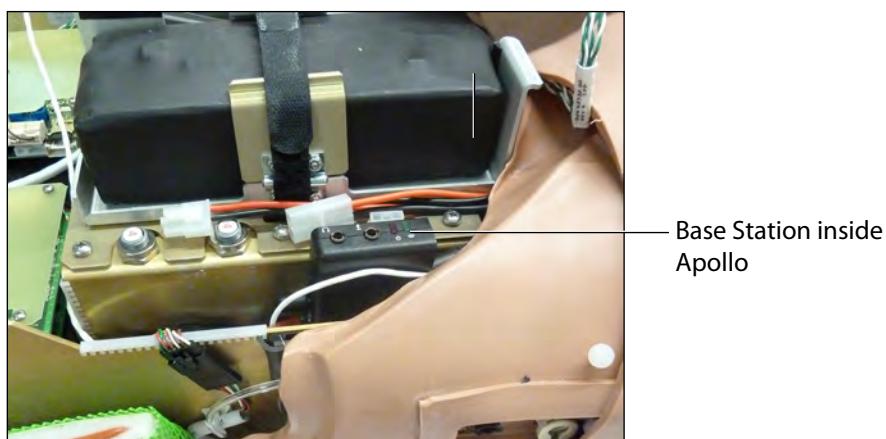
- Power cable
- Line out cable

The DIP switch is located in the battery compartment of the base station (Figure 5: DIP Switch Settings).



Dip Switch Settings

The base station should come already connected and installed inside the simulator.

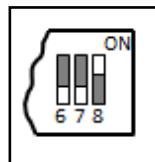


The Base Station Connected and Installed

To prepare the base station:

1. Set the base station DIP switch positions 6 and 7 to OFF, and 8 to ON.

2. Turn the power off and on using the power switch on the outside of the base station to ensure the DIP switch changes take effect.
3. Leave the power switch on the outside of the base station in the on position.



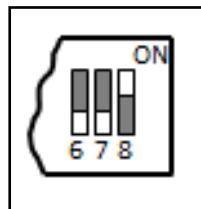
DIP Switch Settings for the Base Station

NOTE: Since the base station receives power from the simulator, the power switch on the outside of the base station must remain in the ON position. Use this power switch to refresh DIP switch settings. Do not turn the simulator off and on to refresh the DIP switch settings.

Preparing the Handset for Use

To prepare the handset for use:

1. Insert two AAA batteries into the battery compartment.
2. Set the handset DIP switch positions 6 and 7 to OFF and position 8 to ON.
3. Turn the power switch off and back on to ensure the DIP switch changes take effect.



DIP Switch Settings for the Handset

While DIP switch positions 6 through 8 affect the handset and base station settings, DIP switch positions 1 through 5 are used to set the radio frequency channel used for communication between the handset and the base station.

Selecting the Radio Frequency Channel

There are two ways to configure the radio frequency (RF) channel spacing. The first method reduces channel-to-channel interference, but allows only 12 channels to operate simultaneously in the same vicinity. The second method increases the number of channels that can be used simultaneously to 20 channels. However, this method diminishes the channel-to-channel noise immunity.

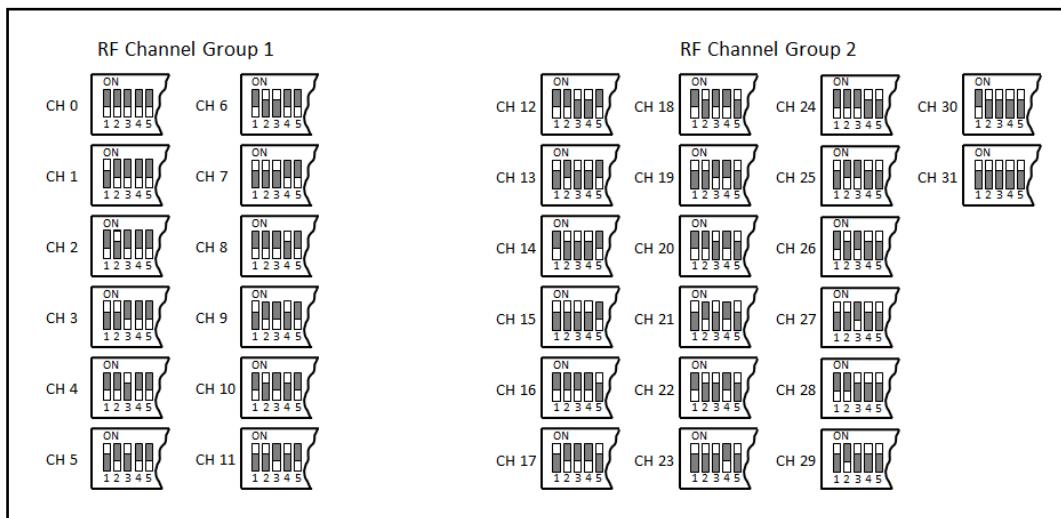
All of the WVL pairs in the same vicinity must use channels from RF Channel Group 1 or RF Channel Group 2, and channels must belong to the same group. The DIP switch determines the initial

communication frequencies that the WVL pair use to communicate when the power of the base station and handset is first turned on. If there is too much interference at the initial channel, the WVL pair changes frequency automatically and continues operating. The WVL pair repeats this process automatically as needed and changes frequencies when interference is too high.

Multiple WVL pairs can be set to the same initial frequency. However, setting different initial frequencies helps the WVL pairs quickly find a stable operating frequency.

For example, if there are 12 or fewer simulators in the same vicinity, set all of the WVL pairs to use channel 0 of RF Channel Group 1. To give unique initial RF frequencies, assign each WVL pair to its own RF channel with the settings found in CH 0 through CH 11.

If you have 13 to 20 simulators in the same vicinity, set all of the WVL pairs to use channel 12 of RF Channel Group 2. To give unique initial RF frequencies, assign each WVL pair to its own RF channel with the settings found in CH 12 through CH 31.



RF Channel Selection Methods

For a complete list of the initial frequencies associated with the RF Channels, see *RF Channel Initial Operating Frequencies*.

Powering Up the WVL Pair

To power up the WVL pair:

Power on the base station by turning on the simulator. The base station power switch is in the on position by default.

Power on the handset by setting the power switch to the on position.

The red power light on each unit blinks when the unit is on. Once both units are powered on and communicating with each other, the green connection light flashes once every second.

If the green connection light fails to blink, ensure both units are set to the same RF channel.

If you make changes to the DIP switch settings, toggle the power switches of the handset and base station off and back on to ensure the changes takes effect.

Using the iPhone/Standalone Microphone

DIP switch position 6 on the handset determines if the iPhone microphone input or the standalone microphone input is enabled. When DIP switch position 6 is set to the OFF position, the standalone microphone jack is enabled for the standalone microphone, provided by CAE Healthcare.

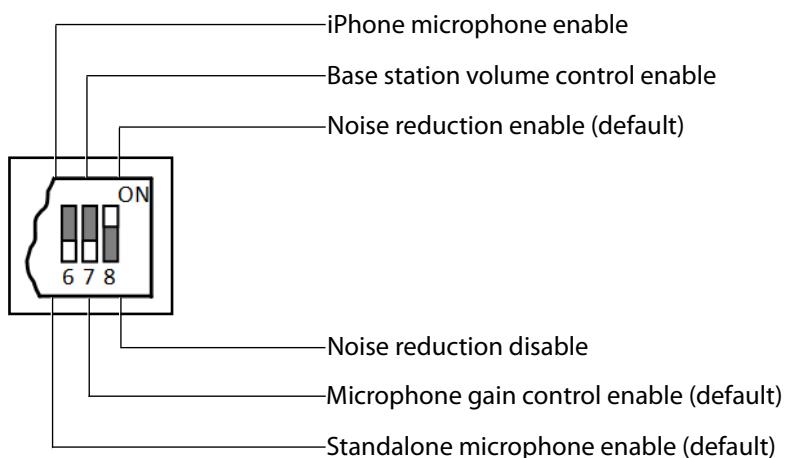


Handset and CAE Healthcare-provided Microphone

To use a microphone compatible with an iPhone (three-pole jack), set DIP switch position 6 to ON. Please note that an iPhone-compatible microphone is not provided as part of the product package. Any microphone with a common 3.5 mm input jack can be used with the handset when DIP switch position 6 is set to ON.

Special Handset Settings

Advanced settings for the handset DIP switch are available.



Advanced DIP Switch Settings

DIP switch settings are only refreshed when the handset is powered on. To ensure the DIP switch changes take effect, turn the power off and back on after making changes.

To enable noise reduction and minimize background noise in high ambient noise environments, place the position 8 DIP switch in the ON position.

Battery Capacity Indicator

The red power light flashes one time every second when the battery capacity is good. When the battery capacity is nearly depleted, the red power LED flashes twice in quick succession every second. This indicates the batteries need to be replaced.

To get the most battery life out of the handset, the handset should be powered down when it is not in use.

Troubleshooting

CAE Healthcare Customer Service is available to help with issues, should they arise. However, sometimes you can speed up the customer service process by performing diagnostics before calling, and eliminating some problems on your own with the help of the following instructions.

Power Problems

The red power light on the handset does not flash when power switch is turned on.

- Check that the batteries are inserted correctly. Install a fresh set of batteries, if needed.

The red power light on my base station is not flashing when the simulator is powered on.

- Check that the cables from the simulator are installed in the base station correctly.

Audio Problems

The sound output from the simulator is low when using a microphone on my lapel.

- Increase the microphone gain on the handset by moving the dial towards the plus sign. DIP switch 7 must be in the OFF position for this to work.

I'm hearing feedback from the microphone when I am close to the simulator.

- Decrease the microphone gain on the handset by moving the dial towards the minus sign. DIP switch 7 must be in the OFF position for this to work.

The sound output from the simulator is too high or too low.

- The volume level is configured at the factory for optimal performance. However, if you want to adjust the volume level of the base station (located inside the simulator), set the handset DIP switch 7 to ON. Remember to turn the handset power off and on after each DIP-switch change. After this step is complete, you will be able to adjust the volume level of the base station by adjusting the handset volume dial.

The sound output from the simulator is noisy when the speaker is not speaking.

- You can use the noise reduction feature by setting the handset DIP switch position 8 to ON.

The simulator voice output is cut off when the speaker is speaking quietly.

- In this case, there are three possible options:
 - Attempt to talk louder
 - Increase the microphone gain
 - Disable the noise reduction feature by setting the handset DIP switch 8 to OFF.

RF Channel Initial Operating Frequencies

RF Channel	Frequency 1 (GHz)	Frequency 2 (GHz)
0	2.402	2.480
1	2.405	2.477
2	2.408	2.474
3	2.411	2.471
4	2.414	2.468
5	2.417	2.465
6	2.420	2.462
7	2.423	2.459
8	2.426	2.456
9	2.429	2.453
10	2.432	2.450
11	2.435	2.447
12	2.402	2.480
13	2.404	2.478
14	2.406	2.476
15	2.408	2.474
16	2.410	2.472
17	2.412	2.470
18	2.414	2.468
19	2.416	2.466
20	2.418	2.464
21	2.420	2.462

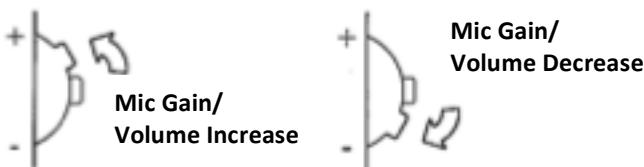
RF Channel	Frequency 1 (GHz)	Frequency 2 (GHz)
22	2.422	2.460
23	2.424	2.458
24	2.426	2.456
25	2.428	2.454
26	2.430	2.452
27	2.432	2.450
28	2.434	2.448
29	2.436	2.446
30	2.438	2.444
31	2.440	2.442

WVL Voice Amplitude Adjustment

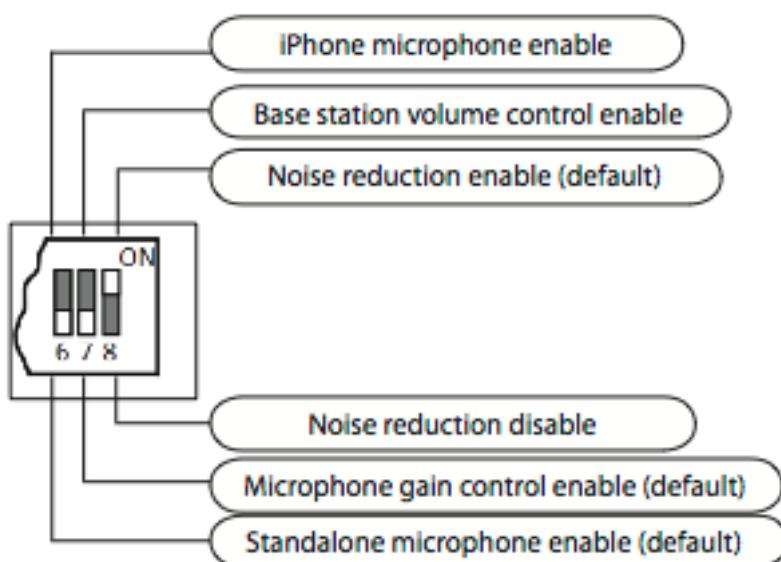
The Wireless Voice Link volume output level has been configured at the factory for optimal performance. However, if the volume range of the transmitter is not acceptable, the volume level of the base station (located inside the simulator) can be adjusted to raise or lower the overall amplitude. This can be done without opening the mannequin to gain access to the base station (receiver). First remove the battery cover from the handset (transmitter) and set DIP Switch "7" to ON. (**UP = ON**). **Turn the handset power off and back on after each DIP Switch change to refresh setting.** After this step is complete, you will now be able to adjust the volume level of the base station by adjusting the handset volume dial. (See pictures below) The new base station amplitude level will be saved automatically when power is cycled.

MFS & iStan Default Volume

To set the volume to default, first decrease the Base Station Volume to minimum by rotating the Tri-Scan switch (Volume Control) to the negative position and holding for 3 seconds and then release the switch. Next, rotate the Tri-Scan switch (Volume Control) to the positive position and then release the switch. Perform this step six more times to achieve the "default" Volume setting. **Add additional steps to further increase the Volume above the default as desired.** Note: Sound quality may suffer as base volume is increased. For MFS, make final adjustments after skin and wig have been installed. Remember to set DIP Switch 7 back to OFF (down) and cycle the power. Final Adjustments to overall amplitude is made using the Transmitter Volume control.



WVL Tri-Scan Switch



Advanced DIP Switch Settings

CONDITION GUIDELINES FOR PROGRAMMING APOLLO

This section is intended to help you select Müse conditions to achieve desired vital signs within each programmed state. All four conditions should be programmed into each state in the order presented below:

- Respiratory: Desaturation
- Cardiovascular: Blood Pressure
- Cardiovascular Heart Rate
- Respiratory: Respiratory Rate

The Müse software is physiologically driven. When using multiple conditions (e.g., Desaturation + Hypertension + Tachycardia + Tachypnea), physiological regulatory mechanisms such as the baroreceptor reflex and ventilatory control cause compensatory changes within parameters. To achieve the desired vital sign, select one condition level, above (greater) or below (less), to achieve the desired physiological effect.

Respiratory: Desaturation

Desaturation	SpO ₂ Value
Reset	98%
High 90s	96-97%
Mid 90s	94-96%
Low 90s	91-93%
High 80s	87-90%
Mid 80s	84-86%
Low 80s	80-83%
High 70s	77-80%
Mid 70s	74-77%
Low 70s	69-71%
Less than 70	<69%

Cardiovascular: Blood Pressure

Hypertension		Hypotension	
Reset	110s/70s	Reset	110s/70s
Increased	120s/80s	Decreased	100s/70s
Pre-Borderline	130s/80s	Pre-Borderline	100s/60s
Borderline	140s/90s	Borderline	90s/50s
Mild	150s/90s	Mild	80s/40s
Moderate	160s/100s	Moderate	70s/40s
Severe	170s/100s	Severe	60s/30s
Profound	190s/110s	Profound	50s/30s
Extreme	220s/120s	Extreme	40s/30s

Cardiovascular: Heart Rate

Tachycardia		Bradycardia	
Reset	70s	Reset	70s
Increased	High 70s	Decreased	Mid 60s
Elevated	80s	Pre-Borderline	Low 60s
Pre-Borderline	90s	Borderline	Mid 50s
Borderline	100s	Intermediate	Low 50s
Intermediate	110s	Mild	High 40s
Mild	120s	Moderate	Mid 40s
Moderate	130s	Severe	Low 40s
Severe	140s	Extreme	Mid 30s
Supra	150s	Acute	Low 30s
Profound	160s		
Extreme	170s		
Acute	High 170s		

Respiratory: Respiratory Rate

Tachypnea		Bradypnea	
Reset	11	Reset	11
Increased	15	Increased	10
Elevated	18	Intermediate	9
Borderline	20	Mild	7
Intermediate	22	Moderate	6
Mild	25	Severe	5
Moderate	28	Profound	3
Severe	31	Extreme	2
Profound	33		
Extreme	36		

MÜSE BASIC AND ADDITIONAL PARAMETERS FOR APOLLO

Neurological – Basic Parameters

Neurological Parameters
Apply to Both Eyes
Eyes: Pupil Control
Eyes: Blinking
Eyes: Blink Speed
Convulsions
ICP
NMB
Temperature: Body
Temperature: Blood

Cardiovascular – Basic and Additional Parameters

Cardiovascular Parameters – Basic	Cardiovascular Parameters – Additional
Blood Pressure	Baroreceptor Maximum Pressure
CVP	Baroreceptor Minimum Pressure
PAP	Left Ventricle Contractility Factor
PCWP (Pulmonary Capillary Wedge Pressure)	Right Ventricle Contractility Factor
Heart Rate	Systemic Vascular Resistance Factor
Heart Rate Factor	Venous Capacity Factor
Cardiac Output	Systemic Arteries Compliance Factor
Cardiac Rhythm	Pulmonary Arteries Compliance Factor
Pulseless Electrical Activity	Pulmonary Vasculature Resistance Factor
PVC Probability	Venous Return Resistance Factor
Arterial Catheter	Baroreceptor Gain (Overall) Factor
Central Venous Catheter	Baroreceptor Gain (Cardiac) Factor
PA Catheter	Baroreceptor Gain (Peripheral) Factor
PA Balloon	Chest Compression Efficacy
Defib	Tamponade Volume
Pacing Current	Ischemic Index Sensitivity
Pacing Rate	Ischemic Index Averaging
Pacing Capture Threshold	Aortic Valve Resistance Factor
Cold Fluid Inject	Mitral Valve Resistance Factor
	Pulmonic Valve Resistance Factor

MÜSE BASIC AND ADDITIONAL PARAMETERS FOR APOLLO

Respiratory – Basic and Additional Parameters

Respiratory Parameters – Basic	Respiratory Parameters – Additional	Respiratory Parameters – Additional
Swollen Tongue	Respiratory Rate	Distended Chest Wall Compliance Factor
Airway Occluder	Tidal Volume	Functional Residual Capacity
Laryngospasm	Tidal Volume Factor	Lung Compliance Factor: Left
Needle Decompression	pH Shift	Lung Compliance Factor: Right
Bronchial Occlusion	PEEP	Venous CO ₂ Shift
Respiratory Rate	O ₂ Consumption	Bronchial Resistance Factor: Left
Respiratory Rate Factor	CO ₂ Production Factor	Bronchial Resistance Factor: Right
Shunt Fraction	PaCO ₂ Set-point	Alveolar Enflurane
EtCO ₂	PaO ₂ Set-point	Fraction of Inspired Enflurane
SpO ₂	I to E Ratio (1:X)	Alveolar Halothane
NMB	PetCO ₂ -PaCO ₂ Factor	Fraction of Inspired Halothane
Tidal Volume	Respiratory Gain Factor	Alveolar Isoflurane
Intrapleural Volume: Left	Respiratory Quotient	Fraction of Inspired Isoflurane
Intrapleural Volume: Right	Volume/Rate Control Factor	Alveolar Nitrous Oxide
Fraction of Inspired O ₂	Chest Wall Capacity	Fraction of Inspired Nitrous Oxide
Chest Tube Flow: Left	Chest Wall Compliance Factor	Alveolar Sevoflurane
Chest Tube Flow: Right		Fraction of Inspired Sevoflurane

Reset MUSE Admin Password

Is there is a way to reset the admin password if the customer has forgotten what they changed it to?

The answer is **yes**.

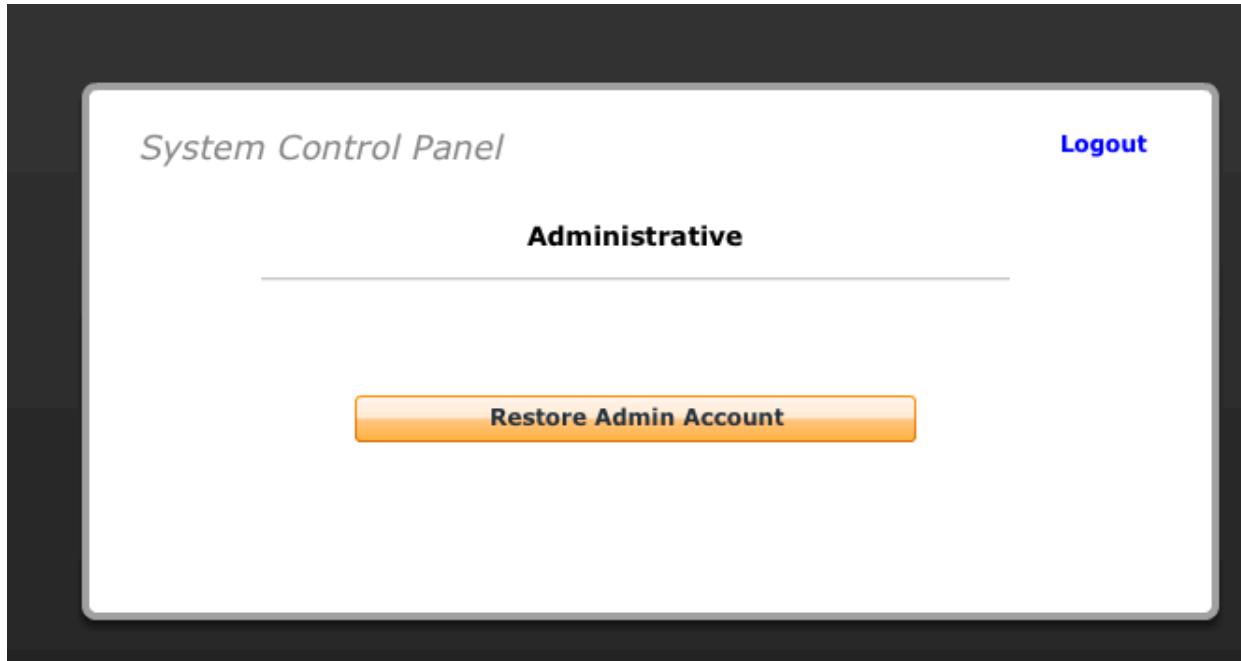
To reset the admin password, enter "root" as the username and "metiadmin" as the password.

This will bring up the System Control Panel shown below:

Click on "Restore Admin Account", then Logout.

The Admin account should be back to default:

```
user      "admin"  
password "admin"
```



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Creating Patient Records - Optimized Sized Images

Pictures, video, documents and sounds can all be used to provide feedback to students on the TouchPro computer. This multimedia can be selected by the instructor and displayed at any time the simulation is running.

There are some limitations to file type and size:

- Documents – PDF (up to 20 MB each)
- Audio – MP3 (up to 20MB each)
- Video – MPEG, MOV (up to 20MB each)
- Images – JPG, GIF, PNG, XPS (up to 20MB each)

For the best fit on the window that opens on the CAE Healthcare TouchPro computer, it is recommended that the maximum image size be **920w x 730h pixels**.

Otherwise, a very large image will have to be scrolled to be seen in its entirety.

The image size can be adjusted using most graphic editors or using the Preview application included with Mac computers. It is best to start with an image that is greater in size and then adjusting it smaller. (Making larger will effect quality.)

- Open image in Preview
- Select Tools in menu bar and then select Adjust size...
- Switch the Width/Height format to pixels
- It is generally advisable to keep the aspect ratio locked while adjusting.
- Preview also supports “cropping” the picture if needed.

After the media is created, copy it to the desktop of the Instructor Workstation of the simulator using a USB drive or other media and perform the following steps:

1. Start Müse and click on the System Administration button.
2. Click on the Content Management tab.
3. Click on Patient Records List link.
4. From the Patients Record panel, click **Upload Patient Records**.
5. When the file selection window opens, select the desired file (now on desktop) and click **Open** or **OK**.
6. Once the file is uploaded, you can copy others or return to the Müse home page and start the simulation.

These custom patient records and multimedia can now be selected and displayed by clicking on the Patient Records button on the MÜSE run screen when a simulation is running.

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Apollo

Installation and Orientation

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Apollo Pre-Installation Checklist

The following provides a handy checklist of all items that must be obtained before installation. Unless specifically listed as optional, all listed items are required to help ensure a timely and efficient installation. Please complete form by selecting pull-down options on right column, then save and return it to CAE Healthcare Customer Service. (See email locations and links below)
Press Tab to advance...

1. Training Laboratory

- A. Room work area: Large enough for all students to gather around patient simulator and to place the appropriate medical equipment around system. _____
- B. Access door: Wide enough to bring system into room. (W 32 x H 46 x L 83 in) (83 x 117 x 211 cm). Note: Shipment arrives on a 40" x 85" (102 x 216cm) wooden skid. _____
- C. Floor Plan completed showing location of Mannequin, Equipment, etc. _____
- D. Telephone with cord long enough to reach all simulator components. Speakerphone or cordless phone is recommended. _____
- E. Computer desk or podium to place the Instructor Workstation. _____
- F. Patient gurney, stretcher, or bed. _____

2. Electrical

- A. Two electrical power outlets (100 to 220 VAC, 50/60 Hz, 300W). _____
- B. Surge protector power strip. (Required if power spikes are common at site.) _____
- C. Electrical extension cord to allow placement of mannequin (optional). _____
- D. For International Customers – A Power Cord, (IEC 320) with appropriate country male end will be required. _____

3. Tools

The following tools are recommended.

- A. Screwdrivers – #1 and #2 Phillips, $\frac{1}{8}$ " Standard _____
- B. Tool Kit purchased from CAE Healthcare (optional) _____

4. Mandatory Supplies

The following supplies are required for full operation of product.

- A. One (1) IV pole _____
- B. Three (3), 1-liter IV Bags of distilled water (Sterile water bags refilled with distilled water) _____
- C. One (1) Empty 1-liter IV Bag (For IV Return – draining purposes) _____
- D. Four (4) IV Bag Spike Sets _____
- E. Two (2) gallons of Distilled Water _____

F. Red Food Coloring (For IV and Bleeding – Optional for installation)	
G. Empty syringes for simulations (Sizes 10 and 20cc or as required)	
H. Self-inflating Resuscitation Bag	
I. Adult medium face mask	
J. Two (2) Endotracheal Tubes (7.0 to 7.5mm)	<i>For APPP only</i>
K. Endotracheal tube stylette	<i>For APP only</i>
L. Laryngoscope handle and blades (Mac or Miller #3 or #4)	<i>For APP only</i>
M. Needle Decompression (14-gauge needle, 6cm long)	<i>For APP only</i>
N. Chest Catheter (28Fr)	
O. Urinary Catheter (14 to 16Fr) and Collection bag	
P. IV Cannula (18 to 22-gauge)	
Q. Scalpel (optional)	
R. Airway Suctioning Tube (14Fr)	<i>For APN only</i>
S. Gastric Lavage Tube (14Fr)	<i>For APN only</i>
T. Pen Light (for pupil response)	
U. Stethoscope	
V. Adult Blood Pressure Cuff and Sphygmomanometer	
W. Defibrillator or AED with pads or Hands Free Cables	
X. 5-lead ECG Monitor with Cables	
Y. Tourniquet or Forceps (To stop bleeding)	

5. Network

The Apollo patent simulator uses a private wireless network for communication between the simulator and its external components. This private network cannot be modified or added to any existing networks. Its wireless router is assigned a network name (SSID) consisting of the simulator serial number. This wireless network is operating on the 802.11N 2.4Ghz band and uses WPA Personal security. Each device is assigned a static IP address who's 3rd octet is the same for the system:

- 192.168.xxx.1 Wireless Router
- 192.168.xxx.5 Simulator Computer
- 192.168.xxx.20 Wireless Instructor Workstation
- 192.168.xxx.30 Wireless TouchPro

Ask your IT department if they use any type of “rogue device detection”. These systems can send Disassociate or Deauthenticate control frames or jam the suspect wireless frequency to shut down Wi-Fi communications.

- A. Our IT department uses equipment to shut down “rogue” access points.
- B. Our IT department requests additional data to identify CAE product as a “Known/Unauthorized” device so as to not disrupt Wi-Fi communications to the patient simulator.

Information Requested: List any additional information required by site IT department

I have reviewed the pre-installation checklist and we are ready for installation.

Contact Name: Type contact name here.
Institution: Type institution name here.
Phone Number: Type phone number here.
Date: Type date here.

For any questions, please contact CAE Healthcare Customer Service.

CAE Healthcare Customer Service

U.S.A. – Toll Free+1 (866) 462-7920
Email Address:customerservice@caehealthcare.com

Canada – Toll Free+1 (877) 223-6273
Email Address:can.service@caehealthcare.com

Europe, Middle East and Africa (EMEA) – Phone+49 (0) 6131 4950354
Email Address:international.service@caehealthcare.com

UK and Ireland – Phone+44 (0)800-917-1851
Email Address:uk.service@caehealthcare.com

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Apollo – Installation and System Orientation (ISO) Outline

DAY ONE

Installation and Set Up:

Assumes that pre-installation guide/checklist was sent and reviewed by a technician prior to team member arriving on site.

1. Pass out pre-install handouts if customer does not have their “sent” copy handy.
 - a. Apollo Pre-installation Checklist Form (Should be done in advance)
 - b. ClinicalSupplies_RecommendedSizes.pdf (On Web Page)
 - c. SimulatorClothing_RecommendedSizes.pdf (On Web Page)
2. Unpack the simulator mannequin and accessories.
3. Perform General Inventory and verify main items and options match the PO.
4. Work with the customer to confirm the final position for the mannequin and accessories such as Instructor Workstation, TouchPro Computer, ECG Monitor, etc.
5. Review the list of required supportive equipment and clinical supplies with customer from Pre-installation Guide and Recommended Clinical Supplies Handouts. Have them locate any items missing.
 - a. ECG Monitor with cables (5L-ECG)
 - b. Defibrillator / Pacer
 - c. BVM with Mask
 - d. Empty Syringes (10cc, 20cc, etc)
 - e. Laryngoscope handle and blades
 - f. ET Tubes (7 – 8mm) and stylet
 - g. Chest Catheter (28fr)
 - h. Foley Catheter (14 – 16fr) and Collection Bag
 - i. Airway Suctioning Tube (14fr) (For APN only)
 - j. Gastric Lavage Tube (14fr) (For APN only)
 - k. Tension Pneumothorax Needle (14g, 6cm) (For APP only)
 - l. Distilled Water
 - m. IV Bags and Spike Sets
 - n. Stethoscope
 - o. Light (for pupil examination)
 - p. Manual BP Cuff that can be modified
 - q. Tourniquet or Forceps
6. Ask customer to confirm a time for orientation and to invite all faculty personnel related with the Simulation Lab, including people from IT department if needed.

Print only page 8 of this document to share with the customer group.

Apollo – Installation and System Orientation (ISO) Outline

7. Perform the full ATP (905-Kxxxx-35/81) using all medical equipment and clinical supplies available.
8. If any issues come up, an “Out of box failure” (OOBF) is reported and repair/replacement instructions are requested from Quality Team and/or Manager.
9. Review installation outcome with customer. Give customer a copy of the completed **System Acceptance Check** document (905K200022).

Apollo – Installation and System Orientation (ISO) Outline

DAY TWO

System Orientation:

Orientation is conducted once the CAE product(s) have been successfully installed.

The System Orientation takes approximately 4 to 6 hours to fully complete and answer all customer's questions and concerns. Some customers are already familiar with other CAE products such as Müse.

In those cases, system orientation will likely be done in less time.

See last page for the Orientation Agenda

Note: Video recording of the System orientation is not typically allowed – only voice. (It is possible to get special permission for filming if it is required. Our corporate lawyer (Jennifer Jula), can provide required documentation to be filled out.)

Agenda for each ISO:

1) Welcome

a) Introductions:

- Gather all people to be trained next to the simulator.
- Introduce yourself to all “trainees” and purpose of this orientation. (Not clinical training)
- Include your name, position within CAE & time with company, etc.
- Ask everyone to introduce themselves, their position and what they hope to learn.
- Provide enough time for everyone to understand why specific people are attending this System Orientation.
- Make note of any special requests.

2) Simulator Overview

a) Equipment Overview (Summary):

Provide a brief overview about all the system components that will be covered during the System Orientation.

- Mannequin
- AC and Battery Power
 - Power Brick and DC PWR Indicator
 - Lithium Battery – Simulator does not charge battery
 - Battery can't be connected to simulator while it is charging
 - A connected battery acts as an “UPS” to provide back up power in case the power cord is accidentally removed.
 - Show how to check battery capacity. Battery should not be left uncharged for long periods of time – can damage battery.
- Peripheral Computers and Wireless Components

Apollo – Installation and System Orientation (ISO) Outline

b) System Features:

Describe all the available features that the simulator provides – Head to Toe. This is semi-clinical based information about what the simulator is capable of.

- Reactive Eyes
- Intubation
- Difficult Airway Features
 - Swollen Tongue
 - Airway Occluder
 - Laryngospasm (APP only)
- Bronchial Occlusion
- Pulses (No Pulse Logs at this time)
- Convulsions
- SPO2 Probe
- ECG
- Chest Compressions (Advanced ACLS)
 - Hand Placement
 - Depth
 - Metrics Tab and Report
- Voice & Throat Sounds
- Heart Sounds
- Lung Sounds
- Bowel Sounds
- NIBP (Korotkoff Sounds and Return to Flow)
- Needle Decompression Capabilities
- Chest Tube Capabilities (APN uses IV Line for flow only)
- IV Capabilities
- IO Leg Capabilities (If this option was supplied – not typical)
- Foley Catheter Capabilities with Male and Female Genitalia
- Airway Suctioning (APN)
- Stomach Suctioning (APN)
- Describe the purchased equipment that provides control of the system – to include the Instructors WorkStation, a Vivo Tablet, TouchPro and internal Single Board Computer (SBC).
 - Provide connectivity information.

Avoid going deeper inside to technically explain simulator features at this time.

Apollo – Installation and System Orientation (ISO) Outline

3. Setup and Power On Procedure (Start-up of Simulator and Workstations):
 - a) Show the power up sequence related with electrical and pneumatic connections. Explain about delays required during power-on.
 - Turn on Peripheral Medical Equipment (ECG Monitor, etc.)
 - Turn on Simulator Power and wait 2 to 3 minutes (Watch for power light to go solid.)
 - Turn on Instructor Workstation and/or Vivo Tablet
 - Verify Location of Network on Instructor Workstation is Apollo LAN.
 - Verify WIFI is turned ON for the Workstation and that the Wireless Icon is dark. Click on the icon and verify the proper Apollo Serial Numbered Network is selected.
4. Using the Instructor Workstation (Müse):
 - a) Demonstrate and have participant's practice turning on system, launching Müse and connecting to the mannequin.
 - Start Browser – briefly explain about the home page setting and it's bookmark
 - Select Müse – briefly explain about Language, Version Check, License & Log In
 - Log In to start Müse – briefly explain about SCEs, then initiate Healthy Adult Male.
 - Show patient information and talk about Patient Status Display (Widgets), Medications, Interventions, Conditions and Touch pro settings. Discuss the pre-placement of clinical accessories and Drug Syringes to be used based on SCE.
 - b) Connection to the simulator (hardware):
 - Show participants how to make the data connection from the Instructor Workstation to the simulator (mannequin).
 - If they will be using Vivo, it would be a good time to show access on a workstation or tablet.
 - If they will be using a remote, this would be a good time to review.
 - c) Orientation to Müse:
 - Demonstrate starting and stopping SCEs. (*SCE development is not part of orientation*)
 - Discuss differences in a connected and a non connected simulation
 - Demonstrate navigating the different views, tabs and menus.
 - Give explanations on the different screens that appear as you click a part of the human form on Müse.
 - Demonstrate using Conditions, Medications and interventions and a couple parameters that can be changed "on the fly" such as blood pressure & heart rate.
 - Explain and demonstrate the Set-up and Priming of Fluids for the simulator
 - Use the provided accessories and supplies (or your own) to demonstrate the features.
Let everybody interact with the simulator performing basic assessments and trying such features as Checking Pulses, Reactive Eyes, Difficult Airway, Chest tube, Needle decompression, etc.
 - d) Orientation to Vivo:
 - Show the participants how to start the tablet and access the simulator
 - Demonstrate starting and stopping SCEs. (*SCE development is not part of orientation*)
 - On the Fly. Tiles and Windows. Pathways.
 - Exiting SCE and Exiting Vivo.

Apollo – Installation and System Orientation (ISO) Outline

- e) Using TouchPro:
 - Show the participants how to start the Touch Screen computer on the Workstation
 - Discuss how to display on a secondary LCD Display
 - Show the participants how to work with the Touch Screen computer.
 - a. Discuss about the Bluetooth connections
 - b. Touch Sensitive Controls
 - c. Caution against trying to use it as a Remote Workstation (Not reliable for this.)
- Discuss the Setup of Waveforms and special features (C.O., NIBP, 12-lead, etc.)

- f) Administration Tools and Upgrades:
 - Demonstrate how to verify version and to update Müse.
 - Demonstrate how to install a Learning Module or SCE.
 - Demonstrate how to view and delete logs

5. Quitting Application and Power Off Sequence:

- a) Turn off Instructor Workstation and or Tablet
 - Disconnect and then Stop any running SCE
 - Log Out of Müse / Vivo
 - Quit Browser (After Müse has logged out and returns to the Log In page.)
 - Select Apple Icon and then select Shut Down...
- b) Turn Off TouchPro Computer – if used
 - Select Set Up and Quit
 - Quit Internet Explorer
 - Select Start and then Select Turn Off Computer...
- c) Shut Off all Equipment and Accessories
 - Turn off ECG Monitor, Defibrillator, etc._
 - Turn Off the simulator (mannequin). Watch as power light blinks and then turns off.

6. Preventative Maintenance and Troubleshooting Tips:

- a) Simulator care and Consumables
 - Head Skin (Hair)
 - Neck Skin
 - Neck Tape (3M & Red)
 - IO Replacements (Optional – very few out there)
 - Silicon Spray
 - Worn out Catheters & ET Tubes
- b) Brief preventative maintenance
 - IV Line Cleaning
 - Arm Skin Replacement
 - Cleaning of mannequin skin & ink removal
 - Hair Care
 - Packaging material for possible returns

Apollo – Installation and System Orientation (ISO) Outline

- c) Review basic troubleshooting tips
 - Priming & Height of water source for IV – Hints for best performance and external IV Reservoir
 - IP Network Settings – How to verify location on computer
 - Date and Time settings that can effect Müse
 - Logs slowing system connections. (Mostly on versions before 197)
7. Questions and Answers:
- a) Ask for questions. This session of questions/answers is provided so customer feels comfortable with manipulating the system.
 - b) Show some of the information available on the CAE Healthcare web site
 - User Guides
 - Software Updates and instructions
 - Computer Requirements
 - Müse SCE Development SW for Users (<http://caehealthcare.com/support/muse-trial-files>)
 - Education | Resources
 - a. Documentation
 - b. Video Tutorials
 - c. Tips & Tricks (Ink Stains, etc.)
 - d. Online Service Request
 - c) Wrap up:
 - Ask customers if you can help them with something else and/or investigate any particular requirements they have in mind with their new simulator before leaving
 - Spare parts or other recommendations?
 - New products?
 - Provide signature if any of the trainees needs Cert. of Training due to school training policy.

Apollo Orientation Agenda

Welcome and Introductions

Simulator Overview

 Standard Equipment

 Simulator Features

Setup and Power On Procedure

Using the Instructor Workstation

 Launching Müse

 Connection to simulator (Mannequin)

 Orientation to Müse

 Orientation to Vivo / Tablet (Optional)

 Using TouchPro

 Administrative Tools and Upgrades

Quitting Application and Power Off Sequence

Preventative Maintenance and Troubleshooting

Questions and Answers

System Acceptance Check

As part of the installation process, a CAE Certified Service Technician has performed a complete Installation Acceptance Check on this patient simulator. Any deviations and recommendation are noted in the Deviations and Recommendation sections. These checks consists of the evaluation, calibration and performance testing of the following as applicable:

- **Product Model:** _____
- **Serial Number:** _____
- **Date of Installation:** _____

Physical Inspection

- Inventory & Options (New systems)
- AC Power Connections
- External Compressor
- External Gas Supplies
- Control Rack / Box (HPS / ECS)
- Mannequin Components
- Computer Workstations
- TouchPro (Muse)
- Waveform Display (HS6)
- Peripheral Equipment

Physiologic Checks

- Neurological
- Respiratory
- Pumonary
- Cardiovascular
- Fluids / Bleeding
- Gastrointestinal
- Genitourinary
- Patient Sounds
- Pharmacology
- Anesthesia

Software & Firmware Checks

- Computer Workstations
- TouchPro / CTG Monitor
- Patient Simulator – Muse /Vivo

Birthing (Lucina)

- Prepartum
- Delivery
- Postpartum

- All functions are within normal specifications.

Thank you for selecting CAE Healthcare

CAE Certified Service Technician

Date: _____

Customer Signature

Date: _____



Deviations:

Recomendations:

Pre Preventative Maintenance Check Sheet

We are in the process of scheduling your Preventative Maintenance for your CAE simulators. In our effort to help the technician provision for any parts and extra time required on site, we ask that you complete and return the checklist included below. Your Customer Service Representative will contact you with proposed schedule dates once they have received this completed checklist.

Preventative Maintenance Inspection of CAE Healthcare equipment will be performed by a CAE Healthcare qualified service technician. This may include but is not limited to the following - inspect, test, and calibrate the equipment to the manufacturer's specification. Preventive maintenance of all CAE Healthcare equipment requires that the equipment must be stored in a safe environment and kept in satisfactory operating condition.

The results of a preventative maintenance service may result in the equipment requiring extra repairs. These repairs are not covered in the preventative maintenance agreement unless a service contract is valid with CAE Healthcare.

The technician will make every effort to carry out any repair required on the simulator once the PM has been completed. Should the technician not have the required parts or sufficient time required to complete the repair, a return visit may be required.

Only those parts included on the attached list that are showing signs of aging and/or wear and tear will be replaced as part of the PM. Chest skins having cosmetic damage incurred from normal use will not be replaced unless purchased separately. Note there are tabs in the attached Excel spreadsheet for each mannequin.

***Please note that the technician will need to have full and complete access to mannequin(s) during the visit. Please select dates where we can have full and uninterrupted access to the mannequin(s).

Serial Number:

Simulator Location (address, building name, room number etc):

Preferred dates (after DD/MM/YR):

Please select dates after

See note above regarding access to mannequins.

1. Visual Inspection: Overall Apperance, any ripped or torn skins: head, torso etc.

2. Operational Issues:

3. Does the simulator have connection issues, unexplained noises, problems with eyes, etc. YES NO

If YES, please explain:

4. Please check off all functions used:

FUNCTION	YES	NO	Not Applicable
Eyes			
Audio			
Fluid Systems			
Power			
Joint Motion			
Capillary Refill			
Cyanosis			
Pulses			
Convulsions			
PC's, Touch Pro, Workstations			

The above are just a few of the major features used, please list any other issues below:

Please email this complete form back to CAE customer support

customerservice@caehalthcare.com

Preventative Maintenance Check Sheet

A certified CAE Service Technician has performed a yearly Preventative Maintenance check on your Apollo system, serial number: _____

This check consists of the evaluation, performance testing and calibration of the following:

Physical Inspection

- Mannequin
 - Limb Joints and Articulation
 - Skin and Pulse Locations
 - Eye Lids
 - Difficult Airway Assemblies
 - Lung Leak Check
 - Chest Excursion Assemblies
 - ECG & Defib/Pace Connections
 - Trauma Features & G/U

- System
 - AC – DC Power Supply (Brick)
 - External Gas (Option)
 - Hoses (Gas, Water & Pneumatics)
 - Electrical & Pneumatic Connections

Software & Firmware

- Instructor Workstation
 - Update to latest MÜSE / Vivo version
 - Update Device Drivers / Firmware
 - Update Browser / Plugins as required
 - Perform basic computer file maintenance

- TouchPro
 - Update to latest software version
 - Update Browser / Plugins as required
 - Perform basic computer file maintenance

System Checks & Tests

- Electrical
 - Power Distribution
 - Battery Operation and Charging
 - System Communications to all Devices
 - Sensor and Haptic Drive
 - Speaker Functionality (Heart, Breath Bowel, Korotkoff , Throat & Voice.)
 - Test/Calibrate the Defibrillation & Pacing feature

- Pneumatic
 - Inspect IV and Trauma lines
 - Flush System
 - Adjust Pulses as necessary or requested
 - Check Pneumatic Actuators for proper pressure and operation
 - Compressor Pressure / Condensation

- Mechanical
 - Clean/replace Water Filters
 - Functional test on all subsystems of METiman
 - Compressor
 - Cooling Fans
 - Bronchial Occlusion
 - Sp₀₂ Probe

- All functions are within normal specifications.

Customer review of system

CAE Certified Service Technician

Date: _____

Customer Signature

Date: _____

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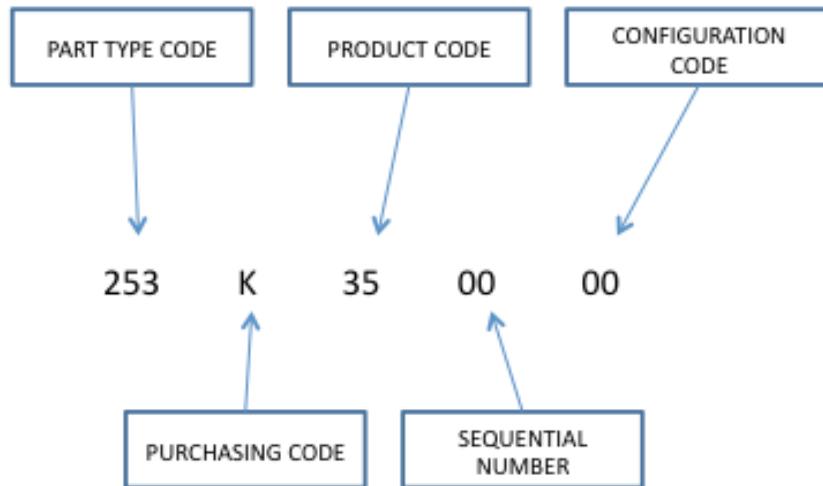
Apollo

Replacement Parts

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CAE HEALTHCARE P/N EXPLANATION OVERVIEW

253K350000



253 = ASSEMBLY

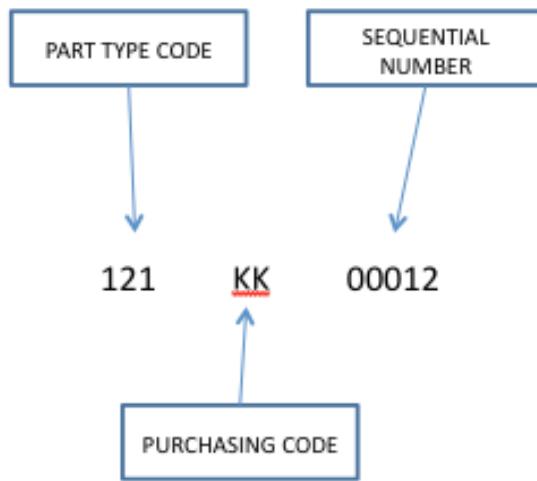
K = METI DESIGNED PART

35 = METIMAN NURSING

00 = FIRST PART IN THE METIMAN ASSEMBLY SERIES

2ND 00 = FIRST BUILD CONFIGURATION OF PART

121KK00012

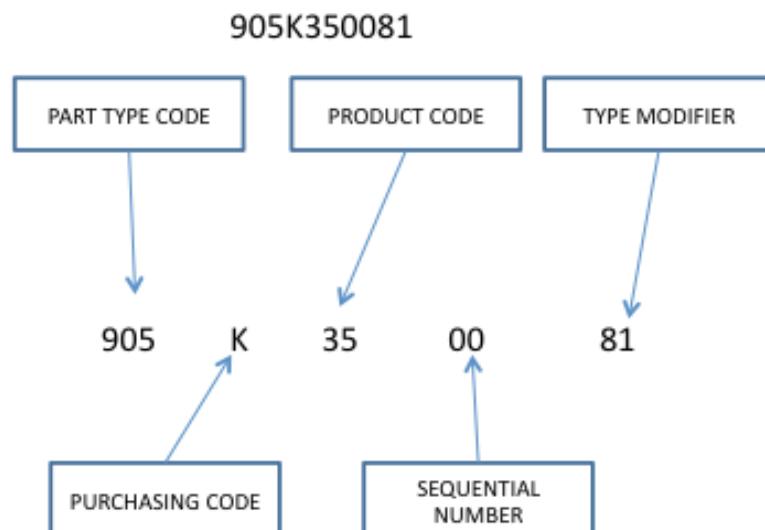


121 = FITTING

KK = VENDOR "OFF THE SHELF PART"

00012 = SEQUENTIAL PART NUMBER

CAE HEALTHCARE P/N EXPLANATION OVERVIEW



905 = DOCUMENT

K= METI DOCUMENT

35 = METIMAN NURSING OR COMMON

00 = FIRST DOCUMENT IN SERIES

81 = ATP DATA RECORD

CAE HEALTHCARE P/N EXPLANATION
PREFIX (PART TYPE) CODE

PREFIX	DESCRIPTION
011	BATTERY
012	BEARING
014	FANS / BLOWERS
016	BRACKET, SHEET METAL FABRICATED PARTS
018	BOARD ASSY (MODIFIED)
024	CABLE PRODUCTS
031	CASE
036	PHOTOCELL
047	CLAMP
049	CLIPS
060	CHEMICALS & COMPOUNDS
063	CONNECTOR
065	CONTACT PINS
070	CORD
072	ATTENUATOR
073	COUPLERS & ORIFICES
075	COVER, MECHANICAL, DRAPES
077	CONTAINERS, TANKS
101	METI ASSORTED PARTS - CONTROLLERS, COTS, MISCELLANEOUS
104	PATIENT SIMULATOR PARTS & ASSEMBLIES
111	FASTENERS, RIVETS, HINGES, ELASTIC, ETC.
113	FILM, TINT, COLORED FILM
114	FILTER
120	FUSE & FUSE EQUIPMENT
121	FITTINGS
126	GRILLE, GUARDS
127	GROMMET, ISO, EDGE, ETC
136	HOUSINGS ASSORTED, CASTINGS
137	INDICATOR (eg. LED)
138	PLUG, (ELECTRONIC)
140	INSULATOR
143	JACK (eg. TEST POINT)
147	KITTING & OTHER ELECTRONIC ASSEMBLY SERVICES
154	LENS, PHOTointERRUPTERS
161	LOCKS SREWS, LOCK SETS
163	EYEBALL, SIMULATOR PARTS & ASSEMBLIES
165	MANUALS, ETC.
166	MARKERS, LABELS
168	MOULAGE, PURCHASED ASSY
169	MEMORY SEMICONDUCTORS
170	METERS / INDICATORS
176	MOTORS
178	MOUNT (eg. SHOCK, BUMPERS, FEET, ETC)
191	PANEL - SHEET METAL FABRICATED PARTS & ASSEMBLIES
194	PIN, DOWEL - MACHINE FABRICATED PARTS & ASSEMBLIES
196	PLATES - MACHINE FABRICATED PARTS & ASSEMBLIES
198	PUMPS, COMPRESSORS
200	POSTS, STUDS, DISKS
202	POWER SUPPLY

CAE HEALTHCARE P/N EXPLANATION
PREFIX (PART TYPE) CODE

PREFIX	DESCRIPTION
204	PRINTED CIRCUIT BOARD (BARE)
205	PRINTED CIRCUIT BOARD ASSEMBLED
206	PRINTED CIRCUIT BOARD, MULTILAYER (BARE)
210	ENCLOSURE, RACK, CABINET
212	RECEPTACLE
215	GUIDE
218	REGULATOR, PRESSURE
219	RELAY
221	RETAINERS, O-RING,
223	RODS
226	ROLLER
229	SCREW, FASTENERS
230	SEALS, GASKET, WEATHERSTRIP
231	SHELLS, BACKSHELL
232	SHIELDS,
242	SPRING, COMBS
250	SWITCH (TOGGLE, ROCKER, SLIDE, MEMBRANE, ETC.)
252	TAPE, ADHESIVE, VELCRO, ZIPPER
253	METI ASSEMBLIES, DATA EQUIP & PERIPHERALS
255	TERMINAL (FORK, RING, QUICK CONNECT, ETC.)
258	CABLE TIES & ASSOCIATED FASTENERS
268	TUBING, HOSES, PNEUMATIC ASSEMBLY, SHRINK SLEEVE, SPIRAL WRAP
271	VALVES, MANIFOLDS, CHECK VALVES, NEEDLE, WATER, ETC.
273	WASHER, METI HARDWARE
276	WIRE, BUSS, STRANDED, MULTICONDUCTOR,
279	SUPPORT, STRAIN RELIEF, BRACE
281	STOP - MACHINE FABRICATED PARTS & ASSEMBLIES
282	RAIL - SHEET METAL FABRICATED PARTS & ASSEMBLIES
284	RETAINERS - SHEET METAL FABRICATED PARTS & ASSEMBLIES
286	FERRULE, SLEEVE - FASTENERS
287	NUT - FASTENERS
289	CIRCUIT BREAKER
290	BUTTON (eg. SWITCH)
297	STANDOFF, SPACER
400	FRAMES, BEZEL, LASER CUT ACRYLIC,
405	STUD - FASTENERS
415	ADAPTER, FITTING, COUPLER, LUER,
421	INSERT, PLUGS, CAPS, MAGNETS
430	MICROPHONE,SPKR,HEADSET, BUZZER,SOUND, XCVR, CAMERA
434	MONITOR, CARTS & ACCESSORIES, COMPUTER PERIPHERAL EQUIPMENT
850	SOFTWARE METI, INSTALLER, ETC.
881	SOFTWARE, CUSTOM PURCHASED, LICENSE
883	CD'S, METI SOFTWARE
903	OPERATING SUPPLIES, STATIC BAGS, TOOLS
905	DOCUMENTS - PROCEDURES, SCHEMATICS, DRAWINGS, MANUALS, ETC
907	MAINTAINENCE SUPPLIES
980	TOOLS, FIXTURES
991	CLINICAL SUPPLIES

Partial List - Not showing all common board components such as capacitors, resistors, diodes, etc.

**CAE HEALTHCARE P/N EXPLANATION
PRODUCT CODE**

PRODUCT	DESCRIPTION
11	TDCK
14	ECS-X - Baby
15	Pelvic ExamSim
16	ECS-II
19	HPS
20	HPS-X - Rack & Adult Mannequin
21	ECS-X - Adult
22	ECS-X - Pediatric (MPL Version)
24	ECS-X - Pediatric (Dylan)
26	HPS-X - Rack & Pediatric Mannequin
27	iStan (Standard Production)
28	iStan (Standard Production & Ruggedized)
29	iStan
32	Edose
35	METIman - Nursing
36	METIman - Prehospital
43	METIVision
46	CAE Learning Space
47	MFS

Note 1: Partial List with only the most common products shown

Note 2: Some parts are used on multiple products so code may indicate only the first used instance.

CAE HEALTHCARE P/N EXPLANATION
"905" DOCUMENT TYPE MODIFIER

General Code	Description	Gen. Modif
905	Schematic	01
905	Artwork, PWB *Including Marking*	06
905	Spec, Test (procedure)	06
905	Spec, Engineering & Product, Configuration	07
905	Wiring Diagram	13
905	Wire List	14
905	Drawing List/Drawings Trees	19
905	Spec. Process * Standard*	22
905	Block/Cable Diagram, ATP (Older Systems)	33
905	Test Procedure, Plans, Config, MGT, QA, Product, Reliability	34
905	Acceptance Test Procedure (ATP), Procedure, Tables, IMF	35
905	Assembly Aid	38
905	Training Aid, Manual, Specification	40
905	AW, PWR, Circuitry	49
905	AW, PWB, Drill File	50
905	AW, PWB Silk Screen	51
905	Guide	52
905	Spec, Bite (Built in test equip) Function	53
905	Plan, Qualification Test	54
905	Spec, Qual Test (QTP)	56
905	Reference Document list (QTR)	57
905	Inspection Aid	61
905	Acceptance Test Procedure (ATP)	80
905	Acceptance Test Data Record (ATR)	81
905	Test Procedure Data Record	82
905	MFG Instructions	83
905	Template	84
905	E&T Spec Sheet For Documentation	92
905	International Documents, ECO Form, ECO Request, ETC.	99

Item	Part Rev	Item Description
MMN 000 to 399		
253K350000		ASSY METIMAN NURSING
253K350002	A	ASSY METIMAN NURSING TOUCH PRO CONFIGURATION
253K350003	A	ASSY METIMAN NURSING ZOLL CONFIGURATION
253K350004	A	ASSY METIMAN NURSING PHYSIO CONFIGURATION
253K350005	A	ASSY METIMAN NURSING PHILLIPS AED CONFIGURATION
MMN 400 to Present		
253K350006	B	ASSY METIMAN NURSING CERT
253K350007	B	ASSY METIMAN NURSING TOUCH PRO CONFIGURATION CERT
253K350008	B	ASSY METIMAN NURSING ZOLL CONFIGURATION CERT
253K350009	B	ASSY METIMAN NURSING PHYSIO CONFIGURATION CERT
253K350010	B	ASSY METIMAN NURSING PHILLIPS AED CONFIGURATION CERT
253K350011	A	ASSY METIMAN NURSING TOUCHPRO CONFIG CERT TABLET
253K350012	A	ASSY METIMAN NURSING ZOLL CONFIGURATION CERT TABLET
253K350013	A	ASSY METIMAN NURSING PHYSIO CONFIGURATION CERT TABLET
253K350014	A	ASSY METIMAN NURSING PHILLIPS AED CONFIGCERT CERT TABLET
253K350015	A	ASSY METIMAN NURSING CERT, AFRICAN AMERICAN
253K350016	A	ASSY METIMAN NURSING TOUCH PRO CONFIGURATION CERT, AFRICAN
253K350017	A	ASSY METIMAN NURSING ZOLL CONFIGURATION, CERT, AFRICAN
253K350018	A	ASSY METIMAN NURSING PHYSIO CONFIGURATION, CERT, AFRICAN
253K350019	A	ASSY METIMAN NURSING PHILLIPS AED CONFIGURATION, CERT AFRICA
253K350020	A	ASSY METIMAN NURSING TOUCH PRO CONFIGURATION, CERT, TABLET, AF
253K350021	A	ASSY METIMAN NURSING ZOLL CONFIGURATION, CERT, TABLET, AFRICAN
253K350022	A	ASSY METIMAN NURSING PHYSIO CONFIGURATION, CERT, TABLET, AFRICA
253K350023	A	ASSY METIMAN NURSING PHILLIPS AED CONFIG, CERT, TABLET, AFRICA

Item	Part Rev	Item Description
MMP 000 to 699		
253K360000	B	ASSY METIMAN PRE-HOSPITAL
253K360001	A	ASSY SUBSCRIPTION METIMAN PRE-HOSPITAL
253K360002	A	ASSY METIMAN PRE- HOSPITAL TOUCH PRO CONFIGURATION
253K360003	A	ASSY METIMAN PRE- HOSPITAL ZOLL CONFIGURATION
253K360004	A	ASSY METIMAN PRE- HOSPITAL PHYSIO CONFIGURATION
253K360005	A	ASSY METIMAN PRE- HOSPITAL PHILLIPS AED CONFIGURATION
MMP 700 to Present		
253K360006	B	ASSY METIMAN PRE- HOSPITAL CERT
253K360007	B	ASSY METIMAN PRE-HOSPITAL TOUCH PRO CONFIGURATION CERT
253K360008	B	ASSY METIMAN PRE-HOSPITAL ZOLL CONFIGURATION CERT
253K360009	B	ASSY METIMAN PRE-HOSPITAL PHYSIO CONFIGURATION CERT
253K360010	B	ASSY METIMAN PRE-HOSPITAL PHILLIPS AED CONFIGURATION CERT
253K360011	A	ASSY METIMAN PRE-HOSPITAL TOUCHPRO CONFIG CERT TABLET
253K360012	A	ASSY METIMAN PRE-HOSPITAL ZOLL CONFIGURATION CERT TABLET
253K360013	A	ASSY METIMAN PRE-HOS PHYSIO CONFIGURATION CERT TABLET
253K360014	A	ASSY METIMAN PRE-HOS PHILLIPS AED CONFIG CERT TABLET
253K360015	A	ASSY METIMAN PRE- HOSPITAL CERT, AFRICAN AMERICAN
253K360016	A	ASSY METIMAN PRE-HOSPITAL TOUCH PRO CONFIG, CERT AFRICAN
253K360017	A	ASSY METIMAN PRE-HOSPITAL ZOLL CONFIG, CERT, AFRICAN AMERICAN
253K360018	A	ASSY METIMAN PRE-HOSPITAL PHYSIO CONFIG, CERT, AFRICAN AMERICA
253K360019	A	ASSY METIMAN PRE-HOSPITAL PHILLIPS AED CONFIG, CERT, AFRICAN AM
253K360020	A	ASSY METIMAN PRE-HOSPITAL TOUCHPRO CONFIG CERT TABLET, AFRICA
253K360021	A	ASSY METIMAN PRE-HOSPITAL ZOLL CONFIG, CERT TABLET, AFRICAN AM
253K360022	A	ASSY METIMAN PRE-HOS PHYSIO CONFIG, CERT TABLET, AFRICAN AMERIC
253K360023	A	ASSY METIMAN PRE-HOS PHILLIPS AED, CERT TABLET, AFRICAN AMERIC

Item	Part Rev	Item Description
MMN 000 to 399		
253K350000		ASSY METIMAN NURSING
253K350002	A	ASSY METIMAN NURSING TOUCH PRO CONFIGURATION
253K350003	A	ASSY METIMAN NURSING ZOLL CONFIGURATION
253K350004	A	ASSY METIMAN NURSING PHYSIO CONFIGURATION
253K350005	A	ASSY METIMAN NURSING PHILLIPS AED CONFIGURATION
MMN 400 to Present		
253K350006	B	ASSY METIMAN NURSING CERT
253K350007	B	ASSY METIMAN NURSING TOUCH PRO CONFIGURATION CERT
253K350008	B	ASSY METIMAN NURSING ZOLL CONFIGURATION CERT
253K350009	B	ASSY METIMAN NURSING PHYSIO CONFIGURATION CERT
253K350010	B	ASSY METIMAN NURSING PHILLIPS AED CONFIGURATION CERT
253K350011	A	ASSY METIMAN NURSING TOUCHPRO CONFIG CERT TABLET
253K350012	A	ASSY METIMAN NURSING ZOLL CONFIGURATION CERT TABLET
253K350013	A	ASSY METIMAN NURSING PHYSIO CONFIGURATION CERT TABLET
253K350014	A	ASSY METIMAN NURSING PHILLIPS AED CONFIGCERT CERT TABLET
MMP 000 to 699		
253K360000	B	ASSY METIMAN PRE-HOSPITAL
253K360001	A	ASSY SUBSCRIPTION METIMAN PRE-HOSPITAL
253K360002	A	ASSY METIMAN PRE- HOSPITAL TOUCH PRO CONFIGURATION
253K360003	A	ASSY METIMAN PRE- HOSPITAL ZOLL CONFIGURATION
253K360004	A	ASSY METIMAN PRE- HOSPITAL PHYSIO CONFIGURATION
253K360005	A	ASSY METIMAN PRE- HOSPITAL PHILLIPS AED CONFIGURATION
MMP 700 to Present		
253K360006	B	ASSY METIMAN PRE- HOSPITAL CERT
253K360007	B	ASSY METIMAN PRE-HOSPITAL TOUCH PRO CONFIGURATION CERT
253K360008	B	ASSY METIMAN PRE-HOSPITAL ZOLL CONFIGURATION CERT
253K360009	B	ASSY METIMAN PRE-HOSPITAL PHYSIO CONFIGURATION CERT
253K360010	B	ASSY METIMAN PRE-HOSPITAL PHILLIPS AED CONFIGURATION CERT
253K360011	A	ASSY METIMAN PRE-HOSPITAL TOUCHPRO CONFIG CERT TABLET
253K360012	A	ASSY METIMAN PRE-HOSPITAL ZOLL CONFIGURATION CERT TABLET
253K360013	A	ASSY METIMAN PRE-HOS PHYSIO CONFIGURATION CERT TABLET
253K360014	A	ASSY METIMAN PRE-HOS PHILLIPS AED CONFIG CERT TABLET

These searchable PDF documents were created from Indented Bill of Material inquires on the date listed at the bottom of each report.

To find a part number:

Use the Search function of your PDF viewer to search the document for the component or assembly description. You can also do searches on the Prefix (Part Type) Codes to locate all similar items - like circuit boards ("205K") or cables ("024K") as an example.

The following describes what information is contained in each BOM report:

Level:

This is the indented Level of each assembly and component. A "1" indicates that it is a top item or assembly. The deeper you go inside each assembly, the level number increases.

Find:

This number is located on the actual assembly drawing to identify the component pictured. It can be used to verify the correct part on its assembly BOM.

Component:

This is the CAE / METI 10-digit part number assigned to the item.

Rev:

Assemblies, kits and custom fabricated components all carry Rev letters or numbers to identify the configuration. These revs are updated every time the items are changed.

Component Description:

This is the part description as listed in the Deltek Item Master.

Qty:

This is the quantity of the component used in each particular subassembly.

U/M:

Unit of Measure. This is how the part is ordered from Stock. (Ft, Ea, etc.)

Note: Additional details about part numbers can be found in the document "METI Part Number Info" included with this package.

MMcClure 093011

253K360034_B**ASSY, APP Med**

This is one version of Apollo. Please see the February BOMs for more configurations.

Level	Find	Component	Rev	Component Description	Qty	U/M
1	0001	253K360032	A	ASSY, APOLLO, PRE- HOSPITAL, MED SKIN TONE, CERT	1.00	EA
2	0001	253K363400	A	ASSY, HEAD, TRU-CORP AIRWAY, O.D., APOLLO, EMS	1.00	EA
3	0001	253K363000	A	ASSY, TRU-CORP AIRWAY, O.D., EMS	1.00	EA
4	0002	252KK00007		TAPE, 1"WD X 36 YDS - 3M#8671	0.05	FT
4	0003	1219800032		FTG,RDCR, 1/8 BARB - 1/16 BARB	2.00	EA
4	0005	268KK00055		125ID,LATEX,187OD TUBING	0.50	FT
4	0006	4159800065		COUPLING, Y, 1/16" ID	1.00	EA
4	0008	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	5.00	EA
4	0009	024K270600	A	CA, SWITCH, CAROTID PULSE, ISTAN	2.00	EA
4	0010	2529800135		TAPE, 2S, VHB.025, 1 X 72 YD	0.50	FT
4	0012	016K273200	3	BRKT, UPPER DENTURE MOUNTING	1.00	EA
4	0013	104K273300	B	MAXILLA, UPPER DENTURE, ISTAN/APOLLO/MFS	1.00	EA
4	0015	229KK00076		SCR, PNH, 4-40 X 7/16	4.00	EA
4	0016	104K273800	B	MANDIBLE, LOWER DENTURE, ISTAN/APOLLO/MFS	1.00	EA
4	0018	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	1.00	EA
4	0019	229KK00077		SCR, PH,4-40 X 1/2 LG	4.00	EA
4	0022	104K272400	D	MANDIBLE, ISTAN	1.00	EA
4	0032	060KK00024		ADHESIVE,PRISM 401-20GM	1.00	BT
4	0041	104K351300	B	ADAPTER, SUCTIONING TO AIRWAY, O D	1.00	EA
4	0044	073KK00002		CPLG,Q-DSC,PLUG,3 8TUBING	2.00	EA
4	0045	121KK00045		FTG,FLANGE,TUBING	1.00	EA
4	0046	415KK00022		ADPTR,PRES,15MMIDX15MMOD	1.00	EA
4	0047	258KK00002		TIE,CABLE,1/16"-1-3/4",	1.00	EA
4	0048	121KK00002	1	FTG,10-32X1/8,CONN,MALE	1.00	EA
4	0050	1439800141		JACK, PLUG, MALE LUER	2.00	EA
4	0051	0739800015		FEMALE LUER TO 1/8 BARB	2.00	EA
4	0052	121KK00010	1	FTG,10-32-1/4,1TCH	1.00	EA
4	0053	104K355100	A	NASAL PASSAGE, METIMAN	1.00	EA
4	0054	104K355200	A	CRICOID, METIMAN	1.00	EA
4	0055	104K355500	A	PLUG, CRICOID, METIMAN	1.00	EA
4	0057	104K355000	A	AIRWAY, METIMAN	1.00	EA
4	0059	253K351000	B	ASSY, LARYNGO BLADDER, TRU-CORP AIRWAY, METIMAN	1.00	EA
5	0001	104K355400	A	LARYNGO HOUSING, METIMAN	1.00	EA
5	0002	104K354900	A	VOCAL CORD BLADDER	1.00	EA
5	0003	415KK00005		ADPTR,1/16X1/16BARB, INLINE SPLICER	1.00	EA
5	0004	2689800107		TBG,1/16 ID,1/8 OD,CLEAR	0.83	FT
4	0060	104K355600	B	BRACKET SUPPORT PHARYNX, METIMAN	1.00	EA
4	0061	104K355700	B	BRACKET TRACHEA TRUCORP, METIMAN	1.00	EA
4	0062	104K130800	3	TONGUE FOAM-ADV ARWY	1.00	EA
4	0063	104KK00052	1	BLDR, 3 75 X 1 5	1.00	EA
4	0064	126K350200	A	GUARD, AIRWAY, O D	1.00	EA
4	0066	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
4	0068	258KK00018		TIE, CABLE, BELT-TY, IN LINE, 8.3 INCH	1.00	EA
4	0069	268KK00600		TBG, RED 1/16 X 1/8	0.75	FT
4	0070	910K363000	A	TRU-CORP AIRWAY INSTRUCTIONS	1.00	EA
3	0002	104K272300	H	SKULL RIGHT, ISTAN	1.00	EA
3	0003	104K272200	H	SKULL LEFT, ISTAN	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
3	0004	024K270200	B	CA,SPEAKER, HEAD, ISTAN	2.00	EA
4	0001	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	1.50	FT
4	0002	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
4	0003	268KK00004		TBG,3/32,THERMOFIT,WHT	0.03	FT
4	SP1	430KK00006		SPEAKER,2 WATT, 4 OHM	1.00	EA
4	P1	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
4	0006	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	1.00	EA
3	0005	253K286100	H	ASSY, REACTIVE EYES, RIGHT, MOUNTED	1.00	EA
4	0001	104K285700	C	REACTIVE EYE MOUNT, RIGHT	1.00	EA
4	0002	104K285900	C	REACTIVE EYE LID CAM MOUNT	1.00	EA
4	0003	104K286000	B	REACTIVE EYE LID CAM	1.00	EA
4	0004	104K272700	C	EYE LID , ISTAN	1.00	EA
4	0005	271KK00084		ASSY,PANCAKE II CYLINDER, 1/2 BORE X 1 STROKE	1.00	EA
4	0006	178KK00040		BUMPER,THREADED, 8-32 STUD, 70 DUROMETER, NEOPRENE	1.00	EA
4	0007	297KK00083		STDF,SELF-CLINCH,4-40X5/8	2.00	EA
4	0008	253K500400	D	ASSY, REACTIVE EYE HOUSING, 8MM IRIS	1.00	EA
5	0001	136K069601	B	HSG, MOD OUTER EYE, HPS, ISTAN MOD	1.00	EA
5	0002	024K285700	A	CA, PHOTO DIODE, ISTAN	1.00	EA
6	0001	276KK00400		WIRE,24AWG,STRD,WHT,CE,IR	2.75	FT
6	LS	0369800006		PHOTOCELL, CDS, 250 OHM 100	1.00	EA
6	0003	268KK00006		TBG, 1/16,THERMO-FIT,WHT	0.13	FT
5	0003	286K280100	D	SLEEVE, MODIFIED, REACTIVE EYE	1.00	EA
5	0004	135K280100	B	HOUSING, SERVO, INNER EYE	1.00	EA
5	0005	239KK00102		SPACER, HEX , 4-40 M/F X 5/8	1.00	EA
5	0006	404K280400	F	SHAFT, DRIVE, 8MM IRIS	1.00	EA
5	0007	1949800135		PIN, DOWEL, METRIC, CRES,	1.00	EA
5	0008	104K287600	A	STANDOFF, MACHINED, REACTIVE EYE	1.00	EA
5	0009	229KK00404		SCREW, M2 X 0.4 X 4MM, PH, SS	2.00	EA
5	0010	229KK43002		SET SCREW 4-40 X .1875	1.00	EA
5	0011	104K287500	A	FLAG, SENSOR, REACTIVE EYE	1.00	EA
5	0012	101KK43002	A	SLEEVE, PIVOT REACTIVE EYES	1.00	EA
5	0013	229KK00636		SCR, 4-40 X .25 SOCKET HEAD	1.00	EA
5	0014	101KK43003	A	SLEEVE, LOCATING, REACTIVE EYES	1.00	EA
5	0015	163K280200	A	IRIS, SS, 8mm APERTURE, 14.8mm OD	1.00	EA
5	0016	252KK00020		TAPE, VINYL, WHITE,3M 471 1/2 X 36 YDS	0.50	FT
5	0017	113K350100	A	TINT, PHOTO SENSOR, REACTIVE EYE	1.00	EA
6	0001	113KK35000	A	FILM, TINT, HP 30	0.00	FT
5	0018	229KK00643		SCR, SET, 4-40 X 1/4", SS	1.00	EA
5	0019	400K350100	A	RING, REACTIVE EYE	1.00	EA
5	0020	113K350200	A	TINT, IRIS, BLUE, REACTIVE EYE	1.00	EA
6	0001	113KK35010		FILM, TINT, HP 50, BLUE	0.01	FT
4	0009	253K350400	A	ASSY, MOTOR, REACTIVE EYE, ISTAN	1.00	EA
5	M1	176KK00004		MOTOR, STEPPER 25MM	1.00	EA
4	0010	016K420400	A	BRACKET, STEPPER MOTOR, RIGHT	1.00	EA
4	0012	229KK00073		SCR, PNH, 4-40, 1/4 LG	4.00	EA
4	0015	229KK00338		SCR,PNH,4-40X1-1/8,XREC,	1.00	EA
4	0016	016K420800	A	BRACKET, PHOTO INTERRUPT	1.00	EA
4	0017	229KK00562		SCR, 2-56 X 9/16, PN PAN, MS, SS	2.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
4	0018	229KK00635		SCR, 4-40 X .5 SOCKET HEAD	2.00	EA
4	0019	273KK00154		WASHER, #2 NAS620 .089 ID .149 OD	2.00	EA
4	0020	255KK00049		TERM,SOLDER,RING, 100 PER BAG	1.00	EA
4	0021	242KK00018		SPRING, EXTENSION, .188 X .875, .018 MUSIC WIRE	1.00	EA
4	0022	024K283700	B	CA, PHOTO INTERRUPTER RIGHT, ISTAN	1.00	EA
5	0001	276KK00400		WIRE,24AWG,STRD,WHT,CE,IR	1.00	FT
5	J4	063KK00021		CONN, HSG, 5POS, MALE, IN-LINE	1.00	EA
5	0003	065KK00206		CONT CRIMP PIN 22-24 AWG TIN SLT ROHS	3.00	EA
5	LS	154KK42010		PHOTO INTERRUPTER	1.00	EA
5	R2	608KK01010		RES,200.0 OHMS 1% 1/4 W THROUGH HOLE	1.00	EA
5	0007	268KK00002		TBG,3/16,THERMO-FIT,WHT	0.06	FT
5	0008	268KK00006		TBG, 1/16,THERMO-FIT,WHT	0.13	FT
5	0009	276KK00402		WIRE, 24AWG, STRD, RED, CE, IR	2.00	FT
5	0010	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	2.00	FT
4	0023	060KA00001		CMPD,LOCTITE 242,BLUE, 50ml bt	0.00	BT
4	0024	229KK00639		SCR, SET, 4-40 X 3/16"	1.00	EA
4	0025	060KK00008		ADHESIVE, PRISM 401-3G TB	0.00	EA
4	0026	900KK00034		RM,FM,PORON,.062X4"	0.08	FT
4	0028	229KK00076		SCR, PNH, 4-40 X 7/16	2.00	EA
4	0030	229KK00188		SCR,FLH, 4-40 X 7/16	1.00	EA
4	0031	229KK00065		SCR,PNH, 2-56 X1/4	2.00	EA
4	0032	178KK00006		MNT,TIE,CBL,BK,ADH,NYL,	1.00	EA
4	0033	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	1.00	EA
4	0035	297KK00091		STANDOFF, M-F, 8-32, 1/2" HEX X 3/8" MALE THREAD, ZINC-STEEL	2.00	EA
4	0036	273KK00010		WASHER, #10, FLT, SS	1.00	EA
3	0006	253K286200	H	ASSY, REACTIVE EYES, LEFT, MOUNTED	1.00	EA
4	0001	104K285800	C	REACTIVE EYE MOUNT, LEFT	1.00	EA
4	0002	104K285900	C	REACTIVE EYE LID CAM MOUNT	1.00	EA
4	0003	104K286000	B	REACTIVE EYE LID CAM	1.00	EA
4	0004	104K272700	C	EYE LID , ISTAN	1.00	EA
4	0005	271KK00084		ASSY,PANCAKE II CYLINDER, 1/2 BORE X 1 STROKE	1.00	EA
4	0006	178KK00040		BUMPER,THREADED, 8-32 STUD, 70 DUROMETER, NEOPRENE	1.00	EA
4	0007	297KK00083		STDF,SELF-CLINCH,4-40X5/8	2.00	EA
4	0008	253K500400	D	ASSY, REACTIVE EYE HOUSING, 8MM IRIS	1.00	EA
5	0001	136K069601	B	HSG, MOD OUTER EYE, HPS, ISTAN MOD	1.00	EA
5	0002	024K285700	A	CA, PHOTO DIODE, ISTAN	1.00	EA
6	0001	276KK00400		WIRE,24AWG,STRD,WHT,CE,IR	2.75	FT
6	LS	0369800006		PHOTOCELL, CDS, 250 OHM 100	1.00	EA
6	0003	268KK00006		TBG, 1/16,THERMO-FIT,WHT	0.13	FT
5	0003	286K280100	D	SLEEVE, MODIFIED, REACTIVE EYE	1.00	EA
5	0004	135K280100	B	HOUSING, SERVO, INNER EYE	1.00	EA
5	0005	239KK00102		SPACER, HEX , 4-40 M/F X 5/8	1.00	EA
5	0006	404K280400	F	SHAFT, DRIVE, 8MM IRIS	1.00	EA
5	0007	1949800135		PIN, DOWEL, METRIC, CRES,	1.00	EA
5	0008	104K287600	A	STANDOFF, MACHINED, REACTIVE EYE	1.00	EA
5	0009	229KK00404		SCREW, M2 X 0.4 X 4MM, PH, SS	2.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0010	229KK43002		SET SCREW 4-40 X .1875	1.00	EA
5	0011	104K287500	A	FLAG, SENSOR, REACTIVE EYE	1.00	EA
5	0012	101KK43002	A	SLEEVE, PIVOT REACTIVE EYES	1.00	EA
5	0013	229KK00636		SCR, 4-40 X .25 SOCKET HEAD	1.00	EA
5	0014	101KK43003	A	SLEEVE, LOCATING, REACTIVE EYES	1.00	EA
5	0015	163K280200	A	IRIS, SS, 8mm APERTURE, 14.8mm OD	1.00	EA
5	0016	252KK00020		TAPE, VINYL, WHITE, 3M 471 1/2 X 36 YDS	0.50	FT
5	0017	113K350100	A	TINT, PHOTO SENSOR, REACTIVE EYE	1.00	EA
6	0001	113KK35000	A	FILM, TINT, HP 30	0.00	FT
5	0018	229KK00643		SCR, SET, 4-40 X 1/4", SS	1.00	EA
5	0019	400K350100	A	RING, REACTIVE EYE	1.00	EA
5	0020	113K350200	A	TINT, IRIS, BLUE, REACTIVE EYE	1.00	EA
6	0001	113KK35010		FILM, TINT, HP 50, BLUE	0.01	FT
4	0009	253K350400	A	ASSY, MOTOR, REACTIVE EYE, ISTAN	1.00	EA
5	M1	176KK00004		MOTOR, STEPPER 25MM	1.00	EA
4	0011	229KK00338		SCR, PNH, 4-40X1-1/8, XREC,	1.00	EA
4	0012	229KK00073		SCR, PNH, 4-40, 1/4 LG	4.00	EA
4	0015	016K420800	A	BRACKET, PHOTO INTERRUPT	1.00	EA
4	0016	229KK00562		SCR, 2-56 X 9/16, PN PAN, MS, SS	2.00	EA
4	0017	016K420300	A	BRACKET, STEPPER MOTOR, LEFT	1.00	EA
4	0018	273KK00154		WASHER, #2 NAS620 .089 ID .149 OD	2.00	EA
4	0019	229KK00635		SCR, 4-40 X .5 SOCKET HEAD	2.00	EA
4	0020	242KK00018		SPRING, EXTENSION, .188 X .875, .018 MUSIC WIRE	1.00	EA
4	0021	255KK00049		TERM,SOLDER,RING, 100 PER BAG	1.00	EA
4	0022	024K283600	B	CA, PHOTO INTERRUPTER LEFT, ISTAN	1.00	EA
5	0001	276KK00400		WIRE, 24AWG, STRD, WHT, CE, IR	1.00	FT
5	J3	063KK00021		CONN, HSG, 5POS, MALE, IN-LINE	1.00	EA
5	0003	065KK00206		CONT CRIMP PIN 22-24 AWG TIN SLT ROHS	3.00	EA
5	LS	154KK42010		PHOTO INTERRUPTER	1.00	EA
5	R2	608KK01010		RES, 200.0 OHMS 1% 1/4 W THROUGH HOLE	1.00	EA
5	0007	268KK00002		TBG, 3/16, THERMO-FIT, WHT	0.06	FT
5	0008	268KK00006		TBG, 1/16, THERMO-FIT, WHT	0.13	FT
5	0009	276KK00402		WIRE, 24AWG, STRD, RED, CE, IR	2.00	FT
5	0010	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	2.00	FT
4	0023	060KA00001		CMPD, LOCTITE 242, BLUE, 50ml bt	1.00	BT
4	0024	229KK00639		SCR, SET, 4-40 X 3/16"	1.00	EA
4	0025	900KK00034		RM, FM, PORON, .062X4"	0.08	FT
4	0026	060KK00008		ADHESIVE, PRISM 401-3G TB	0.00	EA
4	0027	229KK00076		SCR, PNH, 4-40 X 7/16	2.00	EA
4	0028	229KK00188		SCR, FLH, 4-40 X 7/16	1.00	EA
4	0029	229KK00065		SCR, PNH, 2-56 X1/4	2.00	EA
4	0030	178KK00006		MNT, TIE, CBL, BK, ADH, NYL,	1.00	EA
4	0031	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	1.00	EA
4	0033	297KK00091		STANDOFF, M-F, 8-32, 1/2" HEX X 3/8" MALE THREAD, ZINC-STEEL	2.00	EA
4	0034	273KK00010		WASHER, #10, FLT, SS	1.00	EA
3	0007	268K350100	A	ASSY, HEAD SECRETIONS, OD, EMS	1.00	EA
4	0001	073KK00015		ORIFICE, 019, RED	4.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
4	0002	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
4	0003	2689800107		TBG,1/16 ID,1/8 OD,CLEAR	7.00	FT
4	0004	4159800065		COUPLING, Y, 1/16" ID	2.00	EA
4	0005	4159800042		FTG, LUER FEMALE TO 1/16 TBG	4.00	EA
4	0006	1439800141		JACK, PLUG, MALE LUER	4.00	EA
3	0008	242KK00015		SPRING, CMPRSN, .375, SAPS	4.00	EA
3	0009	415KK00024		FTG,RA,BARB.062IDX10-32-N	2.00	EA
3	0010	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	2.00	EA
3	0012	178KK00036		SHOCK MOUNT, M6, MALE/FEMALE, 22 LB SHEAR	1.00	EA
3	0013	178KK00037		SHOCK MOUNT, M6, MALE/MALE, 79 LB SHEAR	1.00	EA
3	0014	404KK00007		TIE ROD END, WITHOUT STUD	4.00	EA
3	0015	223KK00002		ROD, THREADED, 10-32, 1-1/4 ", SS	2.00	EA
3	0016	104K286200	C	SKULL CAP	1.00	EA
3	0017	287KK00019		NUT,HEX,4-40,SELF-LOCKING	2.00	EA
3	0018	104K273001	B	MASK, SECRECTIONS, OD	1.00	EA
3	0019	104K276300	A	NECK FOAM, ISTAN	1.00	EA
3	0020	273KK00014		WASHER,1/4ID X 1"OD,STEEL	4.00	EA
3	0021	178KK00034		MOUNT, VIBRATION, 16 LBS	4.00	EA
3	0022	415KK00005		ADPTR,1/16X1/16BARB, INLINE SPLICER	11.00	EA
3	0023	1439800141		JACK, PLUG, MALE LUER	2.00	EA
3	0024	4159800068		FTG, MALE LUER, 1/16" ID,	2.00	EA
3	0025	1219800035		FITTING, 1/16 MALE INLINE	5.00	EA
3	0026	104K352800	A	HEAD SKIN, 2 TONE, SILICONE, APOLLO	1.00	EA
3	0028	016K350700	B	BRACKET, REACTIVE EYE PWM	1.00	EA
3	0029	018K279300	B	CCA, REACTIVE EYES, OD	2.00	EA
4	0001	206K279300	A	PCB, AIRWAY RESISTANCE CONTROLLER, ISTAN REV. A	1.00	EA
4	0002	3030100006		CAP CER X5R 0.1UF 25V 10% 0603 ROHS	3.00	EA
4	0003	3030100022		CAP CER COG 4700PF 25V 5% 0603 ROHS	2.00	EA
4	0004	3030100069		CAP CER COG 470PF 50V 5% 0603 ROHS	2.00	EA
4	0005	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	1.00	EA
4	0006	3030100073		CAP TANT 0.22UF 20V 20% LP 2012-12 ROHS	1.00	EA
4	0007	3030100074		CAP TANT 0.47UF 20V 20% LP 2012-12 ROHS	1.00	EA
4	0008	3030100075		CAP ALU 47UF 35V 20% MVA SMD ROHS	1.00	EA
4	0009	0880100027		DIODE SCHOTTKY 30V 0.1A SOD123 ROHS	4.00	EA
4	0010	0630100032		CONN, 4POS 0.079C RAPCB FRICTION TYPE PH ROHS	1.00	EA
4	0011	0630100027		CONN, 8POS 0.1C RAPCB LATCHING ROHS	1.00	EA
4	0013	6200100100		RES, TF 1.5 OHM 1W 1% 2512 ROHS	2.00	EA
4	0014	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	2.00	EA
4	0015	6200100101		RES, TF 39.0K OHM 1/10W 1% 0603 ROHS	2.00	EA
4	0019	0460100061		IC, STEPPER MOTOR CONTROLLER SO24 ROHS	1.00	EA
4	0020	0460100034		IC LVC 2INP OR GATE SINGLE SC-70 ROHS	2.00	EA
4	0023	0460100069		IC, VOLT REG LDO 13VIN 5.0 VOUT 0.3A SOT223-4 ROHS	1.00	EA
3	0030	229KK00078		SCR,PNHD,4-40X5/8"LG,XREC	4.00	EA
3	0031	229KK00087		SCR,PNH,SS,6-32 X1/2	4.00	EA
3	0033	104K246700	B	BLADDER, AIR, 2 400 X 3 100 X 250	1.00	EA
3	0034	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	5.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
3	0035	287KK00019		NUT,HEX,4-40,SELF-LOCKING	4.00	EA
3	0036	229KK00076		SCR, PNH, 4-40 X 7/16	6.00	EA
3	0037	104K352900	B	CRICOHYROTOMY SKIN, SILICON, APOLLO	1.00	EA
3	0038	024K350800	B	CA, REACTIVE EYE TO PWA	2.00	EA
4	0001	063KK01806		CONN, 4 PIN, JST	1.00	EA
4	0002	065KK01801		CONT, CRIMP, JST	4.00	EA
4	0003	0639802016		CONN HSG 4POS FEMALE IN-LINE LATCHING SL	1.00	EA
4	0004	065KK00207		CONT CRIMP SKT 24-30 AWG GOLD SL ROHS	4.00	EA
4	0005	276KK00611		WIRE, AWG24 STR PVC 600V UL1429 YEL	0.08	FT
4	0006	276KK00610		WIRE, AWG24 STR PVC 600V UL1429 RED	0.08	FT
4	0007	276KK00612		WIRE, AWG24 STR PVC 600V UL1429 BRN	0.08	FT
4	0008	276KK00623		WIRE, AWG24 STR PVC 600V UL1429 ORA	0.08	FT
4	0009	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
3	0039	127K350400	A	GSKT, FOAM, ADULT AIRWAY, 1/4", APOLLO	1.00	EA
3	0040	060KK00027		ADHESIVE,SILICONE RUBBER, SIL-POXY	0.10	BT
3	0042	024K350900	B	CA, REACTIVE EYE CCA TO TORSO	1.00	EA
4	0001	063KK00214		CONN HSG 2X7POS MALE IN-LINE MICROFIT 3.0	1.00	EA
4	0002	065KK00200		CONT CRIMP PIN 20-24 AWG TIN MICROFIT 3 0 ROHS	14.00	EA
4	0003	063KK01803		CONN HSG 8POS FEMALE IN-LINE LATCHING SLT	2.00	EA
4	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	24.00	EA
4	0005	063KK01802		CONN HSG 5POS FEMALE IN-LINE LATCHING SL	2.00	EA
4	0006	0639802018		CONN HSG 2POS MALE IN-LINE SL	1.00	EA
4	0007	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	2.00	EA
4	0008	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	10.75	FT
4	0009	276KK00634		WIRE, WHITE w/GREY STRIPE, 24 AWG, UL1429	2.42	FT
4	0010	276KK00635		WIRE, YELLOW w/GREY STRIPE, 24 AWG, UL1429	1.26	FT
4	0011	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	6.00	EA
4	0012	166KK00007		LBL,RIBBON CABLE	1.00	EA
4	0013	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
3	0044	127K350300	B	GASKET, FOAM, SPEAKER	2.00	EA
3	0046	104K355300	B	ATLAS, METIMAN	1.00	EA
3	0047	229KK00188		SCR,FLH, 4-40 X 7/16	2.00	EA
2	0002	253K360201	B	ASSY, TORSO, O.D., EMS, CERT	1.00	EA
3	0001	253K361901	C	ASSY, MANNEQUIN TRAY, OD, PRE-HOSPITAL, CERT	1.00	EA
4	0004	268K351400	A	ASSY, PULSE CONTROL, OD	1.00	EA
5	0001	121KK00002	1	FTG,10-32X1/8,CONN,MALE	13.00	EA
5	0002	121KK00010	1	FTG,10-32-1/4,1TCH	2.00	EA
5	0003	218KK00005		RGLTR,0 TO 30PSIG,N-RLV	1.00	EA
5	0004	1219800076		FTG, 5/32" X 1/8", RDCR, ONE	1.00	EA
5	0005	268KK00600		TBG, RED 1/16 X 1/8	32.00	FT
5	0006	268KK00700		TBG,RED 1/8 X 1/4	1.00	FT
5	0007	268KK01100		TBG,YELL 1/8 X 1/4	1.00	FT
5	0008	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	13.00	EA
5	0009	271KK35010		MANIFOLD, 13 STATION	1.00	EA
5	0010	121KK00105		FTG, ELBOW 1-TOUCH	1.00	EA
4	0005	268K351300	A	ASSY, AIR DISTRIBUTION & MANIFOLD, OD	1.00	EA
5	0001	268KK01100		TBG,YELL 1/8 X 1/4	8.00	FT

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0002	121KK00140		FTG, COUPLING INSERT, 1 8 ID BARB, ISTAN	1.00	EA
5	0003	0739800008		FTG, COUPLING, MALE, INLINE 1/8	3.00	EA
5	0004	121KK00002	1	FTG,10-32X1/8,CONN,MALE	3.00	EA
5	0005	121KK00010	1	FTG,10-32-1/4,1TCH	3.00	EA
5	0006	0739800010		COUPLING,F,1/8IN	4.00	EA
5	0007	2689800111		TBG,1/8ID,1/4OD,CLEAR,SFT	6.00	FT
5	0008	268KK01100		TBG,YELL 1/8 X 1/4	20.00	FT
4	0011	253K185000	B	ASSY, CONVULSIONS, ISTAN, MM	1.00	EA
5	0001	101K185000	B	WEIGHT,COUNTER,CONVULSION	1.00	EA
5	0002	176K187400	2	MOD, MOTOR, 440 RPM, 12 VDC	1.00	EA
5	0003	075K188300	B	COVER ASSY,CONVULSIONS	1.00	EA
5	0004	287KK00016		NUT,HEX,4-40 SST	2.00	EA
5	0005	229KK00296		SCR,PNH ,10-32 X7/16	1.00	EA
5	0008	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	1.00	EA
5	0009	024K161000	A	CA, MOTOR, CONVULSIONS, ISTAN	1.00	EA
6	0001	276KK00074		WIRE,#22,STRD,RED,600V	0.25	FT
6	0002	276KK00072		WIRE,#22,STRD,BLK,600V	0.25	FT
6	0003	268KK00002		TBG,3/16,THERMO-FIT,WHT	0.10	FT
6	0004	0639802018		CONN HSG 2POS MALE IN-LINE SL	1.00	EA
6	0005	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	2.00	EA
5	0010	273KK00025		WASHER,#4,INT TOOTH	2.00	EA
4	0012	268K351700	A	ASSY, AIRWAY MANAGEMENT, EN, OD, EMS	1.00	EA
5	0001	268KK01000		TBG, 1/8 OD X 1/16 ID, YELLOW	6.00	FT
5	0002	121KK00002	1	FTG,10-32X1/8,CONN,MALE	3.00	EA
5	0003	268KK01200		TBG, AQUATINT 1/16 X 1/8	4.00	FT
5	0004	218KK00005		RGLTR,0 TO 30PSIG,N-RLV	2.00	EA
5	0005	1219800076		FTG, 5/32" X 1/8", RDCR, ONE	2.00	EA
5	0006	0739800008		FTG, COUPLING, MALE, INLINE 1/8	2.00	EA
5	0008	271KK35020		MANIFOLD, 2 STATION	1.00	EA
5	0009	121KK00105		FTG, ELBOW 1-TOUCH	2.00	EA
4	0014	205K279500	D	CCA, NIBP MODULE, ISTAN	2.00	EA
5	0001	204K279500	D	PCB, NIBP MODULE, ISTAN	1.00	EA
5	NOTE	3030100066		CAP CER X7R 0.1UF 16V 20% 0603 ROHS	1.00	EA
5	NOTE	0630100019		CONN, 3POS 0.1C RAPCB LATCHING ROHS	1.00	EA
5	NOTE	046KK00072		IC, PRESSURE SENSOR 50KPa MINIATURE AMPLIFIED ROHS	1.00	EA
5	NOTE	0460100062		IC, VOLT REG LDO 5.5-26VIN 12VOUT 0.1A SOT223-4 ROHS	1.00	EA
5	0006	905K279534	B	TEST PROCEDURE, FUNCTIONAL, ISTAN NIBP MODULE	1.00	EA
5	0007	905K000134	A	PROCEDURE, AUTOMATED TEST SETUP	1.00	EA
5	0008	905K279634	A	TEST PROCEDURE, NIBP MODULE, ISTAN	1.00	EA
4	0015	205K351700	B	CCA, AIRWAY PRESSURE SENSOR VER2	2.00	EA
5	0001	204K351700	A	PCB, AIRWAY PRESSURE SENSOR VER2	1.00	EA
5	0002	3030100066		CAP CER X7R 0.1UF 16V 20% 0603 ROHS	3.00	EA
5	0003	3030100021		CAP CER X5R 22UF 25V 20% 1210 ROHS	2.00	EA
5	0004	3030100020		CAP CER X7R 1000PF 100V 20% 0603 ROHS	4.00	EA
5	0005	0880100059		FERRITE BEAD 1KOHM@100MHZ ISAT=0.3 DCR=0.58 0402 ROHS	3.00	EA
5	0006	0630100019		CONN, 3POS 0.1C RAPCB LATCHING ROHS	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0007	6200100093		RES, TF 374 OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0008	6200100068		RES TF 0 OHM 1A 0603 ROHS	2.00	EA
5	0009	0460100056		IC, INST AMP AD627 SO8 ROHS	1.00	EA
5	0010	0460100039		IC SENSOR 0-5PSI G-MINI FDIP8 ROHS	1.00	EA
5	0011	252KK00029		ADHESIVE, EPOXY, SCOTCH-WELD, TUBE, 2FL.OZ.	1.00	EA
4	0018	253K285100	A	ASSY, CO2 REGULATOR, ISTAN	0.00	EA
4	0020	271KK35070		MANIFOLD, 11 STATION	1.00	EA
4	0022	268K351600	B	ASSY, BRONCHIAL OCCLUSION, OD, EMS	2.00	EA
5	0003	271KK35060		VALVE, PNEUMATIC, PILOTED, AIR PINCH	1.00	EA
5	0005	121KK00146		FTG, 1/4 NPT TO 3/8 BARB	1.00	EA
5	0006	121KK00147		FTG, 1/4 NPT TO 3/8 BARB, 90	1.00	EA
5	0008	121KK00057	1	FTG, 1 TOUCH, 1/8NPTX1/4OD	1.00	EA
5	0009	268KK00058		TBG,CUFFLESS,15MM ID X 24 LG	1.00	EA
5	0010	121KK00094		FTG, ELBOW, 1/8 X .25	1.00	EA
4	0023	042K352000	C	SLED, O.D.	1.00	EA
4	0026	042K352100	A	PLATE, PELVIC, O.D.	1.00	EA
4	0028	042K352200	A	GUSSET, LEG BACKING PLATE, O.D.	2.00	EA
4	0029	016K351200	E	BRACKET, CIRCUIT BOARD MOUNT, OD	1.00	EA
4	0030	250KK00020		SENSOR, PRESSURE, PRES SEN INTEG	0.00	EA
4	0032	169KK35001		SANDISK, 4GB MICRO SD CARD W/ADAPTER	1.00	EA
4	0049	024K270100	B	CA, HEART/ BREATH SOUNDS, ISTAN	6.00	EA
5	0001	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	0.25	FT
5	0002	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0003	268KK00004		TBG,3/32,THERMOFIT,WHT	0.03	FT
5	SP1	430KK00005		SPEAKER, 1 WATT, 8 OHM	1.00	EA
5	P1	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0006	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	1.00	EA
4	0052	111K350000	B	RETAINER, BOW SPRING, OD	2.00	EA
4	0053	111K350100	C	GUIDE, BOW SPRING, OD	2.00	EA
4	0056	104KK35010	A	STOP, LEFT/RIGHT LEG, O.D.	2.00	EA
4	0057	042K351101	C	NECK SUPPORT, TORSO FRAME, MACHINED, O.D.	1.00	EA
4	0058	205K610400	G	CCA, ENHANCED RHM MOTHERBOARD	2.00	EA
5	0001	206K610400	B	PCB, ENHANCED RHM MOTHER BOARD	1.00	EA
5	0002	0630100014		SHUNT, 2POS 0.079"C ROHS	1.00	EA
5	0003	178KK00014		BUMPER ADH BACK 1/4"DIA X 5/16"H CLR POLYURETHANE	1.00	EA
5	0004	3030100107		CAP CER X5R 0.1UF 16V 20% 0402 ROHS	36.00	EA
5	0005	3030100106		CAP CER X7R 1000PF 50V 10% 0402 ROHS	2.00	EA
5	0006	3030100133		CAP CER C0G 10PF 50V 5% 0402 ROHS	2.00	EA
5	0007	3030100135		CAP CER X5R 10UF 6V3 20% 0603 ROHS	7.00	EA
5	0008	3030100134		CAP CER X5R 22UF 6V3 20% 0805 ROHS	2.00	EA
5	0009	3030100066		CAP CER X7R 0.1UF 16V 20% 0603 ROHS	48.00	EA
5	0010	3030100010		CAP CER NPO 22PF 50V 5% 0603 ROHS	2.00	EA
5	0011	3030100099		CAP TANT 10UF 10V 10% 3216 ROHS	1.00	EA
5	0012	3030100065		CAP CER X5R 10UF 25V 10% 1206 ROHS	5.00	EA
5	0013	3030100001		CAP CER X5R 1.0UF 25V 10% 0603 ROHS	3.00	EA
5	0014	3030100102		CAP CER COG 15PF 50V 5% 0603 ROHS	2.00	EA
5	0015	3030100095		CAP CER X7R 0.47UF 25V 10% 0603 ROHS	2.00	EA
5	0016	3030100007		CAP CER X7R 0.047UF 25V 10% 0603 ROHS	1.00	EA
5	0017	3030100017		CAP CER X7R 0.01UF 25V 5% 0603 ROHS	9.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0018	3030100086		CAP CER X7R 0.01UF 16V 10% 0402 ROHS	21.00	EA
5	0019	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	5.00	EA
5	0020	3030100087		CAP TANT 470UF 6.3V 10% 7343-31 ROHS	1.00	EA
5	0021	3030100020		CAP CER X7R 1000PF 100V 20% 0603 ROHS	1.00	EA
5	0022	3030100063		CAP CER X5R 10UF 10V 20% 0805 ROHS	2.00	EA
5	0023	3030100059		CAP TANT 47UF 25V 20% 7343 ROHS	1.00	EA
5	0024	3030100093		CAP, CER X7R 0.001UF 50V 20% 0603 ROHS	6.00	EA
5	0025	3030100136		CAP CER X5R 22UF 10V 20% 1206 ROHS	1.00	EA
5	0026	3030100098		CAP CER X5R 47UF 16V 20% 1210 ROHS	1.00	EA
5	0027	3030100006		CAP CER X5R 0.1UF 25V 10% 0603 ROHS	1.00	EA
5	0028	0880100041		LED 525NM GREEN WTR CLR 0603 ROHS	11.00	EA
5	0029	0880100054		LED 605NM RED WTR CLR 0603 ROHS	1.00	EA
5	0030	0880100038		TVS BIDIRECT 400W 22V SMA ROHS BY EXEMPTION	3.00	EA
5	0031	0880100042		TVS, DUAL 14.5V SOT23 ROHS	1.00	EA
5	0032	0880100037		DIODE SW DUAL SERIES 80V 200mA SOT363 ROHS	3.00	EA
5	0033	0880100043		DIODE SWITCHING 75V 0.215A SOT23 ROHS	2.00	EA
5	0034	0880100040		DIODE SCHOTTKY 10V 2A SOD123F ROHS	2.00	EA
5	0035	0880100027		DIODE SCHOTTKY 30V 0.1A SOD123 ROHS	2.00	EA
5	0036	0550100027		FERRITE 470 OHMS @ 100MHZ ISAT=1.5A DCR=0.13 0603 ROHS	4.00	EA
5	0037	0630100053		CONN 3POS HDR 2MM SMT ROHS	1.00	EA
5	0038	0630100082		CONNECTOR 10 PIN HEADER 2MM PITCH ROHS	1.00	EA
5	0039	0630100064		CONN, USB TYPE B RAPCB ROHS	1.00	EA
5	0040	0630100006		CONN 3POS 0.079"C PCB TYPE PH ROHS	1.00	EA
5	0041	0630100054		CONN HEADER 2X3POS 0.1C PCB ROHS	2.00	EA
5	0042	0630100060		CONN. 2X8 (16PIN) SHROUDED THRU HOLE 2MM RA ROHS	1.00	EA
5	0043	0630100086		CONNECTOR MICRO-SD CARD SLOT PUSH-PULL HINGE SMT ROHS	1.00	EA
5	0044	0630100059		CONN. 2X12 (24PIN) SHROUDED THRU HOLE 2MM RA ROHS	2.00	EA
5	0045	0630100066		CONN PULSEJACK 1PORT 10/100B-TX ROHS	2.00	EA
5	0046	0630100050		CONN, 2POS .118"C RAPCB MICROFIT ROHS	1.00	EA
5	0047	0630100067		CONN 2X5POS 0.1C SHROUDED W/KEY PCB ROHS	1.00	EA
5	0048	063KK00396		CONN, 80 POS, DUAL ROW, PLUG, SMD, 0.8mm, GOLD	2.00	EA
5	0049	0630100068		CONN PWR JACK 2.1X5.5MM ROHS	1.00	EA
5	0050	0630100055		CONN 2POS HDR 2MM SMT ROHS	1.00	EA
5	0051	0630100010		CONN 4POS 0.079"C PCB TYPE PH ROHS	1.00	EA
5	0052	0630100069		CONN HEADER PH TOP 5POS 2MM	1.00	EA
5	0053	0630100062		CONN 2X5POS 0.079"C SHROUDED PCB ROHS	1.00	EA
5	0054	0630100094		CONN 2X10POS 0.079C PCB IGRIDT ROHS	1.00	EA
5	0055	055KK00200		CHOKE, COMMON MODE, 15A, DCR=0.0008, 2021 ROHS	2.00	EA
5	0056	0550100018		INDUCTOR 2.2uH 2.7A 30% DCR=0.042 OHM SMD ROHS	2.00	EA
5	0057	0550100012		CHOKE, COMMON MODE 0.3A DCR=0.3 0805 ROHS	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0058	2630100012		TRANS PMOSFET -30V -6.4A POWERPAK 1212-8 ROHS	3.00	EA
5	0059	2630100015		TRANS, NMOSFET 30V 13A SOT23 ROHS	1.00	EA
5	0060	2630100017		TRANS, PMOSFET 30V 0.9A SSOT3 ROHS	1.00	EA
5	0061	2630100020		TRANS, PMOSFET -30V -2A SOT23 ROHS	2.00	EA
5	0062	2630100002		TRANS, NPN TYPE 2N3904 SOT23 ROHS	2.00	EA
5	0063	6200100224		RES 10.0 OHM 1/16W 1% 0402 ROHS	5.00	EA
5	0064	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	4.00	EA
5	0065	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	12.00	EA
5	0066	6200100146		RES TF 22 OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0067	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0068	6200100147		RES TF 1.5K OHM 1/10W 5% 0603 ROHS	1.00	EA
5	0069	6200100091		RES, TF 1K OHM 1/10W 5% 0603 ROHS	5.00	EA
5	0070	6200100155		RES TF 0 OHM 5% 1/16W 0402 ROHS	2.00	EA
5	0071	6200100148		RES TF 3.01K OHM 1/16W 1% 0402 ROHS	1.00	EA
5	0072	6200100149		RES TF 10.0K OHM 1/16W 1% 0402 ROHS	5.00	EA
5	0073	6200100150		RES TF 1K OHM 1/16W 1% 0402 ROHS	5.00	EA
5	0074	6200100222		RES TF 4.75K OHM 1/10W 1% 0603 ROHS	2.00	EA
5	0075	6200100015		RES TF 49.9 OHM 1/10W 1% 0603 ROHS	8.00	EA
5	0076	6200100151		RES TF 220 OHM 1/10W 5% 0603 ROHS	4.00	EA
5	0077	6200100131		RES TF 390 OHM 1/10W 1% 0603 ROHS	12.00	EA
5	0078	6200100049		RES TF 470K OHM 1/10W 5% 0603 ROHS	4.00	EA
5	0079	6200100223		RES 15.0 OHM 1/16W 1% 0402 ROHS	2.00	EA
5	0080	6200100152		RES TF 15K OHM 1/10W 5% 0603 ROHS	1.00	EA
5	0081	6200100153		RES TF 22K OHM 1/10W 5% 0603 ROHS	1.00	EA
5	0082	6200100154		RES TF 27 OHM 1/10W 5% 0603 ROHS	2.00	EA
5	0083	6200100136		RES TF 330K 1/10W 1% 0603 ROHS	2.00	EA
5	0084	6200100003		RES TF 10.0K OHM 1/10W 1% 0603 ROHS	12.00	EA
5	0085	6200100013		RES TF 4.99K OHM 1/10W 1% 0603 ROHS	2.00	EA
5	0086	6200100130		RES TF 4.7K OHM 1/10W 1% 0603 ROHS	3.00	EA
5	0087	6200100071		RES TF 100 OHM 1/10W 1% 0603 ROHS	7.00	EA
5	0088	6200100097		RES, TF 10 OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0089	6200100157		RES 3TF 00 OHM 1/10W 1% 0603 ROHS	8.00	EA
5	0090	6200100132		RES TF 470 OHM 1/10W 1% 0603 ROHS	6.00	EA
5	0091	6200100012		RES TF 20.0K OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0092	6200100236		RES TF 68.0 OHM 1/16W 1% 0402 ROHS	5.00	EA
5	0093	6200100237		RES TF 49.9 OHM 1/16W 1% 0402 ROHS	3.00	EA
5	0094	6200100235		RES TF 33.0 OHM 1/16W 1% 0402 ROHS	2.00	EA
5	0095	6200100156		RES MF 0.15 OHM 1/2W 1% 1206 ROHS	2.00	EA
5	0096	6200100130		RES TF 4.7K OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0097	6200100015		RES TF 49.9 OHM 1/10W 1% 0603 ROHS	16.00	EA
5	0098	6200100142		RES TF 2K OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0099	6200100026		RES TF 200 OHM 1/10W 1% 0603 ROHS	2.00	EA
5	0100	6200100238		RES TF 28.0 OHM 1/16W 1% 0402 ROHS	1.00	EA
5	0101	6200100239		RES TF 24.0 OHM 1/16W 1% 0402 ROHS	2.00	EA
5	0102	6200100240		RES TF 27.0 OHM 1/16W 1% 0402 ROHS	1.00	EA
5	0103	6200100241		RES TF 47.0 OHM 1/16W 1% 0402 ROHS	1.00	EA
5	0104	6200100242		RES TF 62.0 OHM 1/16W 1% 0402 ROHS	1.00	EA
5	0105	6200100049		RES TF 470K OHM 1/10W 5% 0603 ROHS	2.00	EA
5	0106	2500100007		SWITCH SPST MOM NO ROHS	2.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0107	2500100006		SWITCH 3POS DIP 0.1C SMT ROHS	2.00	EA
5	0108	0630100070		TEST POINT PC MULTI PURPOSE BLK ROHS	1.00	EA
5	0109	0460100090		IC ARM7 MCU FLASH 512K LQFP128 ROHS	1.00	EA
5	0110	0460100124		IC 2 PORT ETHERNET SWITCH I-TEMP LFBGA100 ROHS	1.00	EA
5	0111	0460100027		IC LOWLOSS POWERPATH CONTROLLER TSOT-6 ROHS	5.00	EA
5	0112	0460100092		IC SDRAM 256MB 133MHZ 54-VFBGA ROHS	1.00	EA
5	0114	0460100094		IC POWER ON RESET SOT23-5 ROHS	1.00	EA
5	0115	0460100095		IC LINE TX\RX RS-232 32-LFCSP_VQ ROHS	1.00	EA
5	0116	0460100096		IC, 400-GATE FPGA SPARTAN-3AN BGA 1MMX20X20 ROHS	1.00	EA
5	0117	0460100082		IC REG DC-DC LINEAR DUAL 1.5A 24LLP ROHS	1.00	EA
5	0118	0460100073		IC, SERIAL FLASH 8MBIT MEMORY SO8 ROHS	1.00	EA
5	0119	0460100071		IC BUFFER SGL 3 STATE LINE DRV NON INV SOT235 ROHS	1.00	EA
5	0120	0460100097		IC AMP HISIDE CURR V-OUT 20 GAIN SOT23-6	2.00	EA
5	0121	0460100076		IC DAC 8 CHAN R-R 12 BIT 16SSOP ROHS	1.00	EA
5	0122	0460100075		IC 8 CHAN ADC 12 BIT SSOP-20 ROHS	1.00	EA
5	0123	0460100089		IC OPTO ISOL DARL 2CH 18V/60mA OUTPUT 8SOIC ROHS	1.00	EA
5	0124	0460100081		IC SENSOR TOUCH/PROXMTY 24-SOICW ROHS - do not scrap	1.00	EA
5	0125	0460100079		IC VOLT-LEVEL 4BIT BI-DIR TRANSLATOR 14-QFN	2.00	EA
5	0126	1840100002		XTAL 18.432MHZ 18PF 5X3.2MM ROHS	1.00	EA
5	0127	1840100003		XTAL 25MHZ 18PF 3.2X2.5MM ROHS	1.00	EA
5	0128	1840100004		OSC, 50MHZ 50PPM 15PF 3X2.5 SMD ROHS	1.00	EA
5	0129	6200100256		RES TF 24.9K OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0130	905K610401	D	SCHEMATIC, ENHANCED RHM MOTHERBOARD	1.00	EA
4	0059	205K610500	G	CCA, ENHANCED, RHM DAQ DAUGHTER BOARD	1.00	EA
5	0001	206K610500	C	PCB, ENHANCED, RHM DAQ DAUGHTER BOARD	1.00	EA
5	0002	0630100014		SHUNT, 2POS 0.079"C ROHS	2.00	EA
5	0003	3030100006		CAP CER X5R 0.1UF 25V 10% 0603 ROHS	54.00	EA
5	0004	3030100007		CAP CER X7R 0.047UF 25V 10% 0603 ROHS	1.00	EA
5	0005	3030100017		CAP CER X7R 0.01UF 25V 5% 0603 ROHS	9.00	EA
5	0006	3030100086		CAP CER X7R 0.01UF 16V 10% 0402 ROHS	21.00	EA
5	0007	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	4.00	EA
5	0008	3030100066		CAP CER X7R 0.1UF 16V 20% 0603 ROHS	13.00	EA
5	0009	3030100087		CAP TANT 470UF 6.3V 10% 7343-31 ROHS	1.00	EA
5	0010	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	1.00	EA
5	0011	3030100088		CAP CER X5R 10UF 25V 20% 1206 ROHS	7.00	EA
5	0012	3030100089		CAP TANT 10UF 16V 20% 1206 ROHS	2.00	EA
5	0013	3030100090		CAP TANT 1.0UF 20V 10% 1206 ROHS	1.00	EA
5	0014	3030100091		CAP CER X7R 1800PF 50V 10% 0603 ROHS	1.00	EA
5	0016	3030100092		CAP TANT 47UF 16V 20% 6032-28 ROHS	1.00	EA
5	0017	3030100093		CAP, CER X7R 0.001UF 50V 20% 0603 ROHS	8.00	EA
5	0018	3030100094		CAP CER X5S 1.0UF 25V 20% 0603 ROHS	3.00	EA
5	0019	3030100095		CAP CER X7R 0.47UF 25V 10% 0603 ROHS	2.00	EA
5	0020	3030100096		CAP CER X5R 2.2UF 16V 10% 0603 ROHS	1.00	EA
5	0021	3030100097		CAP TANT 4.7UF 16V 20% 0603 ROHS	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0022	3030100017		CAP CER X7R 0.01UF 25V 5% 0603 ROHS	3.00	EA
5	0023	3030100020		CAP CER X7R 1000PF 100V 20% 0603 ROHS	1.00	EA
5	0024	3030100098		CAP CER X5R 47UF 16V 20% 1210 ROHS	1.00	EA
5	0025	0880100033		LED GREEN CLEAR 0603 RT ANG SMD ROHS	5.00	EA
5	0026	0880100034		LED YELLOW CLEAR 0603 RT ANG SMD ROHS	3.00	EA
5	0027	0880100035		LED SUPR RED CLR 0603 RT ANG SMD ROHS	1.00	EA
5	0028	0880100037		DIODE SW DUAL SERIES 80V 200mA SOT363 ROHS	5.00	EA
5	0029	0880100038		TVS BIDIRECT 400W 22V SMA ROHS BY EXEMPTION	2.00	EA
5	0030	0880100039		DIODE SWITCHING 75V 0.2A SOD123 ROHS	24.00	EA
5	0031	0880100004		DIODE SCHOTTKY 40V 1A POWERMITE ROHS	2.00	EA
5	0032	0880100040		DIODE SCHOTTKY 10V 2A SOD123F ROHS	2.00	EA
5	0033	0550100027		FERRITE 470 OHMS @ 100MHZ ISAT=1.5A DCR=0.13 0603 ROHS	2.00	EA
5	0034	0630100053		CONN 3POS HDR 2MM SMT ROHS	2.00	EA
5	0035	0630100054		CONN HEADER 2X3POS 0.1C PCB ROHS	2.00	EA
5	0036	0630100055		CONN 2POS HDR 2MM SMT ROHS	1.00	EA
5	0037	0630100056		CONN. RECP 2X40 (80PIN) 0.8MM PITCH ROHS	2.00	EA
5	0038	0630100057		CONN. 2X13 (26PIN) SHROUDED THRU HOLE 2MM RA ROHS	3.00	EA
5	0039	0630100058		CONN. 2X17 (34PIN) SHROUDED THRU HOLE 2MM RA ROHS	1.00	EA
5	0040	0630100059		CONN. 2X12 (24PIN) SHROUDED THRU HOLE 2MM RA ROHS	3.00	EA
5	0041	0630100060		CONN. 2X8 (16PIN) SHROUDED THRU HOLE 2MM RA ROHS	1.00	EA
5	0042	055KK00200		CHOKE, COMMON MODE, 15A, DCR=0.0008, 2021 ROHS	2.00	EA
5	0043	0550100018		INDUCTOR 2.2uH 2.7A 30% DCR=0.042 OHM SMD ROHS	2.00	EA
5	0044	063KK00396		CONN, 80 POS, DUAL ROW, PLUG, SMD, 0.8mm, GOLD	2.00	EA
5	0045	2630100015		TRANS, NMOSFET 30V 13A SOT23 ROHS	1.00	EA
5	0046	2630100016		TRANS NMOSFET 30V 13A SO8 ROHS	2.00	EA
5	0047	2630100017		TRANS, PMOSFET 30V 0.9A SSOT3 ROHS	2.00	EA
5	0048	2630100018		TRANS, PNP VCE=60V IC=0.5A SOT23 ROHS	1.00	EA
5	0049	6200100003		RES TF 10.0K OHM 1/10W 1% 0603 ROHS	5.00	EA
5	0050	6200100130		RES TF 4.7K OHM 1/10W 1% 0603 ROHS	8.00	EA
5	0051	6200100131		RES TF 390 OHM 1/10W 1% 0603 ROHS	9.00	EA
5	0052	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	38.00	EA
5	0054	6200100097		RES, TF 10 OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0055	6200100133		RES TF 20 OHM 1/10W 1% 0603 ROHS	8.00	EA
5	0056	6200100132		RES TF 470 OHM 1/10W 1% 0603 ROHS	7.00	EA
5	0057	6200100134		RES TF 15.0K OHM 1/10W 1% 0603 ROHS	14.00	EA
5	0058	6200100135		RES TF 270 OHM 1/10W 1% 0603 ROHS	2.00	EA
5	0059	6200100013		RES TF 4.99K OHM 1/10W 1% 0603 ROHS	9.00	EA
5	0060	6200100012		RES TF 20.0K OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0061	6200100223		RES 15.0 OHM 1/16W 1% 0402 ROHS	2.00	EA
5	0062	6200100142		RES TF 2K OHM 1/10W 1% 0603 ROHS	11.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0063	6200100136		RES TF 330K 1/10W 1% 0603 ROHS	1.00	EA
5	0064	6200100137		RES MF 0.024 1/2W 1% 1206 ROHS	2.00	EA
5	0065	6200100072		RES TF 249 OHM 1/10W 1% 0603 SMD ROHS	2.00	EA
5	0066	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0067	6200100138		RES TF 73.2K 1/10W 1% 0603 ROHS	1.00	EA
5	0068	6200100139		RES TF 43.2K 1/10W 1% 0603 ROHS	1.00	EA
5	0069	6200100140		RES TF 340 OHM 1/10W 1% 0603 ROHS	6.00	EA
5	0070	6200100096		RES, TF 140 OHM, 1/10W 1% 0603 ROHS	6.00	EA
5	0071	6200100141		RES TF 75 OHM 1/10W 1% 0603 ROHS	8.00	EA
5	0072	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	26.00	EA
5	0073	6200100143		RES TF 0.0 OHM 1/4W 5% 1206 ROHS	2.00	EA
5	0074	6200100071		RES TF 100 OHM 1/10W 1% 0603 ROHS	4.00	EA
5	0075	6200100145		RES TF 249K OHM 1/10W 5% 0603 ROHS	1.00	EA
5	0076	0550100034		FERRITE CHIP 1000 OHM 50MA 0603 ROHS	30.00	EA
5	0077	2500100004		SWITCH 6POS DIP HALF PITCH 9.2X5.6(MM) SMD ROHS	1.00	EA
5	0078	2500100005		SWITCH 2POS DIP HALF PITCH 8X4.1(MM) ROHS	1.00	EA
5	0079	0460100070		IC, 400-GATE FPGA SPARTAN-3A BGA 1MMX20X20 ROHS	1.00	EA
5	0082	0460100073		IC, SERIAL FLASH 8MBIT MEMORY SO8 ROHS	1.00	EA
5	0083	0460100074		IC 8 CHAN ADC 12 BIT SSOP-28 ROHS	1.00	EA
5	0084	0460100075		IC 8 CHAN ADC 12 BIT SSOP-20 ROHS	1.00	EA
5	0085	0460100076		IC DAC 8 CHAN R-R 12 BIT 16SSOP ROHS	3.00	EA
5	0086	0460100077		IC PREC 8 CHANNEL ANALOG MULT TSSOP16 ROHS	2.00	EA
5	0087	0460100078		IC INST. AMPLIFIER 12 DFN ROHS	1.00	EA
5	0088	0460100079		IC VOLT-LEVEL 4BIT BI-DIR TRANSLATOR 14-QFN	5.00	EA
5	0089	0460100080		IC THERMAL SUPERVISOR SOT23-6 ROHS	1.00	EA
5	0090	0460100081		IC SENSOR TOUCH/PROXMTY 24-SOICW ROHS - do not scrap	1.00	EA
5	0091	0460100082		IC REG DC-DC LINEAR DUAL 1.5A 24LLP ROHS	1.00	EA
5	0092	0460100126		IC LDO VREG 5V/0.2A OUT W/DELAY SO-8 ROHS	1.00	EA
5	0093	0460100084		IC HOT SWAP DUAL RAIL CONTROLLER QSOP16 ROHS	1.00	EA
5	0094	0460100085		IC VOLT-LEVEL 4BIT BI-DIR TRANSLATOR OPEN DRN 14-QFN	2.00	EA
5	0095	0460100086		IC 2 CH OPTO COUPLER 3.3V SO8 ROHS	3.00	EA
5	0096	0460100087		IC CPLD 32MCELL 32 QFN ROHS	1.00	EA
5	0097	0460100088		IC OPTO ISOLATOR 4 CHAN 40V/40mA OUTPUT SSOP16 ROHS	2.00	EA
5	0098	0460100089		IC OPTO ISOL DARL 2CH 18V/60mA OUTPUT 8SOIC ROHS	13.00	EA
5	0099	0630100014		SHUNT, 2POS 0.079"C ROHS	2.00	EA
5	0101	905K610501	F	SCHEMATIC, ENHANCED RHM DAQ DAUGHTERBOARD	1.00	EA
4	0060	205K610600	C	CCA, ENHANCED, RHM AUDIO DAUGHTER BOARD	1.00	EA
5	0001	206K610600	A	PCB, ENHANCED, RHM AUDIO DAUGHTER BOARD	1.00	EA
5	0002	0630100014		SHUNT, 2POS 0.079"C ROHS	4.00	EA
5	0003	3030100017		CAP CER X7R 0.01UF 25V 5% 0603 ROHS	6.00	EA
5	0004	3030100066		CAP CER X7R 0.1UF 16V 20% 0603 ROHS	15.00	EA
5	0005	3030100104		CAP CER X5R 10UF 16V 10% 0805 ROHS	6.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0006	3030100001		CAP CER X5R 1.0UF 25V 10% 0603 ROHS	11.00	EA
5	0007	3030100086		CAP CER X7R 0.01UF 16V 10% 0402 ROHS	58.00	EA
5	0008	3030100105		CAP CER X5R 4.7UF 10V 20% 0805 ROHS	5.00	EA
5	0009	3030100095		CAP CER X7R 0.47UF 25V 10% 0603 ROHS	2.00	EA
5	0010	3030100087		CAP TANT 470UF 6.3V 10% 7343-31 ROHS	1.00	EA
5	0011	3030100108		CAP CER X5R 1.0UF 10V 10% 0402 ROHS	53.00	EA
5	0012	3030100106		CAP CER X7R 1000PF 50V 10% 0402 ROHS	17.00	EA
5	0013	3030100050		CAP CER NPO 18PF 50V 5% 0603 ROHS	1.00	EA
5	0014	3030100107		CAP CER X5R 0.1UF 16V 20% 0402 ROHS	31.00	EA
5	0015	3030100007		CAP CER X7R 0.047UF 25V 10% 0603 ROHS	1.00	EA
5	0016	3030100122		CAP CER X5R 10UF 10V 20% 0603 ROHS	20.00	EA
5	0018	3030100148		CAP CER X7R 4700pF 50V 5% 0402 ROHS	2.00	EA
5	0019	3030100111		CAP CER X5R 2.2UF 10V 10% 0603 ROHS	2.00	EA
5	0020	3030100110		CAP CER COG 100PF 50V 5% 0402 ROHS	36.00	EA
5	0021	0880100041		LED 525NM GREEN WTR CLR 0603 ROHS	4.00	EA
5	0022	0880100054		LED 605NM RED WTR CLR 0603 ROHS	1.00	EA
5	0023	0880100040		DIODE SCHOTTKY 10V 2A SOD123F ROHS	2.00	EA
5	0024	0550100035		FERRITE BEAD 600 OHM ISAT=2A DCR=0.1 0805 ROHS	6.00	EA
5	0025	0550100036		FERRITE BEAD 300 OHMS @ 100MHZ ISAT=2A DCR=0.1 0603 ROHS	36.00	EA
5	0026	0630100003		CONN HEADER 3POS 0.079C ROHS	4.00	EA
5	0027	0630100072		CONN HEADER 2POS 0.079C PCB ROHS	1.00	EA
5	0028	0630100056		CONN. RECP 2X40 (80PIN) 0.8MM PITCH ROHS	2.00	EA
5	0029	0630100058		CONN. 2X17 (34PIN) SHROUDED THRU HOLE 2MM RA ROHS	2.00	EA
5	0030	0630100073		CONN, 5POS 0.079C RAPCB FRICTION ROHS	1.00	EA
5	0031	0630100054		CONN HEADER 2X3POS 0.1C PCB ROHS	2.00	EA
5	0032	0630100018		CONN, 2POS 0.079C RAPCB FRICTION ROHS	4.00	EA
5	0033	0630100060		CONN. 2X8 (16PIN) SHROUDED THRU HOLE 2MM RA ROHS	2.00	EA
5	0034	0550100018		INDUCTOR 2.2uH 2.7A 30% DCR=0.042 OHM SMD ROHS	2.00	EA
5	0035	063KK00396		CONN, 80 POS, DUAL ROW, PLUG, SMD, 0.8mm, GOLD	2.00	EA
5	0036	0630100074		CONN, 2X18 POS SKT 0.05C SMT TYPE CLP ROHS	2.00	EA
5	0037	2630100016		TRANS NMOSFET 30V 13A SO8 ROHS	2.00	EA
5	0038	2630100015		TRANS, NMOSFET 30V 13A SOT23 ROHS	1.00	EA
5	0039	2630100018		TRANS, PNP VCE=60V IC=0.5A SOT23 ROHS	1.00	EA
5	0040	6200100158		RES NTWK 2X9 SERIES 22 OHM 1% 1/20W 1.27MMX4X9 BGA ROHS	2.00	EA
5	0041	6200100137		RES MF 0.024 1/2W 1% 1206 ROHS	1.00	EA
5	0042	6200100159		RES TF 71.5K OHM 1/10W 1% 0603 ROHS	2.00	EA
5	0043	6200100072		RES TF 249 OHM 1/10W 1% 0603 SMD ROHS	2.00	EA
5	0044	6200100003		RES TF 10.0K OHM 1/10W 1% 0603 ROHS	9.00	EA
5	0045	6200100130		RES TF 4.7K OHM 1/10W 1% 0603 ROHS	7.00	EA
5	0046	6200100160		RES MF 0.01 OHM 1/2W 0.5% 1206 ROHS	1.00	EA
5	0047	6200100006		RES TF 49.9K OHM 1/10W 1% 0603 ROHS	2.00	EA
5	0048	6200100131		RES TF 390 OHM 1/10W 1% 0603 ROHS	5.00	EA
5	0049	6200100071		RES TF 100 OHM 1/10W 1% 0603 ROHS	4.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0050	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0051	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0052	6200100162		RES TF 40.2K OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0053	6200100163		RES TF 22.1 OHM 1/16W 1% 0402 ROHS	6.00	EA
5	0054	6200100164		RES TF 4.7K OHM 1/16W 1% 0402 ROHS	1.00	EA
5	0055	6200100165		RES TF 10K OHM 1/16W 1% 0402 ROHS	8.00	EA
5	0056	6200100166		RES TF 150K OHM 1/16W 1% 0402 ROHS	32.00	EA
5	0057	6200100257		RES 210K OHM 1/16W 1% 0402 ROHS	4.00	EA
5	0058	6200100247		RES TF 10.5K OHM 1/16W 1% 0402 ROHS	4.00	EA
5	0059	6200100248		RES TF 1.1K OHM 1/16W 1% 0402 ROHS	4.00	EA
5	0060	6200100249		RES 15.8K OHM 1/10W 1% 0402 ROHS	4.00	EA
5	0061	6200100250		RES TF 3.32K OHM 1/16W 1% 0402 ROHS	2.00	EA
5	0062	6200100258		RES 105K OHM 1/10W 1% 0402	2.00	EA
5	0063	6200100252		RES 47.5 OHM 1/10W 1% 0402 ROHS	2.00	EA
5	0065	6200100155		RES TF 0 OHM 5% 1/16W 0402 ROHS	8.00	EA
5	0066	6200100173		RES TF 549 OHM 1/10W 1% 0603 ROHS	16.00	EA
5	0067	6200100068		RES TF 0 OHM 1A 0603 ROHS	5.00	EA
5	0068	6200100221		RES TF 33.2 OHM 1/16W 1% 0402 ROHS	3.00	EA
5	0069	2500100004		SWITCH 6POS DIP HALF PITCH 9.2X5.6(MM) SMD ROHS	1.00	EA
5	0070	2500100005		SWITCH 2POS DIP HALF PITCH 8X4.1(MM) ROHS	1.00	EA
5	0071	0460100100		IC, 700K FPGA SPARTAN-3A BGA 1MMX20X20 ROHS	1.00	EA
5	0072	0460100101		IC, DDR SDRAM 133MHZ 8MEG X 16 X 4 FBGA60 ROHS	1.00	EA
5	0073	0460100084		IC HOT SWAP DUAL RAIL CONTROLLER QSOP16 ROHS	1.00	EA
5	0074	0460100082		IC REG DC-DC LINEAR DUAL 1.5A 24LLP ROHS	1.00	EA
5	0075	0460100102		IC THERMAL SUPERVISOR (1YM6) SOT23-6 ROHS	1.00	EA
5	0076	0460100073		IC, SERIAL FLASH 8MBIT MEMORY SO8 ROHS	1.00	EA
5	0077	0460100087		IC CPLD 32MCELL 32 QFN ROHS	1.00	EA
5	0078	0460100103		IC, VREG LDO ADJ 0.5A DFN13, ROHS	1.00	EA
5	0079	0460100104		IC, VREG LDO 2.5V 0.5A DFN13, ROHS	1.00	EA
5	0080	0460100105		IC, CODEC 16/18/20/24 BIT 8CH I2S/I2C/SPI PWP28 ROHS	2.00	EA
5	0081	0460100106		IC, 2.5W CLASS D AUDIO AMP W/AUTO REC FLIP-CHIP 3X3 ROHS	16.00	EA
5	0082	0460100107		IC, DUAL SPDT ANALOG SW MICROBUMP10 ROHS	4.00	EA
5	0083	0460100108		IC, DUAL OP AMP OPA353 SSOP8 ROHS	2.00	EA
5	0084	0460100067		IC, 3W AUDIO AMPLIFIER FLIP-CHIP 3X3 ROHS	2.00	EA
5	0085	0460100110		IC, OPAMP OPA337 SOT23-5 ROHS	2.00	EA
5	0086	0460100109		IC, CODEC 2 CH I2S/I2C/SPI BGA 1MMX9X9 ROHS	2.00	EA
5	0087	1840100005		OSC 100.000MHZ 3.3V 3X2.5MM SMD ROS	1.00	EA
5	0088	1840100006		OSC, 11.2896 MHZ 5X3.2MM SMD ROHS	1.00	EA
4	0061	018K351100	B	CCA, MODIFIED SYSTEM POWER CONTROL	1.00	EA
5	0001	205K351100	G	CCA, SYSTEM POWER CONTROL, METIMAN	1.00	EA
6	0001	206K351100	B	PCB, SYSTEM POWER CONTROL, METIMAN	1.00	EA
6	0002	0630100014		SHUNT, 2POS 0.079"C ROHS	6.00	EA
6	0003	3030100031		CAP CER X7R 0.1UF 50V 10% 0603 ROHS	54.00	EA
6	0004	3030100020		CAP CER X7R 1000PF 100V 20% 0603 ROHS	44.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0005	3030100112		CAP CER X7R 0.15UF 10V 10% 0603 ROHS	2.00	EA
6	0006	3030100113		CAP CER X7R .033UF 50V 10% 0603 ROHS	1.00	EA
6	0007	3030100024		CAP CER X7R 3.3UF 50V 20% 1210 ROHS	2.00	EA
6	0008	3030100135		CAP CER X5R 10UF 6V3 20% 0603 ROHS	1.00	EA
6	0009	3030100026		CAP CER X5R 0.22UF 16V 10% 0603 ROHS	4.00	EA
6	0010	3030100013		CAP CER X5R 22UF 16V 20% 1206 ROHS	9.00	EA
6	0011	3030100036		CAP CER NPO 68PF 50V 5% 0603 ROHS	2.00	EA
6	0012	3030100027		CAP CER NPO 47PF 50V 5% 0805 ROHS	2.00	EA
6	0013	3030100028		CAP CER X7R 1.0UF 25V 10% 0805 ROHS	3.00	EA
6	0014	3030100029		CAP CER X5R 4.7UF 6.3V 20% 0603 ROHS	2.00	EA
6	0016	3030100114		CAP CER X5R 1.0UF 35V 20% 0603 ROHS	2.00	EA
6	0017	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	2.00	EA
6	0018	3030100095		CAP CER X7R 0.47UF 25V 10% 0603 ROHS	1.00	EA
6	0019	3030100115		CAP ALU 47UF 35V 20% 10X10.3X12.5 IRMS>1.15A ESR<=0.03 ROHS	4.00	EA
6	0021	3030100116		CAP CER NPO 27PF 50V 5% 0603 ROHS	1.00	EA
6	0022	3030100037		CAP CER X7R 0.47UF 50V 10% 0805 ROHS	1.00	EA
6	0023	3030100038		CAP CER NPO 470PF 50V 10% 0603 ROHS	1.00	EA
6	0024	3030100039		CAP CER NPO 220PF 50V 10% 0603 ROHS	2.00	EA
6	0025	3030100009		CAP CER NPO 100PF 50V 10% 0603 ROHS	1.00	EA
6	0026	3030100118		CAP ALU 680UF 6.3V 20% 10X10MM RAD ROHS IRMS=4.84 ESR=0.013	1.00	EA
6	0028	3030100057		CAP ALU 56UF 25V 20% 10.3X10.3 IRMS>=3.2A ESR<=0.05 ROHS	3.00	EA
6	0030	0880100032		TVS, DUAL 18V SOT23 ROHS	1.00	EA
6	0031	0880100027		DIODE SCHOTTKY 30V 0.1A SOD123 ROHS	4.00	EA
6	0032	0880100005		DIODE ZENER 0.3W 36V SOT23 ROHS	2.00	EA
6	0033	0880100006		DIODE SCHOTTKY 40V 1A SOD123 ROHS	4.00	EA
6	0034	0880100007		DIODE SCHOTTKY 20V 3A SMA ROHS	2.00	EA
6	0035	0880100008		DIODE SCHOTTKY 40V 3A SMA ROHS	4.00	EA
6	0036	0880100020		TVS BIDIR 600W 22V SMB ROHS	2.00	EA
6	0037	0880100041		LED 525NM GREEN WTR CLR 0603 ROHS	2.00	EA
6	0038	0880100043		DIODE SWITCHING 75V 0.215A SOT23 ROHS	4.00	EA
6	0039	0880100010		DIODE SCHOTTKY 40V 0.5A SOD123 ROHS	1.00	EA
6	0040	0880100011		DIODE SCHOTTKY 40V 2A SMB ROHS	1.00	EA
6	0041	0880100015		DIODE SCHOTTKY 35V 10A DPAK ROHS	2.00	EA
6	0043	0880100046		DIODE SCHOTTKY 20V 0.5A SOD123 ROHS	1.00	EA
6	0044	0630100003		CONN HEADER 3POS 0.079C ROHS	5.00	EA
6	0045	0630100072		CONN HEADER 2POS 0.079C PCB ROHS	4.00	EA
6	0046	0630100071		CONN 3POS 0.165C MINIFIT JR PCB ROHS	1.00	EA
6	0048	0630100054		CONN HEADER 2X3POS 0.1C PCB ROHS	1.00	EA
6	0049	0630100011		CONN 2POS 0.118"C PCB MICROFIT ROHS	2.00	EA
6	0050	0630100063		CONN 7POS 0.079"C TYPE PH ROHS	1.00	EA
6	0051	0630100076		CONN 2X4POS 0.118"C SMT W/TAB MICROFIT3 ROHS	1.00	EA
6	0052	0630100010		CONN 4POS 0.079"C PCB TYPE PH ROHS	1.00	EA
6	0053	0630100007		CONN 4POS 0.118"C PCB MICROFIT ROHS	1.00	EA
6	0054	0630100026		CONN, 6POS 0.079C PCB FRICTION ROHS	1.00	EA
6	0055	0630100077		CONN 2X3POS 0.118"C SMT W/TAB MICROFIT3 ROHS	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0056	0630100012		CONN 6POS 0.118"C PCB MICROFIT ROHS	1.00	EA
6	0057	0630100006		CONN 3POS 0.079"C PCB TYPE PH ROHS	1.00	EA
6	0058	0630100078		CONN 2X6 POS 0.118"C SMT W/TAB MICROFIT3 ROHS	4.00	EA
6	0059	0630100079		CONN 2X5POS 0.118"C SMT W/TAB MICROFIT3 ROHS	3.00	EA
6	0060	0630100080		CONN 2X6POS 0.079C PCB IGRIDT ROHS	1.00	EA
6	0061	0630100081		CONN 2X5POS 0.079C PCB IGRIDT ROHS	1.00	EA
6	0062	0630100009		CONN 5POS 0.118"C PCB MICROFIT ROHS	1.00	EA
6	0063	0550100009		IND 10UH 20% ISAT=6.0A DCR=0.015 SER1360 ROHS	1.00	EA
6	0064	055KK00200		CHOKE, COMMON MODE, 15A, DCR=0.0008, 2021 ROHS	12.00	EA
6	0065	0550100024		IND 6.8UH 20% ROHS	1.00	EA
6	0066	0550100010		IND 22UH 20% ISAT>=2.5A DCR<=0.09 DO3316T ROHS	1.00	EA
6	0068	0550100025		IND DUAL 10UH 0.68A DCR=0.228 CLS62 ROHS	1.00	EA
6	0069	2630100019		TRANS, NMOSFET 20V 1.2A SOT23 ROHS	1.00	EA
6	0070	2630100007		TRANS NMOSFET 40V 30A SOPA-8 ROHS	6.00	EA
6	0071	2630100009		TRANS DUAL NMOSFET 60V 4A POWERPAK SO8 ROHS	1.00	EA
6	0072	2630100010		TRANS DUAL NMOSFET 40V 10.3A POWERPAK SO8 ROHS	1.00	EA
6	0073	2630100012		TRANS PMOSFET -30V -6.4A POWERPAK 1212-8 ROHS	2.00	EA
6	0074	2630100001		TRANS, NMOSFET TYPE 2N7002K SOT23 ROHS	1.00	EA
6	0075	2630100020		TRANS, PMOSFET -30V -2A SOT23 ROHS	4.00	EA
6	0076	2630100002		TRANS, NPN TYPE 2N3904 SOT23 ROHS	6.00	EA
6	0077	6200100131		RES TF 390 OHM 1/10W 1% 0603 ROHS	3.00	EA
6	0078	6200100060		RES TF 100 OHM 1/10W 5% 0603 ROHS	27.00	EA
6	0079	6200100003		RES TF 10.0K OHM 1/10W 1% 0603 ROHS	31.00	EA
6	0081	6200100013		RES TF 4.99K OHM 1/10W 1% 0603 ROHS	2.00	EA
6	0082	6200100038		RES TF 16.5K OHM 1/16W 1% 0603 ROHS	1.00	EA
6	0083	6200100129		RES TF 10 OHM 1/8W 1% 0805 ROHS	2.00	EA
6	0084	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	9.00	EA
6	0085	6200100023		RES TF 10.0 OHM 1/10W 1% 0603 ROHS	2.00	EA
6	0086	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	2.00	EA
6	0087	6200100040		RES TF 113K OHM 1/10W 1% 0603 ROHS	1.00	EA
6	0088	6200100041		RES TF 8.06K OHM 1/10W 1% 0603 ROHS	1.00	EA
6	0089	6200100042		RES MF 0.018 OHM 2W 1% 2512 ROHS	1.00	EA
6	0090	6200100134		RES TF 15.0K OHM 1/10W 1% 0603 ROHS	2.00	EA
6	0091	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	5.00	EA
6	0092	6200100189		RES TF 0.15 OHM 2W 1% 2512 ROHS	1.00	EA
6	0093	6200100044		RES TF 150 OHM 1/10W 1% 0603 ROHS	1.00	EA
6	0094	6200100176		RES TF 0.1 OHM 2W 1% 2512 ROHS	1.00	EA
6	0095	6200100047		RES TF 33K OHM 1/10W 5% 0603 ROHS	1.00	EA
6	0096	6200100177		RES MF 0.01 OHM 2W 1% 2512 ROHS	1.00	EA
6	0097	6200100049		RES TF 470K OHM 1/10W 5% 0603 ROHS	5.00	EA
6	0098	6200100178		RES TF 80.6K OHM 1/10W 1% 0603 ROHS	2.00	EA
6	0099	6200100179		RES TF 24.9K OHM 1/10W 1% 0603 ROHS	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0100	6200100057		RES TF 7.87K OHM 1/10W 1% 0603 ROHS	1.00	EA
6	0101	6200100183		RES TF 110K OHM 1/10W 1% 0603 ROHS	1.00	EA
6	0102	6200100012		RES TF 20.0K OHM 1/10W 1% 0603 ROHS	1.00	EA
6	0103	6200100188		RES TF 41.2K OHM 1/10W 1% 0603 ROHS	1.00	EA
6	0104	6200100181		RES TF 64.9K OHM 1/10W 1% 0603 ROHS	1.00	EA
6	0105	6200100184		RES TF 102K OHM 1/10W 1% 0603 ROHS	1.00	EA
6	0106	6200100185		RES TF 332K OHM 1/10W 1% 0603 ROHS	1.00	EA
6	0107	6200100071		RES TF 100 OHM 1/10W 1% 0603 ROHS	1.00	EA
6	0108	0630100083		TEST POINT TURRET STAKED 0.12" DIA ROHS	1.00	EA
6	0109	0460100111		IC ISP CPLD 64 MACROCELL 3.3V VQFP44 ROHS	1.00	EA
6	0110	0460100026		IC SMPS BUCK-BOOST CONTROLLER SSOP24 ROHS	2.00	EA
6	0111	0460100112		IC PUSH BUTTON CONTROL TSOT23-8 ROHS	2.00	EA
6	0112	0460100027		IC LOWLOSS POWERPATH CONTROLLER TSOT-6 ROHS	5.00	EA
6	0114	0460100028		IC SMPS BUCK SYNCHRONOUS REGULATOR SSOP16 ROHS	1.00	EA
6	0115	0460100023		IC LVC 2INP AND GATE SINGLE SC-70 ROHS	1.00	EA
6	0116	0460100114		IC REG LDO 3.3V 0.5A SO8 ROHS	1.00	EA
6	0117	0460100036		IC QUAD MULTIPHASE OSCILLATOR W/ SSFM MSOP10 ROHS	1.00	EA
6	0118	0460100115		IC, INV DC/DC CONVERTER -12V/0.15A TSOT-23 ROHS	1.00	EA
6	0121	3030100067		CAP CER X7R 0.01UF 16V 10% 0603 ROHS	2.00	EA
6	0122	0630100049		CONN, 2POS 0.079C PCB FRICTION ROHS	1.00	EA
6	0123	6200100092		RES, TF 47 OHM 1/10W 5% 0603 ROHS	1.00	EA
6	0124	6200100220		RES TF 42.2K OHM 1/10W 1% 0603 ROHS	1.00	EA
6	0125	6200100219		RES TF 511 OHM 1/10W 1% 0603 ROHS	1.00	EA
6	0126	6200100086		RES, TF 47K OHM 1/10W 5% 0603 ROHS	1.00	EA
6	0127	0460100054		IC, DUAL N/NI WINDOW COMPARATOR TSOT6 ROHS	1.00	EA
6	0128	0460100117		IC REG LDO 5.0V 0.5A SO8 ROHS	1.00	EA
6	0129	6200100218		RES TF 487 OHM 1/10W 1% 0603 ROHS	1.00	EA
6	0130	3030100109		CAP CER X7R 4700PF 50V 10% 0603 ROHS	1.00	EA
6	REF	905K351134	D	FUNCTIONAL TEST PROCEDURE, SYSTEM PWR CTRL, METIMAN	0.00	EA
6	REF	905K351164	B	PROGRAMMING INSTRUCTIONS, SYSTEM PWR CTRLR, METIMAN	0.00	EA
6	0133	3030100158		CAP CER X5R 10UF 35V 10% 1206 ROHS	4.00	EA
6	0134	0550100038		FERRITE, CHIP 1KOHM @ 100MHZ ISAT= 0.5 DCR = 0.3 1206 ROHS	2.00	EA
6	0135	0550100039		FERRITE, CHIP 150 OHM @ 100MHZ ISAT=0.8 DCR=0.15 1206 ROHS	1.00	EA
6	0136	0550100040		FERRITE, CHIP 48 OHM @ 100MHZ ISAT=6.0 DCR=0.005 1206 ROHS	1.00	EA
6	0137	0550100041		FERRITE, CHIP 1KOHM @ 100MHZ ISAT= 0.3 DCR = 0.3 0603 ROHS	5.00	EA
6	0138	1840100010		OSC HCMOS 32.768KHZ 3.3V 3X2.5MM SMD ROHS	1.00	EA
6	0139	905K351101	G	SCHEMATIC, SYSTEM POWER REGULATOR, MM	1.00	EA
6	0140	905K000134	A	PROCEDURE, AUTOMATED TEST SETUP	1.00	EA
6	0141	905K351334	A	TEST PROCEDURE, SYSTEM PWR CTRL, METIMAN	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0002	905K351183	B	INSTRUCTIONS, SYSTEM PWR CTRLR, METIMAN, MODIFICATION	1.00	EA
4	0062	016K352300	B	BRACKET, LOWER TORSO SUPPORT, OD	2.00	EA
4	0076	024K352700	C	CA, POWER STATUS, OD	1.00	EA
5	0001	063KK00226		CONN HSG 2X12POS 0.079C FEMALE LATCHING IGRID	1.00	EA
5	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	3.00	EA
5	0003	063KK01801		CONN HSG 3POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	3.00	EA
5	0005	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	2.75	FT
5	0006	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.67	FT
5	0007	166KK00011		LBL, THERMAL, .750" w X .937" h, B-427, WRAP, WHT / TRANS, 10K	2.00	EA
5	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0009	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
4	0092	024K355300	C	CA, COMPRESSOR SENSOR INTFC, METIMAN	1.00	EA
5	0001	286KK00002		CRIMP, FERRULE INSUL 22 AWG, ROHS	1.00	EA
5	0002	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0003	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	5.00	EA
5	0004	0639802016		CONN HSG 4POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0005	276KK00639		WIRE, WHITE w/GREEN STRIPE, 24AWG, UL1429	0.83	FT
5	0006	276KK00612		WIRE, AWG24 STR PVC 600V UL1429 BRN	0.33	FT
5	0007	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	0.33	FT
5	0008	166KK00013		LBL, THERMAL, .50" w X .750" h, B-427, WRAP, WHT / TRANS, 5K /	4.00	EA
5	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0010	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
5	0011	0639802018		CONN HSG 2POS MALE IN-LINE SL	1.00	EA
5	0012	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	2.00	EA
4	0102	104KK35000	B	NUT, LIMB, OD	4.00	EA
4	0103	104KK35001	B	STOP, LEFT ARM, OD	1.00	EA
4	0104	104KK35004	B	BEARING, EXTREMITY O.D.	4.00	EA
4	0105	104KK35005	B	STOP RIGHT ARM, OD	1.00	EA
4	0106	104KK35006	B	SPACER, EXTREMITY, O D	4.00	EA
4	0110	178KK00033		MOUNT, VIBRATION, 8LBS	4.00	EA
4	0113	205K351500	C	CCA, COMPRESSOR PRESSURE SENSE & FAILSAFE, METIMAN	1.00	EA
5	0001	204K351500	B	PCB, COMPRESSOR PRESSURE SENSOR, METIMAN	1.00	EA
5	0002	287KK00002		NUT,HEX, 4-40	2.00	EA
5	0003	273KK00025		WASHER,#4,INT TOOTH	2.00	EA
5	0004	229KK00079		SCR,PAN HD, 4-40X 3/4 LG,	2.00	EA
5	0005	3030100066		CAP CER X7R 0.1UF 16V 20% 0603 ROHS	5.00	EA
5	0006	3030100030		CAP CER X5R 1.0UF 10V 20% 0603 ROHS	1.00	EA
5	0007	3030100034		CAP CER X5R 22UF 10V 20% 1206 ROHS	1.00	EA
5	0008	3030100120		CAP ALU 100UF 63V 20% 8X15MM RADIAL ROHS	1.00	EA
5	0009	046KK00070		IC, PRESSURE SENSOR 0-30PSI 0-4V OUT ROHS	1.00	EA
5	0010	0630100084		CONN, 4POS, PCB, SL, ROHS	1.00	EA
5	0011	0630100048		CONN, 2POS 0.1C PCB SL ROHS	1.00	EA
5	0012	0550100019		CHOKE, COMMON MODE 400MA DCR=0.3 0805 ROHS	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0013	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0014	6200100186		RES TF 475K OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0015	6200100089		RES, TF 13.7K OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0016	6200100187		RES TF 36.5K OHM 1/10W 1% 0603 ROHS	1.00	EA
5	0017	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	1.00	EA
5	0018	6200100092		RES, TF 47 OHM 1/10W 5% 0603 ROHS	1.00	EA
5	0019	0460100054		IC, DUAL N/NI WINDOW COMPARATOR TSOT6 ROHS	1.00	EA
5	0020	0460100110		IC, OPAMP OPA337 SOT23-5 ROHS	1.00	EA
4	0115	127KK00017		GROMMET, .750 ID X .1.375 OD X .125 GW, OD	1.00	EA
4	0116	127KK00020		GROMMET, 3/8 ID X 11/16 OD X 1/16THICK, OD	4.00	EA
4	0117	074K350100	A	COVER, PLATE, RHM	2.00	EA
4	0118	297KK00309		STDF, M-F, 4-40, 1/4" HEX X 3/8" LG, ALUM	8.00	EA
4	0119	297KK00310		STDF, M-F, 4-40, 1/4" HEX X 5/8" LG, AL	8.00	EA
4	0120	016K352700	A	BRACKET, ANGLE, ELECTRONIC PLATE,OD	2.00	EA
4	0122	229KK00648		SCR, SCKT CAP, 1/4-20 X 2-1/4", SS	2.00	EA
4	0124	297KK00311		STDF, M-F, 4-40, 3/16" HEX X 13/32" LG, AL	4.00	EA
4	0127	140K350100	A	INSULATOR, PCB POWER REGULATOR	1.00	EA
4	0128	239KK00102		SPACER, HEX , 4-40 M/F X 5/8	8.00	EA
4	0130	024K359700	A	CA, HARNESS, METIMAN CC METRIC, CERT	1.00	EA
5	0001	024K351200	B	CA, DA / DOR CONTROL, OD	1.00	EA
6	0001	063KK00225		CONN HSG 2X5POS 0.079C FEMALE LATCHING IGRID	1.00	EA
6	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	4.00	EA
6	0003	024KK03500		CA, SMC PIGTAIL, OD	4.00	EA
6	0004	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	4.00	FT
6	0005	276KK00638		WIRE, WHITE w/YELLOW STRIPE, 24 AWG, UL1429	4.00	FT
6	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	5.00	EA
6	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0002	024K351300	B	CA, HIGH DRIVE, OD	1.00	EA
6	0001	063KK00226		CONN HSG 2X12POS 0.079C FEMALE LATCHING IGRID	1.00	EA
6	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	8.00	EA
6	0003	063KK00231		CONN HSG 2X6POS 0.079C FEMALE LATCHING IGRID	1.00	EA
6	0005	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	4.08	FT
6	0006	276KK00638		WIRE, WHITE w/YELLOW STRIPE, 24 AWG, UL1429	4.08	FT
6	0007	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	2.00	EA
6	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0003	024K351400	B	CA, PULSE SENSE, LOWER, OD	1.00	EA
6	0001	063KK00220		CONN HSG 2X8POS 0.079C FEMALE LATCHING IGRID	1.00	EA
6	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	12.00	EA
6	0003	0639802018		CONN HSG 2POS MALE IN-LINE SL	6.00	EA
6	0004	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	12.00	EA
6	0005	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	10.75	FT
6	0006	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.50	FT

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0007	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	7.00	EA
6	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0010	268KK00107		BLUE SHRINK TUBING	0.13	FT
6	0011	268KK00108		YELLOW SHRINK TUBING	0.13	FT
6	0012	268KK00109		RED SHRINK TUBING	0.13	FT
6	0013	268KK00128		TBG, 1/8", THERMO-FIT, BLACK	0.75	FT
5	0004	024K351500	C	CA, PULSES & TONGUE, OD	1.00	EA
6	0001	063KK00227		CONN HSG 2X13POS 0.079C FEMALE LATCHING IGRIDT	1.00	EA
6	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	22.00	EA
6	0003	024KK03500		CA, SMC PIGTAIL, OD	11.00	EA
6	0004	276KK00636		WIRE, WHITE w/BROWN STRIPE, 24 AWG, UL1429	11.00	FT
6	0005	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	11.00	FT
6	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	12.00	EA
6	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0005	024K351600	C	CA, LUNG CONTROL & OTHER, OD	1.00	EA
6	0001	063KK00221		CONN HSG 2X17POS 0.079C FEMALE LATCHING IGRID	1.00	EA
6	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	30.00	EA
6	0003	024KK03500		CA, SMC PIGTAIL, OD	5.00	EA
6	0004	063KK00026		CONN HSG 6POS FEMALE IN-LINE LATCHING SLT	2.00	EA
6	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	20.00	EA
6	0006	0639802016		CONN HSG 4POS FEMALE IN-LINE LATCHING SL	1.00	EA
6	0007	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	2.00	EA
6	0008	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	18.42	FT
6	0009	276KK00638		WIRE, WHITE w/YELLOW STRIPE, 24 AWG, UL1429	18.42	FT
6	0010	276KK00634		WIRE, WHITE w/GREY STRIPE, 24 AWG, UL1429	5.00	FT
6	0011	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	11.00	EA
6	0012	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0006	024K352000	C	CA, PULSE SENSE, UPPER, OD	1.00	EA
6	0001	063KK00220		CONN HSG 2X8POS 0.079C FEMALE LATCHING IGRID	1.00	EA
6	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	12.00	EA
6	0003	0639802018		CONN HSG 2POS MALE IN-LINE SL	6.00	EA
6	0004	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	12.00	EA
6	0005	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	9.75	FT
6	0006	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.50	FT
6	0007	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	7.00	EA
6	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0010	268KK00107		BLUE SHRINK TUBING	0.13	FT
6	0011	268KK00109		RED SHRINK TUBING	0.13	FT
6	0012	268KK00128		TBG, 1/8", THERMO-FIT, BLACK	0.75	FT
5	0007	024K352200	B	CA, BLINK CONTROL, OD	1.00	EA
6	0001	063KK00225		CONN HSG 2X5POS 0.079C FEMALE LATCHING IGRID	1.00	EA
6	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	4.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0003	024KK03500		CA, SMC PIGTAIL, OD	2.00	EA
6	0004	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	0.92	FT
6	0005	276KK00638		WIRE, WHITE w/YELLOW STRIPE, 24 AWG, UL1429	0.92	FT
6	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	3.00	EA
6	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0009	024K352400	B	CA, SOUND BREAKOUT I, OD	1.00	EA
6	0001	063KK00221		CONN HSG 2X17POS 0.079C FEMALE LATCHING IGRID	1.00	EA
6	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	16.00	EA
6	0003	0639802018		CONN HSG 2POS MALE IN-LINE SL	4.00	EA
6	0004	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	8.00	EA
6	0005	063KK00228		CONN HSG 2X6POS FEMALE LATCHING MICROFIT 3.0	1.00	EA
6	0006	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3 0 ROHS	12.00	EA
6	0007	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	14.25	FT
6	0008	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	6.00	EA
6	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0011	024K352900	C	CA, BATTERY BULKHEAD, OD	1.00	EA
6	0001	063KK00252		CONN PLUG HSG, 3POS VERT PANEL MOUNT	1.00	EA
6	0002	065KK00217		CONT TERM MALE 16AWG TIN	2.00	EA
6	0003	063KK00253		CONN HSG 3POS FEMALE 0 165C LATCHING MINI-FIT JR	1.00	EA
6	0004	065KK00218		CONT CRIMP SKT AWG16 TIN MINI-FIT ROHS	2.00	EA
6	0005	276KK00629		WIRE, RED w/BLACK STRIPE, 16 AWG, UL1007	1.96	FT
6	0006	276KK00641		WIRE, BLACK w/WHITE STRIPE, 16AWG, UL1007	2.00	FT
6	0007	255KK00302		TERM,FASTON,.032 X .250, AWG16-14	2.00	EA
6	0008	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	4.00	EA
6	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0012	024K353300	B	CA, RHMA & B POWER INPUT, OD	1.00	EA
6	0001	063KK00229		CONN HSG 2X5POS 0.118C FEMALE LATCHING MICROFIT 3.0T	1.00	EA
6	0002	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3 0 ROHS	4.00	EA
6	0004	276KK00625		WIRE, AWG 20, STR, PVC, 600V, UL1429, RED	3.00	FT
6	0005	276KK00601		WIRE, AWG20 STR IR PVC UL1429 BLK	3.00	FT
6	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	3.00	EA
6	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0009	024KK00092		CA, 2.1MM X 5.5MM RA PLUG TO DUAL WIRE LEADS, 6 FT	2.00	EA
6	0010	268KK00126		TBG, 1/4", THERMO-FIT, BLACK	0.13	FT
5	0013	024K353500	D	CA, RHMA 12V VALVE CONTROL, POWER INPUT, OD	1.00	EA
6	0001	063KK00228		CONN HSG 2X6POS FEMALE LATCHING MICROFIT 3.0	1.00	EA
6	0002	063KK00200		CONN HSG 2POS FEMALE IN-LINE LATCHING MICROFIT 3.0	2.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0003	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3.0 ROHS	10.00	EA
6	0004	276KK00611		WIRE, AWG24 STR PVC 600V UL1429 YEL	3.75	FT
6	0005	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	3.75	FT
6	0006	166KK00011		LBL, THERMAL, .750" w X .937" h, B-427, WRAP, WHT / TRANS, 10K	4.00	EA
6	0007	166KK00007		LBL, RIBBON CABLE	1.00	EA
6	0009	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
6	0010	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0014	024K353800	D	CA, COMPRESSOR POWER, METIMAN	1.00	EA
6	0001	063KK00219		CONN HSG 2X4POS FEMALE IN-LINE LATCHING MICROFIT 3.0	1.00	EA
6	0002	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3.0 ROHS	4.00	EA
6	0003	286KK00001		FERRULE INS TWIN 22AWG WHT 7/16"	2.00	EA
6	0004	276KK00644		WIRE, RED w/BLACK STRIPE, 22 AWG, UL1007	1.50	FT
6	0005	276KK00645		WIRE, BLACK w/WHITE STRIPE, 22AWG, UL1007	1.50	FT
6	0006	166KK00013		LBL, THERMAL, .50" w X .750" h, B-427, WRAP, WHT / TRANS, 5K /	3.00	EA
6	0007	166KK00007		LBL, RIBBON CABLE	1.00	EA
5	0016	024K354100	D	CA, VOICE IN, OD	1.00	EA
6	0001	063KK01804		CONN, 2 PIN, JST	1.00	EA
6	0002	065KK01801		CONT, CRIMP, JST	2.00	EA
6	0003	0639802016		CONN HSG 4POS FEMALE IN-LINE LATCHING SL	1.00	EA
6	0004	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3.0 ROHS	2.00	EA
6	0005	063KK00228		CONN HSG 2X6POS FEMALE LATCHING MICROFIT 3.0	1.00	EA
6	0006	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	4.00	EA
6	0007	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	1.75	FT
6	0008	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	1.67	FT
6	0009	276KK00611		WIRE, AWG24 STR PVC 600V UL1429 YEL	1.67	FT
6	0010	166KK00013		LBL, THERMAL, .50" w X .750" h, B-427, WRAP, WHT / TRANS, 5K /	3.00	EA
6	0011	166KK00007		LBL, RIBBON CABLE	1.00	EA
5	0017	024K355100	E	CA, DC IN DISCONNECT, OD	1.00	EA
6	0001	063KK00201		CONN HSG 2POS MALE IN-LINE MICROFIT 3.0	1.00	EA
6	0002	065KK00200		CONT CRIMP PIN 20-24 AWG TIN MICROFIT 3.0 ROHS	2.00	EA
6	0003	063KK00230		CONN HSG 2X3POS FEMALE LATCHING MICROFIT 3.0	1.00	EA
6	0004	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3.0 ROHS	4.00	EA
6	0005	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
6	0006	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
6	0007	255KK00303		TERM, FASTON, .032 X .250, AWG22-18	2.00	EA
6	0008	276KK00647		WIRE, RED w/BLACK STRIPE, 20 AWG, UL1007	6.33	FT
6	0009	276KK00646		WIRE, BLACK w/WHITE STRIPE, 20AWG, UL1007	0.83	FT
6	0010	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	0.42	FT
6	0011	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	0.42	FT

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0012	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	5.00	EA
6	0013	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0020	024K355900	A	CA, PUSHBUTTON DISCONNECT, OD	1.00	EA
6	0001	0639802019		CONN HSG 4POS MALE IN-LINE SL	1.00	EA
6	0002	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	4.00	EA
6	0003	063KK01806		CONN, 4 PIN, JST	1.00	EA
6	0004	065KK01801		CONT, CRIMP, JST	4.00	EA
6	0005	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	0.83	FT
6	0006	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	0.42	FT
6	0007	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.42	FT
6	0008	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	2.00	EA
6	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0022	024K356700	C	CA, RS232, WVL, METIMAN	1.00	EA
6	0001	063KK01805		CONN HSG 3POS 0.079C FEMALE TYPE PHT	2.00	EA
6	0002	276KK00654		WIRE AWG24 STRD 2 CONDUCTOR SHIELDED ROHS	3.00	FT
6	0003	276KK00403		WIRE,24AWG,STRD,GRN,CE,IR	0.20	FT
6	0004	065KK00202		CONT CRIMP SKT 24-30 AWG TIN TYPE PHT ROHS	6.00	EA
6	0005	268KK00129		TBG, 3/4", THERMO-FIT, RED	0.20	FT
6	0006	268KK00020		TBG,1/4,THERMO-FIT,WHT	0.20	FT
5	0023	024K356900	A	CA, WVL, 5V ADAPTER, METIMAN	1.00	EA
6	0001	063KK00138		CONN, 3.5 MM, RA PLUG, 2 COND, W / 6 FT CABLE, ISTAN	1.00	EA
6	0002	063KK00226		CONN HSG 2X12POS 0.079C FEMALE LATCHING IGRID	1.00	EA
6	0003	065KK00216		CONT, PIN, IGRID, FEMALE TERM, 26-28 AWG, 2mm	2.00	EA
6	0004	268KK00129		TBG, 3/4", THERMO-FIT, RED	0.20	FT
6	0005	268KK00020		TBG,1/4,THERMO-FIT,WHT	0.20	FT
5	0024	024K359600	A	CA, SBC, POWER, SENSE, ECG & TSC, OD, CERT	1.00	EA
6	0001	063KK00227		CONN HSG 2X13POS 0.079C FEMALE LATCHING IGRIDT	2.00	EA
6	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	25.00	EA
6	0003	063KK01802		CONN HSG 5POS FEMALE IN-LINE LATCHING SL	1.00	EA
6	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	30.00	EA
6	0005	063KK00206		CONN HSG 4POS FEMALE IN-LINE LATCHING MICROFIT 3.0	1.00	EA
6	0006	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3 0 ROHS	27.00	EA
6	0007	063KK00386		CONN, HSG, CRP, RCPT, 11C, SGL ROW, IN-LINE LATCHING	1.00	EA
6	0008	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	3.00	EA
6	0009	063KK00229		CONN HSG 2X5POS 0.118C FEMALE LATCHING MICROFIT 3.0T	3.00	EA
6	0010	276KK00633		WIRE, YELLOW w/GREEN STRIPE, 24 AWG, UL1429	2.33	FT
6	0011	276KK00608		WIRE, AWG24 STR PVC 600V UL1429 GRN	17.75	FT
6	0012	276KK00623		WIRE, AWG24 STR PVC 600V UL1429 ORA	2.33	FT
6	0013	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	10.40	FT

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0014	276KK00631		WIRE, RED w/GREEN STRIPE, 24 AWG, UL1429	8.10	FT
6	0015	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	8.00	EA
6	0016	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0017	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
6	0018	276KK00610		WIRE, AWG24 STR PVC 600V UL1429 RED	3.00	FT
6	0019	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	2.50	FT
6	0020	276KK00626		WIRE, AWG 20, STR, PVC, 600V, UL1429, BLK	2.25	FT
6	0021	276KK00625		WIRE, AWG 20, STR, PVC, 600V, UL1429, RED	2.50	FT
6	0022	063KK01801		CONN HSG 3POS FEMALE IN-LINE LATCHING SL	1.00	EA
6	0023	063KK00245		CONN, MATLOK, RCPT, 2C, FEM	1.00	EA
6	0024	065KK01810		CONT, 20-14 AWG, TERM FEMALE MATE-N-LOK ROHS	2.00	EA
6	0025	276KK00639		WIRE, WHITE w/GREEN STRIPE, 24AWG, UL1429	3.50	FT
6	0026	276KK00612		WIRE, AWG24 STR PVC 600V UL1429 BRN	2.75	FT
6	0027	276KK00636		WIRE, WHITE w/BROWN STRIPE, 24 AWG, UL1429	3.00	FT
6	0028	0639802018		CONN HSG 2POS MALE IN-LINE SL	4.00	EA
6	0029	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	6.00	EA
6	0030	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	4.33	FT
6	0031	063KK00026		CONN HSG 6POS FEMALE IN-LINE LATCHING SLT	1.00	EA
6	0032	0639801932		CONN,DSUB,25P,MALE	1.00	EA
6	0033	0639801944		CONN, HSG 4POS FEMALE 0.2C IN-LINE MAT'N'LOK (ATX PWR)	1.00	EA
6	0034	1619800017		LOCK,SET,U-CLIP WASHER,	2.00	EA
6	0035	063KK00200		CONN HSG 2POS FEMALE IN-LINE LATCHING MICROFIT 3.0	1.00	EA
6	0036	063KK00243		CONN,MATLOK,PL,2C,MALE	1.00	EA
6	0037	063KK01805		CONN HSG 3POS 0.079C FEMALE TYPE PHT	1.00	EA
6	0038	063KK01810		CONN HSG 3POS MALE IN-LINE SL	1.00	EA
6	0039	063KK01822		CONN, HSG 7POS 0.079 FEMALE TYPE PHR	1.00	EA
6	0040	065KK00046		CONT, CRIMP PIN AWG18-24 TIN MAT'N'LOK ROHS	2.00	EA
6	0041	065KK00047		CONT, CRIMP SKT AWG18-24 TIN MAT'N'LOK ROHS	2.00	EA
6	0042	065KK00202		CONT CRIMP SKT 24-30 AWG TIN TYPE PHT ROHS	8.00	EA
6	0043	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	8.00	EA
6	0044	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	3.00	EA
6	0045	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	2.42	FT
6	0046	276KK00642		WIRE, WHITE w/RED STRIPE, 24 AWG, UL1429	3.83	FT
6	0047	268KK00029		TBG,1-1/4 BLK THERMO-FIT	0.13	FT
6	0048	268KK00127		TBG, 3/8", THERMO-FIT, GREEN	0.10	FT
6	0049	0550100037		FERRITE, TYPE 31 CLAMP-ON 10.15 DX23.7X39 4 MM ROHS	1.00	EA
5	0025	024K357100	A	CA, WLAN ROUTER DISCONNECT, POWER INPUT, OD, CERT	1.00	EA
5	0026	024K357200	A	CA, SENSOR INTERFACE, OD, CERT	1.00	EA
5	0027	024K357300	A	CA, HAPTIC SENSE / STEPPER, OD, CERT	1.00	EA
5	0028	024K357400	A	CA, SOUND BREAKOUT II, OD, CERT	1.00	EA
5	0029	024K353100	C	CA, SWITCHED LOADS, OD	1.00	EA
6	0001	063KK00225		CONN HSG 2X5POS 0.079C FEMALE LATCHING IGRID	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	8.00	EA
6	0003	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	6.00	EA
6	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	3.00	EA
6	0005	024KK03500		CA, SMC PIGTAIL, OD	1.00	EA
6	0006	276KK00611		WIRE, AWG24 STR PVC 600V UL1429 YEL	5.58	FT
6	0007	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	5.58	FT
6	0010	166KK00011		LBL, THERMAL, .750" w X .937" h, B-427, WRAP, WHT / TRANS, 10K	5.00	EA
6	0011	166KK00007		LBL,RIBBON CABLE	1.00	EA
4	0132	271KK35020		MANIFOLD, 2 STATION	2.00	EA
4	0133	271KK35030		VALVE, SINGLE, W BASE PLATE	3.00	EA
4	0134	073KK00016		ORIFICE, 010, LT BLUE	1.00	EA
4	0135	253K350701	A	ASSY, ELECTRONICS TOP PLATE, O.D., 12V	1.00	EA
5	0003	016K352000	F	PLATE, TOP, ELECTRONICS, O.D.	1.00	EA
5	0016	253K510000	B	ROUTER, WIRELESS, PLUS POWER ADAPTER	1.00	EA
6	0001	101KK04103		ROUTER, WIRELESS, EDIMAX	1.00	EA
6	0002	024K358900	A	CA, CONVERTER, DC POWER PLUG	1.00	EA
7	0001	063KK00138		CONN, 3.5 MM, RA PLUG, 2 COND, W / 6 FT CABLE, ISTAN	1.00	EA
7	0002	024KK00139		CA, BARREL FEMALE, 5.5mm X 2.1mm, 24AWG, 2C	1.00	EA
7	0003	268KK00007		TBG,3/16,THERMO-FIT,BLK	0.13	FT
7	0004	268KK00128		TBG, 1/8", THERMO-FIT, BLACK	0.13	FT
6	0003	905K510064	B	PROCEDURE, EDIMAX BR-6228NS ROUTER CONFIGURATION	1.00	EA
5	0009	253K355301	A	ASSY, COMPUTER, SBC, ATOM, 12V, W/ POWER ADAPTER	1.00	EA
6	0002	210K350100	E	ENCLOSURE, SBC, OD	1.00	EA
6	0003	210K350200	D	ENCLOSURE, LID, SBC, OD	1.00	EA
6	0004	210K350300	A	ENCLOSURE, LID, FLASH, SBC ,OD	1.00	EA
6	0006	127KK00018		GASKET, FOR 9 PIN DSUB, EMI PROTECTION	2.00	EA
6	0007	127KK00019		GASKET, FOR 25 PIN DSUB, EMI PROTECTION	1.00	EA
6	0009	178KK00039		SHOCK MOUNT, M / F, 2 LB SHEAR, 4-40, URETHANE	4.00	EA
6	0010	229KK00645		SCR, PH, SS, 2-56 X 3/16" LG	8.00	EA
6	0011	297KK00307		STDF, F, 3/16 HEX,2-56 X 3/8 L, AL	4.00	EA
6	0012	127K350100	B	GASKET, EMI, SBC, O.D.	1.00	EA
6	0013	229KK00231		SCR, FLH, 4-40 X 1/4	11.00	EA
6	0014	229KK00073		SCR, PNH, 4-40, 1/4 LG	6.00	EA
6	0015	127K350200	B	GASKET, EMI, FLASH,SBC,O.D.	1.00	EA
6	0018	253KK35004	A	ASSY, SBC, INTEL, ATOM, 2GB RAM, 8GB CFAST	1.00	EA
7	0001	205KK35004		CCA, CPU, INTEL, ATOM, SBC, HIGH TEMP	1.00	EA
7	0002	169KK35004		MEMORY MODULE, 2GB, HIGH TEMP	1.00	EA
7	0003	169KK35005		CFAST, 8 GIG, HIGH TEMP	1.00	EA
6	0019	024K358100	A	CA, 12VDC METIMEN SBC	1.00	EA
7	0001	063KK35041		CONN,25POS DSUB, FEMALE W/INS FIL 1000PF>=C<=1500PF ROHS	1.00	EA
7	0002	063KK00234		CONN , 2 X 5 POS, MILLIGRID, FEM	2.00	EA
7	0003	065KK00219		CONT TERM FEMALE MILLIGRID, 2MM	4.00	EA
7	0004	065KK00022		CRIMP, FERRULE INSUL 22 AWG, WHITE ROHS	2.00	EA
7	0005	063KK01804		CONN, 2 PIN, JST	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0006	065KK00202		CONT CRIMP SKT 24-30 AWG TIN TYPE PHT ROHS	2.00	EA
7	0007	063KK01824		CONN, 3PIN, JST	1.00	EA
7	0008	065KK00069		CONT, CRP, FEM, 28-22AWG	3.00	EA
7	0009	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	2.59	FT
7	0010	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	8.00	EA
7	0011	268KK00004		TBG,3/32,THERMOFIT,WHT	0.38	FT
7	0012	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.46	FT
7	0013	276KK00611		WIRE, AWG24 STR PVC 600V UL1429 YEL	0.46	FT
6	0020	161KK00001		LOCK, JKSCR, W/NUT&WASHERS	2.00	EA
6	0021	127KK00015		GASKET, TOP PLATE ISTAN 226 x 2 x 10	0.20	EA
6	0022	024K358200	B	CA, 12VDC METIMAN SBC PWR ADAPTER	1.00	EA
7	0001	063KK00333		CONN,HSG,PLG,10C,MICRO-FIT	1.00	EA
7	0002	065KK00200		CONT CRIMP PIN 20-24 AWG TIN MICROFIT 3.0 ROHS	4.00	EA
7	0003	063KK00229		CONN HSG 2X5POS 0.118C FEMALE LATCHING MICROFIT 3.0T	1.00	EA
7	0004	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3.0 ROHS	4.00	EA
7	0005	063KK00228		CONN HSG 2X6POS FEMALE LATCHING MICROFIT 3.0	1.00	EA
7	0006	276KK00611		WIRE, AWG24 STR PVC 600V UL1429 YEL	0.38	FT
7	0007	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.67	FT
7	0008	276KK00610		WIRE, AWG24 STR PVC 600V UL1429 RED	0.30	FT
7	0009	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	4.00	EA
6	0023	905K350207	B	PROCEDURE, SBC CFAST IMAGING	1.00	EA
5	0011	900KK00111		ADHES, DUAL LOCK PRESS 1"X50YD BLK; RM,SCOTCHMATE TYPE 400	1.00	FT
5	0012	900KK00110		RM,SCOTCHMATE TYPE 170	0.08	FT
5	0013	253K350900	A	ASSY, BATTERY TRAY, METIMAN	1.00	EA
6	0001	111K350300	A	STRAP, VELCRO 5/8 X 14 INCH BLACK BULLET NOSE	1.00	EA
6	0002	016K351800	B	TAB, HINGED, BATTERY TRAY, O.D.	1.00	EA
6	0003	016K351900	C	TRAY, BATTERY, HINGED, O.D.	1.00	EA
6	0004	111KK00004		HINGE, STEEL 1" X 1"	1.00	EA
5	0015	011KK00006		BATTERY, 18.5v, 12.6ah, Li-ion, W/ PCM & GAUGE, POLYMER	1.00	EA
4	0136	229KK00649		SCR, FLT HD, 100 DEG, 6-32 X 7/16, SS	1.00	EA
4	0137	253K350800	A	ASSY, PRESSURE REGULATOR BRACKET, O.D.	1.00	EA
5	0001	127KK00004		GRM, NYLON, .175 X 12-3/4 LG	1.00	EA
5	0002	016K351700	D	BRACKET, SUPPORT, O.D.	1.00	EA
5	0003	289KK00001		CIRCUIT BREAKER, THERM 4A, ROHS	2.00	EA
5	0004	218KK00012		RGLTR, VALVE, PILOT, ADJ	1.00	EA
5	0005	121KK00057	1	FTG, 1 TOUCH, 1/8NPTX1/4OD	1.00	EA
5	0006	121KK00094		FTG, ELBOW, 1/8 X .25	1.00	EA
5	0007	229KK00107		SCR, PNH, .8-32 X 1	2.00	EA
5	0008	287KK00201		LOCK NUT, 8-32, THIN	2.00	EA
4	0138	253K351600	A	ASSY, REGULATOR, LEFT SHOULDER, OD	1.00	EA
5	0001	016K350400	C	BRACKET, STERNUM, SUPPORT, LEFT, O.D.	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0002	218KK00005		RGLTR,0 TO 30PSIG,N-RLV	2.00	EA
5	0003	121KK00014	1	FTG,ELBOW,10-32-1/4,1TCH	1.00	EA
5	0004	0739800020		COUPLING,FEMALE X FEMALE, 10-32	2.00	EA
5	0005	121KK00105		FTG, ELBOW 1-TOUCH	1.00	EA
5	0006	121KK00001		FTG,ELBOW,10-32X1/8,1TCH	1.00	EA
4	0139	253K361100	A	ASSY, REGULATOR, RIGHT SHOULDER, EMS, OD	1.00	EA
5	0001	016K352100	A	BRACKET, STERNUM, SUPPORT, RIGHT, O.D	1.00	EA
5	0002	218KK00005		RGLTR,0 TO 30PSIG,N-RLV	2.00	EA
5	0003	121KK00105		FTG, ELBOW 1-TOUCH	2.00	EA
5	0004	0739800020		COUPLING,FEMALE X FEMALE, 10-32	2.00	EA
5	0005	121KK00001		FTG,ELBOW,10-32X1/8,1TCH	2.00	EA
4	0140	253K360500	A	ASSY, STOMACH DISTENTION, EMS, O.D.	1.00	EA
5	0001	104KK00040		BLADDER, DISTENDED, STOMACH, VERS D	1.00	EA
5	0002	121KK00099		FTG, Y, HOSE BARB, 3 8	2.00	EA
5	0003	271KK00049		VALVE,TUMMY, 0.5 PSI	1.00	EA
5	0004	271KK00050		VALVE, TUMMY, 1.0 PSI	1.00	EA
5	0005	073KK00001		CPLG,Q-DSC,SKT,3/8 TUBING	1.00	EA
5	0006	2689800111		TBG,1/8ID,1/4OD,CLEAR,SFT	2.00	FT
5	0007	2689800121		TBG, .312 ID X .437 OD	1.00	FT
4	0141	271KK00039		VALVE,CHECK,0.5PSI,1/8BRB	1.00	EA
4	0142	271KK00089		VALVE, CHECK, MINI 500 SERIES, 1 16 X 1 16 BARB, .5 PSI PUR	1.00	EA
4	0143	1219800038		FTG,FEM COUPLER	2.00	EA
4	0144	073KK00018		ORIFICE, .040, TEAL	1.00	EA
4	0145	016K351400	A	BRKT, SIDE VALVE MANIFOLD, OD	2.00	EA
4	0146	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	1.00	EA
4	0149	268KK00058		TBG,CUFFLESS,15MM ID X 24 LG	0.50	EA
4	0150	253K355900	B	ASSY, COOLING FAN AND BRACKET	1.00	EA
5	0001	253K355800	B	ASSY, RHM BRACKET, LEFT, METIMAN	1.00	EA
6	0001	060KK00008		ADHESIVE, PRISM 401-3G TB	1.00	EA
6	0003	127KK00004		GRM,NYLON,.175 X12-3/4 LG	0.50	EA
6	0004	016K351200	E	BRACKET, CIRCUIT BOARD MOUNT, OD	1.00	EA
5	0002	253K355700	A	ASSY, FAN, COOLING, METIMAN	1.00	EA
6	0001	014KK00013		FAN, 12 V 45 X 45 X 20 MM	1.00	EA
6	0002	065KK00206		CONT CRIMP PIN 22-24 AWG TIN SLT ROHS	2.00	EA
6	0003	0639802018		CONN HSG 2POS MALE IN-LINE SL	1.00	EA
6	0004	268KK00064		TBG, CUFFLESS, 22MM ID X 6	1.00	EA
6	0005	415KK00023		ADPTR ,PRES ,22MM-15MM OD	1.00	EA
6	0006	900KK00034		RM,FM,PORON,.062X4"	0.50	FT
6	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0008	060KK00008		ADHESIVE, PRISM 401-3G TB	1.00	EA
6	0009	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	2.00	EA
5	0003	273KK00157		WASHER, RUBBER, .12 ID X .25 OD X .062	4.00	EA
5	0004	273KK00003		WASHER,#2, FLT ST STL	2.00	EA
5	0006	229KK00629		SCREW, 2-56 X 1.00", PAN HEAD, SS	2.00	EA
5	0007	297KK00313		STDF, M-F, 2-56, 3/16 HEX X 1/4 LG, S.S.	2.00	EA
5	0008	060KA00001		CMPD,LOCTITE 242,BLUE, 50ml bt	1.00	BT
4	0152	121KK00114		FTG, Q-DISC, SHUTOFF, 1/8, FEMALE	1.00	EA
4	0153	024K356500	C	CA, HEMORRHAGE SENSE, O.D.	1.00	EA
5	0001	2529800135		TAPE, 2S, VHB.025, 1 X 72 YD	0.50	FT

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0002	063KK00025		CONN HSG 6POS MALE IN-LINE SLT	1.00	EA
5	0003	101KK02708		SENSOR, PRESSURE, 75 PSI, PENDO TECH	2.00	EA
5	0004	268KK00020		TBG,1/4,THERMO-FIT,WHT	1.00	FT
5	0008	065KK00222		CONTACT CRIMP MALE 24-30AWG GOLD SL ROHS	6.00	EA
5	0009	268KK00006		TBG, 1/16,THERMO-FIT,WHT	0.08	FT
4	0154	024K271200	B	CA, CAROTID PULSE INTERFACE, ISTAN	1.00	EA
5	0001	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	1.25	FT
5	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	1.25	FT
5	0003	268KK00002		TBG,3/16,THERMO-FIT,WHT	0.20	FT
5	0004	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	4.00	EA
5	0005	0639802018		CONN HSG 2POS MALE IN-LINE SL	2.00	EA
5	0006	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0007	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
4	0155	121KK00045		FTG,FLANGE,TUBING	4.00	EA
4	0157	024K356800	A	CA, WVL AUDIO ADAPTER, METIMAN	1.00	EA
5	0001	0639802019		CONN HSG 4POS MALE IN-LINE SL	1.00	EA
5	0002	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	2.00	EA
5	0003	063KK01821		CONN, 3.5 MM, RA PLUG, MONO, W / 6 FT CABLE, ISTAN	1.00	EA
5	0004	268KK00020		TBG,1/4,THERMO-FIT,WHT	0.20	FT
4	0158	253K530400	C	ASSY, WIRELESS VOICE LINK, MM	1.00	EA
5	0002	147K530000	B	KIT, HANDSET, WVL	1.00	EA
6	0001	253K530200	C	ASSY, HANDSET, WVL	1.00	EA
7	0001	031K530000	A	CASE, BOTTOM, WVL	1.00	EA
7	0002	031K530100	B	CASE, TOP, WVL	1.00	EA
7	0003	031K530200	A	COVER, SWITCH, WVL	1.00	EA
7	0004	031K530300	A	COVER, BATTERY, WVL	1.00	EA
7	0005	031K530400	A	COVER, HANDSET, ANTENNA, WVL	1.00	EA
7	0006	205K530000	B	CCA, WIRELESS VOICE LINK CONTROL	1.00	EA
8	0001	206K530000	A	PCB, WIRELESS VOICE LINK CONTROL	1.00	EA
8	0002	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	2.00	EA
8	0003	3030100107		CAP CER X5R 0.1UF 16V 20% 0402 ROHS	14.00	EA
8	0004	3030100050		CAP CER NPO 18PF 50V 5% 0603 ROHS	4.00	EA
8	0005	3030100143		CAP CER X5R 10UF 16V 10% 0805 ROHS	5.00	EA
8	0006	3030100147		CAP CER COG 1000pF 50V 5% 0805 ROHS	2.00	EA
8	0007	3030100154		CAP CER X5R 0.47UF 16V 10% 0402 ROHS	5.00	EA
8	0008	3030100152		CAP CER X5R 1.0UF 10V 10% 0402 ROHS	1.00	EA
8	0009	3030100153		CAP CER X5R 47000PF 10V 10% 0402 ROHS	1.00	EA
8	0010	3030100086		CAP CER X7R 0.01UF 16V 10% 0402 ROHS	1.00	EA
8	0011	3030100149		CAP CER X7R 1000pF 50V 5% 0603 ROHS	2.00	EA
8	0012	3030100001		CAP CER X5R 1.0UF 25V 10% 0603 ROHS	1.00	EA
8	0013	3030100150		CAP CER NPO 33pF 50V 5% 0402 ROHS	1.00	EA
8	0014	3030100104		CAP CER X5R 10UF 16V 10% 0805 ROHS	1.00	EA
8	0015	3030100151		CAP CER X5R 47uF 6.3V 20% 1206 ROHS	2.00	EA
8	0016	3030100067		CAP CER X7R 0.01UF 16V 10% 0603 ROHS	1.00	EA
8	0017	0880100055		LED GREEN RECTANGLE RIGHT ANGLE ROHS	1.00	EA
8	0018	0880100056		LED RED RECTANGLE RIGHT ANGLE ROHS	1.00	EA
8	0019	0880100057		TVS BIDIR 12V 300W SOT23 ROHS	1.00	EA
8	0020	0880100021		DIODE, SWITCHING SOD523 75V 0.75A ROHS	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0021	0550100027		FERRITE 470 OHMS @ 100MHZ ISAT=1.5A DCR=0.13 0603 ROHS	1.00	EA
8	0022	0630100054		CONN HEADER 2X3POS 0.1C PCB ROHS	1.00	EA
8	0023	0630100022		CONN, 3POS 0.079C RAPCB FRICTION TYPE PH ROHS	1.00	EA
8	0024	0630100088		CONN 3.5MM AUDIO JACK, 4POS RAPCB ROHS	3.00	EA
8	0025	0630100018		CONN, 2POS 0.079C RAPCB FRICTION ROHS	1.00	EA
8	0026	0630100090		CONN DC PWR JACK 3.5 X 1.3 (MM) RAPCB ROHS	1.00	EA
8	0027	0630100092		CONN SOCKET 2X12POS 0.1C PCB ROHS	1.00	EA
8	0028	0550100032		IND 22UH 20% 100mA 0805 ROHS	2.00	EA
8	0029	0550100033		IND4.7UH 20% SMT TYPE LPS ROHS	1.00	EA
8	0030	2630100022		MOSFET P-CH 30V 1.3A SSOT-3 ROHS	1.00	EA
8	0031	2630100015		TRANS, NMOSFET 30V 13A SOT23 ROHS	2.00	EA
8	0032	6200100231		RES TF 100K OHM 1/16W 1% 0402 ROHS	21.00	EA
8	0033	6200100164		RES TF 4.7K OHM 1/16W 1% 0402 ROHS	2.00	EA
8	0034	6200100226		RES TF 300 OHM 1/10W 1% 0603 ROHS	2.00	EA
8	0035	6200100244		RES TF 1.20K OHM 1/16W 1% 0402 ROHS	2.00	EA
8	0036	6200100243		RES TF 100 OHM 1/16W 1% 0402 ROHS	1.00	EA
8	0037	6200100234		RES TF 2.74K OHM 1/16W 1% 0402 ROHS	1.00	EA
8	0038	6200100227		RES TF 1.0MEG OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0039	6200100155		RES TF 0 OHM 5% 1/16W 0402 ROHS	24.00	EA
8	0040	6200100245		RES TF 178K OHM 1/16W 1% 0402 ROHS	1.00	EA
8	0041	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	3.00	EA
8	0042	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0043	6200100235		RES TF 33.0 OHM 1/16W 1% 0402 ROHS	1.00	EA
8	0044	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	1.00	EA
8	0045	2500100008		SWITCH SLIDE SPDT RA 6.7X2.6 (MM) SMT ROHS	1.00	EA
8	0046	2500100010		TRI-SCAN NAVIGATION SWITCH, PCB MOUNT ROHS	1.00	EA
8	0047	2500100009		SWITCH 8POS DIP HALF PITCH 11.7X5.6(MM) SMD ROHS	1.00	EA
8	0048	0460100129		IC MICROCONTROLLER 32K FLASH QFN32 ROHS	1.00	EA
8	0049	0460100130		IC OCTAL 400KHZ I2C I/O EXPANDER W/INT TSSOP16 ROHS	1.00	EA
8	0050	0460100127		IC STEREO AUDIO CODEC W/ MIC PREAMP QFN32 ROHS	1.00	EA
8	0051	0460100132		IC I2C/SPI TO RS232 UART BRIDGE QFN40 ROHS	1.00	EA
8	0052	0460100133		IC BOOST SYNC ADJ 0.55A DFN6 ROHS	1.00	EA
8	0053	0460100134		IC LDO 3.3V/0.15A OUT, 5-20V IN MSOP8 ROHS	1.00	EA
8	0054	0460100135		IC EEPROM 256KBIT 400KHZ 8SOIC ROHS	1.00	EA
8	0055	1840100007		XSTAL 8.192MHZ 18PF FUND, SMT TYPE HCM49 ROHS	1.00	EA
8	0056	1840100009		XTAL 24.0000MHZ18PF SMT 5MMX3.2MM ROHS	1.00	EA
7	0007	205K530100	A	CCA, WIRELESS RADIO DAUGHTER NORDIC	1.00	EA
8	0001	206K530100	A	PCB, WIRELESS RADIO DAUGHTER NORDIC	1.00	EA
8	0002	3030100138		CAP CER X7R 0.033UF 25V 10% 0603 ROHS	1.00	EA
8	0003	3030100067		CAP CER X7R 0.01UF 16V 10% 0603 ROHS	2.00	EA
8	0004	3030100139		CAP CER NPO 1000PF 50V 5% 0603 ROHS	1.00	EA
8	0005	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	1.00	EA
8	0006	3030100140		CAP CER X7R 2200PF 50V 10% 0603 ROHS	1.00	EA
8	0007	3030100141		CAP CER NPO 4.7PF +/-0.25PF 50V 0603 ROHS	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0008	3030100005		CAP CER NPO 33PF 50V 5% 0603 ROHS	2.00	EA
8	0009	3030100142		CAP CER NPO 1.5PF +/-0.25PF 50V 0603 ROHS	1.00	EA
8	0010	3030100130		CAP CER COG 1.0PF 50V 25% 0603 ROHS	1.00	EA
8	0011	0630100093		SMT MICRO HEADER FTSH	1.00	EA
8	0012	0630100089		CONN R-SMA PCB STRADDLE MOUNT ROHS	1.00	EA
8	0013	0550100028		IND 2.7NH 0.5A 0603 ROHS	1.00	EA
8	0014	0550100029		IND 8.2NH 0603 ROHS	1.00	EA
8	0015	0550100030		IND 3.9NH 0.45A 0603 ROHS	1.00	EA
8	0016	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	2.00	EA
8	0017	6200100153		RES TF 22K OHM 1/10W 5% 0603 ROHS	1.00	EA
8	0018	6200100227		RES TF 1.0MEG OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0019	0460100131		IC 2.4GHZ AUDIO TRANSCEIVER QFN20 ROHS	1.00	EA
8	0020	1840100008		XTAL 16.0000MHZ18PF SMT 5MMX3.2MM ROHS	1.00	EA
7	0008	024K530100	B	CA, WVL, BATTERY	1.00	EA
8	0001	276KK00610		WIRE, AWG24 STR PVC 600V UL1429 RED	0.10	FT
8	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.10	FT
8	0003	063KK42101		CONTACT BATT SGL CELL AAAA/AAA/N	1.00	EA
8	0004	063KK42102		CLIP BATT AAAA/AAA/N CELL STEEL	1.00	EA
8	0005	063KK01804		CONN, 2 PIN, JST	1.00	EA
8	0006	065KK01801		CONT, CRIMP, JST	2.00	EA
7	0009	101KK00114		BATTERY, AAA	2.00	EA
7	0010	009KK42021		2.4 GHz 2 DBI RUBBER DUCK ANTENNA SMA PLUG	1.00	EA
7	0011	229KK00016		SCR, PNH, 0-42X3/16, THREAD FORMING	2.00	EA
7	0012	063KK42103		BATTERY CONTACT AAA LEFT	1.00	EA
7	0013	166K530100		LABEL, SN WVL MM	1.00	EA
7	0014	850K530000		FIRMWARE, WVL, HAND_1_2_1_0	1.00	EA
6	0002	031K530600	A	CLIP, WVL	1.00	EA
6	0003	430KK43141		OLYMPUS ME-52W NOISE CANCELING MICROPHONE	1.00	EA
5	0003	905K530052	1.3	QUICK START GUIDE, WIRELESS VOICE LINK	1.00	EA
5	0004	903KK10033	B	BOX, WVL, 7"X4.25"X2"	1.00	EA
5	0005	253K530300	C	ASSY, BASE STATION, MM, WVL	1.00	EA
6	0001	031K530700	A	CASE, BOTTOM, MM, WVL	1.00	EA
6	0002	031K530800	B	CASE, TOP, MM, WVL	1.00	EA
6	0003	031K530200	A	COVER, SWITCH, WVL	1.00	EA
6	0004	031K530300	A	COVER, BATTERY, WVL	1.00	EA
6	0005	031K530500	A	COVER, BASE STATION, ANTENNA, WVL	1.00	EA
6	0006	205K530000	B	CCA, WIRELESS VOICE LINK CONTROL	1.00	EA
7	0001	206K530000	A	PCB, WIRELESS VOICE LINK CONTROL	1.00	EA
7	0002	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	2.00	EA
7	0003	3030100107		CAP CER X5R 0.1UF 16V 20% 0402 ROHS	14.00	EA
7	0004	3030100050		CAP CER NPO 18PF 50V 5% 0603 ROHS	4.00	EA
7	0005	3030100143		CAP CER X5R 10UF 16V 10% 0805 ROHS	5.00	EA
7	0006	3030100147		CAP CER COG 1000pF 50V 5% 0805 ROHS	2.00	EA
7	0007	3030100154		CAP CER X5R 0.47UF 16V 10% 0402 ROHS	5.00	EA
7	0008	3030100152		CAP CER X5R 1.0UF 10V 10% 0402 ROHS	1.00	EA
7	0009	3030100153		CAP CER X5R 47000pF 10V 10% 0402 ROHS	1.00	EA
7	0010	3030100086		CAP CER X7R 0.01UF 16V 10% 0402 ROHS	1.00	EA
7	0011	3030100149		CAP CER X7R 1000pF 50V 5% 0603 ROHS	2.00	EA
7	0012	3030100001		CAP CER X5R 1.0UF 25V 10% 0603 ROHS	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0013	3030100150		CAP CER NPO 33pF 50V 5% 0402 ROHS	1.00	EA
7	0014	3030100104		CAP CER X5R 10UF 16V 10% 0805 ROHS	1.00	EA
7	0015	3030100151		CAP CER X5R 47uF 6.3V 20% 1206 ROHS	2.00	EA
7	0016	3030100067		CAP CER X7R 0.01UF 16V 10% 0603 ROHS	1.00	EA
7	0017	0880100055		LED GREEN RECTANGLE RIGHT ANGLE ROHS	1.00	EA
7	0018	0880100056		LED RED RECTANGLE RIGHT ANGLE ROHS	1.00	EA
7	0019	0880100057		TVS BIDIR 12V 300W SOT23 ROHS	1.00	EA
7	0020	0880100021		DIODE, SWITCHING SOD523 75V 0.75A ROHS	1.00	EA
7	0021	0550100027		FERRITE 470 OHMS @ 100MHZ ISAT=1.5A DCR=0.13 0603 ROHS	1.00	EA
7	0022	0630100054		CONN HEADER 2X3POS 0.1C PCB ROHS	1.00	EA
7	0023	0630100022		CONN, 3POS 0.079C RAPCB FRICTION TYPE PH ROHS	1.00	EA
7	0024	0630100088		CONN 3.5MM AUDIO JACK, 4POS RAPCB ROHS	3.00	EA
7	0025	0630100018		CONN, 2POS 0.079C RAPCB FRICTION ROHS	1.00	EA
7	0026	0630100090		CONN DC PWR JACK 3.5 X 1.3 (MM) RAPCB ROHS	1.00	EA
7	0027	0630100092		CONN SOCKET 2X12POS 0.1C PCB ROHS	1.00	EA
7	0028	0550100032		IND 22UH 20% 100mA 0805 ROHS	2.00	EA
7	0029	0550100033		IND4.7UH 20% SMT TYPE LPS ROHS	1.00	EA
7	0030	2630100022		MOSFET P-CH 30V 1.3A SSOT-3 ROHS	1.00	EA
7	0031	2630100015		TRANS, NMOSFET 30V 13A SOT23 ROHS	2.00	EA
7	0032	6200100231		RES TF 100K OHM 1/16W 1% 0402 ROHS	21.00	EA
7	0033	6200100164		RES TF 4.7K OHM 1/16W 1% 0402 ROHS	2.00	EA
7	0034	6200100226		RES TF 300 OHM 1/10W 1% 0603 ROHS	2.00	EA
7	0035	6200100244		RES TF 1.20K OHM 1/16W 1% 0402 ROHS	2.00	EA
7	0036	6200100243		RES TF 100 OHM 1/16W 1% 0402 ROHS	1.00	EA
7	0037	6200100234		RES TF 2.74k OHM 1/16W 1% 0402 ROHS	1.00	EA
7	0038	6200100227		RES TF 1.0MEG OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0039	6200100155		RES TF 0 OHM 5% 1/16W 0402 ROHS	24.00	EA
7	0040	6200100245		RES TF 178K OHM 1/16W 1% 0402 ROHS	1.00	EA
7	0041	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	3.00	EA
7	0042	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0043	6200100235		RES TF 33.0 OHM 1/16W 1% 0402 ROHS	1.00	EA
7	0044	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	1.00	EA
7	0045	2500100008		SWITCH SLIDE SPDT RA 6.7X2.6 (MM) SMT ROHS	1.00	EA
7	0046	2500100010		TRI-SCAN NAVIGATION SWITCH, PCB MOUNT ROHS	1.00	EA
7	0047	2500100009		SWITCH 8POS DIP HALF PITCH 11.7X5.6(MM) SMD ROHS	1.00	EA
7	0048	0460100129		IC MICROCONTROLLER 32K FLASH QFN32 ROHS	1.00	EA
7	0049	0460100130		IC OCTAL 400KHZ I2C I/O EXPANDER W/INT TSSOP16 ROHS	1.00	EA
7	0050	0460100127		IC STEREO AUDIO CODEC W/ MIC PREAMP QFN32 ROHS	1.00	EA
7	0051	0460100132		IC I2C/SPI TO RS232 UART BRIDGE QFN40 ROHS	1.00	EA
7	0052	0460100133		IC BOOST SYNC ADJ 0.55A DFN6 ROHS	1.00	EA
7	0053	0460100134		IC LDO 3.3V/0.15A OUT, 5-20V IN MSOP8 ROHS	1.00	EA
7	0054	0460100135		IC EEPROM 256KBIT 400KHZ 8SOIC ROHS	1.00	EA
7	0055	1840100007		XSTAL 8.192MHZ 18PF FUND, SMT TYPE HCM49 ROHS	1.00	EA
7	0056	1840100009		XTAL 24.0000MHZ18PF SMT 5MMX3.2MM ROHS	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0007	205K530100	A	CCA, WIRELESS RADIO DAUGHTER NORDIC	1.00	EA
7	0001	206K530100	A	PCB, WIRELESS RADIO DAUGHTER NORDIC	1.00	EA
7	0002	3030100138		CAP CER X7R 0.033UF 25V 10% 0603 ROHS	1.00	EA
7	0003	3030100067		CAP CER X7R 0.01UF 16V 10% 0603 ROHS	2.00	EA
7	0004	3030100139		CAP CER NPO 1000PF 50V 5% 0603 ROHS	1.00	EA
7	0005	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	1.00	EA
7	0006	3030100140		CAP CER X7R 2200PF 50V 10% 0603 ROHS	1.00	EA
7	0007	3030100141		CAP CER NPO 4.7PF +/-0.25PF 50V 0603 ROHS	1.00	EA
7	0008	3030100005		CAP CER NPO 33PF 50V 5% 0603 ROHS	2.00	EA
7	0009	3030100142		CAP CER NPO 1.5PF +/-0.25PF 50V 0603 ROHS	1.00	EA
7	0010	3030100130		CAP CER COG 1.0PF 50V 25% 0603 ROHS	1.00	EA
7	0011	0630100093		SMT MICRO HEADER FTSH	1.00	EA
7	0012	0630100089		CONN R-SMA PCB STRADDLE MOUNT ROHS	1.00	EA
7	0013	0550100028		IND 2.7NH 0.5A 0603 ROHS	1.00	EA
7	0014	0550100029		IND 8.2NH 0603 ROHS	1.00	EA
7	0015	0550100030		IND 3.9NH 0.45A 0603 ROHS	1.00	EA
7	0016	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	2.00	EA
7	0017	6200100153		RES TF 22K OHM 1/10W 5% 0603 ROHS	1.00	EA
7	0018	6200100227		RES TF 1.0MEG OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0019	0460100131		IC 2.4GHZ AUDIO TRANSCEIVER QFN20 ROHS	1.00	EA
7	0020	1840100008		XTAL 16.0000MHZ18PF SMT 5MMX3.2MM ROHS	1.00	EA
6	0008	009KK42021		2.4 GHZ 2 DBI RUBBER DUCK ANTENNA SMA PLUG	1.00	EA
6	0009	229KK00016		SCR, PNH, 0-42X3/16, THREAD FORMING	2.00	EA
6	0010	850K530200		FIRMWARE WVL, MM BASE _1_2_1_0	1.00	EA
6	0011	166K530100		LABEL, SN WVL MM	1.00	EA
5	0006	166K530100		LABEL, SN WVL MM	1.00	EA
5	0007	905K350334	A	PROCEDURE,TUNING, AUDIO XCVR, WVL, MM	1.00	EA
4	0159	024K182400	B	CA, ETHERNET EXPANSION, I-STAN	1.00	EA
5	0001	0249800323	-	CA, 4 TW PR,24AWG,CAT5,	1.50	FT
5	0002	268KK00020		TBG,1/4,THERMO-FIT,WHT	0.40	FT
5	NOTE	063KK00023		CONN,RCPT,CAT5,RJ45,BLK,	1.00	EA
5	NOTE	0639802012		CONN,8C,MODULAR PLUG,RJ45	1.00	EA
4	0160	905K350034	A	CALIBRATION PROCEDURE, METIMAN	1.00	EA
4	0161	297KK00009		STDF, M/F, HEX, 4-40 X 3/16 X 7/16 L, SS	4.00	EA
3	0002	253K350500	C	ASSY, MALE GENITALIA	1.00	EA
4	0001	104K284400	D	GENITALIA, MALE, SILICONE	1.00	EA
4	0002	073KK00001		CPLG,Q-DSC,SKT,3/8 TUBING	1.00	EA
4	0003	258KK00013		TIE, CABLE, 5.4", IN LINE	1.00	EA
4	0004	252KK00003		VELCRO, ADH-BK, 3/4"X15', WHT	0.50	FT
3	0003	104K351401	C	TORSO, MODIFIED, OD	1.00	EA
3	0004	253K353100	C	ABDOMEN, 4 QUADRANT BOWEL SOUNDS	1.00	EA
4	0001	104KK00016	1	ABDOMEN,VER D	1.00	EA
4	0002	024K270100	B	CA, HEART/ BREATH SOUNDS, ISTAN	4.00	EA
5	0001	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	0.25	FT
5	0002	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0003	268KK00004		TBG,3/32,THERMOFIT,WHT	0.03	FT
5	SP1	430KK00005		SPEAKER, 1 WATT, 8 OHM	1.00	EA
5	P1	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0006	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	1.00	EA
4	0003	126K270100	A	GRILL, SPEAKER	4.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
4	0004	024K273200	A	CA, BELLY SOUNDS ADAPTER, ISTAN	1.00	EA
5	0001	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	5.33	FT
5	0002	276KK00608		WIRE, AWG24 STR PVC 600V UL1429 GRN	5.33	FT
5	0003	268KK00020		TBG,1/4,THERMO-FIT,WHT	0.70	FT
5	0004	268KK00004		TBG,3/32,THERMOFIT,WHT	0.20	FT
5	0005	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	16.00	EA
5	0006	063KK00209		CONN HSG 8POS MALE IN-LINE SLT	1.00	EA
5	0007	0639802018		CONN HSG 2POS MALE IN-LINE SL	4.00	EA
3	0048	242K350100	B	SPRING, BELLY SUPPORT, OD	1.00	EA
3	0049	229KK00644		BOLT 1/4-20 X 3.0 "	0.00	EA
3	0050	273KK00013		WASHER,1/4 FLT ST STL	4.00	EA
3	0051	2879800256		NUT,1/4-20,SELF-LOCK,NYLO	2.00	EA
3	0056	253K354100	B	ASSY, PANEL MOUNT, LEFT SHOULDER, EMS, OD	1.00	EA
4	0001	196K354100	A	PLATE, BACKING, PANEL MOUNT, LEFT SHOULDER,OD	1.00	EA
4	0002	905K354184	A	TEMPLATE, PANEL MOUNT, LEFT SHOULDER, OD	1.00	EA
4	0003	166K350100	A	LABEL, PANEL MOUNT, LEFT SHOULDER, EMS, OD	1.00	EA
4	0004	415KK00059		FITTING, SHUTOFF, PANEL MOUNT	2.00	EA
4	0005	415KK00056		FITTING, 1/16, LUER, PANEL MOUNT	5.00	EA
4	0006	287KK00015		NUT,HEX, 1/4-28	5.00	EA
4	0007	104KK00167		PANEL, RECESS, VALVE, LG	1.00	EA
4	0008	1439800141		JACK, PLUG, MALE LUER	4.00	EA
4	0009	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	1.00	EA
3	0057	253K354200	C	ASSY, PANEL MOUNT, RIGHT SHOULDER, OD	1.00	EA
4	0001	196K354200	A	PLATE, BACKING, PANEL MOUNT, RIGHT SHOULDER,OD	1.00	EA
4	0002	905K354284	A	TEMPLATE, PANEL MOUNT, RIGHT SHOULDER, OD	1.00	EA
4	0003	166K350200	A	LABEL, PANEL MOUNT, RIGHT SHOULDER, OD	1.00	EA
4	0004	415KK00056		FITTING, 1/16, LUER, PANEL MOUNT	4.00	EA
4	0005	415KK00057		FITTING, 1/8, LUER, PANEL MOUNT	1.00	EA
4	0006	415KK00060		FITTING, SHUTOFF, PANEL MOUNT, BLK	1.00	EA
4	0007	287KK00015		NUT,HEX, 1/4-28	5.00	EA
4	0008	104KK00167		PANEL, RECESS, VALVE, LG	1.00	EA
4	0009	1439800141		JACK, PLUG, MALE LUER	4.00	EA
3	0058	253K354301	B	ASSY, PANEL MOUNT, LEFT LEG, OD, CERT	1.00	EA
4	0001	196K354300	B	PLATE, BACKING, PANEL MOUNT, LEFT LEG,OD	1.00	EA
4	0002	905K354384	A	TEMPLATE, PANEL MOUNT, LEFT LEG, OD	1.00	EA
4	0003	166K350300	A	LABEL, PANEL MOUNT, LEFT LEG, OD	1.00	EA
4	0004	104KK00166		PANEL, RECESS, POWER SWITCH, SM	1.00	EA
4	0005	024K353000	B	CA, DC IN, BULKHEAD, OD	1.00	EA
5	0001	063KK00233		CONN PWR JCK 2.5 X 6.4MM PNL MNT	1.00	EA
5	0002	063KK00200		CONN HSG 2POS FEMALE IN-LINE LATCHING MICROFIT 3.0	1.00	EA
5	0003	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3 0 ROHS	2.00	EA
5	0004	0639802018		CONN HSG 2POS MALE IN-LINE SL	1.00	EA
5	0005	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	2.00	EA
5	0006	276KK00625		WIRE, AWG 20, STR, PVC, 600V, UL1429, RED	1.04	FT
5	0007	276KK00601		WIRE, AWG20 STR IR PVC UL1429 BLK	1.04	FT
5	0008	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	1.04	FT

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0009	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	3.00	EA
5	0010	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0011	268KK00004		TBG,3/32,THERMOFIT,WHT	0.20	FT
5	0012	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
5	0013	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	1.04	FT
4	0006	024K353700	B	CA, ON OFF PUSHBUTTON, OD	1.00	EA
5	0001	250KK00021		SWITCH, PUSHBUTTON, LIGHTED, 2V GREEN LED, OTTO	1.00	EA
5	0002	0639802016		CONN HSG 4POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0003	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	4.00	EA
5	0004	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	1.25	FT
5	0005	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	2.50	FT
5	0006	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	1.25	FT
5	0007	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
5	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0010	268KK00004		TBG,3/32,THERMOFIT,WHT	0.25	FT
5	0011	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
4	0007	024K354900	B	CA, SPO2 BULKHEAD DISCONNECT, OD	1.00	EA
5	0001	063KK01810		CONN HSG 3POS MALE IN-LINE SL	1.00	EA
5	0002	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	3.00	EA
5	0003	063KK35010		CONN, SWITCHCRAFT EN3, PANEL, 3 POS, WEATHERTIGHT	1.00	EA
5	0004	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	0.92	FT
5	0005	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.92	FT
5	0006	276KK00610		WIRE, AWG24 STR PVC 600V UL1429 RED	0.92	FT
5	0007	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	2.00	EA
5	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0009	268KK00004		TBG,3/32,THERMOFIT,WHT	0.33	FT
5	0010	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
4	0008	024K182401	B	CA, ETHERNET EXPANSION, OD, CERT	1.00	EA
4	0009	297KK00040		STDF, 3/16HEX, 4-40 X 1.0	1.00	EA
4	0010	229KK00068		SCR, FH, 100 DEGREES, 4-40 X 1/4 LG	1.00	EA
3	0059	253K354400	B	ASSY, PANEL MOUNT, RIGHT LEG, OD	1.00	EA
4	0001	196K354400	A	PLATE, BACKING, PANEL MOUNT, RIGHT LEG,OD	1.00	EA
4	0002	905K354484	A	TEMPLATE, PANEL MOUNT, RIGHT LEG, OD	1.00	EA
4	0003	166K350400	A	LABEL, PANEL MOUNT, RIGHT LEG, OD	1.00	EA
4	0004	415KK00060		FITTING, SHUTOFF, PANEL MOUNT, BLK	1.00	EA
4	0005	4159800069		FTG,QC,F,1/8ID,SHUT OFF,PNLMT, WHITE	1.00	EA
4	0006	104KK00166		PANEL, RECESS, POWER SWITCH, SM	1.00	EA
4	0007	415KK00061		FITTING, 1/8" ID BARB, PANEL MOUNT, SHUT OFF, NATURAL	1.00	EA
3	0060	111KK00003		RIVET, PUSH, RIBBED SHANK,.187 X .070, NYLON, ISTAN	4.00	EA
3	0072	268K360200	B	ASSY, IV SYSTEM, TORSO, EMS	1.00	EA
4	0001	1219800035		FITTING, 1/16 MALE INLINE	2.00	EA
4	0002	1219800032		FTG,RDCR, 1/8 BARB - 1/16 BARB	1.00	EA
4	0003	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	2.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
4	0004	4159800065		COUPLING, Y, 1/16" ID	2.00	EA
4	0005	1219800037		FTG,TEE CONN 1/16 ID	2.00	EA
4	0006	271KK00088		VALVE, CHECK, MINI 500 SERIES, 1/16 X 1/16 BARB, 0.1 PSI YEL	3.00	EA
4	0007	271KK00090		VALVE, CHECK, MINI 500 SERIES, 1/16 X 1/16 BARB, 3.0 PSI	1.00	EA
4	0008	271KK00089		VALVE, CHECK, MINI 500 SERIES, 1 16 X 1 16 BARB, .5 PSI PUR	2.00	EA
4	0010	104KK00164		BLADDER, ONE TUBE, LATEX FREE, 2,2" X 4,5"	1.00	EA
4	0012	121KK00046		FTG,1/4"X1/4" Y UNION	1.00	EA
4	0014	242K350300	A	SPRING, BLADDER PRESSURE, OD	1.00	EA
5	0001	242KK00026		SPRING, BANKERS CLASP	1.00	EA
4	0015	279K350100	A	SHIELD, BLADDER, OD	2.00	EA
4	0016	415KK00033		1/8 TO 1/8 ADAPTER	1.00	EA
4	0017	2689800107		TBG,1/16 ID,1/8 OD,CLEAR	6.50	FT
4	0018	2689800111		TBG,1/8ID,1/4OD,CLEAR,SFT	3.00	FT
4	0019	268KK00084		MESH, 3" - 4", GREEN	0.30	FT
3	0075	0739800008		FTG, COUPLING, MALE, INLINE 1/8	3.00	EA
3	0076	1219800035		FITTING, 1/16 MALE INLINE	4.00	EA
3	0078	111K350200	A	STRAP, EXCURSION LIMITER, OD	2.00	EA
3	0079	268K350200	D	ASSY, CHEST TUBE SECRECTIONS, OD	1.00	EA
4	0003	2689800107		TBG,1/16 ID,1/8 OD,CLEAR	0.75	FT
4	0005	271KK00088		VALVE, CHECK, MINI 500 SERIES, 1/16 X 1/16 BARB, 0.1 PSI YEL	2.00	EA
4	0008	2689800111		TBG,1/8ID,1/4OD,CLEAR,SFT	5.50	FT
4	0009	121KK00114		FTG, Q-DISC, SHUTOFF, 1/8, FEMALE	2.00	EA
4	0020	121KK00153		FTG, BARB, T,1/8 X 1/8 X 1/8, NPB	2.00	EA
4	0021	1219800032		FTG,RDCR, 1/8 BARB - 1/16 BARB	2.00	EA
4	0022	242K350300	A	SPRING, BLADDER PRESSURE, OD	2.00	EA
5	0001	242KK00026		SPRING, BANKERS CLASP	1.00	EA
4	0023	279K350100	A	SHIELD, BLADDER, OD	4.00	EA
4	0024	268KK00084		MESH, 3" - 4", GREEN	0.60	FT
4	0025	104KK00164		BLADDER, ONE TUBE, LATEX FREE, 2,2" X 4,5"	2.00	EA
4	0026	104K353900	A	RIBCAGE FOAM	0.03	EA
3	0081	104K353201	B	SKIN, SHORTS, EMS, 25 PLASTICIZED,OD, MODIFIED	1.00	EA
4	0001	104K353200	A	SKIN, SHORTS, EMS, 25 PLASTICIZED, OD, ISTAN COLOR	1.00	EA
3	0082	268K360300	C	ASSY, GU SECRECTIONS , EMS, O.D.	1.00	EA
4	0004	271KK00088		VALVE, CHECK, MINI 500 SERIES, 1/16 X 1/16 BARB, 0.1 PSI YEL	1.00	EA
4	0005	2689800107		TBG,1/16 ID,1/8 OD,CLEAR	0.67	FT
4	0008	104KK00164		BLADDER, ONE TUBE, LATEX FREE, 2,2" X 4,5"	1.00	EA
4	0010	271KK00090		VALVE, CHECK, MINI 500 SERIES, 1/16 X 1/16 BARB, 3.0 PSI	1.00	EA
4	0011	1219800032		FTG,RDCR, 1/8 BARB - 1/16 BARB	1.00	EA
4	0012	121KK00153		FTG, BARB, T,1/8 X 1/8 X 1/8, NPB	1.00	EA
4	0013	242K350300	A	SPRING, BLADDER PRESSURE, OD	1.00	EA
5	0001	242KK00026		SPRING, BANKERS CLASP	1.00	EA
4	0014	253K352200	B	ASSY, G.U., O.D	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0001	271KK00096		VALVE, DUCK BILL, .875 OD	1.00	EA
5	0002	104K350300	A	FUNNEL, DUCK BILL RETENTION, O.D.	1.00	EA
5	0003	230K350100	A	SEAL, LIP, OD	1.00	EA
6	0001	273KK00155		WASHER, PVC .375 ID, .875 OD	1.00	EA
6	0002	900KK00070		LATEX SHT, .014 X 24 X 15	0.00	EA
6	0003	060KK00043		ADH,INSTANT,PRISM,4851 20gm bt	0.20	EA
5	0004	104K350200	A	TUBE, G.U. - STOMACH, O.D.	1.00	EA
5	0005	073KK00002		CPLG,Q-DSC,PLUG,3 8TUBING	1.00	EA
5	0006	268KK00134		TBG, SILICON, SOFT, SEMI-CLEAR BLUE	0.17	FT
4	0015	4159800065		COUPLING, Y, 1/16" ID	2.00	EA
4	0016	279K350100	A	SHIELD, BLADDER, OD	2.00	EA
4	0017	268KK00084		MESH, 3" - 4", GREEN	0.30	FT
4	0018	2689800111		TBG,1/8ID,1/4OD,CLEAR,SFT	1.60	FT
4	0019	2689800115		TBG,1/8ID,1/4OD,CLEAR,HRD	2.20	FT
3	0083	268K350400	A	ASSY, BLEEDING CONTROL SYSTEM, OD	1.00	EA
4	0005	121KK00011		FTG,TEE,1/4-1/4,1TCH	1.00	EA
4	0006	121KK00046		FTG,1/4"X1/4" Y UNION	1.00	EA
4	0007	121KK00012	1	FTG,TEE,1/8-1/8,1TCH	2.00	EA
4	0009	121KK00108		1/4 TO 1/4 STRAIGHT UNION	2.00	EA
4	0011	121KK00014	1	FTG,ELBOW,10-32-1/4,1TCH	1.00	EA
4	0012	121KK00010	1	FTG,10-32-1/4,1TCH	6.00	EA
4	0013	121KK00007	1	FTG,PLUG,M5X0.8	4.00	EA
4	0014	2689800115		TBG,1/8ID,1/4OD,CLEAR,HRD	10.00	FT
4	0020	271KK35080		VALVE, WATER, 3WAY, 1/8 BARB, PARKER	2.00	EA
4	0022	121KK00002	1	FTG,10-32X1/8,CONN,MALE	3.00	EA
4	0024	221KK00015		O-RING, .370 ID X .450 OD, BLACK, BUNA N, 70 DURO	1.00	EA
4	0026	4159800042		FTG, LUER FEMALE TO 1/16 TBG	2.00	EA
4	0027	0639802018		CONN HSG 2POS MALE IN-LINE SL	2.00	EA
4	0028	114KK00010		FILTER, INLINE, HOUSING, SERVICABLE, 48 MICRON, 1/8 ID BARB	1.00	EA
4	0029	0739800008		FTG, COUPLING, MALE, INLINE 1/8	1.00	EA
3	0084	121KK00045		FTG,FLANGE,TUBING	1.00	EA
3	0085	024KK42060		CA, ETHERNET, 1 FT	3.00	EA
3	0087	104KK00040		BLADDER, DISTENDED, STOMACH, VERS D	1.00	EA
3	0088	121KK00099		FTG, Y, HOSE BARB, 3 8	2.00	EA
3	0089	271KK00049		VALVE,TUMMY, 0.5 PSI	1.00	EA
3	0090	271KK00050		VALVE, TUMMY, 1.0 PSI	1.00	EA
3	0091	073KK00001		CPLG,Q-DSC,SKT,3/8 TUBING	1.00	EA
3	0092	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	3.00	EA
3	0093	166K360000	A	LABEL, TUV METIMAN PRE-HOSPITAL	1.00	EA
2	0006	253K354900	E	ASSY, LEG, LEFT, O.D.	1.00	EA
3	0002	253K355000	C	ASSY, LEFT, UPPER LEG, O.D.	1.00	EA
4	0002	104K351900	A	LEG, UPPER, LEFT, OD	1.00	EA
4	0003	024K350700	B	CA, EXTENSION, PULSE,UPPER LEG, OD	1.00	EA
5	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	6.00	FT
5	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	1.00	FT
5	0003	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	3.00	EA
5	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	6.00	EA
5	0005	0639802018		CONN HSG 2POS MALE IN-LINE SL	3.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0006	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	6.00	EA
5	0007	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	6.00	EA
5	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0009	2689800152		TBG, 1/8,THERMO-FIT,RED	0.17	FT
5	0010	268KK00107		BLUE SHRINK TUBING	0.17	FT
5	0011	268KK00108		YELLOW SHRINK TUBING	0.17	FT
5	0012	268KK00109		RED SHRINK TUBING	0.17	FT
5	0013	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.17	FT
5	0014	2689800154		TBG,1/8,THERMO-FIT,YELLOW	0.17	FT
4	0004	136K350000	C	BOX, COMPRESSOR, LEFT LEG	1.00	EA
4	0005	104K353300	A	JOINT, HIP, OD	1.00	EA
4	0007	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
4	0008	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	3.00	EA
4	0009	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	3.00	EA
4	0010	104KK00079		KNEE PIN order 404k350100	1.00	EA
4	0011	104KK00080		10-32 CHECK-NUT,SS	2.00	EA
4	0012	229KK00638		BOLT 1/4-20 X 4.5	1.00	EA
4	0013	229KK00637		BOLT 1/4-20 X 5.0	1.00	EA
4	0014	297KK00030		STDF,RND, PLASTIC, 5/8" L X 1/2" OD	0.00	EA
4	0015	297KK00031		STDF,RND, PLASTIC, 3/8" L X 1/2" OD	0.00	EA
4	0016	273KK00013		WASHER,1/4 FLT ST STL	4.00	EA
4	0017	2879800256		NUT,1/4-20,SELF-LOCK,NYLO	2.00	EA
4	0018	104K354000	A	HIP PIVOT, OD	1.00	EA
4	0019	268KK00600		TBG, RED 1/16 X 1/8	2.50	FT
4	0020	268KK00400		TBG,BLUE 1/16 X 1/8	2.50	FT
4	0021	268KK01000		TBG, 1/8 OD X 1/16 ID, YELLOW	2.50	FT
3	0003	253K355200	B	ASSY, LEFT, LOWER LEG, O.D.	1.00	EA
4	0001	104K352000	A	LEG, LOWER, LEFT, OD	1.00	EA
4	0002	024K350400	C	CA, PEDAL PULSE, OD	1.00	EA
5	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	2.80	FT
5	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
5	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
5	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	2.00	EA
5	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0009	268KK00108		YELLOW SHRINK TUBING	0.08	FT
4	0003	024K350500	C	CA, TIBIAL PULSE, OD	1.00	EA
5	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	2.17	FT
5	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
5	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
5	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	2.00	EA
5	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0008	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.08	FT

Level	Find	Component	Rev	Component Description	Qty	U/M
4	0004	024K350600	B	CA, POPLITIAL PULSE, OD	1.00	EA
5	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	0.80	FT
5	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
5	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
5	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	1.00	EA
5	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0008	2689800152		TBG, 1/8,THERMO-FIT,RED	0.08	FT
5	0009	268KK00107		BLUE SHRINK TUBING	0.08	FT
4	0005	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
4	0006	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	3.00	EA
4	0007	104KK00095	A	BLDR,R.4 X 1 23	3.00	EA
4	0009	268KK00600		TBG, RED 1/16 X 1/8	1.00	FT
4	0010	268KK00400		TBG,BLUE 1/16 X 1/8	2.50	FT
4	0011	268KK01000		TBG, 1/8 OD X 1/16 ID, YELLOW	2.50	FT
3	0004	253K355101	A	ASSY, COMPRESSOR, O.D.	1.00	EA
4	0002	198KK00006	A	PUMP, AIR SQUARED, W 90 DEG. BARB FITTINGS	1.00	EA
4	0003	253K357500	A	ASSY, MOOG CONTROLLER	1.00	EA
5	0001	205KK00020		CCA, MOOG CONTROLLER	1.00	EA
5	0002	024K357500	A	CA, MOOG CONTROLLER	1.00	EA
6	0001	024KK00053		CABLE, 8 COND, 22AWG	1.08	FT
6	0002	063KK00219		CONN HSG 2X4POS FEMALE IN-LINE LATCHING MICROFIT 3.0	1.00	EA
6	0003	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3 0 ROHS	8.00	EA
6	0004	065KK00022		CRIMP, FERRULE INSUL 22 AWG, WHITE ROHS	8.00	EA
6	0005	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	2.00	EA
5	0003	063KK00337		CONN, TERMBLOCK, JUMPER, 10 POLE, 5mm	1.00	EA
4	0004	077K350300	C	TANK, AIR, OD	1.00	EA
4	0005	178KK00035		BUMPER, COMPRESSOR	2.00	EA
4	0006	178KK00034		MOUNT, VIBRATION, 16 LBS	2.00	EA
4	0007	016K350800	A	BRKT, COMPRESSOR, OD	2.00	EA
4	0008	268KK01100		TBG,YELL 1/8 X 1/4	3.00	FT
4	0011	121KK00046		FTG,1/4"X1/4" Y UNION	1.00	EA
4	0015	271KK00044		CHECK VALVE, .2PSI, 1/8BARB	1.00	EA
4	0021	101KK00020		FILTER, MUFFLER	1.00	EA
4	0022	121KK00114		FTG, Q-DISC, SHUTOFF, 1/8, FEMALE	1.00	EA
4	0023	147K352000	A	KIT, CAPACITOR, NOISE SUPPRESSION METIMAN COMPRESSOR	1.00	EA
5	0001	3030100156		CAP CER X7R 0.047UF 50V 10% AXIAL ROHS	1.00	EA
5	0002	2689800128		TBG,1/8,THERMOFIT,WHT,PVC	0.03	FT
4	0024	229KK00100		SCR,PNH ,8-32 X3/8	2.00	EA
4	0025	273KK00039		WASHER,#8,SPLIT LOCK	2.00	EA
4	0026	273KK00008		WASHER,#8, FLT ST STL	2.00	EA
4	0027	2879800301		NUT,HEX,8-32,SELFLOCKING	2.00	EA
4	0028	178KK00041		BUMPER, RUBBER, THREADED, 6-32, .20IN BASE HEIGHT	4.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
2	0007	253K358100	D	ASSY, RIGHT LEG, O.D.	1.00	EA
3	0001	253K359000	A	ASSY, RIGHT UPPER LEG, WITH TANK, O.D.	1.00	EA
4	0001	253K358900	A	ASSY, RIGHT UPPER LEG, NON-INTEGRATED TANK, O.D.	1.00	EA
5	0001	104K354600	A	LEG, UPPER RIGHT, NON-INTEGRATED TANK, OD	1.00	EA
5	0002	024K350700	B	CA, EXTENSION, PULSE,UPPER LEG, OD	1.00	EA
6	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	6.00	FT
6	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	1.00	FT
6	0003	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	3.00	EA
6	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	6.00	EA
6	0005	0639802018		CONN HSG 2POS MALE IN-LINE SL	3.00	EA
6	0006	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	6.00	EA
6	0007	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	6.00	EA
6	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0009	2689800152		TBG, 1/8,THERMO-FIT,RED	0.17	FT
6	0010	268KK00107		BLUE SHRINK TUBING	0.17	FT
6	0011	268KK00108		YELLOW SHRINK TUBING	0.17	FT
6	0012	268KK00109		RED SHRINK TUBING	0.17	FT
6	0013	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.17	FT
6	0014	2689800154		TBG,1/8,THERMO-FIT,YELLOW	0.17	FT
5	0005	104K353300	A	JOINT, HIP, OD	1.00	EA
5	0007	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
5	0008	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	3.00	EA
5	0009	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	3.00	EA
5	0010	104KK00079		KNEE PIN order 404k350100	1.00	EA
5	0011	104KK00080		10-32 CHECK-NUT,SS	2.00	EA
5	0012	229KK00638		BOLT 1/4-20 X 4.5	1.00	EA
5	0013	229KK00637		BOLT 1/4-20 X 5.0	1.00	EA
5	0014	297KK00030		STDF,RND, PLASTIC, 5/8" L X 1/2" OD	2.00	EA
5	0015	297KK00031		STDF,RND, PLASTIC, 3/8" L X 1/2" OD	2.00	EA
5	0016	273KK00013		WASHER,1/4 FLT ST STL	4.00	EA
5	0017	2879800256		NUT,1/4-20,SELF-LOCK,NYLO	2.00	EA
5	0018	104K354000	A	HIP PIVOT, OD	1.00	EA
5	0019	268KK00600		TBG, RED 1/16 X 1/8	2.50	FT
5	0020	268KK00400		TBG,BLUE 1/16 X 1/8	2.50	FT
5	0021	268KK01000		TBG, 1/8 OD X 1/16 ID, YELLOW	2.50	FT
5	0022	136K350000	C	BOX, COMPRESSOR, LEFT LEG	1.00	EA
4	0002	900KK00034		RM,FM,PORON,.062X4"	1.00	FT
4	0003	2879800302		NUT, LCK, #10-32, SS	2.00	EA
4	0004	229KK00296		SCR,PNH ,10-32 X7/16	2.00	EA
4	0005	016K352900	A	BRACKET, HOLD DOWN, BLOOD TANK, METIMAN	2.00	EA
4	0006	273KK00010		WASHER, #10, FLT, SS	2.00	EA
4	0007	121KK00057	1	FTG,1 TOUCH,1/8NPTX1/4OD	2.00	EA
4	0008	077K350500	C	TANK, BLOOD, MOLDED, METIMAN	1.00	EA
3	0002	253K358400	B	ASSY, RIGHT, LOWER LEG, O.D.	1.00	EA
4	0001	104K352200	A	LEG, LOWER, RIGHT, OD	1.00	EA
4	0002	024K350400	C	CA, PEDAL PULSE, OD	1.00	EA
5	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	2.80	FT

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
5	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
5	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	2.00	EA
5	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0009	268KK00108		YELLOW SHRINK TUBING	0.08	FT
4	0003	024K350500	C	CA, TIBIAL PULSE, OD	1.00	EA
5	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	2.17	FT
5	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
5	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
5	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	2.00	EA
5	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0008	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.08	FT
4	0004	024K350600	B	CA, POPLITIAL PULSE, OD	1.00	EA
5	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	0.80	FT
5	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
5	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
5	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	1.00	EA
5	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0008	2689800152		TBG, 1/8,THERMO-FIT,RED	0.08	FT
5	0009	268KK00107		BLUE SHRINK TUBING	0.08	FT
4	0005	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
4	0006	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	3.00	EA
4	0007	104KK00095	A	BLDR,R.4 X 1 23	3.00	EA
4	0009	268KK00600		TBG, RED 1/16 X 1/8	1.00	FT
4	0010	268KK00400		TBG,BLUE 1/16 X 1/8	2.50	FT
4	0011	268KK01000		TBG, 1/8 OD X 1/16 ID, YELLOW	2.50	FT
3	0003	268K352200	B	ASSY, PNEUMATIC & HAPTIC, RIGHT LEG, OD	1.00	EA
4	0007	2689800115		TBG,1/8ID,1/4OD,CLEAR,HRD	2.00	FT
4	0008	010KK00002		BASE, MTG, ADHESIVE BACK	2.00	EA
4	0009	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	2.00	EA
4	0010	268KK00900		TBG,BLK 1/8 X 1/4	2.00	FT
4	0011	121KK00046		FTG,1/4"X1/4" Y UNION	2.00	EA
4	0012	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	3.00	EA
2	0008	253K360402	B	ASSY, RIBCAGE, O.D., EMS, CERT, W CC METRICS	1.00	EA
3	0001	104K352300	B	BLADDER, LUNG BAG, OD	2.00	EA
3	0002	196K354600	B	PLATE, EXCURSION, O.D.	2.00	EA
3	0003	126K350100	C	GUARD, LUNG BAG, O.D.	2.00	EA
3	0004	253K360602	D	ASSY, RIB, EMS, O.D., CERT, W CC METRICS	1.00	EA
4	0001	253K351501	B	ASSY, BASE RIB, METIMAN, CERT	1.00	EA
5	0001	104K350100	H	RIB CAGE, OD	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0002	024K270100	B	CA, HEART/ BREATH SOUNDS, ISTAN	12.00	EA
6	0001	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	0.25	FT
6	0002	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
6	0003	268KK00004		TBG,3/32,THERMOFIT,WHT	0.03	FT
6	SP1	430KK00005		SPEAKER, 1 WATT, 8 OHM	1.00	EA
6	P1	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
6	0006	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	1.00	EA
5	0003	200K000300	A	STUD, PACE DEFIB, ISTAN	2.00	EA
5	0004	200K000601	A	STUD, ECG, MM	5.00	EA
5	0005	287KK00203		LOCK NUT, 10-32, THIN	2.00	EA
5	0006	229KK00076		SCR, PNH, 4-40 X 7/16	22.00	EA
5	0007	273KK00027		WASHER,#8,INT TOOTH	5.00	EA
5	0008	111KK00007		SCREW, SNAP 10-32 X 3/8	2.00	EA
5	0010	229KK00074		SCR, PNH, 4-40 X 5/16	2.00	EA
5	0011	273KK00013		WASHER,1/4 FLT ST STL	2.00	EA
5	0012	287KK00014		NUT,JAM,1/4-20,LO-PROFILE	2.00	EA
5	0013	273KK00029		WASHER,1/4,INT TOOTH	2.00	EA
5	0014	273KK00007		WASHER,#6, FLT ST STL	5.00	EA
5	0016	287KK00204		LOCK NUT, 6-32, THIN	5.00	EA
5	0017	196K354701	B	PLATE, BLOCKING, LUNG BAG, LEFT, O.D	1.00	EA
5	0018	196K354702	B	PLATE, BLOCKING, LUNG BAG, RIGHT, O.D	1.00	EA
5	0019	024K352601	B	CA, RIBCAGE SOUNDS, OD, CERT	1.00	EA
6	0001	063KK00232		CONN HSG 2X6POS MALE IN-LINE MICROFIT 3.0	1.00	EA
6	0002	065KK01807		CONT, 22-24 AWG, TIN, TERM MALE, ROHS	12.00	EA
6	0003	0639802018		CONN HSG 2POS MALE IN-LINE SL	12.00	EA
6	0004	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	24.00	EA
6	0005	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	9.00	FT
6	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	13.00	EA
6	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0008	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
6	0009	0550100043		FERRITE, SUPPRESSOR CORE CLAMP-ON OD1.181XID0.512X1.535 ROHS	1.00	EA
5	0020	024K354300	C	CA, ECG RIB DISCONNECT, OD	1.00	EA
6	0001	063KK00021		CONN, HSG, 5POS, MALE, IN-LINE	1.00	EA
6	0002	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	5.00	EA
6	0003	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	1.00	FT
6	0004	255KK00002		TERM,RING,26-22AWG,#8BOLT	5.00	EA
6	0005	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	1.46	FT
6	0006	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	5.21	FT
6	0007	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	6.00	EA
6	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0009	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
5	0021	024K351001	A	CA, UNIFIED DEFIB / PACE IN, OD, CERT	1.00	EA
5	0022	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	17.00	EA
5	0023	104KK00100		FOAM, BLK 1,5SPEAKER PAD	2.00	EA
4	0002	229KK00090		SCR,PN HD,6-32 X 7/8 LG,	4.00	EA
4	0003	253K361200	A	ASSY, TENSION PNEUMO, EMS, O.D	2.00	EA
5	0001	121K071301	A	TENSION PNEUMOTHORAX, FITTING, ISTAN	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0002	2719800022		VALVE, WHISKER	1.00	EA
5	0003	121KK00001		FTG,ELBOW,10-32X1/8,1TCH	1.00	EA
4	0004	253K360900	A	ASSY, CHEST TUBE, EMS O.D.	2.00	EA
5	0001	104K350000		CHEST TUBE, 28 -36 FR, SWITCH SENSE, O D	1.00	EA
5	0002	271KK00046		CHECK VALVE, MANUAL RELIEF TO 3 16 BARB, 1.5 PSI	1.00	EA
5	0003	016K281100	A	BRACKET, CHEST TUBE MOUNTING, 28-36 FR	1.00	EA
5	0004	047KK00006		CLAMP,HOSE, MIN .802, MAX .940, BLACK	1.00	EA
5	0005	2879800300		NUT,HEX,2-56,SELF-LCKNG,	2.00	EA
5	0006	229KK00071		SCR,PNH ,2-56 X3/4	2.00	EA
5	0007	148K350000	B	LEVER ARM, MICRO SWITCH, OD	1.00	EA
5	0008	230K280100	A	SEAL, CHEST TUBE, 28-36 FR, MOLDED	1.00	EA
5	0009	060KK00027		ADHESIVE,SILICONE RUBBER, SIL-POXY	0.00	BT
5	0010	273KK00003		WASHER,#2, FLT ST STL	4.00	EA
5	0011	024K352800	A	CA, CHEST TUBE SENSE DISCONNECT, OD	1.00	EA
6	0001	0639802018		CONN HSG 2POS MALE IN-LINE SL	1.00	EA
6	0002	065KK00206		CONT CRIMP PIN 22-24 AWG TIN SLT ROHS	2.00	EA
6	0003	250KK00019		MICRO-SWITCH, SLDR TERM	1.00	EA
6	0004	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	1.00	FT
6	0005	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	1.00	FT
6	0006	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	2.00	EA
6	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0008	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
6	0009	268KK00004		TBG,3/32,THERMOFIT,WHT	0.17	FT
4	0005	104K353901	C	FOAM, RIBCAGE, NURSING & PRE-HOSPITAL, MM	1.00	EA
4	0006	273KK00025		WASHER,#4,INT TOOTH	4.00	EA
4	0007	229KK00074		SCR, PNH, 4-40 X 5/16	4.00	EA
4	0008	147K351800	A	KIT, FORCE SENSOR, METIMAN, CHEST COMPRESSION	1.00	EA
5	0001	024K357700	E	CA, FORCE SENSOR, 1" DIA.	1.00	EA
6	0001	101KK00153		SENSOR, FLEXIFORCE, 0-25 LB, 1" DIA., (8-PK)	1.00	EA
6	0002	063KK01801		CONN HSG 3POS FEMALE IN-LINE LATCHING SL	1.00	EA
6	0003	065KK00207		CONT CRIMP SKT 24-30 AWG GOLD SL ROHS	2.00	EA
6	0004	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	0.90	FT
6	0005	276KK00610		WIRE, AWG24 STR PVC 600V UL1429 RED	0.90	FT
6	0006	2689800128		TBG,1/8,THERMOFIT,WHT,PVC	0.13	FT
6	0007	268KK00006		TBG, 1/16,THERMO-FIT,WHT	0.08	FT
6	0008	0440453012R ***		TUBING, HEAT SHRINK, 3/16 DIA.	0.28	FT
5	0002	169KK35001		SANDISK, 4GB MICRO SD CARD W/ADAPTER	1.00	EA
5	0003	905K350159	A	FORCE CAL DOCUMENT, METIMAN	1.00	EA
4	0009	229KK00008		SCR,FLH,SLF-TAP,4X3/8,SS	3.00	EA
4	0010	196K355100	B	PLATE, BONDING, FORCE SENSOR, ALUMINUM	1.00	EA
4	0011	2529800135		TAPE, 2S, VHB.025, 1 X 72 YD	0.08	FT
3	0005	253K360701	B	ASSY, RIB CAGE MOUNT, EMS, O.D., W CC METRICS	1.00	EA
4	0001	253K353701	B	ASSY, RIB CAGE MOUNT, BASE, O.D., W CC METRICS	1.00	EA
5	0001	016K350500	C	BRACKET, CHASSIS,SLED, O.D.	1.00	EA
5	0002	012K350100	A	BEARING, CHEST COMPRESSION, O.D.	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0003	404K350000	A	SHAFT, COMPRESSION, CHEST, OD	1.00	EA
5	0004	229KK00640	0	SCR, SHOULDER, 1/4-20 X 3/8"	2.00	EA
5	0005	273KK00065		WASHER,1/4", NYLON 6/6, OD	2.00	EA
5	0006	229KK00077		SCR, PH,4-40 X 1/2 LG	4.00	EA
5	0007	229KK00074		SCR, PNH, 4-40 X 5/16	4.00	EA
5	0008	229K350100	A	BOLT, CHEST COMPRESSION LIMIT, OD	2.00	EA
5	0009	287KK00008		NUT,HEX, 1/4-20	2.00	EA
5	0010	253K355600	A	ASSY, VALVE BANK, CHEST DRIVE, METIMAN	1.00	EA
6	0001	271KK35030		VALVE, SINGLE, W BASE PLATE	2.00	EA
6	0002	271KK35020		MANIFOLD, 2 STATION	2.00	EA
6	0003	196K350200	B	MOUNTING BASE, VALVE, RIB CAGE, O D	1.00	EA
6	0004	229KK00079		SCR,PAN HD, 4-40X 3/4 LG,	4.00	EA
6	0005	016KK42010		BRKT, ANGLE	2.00	EA
6	0006	287KK00002		NUT,HEX, 4-40	2.00	EA
6	0007	229KK00188		SCR,FLH, 4-40 X 7/16	2.00	EA
6	0008	2299800462		SCR,PNH,2-56 X 7/16" LG,	2.00	EA
6	0009	121KK00001		FTG,ELBOW,10-32X1/8,1TCH	10.00	EA
6	0010	121KK00007	1	FTG,PLUG,M5X0.8	8.00	EA
5	0011	178KK00033		MOUNT, VIBRATION, 8LBS	2.00	EA
5	0012	2879800301		NUT,HEX,8-32,SELFLOCKING	2.00	EA
5	0013	1789800077		BUMPER, VIBRATION	2.00	EA
5	0014	239K350100	A	BLOCK, STATIONARY, PIVOT, O.D.	2.00	EA
5	0015	239K350200	B	PIVOT, CHEST COMPRESSION, OD	1.00	EA
5	0016	242KK00038		SPRING, EXTENSION, 1.375 FL X .375 OD X .037 WIRE DIA	2.00	EA
5	0017	016K352600	C	BRACKET, SPRING TENSION, CHEST RETURN, OD	1.00	EA
5	0018	276K350100	C	CABLE, CHEST CONTROL, OD	2.00	EA
5	0019	226KK00001		PULLEY, NYLON, BEARING MOUNTED	2.00	EA
5	0020	016K352800	A	BRACKET, RH, CHEST RETURN, OD	1.00	EA
5	0021	194KK00007		PIN, SPRING, SLOTTED, 1 16 DIA X 3 8 L, 18-8 SS, OD	2.00	EA
5	0022	273KK00008		WASHER,#8, FLT ST STL	2.00	EA
5	0023	273KK00036		WASHER, #4, SPLIT LOCK	2.00	EA
5	0024	273KK00010		WASHER, #10, FLT, SS	4.00	EA
5	0025	273KK00040		WASHER,#10,SPLIT LOCK	4.00	EA
5	0026	049KK00047		E-CLIP, 1/2,SS	1.00	EA
5	0027	229KK00277		SCR, PNH, 10-32 X 1/2	4.00	EA
5	0028	273KK00004		WASHER, #4, FLT SS	2.00	EA
5	0029	253K355500	D	ASSY, TSC, METIMAN	1.00	EA
6	0003	273KK00021		WASHER, FL, TEFLON, #4	8.00	EA
6	0004	273KK00061		WASHER,#4,FLAT,ST STL	2.00	EA
6	0006	196K354800	B	PLATE,TSC,O D	1.00	EA
6	0007	229KK00073		SCR, PNH, 4-40, 1/4 LG	9.00	EA
6	0008	178KK00006		MNT,TIE,CBL,BK,ADH,NYL,	1.00	EA
6	0009	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	1.00	EA
6	0010	147K360200	A	KIT, TSC, METIMAN	1.00	EA
7	0001	253K500301	C	ASSY, UNIFIED DEFIB PACE SCA, METIMAN	1.00	EA
8	0001	205K500301	C	CCA, UNIFIED DEFIB/PACE SCA, METIMAN	1.00	EA
9	0001	206K500300	E	PCB, UNIFIED DEFIB/PACE SCA, ISTAN	1.00	EA
9	0002	0630100014		SHUNT, 2POS 0.079"C ROHS	2.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
9	0004	3030100053		CAP CER 1000PF 10% 50V NP0 0603 ROHS	2.00	EA
9	0005	3030100006		CAP CER X5R 0.1UF 25V 10% 0603 ROHS	37.00	EA
9	0006	3030100007		CAP CER X7R 0.047UF 25V 10% 0603 ROHS	2.00	EA
9	0007	3030100008		CAP CER NPO 10PF 50V 5% 0603 ROHS	3.00	EA
9	0008	3030100009		CAP CER NPO 100PF 50V 10% 0603 ROHS	5.00	EA
9	0009	3030100003		CAP CER X7R 0.027UF 50V 10% 0603 ROHS	3.00	EA
9	0010	3030100011		CAP PPS FILM 0.1UF 50V 2% 1913 ROHS	2.00	EA
9	0011	3030100012		CAP PPS FILM 0.22UF 50V 2% 2416 ROHS	1.00	EA
9	0012	3030100001		CAP CER X5R 1.0UF 25V 10% 0603 ROHS	4.00	EA
9	0013	3030100155		CAP TANT 3.3UF 35V 10% 1210 ROHS	2.00	EA
9	0014	3030100005		CAP CER NPO 33PF 50V 5% 0603 ROHS	1.00	EA
9	0015	3030100014		CAP TANT 10UF 25V 20% 6032 ROHS	2.00	EA
9	0016	3030100002		CAP CER X7R 1000PF 50V 10% 0603 ROHS	1.00	EA
9	0017	3030100054		CAP TANT 1.0UF 25V 20% 2012 ROHS	1.00	EA
9	0018	3030100015		CAP TANT 1.0UF 25V 20% 0805 ROHS	3.00	EA
9	0019	3030100017		CAP CER X7R 0.01UF 25V 5% 0603 ROHS	4.00	EA
9	0020	3030100018		CAP CER X5R 47UF 10V 20% 1206 ROHS	3.00	EA
9	0023	0880100001		DIODE SWITCH 100V 0.4W SOD123 ROHS	6.00	EA
9	0024	0880100002		TVS BIDIR 600W 15V SMB ROHS	3.00	EA
9	0025	0880100003		DIODE ZENER 1W 10V SMA ROHS	1.00	EA
9	0026	0630100003		CONN HEADER 3POS 0.079C ROHS	2.00	EA
9	0027	0630100001		CONN 4POS 0.1C RAPCB LATCHING ROHS	1.00	EA
9	0028	0630100016		CONN 2X7POS SHROUDED 0.1C RAPCB FRICTION ROHS	1.00	EA
9	0029	0550100001		FERRITE 1500 OHMS @ 50MHZ ISAT=0.1A DCR=0.7 1206 ROHS	5.00	EA
9	0030	1820100001		FILTER, EMI/RFI, 10A, ROHS	2.00	EA
9	0031	6200100002		RES TF 100 OHM 1W 5% 2512 ROHS	2.00	EA
9	0032	6200100003		RES TF 10.0K OHM 1/10W 1% 0603 ROHS	19.00	EA
9	0033	6200100062		RES TF 200K OHM 1/10W 1% 0603 ROHS	2.00	EA
9	0034	6200100067		RES TF 12K OHM 1/10W 1% 0603, ROHS	1.00	EA
9	0035	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	14.00	EA
9	0036	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	16.00	EA
9	0037	6200100225		RES 619 OHM 1/10W 1% 0603 ROHS	1.00	EA
9	0039	6200100012		RES TF 20.0K OHM 1/10W 1% 0603 ROHS	5.00	EA
9	0040	6200100013		RES TF 4.99K OHM 1/10W 1% 0603 ROHS	5.00	EA
9	0041	6200100014		RES TF 38.3K OHM 1/10W 1% 0603 ROHS	1.00	EA
9	0042	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	14.00	EA
9	0043	6200100015		RES TF 49.9 OHM 1/10W 1% 0603 ROHS	1.00	EA
9	0045	6200100017		RES TF 300K OHM 1/10W 1% 0603 ROHS	1.00	EA
9	0047	6200100018		RES TF 1.10K OHM 1/10W 1% 0603 ROHS	1.00	EA
9	0048	6200100019		RES TF 3.48K OHM 1/10W 1% 0603 ROHS	1.00	EA
9	0050	2010100004		POT TRIMMER 2K 10% TSM43Y ROHS	2.00	EA
9	0051	6200100021		RES TF 22.0 OHM 1/10W 1% 0603 ROHS	2.00	EA
9	0052	6200100022		RES TF 499 OHM 1/10W 1% 0603 ROHS	3.00	EA
9	0053	6200100023		RES TF 10.0 OHM 1/10W 1% 0603 ROHS	1.00	EA
9	0055	6200100025		RES TF 34.8K OHM 1/10W 1% 0603 ROHS	1.00	EA
9	0056	6200100026		RES TF 200 OHM 1/10W 1% 0603 ROHS	2.00	EA
9	0057	2010100005		POT TRIMMER 20K 10% TOP ADJ ROHS	1.00	EA
9	0058	6200100027		RES TF 237K OHM 1/10W 1% 0603 ROHS	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
9	0059	6200100028		RES TF 324K OHM 1/10W 1% 0603 ROHS	1.00	EA
9	0060	1430100001		JACK TEST PT 0.1C RED ROHS	4.00	EA
9	0061	1430100002		JACK TEST PT 0.1C BLK ROHS	2.00	EA
9	0062	0460100003		IC JFET OP AMP LF356 SNGL SO8 ROHS	1.00	EA
9	0063	0460100004		IC OPTOCOUPLER IL-300 DIP8 ROHS	1.00	EA
9	0064	2020100003		IC ISOLATED DC-DC CONVERTERS 1W +/-12V ROHS	1.00	EA
9	0065	0460100006		IC DUAL OP AMP LM1458 SO8 ROHS	1.00	EA
9	0066	0460100007		IC OPTOCOUPLER MINI-FLAT SNGL ROHS	2.00	EA
9	0067	0460100001		IC QUAD JFET OP AMP LF347 SO14 ROHS	2.00	EA
9	0068	0460100008		IC VOLTAGE COMPARATOR LM311 SNGL SO8 ROHS	1.00	EA
9	0069	0460100009		IC COMPARATOR SNGL 7NS SO8 ROHS	1.00	EA
9	0070	0460100011		IC ANALOG SW SPST CMOS NC SO8 ROHS	1.00	EA
9	0071	0460100012		IC 555 TIMER SO8 ROHS	3.00	EA
9	0072	0460100013		IC DUAL ANALOG SW CMOS SPST NO SO8 ROHS	1.00	EA
9	0073	0460100014		IC DUAL ANALOG SPDT SO16 ROHS	1.00	EA
9	0074	0460100015		IC OP AMP OP07 SNGL SO8 ROHS	1.00	EA
9	0075	0460100016		IC OPAMP AD8677 TSOT-5 ROHS	2.00	EA
9	0076	0460100017		IC DUAL OPAMP JFET AD822 SO8 ROHS	2.00	EA
9	0077	0460100042		IC Currnt FEEDBK AMP DUAL 16SOIC ROHS	1.00	EA
9	0078	0460100041		IC AMP JFET PREC LN 36V 8-SOIC ROHS	1.00	EA
9	0079	6200100144		RES TF 2K OHM 1/10W 1% 0603 ROHS	1.00	EA
9	0080	0880100058		DIODE TVS 6.8V 600W BIDIR 5% DO-214AA	1.00	EA
9	0081	0550100027		FERRITE 470 OHMS @ 100MHZ ISAT=1.5A DCR=0.13 0603 ROHS	3.00	EA
8	0002	024K271900	B	CA, UNIFIED ECG OUT, ISTAN	1.00	EA
9	0001	276KK00602		WIRE, AWG22 STR PVC 600V UL1429 WHT	0.40	FT
9	0002	276KK00604		WIRE, AWG22 STR PVC 600V UL1429 BLK	0.40	FT
9	0003	268KK00002		TBG,3/16,THERMO-FIT,WHT	0.20	FT
9	0004	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3 0 ROHS	2.00	EA
9	0005	063KK00200		CONN HSG 2POS FEMALE IN-LINE LATCHING MICROFIT 3.0	1.00	EA
9	0006	268KK00004		TBG,3/32,THERMOFIT,WHT	0.20	FT
7	0002	205K500200	D	CCA, TSC LOAD SENSOR, ISTAN	1.00	EA
8	0001	204K500200	B	PCB, UNIFIED DEFIB PACE LOAD ELEMENT	1.00	EA
8	0002	049KK00100		CLIP, MOUNTING, SERIES AZ	2.00	EA
8	0007	024K500100	B	CA, ECG OUT UNIFIED, LOAD ELEMENT, ISTAN	1.00	EA
9	0001	276KK00602		WIRE, AWG22 STR PVC 600V UL1429 WHT	0.40	FT
9	0002	276KK00604		WIRE, AWG22 STR PVC 600V UL1429 BLK	0.40	FT
9	0003	268KK00002		TBG,3/16,THERMO-FIT,WHT	1.00	FT
9	0004	065KK00200		CONT CRIMP PIN 20-24 AWG TIN MICROFIT 3 0 ROHS	2.00	EA
9	0005	063KK00201		CONN HSG 2POS MALE IN-LINE MICROFIT 3.0	1.00	EA
9	0006	268KK00004		TBG,3/32,THERMOFIT,WHT	0.20	FT
8	0008	024K500200	D	CA, DEFIB IN UNIFIED, LOAD ELEMENT, ISTAN	1.00	EA
9	0001	276KK00600		WIRE, AWG20 STR IR PVC 1KV UL1430 WHT	0.40	FT
9	0002	276KK00601		WIRE, AWG20 STR IR PVC UL1429 BLK	0.40	FT
9	0003	268KK00002		TBG,3/16,THERMO-FIT,WHT	1.00	FT
9	0004	065KK00002		CONT,CRP,PIN,20-14AWG,BRZ	3.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
9	0005	063KK00263		CONN, MATLOK, PL, 3C, MALE	1.00	EA
9	0006	268KK00004		TBG,3/32,THERMOFIT,WHT	0.20	FT
8	--	063KK01815		CONN, PLUG, 4C, SGL ROW, VERTICAL, HE13	1.00	EA
8	--	620KK00001		RES,CC, 100 OHMS, 10%, 5.5W, 26mm X 30mm ROHS	2.00	EA
8	--	046KK00069		IC, MONOLITHIC CURRENT SENSOR, 25A BIPOAR +/-2.5V OUT ROHS	1.00	EA
8	--	6200100117		RES WW 1 OHM 1% 10W AXIAL ROHS	1.00	EA
7	0003	024K272000	A	CA, DEFIB/PACE UNIFIED,SENSOR OUT, ISTAN	1.00	EA
8	0001	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	0.40	FT
8	0002	276KK00608		WIRE, AWG24 STR PVC 600V UL1429 GRN	0.40	FT
8	0003	276KK00612		WIRE, AWG24 STR PVC 600V UL1429 BRN	0.40	FT
8	0004	276KK00611		WIRE, AWG24 STR PVC 600V UL1429 YEL	0.40	FT
8	0005	268KK00020		TBG,1/4,THERMO-FIT,WHT	0.20	FT
8	0006	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	4.00	EA
8	0007	0639802016		CONN HSG 4POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0008	065KK01804		CONT,CRIMP, 24-28 AWG, TIN, TYCO	4.00	EA
8	0009	063KK01816		CONN, RCPT, 4C, SGL ROW, VERTICAL, HE13-14	1.00	EA
6	0011	024K354400	C	CA, UTSC RIB DISCONNECT, OD	1.00	EA
7	0001	063KK00235		CONN HSG 2X5POS 0.118C MALE IN-LINE MICROFIT 3.0T	1.00	EA
7	0002	065KK00200		CONT CRIMP PIN 20-24 AWG TIN MICROFIT 3 0 ROHS	10.00	EA
7	0003	063KK00216		CONN HSG 2X7POS FEMALE FRICTION LATCH C-GRID IIIT	1.00	EA
7	0004	065KK00211		CONT,CRP SKT, 22-24 AWG, NIC/GOLD C-GRID III, ROHS	10.00	EA
7	0005	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	6.70	FT
7	0006	276KK00608		WIRE, AWG24 STR PVC 600V UL1429 GRN	2.20	FT
7	0007	276KK00623		WIRE, AWG24 STR PVC 600V UL1429 ORA	1.10	FT
7	0008	276KK00633		WIRE, YELLOW w/GREEN STRIPE, 24 AWG, UL1429	1.10	FT
7	0009	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	3.00	EA
6	0012	297KK00301		STDF, 4-40 X 1/4", M/F, 3/16 HEX	12.00	EA
6	0014	016K353200	C	BRACKET, TSC LOAD CELL COVER	1.00	EA
6	0015	016K353100	A	BRKT, MOUNTING, TSC, OD	1.00	EA
5	0030	242KK00024		SPRING, CHEST COMPRESSION, OD	1.00	EA
5	0031	229KK00073		SCR, PNH, 4-40, 1/4 LG	4.00	EA
5	0032	229KK00098		SCR,PNH ,8-32 X1/4	2.00	EA
5	0033	239K350000	B	PIVOT BLOCK, CHEST COMPRESSION, O.D.	1.00	EA
5	0034	273KK00026		WASHER, #6,INT TOOTH	2.00	EA
5	0035	075K350000	A	COVER, CHEST COMPRESSION GUIDE ROD	1.00	EA
5	0036	229KK00085		SCR,PNH, 6-32 X 3/8	2.00	EA
5	0037	2689800136		TBG,2",THERMO-FIT,WHITE,	0.25	FT
5	0038	024K354800	B	CA, RIGHT CHEST DRIVE EXHAUST CTRL, OD	1.00	EA
6	0001	063KK00025		CONN HSG 6POS MALE IN-LINE SLT	1.00	EA
6	0002	065KK00206		CONT CRIMP PIN 22-24 AWG TIN SLT ROHS	6.00	EA
6	0003	024KK03500		CA, SMC PIGTAIL, OD	3.00	EA
6	0004	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	3.38	FT
6	0005	276KK00638		WIRE, WHITE w/YELLOW STRIPE, 24 AWG, UL1429	3.38	FT

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	4.00	EA
6	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0008	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
5	0039	024K354700	B	CA, LEFT CHEST DRIVE EXHAUST CTRL, OD	1.00	EA
6	0001	063KK00025		CONN HSG 6POS MALE IN-LINE SLT	1.00	EA
6	0002	065KK00206		CONT CRIMP PIN 22-24 AWG TIN SLT ROHS	6.00	EA
6	0003	024KK03500		CA, SMC PIGTAIL, OD	3.00	EA
6	0004	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	3.21	FT
6	0005	276KK00638		WIRE, WHITE w/YELLOW STRIPE, 24 AWG, UL1429	3.21	FT
6	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	4.00	EA
6	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0008	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
5	0040	273KK00025		WASHER,#4,INT TOOTH	4.00	EA
5	0041	253K357100	C	ASSY, SLIDE POTENTIOMETER, DEPTH DETECTION,CHEST COMPRESSION	1.00	EA
6	0001	016K353300	C	BRACKET, POTENTIOMETER SUPPORT, STEEL	1.00	EA
6	0002	024K357600	C	CA, SLIDE POTENTIOMETER	1.00	EA
7	0001	201KK00009		POT,SLIDE,LINEAR,DUAL GANG,45mm TRAVEL,10KOhm,W/O DUST COVER	1.00	EA
7	0002	063KK01801		CONN HSG 3POS FEMALE IN-LINE LATCHING SL	1.00	EA
7	0003	065KK00207		CONT CRIMP SKT 24-30 AWG GOLD SL ROHS	3.00	EA
7	0004	2689800128		TBG,1/8,THERMOFIT,WHT,PVC	0.04	FT
7	0005	276KK00608		WIRE, AWG24 STR PVC 600V UL1429 GRN	0.44	FT
7	0006	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	0.44	FT
7	0007	276KK00610		WIRE, AWG24 STR PVC 600V UL1429 RED	0.68	FT
7	0008	252KK00040		EPOXY, STRUCTURAL ADHESIVE, HYSOL, HIGH STRENGTH	0.00	BT
6	0003	226KK00001		PULLEY, NYLON, BEARING MOUNTED	1.00	EA
6	0004	242KK00033		SPRING, CMPSRN, 1/4" OD, 1.125" FREE LG, 0.78 LBS/IN RATE	1.00	EA
6	0005	276K350200	C	CA, LINKING, DEPTH DETECTION, RIBCAGE, METIMAN	1.00	EA
6	0006	415K350100	A	ADAPTER, T-SHAPED, POTENTIOMETER LEVER	1.00	EA
6	0007	229KK00063		SCR,PNH,M3 X 0.5 X 10mm LG,PHILLIPS,SST W/ INT. TOOTH WASHER	2.00	EA
6	0008	239KK00016		SPACER, UNTHRD, NYLON, 1/4" OD, 1/8" LG, #6 SCREW	2.00	EA
6	0010	229KK00194		SCR, FLH, 2-56 X 5/16" LG, PHILLIPS, ZINC-PLATED	1.00	EA
6	0011	2879800300		NUT,HEX,2-56,SELF-LCKNG,	1.00	EA
6	0012	229KK00074		SCR, PNH, 4-40 X 5/16	1.00	EA
6	0013	273KK00036		WASHER, #4, SPLIT LOCK	1.00	EA
4	0002	273KK00006		WASHER,#6, FLT ST STL	2.00	EA
4	0003	253K351300	A	ASSY, CO2 REGULATOR, METIMAN	1.00	EA
5	0001	016K351100	B	BRACKET, CO2 RETENTION, O.D.	1.00	EA
5	0002	121KK00044		FITTING, SWIVEL, 1/8-27 NPT X 1/8	1.00	EA
5	0003	218KK00018		PRESSURE REGULATOR, CO2	1.00	EA
5	0004	229KK00200		SCR,FLH 90,M3X.5X6MM, SS	4.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0005	218KK00019	C	BUSHING, REGULATOR,ISTAN	1.00	EA
4	0004	229KK00087		SCR,PNH,SS,6-32 X1/2	2.00	EA
4	0005	016K352200	B	BRACKET, EXTEND, C02, O.D.	1.00	EA
4	0006	049KK00049		PIN, QUICK RELEASE, SHOULDER STYLE, 1/4" X 1.3", W/PIN RING	1.00	EA
4	0008	268K360000	D	ASSY, PNEUMATICS, RIBCAGE, EMS, OD	1.00	EA
5	0004	121KK00078	1	TFG,1TOUCH TEE 3/8 TUBING	2.00	EA
5	0008	0739800008		FTG, COUPLING, MALE, INLINE 1/8	1.00	EA
5	0010	268KK01000		TBG, 1/8 OD X 1/16 ID, YELLOW	4.00	FT
5	0011	268KK01100		TBG,YELL 1/8 X 1/4	3.00	FT
5	0012	073KK00011		ORIFICE, .005, WHITE	2.00	EA
5	0013	073KK00013		ORIFICE, .008, LT GREEN	2.00	EA
5	0014	073KK00020		ORIFICE, .020, DK BLUE	2.00	EA
5	0017	121KK00046		FTG,1/4"X1/4" Y UNION	1.00	EA
5	0018	121KK00141		FTG, ELBOW, COUPLING, 1/4" TO 1/4" O.D. 90 DEG	1.00	EA
5	0019	121KK00011		FTG,TEE,1/4-1/4,1TCH	1.00	EA
5	0020	121KK00105		FTG, ELBOW 1-TOUCH	6.00	EA
5	0021	1219800078		FTG,1/4" X 5/32" Y UNION	2.00	EA
5	0022	1219800079		FTG, QC, 1/8"X1/8" Y UNION	2.00	EA
4	0009	166K280100	A	LABEL, CO2 WARNING LABEL	1.00	EA
3	0006	253K360801	A	ASSY, STERNUM PLATE, O.D., EMS, W CC METRICS	1.00	EA
4	0001	253K353801	A	ASSY, STERNUM PLATE, O.D., W CC METRICS	1.00	EA
5	0001	016K351000	C	BRACKET, STERNUM, O.D.	1.00	EA
5	0002	229KK00013		SCR,TRUSS HD,1/4-20X1.0,	4.00	EA
5	0003	279K350000	A	SUPPORT, STERNUM, OD	1.00	EA
5	0004	016K353400	C	BRACKET, CABLE SUPPORT, DEPTH DETECTION, ON STERNUM PLATE	1.00	EA
5	0005	229KK00142		SCR, PNH, 6-32 X 3/16" LG, PHILLIPS, W/ INT-LOCK WASHER, SST	2.00	EA
5	0006	2879800300		NUT,HEX,2-56,SELF-LCKNG,	1.00	EA
5	0007	297KK00308		STDF, F, UNTHREADED, ROUND.252 ID X 1/4" OD X 1/2", PLASTIC	4.00	EA
5	0008	121KK00149		FTG, 1/8-27 NPT, ELBOW,7/16 HEX, 1/8 BARB	2.00	EA
5	0009	271KK00097		CYLINDER, COMPACT, DBL ACT, SNGL ROD	2.00	EA
5	0010	223K350100	A	ROD, EXCURSION, OD	2.00	EA
5	0011	049KK00051		PIN, CLEVIS, 2", 1/4" DIA	1.00	EA
5	0012	049KK00050		PIN, COTTER, HAIRPIN, 1-1/8" L, .059 DIA	1.00	EA
5	0013	140KK00006		RUBBER, EDGE TRIM, 1/8W X 1/4 , NEOPRENE, OD	2.00	FT
5	0014	229KK00195		SCR,FLH, 6-32 X 3/8	8.00	EA
5	0015	060KK00024		ADHESIVE,PRISM 401-20GM	0.00	BT
5	0016	024K357900	C	CA, RIB TRAUMA FUNCTIONS W/ CC	1.00	EA
6	0001	063KK00381		CONN HSG 11POS MALE IN-LINE SLT	1.00	EA
6	0002	065KK00206		CONT CRIMP PIN 22-24 AWG TIN SLT ROHS	16.00	EA
6	0003	063KK01805		CONN HSG 3POS 0.079C FEMALE TYPE PHT	2.00	EA
6	0004	065KK00202		CONT CRIMP SKT 24-30 AWG TIN TYPE PHT ROHS	6.00	EA
6	0005	063KK01810		CONN HSG 3POS MALE IN-LINE SL	2.00	EA
6	0006	276KK00639		WIRE, WHITE w/GREEN STRIPE, 24AWG, UL1429	4.70	FT
6	0007	276KK00608		WIRE, AWG24 STR PVC 600V UL1429 GRN	3.90	FT
6	0008	276KK00631		WIRE, RED w/GREEN STRIPE, 24 AWG, UL1429	4.70	FT
6	0009	268KK00017		TBG,1/2,THERMOFIT,WHT	0.08	FT

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0010	2689800128		TBG,1/8,THERMOFIT,WHT,PVC	0.50	FT
5	0017	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	2.00	EA
5	0018	178KK00006		MNT,TIE,CBL,BK,ADH,NYL,	2.00	EA
4	0002	271KK35030		VALVE, SINGLE, W BASE PLATE	2.00	EA
4	0003	016K351400	A	BRKT, SIDE VALVE MANIFOLD, OD	2.00	EA
4	0004	287KK00019		NUT,HEX,4-40,SELF-LOCKING	10.00	EA
4	0005	205K351600	D	CCA, TENSION PNEUMO SENSE METIMAN	2.00	EA
5	0001	204K351600	B	PCB, TENSION PNEUMO SENSE, METIMAN	1.00	EA
5	0002	3030100114		CAP CER X5R 1.0UF 35V 20% 0603 ROHS	1.00	EA
5	0003	3030100067		CAP CER X7R 0.01UF 16V 10% 0603 ROHS	1.00	EA
5	0004	3030100038		CAP CER NPO 470PF 50V 10% 0603 ROHS	1.00	EA
5	0005	250KK00020		SENSOR, PRESSURE, PRES SEN INTEG	1.00	EA
5	0006	0630100022		CONN, 3POS 0.079C RAPCB FRICTION TYPE PH ROHS	1.00	EA
5	0007	905K000134	A	PROCEDURE, AUTOMATED TEST SETUP	1.00	EA
5	0008	905K351734	A	TEST PROCEDURE, TENSION PNEUMO SENSOR, METIMAN	1.00	EA
4	0006	273KK00061		WASHER,#4,FLAT,ST STL	10.00	EA
4	0007	229KK00080		SCR, PNH, 4-40 X 7/8 LG, SS	4.00	EA
4	0008	229KK00074		SCR, PNH, 4-40 X 5/16	2.00	EA
4	0009	229KK00077		SCR, PH,4-40 X 1/2 LG	4.00	EA
4	0010	273KK00009		WASHER,#4,FLAT,NYLON	8.00	EA
4	0011	024K354200	B	CA, NEEDLE DECOMPRESSION VALVE CONTROL, OD	1.00	EA
5	0001	0639802019		CONN HSG 4POS MALE IN-LINE SL	1.00	EA
5	0002	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	4.00	EA
5	0003	024KK03500		CA, SMC PIGTAIL, OD	2.00	EA
5	0004	276KK00638		WIRE, WHITE w/YELLOW STRIPE, 24 AWG, UL1429	2.00	FT
5	0005	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	2.00	FT
5	0006	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	3.00	EA
5	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0008	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
4	0012	121KK00001		FTG,ELBOW,10-32X1/8,1TCH	4.00	EA
4	0013	268K360400	A	ASSY, TENSION PNEUM PNEUMATICS, EMS O.D.	1.00	EA
5	0001	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	2.00	EA
5	0002	1219800078		FTG,1/4" X 5/32" Y UNION	2.00	EA
5	0003	268KK01000		TBG, 1/8 OD X 1/16 ID, YELLOW	1.00	FT
5	0004	268KK01100		TBG,YELL 1/8 X 1/4	1.50	FT
3	0007	229KK00653		6-32 pan head screw, 1-3/8" length 18-8ss	4.00	EA
3	0008	273KK00007		WASHER,#6, FLT ST STL	6.00	EA
3	0009	229KK00090		SCR,PN HD,6-32 X 7/8 LG,	2.00	EA
3	0010	229KK00282		SCR, PNH, 10-32 X 1/4	8.00	EA
3	0011	121KK00114		FTG, Q-DISC, SHUTOFF, 1/8, FEMALE	1.00	EA
3	0012	0739800010		COUPLING,F,1/8IN	1.00	EA
3	0013	101K350100	A	INSERT, BLADDER EXCURSION, OD	2.00	EA
3	0014	060KK00008		ADHESIVE, PRISM 401-3G TB	0.00	EA
3	0015	104K356000	B	FOAM, CUT, .062 THK, WITH ADHESIVE, RIGHT LUNG	1.00	EA
3	0016	104K356100	B	FOAM, CUT, .062 THK, WITH ADHESIVE, LEFT LUNG	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
2	0009	253K275800	D	ASSY, SPO2 PROBE, ISTAN	1.00	EA
3	0001	024KK00080		CA, 3 COND RED/BLK/WHT, AWG 24, SANTOPRENE MOLDED WHITE	1.00	EA
3	0002	268KK00004		TBG,3/32,THERMOFIT,WHT	0.30	FT
3	0003	063KK00218		CONN, 3 POS, MALE, CIRC PLUG, SOLDER CUP, EN3 MINI, ROHS	1.00	EA
3	0004	250KK00017		CLIP ASSEMBLY, SP02 SENSOR	1.00	EA
3	0005	205K279900	B	CCA, SPO2 TRIGGER Emitter, ISTAN	1.00	EA
4	0001	204K279900	B	PCB, SPO2 TRIGGER Emitter, ISTAN	1.00	EA
4	R1	6200100064		RES TF 191 OHM 1/10W 1% 0603, ROHS	1.00	EA
4	D1	0880100018		DIODE INFRARED EMITTING 880NM WL 1206 ROHS	1.00	EA
4	0004	905K000134	A	PROCEDURE, AUTOMATED TEST SETUP	1.00	EA
4	0005	905K275934	A	TEST PROCEDURE, AUTOMATED, SPO2 MODULE, ISTAN	1.00	EA
3	0006	205K280000	C	CCA, SPO2 TRIGGER DETECTOR, ISTAN	1.00	EA
4	0001	204K280000	B	PCB, SPO2 TRIGGER DETECTOR, ISTAN	1.00	EA
4	R1	6200100104		RES TF 6.19K OHM 1/10W 1% 0603 ROHS	1.00	EA
4	Q1	0880100019		DIODE PHOTOTRANSISTOR NPN 160DEG VA 1206 ROHS	1.00	EA
4	0004	905K000134	A	PROCEDURE, AUTOMATED TEST SETUP	1.00	EA
4	0005	905K275934	A	TEST PROCEDURE, AUTOMATED, SPO2 MODULE, ISTAN	1.00	EA
3	0007	2689800129		TBG,3/8,THERMOFIT,WHT,PVC	0.20	FT
2	0010	104K353001	A	SKIN, CHEST, 25 PLASTICIZED, W ZIPPER, OD, ISTAN COLOR	1.00	EA
3	0001	104K353000	A	SKIN, CHEST, 25% PLASTICIZED, OD, ISTAN COLOR	1.00	EA
3	0002	252KK00016		ZIPPER,WHT,SIZE 5,24",NYL	1.00	EA
2	0011	202KK35030	000	DC POWER SUPPLY, 19VDC,4A DESKTOP W/2.5x5.5mm RAPLUG	1.00	EA
2	0012	070KK00028		PWR CORD,US PLG SKT CSA	1.00	EA
2	0013	147K362300	B	KIT, INVENTORY, APOLLO - PRE-HOSPITAL	1.00	EA
3	0001	253K350600	D	ASSY, FEMALE GENITALIA	1.00	EA
4	0001	104K354100	A	FEMALE GENITALIA, OD	1.00	EA
4	0003	073KK00001		CPLG,Q-DSC,SKT,3/8 TUBING	1.00	EA
4	0004	258KK00013		TIE, CABLE, 5.4", IN LINE	1.00	EA
3	0005	0603000015		INTUBATION LUBRICANT-4OZ SILICONE SPRAY	1.00	EA
3	0006	991CLY0037		LUER LOCK SYRINGE 60ML	1.00	EA
3	0007	253K362300	1.0	ASSY, START-UP KIT, APOLLO	1.00	EA
4	0001	905K360352	1.0	SETUP MAP, APOLLO	1.00	EA
4	0002	905K360452	1.0	QUICKSTART CHART, APOLLO	1.00	EA
4	0003	905K360092	5.0	SPEC SHEET, METIMAN STARTUP KIT	1.00	EA
3	0011	252KK00002		TAPE, RED, PVC, 2W X 8MIL THK X 36 YD ROLL	1.00	ROL
3	0012	252KK00019		TAPE, VHB, 4 FT ROLL	1.00	ROL
3	0013	200K000500	B	POST, ECG, ISTAN	5.00	EA
3	0014	104KK00036		DISK,PACING DEFIB,MANUAL	2.00	EA
3	0015	060KK00081		CARTRIDGE, CO2, 16GMS (order in quantities of 4)	4.00	EA
3	0016	253K358500	A	ASSY, WOUND UMBILICAL, O.D.	2.00	EA
4	0001	415KK00033		1/8 TO 1/8 ADAPTER	1.00	EA
4	0002	415KK00032		ADAPTER 3/16 TO 1/8	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
4	0003	073KK00019		CPLG, 1 4 TURN, 1 8 BARB, MALE - BLACK	1.00	EA
4	0004	0479800092		CLAMP,.269 -.291 OD TBG	1.00	EA
4	0005	268KK00103		TBG, IV ARM .125ID .250OD	1.60	FT
4	0006	2689800115		TBG,1/8ID,1/4OD,CLEAR,HRD	2.10	FT
4	0007	268KK00109		RED SHRINK TUBING	0.16	FT
4	0008	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	1.00	EA
4	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA
3	0017	253K353200	A	ASSY, PLENUM DRAIN, O.D.	1.00	EA
4	0001	2689800115		TBG,1/8ID,1/4OD,CLEAR,HRD	3.50	FT
4	0002	0739800008		FTG, COUPLING, MALE, INLINE 1/8	1.00	EA
4	0003	0479800092		CLAMP,.269 -.291 OD TBG	1.00	EA
4	0004	166KK00007		LBL,RIBBON CABLE	1.00	EA
4	0005	166KK00004		LBL,INK JET,POLYEST,WHT,0.250 Wx0.750 H	1.00	EA
3	0018	268KK00103		TBG, IV ARM .125ID .250OD	4.00	FT
3	0019	268K352400	A	ASSY, EXTENSION, O.D.	1.00	EA
4	0001	2689800115		TBG,1/8ID,1/4OD,CLEAR,HRD	0.70	FT
4	0002	0739800015		FEMALE LUER TO 1/8 BARB	1.00	EA
4	0003	4159800061		FTG, MALE LUER W/LOCKING	1.00	EA
4	0004	0479800092		CLAMP,.269 -.291 OD TBG	2.00	EA
4	0005	166KK00007		LBL,RIBBON CABLE	1.00	EA
3	0020	415K350000	A	ADPTR, BLOOD, PRESS, MANUAL	1.00	EA
4	0001	4159800061		FTG, MALE LUER W/LOCKING	1.00	EA
4	0002	0479800092		CLAMP,.269 -.291 OD TBG	5.00	EA
4	0003	2689800115		TBG,1/8ID,1/4OD,CLEAR,HRD	2.00	FT
4	0004	166KK00007		LBL,RIBBON CABLE	1.00	EA
4	0005	1219800019		FTG,TEE,ID,1/8"	1.00	EA
4	0006	0739800008		FTG, COUPLING, MALE, INLINE 1/8	2.00	EA
4	0007	0739800010		COUPLING,F,1/8IN	2.00	EA
4	0008	0479800087		CLAMP,.228 -.256 OD TBG	1.00	EA
3	0024	268K352500	A	ASSY, CHEST TUBE PRIME, O.D.	1.00	EA
4	0001	268KK00100		TBG,1/4ID,3/8OD CLR PUR	6.00	FT
4	0002	166KK00019		LBL, SLEEVE, 2.0"w X .851"h, B-342,HEAT SHRINK, WHT, 500 / P	1.00	EA
3	0025	101K000200	A	GOWN, HOSPITAL EMBROIDERED ADULT	1.00	EA
3	0026	011KK00010		CHARGER, BATTERY, 2 A 5 CELL Li-ion / POLYMER w/MOLEX out	1.00	EA
3	0027	268K203600	A	ASSY, CLEANING ADAPTER	1.00	EA
4	0001	4159800027		FTG, Q.C.,F, 1/8 TUBE,THRU	2.00	EA
4	0002	2689800111		TBG,1/8ID,1/4OD,CLEAR,SFT	0.17	FT
4	0003	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	1.00	EA
2	0014	253K358600	A	ASSY, FLUID PUMP (MM / MFS)	1.00	EA
3	0001	101K215900	B	CAE TRAUMA FILL TANK	1.00	EA
3	0002	114KK00010		FILTER, INLINE, HOUSING, SERVICABLE, 48 MICRON, 1/8 ID BARB	1.00	EA
3	0003	2689800149		TBG, 2T STRIP BOND, 0.125" ID X 0.250" OD, PVC CLR	6.00	FT
3	0004	415KK00062		FITTING, INSERT, 1/8" ID BARB X INLINE,POLYPROPYLENE	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
3	0005	4159800037		FTG,QC,M,1/8 ID,SO,INLINE	2.00	EA
3	0006	415KK00031	1	3/8 TO 1/8 ADAPTER	1.00	EA
3	0007	101KK00504		BINER BOTTLE CARRIER	1.00	EA
3	0008	268KK00108		YELLOW SHRINK TUBING	0.08	FT
3	0009	268KK00107		BLUE SHRINK TUBING	0.08	FT
3	0010	253K216500		ASSY, FILL TANK OVERFLOW	1.00	EA
4	0001	4159800031		FTG,QC,F,1/8ID,THRU,PNLMT	1.00	EA
4	0002	101KK00134		BOTTLE, 16 OZ PET, CLEAR W CAP	1.00	EA
3	0012	0479800092		CLAMP,.269 -.291 OD TBG	4.00	EA
3	0013	221KK00015		O-RING, .370 ID X .450 OD, BLACK, BUNA N, 70 DURO	1.00	EA
2	0015	253K209500	3	ASSY, SHORTS, ADULT, COTTON	1.00	EA
3	0001	905K000102	A	ARTWORK, LOGO METI LEARNING	1.00	EA
3	0002	101KK00093		SHORTS, COTTON, LARGE MANNEQUIN	1.00	EA
2	0017	104K353601	A	SKIN, DISTAL RIGHT, W FINGERS	1.00	EA
2	0018	104K353401	A	SKIN, DISTAL LEFT ARM, W FINGERS	1.00	EA
2	0020	121KK00114		FTG, Q-DISC, SHUTOFF, 1/8, FEMALE	5.00	EA
2	0021	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	8.00	EA
2	0022	1219800035		FITTING, 1/16 MALE INLINE	16.00	EA
2	0023	104K354700	A	SKIN, PROXIMAL ARM, EXTENDED, METIMAN	2.00	EA
2	0026	253K357700	A	ASSY, LEFT ARM, IMPROVED MOUNT, O.D., APOLLO	1.00	EA
3	0001	253K357800	A	ASSY, LEFT UPPER ARM, NEW ELBOW, APOLLO, METIMAN	1.00	EA
4	0001	104K351502	A	ARM, UPPER, LEFT, OD	1.00	EA
4	0002	104KK35003	B	JOINT UPPER ARM LEFT OD	1.00	EA
4	0003	104K354500	B	REDUCER, UPPER ARM, O.D.	1.00	EA
4	0004	104KK00177		I/O PUCK, W/O ASPIRATION, MEDIUM SKIN (Pk. 4)	1.00	EA
4	0005	2689800107		TBG,1/16 ID,1/8 OD,CLEAR	2.50	FT
4	0006	268KK00600		TBG, RED 1/16 X 1/8	2.50	FT
4	0007	1219800035		FITTING, 1/16 MALE INLINE	4.00	EA
4	0008	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	4.00	EA
4	0009	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	4.00	EA
4	0010	268KK00400		TBG,BLUE 1/16 X 1/8	2.50	FT
4	0011	404K350100	B	BOLT, ELBOW, O.D.	1.00	EA
5	0001	104KK00079		KNEE PIN order 404k350100	1.00	EA
4	0012	273K350100	C	NUT, ELBOW, O.D.	2.00	EA
4	0013	024K350300	B	CA, EXTENSION, PULSE,UPPER ARM, OD	2.00	EA
5	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	2.50	FT
5	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.33	FT
5	0003	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	3.00	EA
5	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	6.00	EA
5	0005	0639802018		CONN HSG 2POS MALE IN-LINE SL	3.00	EA
5	0006	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	6.00	EA
5	0007	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	1.25	FT
5	0008	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	6.00	EA
5	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0010	268KK00004		TBG,3/32,THERMOFIT,WHT	0.17	FT
5	0011	268KK00107		BLUE SHRINK TUBING	0.17	FT

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0012	268KK00109		RED SHRINK TUBING	0.17	FT
5	0013	2689800152		TBG, 1/8,THERMO-FIT,RED	0.17	FT
5	0014	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.17	FT
3	0002	253K356000	B	ASSY, LEFT, LOWER ARM, IMPROVED MOUNT, O.D.	1.00	EA
4	0001	104K351600	A	ARM, LOWER, LEFT, OD	1.00	EA
4	0002	024K350100	B	CA, RADIAL PULSE, OD	1.00	EA
5	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	1.25	FT
5	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
5	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
5	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0006	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
5	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0008	2689800152		TBG, 1/8,THERMO-FIT,RED	0.08	FT
5	0009	268KK00109		RED SHRINK TUBING	0.08	FT
4	0003	024K350200	B	CA, BRACHIAL PULSE, OD	1.00	EA
5	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	0.50	FT
5	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
5	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
5	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0006	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
5	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0008	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.08	FT
5	0009	268KK00107		BLUE SHRINK TUBING	0.08	FT
4	0005	104KK35009	A	UPPER PIVOT BEARING, OD	1.00	EA
4	0006	104KK35008	B	PIVOT, BOTTOM, OD	1.00	EA
4	0007	108KK35010		DOWEL PIN, ALLOY, 3/16 X 7/16	6.00	EA
4	0010	104K354800	A	TUBE, HYPER EXTENSION STOP MOUNT, O.D.	1.00	EA
4	0013	104KK35011	F	TUBE, MIDDLE ARM, O D	1.00	EA
4	0014	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
4	0016	268KK00103		TBG, IV ARM .125ID .250OD	2.00	FT
4	0018	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	14.00	EA
4	0020	104KK00095	A	BLDR,R.4 X 1 23	2.00	EA
4	0026	024K355600	A	CA, SPEAKER, KOROTKOFF SOUNDS, OD	1.00	EA
5	0001	430KK00005		SPEAKER, 1 WATT, 8 OHM	1.00	EA
5	0002	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	0.50	FT
5	0003	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0005	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
5	0006	166KK00007		LBL,RIBBON CABLE	1.00	EA
4	0028	049KK00048		PIN, SPRING, 3 L, 3 16 DIA,OD	1.00	EA
4	0029	049KK00039		PIN, SPRING, 1/4" X .625"	2.00	EA
4	0030	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	1.00	EA
4	0032	268KK00032		FLX TBG, 066 ID X 1/8 OD, GRAY	1.50	FT
4	0033	268KK00400		TBG, BLUE 1/16 X 1/8	1.50	FT
4	0034	268KK00600		TBG, RED 1/16 X 1/8	1.50	FT

Level	Find	Component	Rev	Component Description	Qty	U/M
4	0035	104K354400	A	PIN, ROBUST, ELBOW, LOWER ARM, O.D.	1.00	EA
3	0003	268K351900	C	ASSY, PNEUMATIC & HAPTIC, LEFT ARM, OD	1.00	EA
4	0002	268KK00600		TBG, RED 1/16 X 1/8	1.50	FT
4	0004	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	0.00	EA
4	0005	1219800035		FITTING, 1/16 MALE INLINE	0.00	EA
4	0006	268KK00400		TBG,BLUE 1/16 X 1/8	1.50	FT
4	0007	2689800107		TBG,1/16 ID,1/8 OD,CLEAR	3.00	FT
3	0004	273K350100	C	NUT, ELBOW, O.D.	2.00	EA
3	0005	404K350100	B	BOLT, ELBOW, O.D.	1.00	EA
4	0001	104KK00079		KNEE PIN order 404k350100	1.00	EA
3	0007	229KK00651		SCR, SET, 10-32 X 1/2, SS	2.00	EA
2	0027	253K356300	A	ASSY, RIGHT ARM, IMPROVED MOUNT, O.D.	1.00	EA
3	0002	253K359300	A	ASSY, RIGHT UPPER ARM, NEW ELBOW, METIMAN	1.00	EA
4	0002	104K351700	A	ARM, UPPER, RIGHT, OD	1.00	EA
4	0004	104KK35014	6A	JOINT UPPER ARM, RIGHT, OD	1.00	EA
4	0005	2689800107		TBG,1/16 ID,1/8 OD,CLEAR	2.50	FT
4	0006	268KK00600		TBG, RED 1/16 X 1/8	2.50	FT
4	0007	1219800035		FITTING, 1/16 MALE INLINE	4.00	EA
4	0008	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	4.00	EA
4	0009	166KK00011		LBL, THERMAL, .750"w X .937" h, B-427, WRAP, WHT / TRANS, 10K	4.00	EA
4	0012	268KK00400		TBG,BLUE 1/16 X 1/8	2.50	FT
4	0013	104K354500	B	REDUCER, UPPER ARM, O.D.	1.00	EA
3	0003	253K356100	B	ASSY, RIGHT, LOWER ARM, IMPROVED MOUNT, O.D.	1.00	EA
4	0001	104K351800	A	ARM, LOWER, RIGHT, OD	1.00	EA
4	0002	024K350100	B	CA, RADIAL PULSE, OD	1.00	EA
5	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	1.25	FT
5	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
5	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
5	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0006	166KK00013		LBL, THERMAL, .50"w X .750" h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
5	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0008	2689800152		TBG, 1/8,THERMO-FIT,RED	0.08	FT
5	0009	268KK00109		RED SHRINK TUBING	0.08	FT
4	0003	024K350200	B	CA, BRACHIAL PULSE, OD	1.00	EA
5	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	0.50	FT
5	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
5	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
5	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0006	166KK00013		LBL, THERMAL, .50"w X .750" h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
5	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
5	0008	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.08	FT
5	0009	268KK00107		BLUE SHRINK TUBING	0.08	FT
4	0005	104KK35009	A	UPPER PIVOT BEARING, OD	1.00	EA
4	0006	104KK35008	B	PIVOT, BOTTOM, OD	1.00	EA
4	0007	108KK35010		DOWEL PIN, ALLOY, 3/16 X 7/16	6.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
4	0009	104K354800	A	TUBE, HYPER EXTENSION STOP MOUNT, O.D.	1.00	EA
4	0016	024K355600	A	CA, SPEAKER, KOROTKOFF SOUNDS, OD	1.00	EA
5	0001	430KK00005		SPEAKER, 1 WATT, 8 OHM	1.00	EA
5	0002	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	0.50	FT
5	0003	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
5	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
5	0005	166KK00013		LBL, THERMAL, .50" w X .750" h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
5	0006	166KK00007		LBL,RIBBON CABLE	1.00	EA
4	0018	049KK00048		PIN, SPRING, 3 L, 3 16 DIA,OD	1.00	EA
4	0019	104KK00095	A	BLDR,R.4 X 1 23	2.00	EA
4	0020	104KK35011	F	TUBE, MIDDLE ARM, O D	1.00	EA
4	0021	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
4	0024	268KK00103		TBG, IV ARM .125ID .250OD	4.00	FT
4	0026	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	14.00	EA
4	0028	049KK00039		PIN, SPRING, 1/4" X .625"	2.00	EA
4	0029	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	1.00	EA
4	0030	104KK35007	A	LOWER ARM CONNECTION BOLT, OD	1.00	EA
4	0031	268KK00600		TBG, RED 1/16 X 1/8	1.50	FT
4	0032	268KK00032		FLX TBG, 066 ID X 1/8 OD, GRAY	1.50	FT
4	0033	268KK00400		TBG,BLUE 1/16 X 1/8	1.50	FT
4	0034	104K354400	A	PIN, ROBUST, ELBOW, LOWER ARM, O.D.	1.00	EA
3	0004	268K350800	C	ASSY, IV SYSTEM, RIGHT ARM, OD	1.00	EA
4	0002	1219800035		FITTING, 1/16 MALE INLINE	0.00	EA
4	0008	101KK00139		BAG, EVA COMPOUNDER, 250 ML; 50 EA. PER BOX	1.00	EA
4	0009	252KK00003		VELCRO, ADH-BK, 3/4"X15', WHT	0.13	FT
4	0010	415KK00032		ADAPTER 3/16 TO 1/8	1.00	EA
4	0011	2689800115		TBG,1/8ID,1/4OD,CLEAR,HRD	1.50	FT
3	0005	268K352000	C	ASSY, PNEUMATIC & HAPTIC, RIGHT ARM, OD	1.00	EA
4	0013	268KK00600		TBG, RED 1/16 X 1/8	3.00	FT
4	0015	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	0.00	EA
4	16	1219800035		FITTING, 1/16 MALE INLINE	0.00	EA
4	0017	268KK00400		TBG,BLUE 1/16 X 1/8	1.50	FT
4	0018	2689800107		TBG,1/16 ID,1/8 OD,CLEAR	3.00	FT
3	0006	273K350100	C	NUT, ELBOW, O.D.	2.00	EA
3	0007	404K350100	B	BOLT, ELBOW, O.D.	1.00	EA
4	0001	104KK00079		KNEE PIN order 404k350100	1.00	EA
3	0008	024K350300	B	CA, EXTENSION, PULSE,UPPER ARM, OD	1.00	EA
4	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	2.50	FT
4	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.33	FT
4	0003	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	3.00	EA
4	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	6.00	EA
4	0005	0639802018		CONN HSG 2POS MALE IN-LINE SL	3.00	EA
4	0006	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	6.00	EA
4	0007	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	1.25	FT
4	0008	166KK00013		LBL, THERMAL, .50" w X .750" h, B-427, WRAP, WHT / TRANS, 5K /	6.00	EA
4	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA
4	0010	268KK00004		TBG,3/32,THERMOFIT,WHT	0.17	FT
4	0011	268KK00107		BLUE SHRINK TUBING	0.17	FT

Level	Find	Component	Rev	Component Description	Qty	U/M
4	0012	268KK00109		RED SHRINK TUBING	0.17	FT
4	0013	2689800152		TBG, 1/8, THERMO-FIT, RED	0.17	FT
4	0014	2689800153		TBG, 1/8, THERMO-FIT, BLUE	0.17	FT
3	0010	229KK00651		SCR, SET, 10-32 X 1/2, SS	2.00	EA
2	0028	905K350035	N	ACCEPTANCE TEST PROCEDURE, METIMAN	1.00	EA
2	0029	905K350081	N	ACCEPTANCE TEST, DATA RECORD, METIMAN	1.00	EA
2	0030	881K360101	A	LICENSE, MUSE-TP, MMP, 1 LIC 2 SEATS, ELEC DEL	1.00	EA
2	0032	MMP MANNEQUIN KIT APOLLO	A	METIMAN APOLLO PICK LIST	1.00	EA
3	0001	MMP TOP PLATE	B	KIT, MMP TOP PLATE	1.00	EA
4	0100	ELECTRONICS TOP PLATE OD	E	ASSY, ELECTRONICS TOP PLATE, O.D.	1.00	EA
5	0103	016K352000	F	PLATE, TOP, ELECTRONICS, O.D.	1.00	EA
5	0105	101KK04103		ROUTER, WIRELESS, EDIMAX	1.00	EA
5	0106	024K358900	A	CA, CONVERTER, DC POWER PLUG	1.00	EA
6	0001	063KK00138		CONN, 3.5 MM, RA PLUG, 2 COND, W / 6 FT CABLE, ISTAN	1.00	EA
6	0002	024KK00139		CA, BARREL FEMALE, 5.5mm X 2.1mm, 24AWG, 2C	1.00	EA
6	0003	268KK00007		TBG, 3/16, THERMO-FIT, BLK	0.13	FT
6	0004	268KK00128		TBG, 1/8", THERMO-FIT, BLACK	0.13	FT
5	0115	011KK00006		BATTERY, 18.5v, 12.6ah, Li-ion, W/ PCM & GAUGE, POLYMER	1.00	EA
5	0150	210K350100	E	ENCLOSURE, SBC, OD	1.00	EA
5	0151	210K350200	D	ENCLOSURE, LID, SBC, OD	1.00	EA
5	0152	210K350300	A	ENCLOSURE, LID, FLASH, SBC, OD	1.00	EA
5	0153	127KK00018		GASKET, FOR 9 PIN DSUB, EMI PROTECTION	2.00	EA
5	0154	127KK00019		GASKET, FOR 25 PIN DSUB, EMI PROTECTION	1.00	EA
5	0155	127K350100	B	GASKET, EMI, SBC, O.D.	1.00	EA
5	0156	127K350200	B	GASKET, EMI, FLASH, SBC, O.D.	1.00	EA
5	0157	024K358100	A	CA, 12VDC METIMEN SBC	1.00	EA
6	0001	063KK35041		CONN, 25POS DSUB, FEMALE W/INS FIL 1000PF>=C<=1500PF ROHS	1.00	EA
6	0002	063KK00234		CONN, 2 X 5 POS, MILLIGRID, FEM	2.00	EA
6	0003	065KK00219		CONT TERM FEMALE MILLIGRID, 2MM	4.00	EA
6	0004	065KK00022		CRIMP, FERRULE INSUL 22 AWG, WHITE ROHS	2.00	EA
6	0005	063KK01804		CONN, 2 PIN, JST	1.00	EA
6	0006	065KK00202		CONT CRIMP SKT 24-30 AWG TIN TYPE PHT ROHS	2.00	EA
6	0007	063KK01824		CONN, 3PIN, JST	1.00	EA
6	0008	065KK00069		CONT, CRP, FEM, 28-22AWG	3.00	EA
6	0009	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	2.59	FT
6	0010	166KK00011		LBL, THERMAL, .750" w X .937" h, B-427, WRAP, WHT / TRANS, 10K	8.00	EA
6	0011	268KK00004		TBG, 3/32, THERMOFIT, WHT	0.38	FT
6	0012	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.46	FT
6	0013	276KK00611		WIRE, AWG24 STR PVC 600V UL1429 YEL	0.46	FT
5	0158	127KK00015		GASKET, TOP PLATE ISTAN 226 x 2 x 10	0.20	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0159	111K350300	A	STRAP, VELCRO 5/8 X 14 INCH BLACK BULLET NOSE	1.00	EA
5	0160	016K351800	B	TAB, HINGED, BATTERY TRAY, O.D.	1.00	EA
5	0161	016K351900	C	TRAY, BATTERY, HINGED, O.D.	1.00	EA
5	0162	253KK35004	A	ASSY, SBC, INTEL, ATOM, 2GB RAM, 8GB CFAST	1.00	EA
6	0001	205KK35004		CCA, CPU, INTEL, ATOM, SBC, HIGH TEMP	1.00	EA
6	0002	169KK35004		MEMORY MODULE, 2GB, HIGH TEMP	1.00	EA
6	0003	169KK35005		CFAST, 8 GIG, HIGH TEMP	1.00	EA
5	0165	024K358200	B	CA, 12VDC METIMAN SBC PWR ADAPTER	1.00	EA
6	0001	063KK00333		CONN,HSG,PLG,10C,MICRO-FIT	1.00	EA
6	0002	065KK00200		CONT CRIMP PIN 20-24 AWG TIN MICROFIT 3.0 ROHS	4.00	EA
6	0003	063KK00229		CONN HSG 2X5POS 0.118C FEMALE LATCHING MICROFIT 3.0T	1.00	EA
6	0004	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3.0 ROHS	4.00	EA
6	0005	063KK00228		CONN HSG 2X6POS FEMALE LATCHING MICROFIT 3.0	1.00	EA
6	0006	276KK00611		WIRE, AWG24 STR PVC 600V UL1429 YEL	0.38	FT
6	0007	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.67	FT
6	0008	276KK00610		WIRE, AWG24 STR PVC 600V UL1429 RED	0.30	FT
6	0009	166KK00011		LBL, THERMAL, .750" w X .937" h, B-427, WRAP, WHT / TRANS, 10K	4.00	EA
5	0999	MMP TOP PLATE HW	B	KIT, MMP TOP PLATE H/W	1.00	EA
6	0150	178KK00039		SHOCK MOUNT, M / F, 2 LB SHEAR, 4-40, URETHANE	4.00	EA
6	0151	229KK00645		SCR, PH, SS, 2-56 X 3/16" LG	8.00	EA
6	0152	297KK00307		STDF, F, 3/16 HEX, 2-56 X 3/8 L, AL	4.00	EA
6	0153	229KK00160		SCR, FLH, 4-40 X 1/4" LG, PHILLIPS, SST	11.00	EA
6	0154	229KK00073		SCR, PNH, 4-40, 1/4 LG	6.00	EA
6	0155	161KK00001		LOCK, JKSCR, W/NUT&WASHERS	2.00	EA
6	0156	111KK00004		HINGE, STEEL 1" X 1"	1.00	EA
3	0002	MMP RIBS	B	KIT, MMP RIBS	1.00	EA
4	0100	RIB KIT 1 PRE-HOSPITAL	A	ASSY, RIB KIT 1	1.00	EA
5	0001	RIB ACCESSORY 1	B	ASSY, RIB ACCESSORY 1	1.00	EA
6	0004	104K352300	B	BLADDER, LUNG BAG, OD	2.00	EA
6	0056	196K354600	B	PLATE, EXCURSION, O.D.	2.00	EA
6	0075	126K350100	C	GUARD, LUNG BAG, O.D.	2.00	EA
6	0076	104K356000	B	FOAM, CUT, .062 THK, WITH ADHESIVE, RIGHT LUNG	1.00	EA
6	0077	104K356100	B	FOAM, CUT, .062 THK, WITH ADHESIVE, LEFT LUNG	1.00	EA
6	0139	0739800008		FTG, COUPLING, MALE, INLINE 1/8	3.00	EA
6	0352	104K350000		CHEST TUBE, 28 -36 FR, SWITCH SENSE, O D	2.00	EA
6	0353	271KK00046		CHECK VALVE, MANUAL RELIEF TO 3 16 BARB, 1.5 PSI	2.00	EA
6	0354	016K281100	A	BRACKET, CHEST TUBE MOUNTING, 28-36 FR	2.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0355	148K350000	B	LEVER ARM, MICRO SWITCH, OD	2.00	EA
6	0356	230K280100	A	SEAL, CHEST TUBE, 28-36 FR, MOLDED	2.00	EA
6	0357	024K352800	A	CA, CHEST TUBE SENSE DISCONNECT, OD	2.00	EA
7	0001	0639802018		CONN HSG 2POS MALE IN-LINE SL	1.00	EA
7	0002	065KK00206		CONT CRIMP PIN 22-24 AWG TIN SLT ROHS	2.00	EA
7	0003	250KK00019		MICRO-SWITCH, SLDR TERM	1.00	EA
7	0004	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	1.00	FT
7	0005	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	1.00	FT
7	0006	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	2.00	EA
7	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0008	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
7	0009	268KK00004		TBG,3/32,THERMOFIT,WHT	0.17	FT
5	0002	SLIDE POTENTIOMETER	A	ASSY, SLIDE POTENTIOMETER	1.00	EA
6	0001	276K350200	C	CA, LINKING, DEPTH DETECTION, RIBCAGE, METIMAN	1.00	EA
6	0002	016K353300	C	BRACKET, POTENTIOMETER SUPPORT, STEEL	1.00	EA
6	0003	024K357600	C	CA, SLIDE POTENTIOMETER	1.00	EA
7	0001	201KK00009		POT,SLIDE,LINEAR,DUAL GANG,45mm TRAVEL,10KOhm,W/O DUST COVER	1.00	EA
7	0002	063KK01801		CONN HSG 3POS FEMALE IN-LINE LATCHING SL	1.00	EA
7	0003	065KK00207		CONT CRIMP SKT 24-30 AWG GOLD SL ROHS	3.00	EA
7	0004	2689800128		TBG,1/8,THERMOFIT,WHT,PVC	0.04	FT
7	0005	276KK00608		WIRE, AWG24 STR PVC 600V UL1429 GRN	0.44	FT
7	0006	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	0.44	FT
7	0007	276KK00610		WIRE, AWG24 STR PVC 600V UL1429 RED	0.68	FT
7	0008	252KK00040		EPOXY, STRUCTURAL ADHESIVE, HYSOL, HIGH STRENGTH	0.00	BT
6	0004	415K350100	A	ADAPTER, T-SHAPED, POTENTIOMETER LEVER	1.00	EA
6	0005	226KK00001		PULLEY, NYLON, BEARING MOUNTED	1.00	EA
6	0006	242KK00033		SPRING, CMPRSN, 1/4" OD, 1.125" FREE LG, 0.78 LBS/IN RATE	1.00	EA
5	0003	STERNUM PLATE	B	ASSY, STERNUM PLATE	1.00	EA
6	0112	271KK35030		VALVE, SINGLE, W BASE PLATE	2.00	EA
6	0113	016K351400	A	BRKT, SIDE VALVE MANIFOLD, OD	2.00	EA
6	0114	205K351600	D	CCA, TENSION PNEUMO SENSE METIMAN	2.00	EA
7	0001	204K351600	B	PCB, TENSION PNEUMO SENSE, METIMAN	1.00	EA
7	0002	3030100114		CAP CER X5R 1.0UF 35V 20% 0603 ROHS	1.00	EA
7	0003	3030100067		CAP CER X7R 0.01UF 16V 10% 0603 ROHS	1.00	EA
7	0004	3030100038		CAP CER NPO 470PF 50V 10% 0603 ROHS	1.00	EA
7	0005	250KK00020		SENSOR, PRESSURE, PRES SEN INTEG	1.00	EA
7	0006	0630100022		CONN, 3POS 0.079C RAPCB FRICTION TYPE PH ROHS	1.00	EA
7	0007	905K000134	A	PROCEDURE, AUTOMATED TEST SETUP	1.00	EA
7	0008	905K351734	A	TEST PROCEDURE, TENSION PNEUMO SENSOR, METIMAN	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0115	024K354200	B	CA, NEEDLE DECOMPRESSION VALVE CONTROL, OD	1.00	EA
7	0001	0639802019		CONN HSG 4POS MALE IN-LINE SL	1.00	EA
7	0002	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	4.00	EA
7	0003	024KK03500		CA, SMC PIGTAIL, OD	2.00	EA
7	0004	276KK00638		WIRE, WHITE w/YELLOW STRIPE, 24 AWG, UL1429	2.00	FT
7	0005	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	2.00	FT
7	0006	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	3.00	EA
7	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0008	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
6	0146	016K351000	C	BRACKET, STERNUM, O.D.	1.00	EA
6	0147	279K350000	A	SUPPORT, STERNUM, OD	1.00	EA
6	0148	121KK00149		FTG, 1/8-27 NPT, ELBOW,7/16 HEX, 1/8 BARB	2.00	EA
6	0149	271KK00097		CYLINDER, COMPACT, DBL ACT, SNGL ROD	2.00	EA
6	0151	223K350100	A	ROD, EXCURSION, OD	2.00	EA
6	0153	024K357900	C	CA, RIB TRAUMA FUNCTIONS W/ CC	1.00	EA
7	0001	063KK00381		CONN HSG 11POS MALE IN-LINE SLT	1.00	EA
7	0002	065KK00206		CONT CRIMP PIN 22-24 AWG TIN SLT ROHS	16.00	EA
7	0003	063KK01805		CONN HSG 3POS 0.079C FEMALE TYPE PHT	2.00	EA
7	0004	065KK00202		CONT CRIMP SKT 24-30 AWG TIN TYPE PHT ROHS	6.00	EA
7	0005	063KK01810		CONN HSG 3POS MALE IN-LINE SL	2.00	EA
7	0006	276KK00639		WIRE, WHITE w/GREEN STRIPE, 24AWG, UL1429	4.70	FT
7	0007	276KK00608		WIRE, AWG24 STR PVC 600V UL1429 GRN	3.90	FT
7	0008	276KK00631		WIRE, RED w/GREEN STRIPE, 24 AWG, UL1429	4.70	FT
7	0009	268KK00017		TBG,1/2,THERMOFIT,WHT	0.08	FT
7	0010	2689800128		TBG,1/8,THERMOFIT,WHT,PVC	0.50	FT
6	0154	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	2.00	EA
6	0155	016K353400	C	BRACKET, CABLE SUPPORT, DEPTH DETECTION, ON STERNUM PLATE	1.00	EA
4	0200	RIB ACCESSORY 2	D	ASSY, RIB ACCESSORY 2	1.00	EA
5	0107	121KK00114		FTG, Q-DISC, SHUTOFF, 1/8, FEMALE	1.00	EA
5	0108	0739800010		COUPLING,F,1/8IN	1.00	EA
5	0109	101K350100	A	INSERT, BLADDER EXCURSION, OD	2.00	EA
5	0111	166K280100	A	LABEL, CO2 WARNING LABEL	1.00	EA
5	0122	242KK00038		SPRING, EXTENSION, 1.375 FL X .375 OD X .037 WIRE DIA	2.00	EA
5	0133	024K354800	B	CA, RIGHT CHEST DRIVE EXHAUST CTRL, OD	1.00	EA
6	0001	063KK00025		CONN HSG 6POS MALE IN-LINE SLT	1.00	EA
6	0002	065KK00206		CONT CRIMP PIN 22-24 AWG TIN SLT ROHS	6.00	EA
6	0003	024KK03500		CA, SMC PIGTAIL, OD	3.00	EA
6	0004	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	3.38	FT
6	0005	276KK00638		WIRE, WHITE w/YELLOW STRIPE, 24 AWG, UL1429	3.38	FT
6	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	4.00	EA
6	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0008	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
5	0134	024K354700	B	CA, LEFT CHEST DRIVE EXHAUST CTRL, OD	1.00	EA
6	0001	063KK00025		CONN HSG 6POS MALE IN-LINE SLT	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0002	065KK00206		CONT CRIMP PIN 22-24 AWG TIN SLT ROHS	6.00	EA
6	0003	024KK03500		CA, SMC PIGTAIL, OD	3.00	EA
6	0004	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	3.21	FT
6	0005	276KK00638		WIRE, WHITE w/YELLOW STRIPE, 24 AWG, UL1429	3.21	FT
6	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	4.00	EA
6	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0008	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
5	0135	016K351100	B	BRACKET, CO2 RETENTION, O.D.	1.00	EA
5	0136	121KK00044		FITTING, SWIVEL, 1/8-27 NPT X 1/8	1.00	EA
5	0137	218KK00018		PRESSURE REGULATOR, CO2	1.00	EA
5	0138	218KK00019	C	BUSHING, REGULATOR,ISTAN	1.00	EA
5	0162	024K354400	C	CA, UTSC RIB DISCONNECT, OD	1.00	EA
6	0001	063KK00235		CONN HSG 2X5POS 0.118C MALE IN-LINE MICROFIT 3.0T	1.00	EA
6	0002	065KK00200		CONT CRIMP PIN 20-24 AWG TIN MICROFIT 3 0 ROHS	10.00	EA
6	0003	063KK00216		CONN HSG 2X7POS FEMALE FRICTION LATCH C-GRID IIIT	1.00	EA
6	0004	065KK00211		CONT,CRP SKT, 22-24 AWG, NIC/GOLD C-GRID III, ROHS	10.00	EA
6	0005	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	6.70	FT
6	0006	276KK00608		WIRE, AWG24 STR PVC 600V UL1429 GRN	2.20	FT
6	0007	276KK00623		WIRE, AWG24 STR PVC 600V UL1429 ORA	1.10	FT
6	0008	276KK00633		WIRE, YELLOW w/GREEN STRIPE, 24 AWG, UL1429	1.10	FT
6	0009	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	3.00	EA
5	0307	104K353901	C	FOAM, RIBCAGE, NURSING & PRE-HOSPITAL, MM	1.00	EA
5	0350	121K071301	A	TENSION PNEUMOTHORAX, FITTING, ISTAN	2.00	EA
5	0351	2719800022		VALVE, WHISKER	2.00	EA
5	0352	024K357700	E	CA, FORCE SENSOR, 1" DIA.	1.00	EA
6	0001	101KK00153		SENSOR, FLEXIFORCE, 0-25 LB, 1" DIA., (8-PK)	1.00	EA
6	0002	063KK01801		CONN HSG 3POS FEMALE IN-LINE LATCHING SL	1.00	EA
6	0003	065KK00207		CONT CRIMP SKT 24-30 AWG GOLD SL ROHS	2.00	EA
6	0004	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	0.90	FT
6	0005	276KK00610		WIRE, AWG24 STR PVC 600V UL1429 RED	0.90	FT
6	0006	2689800128		TBG,1/8,THERMOFIT,WHT,PVC	0.13	FT
6	0007	268KK00006		TBG, 1/16,THERMO-FIT,WHT	0.08	FT
6	0008	0440453012R ***		TUBING, HEAT SHRINK, 3/16 DIA.	0.28	FT
5	0353	196K355100	B	PLATE, BONDING, FORCE SENSOR, ALUMINUM	1.00	EA
5	0354	169KK35001		SANDISK, 4GB MICRO SD CARD W/ADAPTER	1.00	EA
5	0401	104K350100	H	RIB CAGE, OD	1.00	EA
5	0403	200K000300	A	STUD, PACE DEFIB, ISTAN	2.00	EA
5	0404	200K000601	A	STUD, ECG, MM	5.00	EA
5	0417	196K354701	B	PLATE, BLOCKING, LUNG BAG, LEFT, O.D	1.00	EA
5	0418	196K354702	B	PLATE, BLOCKING, LUNG BAG, RIGHT, O.D	1.00	EA
5	0419	024K352601	B	CA, RIBCAGE SOUNDS, OD, CERT	1.00	EA
6	0001	063KK00232		CONN HSG 2X6POS MALE IN-LINE MICROFIT 3.0	1.00	EA
6	0002	065KK01807		CONT, 22-24 AWG, TIN, TERM MALE, ROHS	12.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0003	0639802018		CONN HSG 2POS MALE IN-LINE SL	12.00	EA
6	0004	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	24.00	EA
6	0005	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	9.00	FT
6	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	13.00	EA
6	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0008	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
6	0009	0550100043		FERRITE, SUPPRESSOR CORE CLAMP-ON OD1.181XID0.512X1.535 ROHS	1.00	EA
5	0420	024K354300	C	CA, ECG RIB DISCONNECT, OD	1.00	EA
6	0001	063KK00021		CONN, HSG, 5POS, MALE, IN-LINE	1.00	EA
6	0002	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	5.00	EA
6	0003	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	1.00	FT
6	0004	255KK00002		TERM,RING,26-22AWG,#8BOLT	5.00	EA
6	0005	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	1.46	FT
6	0006	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	5.21	FT
6	0007	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	6.00	EA
6	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0009	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
5	0421	024K351001	A	CA, UNIFIED DEFIB / PACE IN, OD, CERT	1.00	EA
5	0423	104KK00100		FOAM, BLK 1,5SPEAKER PAD	2.00	EA
4	0400	CHASSIS SLED	D	ASSY, CHASSIS SLED	1.00	EA
5	0110	016K352200	B	BRACKET, EXTEND, C02, O.D.	1.00	EA
5	0116	016K350500	C	BRACKET, CHASSIS,SLED, O.D.	1.00	EA
5	0117	012K350100	A	BEARING, CHEST COMPRESSION, O.D.	1.00	EA
5	0118	404K350000	A	SHAFT, COMPRESSION, CHEST, OD	1.00	EA
5	0119	229K350100	A	BOLT, CHEST COMPRESSION LIMIT, OD	2.00	EA
5	0120	239K350100	A	BLOCK, STATIONARY, PIVOT, O.D.	2.00	EA
5	0121	239K350200	B	PIVOT, CHEST COMPRESSION, OD	1.00	EA
5	0123	016K352600	C	BRACKET, SPRING TENSION, CHEST RETURN, OD	1.00	EA
5	0124	276K350100	C	CABLE, CHEST CONTROL, OD	2.00	EA
5	0125	226KK00001		PULLEY, NYLON, BEARING MOUNTED	2.00	EA
5	0127	016K352800	A	BRACKET, RH, CHEST RETURN, OD	1.00	EA
5	0128	194KK00007		PIN, SPRING, SLOTTED, 1 16 DIA X 3 8 L, 18-8 SS, OD	2.00	EA
5	0129	242KK00024		SPRING, CHEST COMPRESSION, OD	1.00	EA
5	0130	239K350000	B	PIVOT BLOCK, CHEST COMPRESSION, O.D.	1.00	EA
5	0131	075K350000	A	COVER, CHEST COMPRESSION GUIDE ROD	1.00	EA
5	0142	073KK00011		ORIFICE, .005, WHITE	2.00	EA
5	0143	073KK00013		ORIFICE, .008, LT GREEN	2.00	EA
5	0144	073KK00020		ORIFICE, .020, DK BLUE	2.00	EA
5	0157	271KK35030		VALVE, SINGLE, W BASE PLATE	2.00	EA
5	0158	271KK35020		MANIFOLD, 2 STATION	2.00	EA
5	0159	196K350200	B	MOUNTING BASE, VALVE, RIB CAGE, O D	1.00	EA
5	0160	016KK42010		BRKT, ANGLE	2.00	EA
5	0161	196K354800	B	PLATE,TSC,O D	1.00	EA
5	0163	016K353200	C	BRACKET, TSC LOAD CELL COVER	1.00	EA
5	0164	016K353100	A	BRKT, MOUNTING, TSC, OD	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0204	147K360200	A	KIT, TSC, METIMAN	1.00	EA
6	0001	253K500301	C	ASSY, UNIFIED DEFIB PACE SCA, METIMAN	1.00	EA
7	0001	205K500301	C	CCA, UNIFIED DEFIB/PACE SCA, METIMAN	1.00	EA
8	0001	206K500300	E	PCB, UNIFIED DEFIB/PACE SCA, ISTAN	1.00	EA
8	0002	0630100014		SHUNT, 2POS 0.079"C ROHS	2.00	EA
8	0004	3030100053		CAP CER 1000PF 10% 50V NPO 0603 ROHS	2.00	EA
8	0005	3030100006		CAP CER X5R 0.1UF 25V 10% 0603 ROHS	37.00	EA
8	0006	3030100007		CAP CER X7R 0.047UF 25V 10% 0603 ROHS	2.00	EA
8	0007	3030100008		CAP CER NPO 10PF 50V 5% 0603 ROHS	3.00	EA
8	0008	3030100009		CAP CER NPO 100PF 50V 10% 0603 ROHS	5.00	EA
8	0009	3030100003		CAP CER X7R 0.027UF 50V 10% 0603 ROHS	3.00	EA
8	0010	3030100011		CAP PPS FILM 0.1UF 50V 2% 1913 ROHS	2.00	EA
8	0011	3030100012		CAP PPS FILM 0.22UF 50V 2% 2416 ROHS	1.00	EA
8	0012	3030100001		CAP CER X5R 1.0UF 25V 10% 0603 ROHS	4.00	EA
8	0013	3030100155		CAP TANT 3.3UF 35V 10% 1210 ROHS	2.00	EA
8	0014	3030100005		CAP CER NPO 33PF 50V 5% 0603 ROHS	1.00	EA
8	0015	3030100014		CAP TANT 10UF 25V 20% 6032 ROHS	2.00	EA
8	0016	3030100002		CAP CER X7R 1000PF 50V 10% 0603 ROHS	1.00	EA
8	0017	3030100054		CAP TANT 1.0UF 25V 20% 2012 ROHS	1.00	EA
8	0018	3030100015		CAP TANT 1.0UF 25V 20% 0805 ROHS	3.00	EA
8	0019	3030100017		CAP CER X7R 0.01UF 25V 5% 0603 ROHS	4.00	EA
8	0020	3030100018		CAP CER X5R 47UF 10V 20% 1206 ROHS	3.00	EA
8	0023	0880100001		DIODE SWITCH 100V 0.4W SOD123 ROHS	6.00	EA
8	0024	0880100002		TVS BIDIR 600W 15V SMB ROHS	3.00	EA
8	0025	0880100003		DIODE ZENER 1W 10V SMA ROHS	1.00	EA
8	0026	0630100003		CONN HEADER 3POS 0.079C ROHS	2.00	EA
8	0027	0630100001		CONN 4POS 0.1C RAPCB LATCHING ROHS	1.00	EA
8	0028	0630100016		CONN 2X7POS SHROUDED 0.1C RAPCB FRICTION ROHS	1.00	EA
8	0029	0550100001		FERRITE 1500 OHMS @ 50MHZ ISAT=0.1A DCR=0.7 1206 ROHS	5.00	EA
8	0030	1820100001		FILTER, EMI/RFI, 10A, ROHS	2.00	EA
8	0031	6200100002		RES TF 100 OHM 1W 5% 2512 ROHS	2.00	EA
8	0032	6200100003		RES TF 10.0K OHM 1/10W 1% 0603 ROHS	19.00	EA
8	0033	6200100062		RES TF 200K OHM 1/10W 1% 0603 ROHS	2.00	EA
8	0034	6200100067		RES TF 12K OHM 1/10W 1% 0603, ROHS	1.00	EA
8	0035	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	14.00	EA
8	0036	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	16.00	EA
8	0037	6200100225		RES 619 OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0039	6200100012		RES TF 20.0K OHM 1/10W 1% 0603 ROHS	5.00	EA
8	0040	6200100013		RES TF 4.99K OHM 1/10W 1% 0603 ROHS	5.00	EA
8	0041	6200100014		RES TF 38.3K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0042	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	14.00	EA
8	0043	6200100015		RES TF 49.9 OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0045	6200100017		RES TF 300K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0047	6200100018		RES TF 1.10K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0048	6200100019		RES TF 3.48K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0050	2010100004		POT TRIMMER 2K 10% TSM43Y ROHS	2.00	EA
8	0051	6200100021		RES TF 22.0 OHM 1/10W 1% 0603 ROHS	2.00	EA
8	0052	6200100022		RES TF 499 OHM 1/10W 1% 0603 ROHS	3.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0053	6200100023		RES TF 10.0 OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0055	6200100025		RES TF 34.8K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0056	6200100026		RES TF 200 OHM 1/10W 1% 0603 ROHS	2.00	EA
8	0057	2010100005		POT TRIMMER 20K 10% TOP ADJ ROHS	1.00	EA
8	0058	6200100027		RES TF 237K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0059	6200100028		RES TF 324K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0060	1430100001		JACK TEST PT 0.1C RED ROHS	4.00	EA
8	0061	1430100002		JACK TEST PT 0.1C BLK ROHS	2.00	EA
8	0062	0460100003		IC JFET OP AMP LF356 SNGL SO8 ROHS	1.00	EA
8	0063	0460100004		IC OPTOCOUPLER IL-300 DIP8 ROHS	1.00	EA
8	0064	2020100003		IC ISOLATED DC-DC CONVERTERS 1W +/-12V ROHS	1.00	EA
8	0065	0460100006		IC DUAL OP AMP LM1458 SO8 ROHS	1.00	EA
8	0066	0460100007		IC OPTOCOUPLER MINI-FLAT SNGL ROHS	2.00	EA
8	0067	0460100001		IC QUAD JFET OP AMP LF347 SO14 ROHS	2.00	EA
8	0068	0460100008		IC VOLTAGE COMPARATOR LM311 SNGL SO8 ROHS	1.00	EA
8	0069	0460100009		IC COMPARATOR SNGL 7NS SO8 ROHS	1.00	EA
8	0070	0460100011		IC ANALOG SW SPST CMOS NC SO8 ROHS	1.00	EA
8	0071	0460100012		IC 555 TIMER SO8 ROHS	3.00	EA
8	0072	0460100013		IC DUAL ANALOG SW CMOS SPST NO SO8 ROHS	1.00	EA
8	0073	0460100014		IC DUAL ANALOG SPDT SO16 ROHS	1.00	EA
8	0074	0460100015		IC OP AMP OP07 SNGL SO8 ROHS	1.00	EA
8	0075	0460100016		IC OPAMP AD8677 TSOT-5 ROHS	2.00	EA
8	0076	0460100017		IC DUAL OPAMP JFET AD822 SO8 ROHS	2.00	EA
8	0077	0460100042		IC Currnt FEEDBK AMP DUAL 16SOIC ROHS	1.00	EA
8	0078	0460100041		IC AMP JFET PREC LN 36V 8-SOIC ROHS	1.00	EA
8	0079	6200100144		RES TF 2K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0080	0880100058		DIODE TVS 6.8V 600W BIDIR 5% DO-214AA	1.00	EA
8	0081	0550100027		FERRITE 470 OHMS @ 100MHZ ISAT=1.5A DCR=0.13 0603 ROHS	3.00	EA
7	0002	024K271900	B	CA, UNIFIED ECG OUT, ISTAN	1.00	EA
8	0001	276KK00602		WIRE, AWG22 STR PVC 600V UL1429 WHT	0.40	FT
8	0002	276KK00604		WIRE, AWG22 STR PVC 600V UL1429 BLK	0.40	FT
8	0003	268KK00002		TBG,3/16,THERMO-FIT,WHT	0.20	FT
8	0004	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3 0 ROHS	2.00	EA
8	0005	063KK00200		CONN HSG 2POS FEMALE IN-LINE LATCHING MICROFIT 3.0	1.00	EA
8	0006	268KK00004		TBG,3/32,THERMOFIT,WHT	0.20	FT
6	0002	205K500200	D	CCA, TSC LOAD SENSOR, ISTAN	1.00	EA
7	0001	204K500200	B	PCB, UNIFIED DEFIB PACE LOAD ELEMENT	1.00	EA
7	0002	049KK00100		CLIP, MOUNTING, SERIES AZ	2.00	EA
7	0007	024K500100	B	CA, ECG OUT UNIFIED, LOAD ELEMENT, ISTAN	1.00	EA
8	0001	276KK00602		WIRE, AWG22 STR PVC 600V UL1429 WHT	0.40	FT
8	0002	276KK00604		WIRE, AWG22 STR PVC 600V UL1429 BLK	0.40	FT
8	0003	268KK00002		TBG,3/16,THERMO-FIT,WHT	1.00	FT
8	0004	065KK00200		CONT CRIMP PIN 20-24 AWG TIN MICROFIT 3 0 ROHS	2.00	EA
8	0005	063KK00201		CONN HSG 2POS MALE IN-LINE MICROFIT 3.0	1.00	EA
8	0006	268KK00004		TBG,3/32,THERMOFIT,WHT	0.20	FT

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0008	024K500200	D	CA, DEFIB IN UNIFIED, LOAD ELEMENT, ISTAN	1.00	EA
8	0001	276KK00600		WIRE, AWG20 STR IR PVC 1KV UL1430 WHT	0.40	FT
8	0002	276KK00601		WIRE, AWG20 STR IR PVC UL1429 BLK	0.40	FT
8	0003	268KK00002		TBG,3/16,THERMO-FIT,WHT	1.00	FT
8	0004	065KK00002		CONT,CRP,PIN,20-14AWG,BRZ	3.00	EA
8	0005	063KK00263		CONN, MATLOK, PL, 3C, MALE	1.00	EA
8	0006	268KK00004		TBG,3/32,THERMOFIT,WHT	0.20	FT
7	--	063KK01815		CONN, PLUG, 4C, SGL ROW, VERTICAL, HE13	1.00	EA
7	--	620KK00001		RES,CC, 100 OHMS, 10%, 5.5W, 26mm X 30mm ROHS	2.00	EA
7	--	046KK00069		IC, MONOLITHIC CURRENT SENSOR, 25A BIPOAR +/-2.5V OUT ROHS	1.00	EA
7	--	6200100117		RES WW 1 OHM 1% 10W AXIAL ROHS	1.00	EA
6	0003	024K272000	A	CA, DEFIB/PACE UNIFIED,SENSOR OUT, ISTAN	1.00	EA
7	0001	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	0.40	FT
7	0002	276KK00608		WIRE, AWG24 STR PVC 600V UL1429 GRN	0.40	FT
7	0003	276KK00612		WIRE, AWG24 STR PVC 600V UL1429 BRN	0.40	FT
7	0004	276KK00611		WIRE, AWG24 STR PVC 600V UL1429 YEL	0.40	FT
7	0005	268KK00020		TBG,1/4,THERMO-FIT,WHT	0.20	FT
7	0006	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	4.00	EA
7	0007	0639802016		CONN HSG 4POS FEMALE IN-LINE LATCHING SL	1.00	EA
7	0008	065KK01804		CONT,CRIMP, 24-28 AWG, TIN, TYCO	4.00	EA
7	0009	063KK01816		CONN, RCPT, 4C, SGL ROW, VERTICAL, HE13-14	1.00	EA
5	0999	MMP RIBS HW	D	KIT, MMP RIBS H/W	1.00	EA
6	0102	229KK00653		6-32 pan head screw, 1-3/8" length 18-8ss	4.00	EA
6	0103	273KK00007		WASHER,#6, FLT ST STL	17.00	EA
6	0104	229KK00090		SCR,PN HD,6-32 X 7/8 LG,	6.00	EA
6	0105	229KK00282		SCR, PNH, 10-32 X 1/4	8.00	EA
6	0110	273KK00006		WASHER,#6, FLT ST STL	2.00	EA
6	0111	229KK00087		SCR,PNH,SS,6-32 X1/2	2.00	EA
6	0112	049KK00049		PIN, QUICK RELEASE, SHOULDER STYLE, 1/4" X 1.3", W/PIN RING	1.00	EA
6	0113	273KK00009		WASHER,#4,FLAT,NYLON	8.00	EA
6	0114	287KK00019		NUT,HEX,4-40,SELF-LOCKING	10.00	EA
6	0115	273KK00061		WASHER,#4,FLAT,ST STL	12.00	EA
6	0116	229KK00080		SCR, PNH, 4-40 X 7/8 LG, SS	4.00	EA
6	0117	229KK00074		SCR, PNH, 4-40 X 5/16	13.00	EA
6	0118	229KK00077		SCR, PH,4-40 X 1/2 LG	8.00	EA
6	0120	121KK00001		FTG,ELBOW,10-32X1/8,1TCH	16.00	EA
6	0121	229KK00640	0	SCR, SHOULDER, 1/4-20 X 3/8"	2.00	EA
6	0122	273KK00065		WASHER,1/4", NYLON 6/6, OD	2.00	EA
6	0125	287KK00008		NUT,HEX, 1/4-20	2.00	EA
6	0126	178KK00033		MOUNT, VIBRATION, 8LBS	2.00	EA
6	0127	2879800301		NUT,HEX,8-32,SELFLOCKING	2.00	EA
6	0128	1789800077		BUMPER, VIBRATION	2.00	EA
6	0129	273KK00008		WASHER,#8, FLT ST STL	2.00	EA
6	0130	273KK00036		WASHER, #4, SPLIT LOCK	3.00	EA
6	0131	273KK00010		WASHER, #10, FLT, SS	4.00	EA
6	0132	273KK00040		WASHER,#10,SPLIT LOCK	4.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0133	049KK00047		E-CLIP, 1/2,SS	1.00	EA
6	0134	229KK00277		SCR, PNH, 10-32 X 1/2	4.00	EA
6	0135	273KK00004		WASHER, #4, FLT SS	2.00	EA
6	0136	229KK00073		SCR, PNH, 4-40, 1/4 LG	13.00	EA
6	0137	229KK00098		SCR,PNH ,8-32 X1/4	2.00	EA
6	0138	273KK00026		WASHER,#6,INT TOOTH	2.00	EA
6	0139	229KK00085		SCR,PNH, 6-32 X 3/8	2.00	EA
6	0141	229KK00200		SCR,FLH 90,M3X.5X6MM, SS	4.00	EA
6	0142	121KK00078	1	FTG,1TOUCH TEE 3/8 TUBING	2.00	EA
6	0145	121KK00046		FTG,1/4"X1/4" Y UNION	1.00	EA
6	0147	121KK00011		FTG,TEE,1/4-1/4,1TCH	1.00	EA
6	0148	121KK00105		FTG, ELBOW 1-TOUCH	6.00	EA
6	0149	1219800078		FTG,1/4" X 5/32" Y UNION	4.00	EA
6	0150	1219800079		FTG, QC, 1/8"X1/8" Y UNION	2.00	EA
6	0153	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	20.00	EA
6	0154	178KK00006		MNT,TIE,CBL,BK,ADH,NYL,	3.00	EA
6	0158	229KK00079		SCR,PAN HD, 4-40X 3/4 LG,	4.00	EA
6	0159	287KK00002		NUT,HEX, 4-40	2.00	EA
6	0160	229KK00188		SCR,FLH, 4-40 X 7/16	2.00	EA
6	0161	2299800462		SCR,PNH,2-56 X 7/16" LG,	2.00	EA
6	0163	121KK00007	1	FTG,PLUG,M5X0.8	8.00	EA
6	0164	273KK00021		WASHER, FL, TEFLON, #4	8.00	EA
6	0169	297KK00301		STDF, 4-40 X 1/4" , M/F, 3/16 HEX	12.00	EA
6	0170	229KK00013		SCR,TRUSS HD,1/4-20X1.0,	4.00	EA
6	0171	297KK00308		STDF, F, UNTHREADED, ROUND.252 ID X 1/4" OD X 1/2"L, PLASTIC	4.00	EA
6	0172	049KK00051		PIN, CLEVIS, 2", 1/4" DIA	1.00	EA
6	0173	049KK00050		PIN, COTTER, HAIRPIN, 1-1/8" L, .059 DIA	1.00	EA
6	0174	140KK00006		RUBBER, EDGE TRIM, 1/8W X 1/4 , NEOPRENE, OD	2.00	FT
6	0175	229KK00195		SCR,FLH, 6-32 X 3/8	8.00	EA
6	0176	121KK00141		FTG, ELBOW, COUPLING, 1/4" TO 1/4" O.D. 90 DEG	1.00	EA
6	0177	229KK00063		SCR,PNH,M3 X 0.5 X 10mm LG,PHILLIPS,SST W/ INT. TOOTH WASHER	2.00	EA
6	0178	239KK00016		SPACER, UNTHRD, NYLON, 1/4" OD, 1/8" LG, #6 SCREW	2.00	EA
6	0180	229KK00194		SCR, FLH, 2-56 X 5/16" LG, PHILLIPS, ZINC-PLATED	1.00	EA
6	0181	229KK00142		SCR, PNH, 6-32 X 3/16" LG, PHILLIPS, W/ INT-LOCK WASHER, SST	2.00	EA
6	0308	273KK00025		WASHER,#4,INT TOOTH	8.00	EA
6	0311	047KK00006		CLAMP,HOSE, MIN .802, MAX .940, BLACK	2.00	EA
6	0312	2879800300		NUT,HEX,2-56,SELF-LCKNG,	6.00	EA
6	0313	229KK00071		SCR,PNH ,2-56 X3/4	4.00	EA
6	0315	273KK00003		WASHER,#2, FLT ST STL	8.00	EA
6	0316	229KK00008		SCR,FLH,SLF-TAP,4X3/8,SS	3.00	EA
6	0402	024K270100	B	CA, HEART/ BREATH SOUNDS, ISTAN	12.00	EA
7	0001	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	0.25	FT
7	0002	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
7	0003	268KK00004		TBG,3/32,THERMOFIT,WHT	0.03	FT
7	SP1	430KK00005		SPEAKER, 1 WATT, 8 OHM	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
7	P1	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
7	0006	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	1.00	EA
6	0405	287KK00203		LOCK NUT, 10-32, THIN	2.00	EA
6	0406	229KK00076		SCR, PNH, 4-40 X 7/16	22.00	EA
6	0407	273KK00027		WASHER,#8,INT TOOTH	5.00	EA
6	0408	111KK00007		SCREW, SNAP 10-32 X 3/8	2.00	EA
6	0411	273KK00013		WASHER,1/4 FLT ST STL	2.00	EA
6	0412	287KK00014		NUT,JAM,1/4-20,LO-PROFILE	2.00	EA
6	0413	273KK00029		WASHER,1/4,INT TOOTH	2.00	EA
6	0416	287KK00204		LOCK NUT, 6-32, THIN	5.00	EA
3	0003	MMP HEAD	B	KIT, MMP HEAD	1.00	EA
4	0100	HEAD TRU CORP AIRWAY OD EMS	B	ASSY, HEAD, TRU-CORP AIRWAY, O.D., EMS	1.00	EA
5	0102	104K272300	H	SKULL RIGHT, ISTAN	1.00	EA
5	0103	104K272200	H	SKULL LEFT, ISTAN	1.00	EA
5	0104	024K270200	B	CA,SPEAKER, HEAD, ISTAN	2.00	EA
6	0001	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	1.50	FT
6	0002	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
6	0003	268KK00004		TBG,3/32,THERMOFIT,WHT	0.03	FT
6	SP1	430KK00006		SPEAKER,2 WATT, 4 OHM	1.00	EA
6	P1	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
6	0006	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	1.00	EA
5	0108	242KK00015		SPRING, CMPRSN, .375, SAPS	4.00	EA
5	0116	104K286200	C	SKULL CAP	1.00	EA
5	0119	104K276300	A	NECK FOAM, ISTAN	1.00	EA
5	0125	1219800035		FITTING, 1/16 MALE INLINE	6.00	EA
5	0128	016K350700	B	BRACKET, REACTIVE EYE PWM	1.00	EA
5	0129	018K279300	B	CCA, REACTIVE EYES, OD	2.00	EA
6	0001	206K279300	A	PCB, AIRWAY RESISTANCE CONTROLLER, ISTAN REV. A	1.00	EA
6	0002	3030100006		CAP CER X5R 0.1UF 25V 10% 0603 ROHS	3.00	EA
6	0003	3030100022		CAP CER COG 4700PF 25V 5% 0603 ROHS	2.00	EA
6	0004	3030100069		CAP CER COG 470PF 50V 5% 0603 ROHS	2.00	EA
6	0005	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	1.00	EA
6	0006	3030100073		CAP TANT 0.22UF 20V 20% LP 2012-12 ROHS	1.00	EA
6	0007	3030100074		CAP TANT 0.47UF 20V 20% LP 2012-12 ROHS	1.00	EA
6	0008	3030100075		CAP ALU 47UF 35V 20% MVA SMD ROHS	1.00	EA
6	0009	0880100027		DIODE SCHOTTKY 30V 0.1A SOD123 ROHS	4.00	EA
6	0010	0630100032		CONN, 4POS 0.079C RAPCB FRICTION TYPE PH ROHS	1.00	EA
6	0011	0630100027		CONN, 8POS 0.1C RAPCB LATCHING ROHS	1.00	EA
6	0013	6200100100		RES, TF 1.5 OHM 1W 1% 2512 ROHS	2.00	EA
6	0014	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	2.00	EA
6	0015	6200100101		RES, TF 39.0K OHM 1/10W 1% 0603 ROHS	2.00	EA
6	0019	0460100061		IC, STEPPER MOTOR CONTROLLER SO24 ROHS	1.00	EA
6	0020	0460100034		IC LVC 2INP OR GATE SINGLE SC-70 ROHS	2.00	EA
6	0023	0460100069		IC, VOLT REG LDO 13VIN 5.0 VOUT 0.3A SOT223-4 ROHS	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0133	104K246700	B	BLADDER, AIR, 2 400 X 3 100 X 250	1.00	EA
5	0138	024K350800	B	CA, REACTIVE EYE TO PWA	2.00	EA
6	0001	063KK01806		CONN, 4 PIN, JST	1.00	EA
6	0002	065KK01801		CONT, CRIMP, JST	4.00	EA
6	0003	0639802016		CONN HSG 4POS FEMALE IN-LINE LATCHING SL	1.00	EA
6	0004	065KK00207		CONT CRIMP SKT 24-30 AWG GOLD SL ROHS	4.00	EA
6	0005	276KK00611		WIRE, AWG24 STR PVC 600V UL1429 YEL	0.08	FT
6	0006	276KK00610		WIRE, AWG24 STR PVC 600V UL1429 RED	0.08	FT
6	0007	276KK00612		WIRE, AWG24 STR PVC 600V UL1429 BRN	0.08	FT
6	0008	276KK00623		WIRE, AWG24 STR PVC 600V UL1429 ORA	0.08	FT
6	0009	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
5	0142	024K350900	B	CA, REACTIVE EYE CCA TO TORSO	1.00	EA
6	0001	063KK00214		CONN HSG 2X7POS MALE IN-LINE MICROFIT 3.0	1.00	EA
6	0002	065KK00200		CONT CRIMP PIN 20-24 AWG TIN MICROFIT 3 0 ROHS	14.00	EA
6	0003	063KK01803		CONN HSG 8POS FEMALE IN-LINE LATCHING SLT	2.00	EA
6	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	24.00	EA
6	0005	063KK01802		CONN HSG 5POS FEMALE IN-LINE LATCHING SL	2.00	EA
6	0006	0639802018		CONN HSG 2POS MALE IN-LINE SL	1.00	EA
6	0007	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	2.00	EA
6	0008	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	10.75	FT
6	0009	276KK00634		WIRE, WHITE w/GREY STRIPE, 24 AWG, UL1429	2.42	FT
6	0010	276KK00635		WIRE, YELLOW w/GREY STRIPE, 24 AWG, UL1429	1.26	FT
6	0011	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	6.00	EA
6	0012	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0013	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
5	0144	127K350300	B	GASKET, FOAM, SPEAKER	2.00	EA
5	0146	104K355300	B	ATLAS, METIMAN	1.00	EA
5	0151	073KK00015		ORIFICE, 019, RED	2.00	EA
5	0999	MMP HEAD HW	A	KIT, MMP HEAD H/W	1.00	EA
6	0109	415KK00024		FTG,RA,BARB.062IDX10-32-N	2.00	EA
6	0112	178KK00036		SHOCK MOUNT, M6, MALE/FEMALE, 22 LB SHEAR	1.00	EA
6	0113	178KK00037		SHOCK MOUNT, M6, MALE/MALE, 79 LB SHEAR	1.00	EA
6	0114	404KK00007		TIE ROD END, WITHOUT STUD	4.00	EA
6	0115	223KK00002		ROD, THREADED, 10-32, 1-1/4 ", SS	2.00	EA
6	0117	287KK00019		NUT,HEX,4-40,SELF-LOCKING	6.00	EA
6	0120	273KK00014		WASHER,1/4ID X 1"OD,STEEL	4.00	EA
6	0121	178KK00034		MOUNT, VIBRATION, 16 LBS	4.00	EA
6	0130	229KK00078		SCR,PNHD,4-40X5/8"LG,XREC	4.00	EA
6	0131	229KK00087		SCR,PNH,SS,6-32 X1/2	4.00	EA
6	0134	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	11.00	EA
6	0136	229KK00076		SCR, PNH, 4-40 X 7/16	14.00	EA
6	0147	229KK00188		SCR,FLH, 4-40 X 7/16	4.00	EA
6	0150	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
6	0152	4159800065		COUPLING, Y, 1/16" ID	3.00	EA
6	0206	178KK00008		BUMPER,THREADED, 8-32 STUD, 58 SHORE A	2.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0207	297KK00083		STDF,SELF-CLINCH,4-40X5/8	4.00	EA
6	0212	229KK00073		SCR, PNH, 4-40, 1/4 LG	8.00	EA
6	0213	287KK00001		NUT,HEX, 8-32	4.00	EA
6	0215	229KK00338		SCR,PNH,4-40X1-1/8,XREC,	2.00	EA
6	0217	229KK00562		SCR, 2-56 X 9/16, PN PAN, MS, SS	4.00	EA
6	0218	229KK00635		SCR, 4-40 X .5 SOCKET HEAD	4.00	EA
6	0219	273KK00154		WASHER, #2 NAS620 .089 ID .149 OD	4.00	EA
6	0224	229KK00639		SCR, SET, 4-40 X 3/16"	2.00	EA
6	0231	229KK00065		SCR,PNH, 2-56 X1/4	4.00	EA
6	0232	178KK00006		MNT,TIE,CBL,BK,ADH,NYL,	2.00	EA
6	0250	239KK00102		SPACER, HEX , 4-40 M/F X 5/8	2.00	EA
6	0251	1949800135		PIN, DOWEL, METRIC, CRES,	2.00	EA
6	0252	229KK00404		SCREW, M2 X 0.4 X 4MM, PH, SS	4.00	EA
6	0253	229KK00636		SCR, 4-40 X .25 SOCKET HEAD	2.00	EA
6	0254	229KK00643		SCR, SET, 4-40 X 1/4", SS	2.00	EA
6	0255	113KK35000	A	FILM, TINT, HP 30	0.00	FT
6	0419	229KK00077		SCR, PH,4-40 X 1/2 LG	4.00	EA
6	0447	258KK00002		TIE,CABLE,1/16"-1-3/4",	1.00	EA
6	0448	121KK00002	1	FTG,10-32X1/8,CONN,MALE	1.00	EA
6	0452	121KK00010	1	FTG,10-32-1/4,1TCH	1.00	EA
6	0468	258KK00018		TIE, CABLE, BELT-TY, IN LINE, 8.3 INCH	1.00	EA
4	0200	REACTIVE EYES METIMAN	A	ASSY, REACTIVE EYES, MOUNTED	1.00	EA
5	0201	104K285700	C	REACTIVE EYE MOUNT, RIGHT	1.00	EA
5	0202	104K285900	C	REACTIVE EYE LID CAM MOUNT	2.00	EA
5	0203	104K286000	B	REACTIVE EYE LID CAM	2.00	EA
5	0204	104K272700	C	EYE LID , ISTAN	2.00	EA
5	0205	271KK00084		ASSY,PANCAKE II CYLINDER, 1/2 BORE X 1 STROKE	2.00	EA
5	0210	016K420400	A	BRACKET, STEPPER MOTOR, RIGHT	1.00	EA
5	0216	016K420800	A	BRACKET, PHOTO INTERRUPT	2.00	EA
5	0220	255KK00049		TERM,SOLDER,RING, 100 PER BAG	2.00	EA
5	0221	242KK00018		SPRING, EXTENSION, .188 X .875, .018 MUSIC WIRE	2.00	EA
5	0222	024K283700	B	CA, PHOTO INTERRUPTER RIGHT, ISTAN	1.00	EA
6	0001	276KK00400		WIRE,24AWG,STRD,WHT,CE,IR	1.00	FT
6	J4	063KK00021		CONN, HSG, 5POS, MALE, IN-LINE	1.00	EA
6	0003	065KK00206		CONT CRIMP PIN 22-24 AWG TIN SLT ROHS	3.00	EA
6	LS	154KK42010		PHOTO INTERRUPTER	1.00	EA
6	R2	608KK01010		RES,200.0 OHMS 1% 1/4 W THROUGH HOLE	1.00	EA
6	0007	268KK00002		TBG,3/16,THERMO-FIT,WHT	0.06	FT
6	0008	268KK00006		TBG, 1/16,THERMO-FIT,WHT	0.13	FT
6	0009	276KK00402		WIRE, 24AWG, STRD, RED, CE, IR	2.00	FT
6	0010	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	2.00	FT
5	0251	176KK00004		MOTOR, STEPPER 25MM	2.00	EA
5	0252	101KK43002	A	SLEEVE, PIVOT REACTIVE EYES	2.00	EA
5	0253	104K287600	A	STANDOFF, MACHINED, REACTIVE EYE	2.00	EA
5	0254	101KK43003	A	SLEEVE, LOCATING, REACTIVE EYES	2.00	EA
5	0255	286K280100	D	SLEEVE, MODIFIED, REACTIVE EYE	2.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0256	135K280100	B	HOUSING, SERVO, INNER EYE	2.00	EA
5	0257	404K280400	F	SHAFT, DRIVE, 8MM IRIS	2.00	EA
5	0258	136K069601	B	HSG, MOD OUTER EYE, HPS, ISTAN MOD	2.00	EA
5	0259	104K287500	A	FLAG, SENSOR, REACTIVE EYE	2.00	EA
5	0260	024K285700	A	CA, PHOTO DIODE, ISTAN	2.00	EA
6	0001	276KK00400		WIRE,24AWG,STRD,WHT,CE,IR	2.75	FT
6	LS	0369800006		PHOTOCELL, CDS, 250 OHM 100	1.00	EA
6	0003	268KK00006		TBG, 1/16,THERMO-FIT,WHT	0.13	FT
5	0261	163K280200	A	IRIS, SS, 8mm APERTURE, 14.8mm OD	2.00	EA
5	0263	400K350100	A	RING, REACTIVE EYE	2.00	EA
5	0301	104K285800	C	REACTIVE EYE MOUNT, LEFT	1.00	EA
5	0317	016K420300	A	BRACKET, STEPPER MOTOR, LEFT	1.00	EA
5	0322	024K283600	B	CA, PHOTO INTERRUPTER LEFT, ISTAN	1.00	EA
6	0001	276KK00400		WIRE,24AWG,STRD,WHT,CE,IR	1.00	FT
6	J3	063KK00021		CONN, HSG, 5POS, MALE, IN-LINE	1.00	EA
6	0003	065KK00206		CONT CRIMP PIN 22-24 AWG TIN SLT ROHS	3.00	EA
6	LS	154KK42010		PHOTO INTERRUPTER	1.00	EA
6	R2	608KK01010		RES,200.0 OHMS 1% 1/4 W THROUGH HOLE	1.00	EA
6	0007	268KK00002		TBG,3/16,THERMO-FIT,WHT	0.06	FT
6	0008	268KK00006		TBG, 1/16,THERMO-FIT,WHT	0.13	FT
6	0009	276KK00402		WIRE, 24AWG, STRD, RED, CE, IR	2.00	FT
6	0010	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	2.00	FT
4	0400	TRU CORP AIRWAY OD EMS	A	ASSY, TRU-CORP AIRWAY, O.D., EMS	1.00	EA
5	0403	1219800032		FTG,RDCR, 1/8 BARB - 1/16 BARB	2.00	EA
5	0409	024K270600	A	CA, SWITCH, CAROTID PULSE, ISTAN	2.00	EA
5	0412	016K273200	3	BRKT, UPPER DENTURE MOUNTING	1.00	EA
5	0413	104K273300	B	MAXILLA, UPPER DENTURE, ISTAN/APOLLO/MFS	1.00	EA
5	0416	104K273800	B	MANDIBLE, LOWER DENTURE, ISTAN/APOLLO/MFS	1.00	EA
5	0418	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	1.00	EA
5	0422	104K272400	D	MANDIBLE, ISTAN	1.00	EA
5	0441	104K351300	B	ADAPTER, SUCTIONING TO AIRWAY, O D	1.00	EA
5	0444	073KK00002		CPLG,Q-DSC,PLUG,3 8TUBING	2.00	EA
5	0445	121KK00045		FTG,FLANGE,TUBING	1.00	EA
5	0446	415KK00022		ADPTR,PRES,15MMIDX15MMOD	1.00	EA
5	0450	1439800141		JACK, PLUG, MALE LUER	2.00	EA
5	0451	0739800015		FEMALE LUER TO 1/8 BARB	2.00	EA
5	0453	104K355100	A	NASAL PASSAGE, METIMAN	1.00	EA
5	0454	104K355200	A	CRICOID, METIMAN	1.00	EA
5	0455	104K355500	A	PLUG, CRICOID, METIMAN	1.00	EA
5	0457	104K355000	A	AIRWAY, METIMAN	1.00	EA
5	0459	253K351000	B	ASSY, LARYNGO BLADDER, TRU-CORP AIRWAY, METIMAN	1.00	EA
6	0001	104K355400	A	LARYNGO HOUSING, METIMAN	1.00	EA
6	0002	104K354900	A	VOCAL CORD BLADDER	1.00	EA
6	0003	415KK00005		ADPTR,1/16X1/16BARB, INLINE SPLICER	1.00	EA
6	0004	2689800107		TBG,1/16 ID,1/8 OD,CLEAR	0.83	FT
5	0460	104K355600	B	BRACKET SUPPORT PHARYNX, METIMAN	1.00	EA
5	0461	104K355700	B	BRACKET TRACHEA TRUCORP, METIMAN	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0462	104K130800	3	TONGUE FOAM-ADV ARWY	1.00	EA
5	0463	104KK00052	1	BLDR, 3 75 X 1 5	1.00	EA
5	0464	126K350200	A	GUARD, AIRWAY, O D	1.00	EA
5	0465	4159800065		COUPLING, Y, 1/16" ID	1.00	EA
5	0466	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
3	0004	MMP TORSO APOLLO	B	KIT, MMP TORSO APOLLO	1.00	EA
4	0100	LIMB KIT APOLLO	A	ASSY, LIMB KIT	1.00	EA
5	0001	MMP RIGHT ARM	A	KIT, MMP RIGHT ARM	1.00	EA
6	0102	253K359300	A	ASSY, RIGHT UPPER ARM, NEW ELBOW, METIMAN	1.00	EA
7	0002	104K351700	A	ARM, UPPER, RIGHT, OD	1.00	EA
7	0004	104KK35014	6A	JOINT UPPER ARM, RIGHT, OD	1.00	EA
7	0005	2689800107		TBG, 1/16 ID, 1/8 OD, CLEAR	2.50	FT
7	0006	268KK00600		TBG, RED 1/16 X 1/8	2.50	FT
7	0007	1219800035		FITTING, 1/16 MALE INLINE	4.00	EA
7	0008	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	4.00	EA
7	0009	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	4.00	EA
7	0012	268KK00400		TBG,BLUE 1/16 X 1/8	2.50	FT
7	0013	104K354500	B	REDUCER, UPPER ARM, O.D.	1.00	EA
6	0103	253K356100	B	ASSY, RIGHT, LOWER ARM, IMPROVED MOUNT, O.D.	1.00	EA
7	0001	104K351800	A	ARM, LOWER, RIGHT, OD	1.00	EA
7	0002	024K350100	B	CA, RADIAL PULSE, OD	1.00	EA
8	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	1.25	FT
8	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
8	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
8	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
8	0006	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
8	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0008	2689800152		TBG, 1/8,THERMO-FIT,RED	0.08	FT
8	0009	268KK00109		RED SHRINK TUBING	0.08	FT
7	0003	024K350200	B	CA, BRACHIAL PULSE, OD	1.00	EA
8	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	0.50	FT
8	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
8	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
8	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
8	0006	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
8	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0008	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.08	FT
8	0009	268KK00107		BLUE SHRINK TUBING	0.08	FT
7	0005	104KK35009	A	UPPER PIVOT BEARING, OD	1.00	EA
7	0006	104KK35008	B	PIVOT, BOTTOM, OD	1.00	EA
7	0007	108KK35010		DOWEL PIN, ALLOY, 3/16 X 7/16	6.00	EA
7	0009	104K354800	A	TUBE, HYPER EXTENSION STOP MOUNT, O.D.	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0016	024K355600	A	CA, SPEAKER, KOROTKOFF SOUNDS, OD	1.00	EA
8	0001	430KK00005		SPEAKER, 1 WATT, 8 OHM	1.00	EA
8	0002	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	0.50	FT
8	0003	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
8	0005	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
8	0006	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0018	049KK00048		PIN, SPRING, 3 L, 3 16 DIA,OD	1.00	EA
7	0019	104KK00095	A	BLDR,R.4 X 1 23	2.00	EA
7	0020	104KK35011	F	TUBE, MIDDLE ARM, O D	1.00	EA
7	0021	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
7	0024	268KK00103		TBG, IV ARM .125ID .250OD	4.00	FT
7	0026	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	14.00	EA
7	0028	049KK00039		PIN, SPRING, 1/4" X .625"	2.00	EA
7	0029	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	1.00	EA
7	0030	104KK35007	A	LOWER ARM CONNECTION BOLT, OD	1.00	EA
7	0031	268KK00600		TBG, RED 1/16 X 1/8	1.50	FT
7	0032	268KK00032		FLX TBG, 066 ID X 1/8 OD, GRAY	1.50	FT
7	0033	268KK00400		TBG,BLUE 1/16 X 1/8	1.50	FT
7	0034	104K354400	A	PIN, ROBUST, ELBOW, LOWER ARM, O.D.	1.00	EA
6	0106	273K350100	C	NUT, ELBOW, O.D.	2.00	EA
6	0107	404K350100	B	BOLT, ELBOW, O.D.	1.00	EA
7	0001	104KK00079		KNEE PIN order 404k350100	1.00	EA
6	0108	024K350300	B	CA, EXTENSION, PULSE,UPPER ARM, OD	1.00	EA
7	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	2.50	FT
7	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.33	FT
7	0003	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	3.00	EA
7	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	6.00	EA
7	0005	0639802018		CONN HSG 2POS MALE IN-LINE SL	3.00	EA
7	0006	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	6.00	EA
7	0007	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	1.25	FT
7	0008	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	6.00	EA
7	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0010	268KK00004		TBG,3/32,THERMOFIT,WHT	0.17	FT
7	0011	268KK00107		BLUE SHRINK TUBING	0.17	FT
7	0012	268KK00109		RED SHRINK TUBING	0.17	FT
7	0013	2689800152		TBG, 1/8,THERMO-FIT,RED	0.17	FT
7	0014	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.17	FT
6	0150	101KK00139		BAG, EVA COMPOUNDER, 250 ML; 50 EA. PER BOX	1.00	EA
6	0153	4159800047		ADAPTER,3/32 X 1/8	1.00	EA
6	0154	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	4.00	EA
6	0155	1219800035		FITTING, 1/16 MALE INLINE	4.00	EA
6	0156	229KK00651		SCR, SET, 10-32 X 1/2, SS	2.00	EA
5	0002	MMP LEFT ARM APOLLO	A	KIT, MMP LEFT ARM APOLLO	1.00	EA
6	0101	253K357800	A	ASSY, LEFT UPPER ARM, NEW ELBOW, APOLLO, METIMAN	1.00	EA
7	0001	104K351502	A	ARM, UPPER, LEFT, OD	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0002	104KK35003	B	JOINT UPPER ARM LEFT OD	1.00	EA
7	0003	104K354500	B	REDUCER, UPPER ARM, O.D.	1.00	EA
7	0004	104KK00177		I/O PUCK, W/O ASPIRATION, MEDIUM SKIN (Pk. 4)	1.00	EA
7	0005	2689800107		TBG,1/16 ID,1/8 OD,CLEAR	2.50	FT
7	0006	268KK00600		TBG, RED 1/16 X 1/8	2.50	FT
7	0007	1219800035		FITTING, 1/16 MALE INLINE	4.00	EA
7	0008	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	4.00	EA
7	0009	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	4.00	EA
7	0010	268KK00400		TBG,BLUE 1/16 X 1/8	2.50	FT
7	0011	404K350100	B	BOLT, ELBOW, O.D.	1.00	EA
8	0001	104KK00079		KNEE PIN order 404k350100	1.00	EA
7	0012	273K350100	C	NUT, ELBOW, O.D.	2.00	EA
7	0013	024K350300	B	CA, EXTENSION, PULSE,UPPER ARM, OD	2.00	EA
8	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	2.50	FT
8	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.33	FT
8	0003	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	3.00	EA
8	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	6.00	EA
8	0005	0639802018		CONN HSG 2POS MALE IN-LINE SL	3.00	EA
8	0006	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	6.00	EA
8	0007	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	1.25	FT
8	0008	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	6.00	EA
8	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0010	268KK00004		TBG,3/32,THERMOFIT,WHT	0.17	FT
8	0011	268KK00107		BLUE SHRINK TUBING	0.17	FT
8	0012	268KK00109		RED SHRINK TUBING	0.17	FT
8	0013	2689800152		TBG, 1/8,THERMO-FIT,RED	0.17	FT
8	0014	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.17	FT
6	0102	253K356000	B	ASSY, LEFT, LOWER ARM, IMPROVED MOUNT, O.D.	1.00	EA
7	0001	104K351600	A	ARM, LOWER, LEFT, OD	1.00	EA
7	0002	024K350100	B	CA, RADIAL PULSE, OD	1.00	EA
8	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	1.25	FT
8	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
8	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
8	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
8	0006	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
8	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0008	2689800152		TBG, 1/8,THERMO-FIT,RED	0.08	FT
8	0009	268KK00109		RED SHRINK TUBING	0.08	FT
7	0003	024K350200	B	CA, BRACHIAL PULSE, OD	1.00	EA
8	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	0.50	FT
8	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
8	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
8	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
8	0006	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0008	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.08	FT
8	0009	268KK00107		BLUE SHRINK TUBING	0.08	FT
7	0005	104KK35009	A	UPPER PIVOT BEARING, OD	1.00	EA
7	0006	104KK35008	B	PIVOT, BOTTOM, OD	1.00	EA
7	0007	108KK35010		DOWEL PIN, ALLOY, 3/16 X 7/16	6.00	EA
7	0010	104K354800	A	TUBE, HYPER EXTENSION STOP MOUNT, O.D.	1.00	EA
7	0013	104KK35011	F	TUBE, MIDDLE ARM, O D	1.00	EA
7	0014	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
7	0016	268KK00103		TBG, IV ARM .125ID .250OD	2.00	FT
7	0018	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	14.00	EA
7	0020	104KK00095	A	BLDR,R.4 X 1 23	2.00	EA
7	0026	024K355600	A	CA, SPEAKER, KOROTKOFF SOUNDS, OD	1.00	EA
8	0001	430KK00005		SPEAKER, 1 WATT, 8 OHM	1.00	EA
8	0002	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	0.50	FT
8	0003	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
8	0005	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
8	0006	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0028	049KK00048		PIN, SPRING, 3 L, 3 16 DIA,OD	1.00	EA
7	0029	049KK00039		PIN, SPRING, 1/4" X .625"	2.00	EA
7	0030	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	1.00	EA
7	0032	268KK00032		FLX TBG, 066 ID X 1/8 OD, GRAY	1.50	FT
7	0033	268KK00400		TBG, BLUE 1/16 X 1/8	1.50	FT
7	0034	268KK00600		TBG, RED 1/16 X 1/8	1.50	FT
7	0035	104K354400	A	PIN, ROBUST, ELBOW, LOWER ARM, O.D.	1.00	EA
6	0104	273K350100	C	NUT, ELBOW, O.D.	2.00	EA
6	0106	404K350100	B	BOLT, ELBOW, O.D.	1.00	EA
7	0001	104KK00079		KNEE PIN order 404k350100	1.00	EA
6	0107	024K350300	B	CA, EXTENSION, PULSE,UPPER ARM, OD	1.00	EA
7	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	2.50	FT
7	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.33	FT
7	0003	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	3.00	EA
7	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	6.00	EA
7	0005	0639802018		CONN HSG 2POS MALE IN-LINE SL	3.00	EA
7	0006	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	6.00	EA
7	0007	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	1.25	FT
7	0008	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	6.00	EA
7	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0010	268KK00004		TBG,3/32,THERMOFIT,WHT	0.17	FT
7	0011	268KK00107		BLUE SHRINK TUBING	0.17	FT
7	0012	268KK00109		RED SHRINK TUBING	0.17	FT
7	0013	2689800152		TBG, 1/8,THERMO-FIT,RED	0.17	FT
7	0014	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.17	FT
6	0109	229KK00651		SCR, SET, 10-32 X 1/2, SS	2.00	EA
6	0150	1219800035		FITTING, 1/16 MALE INLINE	4.00	EA
6	0151	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	4.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0003	MMP RIGHT LEG	A	KIT, MMP RIGHT LEG	1.00	EA
6	0102	253K358400	B	ASSY, RIGHT, LOWER LEG, O.D.	1.00	EA
7	0001	104K352200	A	LEG, LOWER, RIGHT, OD	1.00	EA
7	0002	024K350400	C	CA, PEDAL PULSE, OD	1.00	EA
8	0001	276KK00123		WIRE, #24, COAXIAL, STRD, SHLD/JKT	2.80	FT
8	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
8	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
8	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
8	0006	166KK00011		LBL, THERMAL, .750" w X .937" h, B-427, WRAP, WHT / TRANS, 10K	2.00	EA
8	0007	166KK00007		LBL, RIBBON CABLE	1.00	EA
8	0009	268KK00108		YELLOW SHRINK TUBING	0.08	FT
7	0003	024K350500	C	CA, TIBIAL PULSE, OD	1.00	EA
8	0001	276KK00123		WIRE, #24, COAXIAL, STRD, SHLD/JKT	2.17	FT
8	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
8	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
8	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
8	0006	166KK00011		LBL, THERMAL, .750" w X .937" h, B-427, WRAP, WHT / TRANS, 10K	2.00	EA
8	0007	166KK00007		LBL, RIBBON CABLE	1.00	EA
8	0008	2689800153		TBG, 1/8, THERMO-FIT, BLUE	0.08	FT
7	0004	024K350600	B	CA, POPLITIAL PULSE, OD	1.00	EA
8	0001	276KK00123		WIRE, #24, COAXIAL, STRD, SHLD/JKT	0.80	FT
8	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
8	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
8	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
8	0006	166KK00011		LBL, THERMAL, .750" w X .937" h, B-427, WRAP, WHT / TRANS, 10K	1.00	EA
8	0007	166KK00007		LBL, RIBBON CABLE	1.00	EA
8	0008	2689800152		TBG, 1/8, THERMO-FIT, RED	0.08	FT
8	0009	268KK00107		BLUE SHRINK TUBING	0.08	FT
7	0005	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
7	0006	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	3.00	EA
7	0007	104KK00095	A	BLDR, R.4 X 1 23	3.00	EA
7	0009	268KK00600		TBG, RED 1/16 X 1/8	1.00	FT
7	0010	268KK00400		TBG, BLUE 1/16 X 1/8	2.50	FT
7	0011	268KK01000		TBG, 1/8 OD X 1/16 ID, YELLOW	2.50	FT
6	0150	016K352900	A	BRACKET, HOLD DOWN, BLOOD TANK, METIMAN	2.00	EA
6	0151	077K350500	C	TANK, BLOOD, MOLDED, METIMAN	1.00	EA
6	0153	253K358900	A	ASSY, RIGHT UPPER LEG, NON-INTEGRATED TANK, O.D.	1.00	EA
7	0001	104K354600	A	LEG, UPPER RIGHT, NON-INTEGRATED TANK, OD	1.00	EA
7	0002	024K350700	B	CA, EXTENSION, PULSE, UPPER LEG, OD	1.00	EA
8	0001	276KK00123		WIRE, #24, COAXIAL, STRD, SHLD/JKT	6.00	FT
8	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	1.00	FT
8	0003	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	3.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	6.00	EA
8	0005	0639802018		CONN HSG 2POS MALE IN-LINE SL	3.00	EA
8	0006	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	6.00	EA
8	0007	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	6.00	EA
8	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0009	2689800152		TBG, 1/8,THERMO-FIT,RED	0.17	FT
8	0010	268KK00107		BLUE SHRINK TUBING	0.17	FT
8	0011	268KK00108		YELLOW SHRINK TUBING	0.17	FT
8	0012	268KK00109		RED SHRINK TUBING	0.17	FT
8	0013	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.17	FT
8	0014	2689800154		TBG,1/8,THERMO-FIT,YELLOW	0.17	FT
7	0005	104K353300	A	JOINT, HIP, OD	1.00	EA
7	0007	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
7	0008	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	3.00	EA
7	0009	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	3.00	EA
7	0010	104KK00079		KNEE PIN order 404k350100	1.00	EA
7	0011	104KK00080		10-32 CHECK-NUT,SS	2.00	EA
7	0012	229KK00638		BOLT 1/4-20 X 4.5	1.00	EA
7	0013	229KK00637		BOLT 1/4-20 X 5.0	1.00	EA
7	0014	297KK00030		STDF,RND, PLASTIC, 5/8" L X 1/2" OD	2.00	EA
7	0015	297KK00031		STDF,RND, PLASTIC, 3/8" L X 1/2" OD	2.00	EA
7	0016	273KK00013		WASHER,1/4 FLT ST STL	4.00	EA
7	0017	2879800256		NUT,1/4-20,SELF-LOCK,NYLO	2.00	EA
7	0018	104K354000	A	HIP PIVOT, OD	1.00	EA
7	0019	268KK00600		TBG, RED 1/16 X 1/8	2.50	FT
7	0020	268KK00400		TBG,BLUE 1/16 X 1/8	2.50	FT
7	0021	268KK01000		TBG, 1/8 OD X 1/16 ID, YELLOW	2.50	FT
7	0022	136K350000	C	BOX, COMPRESSOR, LEFT LEG	1.00	EA
6	0154	121KK00114		FTG, Q-DISC, SHUTOFF, 1/8, FEMALE	3.00	EA
6	0155	104KK35010	A	STOP, LEFT/RIGHT LEG, O.D.	1.00	EA
6	0156	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
6	0999	MMP RIGHT LEG HW	A	KIT, MMP RIGHT LEG H/W	1.00	EA
7	0150	2879800302		NUT, LCK, #10-32, SS	2.00	EA
7	0151	229KK00296		SCR,PNH ,10-32 X7/16	2.00	EA
7	0152	273KK00010		WASHER, #10, FLT, SS	2.00	EA
7	0153	121KK00057	1	FTG,1 TOUCH,1/8NPTX1/4OD	2.00	EA
7	0154	010KK00002		BASE, MTG, ADHESIVE BACK	2.00	EA
7	0155	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	2.00	EA
7	0156	121KK00046		FTG,1/4"X1/4" Y UNION	2.00	EA
7	0157	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	3.00	EA
5	0004	MMP LEFT LEG	A	KIT, MMP LEFT LEG	1.00	EA
6	0102	253K355000	C	ASSY, LEFT, UPPER LEG, O.D.	1.00	EA
7	0002	104K351900	A	LEG, UPPER, LEFT, OD	1.00	EA
7	0003	024K350700	B	CA, EXTENSION, PULSE,UPPER LEG, OD	1.00	EA
8	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	6.00	FT

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	1.00	FT
8	0003	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	3.00	EA
8	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	6.00	EA
8	0005	0639802018		CONN HSG 2POS MALE IN-LINE SL	3.00	EA
8	0006	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	6.00	EA
8	0007	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	6.00	EA
8	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0009	2689800152		TBG, 1/8,THERMO-FIT,RED	0.17	FT
8	0010	268KK00107		BLUE SHRINK TUBING	0.17	FT
8	0011	268KK00108		YELLOW SHRINK TUBING	0.17	FT
8	0012	268KK00109		RED SHRINK TUBING	0.17	FT
8	0013	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.17	FT
8	0014	2689800154		TBG,1/8,THERMO-FIT,YELLOW	0.17	FT
7	0004	136K350000	C	BOX, COMPRESSOR, LEFT LEG	1.00	EA
7	0005	104K353300	A	JOINT, HIP, OD	1.00	EA
7	0007	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
7	0008	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	3.00	EA
7	0009	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	3.00	EA
7	0010	104KK00079		KNEE PIN order 404k350100	1.00	EA
7	0011	104KK00080		10-32 CHECK-NUT,SS	2.00	EA
7	0012	229KK00638		BOLT 1/4-20 X 4.5	1.00	EA
7	0013	229KK00637		BOLT 1/4-20 X 5.0	1.00	EA
7	0014	297KK00030		STDF,RND, PLASTIC, 5/8" L X 1/2" OD	0.00	EA
7	0015	297KK00031		STDF,RND, PLASTIC, 3/8" L X 1/2" OD	0.00	EA
7	0016	273KK00013		WASHER,1/4 FLT ST STL	4.00	EA
7	0017	2879800256		NUT,1/4-20,SELF-LOCK,NYLO	2.00	EA
7	0018	104K354000	A	HIP PIVOT, OD	1.00	EA
7	0019	268KK00600		TBG, RED 1/16 X 1/8	2.50	FT
7	0020	268KK00400		TBG,BLUE 1/16 X 1/8	2.50	FT
7	0021	268KK01000		TBG, 1/8 OD X 1/16 ID, YELLOW	2.50	FT
6	0103	253K355200	B	ASSY, LEFT, LOWER LEG, O.D.	1.00	EA
7	0001	104K352000	A	LEG, LOWER, LEFT, OD	1.00	EA
7	0002	024K350400	C	CA, PEDAL PULSE, OD	1.00	EA
8	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	2.80	FT
8	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
8	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
8	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
8	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	2.00	EA
8	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0009	268KK00108		YELLOW SHRINK TUBING	0.08	FT
7	0003	024K350500	C	CA, TIBIAL PULSE, OD	1.00	EA
8	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	2.17	FT
8	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
8	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
8	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	2.00	EA
8	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0008	2689800153		TBG,1/8,THERMO-FIT,BLUE	0.08	FT
7	0004	024K350600	B	CA, POPLITIAL PULSE, OD	1.00	EA
8	0001	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	0.80	FT
8	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.08	FT
8	0003	101KK02707		ELECTRODE E-FIELD, 44.2MM X 28.7MM	1.00	EA
8	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
8	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	1.00	EA
8	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0008	2689800152		TBG, 1/8,THERMO-FIT,RED	0.08	FT
8	0009	268KK00107		BLUE SHRINK TUBING	0.08	FT
7	0005	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
7	0006	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	3.00	EA
7	0007	104KK00095	A	BLDR,R.4 X 1 23	3.00	EA
7	0009	268KK00600		TBG, RED 1/16 X 1/8	1.00	FT
7	0010	268KK00400		TBG,BLUE 1/16 X 1/8	2.50	FT
7	0011	268KK01000		TBG, 1/8 OD X 1/16 ID, YELLOW	2.50	FT
6	0150	104KK35010	A	STOP, LEFT/RIGHT LEG, O.D.	1.00	EA
6	0151	1219800035		FITTING, 1/16 MALE INLINE	3.00	EA
5	0005	MMP LEFT LEG CELL	B	KIT, MMP LEFT LEG CELL	1.00	EA
6	0102	198KK00006	A	PUMP, AIR SQUARED, W 90 DEG. BARB FITTINGS	1.00	EA
6	0104	077K350300	C	TANK, AIR, OD	1.00	EA
6	0107	016K350800	A	BRKT, COMPRESSOR, OD	2.00	EA
6	0115	271KK00044		CHECK VALVE, .2PSI, 1/8BARB	1.00	EA
6	0121	101KK00020		FILTER, MUFFLER	1.00	EA
6	0122	121KK00114		FTG, Q-DISC, SHUTOFF, 1/8, FEMALE	1.00	EA
6	0150	205KK00020		CCA, MOOG CONTROLLER	1.00	EA
6	0151	024K357500	A	CA, MOOG CONTROLLER	1.00	EA
7	0001	024KK00053		CABLE, 8 COND, 22AWG	1.08	FT
7	0002	063KK00219		CONN HSG 2X4POS FEMALE IN-LINE LATCHING MICROFIT 3.0	1.00	EA
7	0003	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3 0 ROHS	8.00	EA
7	0004	065KK00022		CRIMP, FERRULE INSUL 22 AWG, WHITE ROHS	8.00	EA
7	0005	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	2.00	EA
6	0152	063KK00337		CONN, TERMBLOCK, JUMPER, 10 POLE, 5mm	1.00	EA
6	0153	3030100156		CAP CER X7R 0.047UF 50V 10% AXIAL ROHS	1.00	EA
6	0999	MMP LEFT LEG CELL HW	B	KIT, MMP LEFT LEG CELL H/W	1.00	EA
7	0105	178KK00035		BUMPER, COMPRESSOR	2.00	EA
7	0106	178KK00034		MOUNT, VIBRATION, 16 LBS	2.00	EA
7	0117	121KK00046		FTG,1/4"X1/4" Y UNION	1.00	EA
7	0118	229KK00100		SCR,PNH ,8-32 X3/8	2.00	EA
7	0119	273KK00039		WASHER,#8,SPLIT LOCK	2.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0120	273KK00008		WASHER,#8, FLT ST STL	2.00	EA
7	0121	2879800301		NUT,HEX,8-32,SELFLOCKING	2.00	EA
7	0122	178KK00041		BUMPER, RUBBER, THREADED, 6-32, .20IN BASE HEIGHT	4.00	EA
4	0300	MMP KIT FOR TEST TECH	A	MMP KIT FOR TEST TECH	1.00	EA
5	0109	253K275800	D	ASSY, SPO2 PROBE, ISTAN	1.00	EA
6	0001	024KK00080		CA, 3 COND RED/BLK/WHT, AWG 24, SANTOPRENE MOLDED WHITE	1.00	EA
6	0002	268KK00004		TBG,3/32,THERMOFIT,WHT	0.30	FT
6	0003	063KK00218		CONN, 3 POS, MALE, CIRC PLUG, SOLDER CUP, EN3 MINI, ROHS	1.00	EA
6	0004	250KK00017		CLIP ASSEMBLY, SP02 SENSOR	1.00	EA
6	0005	205K279900	B	CCA, SPO2 TRIGGER EMITTER, ISTAN	1.00	EA
7	0001	204K279900	B	PCB, SPO2 TRIGGER EMITTER, ISTAN	1.00	EA
7	R1	6200100064		RES TF 191 OHM 1/10W 1% 0603, ROHS	1.00	EA
7	D1	0880100018		DIODE INFRARED EMITTING 880NM WL 1206 ROHS	1.00	EA
7	0004	905K000134	A	PROCEDURE, AUTOMATED TEST SETUP	1.00	EA
7	0005	905K275934	A	TEST PROCEDURE, AUTOMATED, SPO2 MODULE, ISTAN	1.00	EA
6	0006	205K280000	C	CCA, SPO2 TRIGGER DETECTOR, ISTAN	1.00	EA
7	0001	204K280000	B	PCB, SPO2 TRIGGER DETECTOR, ISTAN	1.00	EA
7	R1	6200100104		RES TF 6.19K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	Q1	0880100019		DIODE PHOTOTRANSISTOR NPN 160DEG VA 1206 ROHS	1.00	EA
7	0004	905K000134	A	PROCEDURE, AUTOMATED TEST SETUP	1.00	EA
7	0005	905K275934	A	TEST PROCEDURE, AUTOMATED, SPO2 MODULE, ISTAN	1.00	EA
6	0007	2689800129		TBG,3/8,THERMOFIT,WHT,PVC	0.20	FT
5	0111	202KK35030	000	DC POWER SUPPLY, 19VDC,4A DESKTOP W/2.5x5.5mm RAPLUG	1.00	EA
5	0112	070KK00028		PWR CORD,US PLG SKT CSA	1.00	EA
5	0204	253K353100	C	ABDOMEN, 4 QUADRANT BOWEL SOUNDS	1.00	EA
6	0001	104KK00016	1	ABDOMEN,VER D	1.00	EA
6	0002	024K270100	B	CA, HEART/ BREATH SOUNDS, ISTAN	4.00	EA
7	0001	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	0.25	FT
7	0002	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
7	0003	268KK00004		TBG,3/32,THERMOFIT,WHT	0.03	FT
7	SP1	430KK00005		SPEAKER, 1 WATT, 8 OHM	1.00	EA
7	P1	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
7	0006	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	1.00	EA
6	0003	126K270100	A	GRILL, SPEAKER	4.00	EA
6	0004	024K273200	A	CA, BELLY SOUNDS ADAPTER, ISTAN	1.00	EA
7	0001	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	5.33	FT
7	0002	276KK00608		WIRE, AWG24 STR PVC 600V UL1429 GRN	5.33	FT
7	0003	268KK00020		TBG,1/4,THERMO-FIT,WHT	0.70	FT
7	0004	268KK00004		TBG,3/32,THERMOFIT,WHT	0.20	FT
7	0005	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	16.00	EA
7	0006	063KK00209		CONN HSG 8POS MALE IN-LINE SLT	1.00	EA
7	0007	0639802018		CONN HSG 2POS MALE IN-LINE SL	4.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
5	0205	242K350100	B	SPRING, BELLY SUPPORT, OD	1.00	EA
5	0210	024KK42060		CA, ETHERNET, 1 FT	3.00	EA
5	0349	253K530400	C	ASSY, WIRELESS VOICE LINK, MM	1.00	EA
6	0002	147K530000	B	KIT, HANDSET, WVL	1.00	EA
7	0001	253K530200	C	ASSY, HANDSET, WVL	1.00	EA
8	0001	031K530000	A	CASE, BOTTOM, WVL	1.00	EA
8	0002	031K530100	B	CASE, TOP, WVL	1.00	EA
8	0003	031K530200	A	COVER, SWITCH, WVL	1.00	EA
8	0004	031K530300	A	COVER, BATTERY, WVL	1.00	EA
8	0005	031K530400	A	COVER, HANDSET, ANTENNA, WVL	1.00	EA
8	0006	205K530000	B	CCA, WIRELESS VOICE LINK CONTROL	1.00	EA
9	0001	206K530000	A	PCB, WIRELESS VOICE LINK CONTROL	1.00	EA
9	0002	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	2.00	EA
9	0003	3030100107		CAP CER X5R 0.1UF 16V 20% 0402 ROHS	14.00	EA
9	0004	3030100050		CAP CER NPO 18PF 50V 5% 0603 ROHS	4.00	EA
9	0005	3030100143		CAP CER X5R 10UF 16V 10% 0805 ROHS	5.00	EA
9	0006	3030100147		CAP CER COG 1000pF 50V 5% 0805 ROHS	2.00	EA
9	0007	3030100154		CAP CER X5R 0.47UF 16V 10% 0402 ROHS	5.00	EA
9	0008	3030100152		CAP CER X5R 1.0UF 10V 10% 0402 ROHS	1.00	EA
9	0009	3030100153		CAP CER X5R 47000PF 10V 10% 0402 ROHS	1.00	EA
9	0010	3030100086		CAP CER X7R 0.01UF 16V 10% 0402 ROHS	1.00	EA
9	0011	3030100149		CAP CER X7R 1000pF 50V 5% 0603 ROHS	2.00	EA
9	0012	3030100001		CAP CER X5R 1.0UF 25V 10% 0603 ROHS	1.00	EA
9	0013	3030100150		CAP CER NPO 33pF 50V 5% 0402 ROHS	1.00	EA
9	0014	3030100104		CAP CER X5R 10UF 16V 10% 0805 ROHS	1.00	EA
9	0015	3030100151		CAP CER X5R 47uF 6.3V 20% 1206 ROHS	2.00	EA
9	0016	3030100067		CAP CER X7R 0.01UF 16V 10% 0603 ROHS	1.00	EA
9	0017	0880100055		LED GREEN RECTANGLE RIGHT ANGLE ROHS	1.00	EA
9	0018	0880100056		LED RED RECTANGLE RIGHT ANGLE ROHS	1.00	EA
9	0019	0880100057		TVS BIDIR 12V 300W SOT23 ROHS	1.00	EA
9	0020	0880100021		DIODE, SWITCHING SOD523 75V 0.75A ROHS	1.00	EA
9	0021	0550100027		FERRITE 470 OHMS @ 100MHZ ISAT=1.5A DCR=0.13 0603 ROHS	1.00	EA
9	0022	0630100054		CONN HEADER 2X3POS 0.1C PCB ROHS	1.00	EA
9	0023	0630100022		CONN, 3POS 0.079C RAPCB FRICTION TYPE PH ROHS	1.00	EA
9	0024	0630100088		CONN 3.5MM AUDIO JACK, 4POS RAPCB ROHS	3.00	EA
9	0025	0630100018		CONN, 2POS 0.079C RAPCB FRICTION ROHS	1.00	EA
9	0026	0630100090		CONN DC PWR JACK 3.5 X 1.3 (MM) RAPCB ROHS	1.00	EA
9	0027	0630100092		CONN SOCKET 2X12POS 0.1C PCB ROHS	1.00	EA
9	0028	0550100032		IND 22UH 20% 100mA 0805 ROHS	2.00	EA
9	0029	0550100033		IND4.7UH 20% SMT TYPE LPS ROHS	1.00	EA
9	0030	2630100022		MOSFET P-CH 30V 1.3A SSOT-3 ROHS	1.00	EA
9	0031	2630100015		TRANS, NMOSFET 30V 13A SOT23 ROHS	2.00	EA
9	0032	6200100231		RES TF 100K OHM 1/16W 1% 0402 ROHS	21.00	EA
9	0033	6200100164		RES TF 4.7K OHM 1/16W 1% 0402 ROHS	2.00	EA
9	0034	6200100226		RES TF 300 OHM 1/10W 1% 0603 ROHS	2.00	EA
9	0035	6200100244		RES TF 1.20K OHM 1/16W 1% 0402 ROHS	2.00	EA
9	0036	6200100243		RES TF 100 OHM 1/16W 1% 0402 ROHS	1.00	EA
9	0037	6200100234		RES TF 2.74k OHM 1/16W 1% 0402 ROHS	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
9	0038	6200100227		RES TF 1.0MEG OHM 1/10W 1% 0603 ROHS	1.00	EA
9	0039	6200100155		RES TF 0 OHM 5% 1/16W 0402 ROHS	24.00	EA
9	0040	6200100245		RES TF 178K OHM 1/16W 1% 0402 ROHS	1.00	EA
9	0041	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	3.00	EA
9	0042	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	1.00	EA
9	0043	6200100235		RES TF 33.0 OHM 1/16W 1% 0402 ROHS	1.00	EA
9	0044	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	1.00	EA
9	0045	2500100008		SWITCH SLIDE SPDT RA 6.7X2.6 (MM) SMT ROHS	1.00	EA
9	0046	2500100010		TRI-SCAN NAVIGATION SWITCH, PCB MOUNT ROHS	1.00	EA
9	0047	2500100009		SWITCH 8POS DIP HALF PITCH 11.7X5.6(MM) SMD ROHS	1.00	EA
9	0048	0460100129		IC MICROCONTROLLER 32K FLASH QFN32 ROHS	1.00	EA
9	0049	0460100130		IC OCTAL 400KHZ I2C I/O EXPANDER W/INT TSSOP16 ROHS	1.00	EA
9	0050	0460100127		IC STEREO AUDIO CODEC W/ MIC PREAMP QFN32 ROHS	1.00	EA
9	0051	0460100132		IC I2C/SPI TO RS232 UART BRIDGE QFN40 ROHS	1.00	EA
9	0052	0460100133		IC BOOST SYNC ADJ 0.55A DFN6 ROHS	1.00	EA
9	0053	0460100134		IC LDO 3.3V/0.15A OUT, 5-20V IN MSOP8 ROHS	1.00	EA
9	0054	0460100135		IC EEPROM 256KBIT 400KHZ 8SOIC ROHS	1.00	EA
9	0055	1840100007		XSTAL 8.192MHZ 18PF FUND, SMT TYPE HCM49 ROHS	1.00	EA
9	0056	1840100009		XTAL 24.0000MHZ18PF SMT 5MMX3.2MM ROHS	1.00	EA
8	0007	205K530100	A	CCA, WIRELESS RADIO DAUGHTER NORDIC	1.00	EA
9	0001	206K530100	A	PCB, WIRELESS RADIO DAUGHTER NORDIC	1.00	EA
9	0002	3030100138		CAP CER X7R 0.033UF 25V 10% 0603 ROHS	1.00	EA
9	0003	3030100067		CAP CER X7R 0.01UF 16V 10% 0603 ROHS	2.00	EA
9	0004	3030100139		CAP CER NPO 1000PF 50V 5% 0603 ROHS	1.00	EA
9	0005	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	1.00	EA
9	0006	3030100140		CAP CER X7R 2200PF 50V 10% 0603 ROHS	1.00	EA
9	0007	3030100141		CAP CER NPO 4.7PF +/-0.25PF 50V 0603 ROHS	1.00	EA
9	0008	3030100005		CAP CER NPO 33PF 50V 5% 0603 ROHS	2.00	EA
9	0009	3030100142		CAP CER NPO 1.5PF +/-0.25PF 50V 0603 ROHS	1.00	EA
9	0010	3030100130		CAP CER COG 1.0PF 50V 25% 0603 ROHS	1.00	EA
9	0011	0630100093		SMT MICRO HEADER FTSH	1.00	EA
9	0012	0630100089		CONN R-SMA PCB STRADDLE MOUNT ROHS	1.00	EA
9	0013	0550100028		IND 2.7NH 0.5A 0603 ROHS	1.00	EA
9	0014	0550100029		IND 8.2NH 0603 ROHS	1.00	EA
9	0015	0550100030		IND 3.9NH 0.45A 0603 ROHS	1.00	EA
9	0016	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	2.00	EA
9	0017	6200100153		RES TF 22K OHM 1/10W 5% 0603 ROHS	1.00	EA
9	0018	6200100227		RES TF 1.0MEG OHM 1/10W 1% 0603 ROHS	1.00	EA
9	0019	0460100131		IC 2.4GHZ AUDIO TRANSCEIVER QFN20 ROHS	1.00	EA
9	0020	1840100008		XTAL 16.0000MHZ18PF SMT 5MMX3.2MM ROHS	1.00	EA
8	0008	024K530100	B	CA, WVL, BATTERY	1.00	EA
9	0001	276KK00610		WIRE, AWG24 STR PVC 600V UL1429 RED	0.10	FT
9	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.10	FT
9	0003	063KK42101		CONTACT BATT SGL CELL AAAA/AAA/N	1.00	EA
9	0004	063KK42102		CLIP BATT AAAA/AAA/N CELL STEEL	1.00	EA
9	0005	063KK01804		CONN, 2 PIN, JST	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
9	0006	065KK01801		CONT, CRIMP, JST	2.00	EA
8	0009	101KK00114		BATTERY, AAA	2.00	EA
8	0010	009KK42021		2.4 GHZ 2 DBI RUBBER DUCK ANTENNA SMA PLUG	1.00	EA
8	0011	229KK00016		SCR, PNH, 0-42X3/16, THREAD FORMING	2.00	EA
8	0012	063KK42103		BATTERY CONTACT AAA LEFT	1.00	EA
8	0013	166K530100		LABEL, SN WVL MM	1.00	EA
8	0014	850K530000		FIRMWARE, WVL, HAND_1_2_1_0	1.00	EA
7	0002	031K530600	A	CLIP, WVL	1.00	EA
7	0003	430KK43141		OLYMPUS ME-52W NOISE CANCELING MICROPHONE	1.00	EA
6	0003	905K530052	1.3	QUICK START GUIDE, WIRELESS VOICE LINK	1.00	EA
6	0004	903KK10033	B	BOX, WVL, 7"X4.25"X2"	1.00	EA
6	0005	253K530300	C	ASSY, BASE STATION, MM, WVL	1.00	EA
7	0001	031K530700	A	CASE, BOTTOM, MM, WVL	1.00	EA
7	0002	031K530800	B	CASE, TOP, MM, WVL	1.00	EA
7	0003	031K530200	A	COVER, SWITCH, WVL	1.00	EA
7	0004	031K530300	A	COVER, BATTERY, WVL	1.00	EA
7	0005	031K530500	A	COVER, BASE STATION, ANTENNA, WVL	1.00	EA
7	0006	205K530000	B	CCA, WIRELESS VOICE LINK CONTROL	1.00	EA
8	0001	206K530000	A	PCB, WIRELESS VOICE LINK CONTROL	1.00	EA
8	0002	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	2.00	EA
8	0003	3030100107		CAP CER X5R 0.1UF 16V 20% 0402 ROHS	14.00	EA
8	0004	3030100050		CAP CER NPO 18PF 50V 5% 0603 ROHS	4.00	EA
8	0005	3030100143		CAP CER X5R 10UF 16V 10% 0805 ROHS	5.00	EA
8	0006	3030100147		CAP CER COG 1000pF 50V 5% 0805 ROHS	2.00	EA
8	0007	3030100154		CAP CER X5R 0.47UF 16V 10% 0402 ROHS	5.00	EA
8	0008	3030100152		CAP CER X5R 1.0UF 10V 10% 0402 ROHS	1.00	EA
8	0009	3030100153		CAP CER X5R 47000PF 10V 10% 0402 ROHS	1.00	EA
8	0010	3030100086		CAP CER X7R 0.01UF 16V 10% 0402 ROHS	1.00	EA
8	0011	3030100149		CAP CER X7R 1000pF 50V 5% 0603 ROHS	2.00	EA
8	0012	3030100001		CAP CER X5R 1.0UF 25V 10% 0603 ROHS	1.00	EA
8	0013	3030100150		CAP CER NPO 33pF 50V 5% 0402 ROHS	1.00	EA
8	0014	3030100104		CAP CER X5R 10UF 16V 10% 0805 ROHS	1.00	EA
8	0015	3030100151		CAP CER X5R 47uF 6.3V 20% 1206 ROHS	2.00	EA
8	0016	3030100067		CAP CER X7R 0.01UF 16V 10% 0603 ROHS	1.00	EA
8	0017	0880100055		LED GREEN RECTANGLE RIGHT ANGLE ROHS	1.00	EA
8	0018	0880100056		LED RED RECTANGLE RIGHT ANGLE ROHS	1.00	EA
8	0019	0880100057		TVS BIDIR 12V 300W SOT23 ROHS	1.00	EA
8	0020	0880100021		DIODE, SWITCHING SOD523 75V 0.75A ROHS	1.00	EA
8	0021	0550100027		FERRITE 470 OHMS @ 100MHZ ISAT=1.5A DCR=0.13 0603 ROHS	1.00	EA
8	0022	0630100054		CONN HEADER 2X3POS 0.1C PCB ROHS	1.00	EA
8	0023	0630100022		CONN, 3POS 0.079C RAPCB FRICTION TYPE PH ROHS	1.00	EA
8	0024	0630100088		CONN 3.5MM AUDIO JACK, 4POS RAPCB ROHS	3.00	EA
8	0025	0630100018		CONN, 2POS 0.079C RAPCB FRICTION ROHS	1.00	EA
8	0026	0630100090		CONN DC PWR JACK 3.5 X 1.3 (MM) RAPCB ROHS	1.00	EA
8	0027	0630100092		CONN SOCKET 2X12POS 0.1C PCB ROHS	1.00	EA
8	0028	0550100032		IND 22UH 20% 100mA 0805 ROHS	2.00	EA
8	0029	0550100033		IND4.7UH 20% SMT TYPE LPS ROHS	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0030	2630100022		MOSFET P-CH 30V 1.3A SSOT-3 ROHS	1.00	EA
8	0031	2630100015		TRANS, NMOSFET 30V 13A SOT23 ROHS	2.00	EA
8	0032	6200100231		RES TF 100K OHM 1/16W 1% 0402 ROHS	21.00	EA
8	0033	6200100164		RES TF 4.7K OHM 1/16W 1% 0402 ROHS	2.00	EA
8	0034	6200100226		RES TF 300 OHM 1/10W 1% 0603 ROHS	2.00	EA
8	0035	6200100244		RES TF 1.20K OHM 1/16W 1% 0402 ROHS	2.00	EA
8	0036	6200100243		RES TF 100 OHM 1/16W 1% 0402 ROHS	1.00	EA
8	0037	6200100234		RES TF 2.74k OHM 1/16W 1% 0402 ROHS	1.00	EA
8	0038	6200100227		RES TF 1.0MEG OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0039	6200100155		RES TF 0 OHM 5% 1/16W 0402 ROHS	24.00	EA
8	0040	6200100245		RES TF 178K OHM 1/16W 1% 0402 ROHS	1.00	EA
8	0041	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	3.00	EA
8	0042	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0043	6200100235		RES TF 33.0 OHM 1/16W 1% 0402 ROHS	1.00	EA
8	0044	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	1.00	EA
8	0045	2500100008		SWITCH SLIDE SPDT RA 6.7X2.6 (MM) SMT ROHS	1.00	EA
8	0046	2500100010		TRI-SCAN NAVIGATION SWITCH, PCB MOUNT ROHS	1.00	EA
8	0047	2500100009		SWITCH 8POS DIP HALF PITCH 11.7X5.6(MM) SMD ROHS	1.00	EA
8	0048	0460100129		IC MICROCONTROLLER 32K FLASH QFN32 ROHS	1.00	EA
8	0049	0460100130		IC OCTAL 400KHZ I2C I/O EXPANDER W/INT TSSOP16 ROHS	1.00	EA
8	0050	0460100127		IC STEREO AUDIO CODEC W/ MIC PREAMP QFN32 ROHS	1.00	EA
8	0051	0460100132		IC I2C/SPI TO RS232 UART BRIDGE QFN40 ROHS	1.00	EA
8	0052	0460100133		IC BOOST SYNC ADJ 0.55A DFN6 ROHS	1.00	EA
8	0053	0460100134		IC LDO 3.3V/0.15A OUT, 5-20V IN MSOP8 ROHS	1.00	EA
8	0054	0460100135		IC EEPROM 256KBIT 400KHZ 8SOIC ROHS	1.00	EA
8	0055	1840100007		XSTAL 8.192MHZ 18PF FUND, SMT TYPE HCM49 ROHS	1.00	EA
8	0056	1840100009		XTAL 24.0000MHZ18PF SMT 5MMX3.2MM ROHS	1.00	EA
7	0007	205K530100	A	CCA, WIRELESS RADIO DAUGHTER NORDIC	1.00	EA
8	0001	206K530100	A	PCB, WIRELESS RADIO DAUGHTER NORDIC	1.00	EA
8	0002	3030100138		CAP CER X7R 0.033UF 25V 10% 0603 ROHS	1.00	EA
8	0003	3030100067		CAP CER X7R 0.01UF 16V 10% 0603 ROHS	2.00	EA
8	0004	3030100139		CAP CER NPO 1000PF 50V 5% 0603 ROHS	1.00	EA
8	0005	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	1.00	EA
8	0006	3030100140		CAP CER X7R 2200PF 50V 10% 0603 ROHS	1.00	EA
8	0007	3030100141		CAP CER NPO 4.7PF +/-0.25PF 50V 0603 ROHS	1.00	EA
8	0008	3030100005		CAP CER NPO 33PF 50V 5% 0603 ROHS	2.00	EA
8	0009	3030100142		CAP CER NPO 1.5PF +/-0.25PF 50V 0603 ROHS	1.00	EA
8	0010	3030100130		CAP CER COG 1.0PF 50V 25% 0603 ROHS	1.00	EA
8	0011	0630100093		SMT MICRO HEADER FTSH	1.00	EA
8	0012	0630100089		CONN R-SMA PCB STRADDLE MOUNT ROHS	1.00	EA
8	0013	0550100028		IND 2.7NH 0.5A 0603 ROHS	1.00	EA
8	0014	0550100029		IND 8.2NH 0603 ROHS	1.00	EA
8	0015	0550100030		IND 3.9NH 0.45A 0603 ROHS	1.00	EA
8	0016	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	2.00	EA
8	0017	6200100153		RES TF 22K OHM 1/10W 5% 0603 ROHS	1.00	EA
8	0018	6200100227		RES TF 1.0MEG OHM 1/10W 1% 0603 ROHS	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0019	0460100131		IC 2.4GHZ AUDIO TRANSCEIVER QFN20 ROHS	1.00	EA
8	0020	1840100008		XTAL 16.0000MHZ18PF SMT 5MMX3.2MM ROHS	1.00	EA
7	0008	009KK42021		2.4 GHz 2 DBI RUBBER DUCK ANTENNA SMA PLUG	1.00	EA
7	0009	229KK00016		SCR, PNH, 0-42X3/16, THREAD FORMING	2.00	EA
7	0010	850K530200		FIRMWARE WVL, MM BASE _1_2_1_0	1.00	EA
7	0011	166K530100		LABEL, SN WVL MM	1.00	EA
6	0006	166K530100		LABEL, SN WVL MM	1.00	EA
6	0007	905K350334	A	PROCEDURE,TUNING, AUDIO XCVR, WVL, MM	1.00	EA
5	0350	024K182400	B	CA, ETHERNET EXPANSION, I-STAN	1.00	EA
6	0001	0249800323	-	CA, 4 TW PR,24AWG,CAT5,	1.50	FT
6	0002	268KK00020		TBG,1/4,THERMO-FIT,WHT	0.40	FT
6	NOTE	063KK00023		CONN,RCPT,CAT5,RJ45,BLK,	1.00	EA
6	NOTE	0639802012		CONN,8C,MODULAR PLUG,RJ45	1.00	EA
4	0350	MMP SKINS APOLLO	A	KIT, MMP SKINS APOLLO	1.00	EA
5	0115	253K209500	3	ASSY, SHORTS, ADULT, COTTON	1.00	EA
6	0001	905K000102	A	ARTWORK, LOGO METI LEARNING	1.00	EA
6	0002	101KK00093		SHORTS, COTTON, LARGE MANNEQUIN	1.00	EA
5	0117	104K353601	A	SKIN, DISTAL RIGHT, W FINGERS	1.00	EA
5	0118	104K353401	A	SKIN, DISTAL LEFT ARM, W FINGERS	1.00	EA
5	0123	104K354700	A	SKIN, PROXIMAL ARM, EXTENDED, METIMAN	2.00	EA
5	0150	104K353001	A	SKIN, CHEST, 25 PLASTICIZED, W ZIPPER, OD, ISTAN COLOR	1.00	EA
6	0001	104K353000	A	SKIN, CHEST, 25% PLASTICIZED, OD, ISTAN COLOR	1.00	EA
6	0002	252KK00016		ZIPPER,WHT,SIZE 5,24",NYL	1.00	EA
5	0269	104K353200	A	SKIN, SHORTS, EMS, 25 PLASTICIZED, OD, ISTAN COLOR	1.00	EA
5	0301	104K352800	A	HEAD SKIN, 2 TONE, SILICONE, APOLLO	1.00	EA
5	0418	104K273001	B	MASK, SECRECTIONS, OD	1.00	EA
5	0422	415KK00005		ADPTR,1/16X1/16BARB, INLINE SPLICE	2.00	EA
5	0437	104K352900	B	CRICOHYROTOMY SKIN, SILICON, APOLLO	1.00	EA
5	0439	127K350400	A	GSKT, FOAM, ADULT AIRWAY, 1/4", APOLLO	1.00	EA
4	0500	TRAY-TORSO KIT PRE-HOSPITAL	A	ASSY, TRAY TORSO KIT	1.00	EA
5	0001	MMP TORSO PREP	A	KIT, MMP TORSO PREP	1.00	EA
6	0103	104K351401	C	TORSO, MODIFIED, OD	1.00	EA
5	0002	MMP TRAY TO TORSO	A	KIT, MMP TRAY TO TORSO	1.00	EA
6	0108	111K350200	A	STRAP, EXCURSION LIMITER, OD	2.00	EA
6	0109	121KK00045		FTG,FLANGE,TUBING	1.00	EA
6	0151	073KK00001		CPLG,Q-DSC,SKT,3/8 TUBING	1.00	EA
6	0152	166K360000	A	LABEL, TUV METIMAN PRE-HOSPITAL	1.00	EA
5	0003	MMP TRAY ELECTRICAL	B	KIT, MMP TRAY ELECTRICAL	1.00	EA
6	0319	018K351100	B	CCA, MODIFIED SYSTEM POWER CONTROL	1.00	EA
7	0001	205K351100	G	CCA, SYSTEM POWER CONTROL, METIMAN	1.00	EA
8	0001	206K351100	B	PCB, SYSTEM POWER CONTROL, METIMAN	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0002	0630100014		SHUNT, 2POS 0.079"C ROHS	6.00	EA
8	0003	3030100031		CAP CER X7R 0.1UF 50V 10% 0603 ROHS	54.00	EA
8	0004	3030100020		CAP CER X7R 1000PF 100V 20% 0603 ROHS	44.00	EA
8	0005	3030100112		CAP CER X7R 0.15UF 10V 10% 0603 ROHS	2.00	EA
8	0006	3030100113		CAP CER X7R .033UF 50V 10% 0603 ROHS	1.00	EA
8	0007	3030100024		CAP CER X7R 3.3UF 50V 20% 1210 ROHS	2.00	EA
8	0008	3030100135		CAP CER X5R 10UF 6V3 20% 0603 ROHS	1.00	EA
8	0009	3030100026		CAP CER X5R 0.22UF 16V 10% 0603 ROHS	4.00	EA
8	0010	3030100013		CAP CER X5R 22UF 16V 20% 1206 ROHS	9.00	EA
8	0011	3030100036		CAP CER NPO 68PF 50V 5% 0603 ROHS	2.00	EA
8	0012	3030100027		CAP CER NPO 47PF 50V 5% 0805 ROHS	2.00	EA
8	0013	3030100028		CAP CER X7R 1.0UF 25V 10% 0805 ROHS	3.00	EA
8	0014	3030100029		CAP CER X5R 4.7UF 6.3V 20% 0603 ROHS	2.00	EA
8	0016	3030100114		CAP CER X5R 1.0UF 35V 20% 0603 ROHS	2.00	EA
8	0017	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	2.00	EA
8	0018	3030100095		CAP CER X7R 0.47UF 25V 10% 0603 ROHS	1.00	EA
8	0019	3030100115		CAP ALU 47UF 35V 20% 10X10.3X12.5 IRMS>1.15A ESR<=0.03 ROHS	4.00	EA
8	0021	3030100116		CAP CER NPO 27PF 50V 5% 0603 ROHS	1.00	EA
8	0022	3030100037		CAP CER X7R 0.47UF 50V 10% 0805 ROHS	1.00	EA
8	0023	3030100038		CAP CER NPO 470PF 50V 10% 0603 ROHS	1.00	EA
8	0024	3030100039		CAP CER NPO 220PF 50V 10% 0603 ROHS	2.00	EA
8	0025	3030100009		CAP CER NPO 100PF 50V 10% 0603 ROHS	1.00	EA
8	0026	3030100118		CAP ALU 680UF 6.3V 20% 10X10MM RAD ROHS IRMS=4.84 ESR=0.013	1.00	EA
8	0028	3030100057		CAP ALU 56UF 25V 20% 10.3X10.3 IRMS>=3.2A ESR<=0.05 ROHS	3.00	EA
8	0030	0880100032		TVS, DUAL 18V SOT23 ROHS	1.00	EA
8	0031	0880100027		DIODE SCHOTTKY 30V 0.1A SOD123 ROHS	4.00	EA
8	0032	0880100005		DIODE ZENER 0.3W 36V SOT23 ROHS	2.00	EA
8	0033	0880100006		DIODE SCHOTTKY 40V 1A SOD123 ROHS	4.00	EA
8	0034	0880100007		DIODE SCHOTTKY 20V 3A SMA ROHS	2.00	EA
8	0035	0880100008		DIODE SCHOTTKY 40V 3A SMA ROHS	4.00	EA
8	0036	0880100020		TVS BIDIR 600W 22V SMB ROHS	2.00	EA
8	0037	0880100041		LED 525NM GREEN WTR CLR 0603 ROHS	2.00	EA
8	0038	0880100043		DIODE SWITCHING 75V 0.215A SOT23 ROHS	4.00	EA
8	0039	0880100010		DIODE SCHOTTKY 40V 0.5A SOD123 ROHS	1.00	EA
8	0040	0880100011		DIODE SCHOTTKY 40V 2A SMB ROHS	1.00	EA
8	0041	0880100015		DIODE SCHOTTKY 35V 10A DPAK ROHS	2.00	EA
8	0043	0880100046		DIODE SCHOTTKY 20V 0.5A SOD123 ROHS	1.00	EA
8	0044	0630100003		CONN HEADER 3POS 0.079C ROHS	5.00	EA
8	0045	0630100072		CONN HEADER 2POS 0.079C PCB ROHS	4.00	EA
8	0046	0630100071		CONN 3POS 0.165C MINIFIT JR PCB ROHS	1.00	EA
8	0048	0630100054		CONN HEADER 2X3POS 0.1C PCB ROHS	1.00	EA
8	0049	0630100011		CONN 2POS 0.118"C PCB MICROFIT ROHS	2.00	EA
8	0050	0630100063		CONN 7POS 0.079"C TYPE PH ROHS	1.00	EA
8	0051	0630100076		CONN 2X4POS 0.118"C SMT W/TAB MICROFIT3 ROHS	1.00	EA
8	0052	0630100010		CONN 4POS 0.079"C PCB TYPE PH ROHS	1.00	EA
8	0053	0630100007		CONN 4POS 0.118"C PCB MICROFIT ROHS	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0054	0630100026		CONN, 6POS 0.079C PCB FRICTION ROHS	1.00	EA
8	0055	0630100077		CONN 2X3POS 0.118"C SMT W/TAB MICROFIT3 ROHS	1.00	EA
8	0056	0630100012		CONN 6POS 0.118"C PCB MICROFIT ROHS	1.00	EA
8	0057	0630100006		CONN 3POS 0.079"C PCB TYPE PH ROHS	1.00	EA
8	0058	0630100078		CONN 2X6 POS 0.118"C SMT W/TAB MICROFIT3 ROHS	4.00	EA
8	0059	0630100079		CONN 2X5POS 0.118"C SMT W/TAB MICROFIT3 ROHS	3.00	EA
8	0060	0630100080		CONN 2X6POS 0.079C PCB IGRIDL T ROHS	1.00	EA
8	0061	0630100081		CONN 2X5POS 0.079C PCB IGRIDL T ROHS	1.00	EA
8	0062	0630100009		CONN 5POS 0.118"C PCB MICROFIT ROHS	1.00	EA
8	0063	0550100009		IND 10UH 20% ISAT=6.0A DCR=0.015 SER1360 ROHS	1.00	EA
8	0064	055KK00200		CHOKE, COMMON MODE, 15A, DCR=0.0008, 2021 ROHS	12.00	EA
8	0065	0550100024		IND 6.8UH 20% ROHS	1.00	EA
8	0066	0550100010		IND 22UH 20% ISAT>=2.5A DCR<=0.09 DO3316T ROHS	1.00	EA
8	0068	0550100025		IND DUAL 10UH 0.68A DCR=0.228 CLS62 ROHS	1.00	EA
8	0069	2630100019		TRANS, NMOSFET 20V 1.2A SOT23 ROHS	1.00	EA
8	0070	2630100007		TRANS NMOSFET 40V 30A SOPA-8 ROHS	6.00	EA
8	0071	2630100009		TRANS DUAL NMOSFET 60V 4A POWERPAK SO8 ROHS	1.00	EA
8	0072	2630100010		TRANS DUAL NMOSFET 40V 10.3A POWERPAK SO8 ROHS	1.00	EA
8	0073	2630100012		TRANS PMOSFET -30V -6.4A POWERPAK 1212-8 ROHS	2.00	EA
8	0074	2630100001		TRANS, NMOSFET TYPE 2N7002K SOT23 ROHS	1.00	EA
8	0075	2630100020		TRANS, PMOSFET -30V -2A SOT23 ROHS	4.00	EA
8	0076	2630100002		TRANS, NPN TYPE 2N3904 SOT23 ROHS	6.00	EA
8	0077	6200100131		RES TF 390 OHM 1/10W 1% 0603 ROHS	3.00	EA
8	0078	6200100060		RES TF 100 OHM 1/10W 5% 0603 ROHS	27.00	EA
8	0079	6200100003		RES TF 10.0K OHM 1/10W 1% 0603 ROHS	31.00	EA
8	0081	6200100013		RES TF 4.99K OHM 1/10W 1% 0603 ROHS	2.00	EA
8	0082	6200100038		RES TF 16.5K OHM 1/16W 1% 0603 ROHS	1.00	EA
8	0083	6200100129		RES TF 10 OHM 1/8W 1% 0805 ROHS	2.00	EA
8	0084	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	9.00	EA
8	0085	6200100023		RES TF 10.0 OHM 1/10W 1% 0603 ROHS	2.00	EA
8	0086	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	2.00	EA
8	0087	6200100040		RES TF 113K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0088	6200100041		RES TF 8.06K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0089	6200100042		RES MF 0.018 OHM 2W 1% 2512 ROHS	1.00	EA
8	0090	6200100134		RES TF 15.0K OHM 1/10W 1% 0603 ROHS	2.00	EA
8	0091	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	5.00	EA
8	0092	6200100189		RES TF 0.15 OHM 2W 1% 2512 ROHS	1.00	EA
8	0093	6200100044		RES TF 150 OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0094	6200100176		RES TF 0.1 OHM 2W 1% 2512 ROHS	1.00	EA
8	0095	6200100047		RES TF 33K OHM 1/10W 5% 0603 ROHS	1.00	EA
8	0096	6200100177		RES MF 0.01 OHM 2W 1% 2512 ROHS	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0097	6200100049		RES TF 470K OHM 1/10W 5% 0603 ROHS	5.00	EA
8	0098	6200100178		RES TF 80.6K OHM 1/10W 1% 0603 ROHS	2.00	EA
8	0099	6200100179		RES TF 24.9K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0100	6200100057		RES TF 7.87K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0101	6200100183		RES TF 110K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0102	6200100012		RES TF 20.0K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0103	6200100188		RES TF 41.2K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0104	6200100181		RES TF 64.9K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0105	6200100184		RES TF 102K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0106	6200100185		RES TF 332K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0107	6200100071		RES TF 100 OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0108	0630100083		TEST POINT TURRET STAKED 0.12" DIA ROHS	1.00	EA
8	0109	0460100111		IC ISP CPLD 64 MACROCELL 3.3V VQFP44 ROHS	1.00	EA
8	0110	0460100026		IC SMPS BUCK-BOOST CONTROLLER SSOP24 ROHS	2.00	EA
8	0111	0460100112		IC PUSH BUTTON CONTROL TSOT23-8 ROHS	2.00	EA
8	0112	0460100027		IC LOWLOSS POWERPATH CONTROLLER TSOT-6 ROHS	5.00	EA
8	0114	0460100028		IC SMPS BUCK SYNCHRONOUS REGULATOR SSOP16 ROHS	1.00	EA
8	0115	0460100023		IC LVC 2INP AND GATE SINGLE SC-70 ROHS	1.00	EA
8	0116	0460100114		IC REG LDO 3.3V 0.5A SO8 ROHS	1.00	EA
8	0117	0460100036		IC QUAD MULTIPHASE OSCILLATOR W/ SSFM MSOP10 ROHS	1.00	EA
8	0118	0460100115		IC, INV DC/DC CONVERTER -12V/0.15A TSOT-23 ROHS	1.00	EA
8	0121	3030100067		CAP CER X7R 0.01UF 16V 10% 0603 ROHS	2.00	EA
8	0122	0630100049		CONN, 2POS 0.079C PCB FRICTION ROHS	1.00	EA
8	0123	6200100092		RES, TF 47 OHM 1/10W 5% 0603 ROHS	1.00	EA
8	0124	6200100220		RES TF 42.2K OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0125	6200100219		RES TF 511 OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0126	6200100086		RES, TF 47K OHM 1/10W 5% 0603 ROHS	1.00	EA
8	0127	0460100054		IC, DUAL N/NI WINDOW COMPARATOR TSOT6 ROHS	1.00	EA
8	0128	0460100117		IC REG LDO 5.0V 0.5A SO8 ROHS	1.00	EA
8	0129	6200100218		RES TF 487 OHM 1/10W 1% 0603 ROHS	1.00	EA
8	0130	3030100109		CAP CER X7R 4700PF 50V 10% 0603 ROHS	1.00	EA
8	REF	905K351134	D	FUNCTIONAL TEST PROCEDURE, SYSTEM PWR CTRL, METIMAN	0.00	EA
8	REF	905K351164	B	PROGRAMMING INSTRUCTIONS, SYSTEM PWR CTRL, METIMAN	0.00	EA
8	0133	3030100158		CAP CER X5R 10UF 35V 10% 1206 ROHS	4.00	EA
8	0134	0550100038		FERRITE, CHIP 1KOHM @ 100MHZ ISAT= 0.5 DCR = 0.3 1206 ROHS	2.00	EA
8	0135	0550100039		FERRITE, CHIP 150 OHM @ 100MHZ ISAT=0.8 DCR=0.15 1206 ROHS	1.00	EA
8	0136	0550100040		FERRITE, CHIP 48 OHM @ 100MHZ ISAT=6.0 DCR=0.005 1206 ROHS	1.00	EA
8	0137	0550100041		FERRITE, CHIP 1KOHM @ 100MHZ ISAT= 0.3 DCR = 0.3 0603 ROHS	5.00	EA
8	0138	1840100010		OSC HCMOS 32.768KHZ 3.3V 3X2.5MM SMD ROHS	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0139	905K351101	G	SCHEMATIC, SYSTEM POWER REGULATOR, MM	1.00	EA
8	0140	905K000134	A	PROCEDURE, AUTOMATED TEST SETUP	1.00	EA
8	0141	905K351334	A	TEST PROCEDURE, SYSTEM PWR CTRL, METIMAN	1.00	EA
7	0002	905K351183	B	INSTRUCTIONS, SYSTEM PWR CTRL, METIMAN, MODIFICATION	1.00	EA
6	0321	024K352700	C	CA, POWER STATUS, OD	1.00	EA
7	0001	063KK00226		CONN HSG 2X12POS 0.079C FEMALE LATCHING IGRID	1.00	EA
7	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	3.00	EA
7	0003	063KK01801		CONN HSG 3POS FEMALE IN-LINE LATCHING SL	1.00	EA
7	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	3.00	EA
7	0005	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	2.75	FT
7	0006	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.67	FT
7	0007	166KK00011		LBL, THERMAL, .750" w X .937" h, B-427, WRAP, WHT / TRANS, 10K	2.00	EA
7	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0009	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
6	0322	024K355300	C	CA, COMPRESSOR SENSOR INTFC, METIMAN	1.00	EA
7	0001	286KK00002		CRIMP, FERRULE INSUL 22 AWG, ROHS	1.00	EA
7	0002	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
7	0003	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	5.00	EA
7	0004	0639802016		CONN HSG 4POS FEMALE IN-LINE LATCHING SL	1.00	EA
7	0005	276KK00639		WIRE, WHITE w/GREEN STRIPE, 24AWG, UL1429	0.83	FT
7	0006	276KK00612		WIRE, AWG24 STR PVC 600V UL1429 BRN	0.33	FT
7	0007	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	0.33	FT
7	0008	166KK00013		LBL, THERMAL, .50" w X .750" h, B-427, WRAP, WHT / TRANS, 5K /	4.00	EA
7	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0010	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
7	0011	0639802018		CONN HSG 2POS MALE IN-LINE SL	1.00	EA
7	0012	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	2.00	EA
6	0328	205K351500	C	CCA, COMPRESSOR PRESSURE SENSE & FAILSAFE, METIMAN	1.00	EA
7	0001	204K351500	B	PCB, COMPRESSOR PRESSURE SENSOR, METIMAN	1.00	EA
7	0002	287KK00002		NUT,HEX, 4-40	2.00	EA
7	0003	273KK00025		WASHER,#4,INT TOOTH	2.00	EA
7	0004	229KK00079		SCR,PAN HD, 4-40X 3/4 LG,	2.00	EA
7	0005	3030100066		CAP CER X7R 0.1UF 16V 20% 0603 ROHS	5.00	EA
7	0006	3030100030		CAP CER X5R 1.0UF 10V 20% 0603 ROHS	1.00	EA
7	0007	3030100034		CAP CER X5R 22UF 10V 20% 1206 ROHS	1.00	EA
7	0008	3030100120		CAP ALU 100UF 63V 20% 8X15MM RADIAL ROHS	1.00	EA
7	0009	046KK00070		IC, PRESSURE SENSOR 0-30PSI 0-4V OUT ROHS	1.00	EA
7	0010	0630100084		CONN, 4POS, PCB, SL, ROHS	1.00	EA
7	0011	0630100048		CONN, 2POS 0.1C PCB SL ROHS	1.00	EA
7	0012	0550100019		CHOKE, COMMON MODE 400MA DCR=0.3 0805 ROHS	1.00	EA
7	0013	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0014	6200100186		RES TF 475K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0015	6200100089		RES, TF 13.7K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0016	6200100187		RES TF 36.5K OHM 1/10W 1% 0603 ROHS	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0017	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	1.00	EA
7	0018	6200100092		RES, TF 47 OHM 1/10W 5% 0603 ROHS	1.00	EA
7	0019	0460100054		IC, DUAL N/NI WINDOW COMPARATOR TSOT6 ROHS	1.00	EA
7	0020	0460100110		IC, OPAMP OPA337 SOT23-5 ROHS	1.00	EA
6	0331	140K350100	A	INSULATOR, PCB POWER REGULATOR	1.00	EA
6	0332	024K359700	A	CA, HARNESS, METIMAN CC METRIC, CERT	1.00	EA
7	0001	024K351200	B	CA, DA / DOR CONTROL, OD	1.00	EA
8	0001	063KK00225		CONN HSG 2X5POS 0.079C FEMALE LATCHING IGRID	1.00	EA
8	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	4.00	EA
8	0003	024KK03500		CA, SMC PIGTAIL, OD	4.00	EA
8	0004	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	4.00	FT
8	0005	276KK00638		WIRE, WHITE w/YELLOW STRIPE, 24 AWG, UL1429	4.00	FT
8	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	5.00	EA
8	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0002	024K351300	B	CA, HIGH DRIVE, OD	1.00	EA
8	0001	063KK00226		CONN HSG 2X12POS 0.079C FEMALE LATCHING IGRID	1.00	EA
8	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	8.00	EA
8	0003	063KK00231		CONN HSG 2X6POS 0.079C FEMALE LATCHING IGRID	1.00	EA
8	0005	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	4.08	FT
8	0006	276KK00638		WIRE, WHITE w/YELLOW STRIPE, 24 AWG, UL1429	4.08	FT
8	0007	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	2.00	EA
8	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0003	024K351400	B	CA, PULSE SENSE, LOWER, OD	1.00	EA
8	0001	063KK00220		CONN HSG 2X8POS 0.079C FEMALE LATCHING IGRID	1.00	EA
8	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	12.00	EA
8	0003	0639802018		CONN HSG 2POS MALE IN-LINE SL	6.00	EA
8	0004	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	12.00	EA
8	0005	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	10.75	FT
8	0006	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.50	FT
8	0007	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	7.00	EA
8	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0010	268KK00107		BLUE SHRINK TUBING	0.13	FT
8	0011	268KK00108		YELLOW SHRINK TUBING	0.13	FT
8	0012	268KK00109		RED SHRINK TUBING	0.13	FT
8	0013	268KK00128		TBG, 1/8", THERMO-FIT, BLACK	0.75	FT
7	0004	024K351500	C	CA, PULSES & TONGUE, OD	1.00	EA
8	0001	063KK00227		CONN HSG 2X13POS 0.079C FEMALE LATCHING IGRIDT	1.00	EA
8	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	22.00	EA
8	0003	024KK03500		CA, SMC PIGTAIL, OD	11.00	EA
8	0004	276KK00636		WIRE, WHITE w/BROWN STRIPE, 24 AWG, UL1429	11.00	FT
8	0005	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	11.00	FT

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	12.00	EA
8	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0005	024K351600	C	CA, LUNG CONTROL & OTHER, OD	1.00	EA
8	0001	063KK00221		CONN HSG 2X17POS 0.079C FEMALE LATCHING IGRID	1.00	EA
8	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	30.00	EA
8	0003	024KK03500		CA, SMC PIGTAIL, OD	5.00	EA
8	0004	063KK00026		CONN HSG 6POS FEMALE IN-LINE LATCHING SLT	2.00	EA
8	0005	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	20.00	EA
8	0006	0639802016		CONN HSG 4POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0007	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	2.00	EA
8	0008	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	18.42	FT
8	0009	276KK00638		WIRE, WHITE w/YELLOW STRIPE, 24 AWG, UL1429	18.42	FT
8	0010	276KK00634		WIRE, WHITE w/GREY STRIPE, 24 AWG, UL1429	5.00	FT
8	0011	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	11.00	EA
8	0012	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0006	024K352000	C	CA, PULSE SENSE, UPPER, OD	1.00	EA
8	0001	063KK00220		CONN HSG 2X8POS 0.079C FEMALE LATCHING IGRID	1.00	EA
8	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	12.00	EA
8	0003	0639802018		CONN HSG 2POS MALE IN-LINE SL	6.00	EA
8	0004	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	12.00	EA
8	0005	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	9.75	FT
8	0006	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.50	FT
8	0007	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	7.00	EA
8	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0010	268KK00107		BLUE SHRINK TUBING	0.13	FT
8	0011	268KK00109		RED SHRINK TUBING	0.13	FT
8	0012	268KK00128		TBG, 1/8", THERMO-FIT, BLACK	0.75	FT
7	0007	024K352200	B	CA, BLINK CONTROL, OD	1.00	EA
8	0001	063KK00225		CONN HSG 2X5POS 0.079C FEMALE LATCHING IGRID	1.00	EA
8	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	4.00	EA
8	0003	024KK03500		CA, SMC PIGTAIL, OD	2.00	EA
8	0004	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	0.92	FT
8	0005	276KK00638		WIRE, WHITE w/YELLOW STRIPE, 24 AWG, UL1429	0.92	FT
8	0006	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	3.00	EA
8	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0009	024K352400	B	CA, SOUND BREAKOUT I, OD	1.00	EA
8	0001	063KK00221		CONN HSG 2X17POS 0.079C FEMALE LATCHING IGRID	1.00	EA
8	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	16.00	EA
8	0003	0639802018		CONN HSG 2POS MALE IN-LINE SL	4.00	EA
8	0004	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	8.00	EA
8	0005	063KK00228		CONN HSG 2X6POS FEMALE LATCHING MICROFIT 3.0	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0006	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3.0 ROHS	12.00	EA
8	0007	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	14.25	FT
8	0008	166KK00011		LBL, THERMAL, .750" w X .937" h, B-427, WRAP, WHT / TRANS, 10K	6.00	EA
8	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0011	024K352900	C	CA, BATTERY BULKHEAD, OD	1.00	EA
8	0001	063KK00252		CONN PLUG HSG, 3POS VERT PANEL MOUNT	1.00	EA
8	0002	065KK00217		CONT TERM MALE 16AWG TIN	2.00	EA
8	0003	063KK00253		CONN HSG 3POS FEMALE 0.165C LATCHING MINI-FIT JR	1.00	EA
8	0004	065KK00218		CONT CRIMP SKT AWG16 TIN MINI-FIT ROHS	2.00	EA
8	0005	276KK00629		WIRE, RED w/BLACK STRIPE, 16 AWG, UL1007	1.96	FT
8	0006	276KK00641		WIRE, BLACK w/WHITE STRIPE, 16AWG, UL1007	2.00	FT
8	0007	255KK00302		TERM,FASTON,.032 X .250, AWG16-14	2.00	EA
8	0008	166KK00011		LBL, THERMAL, .750" w X .937" h, B-427, WRAP, WHT / TRANS, 10K	4.00	EA
8	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0012	024K353300	B	CA, RHM A & B POWER INPUT, OD	1.00	EA
8	0001	063KK00229		CONN HSG 2X5POS 0.118C FEMALE LATCHING MICROFIT 3.0T	1.00	EA
8	0002	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3.0 ROHS	4.00	EA
8	0004	276KK00625		WIRE, AWG 20, STR, PVC, 600V, UL1429, RED	3.00	FT
8	0005	276KK00601		WIRE, AWG20 STR IR PVC UL1429 BLK	3.00	FT
8	0006	166KK00011		LBL, THERMAL, .750" w X .937" h, B-427, WRAP, WHT / TRANS, 10K	3.00	EA
8	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0009	024KK00092		CA, 2.1MM X 5.5MM RA PLUG TO DUAL WIRE LEADS, 6 FT	2.00	EA
8	0010	268KK00126		TBG, 1/4", THERMO-FIT, BLACK	0.13	FT
7	0013	024K353500	D	CA, RHM 12V VALVE CONTROL, POWER INPUT, OD	1.00	EA
8	0001	063KK00228		CONN HSG 2X6POS FEMALE LATCHING MICROFIT 3.0	1.00	EA
8	0002	063KK00200		CONN HSG 2POS FEMALE IN-LINE LATCHING MICROFIT 3.0	2.00	EA
8	0003	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3.0 ROHS	10.00	EA
8	0004	276KK00611		WIRE, AWG24 STR PVC 600V UL1429 YEL	3.75	FT
8	0005	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	3.75	FT
8	0006	166KK00011		LBL, THERMAL, .750" w X .937" h, B-427, WRAP, WHT / TRANS, 10K	4.00	EA
8	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0009	063KK00205		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0010	063KK00247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
7	0014	024K353800	D	CA, COMPRESSOR POWER, METIMAN	1.00	EA
8	0001	063KK00219		CONN HSG 2X4POS FEMALE IN-LINE LATCHING MICROFIT 3.0	1.00	EA
8	0002	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3.0 ROHS	4.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0003	286KK00001		FERRULE INS TWIN 22AWG WHT 7/16"	2.00	EA
8	0004	276KK00644		WIRE, RED w/BLACK STRIPE, 22 AWG, UL1007	1.50	FT
8	0005	276KK00645		WIRE, BLACK w/WHITE STRIPE, 22AWG, UL1007	1.50	FT
8	0006	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	3.00	EA
8	0007	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0016	024K354100	D	CA, VOICE IN, OD	1.00	EA
8	0001	063KK01804		CONN, 2 PIN, JST	1.00	EA
8	0002	065KK01801		CONT, CRIMP, JST	2.00	EA
8	0003	0639802016		CONN HSG 4POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0004	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3 0 ROHS	2.00	EA
8	0005	063KK00228		CONN HSG 2X6POS FEMALE LATCHING MICROFIT 3.0	1.00	EA
8	0006	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	4.00	EA
8	0007	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	1.75	FT
8	0008	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	1.67	FT
8	0009	276KK00611		WIRE, AWG24 STR PVC 600V UL1429 YEL	1.67	FT
8	0010	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	3.00	EA
8	0011	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0017	024K355100	E	CA, DC IN DISCONNECT, OD	1.00	EA
8	0001	063KK00201		CONN HSG 2POS MALE IN-LINE MICROFIT 3.0	1.00	EA
8	0002	065KK00200		CONT CRIMP PIN 20-24 AWG TIN MICROFIT 3 0 ROHS	2.00	EA
8	0003	063KK00230		CONN HSG 2X3POS FEMALE LATCHING MICROFIT 3.0	1.00	EA
8	0004	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3 0 ROHS	4.00	EA
8	0005	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0006	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
8	0007	255KK00303		TERM,FASTON,.032 X .250, AWG22-18	2.00	EA
8	0008	276KK00647		WIRE, RED w/BLACK STRIPE, 20 AWG, UL1007	6.33	FT
8	0009	276KK00646		WIRE, BLACK w/WHITE STRIPE, 20AWG, UL1007	0.83	FT
8	0010	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	0.42	FT
8	0011	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	0.42	FT
8	0012	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	5.00	EA
8	0013	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0020	024K355900	A	CA, PUSHBUTTON DISCONNECT, OD	1.00	EA
8	0001	0639802019		CONN HSG 4POS MALE IN-LINE SL	1.00	EA
8	0002	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	4.00	EA
8	0003	063KK01806		CONN, 4 PIN, JST	1.00	EA
8	0004	065KK01801		CONT, CRIMP, JST	4.00	EA
8	0005	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	0.83	FT
8	0006	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	0.42	FT
8	0007	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.42	FT
8	0008	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	2.00	EA
8	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0022	024K356700	C	CA, RS232, WVL, METIMAN	1.00	EA
8	0001	063KK01805		CONN HSG 3POS 0.079C FEMALE TYPE PHT	2.00	EA
8	0002	276KK00654		WIRE AWG24 STRD 2 CONDUCTOR SHIELDED ROHS	3.00	FT
8	0003	276KK00403		WIRE,24AWG,STRD,GRN,CE,IR	0.20	FT
8	0004	065KK00202		CONT CRIMP SKT 24-30 AWG TIN TYPE PHT ROHS	6.00	EA
8	0005	268KK00129		TBG, 3/4", THERMO-FIT, RED	0.20	FT
8	0006	268KK00020		TBG,1/4,THERMO-FIT,WHT	0.20	FT
7	0023	024K356900	A	CA, WVL, 5V ADAPTER, METIMAN	1.00	EA
8	0001	063KK00138		CONN, 3.5 MM, RA PLUG, 2 COND, W / 6 FT CABLE, ISTAN	1.00	EA
8	0002	063KK00226		CONN HSG 2X12POS 0.079C FEMALE LATCHING IGRID	1.00	EA
8	0003	065KK00216		CONT, PIN, IGRID, FEMALE TERM, 26-28 AWG, 2mm	2.00	EA
8	0004	268KK00129		TBG, 3/4", THERMO-FIT, RED	0.20	FT
8	0005	268KK00020		TBG,1/4,THERMO-FIT,WHT	0.20	FT
7	0024	024K359600	A	CA, SBC, POWER, SENSE, ECG & TSC, OD, CERT	1.00	EA
8	0001	063KK00227		CONN HSG 2X13POS 0.079C FEMALE LATCHING IGRIDT	2.00	EA
8	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	25.00	EA
8	0003	063KK01802		CONN HSG 5POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0004	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	30.00	EA
8	0005	063KK00206		CONN HSG 4POS FEMALE IN-LINE LATCHING MICROFIT 3.0	1.00	EA
8	0006	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3 0 ROHS	27.00	EA
8	0007	063KK00386		CONN, HSG, CRP, RCPT, 11C, SGL ROW, IN-LINE LATCHING	1.00	EA
8	0008	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	3.00	EA
8	0009	063KK00229		CONN HSG 2X5POS 0.118C FEMALE LATCHING MICROFIT 3.0T	3.00	EA
8	0010	276KK00633		WIRE, YELLOW w/GREEN STRIPE, 24 AWG, UL1429	2.33	FT
8	0011	276KK00608		WIRE, AWG24 STR PVC 600V UL1429 GRN	17.75	FT
8	0012	276KK00623		WIRE, AWG24 STR PVC 600V UL1429 ORA	2.33	FT
8	0013	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	10.40	FT
8	0014	276KK00631		WIRE, RED w/GREEN STRIPE, 24 AWG, UL1429	8.10	FT
8	0015	166KK00013		LBL, THERMAL, .50"w X .750"h, B-427, WRAP, WHT / TRANS, 5K /	8.00	EA
8	0016	166KK00007		LBL,RIBBON CABLE	1.00	EA
8	0017	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
8	0018	276KK00610		WIRE, AWG24 STR PVC 600V UL1429 RED	3.00	FT
8	0019	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	2.50	FT
8	0020	276KK00626		WIRE, AWG 20, STR, PVC, 600V, UL1429, BLK	2.25	FT
8	0021	276KK00625		WIRE, AWG 20, STR, PVC, 600V, UL1429, RED	2.50	FT
8	0022	063KK01801		CONN HSG 3POS FEMALE IN-LINE LATCHING SL	1.00	EA
8	0023	063KK00245		CONN, MATLOK, RCPT, 2C, FEM	1.00	EA
8	0024	065KK01810		CONT, 20-14 AWG, TERM FEMALE MATE-N-LOK ROHS	2.00	EA
8	0025	276KK00639		WIRE, WHITE w/GREEN STRIPE, 24AWG, UL1429	3.50	FT

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
8	0026	276KK00612		WIRE, AWG24 STR PVC 600V UL1429 BRN	2.75	FT
8	0027	276KK00636		WIRE, WHITE w/BROWN STRIPE, 24 AWG, UL1429	3.00	FT
8	0028	0639802018		CONN HSG 2POS MALE IN-LINE SL	4.00	EA
8	0029	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	6.00	EA
8	0030	276KK00123		WIRE,#24,COAXIAL, STRD,SHLD/JKT	4.33	FT
8	0031	063KK00026		CONN HSG 6POS FEMALE IN-LINE LATCHING SLT	1.00	EA
8	0032	0639801932		CONN,DSUB,25P,MALE	1.00	EA
8	0033	0639801944		CONN, HSG 4POS FEMALE 0.2C IN-LINE MAT'N'LOK (ATX PWR)	1.00	EA
8	0034	1619800017		LOCK,SET,U-CLIP WASHER,	2.00	EA
8	0035	063KK00200		CONN HSG 2POS FEMALE IN-LINE LATCHING MICROFIT 3.0	1.00	EA
8	0036	063KK00243		CONN,MATLOK,PL,2C,MALE	1.00	EA
8	0037	063KK01805		CONN HSG 3POS 0.079C FEMALE TYPE PHT	1.00	EA
8	0038	063KK01810		CONN HSG 3POS MALE IN-LINE SL	1.00	EA
8	0039	063KK01822		CONN, HSG 7POS 0.079 FEMALE TYPE PHR	1.00	EA
8	0040	065KK00046		CONT, CRIMP PIN AWG18-24 TIN MAT'N'LOK ROHS	2.00	EA
8	0041	065KK00047		CONT, CRIMP SKT AWG18-24 TIN MAT'N'LOK ROHS	2.00	EA
8	0042	065KK00202		CONT CRIMP SKT 24-30 AWG TIN TYPE PHT ROHS	8.00	EA
8	0043	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	8.00	EA
8	0044	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	3.00	EA
8	0045	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	2.42	FT
8	0046	276KK00642		WIRE, WHITE w/RED STRIPE, 24 AWG, UL1429	3.83	FT
8	0047	268KK00029		TBG,1-1/4 BLK THERMO-FIT	0.13	FT
8	0048	268KK00127		TBG, 3/8", THERMO-FIT, GREEN	0.10	FT
8	0049	0550100037		FERRITE, TYPE 31 CLAMP-ON 10.15 DX23.7X39 4 MM ROHS	1.00	EA
7	0025	024K357100	A	CA, WLAN ROUTER DISCONNECT, POWER INPUT, OD, CERT	1.00	EA
7	0026	024K357200	A	CA, SENSOR INTERFACE, OD, CERT	1.00	EA
7	0027	024K357300	A	CA, HAPTIC SENSE / STEPPER, OD, CERT	1.00	EA
7	0028	024K357400	A	CA, SOUND BREAKOUT II, OD, CERT	1.00	EA
7	0029	024K353100	C	CA, SWITCHED LOADS, OD	1.00	EA
8	0001	063KK00225		CONN HSG 2X5POS 0.079C FEMALE LATCHING IGRID	1.00	EA
8	0002	065KK00215		CONT CRIMP SKT 22-26 AWG TIN IGRID ROHS	8.00	EA
8	0003	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	6.00	EA
8	0004	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	3.00	EA
8	0005	024KK03500		CA, SMC PIGTAIL, OD	1.00	EA
8	0006	276KK00611		WIRE, AWG24 STR PVC 600V UL1429 YEL	5.58	FT
8	0007	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	5.58	FT
8	0010	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	5.00	EA
8	0011	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0345	024K356500	C	CA, HEMORRHAGE SENSE, O.D.	1.00	EA
7	0001	2529800135		TAPE, 2S, VHB.025, 1 X 72 YD	0.50	FT
7	0002	063KK00025		CONN HSG 6POS MALE IN-LINE SLT	1.00	EA
7	0003	101KK02708		SENSOR, PRESSURE, 75 PSI, PENDO TECH	2.00	EA
7	0004	268KK00020		TBG,1/4,THERMO-FIT,WHT	1.00	FT

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0008	065KK00222		CONTACT CRIMP MALE 24-30AWG GOLD SL ROHS	6.00	EA
7	0009	268KK00006		TBG, 1/16,THERMO-FIT,WHT	0.08	FT
6	0346	024K271200	B	CA, CAROTID PULSE INTERFACE, ISTAN	1.00	EA
7	0001	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	1.25	FT
7	0002	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	1.25	FT
7	0003	268KK00002		TBG,3/16,THERMO-FIT,WHT	0.20	FT
7	0004	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	4.00	EA
7	0005	0639802018		CONN HSG 2POS MALE IN-LINE SL	2.00	EA
7	0006	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
7	0007	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
6	0348	024K356800	A	CA, WVL AUDIO ADAPTER, METIMAN	1.00	EA
7	0001	0639802019		CONN HSG 4POS MALE IN-LINE SL	1.00	EA
7	0002	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	2.00	EA
7	0003	063KK01821		CONN, 3.5 MM, RA PLUG, MONO, W / 6 FT CABLE, ISTAN	1.00	EA
7	0004	268KK00020		TBG,1/4,THERMO-FIT,WHT	0.20	FT
5	0004	MMP TORSO HW	A	KIT, MMP TORSO H/W	1.00	EA
6	0150	273KK00013		WASHER,1/4 FLT ST STL	4.00	EA
6	0151	2879800256		NUT,1/4-20,SELF-LOCK,NYLO	2.00	EA
6	0160	111KK00003		RIVET, PUSH, RIBBED SHANK,.187 X .070, NYLON, ISTAN	4.00	EA
6	0161	258KK00013		TIE, CABLE, 5.4", IN LINE	1.00	EA
6	0163	905K354184	A	TEMPLATE, PANEL MOUNT, LEFT SHOULDER, OD	1.00	EA
6	0164	287KK00015		NUT,HEX, 1/4-28	10.00	EA
6	0165	104KK00167		PANEL, RECESS, VALVE, LG	2.00	EA
6	0166	905K354284	A	TEMPLATE, PANEL MOUNT, RIGHT SHOULDER, OD	1.00	EA
6	0169	905K354484	A	TEMPLATE, PANEL MOUNT, RIGHT LEG, OD	1.00	EA
6	0170	104KK00166		PANEL, RECESS, POWER SWITCH, SM	1.00	EA
5	0005	MMP SUB2 HW	C	KIT, MMP SUB2 H/W	1.00	EA
6	0103	273KK00157		WASHER, RUBBER, .12 ID X .25 OD X .062	4.00	EA
6	0104	273KK00003		WASHER,#2, FLT ST STL	2.00	EA
6	0106	229KK00629		SCREW, 2-56 X 1.00", PAN HEAD, SS	2.00	EA
6	0151	166KK00007		LBL,RIBBON CABLE	1.00	EA
6	0153	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	3.00	EA
6	0204	287KK00016		NUT,HEX,4-40 SST	2.00	EA
6	0205	229KK00296		SCR,PNH ,10-32 X7/16	1.00	EA
6	0210	273KK00025		WASHER,#4,INT TOOTH	2.00	EA
6	0303	178KK00033		MOUNT, VIBRATION, 8LBS	4.00	EA
6	0304	127KK00017		GROMMET, .750 ID X .1.375 OD X .125 GW, OD	1.00	EA
6	0305	127KK00020		GROMMET, 3/8 ID X 11/16 OD X 1/16THICK, OD	4.00	EA
6	0306	297KK00309		STDF, M-F, 4-40, 1/4" HEX X 3/8" LG, ALUM	8.00	EA
6	0307	297KK00310		STDF, M-F, 4-40, 1/4' HEX X 5/8" LG, AL	8.00	EA
6	0308	229KK00648		SCR, SCKT CAP, 1/4-20 X 2-1/4", SS	2.00	EA
6	0309	297KK00311		STDF, M-F, 4-40, 3/16" HEX X 13/32" LG, AL	4.00	EA
6	0310	239KK00102		SPACER, HEX , 4-40 M/F X 5/8	8.00	EA
6	0311	229KK00649		SCR, FLT HD, 100 DEG, 6-32 X 7/16, SS	1.00	EA
6	0313	121KK00002	1	FTG,10-32X1/8,CONN,MALE	6.00	EA
6	0314	121KK00010	1	FTG,10-32-1/4,1TCH	12.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0315	1219800076		FTG, 5/32" X 1/8", RDCR, ONE	3.00	EA
6	0320	121KK00105		FTG, ELBOW 1-TOUCH	3.00	EA
6	0332	121KK00057	1	FTG,1 TOUCH,1/8NPTX1/4OD	1.00	EA
6	0334	229KK00107		SCR,PNH ,8-32 X1	2.00	EA
6	0335	287KK00201		LOCK NUT, 8-32, THIN	2.00	EA
6	0336	121KK00014	1	FTG,ELBOW,10-32-1/4,1TCH	5.00	EA
6	0338	121KK00001		FTG,ELBOW,10-32X1/8,1TCH	22.00	EA
6	0343	121KK00003		FTG,ELBOW,10-32X5/32,1TCH (4 MM)	1.00	EA
6	0344	121KK00007	1	FTG,PLUG,M5X0.8	9.00	EA
6	0345	297KK00009		STD, M/F, HEX, 4-40 X 3/16 X 7/16 L, SS	4.00	EA
6	0405	121KK00011		FTG,TEE,1/4-1/4,1TCH	1.00	EA
6	0406	121KK00046		FTG,1/4"X1/4" Y UNION	2.00	EA
6	0407	121KK00012	1	FTG,TEE,1/8-1/8,1TCH	2.00	EA
6	0409	121KK00108		1/4 TO 1/4 STRAIGHT UNION	2.00	EA
6	0423	0479800092		CLAMP,.269 -.291 OD TBG	12.00	EA
6	0424	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	4.00	EA
6	0515	4159800065		COUPLING, Y, 1/16" ID	4.00	EA
6	0517	268KK00084		MESH, 3" - 4", GREEN	1.20	FT
4	0600	PANELS KIT PRE-HOSPITAL	A	ASSY, PANELS KIT	1.00	EA
5	0001	MMP RIGHT HIP PANEL	A	KIT, MMP RIGHT HIP PANEL	1.00	EA
6	0106	0739800008		FTG, COUPLING, MALE, INLINE 1/8	2.00	EA
6	0162	415KK00060		FITTING, SHUTOFF, PANEL MOUNT, BLK	1.00	EA
6	0164	196K354400	A	PLATE, BACKING, PANEL MOUNT, RIGHT LEG,OD	1.00	EA
6	0165	166K350400	A	LABEL, PANEL MOUNT, RIGHT LEG, OD	1.00	EA
6	0167	4159800069		FTG,QC,F,1/8ID,SHUT OFF,PNLMT, WHITE	1.00	EA
6	0168	415KK00061		FITTING, 1/8" ID BARB, PANEL MOUNT, SHUT OFF, NATURAL	1.00	EA
5	0002	MMP RIGHT SHOULDER PANEL	A	KIT, MMP RIGHT SHOULDER PANEL	1.00	EA
6	0107	1219800035		FITTING, 1/16 MALE INLINE	2.00	EA
6	0156	1439800141		JACK, PLUG, MALE LUER	4.00	EA
6	0158	196K354200	A	PLATE, BACKING, PANEL MOUNT, RIGHT SHOULDER,OD	1.00	EA
6	0159	166K350200	A	LABEL, PANEL MOUNT, RIGHT SHOULDER, OD	1.00	EA
6	0160	415KK00056		FITTING, 1/16, LUER, PANEL MOUNT	4.00	EA
6	0161	415KK00057		FITTING, 1/8, LUER, PANEL MOUNT	1.00	EA
6	0162	415KK00060		FITTING, SHUTOFF, PANEL MOUNT, BLK	1.00	EA
5	0003	MMP LEFT SHOULDER PANEL	A	KIT, MMP LEFT SHOULDER PANEL	1.00	EA
6	0106	0739800008		FTG, COUPLING, MALE, INLINE 1/8	1.00	EA
6	0107	1219800035		FITTING, 1/16 MALE INLINE	2.00	EA
6	0116	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	3.00	EA
6	0152	196K354100	A	PLATE, BACKING, PANEL MOUNT, LEFT SHOULDER,OD	1.00	EA
6	0153	166K350100	A	LABEL, PANEL MOUNT, LEFT SHOULDER, EMS, OD	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0154	415KK00059		FITTING, SHUTOFF, PANEL MOUNT	2.00	EA
6	0156	1439800141		JACK, PLUG, MALE LUER	4.00	EA
6	0157	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	1.00	EA
6	0160	415KK00056		FITTING, 1/16, LUER, PANEL MOUNT	5.00	EA
5	0004	MMP ASSY CELL	A	KIT, MMP ASSY CELL	1.00	EA
6	0101	196K354300	B	PLATE, BACKING, PANEL MOUNT, LEFT LEG,OD	1.00	EA
6	0103	166K350300	A	LABEL, PANEL MOUNT, LEFT LEG, OD	1.00	EA
6	0105	024K353000	B	CA, DC IN, BULKHEAD, OD	1.00	EA
7	0001	063KK00233		CONN PWR JCK 2.5 X 6.4MM PNL MNT	1.00	EA
7	0002	063KK00200		CONN HSG 2POS FEMALE IN-LINE LATCHING MICROFIT 3.0	1.00	EA
7	0003	065KK00006		CONT CRIMP SKT 20-24 AWG BRZ MICROFIT 3.0 ROHS	2.00	EA
7	0004	0639802018		CONN HSG 2POS MALE IN-LINE SL	1.00	EA
7	0005	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	2.00	EA
7	0006	276KK00625		WIRE, AWG 20, STR, PVC, 600V, UL1429, RED	1.04	FT
7	0007	276KK00601		WIRE, AWG20 STR IR PVC UL1429 BLK	1.04	FT
7	0008	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	1.04	FT
7	0009	166KK00011		LBL, THERMAL, .750" w X .937" h, B-427, WRAP, WHT / TRANS, 10K	3.00	EA
7	0010	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0011	268KK00004		TBG,3/32,THERMOFIT,WHT	0.20	FT
7	0012	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
7	0013	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	1.04	FT
6	0106	024K353700	B	CA, ON OFF PUSHBUTTON, OD	1.00	EA
7	0001	250KK00021		SWITCH, PUSHBUTTON, LIGHTED, 2V GREEN LED, OTTO	1.00	EA
7	0002	0639802016		CONN HSG 4POS FEMALE IN-LINE LATCHING SL	1.00	EA
7	0003	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	4.00	EA
7	0004	276KK00632		WIRE, WHITE w/BLACK STRIPE, 24 AWG, UL1429	1.25	FT
7	0005	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	2.50	FT
7	0006	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	1.25	FT
7	0007	166KK00013		LBL, THERMAL, .50" w X .750" h, B-427, WRAP, WHT / TRANS, 5K /	1.00	EA
7	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0010	268KK00004		TBG,3/32,THERMOFIT,WHT	0.25	FT
7	0011	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
6	0107	024K354900	B	CA, SPO2 BULKHEAD DISCONNECT, OD	1.00	EA
7	0001	063KK01810		CONN HSG 3POS MALE IN-LINE SL	1.00	EA
7	0002	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	3.00	EA
7	0003	063KK35010		CONN, SWITCHCRAFT EN3, PANEL, 3 POS, WEATHERTIGHT	1.00	EA
7	0004	276KK00607		WIRE, AWG24 STR PVC 600V UL1429 WHT	0.92	FT
7	0005	276KK00609		WIRE, AWG24 STR PVC 600V UL1429 BLK	0.92	FT
7	0006	276KK00610		WIRE, AWG24 STR PVC 600V UL1429 RED	0.92	FT
7	0007	166KK00013		LBL, THERMAL, .50" w X .750" h, B-427, WRAP, WHT / TRANS, 5K /	2.00	EA
7	0008	166KK00007		LBL,RIBBON CABLE	1.00	EA
7	0009	268KK00004		TBG,3/32,THERMOFIT,WHT	0.33	FT

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0010	070KK00003		CORD, NYLON, LACE, TYPE I, FINISH B	0.00	ROL
6	0108	024K182401	B	CA, ETHERNET EXPANSION, OD, CERT	1.00	EA
6	0999	MMP ASSY CELL HW	B	KIT, MMP ASSY CELL H/W	1.00	EA
7	0102	905K354384	A	TEMPLATE, PANEL MOUNT, LEFT LEG, OD	1.00	EA
7	0104	104KK00166		PANEL, RECESS, POWER SWITCH, SM	1.00	EA
7	0105	297KK00040		STDF, 3/16HEX, 4-40 X 1.0	1.00	EA
7	0106	229KK00068		SCR, FH, 100 DEGREES, 4-40 X 1/4 LG	1.00	EA
3	0010	MMP SUB2	B	KIT, MMP SUB2	1.00	EA
4	0100	TRAY-PINCH- REG-CONV KIT P	A	ASSY, TRAY-PINCH-REG-CONV KIT	1.00	EA
5	0001	MMP SHOULDER REG ASSY	A	KIT, MMP SHOULDER REG ASSY	1.00	EA
6	0376	016K350400	C	BRACKET, STERNUM, SUPPORT, LEFT, O.D.	1.00	EA
6	0377	218KK00005		RGLTR,0 TO 30PSIG,N-RLV	2.00	EA
6	0378	0739800020		COUPLING,FEMALE X FEMALE, 10-32	2.00	EA
6	0379	016K352100	A	BRACKET, STERNUM, SUPPORT, RIGHT, O.D	1.00	EA
6	0380	218KK00005		RGLTR,0 TO 30PSIG,N-RLV	2.00	EA
6	0381	0739800020		COUPLING,FEMALE X FEMALE, 10-32	2.00	EA
5	0002	CONVULSIONS ISTAN MM	A	ASSY, CONVULSIONS, ISTAN, MM	1.00	EA
6	0201	101K185000	B	WEIGHT,COUNTER,CONVULSION	1.00	EA
6	0202	176K187400	2	MOD, MOTOR, 440 RPM, 12 VDC	1.00	EA
6	0203	075K188300	B	COVER ASSY,CONVULSIONS	1.00	EA
6	0209	024K161000	A	CA, MOTOR, CONVULSIONS, ISTAN	1.00	EA
7	0001	276KK00074		WIRE,#22,STRD,RED,600V	0.25	FT
7	0002	276KK00072		WIRE,#22,STRD,BLK,600V	0.25	FT
7	0003	268KK00002		TBG,3/16,THERMO-FIT,WHT	0.10	FT
7	0004	0639802018		CONN HSG 2POS MALE IN-LINE SL	1.00	EA
7	0005	0659800248	1	CONT,CRP,PIN,22-24 AWG, GOLD	2.00	EA
5	0003	MMP PINCH VALUE ASSY	B	KIT, MMP PINCH VALUE ASSY	1.00	EA
6	0347	121KK00045		FTG,FLANGE,TUBING	4.00	EA
6	0367	271KK35060		VALVE, PNEUMATIC, PILOTED, AIR PINCH	2.00	EA
6	0368	121KK00146		FTG, 1/4 NPT TO 3/8 BARB	2.00	EA
6	0369	268KK00058		TBG,CUFFLESS,15MM ID X 24 LG	2.00	EA
6	0375	121KK00094		FTG, ELBOW, 1/8 X .25	2.00	EA
6	0376	127KK00004		GRM, NYLON,.175 X12-3/4 LG	1.00	EA
5	0004	MANNEQUIN TRAY OD PRE HOSPITAL	C	ASSY, MANNEQUIN TRAY, OD, PRE-HOSPITAL, CERT	1.00	EA
6	0301	205K279500	D	CCA, NIBP MODULE, ISTAN	2.00	EA
7	0001	204K279500	D	PCB, NIBP MODULE, ISTAN	1.00	EA
7	NOTE	3030100066		CAP CER X7R 0.1UF 16V 20% 0603 ROHS	1.00	EA
7	NOTE	0630100019		CONN, 3POS 0.1C RAPCB LATCHING ROHS	1.00	EA
7	NOTE	046KK00072		IC, PRESSURE SENSOR 50KPa MINIATURE AMPLIFIED ROHS	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
7	NOTE	0460100062		IC, VOLT REG LDO 5.5-26VIN 12VOUT 0.1A SOT223-4 ROHS	1.00	EA
7	0006	905K279534	B	TEST PROCEDURE, FUNCTIONAL, ISTAN NIBP MODULE	1.00	EA
7	0007	905K000134	A	PROCEDURE, AUTOMATED TEST SETUP	1.00	EA
7	0008	905K279634	A	TEST PROCEDURE, NIBP MODULE, ISTAN	1.00	EA
6	0302	205K351700	B	CCA, AIRWAY PRESSURE SENSOR VER2	2.00	EA
7	0001	204K351700	A	PCB, AIRWAY PRESSURE SENSOR VER2	1.00	EA
7	0002	3030100066		CAP CER X7R 0.1UF 16V 20% 0603 ROHS	3.00	EA
7	0003	3030100021		CAP CER X5R 22UF 25V 20% 1210 ROHS	2.00	EA
7	0004	3030100020		CAP CER X7R 1000PF 100V 20% 0603 ROHS	4.00	EA
7	0005	0880100059		FERRITE BEAD 1KOHM@100MHZ ISAT=0.3 DCR=0.58 0402 ROHS	3.00	EA
7	0006	0630100019		CONN, 3POS 0.1C RAPCB LATCHING ROHS	1.00	EA
7	0007	6200100093		RES, TF 374 OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0008	6200100068		RES TF 0 OHM 1A 0603 ROHS	2.00	EA
7	0009	0460100056		IC, INST AMP AD627 SO8 ROHS	1.00	EA
7	0010	0460100039		IC SENSOR 0-5PSI G-MINI FDIP8 ROHS	1.00	EA
7	0011	252KK00029		ADHESIVE, EPOXY, SCOTCH-WELD, TUBE, 2FL.OZ.	1.00	EA
6	0304	042K352000	C	SLED, O.D.	1.00	EA
6	0305	042K352100	A	PLATE, PELVIC, O.D.	1.00	EA
6	0306	042K352200	A	GUSSET, LEG BACKING PLATE, O.D.	2.00	EA
6	0311	024K270100	B	CA, HEART/ BREATH SOUNDS, ISTAN	6.00	EA
7	0001	276KK00016		WIRE, 24 AWG, STRD, GRN/WHT, TW PR, 600V	0.25	FT
7	0002	0659800247		CONT CRIMP SKT 22-24 AWG GOLD SL ROHS	2.00	EA
7	0003	268KK00004		TBG,3/32,THERMOFIT,WHT	0.03	FT
7	SP1	430KK00005		SPEAKER, 1 WATT, 8 OHM	1.00	EA
7	P1	0639802015		CONN HSG 2POS FEMALE IN-LINE LATCHING SL	1.00	EA
7	0006	258KK00006		TIE, CABLE 1/16 TO 5/8 IN DIA	1.00	EA
6	0312	111K350000	B	RETAINER, BOW SPRING, OD	2.00	EA
6	0313	111K350100	C	GUIDE, BOW SPRING, OD	2.00	EA
6	0315	042K351101	C	NECK SUPPORT, TORSO FRAME, MACHINED, O.D.	1.00	EA
6	0320	016K352300	B	BRACKET, LOWER TORSO SUPPORT, OD	2.00	EA
6	0323	104KK35000	B	NUT, LIMB, OD	4.00	EA
6	0324	104KK35001	B	STOP, LEFT ARM, OD	1.00	EA
6	0325	104KK35004	B	BEARING, EXTREMITY O.D.	4.00	EA
6	0326	104KK35005	B	STOP RIGHT ARM, OD	1.00	EA
6	0327	104KK35006	B	SPACER, EXTREMITY, O D	4.00	EA
6	0330	016K352700	A	BRACKET, ANGLE, ELECTRONIC PLATE,OD	2.00	EA
6	0335	073KK00016		ORIFICE, 010, LT BLUE	1.00	EA
6	0337	271KK00039		VALVE,CHECK,0.5PSI,1/8BRB	1.00	EA
6	0338	271KK00089		VALVE, CHECK, MINI 500 SERIES, 1 16 X 1 16 BARB, .5 PSI PUR	1.00	EA
6	0339	1219800038		FTG,FEM COUPLER	2.00	EA
6	0340	073KK00018		ORIFICE, .040, TEAL	1.00	EA
6	0342	415KK00013		FTG, REDUCER, BARB, RA, 1/8 X 1/16, NYLON	1.00	EA
6	0344	121KK00114		FTG, Q-DISC, SHUTOFF, 1/8, FEMALE	1.00	EA
6	0355	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	13.00	EA
6	0357	121KK00140		FTG, COUPLING INSERT, 1 8 ID BARB, ISTAN	1.00	EA
6	0358	0739800008		FTG, COUPLING, MALE, INLINE 1/8	3.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0359	0739800010		COUPLING,F,1/8IN	4.00	EA
6	0365	0739800008		FTG, COUPLING, MALE, INLINE 1/8	2.00	EA
6	0388	121KK00147		FTG, 1/4 NPT TO 3/8 BARB, 90	2.00	EA
4	0200	TORSO SUBS KIT PRE-HOSPITAL	A	ASSY, TORSO SUBS KIT	1.00	EA
5	0002	BLEEDING CONTROL SYSTEM OD	A	ASSY, BLEEDING CONTROL SYSTEM, OD	1.00	EA
6	0420	271KK35080		VALVE, WATER, 3WAY, 1/8 BARB, PARKER	2.00	EA
6	0424	221KK00015		O-RING, .370 ID X .450 OD, BLACK, BUNA N, 70 DURO	1.00	EA
6	0426	4159800042		FTG, LUER FEMALE TO 1/16 TBG	2.00	EA
6	0427	0639802018		CONN HSG 2POS MALE IN-LINE SL	2.00	EA
6	0428	114KK00010		FILTER, INLINE, HOUSING, SERVICABLE, 48 MICRON, 1/8 ID BARB	1.00	EA
6	0429	0739800008		FTG, COUPLING, MALE, INLINE 1/8	1.00	EA
5	0003	GU SECRETIONS EMS OD	A	ASSY, GU SECRETIONS , EMS, O.D.	1.00	EA
6	0504	271KK00088		VALVE, CHECK, MINI 500 SERIES, 1/16 X 1/16 BARB, 0.1 PSI YEL	1.00	EA
6	0508	104KK00164		BLADDER, ONE TUBE, LATEX FREE, 2,2" X 4,5"	1.00	EA
6	0510	271KK00090		VALVE, CHECK, MINI 500 SERIES, 1/16 X 1/16 BARB, 3.0 PSI	1.00	EA
6	0511	1219800032		FTG,RDCR, 1/8 BARB - 1/16 BARB	1.00	EA
6	0512	121KK00153		FTG, BARB, T,1/8 X 1/8 X 1/8, NPB	1.00	EA
6	0516	279K350100	A	SHIELD, BLADDER, OD	2.00	EA
6	0550	242KK00026		SPRING, BANKERS CLASP	1.00	EA
6	0551	4159800065		COUPLING, Y, 1/16" ID	2.00	EA
5	0004	GU OD	A	ASSY, G.U., O.D	1.00	EA
6	0601	271KK00096		VALVE, DUCK BILL, .875 OD	1.00	EA
6	0602	104K350300	A	FUNNEL, DUCK BILL RETENTION, O.D.	1.00	EA
6	0604	104K350200	A	TUBE, G.U. - STOMACH, O.D.	1.00	EA
6	0605	073KK00002		CPLG,Q-DSC,PLUG,3 8TUBING	1.00	EA
6	0650	273KK00155		WASHER, PVC .375 ID, .875 OD	1.00	EA
6	0651	900KK00070		LATEX SHT, .014 X 24 X 15	0.00	EA
5	0005	IV SYSTEM TORSO EMS	A	ASSY, IV SYSTEM, TORSO, EMS	1.00	EA
6	0701	1219800035		FITTING, 1/16 MALE INLINE	2.00	EA
6	0702	1219800032		FTG,RDCR, 1/8 BARB - 1/16 BARB	1.00	EA
6	0703	121KK00098		FTG,F-QUICK DIS,SHUT-OFF, 1/16	2.00	EA
6	0705	1219800037		FTG,TEE CONN 1/16 ID	2.00	EA
6	0706	271KK00088		VALVE, CHECK, MINI 500 SERIES, 1/16 X 1/16 BARB, 0.1 PSI YEL	3.00	EA
6	0707	271KK00090		VALVE, CHECK, MINI 500 SERIES, 1/16 X 1/16 BARB, 3.0 PSI	1.00	EA
6	0708	271KK00089		VALVE, CHECK, MINI 500 SERIES, 1 16 X 1 16 BARB, .5 PSI PUR	2.00	EA
6	0710	104KK00164		BLADDER, ONE TUBE, LATEX FREE, 2,2" X 4,5"	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
6	0715	279K350100	A	SHIELD, BLADDER, OD	2.00	EA
6	0716	415KK00033		1/8 TO 1/8 ADAPTER	1.00	EA
6	0750	242KK00026		SPRING, BANKERS CLASP	1.00	EA
6	0751	4159800065		COUPLING, Y, 1/16" ID	2.00	EA
5	0006	MMP MALE GENITALIA	A	KIT, MMP MALE GENITALIA	1.00	EA
6	0115	073KK00001		CPLG,Q-DSC,SKT,3/8 TUBING	1.00	EA
6	0150	104K284400	D	GENITALIA, MALE, SILICONE	1.00	EA
5	0008	CHEST TUBE SECRETIONS OD	A	ASSY, CHEST TUBE SECRETIONS, OD	1.00	EA
6	0805	271KK00088		VALVE, CHECK, MINI 500 SERIES, 1/16 x 1/16 BARB, 0.1 PSI YEL	2.00	EA
6	0809	121KK00114		FTG, Q-DISC, SHUTOFF, 1/8, FEMALE	2.00	EA
6	0820	121KK00153		FTG, BARB, T,1/8 X 1/8 X 1/8, NPB	2.00	EA
6	0821	1219800032		FTG,RDCR, 1/8 BARB - 1/16 BARB	2.00	EA
6	0823	279K350100	A	SHIELD, BLADDER, OD	4.00	EA
6	0825	104KK00164		BLADDER, ONE TUBE, LATEX FREE, 2,2" X 4,5"	2.00	EA
6	0826	104K353900	A	RIBCAGE FOAM	0.03	EA
6	0850	242KK00026		SPRING, BANKERS CLASP	2.00	EA
5	0009	MMP STOMACH DISTENTION	A	KIT, MMP STOMACH DISTENTION	1.00	EA
6	0111	104KK00040		BLADDER, DISTENDED, STOMACH, VERS D	1.00	EA
6	0112	121KK00099		FTG, Y, HOSE BARB, 3 8	2.00	EA
6	0113	271KK00049		VALVE,TUMMY, 0.5 PSI	1.00	EA
6	0114	271KK00050		VALVE, TUMMY, 1.0 PSI	1.00	EA
6	0115	073KK00001		CPLG,Q-DSC,SKT,3/8 TUBING	1.00	EA
4	0300	RHM-CIRCUIT-COOLING KIT P	A	ASSY, RHM-CIRCUIT-COOLING KIT	1.00	EA
5	0001	MMP CIRCUIT BREAKER PLATE	A	KIT, MMP CIRCUIT BREAKER PLATE	1.00	EA
6	0370	121KK00094		FTG, ELBOW, 1/8 X .25	1.00	EA
6	0371	127KK00004		GRM,NYLON,.175 X12-3/4 LG	1.00	EA
6	0372	016K351700	D	BRACKET, SUPPORT, O.D.	1.00	EA
6	0373	289KK00001		CIRCUIT BREAKER, THERM 4A, ROHS	2.00	EA
6	0374	218KK00012		RGLTR, VALVE, PILOT, ADJ	1.00	EA
5	0002	MMP RHM STACKS	B	KIT, MMP RHM STACKS	1.00	EA
6	0303	271KK35070		MANIFOLD, 11 STATION	1.00	EA
6	0307	016K351200	E	BRACKET, CIRCUIT BOARD MOUNT, OD	1.00	EA
6	0308	169KK35001		SANDISK, 4GB MICRO SD CARD W/ADAPTER	1.00	EA
6	0316	205K610400	G	CCA, ENHANCED RHM MOTHERBOARD	2.00	EA
7	0001	206K610400	B	PCB, ENHANCED RHM MOTHER BOARD	1.00	EA
7	0002	0630100014		SHUNT, 2POS 0.079"C ROHS	1.00	EA
7	0003	178KK00014		BUMPER ADH BACK 1/4"DIA X 5/16"H CLR POLYURETHANE	1.00	EA
7	0004	3030100107		CAP CER X5R 0.1UF 16V 20% 0402 ROHS	36.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0005	3030100106		CAP CER X7R 1000PF 50V 10% 0402 ROHS	2.00	EA
7	0006	3030100133		CAP CER C0G 10PF 50V 5% 0402 ROHS	2.00	EA
7	0007	3030100135		CAP CER X5R 10UF 6V3 20% 0603 ROHS	7.00	EA
7	0008	3030100134		CAP CER X5R 22UF 6V3 20% 0805 ROHS	2.00	EA
7	0009	3030100066		CAP CER X7R 0.1UF 16V 20% 0603 ROHS	48.00	EA
7	0010	3030100010		CAP CER NPO 22PF 50V 5% 0603 ROHS	2.00	EA
7	0011	3030100099		CAP TANT 10UF 10V 10% 3216 ROHS	1.00	EA
7	0012	3030100065		CAP CER X5R 10UF 25V 10% 1206 ROHS	5.00	EA
7	0013	3030100001		CAP CER X5R 1.0UF 25V 10% 0603 ROHS	3.00	EA
7	0014	3030100102		CAP CER COG 15PF 50V 5% 0603 ROHS	2.00	EA
7	0015	3030100095		CAP CER X7R 0.47UF 25V 10% 0603 ROHS	2.00	EA
7	0016	3030100007		CAP CER X7R 0.047UF 25V 10% 0603 ROHS	1.00	EA
7	0017	3030100017		CAP CER X7R 0.01UF 25V 5% 0603 ROHS	9.00	EA
7	0018	3030100086		CAP CER X7R 0.01UF 16V 10% 0402 ROHS	21.00	EA
7	0019	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	5.00	EA
7	0020	3030100087		CAP TANT 470UF 6.3V 10% 7343-31 ROHS	1.00	EA
7	0021	3030100020		CAP CER X7R 1000PF 100V 20% 0603 ROHS	1.00	EA
7	0022	3030100063		CAP CER X5R 10UF 10V 20% 0805 ROHS	2.00	EA
7	0023	3030100059		CAP TANT 47UF 25V 20% 7343 ROHS	1.00	EA
7	0024	3030100093		CAP, CER X7R 0.001UF 50V 20% 0603 ROHS	6.00	EA
7	0025	3030100136		CAP CER X5R 22UF 10V 20% 1206 ROHS	1.00	EA
7	0026	3030100098		CAP CER X5R 47UF 16V 20% 1210 ROHS	1.00	EA
7	0027	3030100006		CAP CER X5R 0.1UF 25V 10% 0603 ROHS	1.00	EA
7	0028	0880100041		LED 525NM GREEN WTR CLR 0603 ROHS	11.00	EA
7	0029	0880100054		LED 605NM RED WTR CLR 0603 ROHS	1.00	EA
7	0030	0880100038		TVS BIDIRECT 400W 22V SMA ROHS BY EXEMPTION	3.00	EA
7	0031	0880100042		TVS, DUAL 14.5V SOT23 ROHS	1.00	EA
7	0032	0880100037		DIODE SW DUAL SERIES 80V 200mA SOT363 ROHS	3.00	EA
7	0033	0880100043		DIODE SWITCHING 75V 0.215A SOT23 ROHS	2.00	EA
7	0034	0880100040		DIODE SCHOTTKY 10V 2A SOD123F ROHS	2.00	EA
7	0035	0880100027		DIODE SCHOTTKY 30V 0.1A SOD123 ROHS	2.00	EA
7	0036	0550100027		FERRITE 470 OHMS @ 100MHZ ISAT=1.5A DCR=0.13 0603 ROHS	4.00	EA
7	0037	0630100053		CONN 3POS HDR 2MM SMT ROHS	1.00	EA
7	0038	0630100082		CONNECTOR 10 PIN HEADER 2MM PITCH ROHS	1.00	EA
7	0039	0630100064		CONN, USB TYPE B RAPCB ROHS	1.00	EA
7	0040	0630100006		CONN 3POS 0.079"C PCB TYPE PH ROHS	1.00	EA
7	0041	0630100054		CONN HEADER 2X3POS 0.1C PCB ROHS	2.00	EA
7	0042	0630100060		CONN. 2X8 (16PIN) SHROUDED THRU HOLE 2MM RA ROHS	1.00	EA
7	0043	0630100086		CONNECTOR MICRO-SD CARD SLOT PUSH-PULL HINGE SMT ROHS	1.00	EA
7	0044	0630100059		CONN. 2X12 (24PIN) SHROUDED THRU HOLE 2MM RA ROHS	2.00	EA
7	0045	0630100066		CONN PULSEJACK 1PORT 10/100B-TX ROHS	2.00	EA
7	0046	0630100050		CONN, 2POS .118"C RAPCB MICROFIT ROHS	1.00	EA
7	0047	0630100067		CONN 2X5POS 0.1C SHROUDED W/KEY PCB ROHS	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0048	063KK00396		CONN, 80 POS, DUAL ROW, PLUG, SMD, 0.8mm, GOLD	2.00	EA
7	0049	0630100068		CONN PWR JACK 2.1X5.5MM ROHS	1.00	EA
7	0050	0630100055		CONN 2POS HDR 2MM SMT ROHS	1.00	EA
7	0051	0630100010		CONN 4POS 0.079"C PCB TYPE PH ROHS	1.00	EA
7	0052	0630100069		CONN HEADER PH TOP 5POS 2MM	1.00	EA
7	0053	0630100062		CONN 2X5POS 0.079"C SHROUDED PCB ROHS	1.00	EA
7	0054	0630100094		CONN 2X10POS 0.079C PCB IGRIDT ROHS	1.00	EA
7	0055	055KK00200		CHOKE, COMMON MODE, 15A, DCR=0.0008, 2021 ROHS	2.00	EA
7	0056	0550100018		INDUCTOR 2.2uH 2.7A 30% DCR=0.042 OHM SMD ROHS	2.00	EA
7	0057	0550100012		CHOKE, COMMON MODE 0.3A DCR=0.3 0805 ROHS	1.00	EA
7	0058	2630100012		TRANS PMOSFET -30V -6.4A POWERPAK 1212-8 ROHS	3.00	EA
7	0059	2630100015		TRANS, NMOSFET 30V 13A SOT23 ROHS	1.00	EA
7	0060	2630100017		TRANS, PMOSFET 30V 0.9A SSOT3 ROHS	1.00	EA
7	0061	2630100020		TRANS, PMOSFET -30V -2A SOT23 ROHS	2.00	EA
7	0062	2630100002		TRANS, NPN TYPE 2N3904 SOT23 ROHS	2.00	EA
7	0063	6200100224		RES 10.0 OHM 1/16W 1% 0402 ROHS	5.00	EA
7	0064	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	4.00	EA
7	0065	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	12.00	EA
7	0066	6200100146		RES TF 22 OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0067	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0068	6200100147		RES TF 1.5K OHM 1/10W 5% 0603 ROHS	1.00	EA
7	0069	6200100091		RES, TF 1K OHM 1/10W 5% 0603 ROHS	5.00	EA
7	0070	6200100155		RES TF 0 OHM 5% 1/16W 0402 ROHS	2.00	EA
7	0071	6200100148		RES TF 3.01K OHM 1/16W 1% 0402 ROHS	1.00	EA
7	0072	6200100149		RES TF 10.0K OHM 1/16W 1% 0402 ROHS	5.00	EA
7	0073	6200100150		RES TF 1K OHM 1/16W 1% 0402 ROHS	5.00	EA
7	0074	6200100222		RES TF 4.75K OHM 1/10W 1% 0603 ROHS	2.00	EA
7	0075	6200100015		RES TF 49.9 OHM 1/10W 1% 0603 ROHS	8.00	EA
7	0076	6200100151		RES TF 220 OHM 1/10W 5% 0603 ROHS	4.00	EA
7	0077	6200100131		RES TF 390 OHM 1/10W 1% 0603 ROHS	12.00	EA
7	0078	6200100049		RES TF 470K OHM 1/10W 5% 0603 ROHS	4.00	EA
7	0079	6200100223		RES 15.0 OHM 1/16W 1% 0402 ROHS	2.00	EA
7	0080	6200100152		RES TF 15K OHM 1/10W 5% 0603 ROHS	1.00	EA
7	0081	6200100153		RES TF 22K OHM 1/10W 5% 0603 ROHS	1.00	EA
7	0082	6200100154		RES TF 27 OHM 1/10W 5% 0603 ROHS	2.00	EA
7	0083	6200100136		RES TF 330K 1/10W 1% 0603 ROHS	2.00	EA
7	0084	6200100003		RES TF 10.0K OHM 1/10W 1% 0603 ROHS	12.00	EA
7	0085	6200100013		RES TF 4.99K OHM 1/10W 1% 0603 ROHS	2.00	EA
7	0086	6200100130		RES TF 4.7K OHM 1/10W 1% 0603 ROHS	3.00	EA
7	0087	6200100071		RES TF 100 OHM 1/10W 1% 0603 ROHS	7.00	EA
7	0088	6200100097		RES, TF 10 OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0089	6200100157		RES 3TF 00 OHM 1/10W 1% 0603 ROHS	8.00	EA
7	0090	6200100132		RES TF 470 OHM 1/10W 1% 0603 ROHS	6.00	EA
7	0091	6200100012		RES TF 20.0K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0092	6200100236		RES TF 68.0 OHM 1/16W 1% 0402 ROHS	5.00	EA
7	0093	6200100237		RES TF 49.9 OHM 1/16W 1% 0402 ROHS	3.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0094	6200100235		RES TF 33.0 OHM 1/16W 1% 0402 ROHS	2.00	EA
7	0095	6200100156		RES MF 0.15 OHM 1/2W 1% 1206 ROHS	2.00	EA
7	0096	6200100130		RES TF 4.7K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0097	6200100015		RES TF 49.9 OHM 1/10W 1% 0603 ROHS	16.00	EA
7	0098	6200100142		RES TF 2K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0099	6200100026		RES TF 200 OHM 1/10W 1% 0603 ROHS	2.00	EA
7	0100	6200100238		RES TF 28.0 OHM 1/16W 1% 0402 ROHS	1.00	EA
7	0101	6200100239		RES TF 24.0 OHM 1/16W 1% 0402 ROHS	2.00	EA
7	0102	6200100240		RES TF 27.0 OHM 1/16W 1% 0402 ROHS	1.00	EA
7	0103	6200100241		RES TF 47.0 OHM 1/16W 1% 0402 ROHS	1.00	EA
7	0104	6200100242		RES TF 62.0 OHM 1/16W 1% 0402 ROHS	1.00	EA
7	0105	6200100049		RES TF 470K OHM 1/10W 5% 0603 ROHS	2.00	EA
7	0106	2500100007		SWITCH SPST MOM NO ROHS	2.00	EA
7	0107	2500100006		SWITCH 3POS DIP 0.1C SMT ROHS	2.00	EA
7	0108	0630100070		TEST POINT PC MULTI PURPOSE BLK ROHS	1.00	EA
7	0109	0460100090		IC ARM7 MCU FLASH 512K LQFP128 ROHS	1.00	EA
7	0110	0460100124		IC 2 PORT ETHERNET SWITCH I-TEMP LFBGA100 ROHS	1.00	EA
7	0111	0460100027		IC LOWLOSS POWERPATH CONTROLLER TSOT-6 ROHS	5.00	EA
7	0112	0460100092		IC SDRAM 256MB 133MHZ 54-VFBGA ROHS	1.00	EA
7	0114	0460100094		IC POWER ON RESET SOT23-5 ROHS	1.00	EA
7	0115	0460100095		IC LINE TX/RX RS-232 32-LFCSP_VQ ROHS	1.00	EA
7	0116	0460100096		IC, 400-GATE FPGA SPARTAN-3AN BGA 1MMX20X20 ROHS	1.00	EA
7	0117	0460100082		IC REG DC-DC LINEAR DUAL 1.5A 24LLP ROHS	1.00	EA
7	0118	0460100073		IC, SERIAL FLASH 8MBIT MEMORY SO8 ROHS	1.00	EA
7	0119	0460100071		IC BUFFER SGL 3 STATE LINE DRV NON INV SOT235 ROHS	1.00	EA
7	0120	0460100097		IC AMP HISIDE CURR V-OUT 20 GAIN SOT23-6	2.00	EA
7	0121	0460100076		IC DAC 8 CHAN R-R 12 BIT 16SSOP ROHS	1.00	EA
7	0122	0460100075		IC 8 CHAN ADC 12 BIT SSOP-20 ROHS	1.00	EA
7	0123	0460100089		IC OPTO ISOL DARL 2CH 18V/60mA OUTPUT 8SOIC ROHS	1.00	EA
7	0124	0460100081		IC SENSOR TOUCH/PROXMTY 24-SOICW ROHS - do not scrap	1.00	EA
7	0125	0460100079		IC VOLT-LEVEL 4BIT BI-DIR TRANSLATOR 14-QFN	2.00	EA
7	0126	1840100002		XTAL 18.432MHZ 18PF 5X3.2MM ROHS	1.00	EA
7	0127	1840100003		XTAL 25MHZ 18PF 3.2X2.5MM ROHS	1.00	EA
7	0128	1840100004		OSC, 50MHZ 50PPM 15PF 3X2.5 SMD ROHS	1.00	EA
7	0129	6200100256		RES TF 24.9K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0130	905K610401	D	SCHEMATIC, ENHANCED RHM MOTHERBOARD	1.00	EA
6	0317	205K610500	G	CCA, ENHANCED, RHM DAQ DAUGHTER BOARD	1.00	EA
7	0001	206K610500	C	PCB, ENHANCED, RHM DAQ DAUGHTER BOARD	1.00	EA
7	0002	0630100014		SHUNT, 2POS 0.079"C ROHS	2.00	EA
7	0003	3030100006		CAP CER X5R 0.1UF 25V 10% 0603 ROHS	54.00	EA
7	0004	3030100007		CAP CER X7R 0.047UF 25V 10% 0603 ROHS	1.00	EA
7	0005	3030100017		CAP CER X7R 0.01UF 25V 5% 0603 ROHS	9.00	EA
7	0006	3030100086		CAP CER X7R 0.01UF 16V 10% 0402 ROHS	21.00	EA
7	0007	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	4.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0008	3030100066		CAP CER X7R 0.1UF 16V 20% 0603 ROHS	13.00	EA
7	0009	3030100087		CAP TANT 470UF 6.3V 10% 7343-31 ROHS	1.00	EA
7	0010	3030100042		CAP CER X5R 4.7UF 10V 10% 0805 ROHS	1.00	EA
7	0011	3030100088		CAP CER X5R 10UF 25V 20% 1206 ROHS	7.00	EA
7	0012	3030100089		CAP TANT 10UF 16V 20% 1206 ROHS	2.00	EA
7	0013	3030100090		CAP TANT 1.0UF 20V 10% 1206 ROHS	1.00	EA
7	0014	3030100091		CAP CER X7R 1800PF 50V 10% 0603 ROHS	1.00	EA
7	0016	3030100092		CAP TANT 47UF 16V 20% 6032-28 ROHS	1.00	EA
7	0017	3030100093		CAP, CER X7R 0.001UF 50V 20% 0603 ROHS	8.00	EA
7	0018	3030100094		CAP CER X5S 1.0UF 25V 20% 0603 ROHS	3.00	EA
7	0019	3030100095		CAP CER X7R 0.47UF 25V 10% 0603 ROHS	2.00	EA
7	0020	3030100096		CAP CER X5R 2.2UF 16V 10% 0603 ROHS	1.00	EA
7	0021	3030100097		CAP TANT 4.7UF 16V 20% 0603 ROHS	1.00	EA
7	0022	3030100017		CAP CER X7R 0.01UF 25V 5% 0603 ROHS	3.00	EA
7	0023	3030100020		CAP CER X7R 1000PF 100V 20% 0603 ROHS	1.00	EA
7	0024	3030100098		CAP CER X5R 47UF 16V 20% 1210 ROHS	1.00	EA
7	0025	0880100033		LED GREEN CLEAR 0603 RT ANG SMD ROHS	5.00	EA
7	0026	0880100034		LED YELLOW CLEAR 0603 RT ANG SMD ROHS	3.00	EA
7	0027	0880100035		LED SUPR RED CLR 0603 RT ANG SMD ROHS	1.00	EA
7	0028	0880100037		DIODE SW DUAL SERIES 80V 200mA SOT363 ROHS	5.00	EA
7	0029	0880100038		TVS BIDIRECT 400W 22V SMA ROHS BY EXEMPTION	2.00	EA
7	0030	0880100039		DIODE SWITCHING 75V 0.2A SOD123 ROHS	24.00	EA
7	0031	0880100004		DIODE SCHOTTKY 40V 1A POWERMITE ROHS	2.00	EA
7	0032	0880100040		DIODE SCHOTTKY 10V 2A SOD123F ROHS	2.00	EA
7	0033	0550100027		FERRITE 470 OHMS @ 100MHZ ISAT=1.5A DCR=0.13 0603 ROHS	2.00	EA
7	0034	0630100053		CONN 3POS HDR 2MM SMT ROHS	2.00	EA
7	0035	0630100054		CONN HEADER 2X3POS 0.1C PCB ROHS	2.00	EA
7	0036	0630100055		CONN 2POS HDR 2MM SMT ROHS	1.00	EA
7	0037	0630100056		CONN. RECP 2X40 (80PIN) 0.8MM PITCH ROHS	2.00	EA
7	0038	0630100057		CONN. 2X13 (26PIN) SHROUDED THRU HOLE 2MM RA ROHS	3.00	EA
7	0039	0630100058		CONN. 2X17 (34PIN) SHROUDED THRU HOLE 2MM RA ROHS	1.00	EA
7	0040	0630100059		CONN. 2X12 (24PIN) SHROUDED THRU HOLE 2MM RA ROHS	3.00	EA
7	0041	0630100060		CONN. 2X8 (16PIN) SHROUDED THRU HOLE 2MM RA ROHS	1.00	EA
7	0042	055KK00200		CHOKE, COMMON MODE, 15A, DCR=0.0008, 2021 ROHS	2.00	EA
7	0043	0550100018		INDUCTOR 2.2uH 2.7A 30% DCR=0.042 OHM SMD ROHS	2.00	EA
7	0044	063KK00396		CONN, 80 POS, DUAL ROW, PLUG, SMD, 0.8mm, GOLD	2.00	EA
7	0045	2630100015		TRANS, NMOSFET 30V 13A SOT23 ROHS	1.00	EA
7	0046	2630100016		TRANS NMOSFET 30V 13A SO8 ROHS	2.00	EA
7	0047	2630100017		TRANS, PMOSFET 30V 0.9A SSOT3 ROHS	2.00	EA
7	0048	2630100018		TRANS, PNP VCE=60V IC=0.5A SOT23 ROHS	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0049	6200100003		RES TF 10.0K OHM 1/10W 1% 0603 ROHS	5.00	EA
7	0050	6200100130		RES TF 4.7K OHM 1/10W 1% 0603 ROHS	8.00	EA
7	0051	6200100131		RES TF 390 OHM 1/10W 1% 0603 ROHS	9.00	EA
7	0052	6200100008		RES TF 0.0 OHM 1/10W 5% 0603 ROHS	38.00	EA
7	0054	6200100097		RES, TF 10 OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0055	6200100133		RES TF 20 OHM 1/10W 1% 0603 ROHS	8.00	EA
7	0056	6200100132		RES TF 470 OHM 1/10W 1% 0603 ROHS	7.00	EA
7	0057	6200100134		RES TF 15.0K OHM 1/10W 1% 0603 ROHS	14.00	EA
7	0058	6200100135		RES TF 270 OHM 1/10W 1% 0603 ROHS	2.00	EA
7	0059	6200100013		RES TF 4.99K OHM 1/10W 1% 0603 ROHS	9.00	EA
7	0060	6200100012		RES TF 20.0K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0061	6200100223		RES 15.0 OHM 1/16W 1% 0402 ROHS	2.00	EA
7	0062	6200100142		RES TF 2K OHM 1/10W 1% 0603 ROHS	11.00	EA
7	0063	6200100136		RES TF 330K 1/10W 1% 0603 ROHS	1.00	EA
7	0064	6200100137		RES MF 0.024 1/2W 1% 1206 ROHS	2.00	EA
7	0065	6200100072		RES TF 249 OHM 1/10W 1% 0603 SMD ROHS	2.00	EA
7	0066	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0067	6200100138		RES TF 73.2K 1/10W 1% 0603 ROHS	1.00	EA
7	0068	6200100139		RES TF 43.2K 1/10W 1% 0603 ROHS	1.00	EA
7	0069	6200100140		RES TF 340 OHM 1/10W 1% 0603 ROHS	6.00	EA
7	0070	6200100096		RES, TF 140 OHM, 1/10W 1% 0603 ROHS	6.00	EA
7	0071	6200100141		RES TF 75 OHM 1/10W 1% 0603 ROHS	8.00	EA
7	0072	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	26.00	EA
7	0073	6200100143		RES TF 0.0 OHM 1/4W 5% 1206 ROHS	2.00	EA
7	0074	6200100071		RES TF 100 OHM 1/10W 1% 0603 ROHS	4.00	EA
7	0075	6200100145		RES TF 249K OHM 1/10W 5% 0603 ROHS	1.00	EA
7	0076	0550100034		FERRITE CHIP 1000 OHM 50MA 0603 ROHS	30.00	EA
7	0077	2500100004		SWITCH 6POS DIP HALF PITCH 9.2X5.6(MM) SMD ROHS	1.00	EA
7	0078	2500100005		SWITCH 2POS DIP HALF PITCH 8X4.1(MM) ROHS	1.00	EA
7	0079	0460100070		IC, 400-GATE FPGA SPARTAN-3A BGA 1MMX20X20 ROHS	1.00	EA
7	0082	0460100073		IC, SERIAL FLASH 8MBIT MEMORY SO8 ROHS	1.00	EA
7	0083	0460100074		IC 8 CHAN ADC 12 BIT SSOP-28 ROHS	1.00	EA
7	0084	0460100075		IC 8 CHAN ADC 12 BIT SSOP-20 ROHS	1.00	EA
7	0085	0460100076		IC DAC 8 CHAN R-R 12 BIT 16SSOP ROHS	3.00	EA
7	0086	0460100077		IC PREC 8 CHANNEL ANALOG MULT TSSOP16 ROHS	2.00	EA
7	0087	0460100078		IC INST. AMPLIFIER 12 DFN ROHS	1.00	EA
7	0088	0460100079		IC VOLT-LEVEL 4BIT BI-DIR TRANSLATOR 14-QFN	5.00	EA
7	0089	0460100080		IC THERMAL SUPERVISOR SOT23-6 ROHS	1.00	EA
7	0090	0460100081		IC SENSOR TOUCH/PROXMTY 24-SOICW ROHS - do not scrap	1.00	EA
7	0091	0460100082		IC REG DC-DC LINEAR DUAL 1.5A 24LLP ROHS	1.00	EA
7	0092	0460100126		IC LDO VREG 5V/0.2A OUT W/DELAY SO-8 ROHS	1.00	EA
7	0093	0460100084		IC HOT SWAP DUAL RAIL CONTROLLER QSOP16 ROHS	1.00	EA
7	0094	0460100085		IC VOLT-LEVEL 4BIT BI-DIR TRANSLATOR OPEN DRN 14-QFN	2.00	EA
7	0095	0460100086		IC 2 CH OPTO COUPLER 3.3V SO8 ROHS	3.00	EA
7	0096	0460100087		IC CPLD 32MCELL 32 QFN ROHS	1.00	EA

253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0097	0460100088		IC OPTO ISOLATOR 4 CHAN 40V/40mA OUTPUT SSOP16 ROHS	2.00	EA
7	0098	0460100089		IC OPTO ISOL DARL 2CH 18V/60mA OUTPUT 8SOIC ROHS	13.00	EA
7	0099	0630100014		SHUNT, 2POS 0.079"C ROHS	2.00	EA
7	0101	905K610501	F	SCHEMATIC, ENHANCED RHM DAQ DAUGHTERBOARD	1.00	EA
6	0318	205K610600	C	CCA, ENHANCED, RHM AUDIO DAUGHTER BOARD	1.00	EA
7	0001	206K610600	A	PCB, ENHANCED, RHM AUDIO DAUGHTER BOARD	1.00	EA
7	0002	0630100014		SHUNT, 2POS 0.079"C ROHS	4.00	EA
7	0003	3030100017		CAP CER X7R 0.01UF 25V 5% 0603 ROHS	6.00	EA
7	0004	3030100066		CAP CER X7R 0.1UF 16V 20% 0603 ROHS	15.00	EA
7	0005	3030100104		CAP CER X5R 10UF 16V 10% 0805 ROHS	6.00	EA
7	0006	3030100001		CAP CER X5R 1.0UF 25V 10% 0603 ROHS	11.00	EA
7	0007	3030100086		CAP CER X7R 0.01UF 16V 10% 0402 ROHS	58.00	EA
7	0008	3030100105		CAP CER X5R 4.7UF 10V 20% 0805 ROHS	5.00	EA
7	0009	3030100095		CAP CER X7R 0.47UF 25V 10% 0603 ROHS	2.00	EA
7	0010	3030100087		CAP TANT 470UF 6.3V 10% 7343-31 ROHS	1.00	EA
7	0011	3030100108		CAP CER X5R 1.0UF 10V 10% 0402 ROHS	53.00	EA
7	0012	3030100106		CAP CER X7R 1000PF 50V 10% 0402 ROHS	17.00	EA
7	0013	3030100050		CAP CER NPO 18PF 50V 5% 0603 ROHS	1.00	EA
7	0014	3030100107		CAP CER X5R 0.1UF 16V 20% 0402 ROHS	31.00	EA
7	0015	3030100007		CAP CER X7R 0.047UF 25V 10% 0603 ROHS	1.00	EA
7	0016	3030100122		CAP CER X5R 10UF 10V 20% 0603 ROHS	20.00	EA
7	0018	3030100148		CAP CER X7R 4700pF 50V 5% 0402 ROHS	2.00	EA
7	0019	3030100111		CAP CER X5R 2.2UF 10V 10% 0603 ROHS	2.00	EA
7	0020	3030100110		CAP CER COG 100PF 50V 5% 0402 ROHS	36.00	EA
7	0021	0880100041		LED 525NM GREEN WTR CLR 0603 ROHS	4.00	EA
7	0022	0880100054		LED 605NM RED WTR CLR 0603 ROHS	1.00	EA
7	0023	0880100040		DIODE SCHOTTKY 10V 2A SOD123F ROHS	2.00	EA
7	0024	0550100035		FERRITE BEAD 600 OHM ISAT=2A DCR=0.1 0805 ROHS	6.00	EA
7	0025	0550100036		FERRITE BEAD 300 OHMS @ 100MHZ ISAT=2A DCR=0.1 0603 ROHS	36.00	EA
7	0026	0630100003		CONN HEADER 3POS 0.079C ROHS	4.00	EA
7	0027	0630100072		CONN HEADER 2POS 0.079C PCB ROHS	1.00	EA
7	0028	0630100056		CONN. RECP 2X40 (80PIN) 0.8MM PITCH ROHS	2.00	EA
7	0029	0630100058		CONN. 2X17 (34PIN) SHROUDED THRU HOLE 2MM RA ROHS	2.00	EA
7	0030	0630100073		CONN, 5POS 0.079C RAPCB FRICTION ROHS	1.00	EA
7	0031	0630100054		CONN HEADER 2X3POS 0.1C PCB ROHS	2.00	EA
7	0032	0630100018		CONN, 2POS 0.079C RAPCB FRICTION ROHS	4.00	EA
7	0033	0630100060		CONN. 2X8 (16PIN) SHROUDED THRU HOLE 2MM RA ROHS	2.00	EA
7	0034	0550100018		INDUCTOR 2.2uH 2.7A 30% DCR=0.042 OHM SMD ROHS	2.00	EA
7	0035	063KK00396		CONN, 80 POS, DUAL ROW, PLUG, SMD, 0.8mm, GOLD	2.00	EA
7	0036	0630100074		CONN, 2X18 POS SKT 0.05C SMT TYPE CLP ROHS	2.00	EA
7	0037	2630100016		TRANS NMOSFET 30V 13A SO8 ROHS	2.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0038	2630100015		TRANS, NMOSFET 30V 13A SOT23 ROHS	1.00	EA
7	0039	2630100018		TRANS, PNP VCE=60V IC=0.5A SOT23 ROHS	1.00	EA
7	0040	6200100158		RES NTWK 2X9 SERIES 22 OHM 1% 1/20W 1.27MMX4X9 BGA ROHS	2.00	EA
7	0041	6200100137		RES MF 0.024 1/2W 1% 1206 ROHS	1.00	EA
7	0042	6200100159		RES TF 71.5K OHM 1/10W 1% 0603 ROHS	2.00	EA
7	0043	6200100072		RES TF 249 OHM 1/10W 1% 0603 SMD ROHS	2.00	EA
7	0044	6200100003		RES TF 10.0K OHM 1/10W 1% 0603 ROHS	9.00	EA
7	0045	6200100130		RES TF 4.7K OHM 1/10W 1% 0603 ROHS	7.00	EA
7	0046	6200100160		RES MF 0.01 OHM 1/2W 0.5% 1206 ROHS	1.00	EA
7	0047	6200100006		RES TF 49.9K OHM 1/10W 1% 0603 ROHS	2.00	EA
7	0048	6200100131		RES TF 390 OHM 1/10W 1% 0603 ROHS	5.00	EA
7	0049	6200100071		RES TF 100 OHM 1/10W 1% 0603 ROHS	4.00	EA
7	0050	6200100005		RES TF 100K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0051	6200100001		RES TF 1.00K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0052	6200100162		RES TF 40.2K OHM 1/10W 1% 0603 ROHS	1.00	EA
7	0053	6200100163		RES TF 22.1 OHM 1/16W 1% 0402 ROHS	6.00	EA
7	0054	6200100164		RES TF 4.7K OHM 1/16W 1% 0402 ROHS	1.00	EA
7	0055	6200100165		RES TF 10K OHM 1/16W 1% 0402 ROHS	8.00	EA
7	0056	6200100166		RES TF 150K OHM 1/16W 1% 0402 ROHS	32.00	EA
7	0057	6200100257		RES 210K OHM 1/16W 1% 0402 ROHS	4.00	EA
7	0058	6200100247		RES TF 10.5K OHM 1/16W 1% 0402 ROHS	4.00	EA
7	0059	6200100248		RES TF 1.1K OHM 1/16W 1% 0402 ROHS	4.00	EA
7	0060	6200100249		RES 15.8K OHM 1/10W 1% 0402 ROHS	4.00	EA
7	0061	6200100250		RES TF 3.32K OHM 1/16W 1% 0402 ROHS	2.00	EA
7	0062	6200100258		RES 105K OHM 1/10W 1% 0402	2.00	EA
7	0063	6200100252		RES 47.5 OHM 1/10W 1% 0402 ROHS	2.00	EA
7	0065	6200100155		RES TF 0 OHM 5% 1/16W 0402 ROHS	8.00	EA
7	0066	6200100173		RES TF 549 OHM 1/10W 1% 0603 ROHS	16.00	EA
7	0067	6200100068		RES TF 0 OHM 1A 0603 ROHS	5.00	EA
7	0068	6200100221		RES TF 33.2 OHM 1/16W 1% 0402 ROHS	3.00	EA
7	0069	2500100004		SWITCH 6POS DIP HALF PITCH 9.2X5.6(MM) SMD ROHS	1.00	EA
7	0070	2500100005		SWITCH 2POS DIP HALF PITCH 8X4.1(MM) ROHS	1.00	EA
7	0071	0460100100		IC, 700K FPGA SPARTAN-3A BGA 1MMX20X20 ROHS	1.00	EA
7	0072	0460100101		IC, DDR SDRAM 133MHZ 8MEG X 16 X 4 FBGA60 ROHS	1.00	EA
7	0073	0460100084		IC HOT SWAP DUAL RAIL CONTROLLER QSOP16 ROHS	1.00	EA
7	0074	0460100082		IC REG DC-DC LINEAR DUAL 1.5A 24LLP ROHS	1.00	EA
7	0075	0460100102		IC THERMAL SUPERVISOR (1YM6) SOT23-6 ROHS	1.00	EA
7	0076	0460100073		IC, SERIAL FLASH 8MBIT MEMORY SO8 ROHS	1.00	EA
7	0077	0460100087		IC CPLD 32MCELL 32 QFN ROHS	1.00	EA
7	0078	0460100103		IC, VREG LDO ADJ 0.5A DFN13, ROHS	1.00	EA
7	0079	0460100104		IC, VREG LDO 2.5V 0.5A DFN13, ROHS	1.00	EA
7	0080	0460100105		IC, CODEC 16/18/20/24 BIT 8CH I2S/I2C/SPI PWP28 ROHS	2.00	EA
7	0081	0460100106		IC, 2.5W CLASS D AUDIO AMP W/AUTO REC FLIP- CHIP 3X3 ROHS	16.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
7	0082	0460100107		IC, DUAL SPDT ANALOG SW MICROBUMP10 ROHS	4.00	EA
7	0083	0460100108		IC, DUAL OP AMP OPA353 SSOP8 ROHS	2.00	EA
7	0084	0460100067		IC, 3W AUDIO AMPLIFIER FLIP-CHIP 3X3 ROHS	2.00	EA
7	0085	0460100110		IC, OPAMP OPA337 SOT23-5 ROHS	2.00	EA
7	0086	0460100109		IC, CODEC 2 CH I2S/I2C/SPI BGA 1MMX9X9 ROHS	2.00	EA
7	0087	1840100005		OSC 100.000MHZ 3.3V 3X2.5MM SMD ROS	1.00	EA
7	0088	1840100006		OSC, 11.2896 MHZ 5X3.2MM SMD ROHS	1.00	EA
6	0329	074K350100	A	COVER, PLATE, RHM	2.00	EA
6	0333	271KK35020		MANIFOLD, 2 STATION	2.00	EA
6	0334	271KK35030		VALVE, SINGLE, W BASE PLATE	3.00	EA
6	0341	016K351400	A	BRKT, SIDE VALVE MANIFOLD, OD	2.00	EA
6	0366	271KK35020		MANIFOLD, 2 STATION	1.00	EA
6	0369	268KK00058		TBG,CUFFLESS,15MM ID X 24 LG	0.50	EA
6	0371	127KK00004		GRM, NYLON,.175 X12-3/4 LG	1.00	EA
5	0003	COOLING FAN AND BRACKET	A	ASSY, COOLING FAN AND BRACKET	1.00	EA
6	0107	297KK00313		STDF, M-F, 2-56, 3/16 HEX X 1/4 LG, S.S.	2.00	EA
6	0150	127KK00004		GRM, NYLON,.175 X12-3/4 LG	0.50	EA
6	0151	016K351200	E	BRACKET, CIRCUIT BOARD MOUNT, OD	1.00	EA
6	0152	014KK00013		FAN, 12 V 45 X 45 X 20 MM	1.00	EA
6	0153	065KK00206		CONT CRIMP PIN 22-24 AWG TIN SLT ROHS	2.00	EA
6	0154	0639802018		CONN HSG 2POS MALE IN-LINE SL	1.00	EA
6	0155	268KK00064		TBG, CUFFLESS, 22MM ID X 6	1.00	EA
6	0156	415KK00023		ADPTR ,PRES ,22MM-15MM OD	1.00	EA
6	0157	900KK00034		RM,FM,PORON,..062X4"	0.50	FT
2	0034	905K361557	D	APOLLO PRE-HOSPITAL MANNEQUIN PICK LIST	1.00	EA
2	0035	905K361757	A	APOLLO PRE-HOSPITAL ACCESSORIES PICK LIST	1.00	EA
2	0036	905K350013	B	WIRING DIAGRAM	1.00	EA
2	0037	881K360000	A	MUSE SCE DEV SOFTWARE - MMP 1 LICENSE , 4 SEATS ELEC DEV	1.00	EA
2	0038	147K353100	A	KIT, MUSE SOFTWARE LICENSING SYSTEM DOCUMENTATION, METIMAN	1.00	EA
3	0001	905K350252	O	GUIDE, MUSE SUPPORT	1.00	EA
3	0003	905K217035	F	ATP, SIMULATOR WORK INSTRUCTION	1.00	EA
3	0004	905K217081	E	DATA RECORD SIMULATOR WORKSTATION	1.00	EA
3	0006	905K350152	F	GUIDE, MUSE ACTIVATION FOR PRODUCTION	1.00	EA
3	0007	905K353060	A	Process Definition: Müse Activation and Deactivation	1.00	EA
3	0008	905K353160	A	Process Definition: License Server Access	1.00	EA
3	0009	905K353260	A	Process Definition: Loaner or Replacement Units	1.00	EA
3	0010	905K353360	A	Process Definition: Rescue Licenses	1.00	EA
3	0011	905K353460	B	PROCESS DEFINITION, ORDER FULLFILLMENT	1.00	EA
3	0012	905K353560	A	Process Definition: SW for METI Personnel	1.00	EA
3	0013	905K353660	A	Process Definition: Operations - Issuing a Müse License	1.00	EA
3	0014	905K350407	A	PROCEDURE, MUSE SOFTWARE INSTALLATION, METIMAN	1.00	EA
3	0015	905K000599	G	METI LICENSING USER GUIDE	1.00	EA
3	0016	910K351904	B	USB DRIVE CONFIGURATION FOR VIVO	1.00	EA

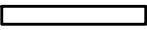
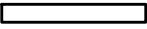
Level	Find	Component	Rev	Component Description	Qty	U/M
2	0039	905K000664	A	MUSE TRIAL LICENSE RESET TOOL	1.00	EA
2	0041	905K000622	1.0	INSTRUCTIONS, NETWORK CONNECTION FOR A LAPTOP, MUSE	1.00	EA
2	0042	881K000100	2.2	SOFTWARE, VIVO	1.00	EA
2	0043	881K000200	2.7	MUSE	1.00	EA
1	0002	147K353500	B	KIT, MACBOOK	1.00	EA
2	0001	253KK00051		Apple MacBook Pro 13"	1.00	EA
2	0002	147K353300	A	KIT, MUSE SOFTWARE LICENSING SYSTEM DOCUMENTATION, MAC	1.00	EA
3	0001	905K217034	O	PROCEDURE, WORKSTATION SETUP	1.00	EA
3	0002	905K350007	S	Mac OS X Computer Imaging	1.00	EA
3	0003	905K350164	K	INSTRUCTIONS, CONFIGURATION, MUSE BROWSER	1.00	EA
2	0998	MACBOOK KIT MM AP	B	KIT, MACBOOK, METIMAN/APOLLO	1.00	EA
3	0001	253KK00051		Apple MacBook Pro 13"	1.00	EA
3	0002	905K350007	S	Mac OS X Computer Imaging	1.00	EA
2	0999	905K351457	A	MACBOOK PICK LIST	1.00	EA
1	0003	905K000422	1.0	INSTRUCTIONS, CONFIGURATION FOR A LAPTOP, VIVO	1.00	EA
1	0004	147K362300	B	KIT, INVENTORY, APOLLO - PRE-HOSPITAL	1.00	EA
2	0001	253K350600	D	ASSY, FEMALE GENITALIA	1.00	EA
3	0001	104K354100	A	FEMALE GENITALIA, OD	1.00	EA
3	0003	073KK00001		CPLG,Q-DSC,SKT,3/8 TUBING	1.00	EA
3	0004	258KK00013		TIE, CABLE, 5.4", IN LINE	1.00	EA
2	0005	0603000015		INTUBATION LUBRICANT-4OZ SILICONE SPRAY	1.00	EA
2	0006	991CLY0037		LUER LOCK SYRINGE 60ML	1.00	EA
2	0007	253K362300	1.0	ASSY, START-UP KIT, APOLLO	1.00	EA
3	0001	905K360352	1.0	SETUP MAP, APOLLO	1.00	EA
3	0002	905K360452	1.0	QUICKSTART CHART, APOLLO	1.00	EA
3	0003	905K360092	5.0	SPEC SHEET, METIMAN STARTUP KIT	1.00	EA
2	0011	252KK00002		TAPE, RED, PVC, 2W X 8MIL THK X 36 YD ROLL	1.00	ROL
2	0012	252KK00019		TAPE, VHB, 4 FT ROLL	1.00	ROL
2	0013	200K000500	B	POST, ECG, ISTAN	5.00	EA
2	0014	104KK00036		DISK,PACING DEFIB,MANUAL	2.00	EA
2	0015	060KK00081		CARTRIDGE, CO2, 16GMS (order in quantities of 4)	4.00	EA
2	0016	253K358500	A	ASSY, WOUND UMBILICAL, O.D.	2.00	EA
3	0001	415KK00033		1/8 TO 1/8 ADAPTER	1.00	EA
3	0002	415KK00032		ADAPTER 3/16 TO 1/8	1.00	EA
3	0003	073KK00019		CPLG, 1 4 TURN, 1 8 BARB, MALE - BLACK	1.00	EA
3	0004	0479800092		CLAMP,.269 -.291 OD TBG	1.00	EA
3	0005	268KK00103		TBG, IV ARM .125ID .250OD	1.60	FT
3	0006	2689800115		TBG,1/8ID,1/4OD,CLEAR,HRD	2.10	FT
3	0007	268KK00109		RED SHRINK TUBING	0.16	FT
3	0008	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	1.00	EA
3	0009	166KK00007		LBL,RIBBON CABLE	1.00	EA
2	0017	253K353200	A	ASSY, PLENUM DRAIN, O.D.	1.00	EA
3	0001	2689800115		TBG,1/8ID,1/4OD,CLEAR,HRD	3.50	FT
3	0002	0739800008		FTG, COUPLING, MALE, INLINE 1/8	1.00	EA
3	0003	0479800092		CLAMP,.269 -.291 OD TBG	1.00	EA

Level	Find	Component	Rev	Component Description	Qty	U/M
3	0004	166KK00007		LBL,RIBBON CABLE	1.00	EA
3	0005	166KK00004		LBL,INK JET,POLYEST,WHT,0.250 Wx0.750 H	1.00	EA
2	0018	268KK00103		TBG, IV ARM .125ID .250OD	4.00	FT
2	0019	268K352400	A	ASSY, EXTENSION, O.D.	1.00	EA
3	0001	2689800115		TBG,1/8ID,1/4OD,CLEAR,HRD	0.70	FT
3	0002	0739800015		FEMALE LUER TO 1/8 BARB	1.00	EA
3	0003	4159800061		FTG, MALE LUER W/LOCKING	1.00	EA
3	0004	0479800092		CLAMP,.269 -.291 OD TBG	2.00	EA
3	0005	166KK00007		LBL,RIBBON CABLE	1.00	EA
2	0020	415K350000	A	ADPTR, BLOOD, PRESS, MANUAL	1.00	EA
3	0001	4159800061		FTG, MALE LUER W/LOCKING	1.00	EA
3	0002	0479800092		CLAMP,.269 -.291 OD TBG	5.00	EA
3	0003	2689800115		TBG,1/8ID,1/4OD,CLEAR,HRD	2.00	FT
3	0004	166KK00007		LBL,RIBBON CABLE	1.00	EA
3	0005	1219800019		FTG,TEE,ID,1/8"	1.00	EA
3	0006	0739800008		FTG, COUPLING, MALE, INLINE 1/8	2.00	EA
3	0007	0739800010		COUPLING,F,1/8IN	2.00	EA
3	0008	0479800087		CLAMP,.228 -.256 OD TBG	1.00	EA
2	0024	268K352500	A	ASSY, CHEST TUBE PRIME, O.D.	1.00	EA
3	0001	268KK00100		TBG,1/4ID,3/8OD CLR PUR	6.00	FT
3	0002	166KK00019		LBL, SLEEVE, 2.0"w X .851"h, B-342,HEAT SHRINK, WHT, 500 / P	1.00	EA
2	0025	101K000200	A	GOWN, HOSPITAL EMBROIDERED ADULT	1.00	EA
2	0026	011KK00010		CHARGER, BATTERY, 2 A 5 CELL Li-ion / POLYMER w/MOLEX out	1.00	EA
2	0027	268K203600	A	ASSY, CLEANING ADAPTER	1.00	EA
3	0001	4159800027		FTG, Q.C.,F, 1/8 TUBE,THRU	2.00	EA
3	0002	2689800111		TBG,1/8ID,1/4OD,CLEAR,SFT	0.17	FT
3	0003	166KK00011		LBL, THERMAL, .750"w X .937"h, B-427, WRAP, WHT / TRANS, 10K	1.00	EA
1	0005	253K358600	A	ASSY, FLUID PUMP (MM / MFS)	1.00	EA
2	0001	101K215900	B	CAE TRAUMA FILL TANK	1.00	EA
2	0002	114KK00010		FILTER, INLINE, HOUSING, SERVICABLE, 48 MICRON, 1/8 ID BARB	1.00	EA
2	0003	2689800149		TBG, 2T STRIP BOND, 0.125" ID X 0.250" OD, PVC CLR	6.00	FT
2	0004	415KK00062		FITTING, INSERT, 1/8" ID BARB X INLINE,POLYPROPYLENE	1.00	EA
2	0005	4159800037		FTG,QC,M,1/8 ID,SO,INLINE	2.00	EA
2	0006	415KK00031	1	3/8 TO 1/8 ADAPTER	1.00	EA
2	0007	101KK00504		BINER BOTTLE CARRIER	1.00	EA
2	0008	268KK00108		YELLOW SHRINK TUBING	0.08	FT
2	0009	268KK00107		BLUE SHRINK TUBING	0.08	FT
2	0010	253K216500		ASSY, FILL TANK OVERFLOW	1.00	EA
3	0001	4159800031		FTG,QC,F,1/8ID,THRU,PNLMT	1.00	EA
3	0002	101KK00134		BOTTLE, 16 OZ PET, CLEAR W CAP	1.00	EA
2	0012	0479800092		CLAMP,.269 -.291 OD TBG	4.00	EA
2	0013	221KK00015		O-RING, .370 ID X .450 OD, BLACK, BUNA N, 70 DURO	1.00	EA

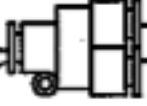
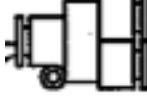
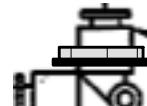
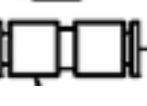
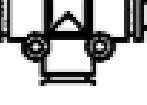
253K360034_B**ASSY, APP Med**

Level	Find	Component	Rev	Component Description	Qty	U/M
1	0006	905K000622	1.0	INSTRUCTIONS, NETWORK CONNECTION FOR A LAPTOP, MUSE	1.00	EA
1	0999	VIVO LAPTOP CONFIG INSTR	A	INSTRUCTION, VIVO LAPTOP CONFIGURATION	1.00	EA
2	0001	905K000422	1.0	INSTRUCTIONS, CONFIGURATION FOR A LAPTOP, VIVO	1.00	EA

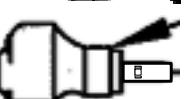
Pneumatic Tubing

	2689800107	TBG, 1/16 ID, 1/8 OD, Clear	IV Fluid
	2689800111	TBG, 1/8 ID, 1/4 OD, Soft, Clear	Wound Umb
	2689800112	TBG, 1/4 ID, 7/16 OD, Clear	
	2689800115	TBG, 1/8 ID, 1/4 OD, Clear, HRD	Blood Fluid
	2689800149	TBG, 1/8 ID, Skip Bonded, Clear	
	268KK00200	TBG, Grn, 1/16 ID, 1/8 OD x 100	
	268KK00300	TBG, Grn, 1/8 ID, 1/4 OD	Pilot - 2 PSI
	268KK00400	TBG, Blu, 1/16 ID, 1/8 OD	
	268KK00500	TBG, Blu, 1/8 ID, 1/4 OD	CO2 PSI
	268KK00600	TBG, Red, 1/16 ID, 1/8OD x 50	
	268KK00700	TBG, Red, 1/8 ID, 1/4 OD x 50	Pulse PSI
	268KK00800	TBG, Blk, 1/16 ID, 1/8 OD x 100	
	268KK00900	TBG, Blk, 1/8ID, 1/4 OD x 100	Bleeding PSI
	268KK01000	TBG, Yell 1/16 ID, 1/8 OD x 100'	
	268KK01100	TBG, Yell 1/8 ID, 1/4 OD x 100'	System PSI
	268KK01200	TBG, Aquatint, 1/16 ID, 1/8 OD x 100	Various Acc PSI
	268KK00111	TBG, Latex, 0.31 ID, 0.125 OD	
	2689800151	TBG, Latex, 1/8 ID,	Wound Umb
	268KK00155	TBG, Latex, 0.125 ID, 0.187 OD	For Carotid Pulse

One Touch

	121KK00046	FTG, 1/4 X 1/4 x 1/4 UNION, "Y", 1TCH
	121KK00078	FTG, 1/4 X 1/8 x 1/8 UNION, "Y", 1TCH
	121KK00141	FTG, ELBOW, 1/4 x 1/4, 1TCH
	121KK00008	FTG, BLKHD, ELBOW, 1/4 x 1/4, 1TCH
	121KK00108	FTG, Straight Union, 1/4 x 1/4, 1TCH
	121KK00011	FTG, Union, "T", 1/4 x 1/4 x 1/4, 1TCH
	121KK00010	FTG, 10-32 NPT x 1/4 OD, 1TCH
	121KK00057	FTG, 1TCH, 1/8 NPT x 1/4" OD
	121KK00094	FTG, Elbow,, 1/8 Fit x 1/4" OD, 1TCH
	121KK00014	FTG, Elbow,, 10-32 NPT x 1/4" OD, 1TCH
	121KK00029	FTG, Elbow TEE, 10-32 NPT x 1/4 x 1/4" OD, 1TCH
	121KK00012	FTG, TEE, 1/8 x 1/8 x 1/8, 1TCH
	1219800079	FTG, QC, 1/8 x 1/8 x 1/8, Union "Y", 1TCH
	121KK00002	FTG, 10-32 NPT x 1/8 OD, 1TCH
	121KK00001	FTG, Elbow,, 10-32 NPT x 1/8" OD, 1TCH
	1219800076	Fitting, Reducer, 5/32 x 1/8 (For SMC Regulators)
	1219800105	Fitting, Reducer, Bent, 5/32 x 1/8 (For SMC Regulators)
	1219800038	FTG, 3-Place Rotating Manifold, 1/8 NPT x 1/4 x 1/4 x 1/4

Barb Fittings

	4159800037	FTG,QC,M,1/8 ID,SO,INLINE (Shut-Off)
	4159800057	FTG,QC,F,1/8ID,SO,INLINE (Shut-Off)
	4159800036	FTG,QC,M,1/16 ID,SO,INLINE (Shut-Off)
	4159800039	FTG,QC,F,1/16 ID,SO,INLINE (Shut-Off)
	121KK00139	FTG, Coupling, 1/8 ID, SO
	121KK00140	FTG, Coupling Incert, 1/8 ID, SO (Aux Air.)
	1219800035	Fitting, 1/16, MALE INLINE (1/4 Turn)
	1219800038	Fitting, 1/16, Female Coupler (1/4 Turn)
	121KK00098	FTG, F-Quick Dis, Shut-Off, 1/16
	121KK00114	FTG, F-Quick Dis, Shut-Off, 1/8
	0739800008	Coupling, Male, Inline 1/8
	0739800010	Coupling, Female, 1/8"
	4159800042	FTG, Luer Fem, 1/16" ID
	0739800015	FTG, Luer Fem, 1/8" ID
	4159800068	FTG, Male Luer, 1/16 ID
	4159800061	FTG, Male Luer, 1/8 ID
	4159800047	Adapter, 3/32 x 1/8
	415KK00005	Adapter, 1/16 Barb x 1/16 Barb
	1219800032	FTG, RDCR, 1/8 Barb - 1/16 Barb
	415KK00013	BRB FTG, RA, 1/8 x 1/16, NYL
	415KK00019	BRB FTG, RA, 1/16 x 1/16, NYL
	4159800065	Coupling, "Y", 1/16" ID
	1219800071	Coupling, "Y", 1/8" ID
	1219800037	FTG, TEE Conn, 1/16" ID
	1219800019	FTG, Tee, ID 1/8
	121KK00063	FTG, Conn, 4way, 1/8" ID, PP
	415KK00024	FTG, RA, Barb .062 ID x 10-32 - NYL

MISC

	0739800017 073KK00010 073KK00012 073KK00013 073KK00014 073KK00015 073KK00016 073KK00020 073KK00011	Orifice, .012, Green Orifice, .003, Gold Orifice, .007, Yellow Orifice, .008, Lt Green Orifice, .016, Grey Orifice, .019, Red Orifice, .010, Lt Blue Orifice, .020, Dk Blue Orifice, .005, White
	121KK00043 121KK00036	Plug, 1/16" Tube, Barbed Plug, 1/8" Tube, Barbed
	1439800141	Jack, Plug Male Luer (Cap)
	104K271600 271KK00087	Vocal Cords, 18-PSI (iStan) Vocal Cords - Low Pressure (METIman)
	104K246700	Bladder, Diff Airway
	271KK00039 271KK00088 271KK00091 271KK00089 271KK00090 271KK00091	VALVE,CHECK,0.5PSI,1/8 BRB Valve, Check, Mini 500 S, 1/16 x 1/16 Barb, 0.1 PSI , Yellow Valve, Check, Mini 500 S, 1/16 x 1/16 Barb, 1.0 PSI , White Valve, Check, Mini 500 S, 1/16 x 1/16 Barb, 0.5 PSI , Purple Valve, Check, Mini 500 S, 1/16 x 1/16 Barb, 3.0 PSI , Brown Valve, Check, 500 S, 1/16 x Fem Luer Lock, 1.0 PSI
	271KK00048 271KK00087	Valve, Check, 300 S, 1/2 ID x 1/8 ID, Chest Tube Valve, Check, 300 S, 1/8 x 1/8 Barb, 7.0 PSI Red
	2719800021 271KK00044	Valve. Check, Luer, 12cm-H2O Valve, Check, 300 S, 1/8 x 1/8 Barb, 0.2PSI Red