ALTO-SHAAM

COMBITHERM®

SERVICE MANUAL

CT PROFORMANCE™	CTP6-10E	CTP6-10G
	CTP10-10E	CTP10-10G
	CTP7-20E	CTP7-20G
	CTP10-20E	CTP10-20G
	CTP20-10E	CTP20-10G
	CTP20-20E	CTP20-20G
CT CLASSIC™	CTC6-10E	CTC6-10G
	CTC10-10E	CTC10-10G
	CTC7-20E	CTC7-20G
	CTC10-20E	CTC10-20G
	CTC20-10E	CTC20-10G
	CTC20-20E	CTC20-20G

⚠WARNING

To prevent personal injury, death or property damage:

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

⚠WARNING

Improper installation, alteration, adjustment, service, cleaning, or maintenance could result in property damage, severe injury, or death.

Read and understand the installation, operating and maintenance instructions thoroughly before installing, servicing, or operating this equipment.

24•7 Your Service Hotline 1-800-558-8744

Operation, Maintenance, Troubleshooting and Wiring Diagrams

This manual covers the following CTP and CTC series models:

Control Type		Boiler-Free Models	Steam Generator Models
CTP	CT PROformance™ with PROtouch™ control	6-10E, 6-10G 10-10E, 10-10G 7-20E, 7-20G 10-20E, 10-20G 20-10E, 20-10G 20-20E, 20-20G	6-10EB 10-10EB 7-20EB 10-20EB 20-10EB 20-20EB
CTC	CT Classic with Classic manual control		

Please post the following instructions in a prominent location in the event the user smells gas.

DANGER

Before starting the appliance, make certain you do not detect the odor of gas.

If you smell gas:

- Shut off the gas supply immediately.
- Do not attempt to light any appliance.
- Do not touch any electrical elements.
- Extinguish any open flame.
- Evacuate the area.
- Use a telephone outside the property and immediately contact your gas supplier.
- If unable to contact your as supplier, contact the fire department.

Additional Resources Available From Alto-Shaam

For Service Support

The Alto-Shaam Tech Team is available 24 hours a day, every day, to provide emergency technical service and troubleshooting support. Our team of experts supports your demanding kitchen needs because your customers depend on it. Contact our Tech Team at **1-800-558-8744** (U.S. and Canada only) or **1-262-251-3800**; follow the prompts for emergency service.

For Product Specs

Visit https://www.alto-shaam.com/en/resource-library to download spec sheets for all Alto-Shaam products.

For the Latest Software Updates

Download the latest version of appliance firmware and recipe management software at https://www.alto-shaam.com/en/software-download-center.

For Genuine Alto-Shaam OEM Parts in Your Area

Visit https://www.alto-shaam.com/en/technical-service and use the **LOCATE A SERVICE AGENT** tool for a list of authorized distributors of genuine Alto-Shaam parts in your area.

If you require additional parts identification assistance, contact our parts team. You can reach the Parts Customer Service Team at:

partsdept@alto-shaam.com

Via phone at **1-262-251-3800 ext. 6709**

Toll Free (U.S. & Canada only) at **800-558-8744 ext 6709.**

Table of Contents

- The appliance is intended to cook, hold or process foods for the purpose of human consumption. No other use for this appliance is authorized and is therefore considered dangerous. The appliance must not be used to cook food containing flammable materials (such as food with alcohol). Substances with a low flash point can ignite spontaneously and cause a fire.
- The appliance is intended for use in commercial establishments where all operators are familiar with the purpose, limitations, and associated hazards of this appliance. Operating instructions and warnings must be read and understood by all operators and users. Alto-Shaam recommends regular staff training to avoid the risk of accident or damage to the appliance. Operators must also receive regular safety instructions.
- Any troubleshooting guides, component views, and parts lists included in this manual are for general reference only and are intended for use by qualified and trained technicians.
- This manual should be considered a permanent part of this appliance. This manual and all supplied instructions, diagrams, schematics, parts lists, notices, and labels must remain with the appliance if the item is sold or moved to another location.

NOTICE: For equipment delivered for use in any location regulated by the following directive: 2012/95/EC WEEE

Do not dispose of electrical or electronic equipment with other municipal waste.

Knowledge of proper procedures is essential to the safe operation of electrically and/or gas energized equipment. The following signal words and symbols may be used throughout this manual.

⚠ DANGER

Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

⚠ WARNING

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

⚠ CAUTION

Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE: Indicates information considered important, but not hazard-related (e.g., messages relating to property damage).

- To prevent serious injury, death or property damage, the appliance should be inspected and serviced at least every twelve (12) months by an authorized service partner or trained technician.
- **Only** allow an authorized service partner or trained technician to service or to repair the appliance. Installation or repairs that are not performed by an authorized service partner or trained technician, or the use of non-factory authorized parts will void the warranty and relieve Alto-Shaam of all liability.
- When working on this appliance, observe precautions in the literature, on tags, on labels attached to or shipped with the appliance and other safety precautions that may apply.
- If the appliance is installed on casters freedom of movement of the appliance must be restricted so that utility connections (including gas, water, and electricity) cannot be damaged when the appliance is moved. If the appliance is moved, ensure that all utility connections are properly disconnected. If the appliance is returned to its original position, ensure that retention devices and utility connections are properly connected.
- **Only** use the appliance when it is stationary. Mobile appliance racks, mobile plate racks, transport trolleys, and appliances on casters can tip over when being moved over an uneven floor or threshold and cause serious injury.
- **Always** apply caster brakes on mobile appliances or accessories when these are not being moved. These items could move or roll on uneven floors and cause property damage or serious injury.
- Be extremely careful when moving appliances because the food trays may contain hot fluids that may spill, causing serious injury.
- **Always** open the appliance door very slowly. Escaping hot vapors or steam can cause serious injury or death.
- If the gas appliance is installed under an exhaust hood, the hood must be switched **On** when the appliance is in use to avoid the build up of combustion gases. Failure to do so may result in serious injury, death or property damage.
- Accumulations on the main burners of gas appliances can result in firing out of normal sequence. This delayed ignition creates an alarmingly loud sound. If your appliance makes an especially loud noise when starting up, shut down the appliance and call a qualified and trained service technician.
- NEVER place objects near the appliance exhaust vents. This area is hot and could be a potential ignition source for a fire.
- Do not allow objects to block or obstruct the area below the appliance base. This may result in fire, damage to the equipment or serious injury.
- Do not use the attached hand-held hose to spray anything other than the interior of the appliance compartment.
- Do not use the attached hand-held hose on the surface of a hot cooking compartment. The sudden temperature change can damage the appliance interior. Allow the appliance to cool to a minimum of 150°F (66°C). Failure to observe this precaution can void the warranty.

WARNING

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision concerning use of the appliance by person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

⚠ WARNING

To prevent serious personal injury, death, or property damage:

Do not steam clean, hose down or flood the interior or exterior with water or liquid solution of any kind. **Do not** use water jet to clean. Failure to observe this precaution will void the warranty.

WARNING

To prevent **SERIOUS PERSONAL INJURY** or **PROPERTY DAMAGE**:

DO NOT handle pans containing liquid or semiliquid products positioned above the eye level of the operator. Such products may scald and cause serious injury.

WARNING

DO NOT obstruct or block exhaust flues or attach any flue extension that may impede proper burner operation, restrict the exhaust fumes and cause negative backdraft or the appliance to shut down. Failure to do so may result in serious injury or death.

⚠ WARNING

To prevent **serious personal injury**, **death**, or **property damage**:

The appliance must be cleaned thoroughly to avoid deposits of grease and or food residues inside the appliance that may catch fire. If fat deposits and/or food waste inside the appliance ignite, shut down the appliance immediately and keep the appliance door closed to extinguish the fire. If further extinguishing is required, disconnect the appliance from the main power and use a fire extinguisher (do not use water to extinguish a grease fire!). Failure to clean the appliance properly invalidates the warranty and relieves Alto-Shaam of all liability.

⚠ CAUTION

To prevent **personal injury** or **property damage**:

Always use hand protection when operating this appliance to avoid burns. Metal parts of this equipment become extremely hot when in operation.

CAUTION

To prevent **INJURY** or **PROPERTY DAMAGE**, make certain the area around the appliance is kept clear of combustible items.

NOTICE: Automatic steam venting is a standard safety feature built into all Combitherm oven models. This feature vents all steam from the oven compartment immediately before cooking time expires or set probe temperature is reached.

Automatic steam venting does not function if the oven door is opened before time expires or when the oven has been set to continuous operation.

NOTICE: Use authorized Combitherm oven cleaner only. Unauthorized cleaning agents may discolor or harm interior surfaces of the oven. Read and understand label and material safety data sheet before using the oven cleaner.

How To Turn On the Appliance

Prerequisites

1. Turn on the exhaust hood.
2. Make sure that the water supply to the appliance is turned on.
3. Make sure that the electrical power supply to the appliance is turned on.
4. For gas appliances, make sure the gas supply valve is in the open position.

Steps

1. Press the ON/OFF button .

   The ON/OFF indicator glows green and the loading screen **(1)** displays while the controller software loads. When the software is 100% loaded, the home screen **(2)** displays.

   NOTE: If the appliance has a steam generator, the steam generator fills with water and the appliance heats the water to an initial temperature of 188°F (77°C).

How To Start a Manual Calibration

1. Make sure the appliance is off.
2. Press and hold the ON/OFF button for eight (8) seconds. The ON/OFF indicator glows red and the calibration prompt **(3)** displays.

   The prompt moves from the center to all four corners of the screen. This sequence repeats three (3) times. Then the calibration screen **(4)** displays.

   NOTE: The first time the appliance is turned on, or if the appliance loses power during startup, the touch screen calibration prompt **(3)** displays at the end of the next startup.

   NOTE: Touch the check mark icon to start the calibration immediately. Touch the cancel icon to cancel the calibration.

How To Calibrate the Touch Screen

1. Touch the target icon (+) each time it appears on screen. The icon appears in all four corners, then the center of the screen.

   NOTE: If the controller software has not been updated to the current version (11/16 update), the calibration stops when this step is complete. Download the current controller software from the Alto-Shaam website and install it.

2. The verification screen **(5)** displays. Touch all five target icons . The icons change to green boxes when they are touched.

   NOTE: The calibration screen and verification screen both display a 30-second countdown. If you do not touch all five icons before the countdown is complete, the controller stops the calibration. If you do not see the countdown, download the current controller software from the Alto-Shaam website and install it.

How To Turn Off the Appliance

1. Press and hold the ON/OFF button for five to ten (5-10) seconds.

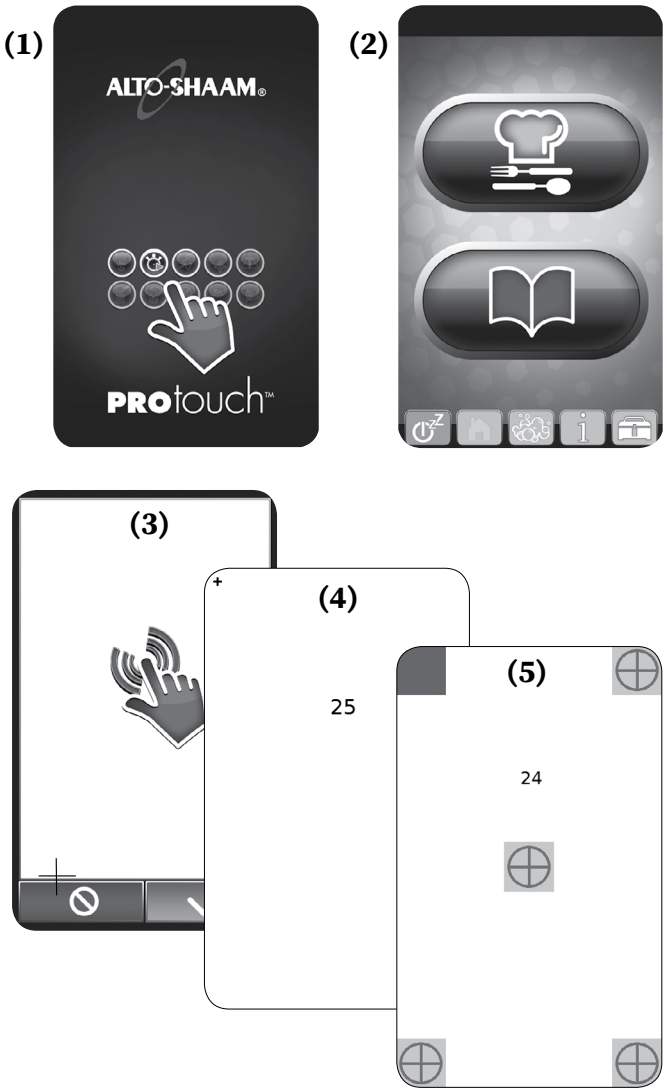
   NOTE: You cannot turn off the appliance during a cooking cycle.

DANGER

Before starting the appliance, make certain you do not detect the odor of gas.
If you smell gas:
- **Shut off the gas supply immediately.**
- **Do not attempt to light any appliance.**
- **Do not touch any electrical elements.**
- **Extinguish any open flame.**
- **Evacuate the area.**
- **Use a telephone outside the property and immediately contact your gas supplier.**
- **If unable to contact your as supplier, contact the fire department.**

CAUTION

Accumulations on the main burners of gas appliances can result in firing out of normal sequence. This delayed ignition creates an alarmingly loud sound. If your appliance makes an especially loud noise when starting up, shut down the appliance and call a qualified and trained service technician.



Software Updates

The PROtouch controller plays an important part in our continuous improvement process. New features and abilities can be loaded to your oven as they become available. Software for your oven can be accessed from the Alto-Shaam website, under the Resource Library Tab, then Software Center. http://www.alto-shaam.com/en/software-download-center

Use a USB stick to copy the PROtouch software from the website to the USB stick.

Press the ON button to power the oven on.

Touch the utilities icon.

Touch the download icon.

Touch the download new software icon.

Most software updates will require the full oven update as shown below. Additional options are available in the event a special need arises. Call our Service Department for assistance with these special circumstances.

Remove the cover of the USB port on the oven.

Insert the USB stick. If the USB stick is not recognized by the Combitherm, a question mark will appear on screen. Try again with another flash drive device or call Alto-Shaam Service.

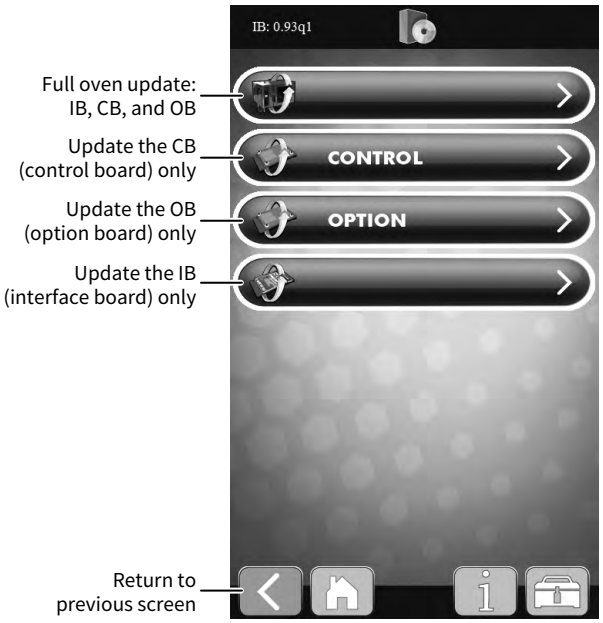
When the data has made a successful transfer to the USB drive, the screen will change.

Touch the green check mark icon to complete the process.

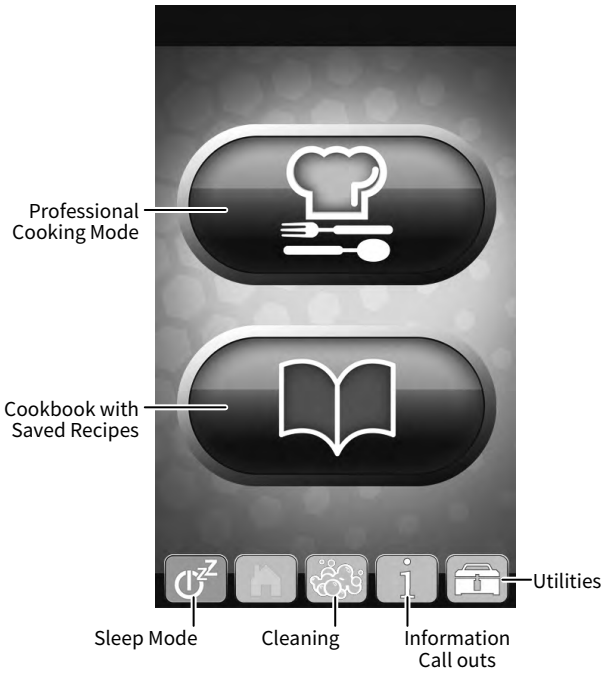
Remove the USB stick and replace the cover on the USB port on the oven.

NOTICE: After the software update has been completed, the oven may automatically initiate a shut down and reboot sequence if required.

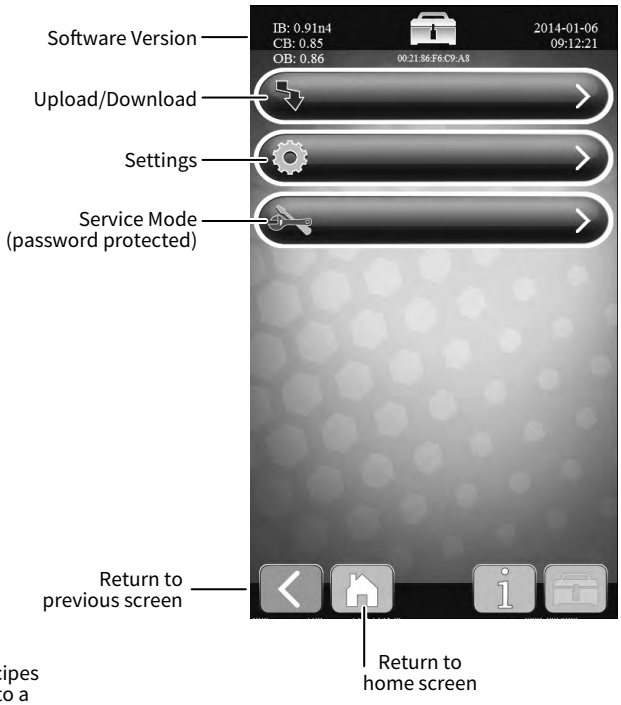
Software Upload Screen



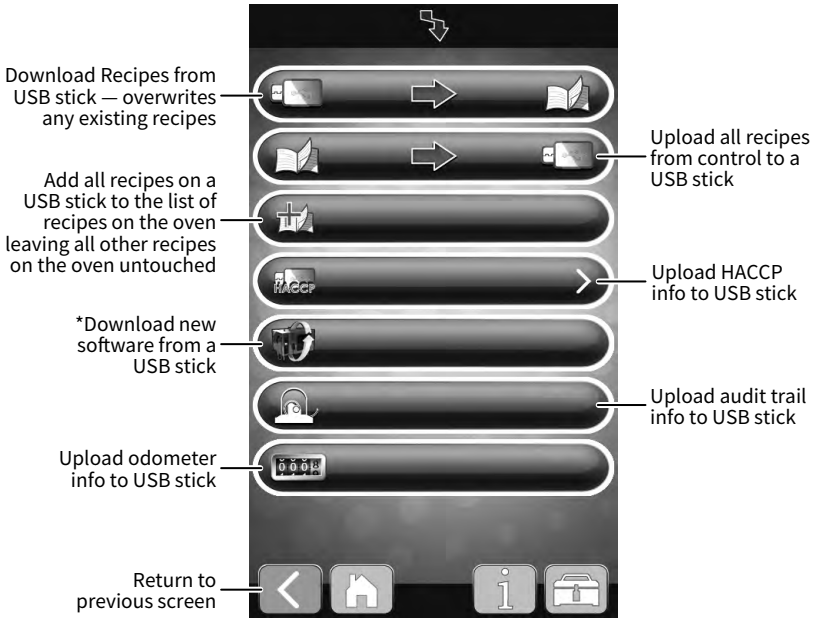
Control Panel Identification



Utility Screen



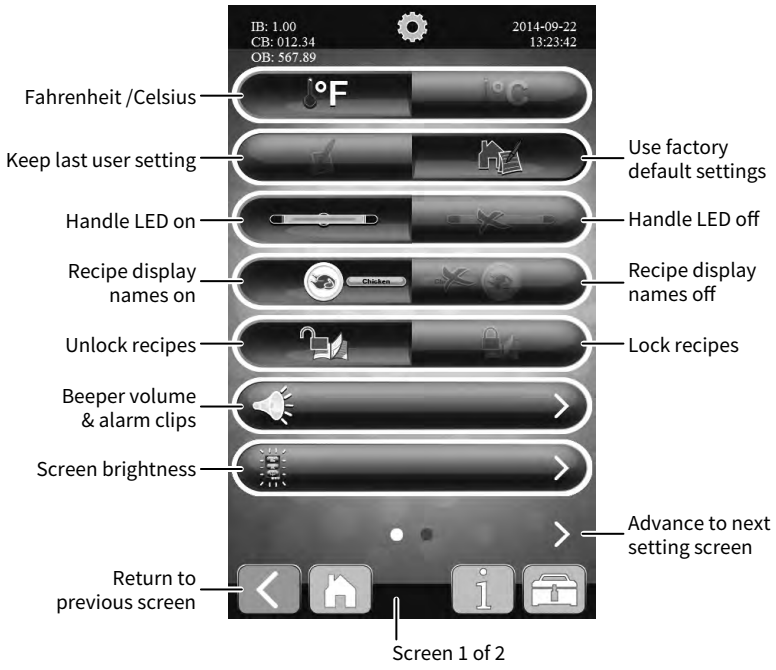
Upload/Download Screen



*The PROtouch control plays an important part in our continuous improvement process. New features and abilities can be loaded to your oven as they become available. Software for your oven can be accessed from the Alto-Shaam website, under the Downloads tab.

Control Panel Identification

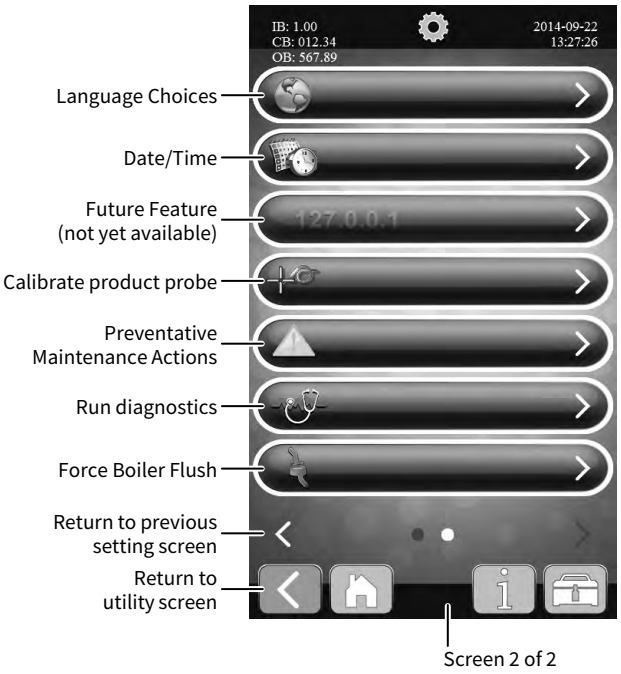
Settings Screen 1



When a setting has been selected, the graphic will be vibrant in color while the alternate choice will appear faded and gray. In the illustration above, Fahrenheit, factory default setting, handle LED on, recipe display with text, and recipes are not locked have been chosen.

NOTE: A password is required to lock and unlock the recipes. Simply call an Alto-Shaam Culinary Chef for assistance.

Settings Screen 2



Language choices available:
English, French, German, Korean, Mandarin, Russian, or Spanish.

Time format available:

12-hour clock

24-hour clock

Different date formats available:

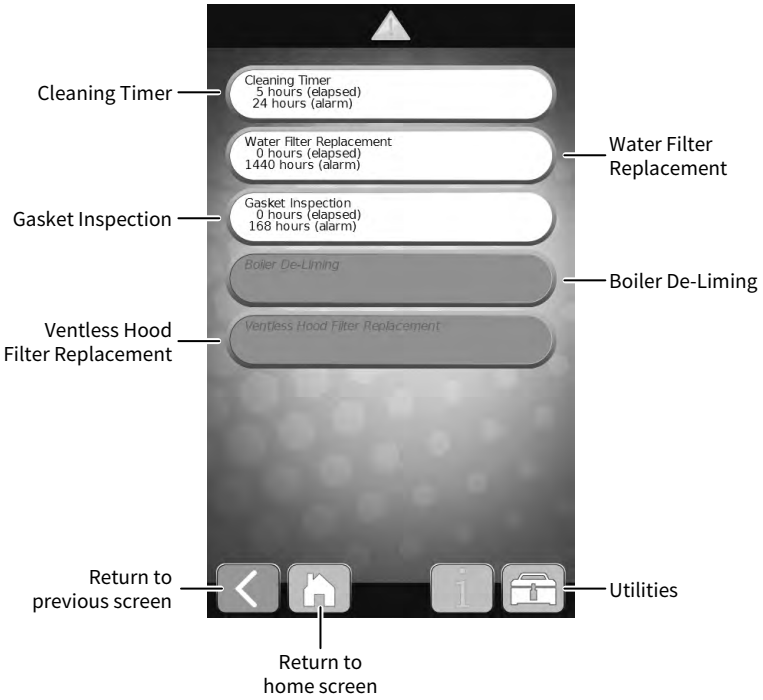
YYYY/MM/DD

MM/DD/YYYY

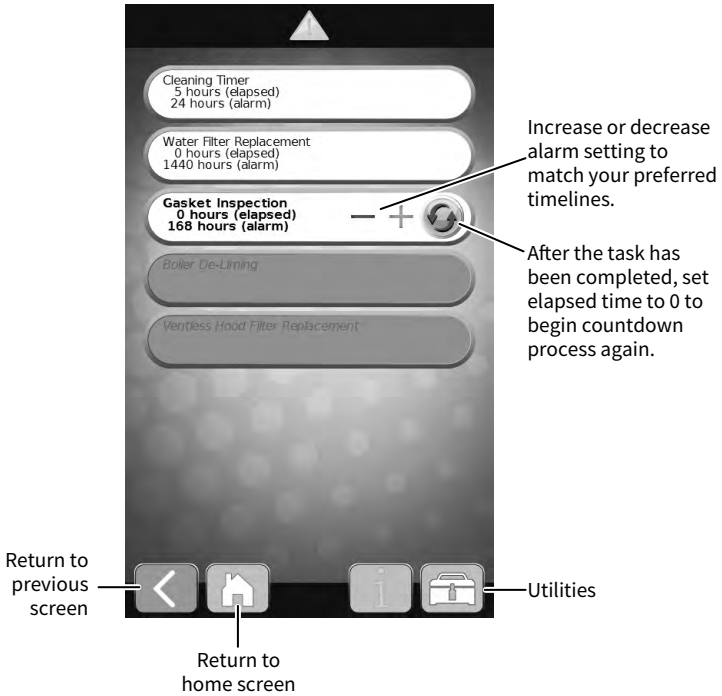
DD/MM/YYYY

Control Panel Identification

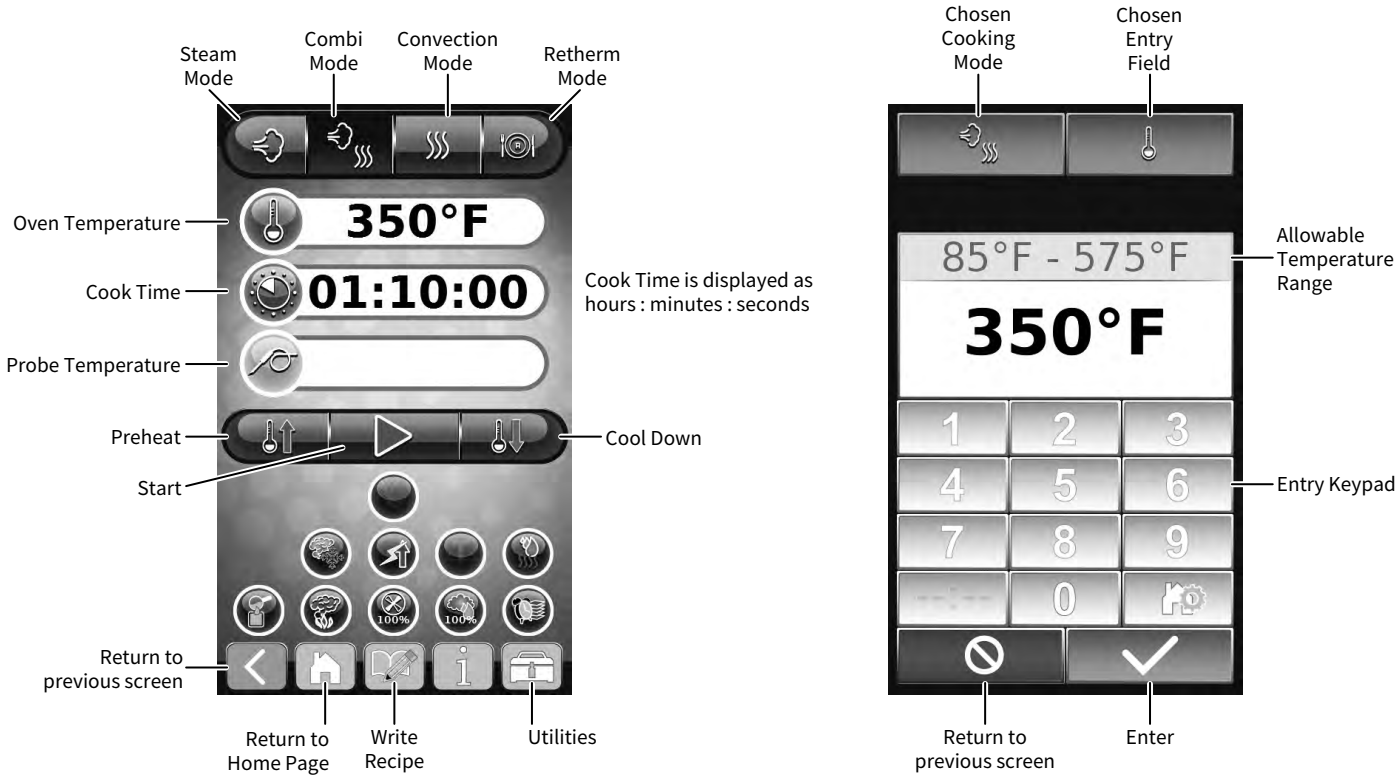
Preventative Maintenance Screen



Preventative Maintenance - Editing



Cooking Screen Identification



NOTE: When a cooking mode has been selected, it will appear darker blue. When the cooking mode is calling for heat, it will appear red. When the cooking mode is calling for moisture, it will appear light blue. In the illustration above, Combi Mode has been chosen and is calling for heat. Also, the PROpower™ level has been chosen, and the fan speed has been set at 100%.

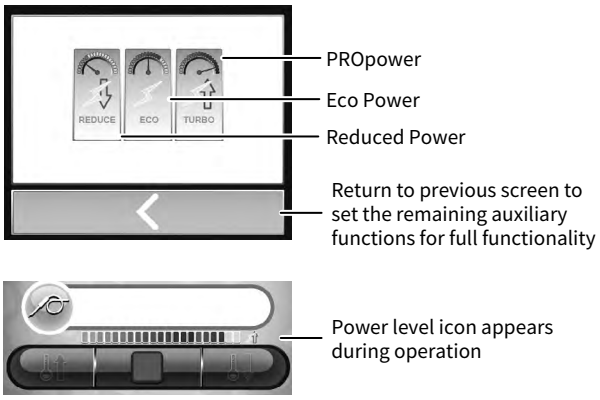
Auxiliary Functions and Features

Power Settings

Two power levels: reduced power to manage kitchen power peaks, and eco power for optimal oven efficiency.

A third choice is optional on electric models, but standard on gas models. PROpower™ is an accelerated turbo power for an instant boost of heat or quick heat recovery [patent pending].

NOTE: Reduced power will result in longer cooking times and PROpower will decrease your cooking time by several minutes.



Multiple Fan Speeds

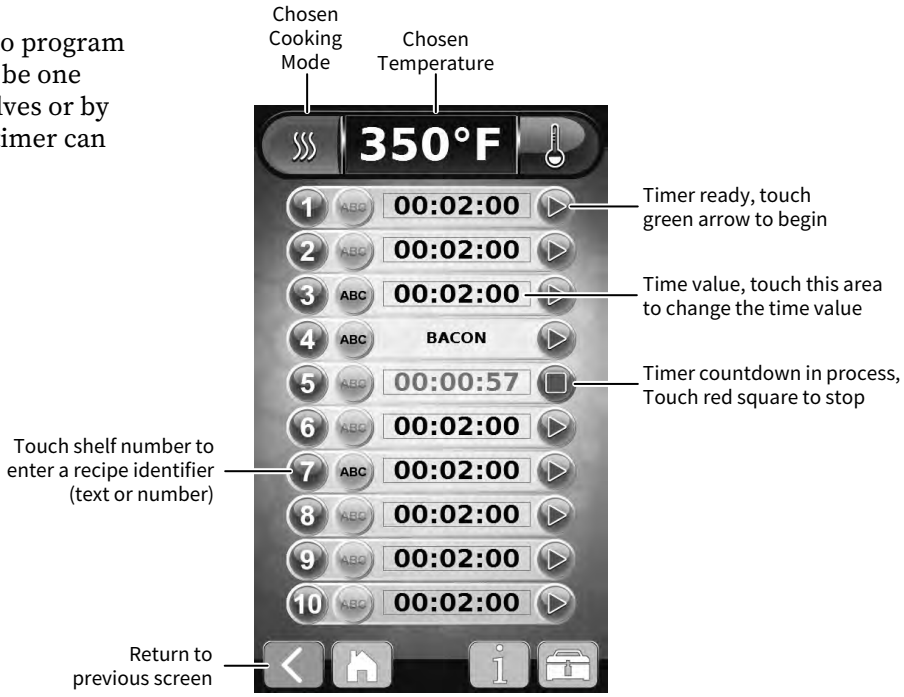
The PROtouch™ control includes five different fan speeds. The reduced fan speed function is useful for flow-sensitive products such as soufflés and meringues, or any products affected by a high velocity of air movement.

NOTE: Fan speed choices are based upon the power level you have chosen.

Fan speed choices

Multi-Shelf Timer

The multi-shelf timer allows the operator to program alarm times for the oven shelves. This can be one common time for corresponding oven shelves or by food item that is cooking. The multi-shelf timer can be edited when in a recipe mode.



Auxiliary Functions and Features

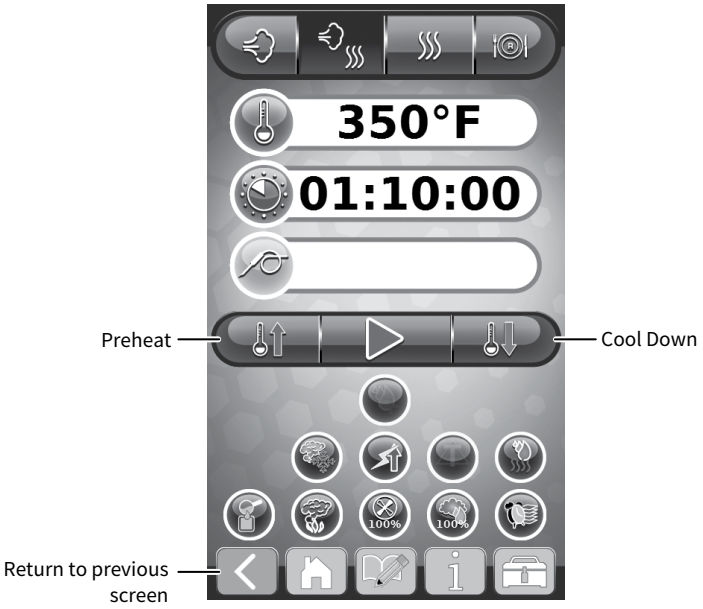
Preheat Feature

The oven should be preheated before most cooking functions. When cooking full loads, use a temperature 50°F (10°C) greater than the cook temperature in order to recover from heat loss when the door is opened to add food to the oven. For items that use the Steam mode, it is necessary to use a preheat temperature lower than the cook temperature in order to create the proper amount of steam.

Press the On button to power oven on.

Touch the Preheat icon.
Type in desired temperature.

Touch the green Check Mark icon to start preheating.



Cool Down Feature

The cool-down feature provides the operator with the ability to lower the temperature of the oven compartment at an accelerated pace. This function is useful when it is necessary to immediately change from a high temperature cooking function to a lower temperature function or to the steam program. This function is also useful to help cool the oven compartment in preparation for cleaning.

TIP: Always allow the oven walls to cool to a minimum of 140°F (60°C) before spraying the compartment with oven cleaner.

Open the oven door.

Touch the Cool Down icon.

Type in desired temperature.

Touch the green Check Mark icon to begin the Cool Down process.

The target oven temperature chosen will appear just above the red Stop button.

The current oven temperature will appear at the top of the screen.

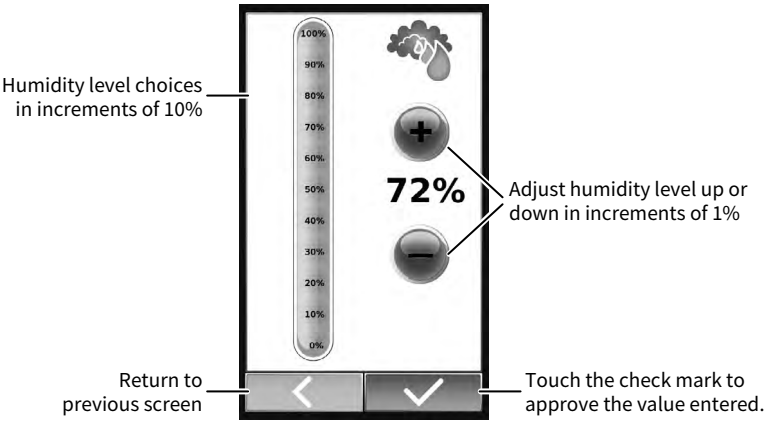
Auxiliary Functions and Features

Humidity Control Feature

The humidity control feature is an automatic function designed to regulate humidity to provide additional color to food as needed. This feature is particularly useful for adding color to high moisture products such as chicken and other poultry, or for additional browning of full loads and other moist products. In addition, this feature may be used to add texture to fried items such as french fries or breaded chicken. Humidity control can be used in any cooking mode and can be programmed into a cooking procedure.

Touch the nearest 10% increment on the left side of the screen, and then adjust up or down using the + or – icons.

0% humidity is the driest cooking environment available. The percentage level chosen will appear on the icon. In the illustration at right, 72% is shown.



Rapid Cool (available on boiler-free models only)

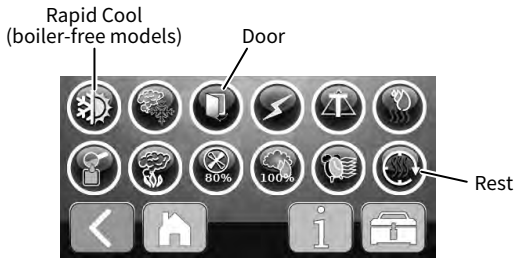
This function, when used with a program, rapidly removes heat from the oven cavity. Swiftly move from a high cooking temperature to a lower temperature without overcooking your food.

Rest

This step allows you to pause the oven during a program. The rest step is ideal for cold smoking or automatic cleaning. Infuse your food with smoke flavor after the actual smoking step has stopped.

Door

The door function allows the user to program a reminder—in the form of an animated door opening and closing—that it is time to open the door. This reminder may be programmed at the end of a programmed segment or at the end of the program.



CT PROformance™ Factory Default Settings

Cooking Mode	Oven Temperature	Core Temperature	Cooking Time
Steam 	212°F (100°C)	160°F (70°C)	25 minutes
Combination Steam 	350°F (175C)	160°F (70°C)	70 minutes
Convection 	350°F (175C)	160°F (70°C)	30 minutes
Retherm 	275°F (135°C)	160°F (70°C)	5 minutes

Steam Mode 

The Steam mode provides the operator with the ability to steam, poach, or blanch. This mode will automatically steam at the boiling point of water; quick-steam above the boiling point for faster cooking results; or low temperature steam, below the boiling point, for more delicate products such as pâté, mousse, seafood, or custard.

Press the On button to power oven on.

Touch the Professional Cooking mode icon.

Touch the Steam mode icon.

Touch the Start icon to steam at the displayed settings.

To Change the Displayed Settings:

Touch the area to the right of the temperature icon.

Type in desired temperature.

Touch the green Check Mark icon to confirm change.

- Automatic Steaming 212°F (100°C)
- Quick Steaming 213°F to 250°F (101°C to 120°C)
- Low Temperature Steaming 85°F to 211°F (30°C to 99°C)

To Cook by Time:

Touch the area to the right of the time icon.

Type in desired time or set continuous time by touching --:--.

Touch the green Check Mark icon to confirm change.

To Cook by Product Core Temperature:

Touch the area to the right of the probe icon.

Type in desired temperature.

Touch the green Check Mark icon to confirm change.

Insert probe into product.

Set available auxiliary functions as desired, such as energy level, fan speed, multi-shelf timer, etc.

Touch the Start icon to begin cooking in the Steam mode.

- The cavity set-temperature will appear in the display.
- If cooking by probe, the actual internal product temperature will appear next to the probe icon during operation. To change the set value for core temperature, touch the temperature next to the probe icon and make changes as required.

When the cooking time has expired or the desired core temperature has been reached, an alarm will sound and handle light will flash several times indicating the end of the operating mode.

Touch the red Stop icon to stop the buzzer or open the oven door.

To stop cooking program at any time, touch the red Stop icon.

CAUTION HOT

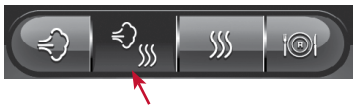
Use caution when opening the oven door when the cooking chamber is hot to avoid possible burns.

Combination Mode

The Combination mode will prove to be the most versatile and widely used mode the Combitherm oven has to offer. It will produce the best possible results on the widest variety of products — all within the shortest period of time. The unique control function of this mode enables the operator to roast or bake with a combination of steam and convection heat. In addition to shorter cooking times, this combination of steam and heat offers less product shrinkage and more moisture retention than obtained in a convection oven.

Press On button to power oven on.

Touch the Professional Cooking mode icon.



Touch the Combination mode icon.

Touch the Start icon to cook at the displayed settings.

To Change the Displayed Settings:

Touch the area to the right of the Temperature icon.

Type in desired temperature.

Touch the green Check Mark icon to confirm change.

- Cooking temperature range: 85°F to 575°F (30°C to 301°C)

To Cook by Time:

Touch the area to the right of the time icon.

Type in desired time or set continuous time by touching --:--.

Touch the green Check Mark icon to confirm change.

To Cook by Product Core Temperature:

Touch the area to the right of the Probe icon.

Type in desired temperature.

Touch the green Check Mark icon to confirm change.

Insert probe into product.

Set available auxiliary functions as desired, such as energy level, fan speed, multi-shelf timer, steam injection, etc.

Touch the Start icon to begin cooking in the Steam mode.

- The cavity set-temperature will appear in the display.
- If cooking by probe, the actual internal product temperature will appear next to the PROBE icon during operation. To change the set value for core temperature, touch the temperature next to the PROBE icon and make changes as required.

When the cooking time has expired or the desired core temperature has been reached, an alarm will sound and handle light will flash several times indicating the end of the operating mode.

Touch the red Stop icon to stop the buzzer or open the oven door.

To stop cooking program at any time, touch the red Stop icon.

CAUTION HOT

Use caution when opening the oven door when the cooking chamber is hot to avoid possible burns.

Convection Mode

The Convection mode operates with hot circulated air within a temperature range of 85°F to 575°F (30°C to 300°C). For many applications, better results may be achieved with the Combination mode; therefore, the operator may want to consider using the Convection mode on a more limited basis. The use of high temperatures (500°F to 575°F) are not intended for continuous use.


Press On button to power oven on.


Touch the Professional Cooking mode icon.


Touch the Convection mode icon.


Touch the Start icon to cook at the displayed settings.

To Change the Displayed Settings:


Touch the area to the right of the temperature icon.

Type in desired temperature.


Touch the green Check Mark icon to confirm change.

• Cooking temperature range: 85°F to 575°F (30°C to 300°C)

To Cook by Time:


Touch the area to the right of the Time icon.

Type in desired time or use up and down arrows to adjust temperature or set continuous time by Touching --:--.


Touch the green check mark key to confirm change.

To Cook by Product Core Temperature:


Touch the area to the right of the Probe icon.

Type in desired temperature.


Touch the green check mark key to confirm change.

Insert probe into product.

Set available auxiliary functions as desired, such as energy level, fan speed, multi-shelf timer, steam injection, etc.


Touch the Start icon to begin cooking in the Steam mode.

• The cavity set-temperature will appear in the display.

• If cooking by probe, the actual internal product temperature will appear next to the probe icon during operation. To change the set value for core temperature, touch the temperature next to the probe icon and make changes as required.


Touch steam Injection at any time during cooking. Steam will inject into the cavity as long as the icon is touched.

When the cooking time has expired or the desired core temperature has been reached, an alarm will sound and handle light will flash several times indicating the end of the operating mode.


Touch the red Stop icon to stop the buzzer or open the oven door.


To stop cooking program at any time, touch the red Stop icon.

CAUTION HOT

Use caution when opening the oven door when the cooking chamber is hot to avoid possible burns.

Retherm Mode

The Retherm mode operates with hot circulated air within a temperature range of 245°F to 320°F (120°C to 160°C).

Press On button to power oven on.

Touch the Professional Cooking mode icon.

Touch the Retherm mode icon.

Touch the Start icon to retherm at the displayed settings.

To Change the Displayed Settings:

Touch the area to the right of the Temperature icon.

Type in desired temperature.

Touch the green Check Mark icon to confirm change.

- Cooking or retherming temperature range: 245°F to 320°F (120°C to 160°C)

To Cook by Time:

Touch the area to the right of the Time icon.

Type in desired time or set continuous time by touching --:--.

Touch the green Check Mark icon to confirm change.

To Cook by Product Core Temperature:

Touch the area to the right of the Probe icon.

Type in desired temperature.

Touch the green Check Mark icon to confirm change.

Insert probe into product.

Set available auxiliary functions as desired, such as energy level, fan speed, multi-shelf timer, steam injection, etc.

Touch the Start icon to begin cooking in Steam mode.

- The cavity set-temperature will appear in the display.
- If cooking or retherming by probe, the actual internal product temperature will appear next to the PROBE icon during operation. To change the set value for core temperature, touch the temperature next to the PROBE icon and make changes as required.

Touch Steam Injection at any time during cooking. Steam will inject into the cavity as long as the icon is touched.

When the cooking time has expired or the desired core temperature has been reached, an alarm will sound and handle light will flash several times indicating the end of the operating mode.

Touch the red Stop icon to stop the buzzer or open the oven door.

To stop cooking program at any time, touch the red Stop icon.

CAUTION HOT

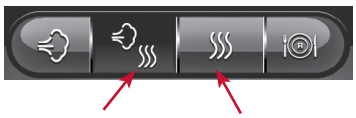
Use caution when opening the oven door when the cooking chamber is hot to avoid possible burns.

Delta-T Core Temperature Cooking Mode

This special program function cooks by internal product temperature with the use of the probe. The Delta-T cooking program increases the oven temperature in direct proportion to the internal temperature of the product, in contrast to the traditionally constant oven temperature. For example, the oven temperature will always be 100°F higher than the product itself. This slow cooking allows more time for enzymes to tenderize the meat. The Delta-T mode can be used with both convection and combination modes, providing a more gentle method of cooking. Browning occurs toward the end of the cooking cycle.

Press On button to power oven on.

Touch the professional cooking mode.



Available in convection mode or combination mode, touch the desired Cooking Mode icon.

Touch the area to the right of the probe icon.

Type in desired final internal product temperature.

Touch the green check mark key to confirm change.

Insert probe into product.

Touch auxiliary function Delta-T icon.

Type in desired Delta-T temperature.

Touch the Start icon to begin cooking.

- The actual internal product temperature will appear next to the probe icon during operation. To change the set value for core temperature, touch the temperature next to the probe icon and make changes as required.

Touch steam Injection at Any Time During Cooking. Steam will inject into the cavity as long as the icon is touched.

When the operator-set internal temperature has been reached, an alarm will sound and handle light will flash several times indicating the end of the operating mode.

Touch the red Stop icon to stop the buzzer or open the oven door.

To stop cooking program at any time, touch the red stop icon.

CAUTION HOT

Use caution when opening the oven door when the cooking chamber is hot to avoid possible burns.

Calibrate the Touch Oven Probe

Fill a pitcher with blended ice and water and place inside the combi oven.

Snap probe in place at top of oven and insert probe into the pitcher of blended ice water.

With the CT PROformance oven “ON”, touch the “Utilities” icon on the home page.

Touch the “Settings” icon.

Touch the “>” icon to advance to page 2 of the Settings screen.

Touch the “probe” icon on the Settings screen.

Once the temperature reading has stabilized, adjust setting to 32°F (0°C) using the + or - icons. Touch the “Home” icon to return to the home screen.

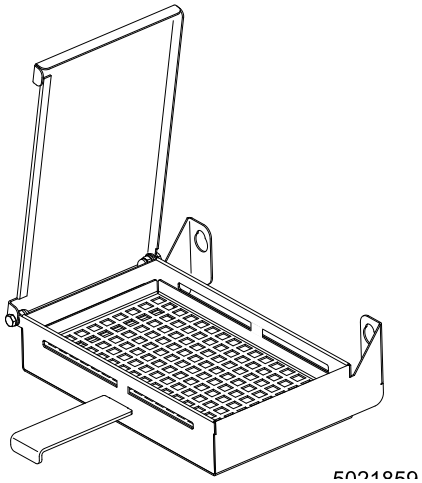
The control has now been calibrated to use the probe at appropriate temperatures.

CombiSmoker® Procedures

Loading Wood Chips

- Measure one container full of dry wood chips.
- Soak dry chips in water for 5 minutes.
- Shake excess water off wood chips.
- Place moistened chips back into the container and position the container securely on the two prongs located on the interior side panel of the oven.

A full container of wood chips will produce smoke for an approximate period of one to two hours depending on the cooking temperature being used for the selected product. The recommended Touch recipes have been tested to ensure complete product smoke penetration and full smoke flavor.



Chef Operating Tip

Products such as ribs that require heavier smoke penetration to reach full smoke flavor should remain in the oven after cooking has been completed. Do not open the oven door.

Set the oven in the Low Temperature Steam Mode at 140° to 160°F (60° to 71°C) and allow the product to remain in the oven for a period of one hour.

If you would like assistance, you are invited to contact an Alto-Shaam corporate chef for recommendations.

NOTICE: Always keep the oven door closed whenever operating the smoking function.

The CT PROformance CombiSmoker can be operated without using the smoking function. After using the oven as a smoker, however, it is necessary to clean the oven in order to prevent a transfer of smoke flavor to non-smoked products. Cleaning instructions are provided in this manual.

Available From Alto-Shaam		
Wood Chips	20 pound bulk packs	
The total weight of wood chip bulk packs may vary due to high moisture content when packaged.	Apple	WC-22543
	Hickory	WC-2829
	Cherry	WC-22541
	Sugar Maple	WC-22545

WARNING
When smoking is completed, remove smoker box from oven. Dispose of wood chips in a fire proof waste receptacle to prevent the risk of fire.

CAUTION

DO NOT open the oven door during the smoking function. The introduction of outside air into the oven compartment may cause the wood chips to flame. Use the hand held sprayer hose to extinguish the flames.

WARNING

To prevent personal injury or property damage:

DO NOT use improper materials, sawdust, or woodchips smaller than thumbnail size for the smoking function.

CombiSmoker® Procedures

The ability to smoke product, hot or cold, is offered on all CTP models. The smoking function can be engaged in either the Combination mode or the Convection mode of operation. The smoking function cannot be operated when the oven is operating in the steam mode or the retherm mode.


Press on button to power oven on.


Touch the professional cooking mode.


Touch the desired cooking MODE icon, convection or combination.

To Change the Displayed Settings:


Touch the area to the right of the temperature icon.

Type in desired temperature.


Touch the green check mark key to confirm change.

To Cook by Time:


Touch the area to the right of the time icon.

Type in desired time.


Touch the green check mark key to confirm change.

To Activate CombiSmoke:


Touch auxiliary function smoking icon.

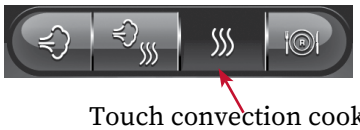

Touch the Start icon to begin smoking.

⚠ CAUTION

To prevent **personal injury** or **property damage**:

Always use hand protection when operating this appliance to avoid burns. Metal parts of this equipment become extremely hot when in operation.

Cold Smoking Procedures


Touch convection cooking MODE icon.

To Change The Displayed Settings:


Touch the cold smoking icon.

The temperature will display ------°.

To Cook by Time:


Touch the area to the right of the time icon.

Type in desired time.


Touch the green check mark key to confirm change.

Place a pan of ice on a shelf immediately below the product.


Touch THE START icon TO begin smoking.

CAUTION HOT

Use caution when opening the oven door when the cooking chamber is hot to avoid possible burns.

Recipe Programming

1. While on the cooking mode screen, touch the **Write a Recipe** icon. 
2. Enter the desired cooking mode, cooking temperature, and cooking time.
3. Add any desired special functions. For example:

- If the recipe requires a reminder to open the door at the end of the segment, touch the **Door** icon. 
- If the recipe requires a rest period, touch the **Rest** icon. 
- If the recipe requires rapid remomal of heat, touch the **Rapid Cool** icon. 

4. If the recipe is complete, go to step 6. If the recipe calls for additional segments, touch the **Append** icon. 
5. Enter the desired cooking mode, cooking temperature, and cooking time. If required, add a special function—see step 3. Then, touch the **Append** icon. Repeat for each additional cooking segment. 
6. Touch the **Save** icon when all segments have been written. A touch pad will appear. 
7. Choose a photo or input the name of the recipe, then touch the **Check Mark** icon. 

NOTE: Each recipe can have up to 10 segments.

Using Programmed Recipes

To Cook with Preprogrammed Recipes

NOTE: Some programs include the preheat function.Be sure the oven preheat temperature has been reached before loading food into the oven.

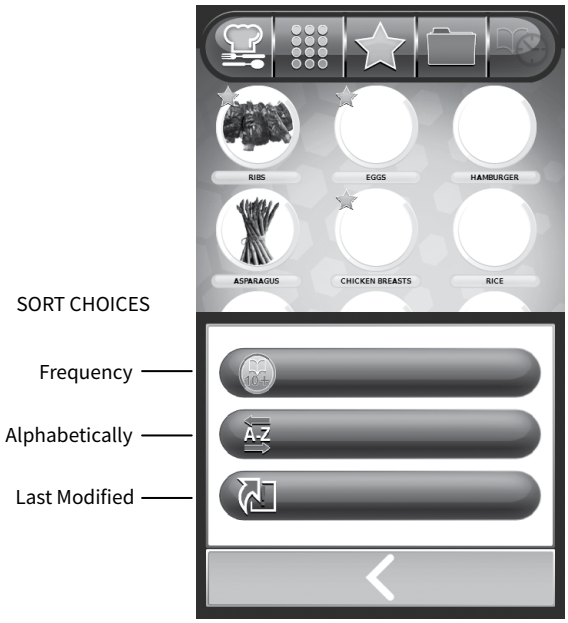
- Touch the Cookbook icon. 

- Locate food item program by scrolling through pages using arrows or Look-Up icon.

- Touch preprogrammed food item icon.

- Oven begins operating automatically.

To stop cooking program at any time, touch the red Stop icon



Editing Programmed Recipes

The CT PROformance™ recipes that have been programmed can be edited, saved as a favorite recipe, and organized in folders or by time day they are used to help speed the search for specific recipes.

To Change Saved Recipes:

Touch Recipe Utility icon located at the bottom of the recipe page.

The recipe utility screen is bright red to indicate that the user is now in edit mode.

Touch the edit recipe icon.

Touch the icon of the recipe to be edited.

The first cooking step of the recipe will be displayed. Change cooking mode, temperature, time, probe temperature, and /or any of the auxiliary functions.

If an additional step needs to be added, touch

Append to add next step

Change the previous step

Insert a step

Edit as necessary. When there are no further changes to be made, touch the Save icon.

Enter the name of the recipe if it is to be changed.

Touch the green check mark key to confirm change.

To Delete Saved Recipes:

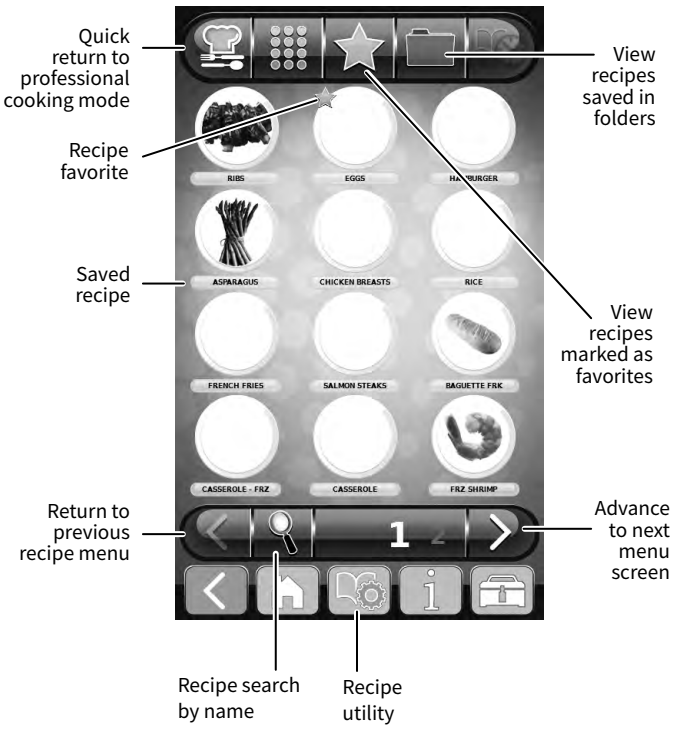
Touch Recipe Utility icon located at the bottom of the recipe page.

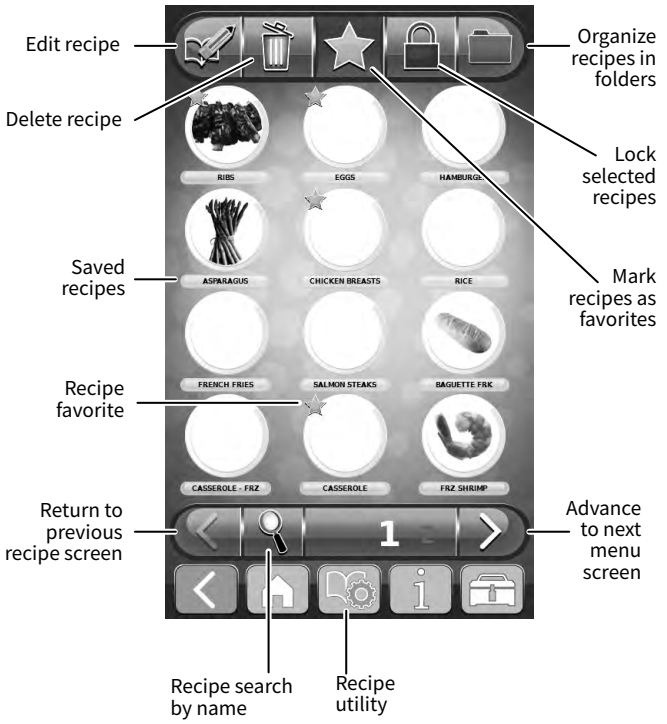
The recipe utility screen is bright red to indicate that the user is now in Edit Mode.

Touch the Delete Recipe icon.

Touch the icon of the recipe to be deleted.

The recipe will be removed from the screen.





NOTICE: Each recipe can have up to 10 sequential steps.

(continued on next page)

Organizing Programmed Recipes

The CT PROformance™ recipes that have been programmed can be organized in folders to help your kitchen staff be more productive.

To Create A Recipe Folder:

Touch the folder icon located at the top of the recipe page.

The recipe utility screen is bright red to indicate that the user is now in edit mode.

Touch the add folder icon.

The keyboard will appear - allowing you to enter in a name for the recipe folder.

Touch the green check mark to confirm the folder name.

Continue to add recipe folders as necessary.

Touch the recipe utility icon to add programmed recipes to the folder.

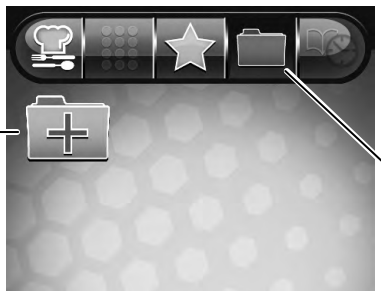
Touch the folder icon on the red background.

Touch the named folder icon to reveal the programmed recipe choices available.

Touch each of the programmed recipes to be added to the folder.

A small blue folder will appear on the lower left of the recipe icon, indicating that it has been selected to be added to the recipe folder.

Touch the return to previous screen icon when your choices have been completed.



Organizing Programmed Recipes (Continued From Previous Page)

To Mark Saved Recipes as a Favorite:

Touch the Favorites recipe icon.

Touch the icon of the recipe to be marked.

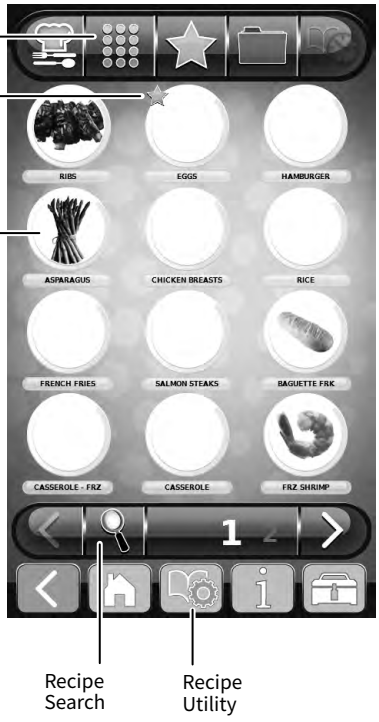
A gold star will appear at the top left of the recipe icon. All favorites can be viewed when you touch the gold star while viewing the list of saved recipes.

To Lock Saved Recipes:

Touch the lock recipe icon.

Touch a single icon of the recipe or a group of icons to be locked.

A red lock will appear at the top right of the recipe icon.



HACCP Access

The Combitherm CT PROformance™ oven meets the requirements of established HACCP criteria by providing automated sampling, record keeping, set-point validation, recipe used, dates and time. Data is captured when Core Temperature Probe cooking method is chosen. The information can be viewed on screen for verification or troubleshooting. The HACCP preview page will be displayed in LIFO (last in, first out) order. This data is retained indefinitely - until the information is downloaded. Once downloaded, the information is removed from the ovens memory. Best practice would be to download the information every 30 days to a USB stick. This information can then be copied to your computer. The file format is text (.txt).

CAUTION: The CombiOven USB port is not recommended for use with personal hand held devices.

To Access the Data Collected:

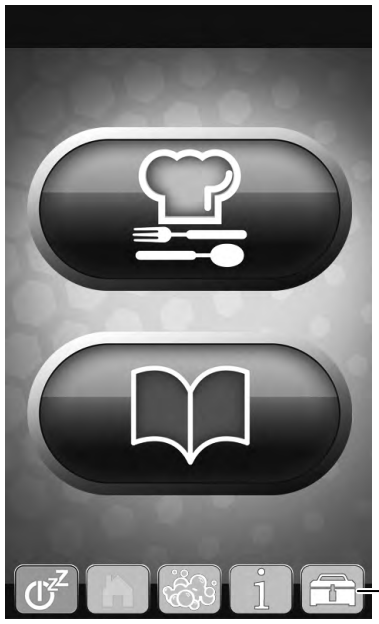
Touch the utilities icon located on the home page.

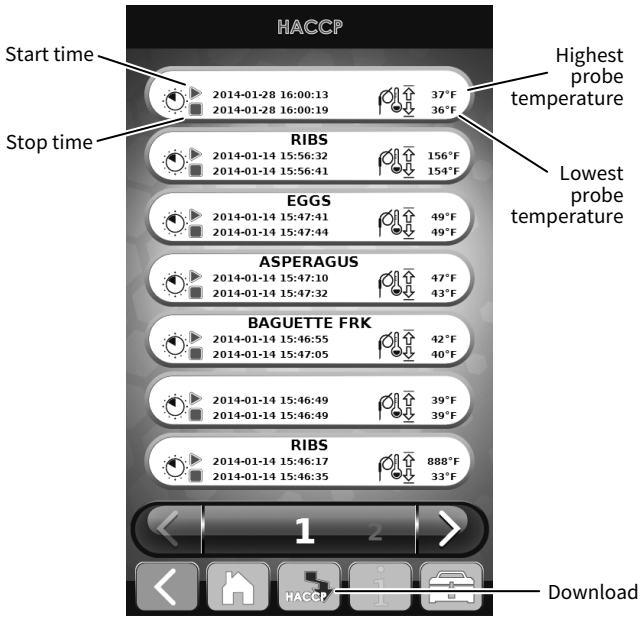
Touch the upload/download icon.

Touch the HaCCP USB icon.

The HACCP screen can help diagnose a problem or error code if limited information is available.

(next steps continued on next page)





HACCP Access and Download

HACCP Access And Download

UNIT ID 10:07:66:A5:36:DD
IB 0.9
CB 0.57 Firmware versions
OB 0.06

RECIPE NAME VEG BLANCH

DATE	Time	PROGRAM NAME	COOK MODE	CAVITY SETPOINT (°F)	COOK TIME (hh:mm:ss)
10/31/2013	17:49:14	Preheat	Continuous	212	--:--
10/31/2013	17:59:27	Steam	Time	212	0:04:00
10/31/2013	18:00:27	Steam	Time	212	0:04:00
10/31/2013	18:01:28	Steam	Time	212	0:04:00
10/31/2013	18:02:29	Steam	Time	212	0:04:00
10/31/2013	18:03:29	Steam	Time	212	0:04:00

PROBE SETPOINT (°F)	Cavity Temperature (°F)	Core Temperature (°F)	Door Open	RECIPE STEP
	100	----	0	1
	110	----	0	2
	110	----	0	2
	110	----	0	2
	110	----	0	2
	110	----	0	2

UNIT ID 10:07:66:A5:36:DD
IB 0.9
CB 0.57 Firmware versions
OB 0.06

RECIPE NAME VEG BLANCH

DATE	Time	PROGRAM NAME	COOK MODE	CAVITY SETPOINT (°F)	COOK TIME (hh:mm:ss)
10/31/2013	17:49:14	Preheat	Continuous	212	--:--
10/31/2013	17:59:27	Steam	Time	212	0:04:00
10/31/2013	18:00:27	Steam	Time	212	0:04:00
10/31/2013	18:01:28	Steam	Time	212	0:04:00
10/31/2013	18:02:29	Steam	Time	212	0:04:00
10/31/2013	18:03:29	Steam	Time	212	0:04:00

PROBE SETPOINT (°F)	Cavity Temperature (°F)	Core Temperature (°F)	Door Open	RECIPE STEP
	100	----	0	1
	110	----	0	2
	110	----	0	2
	110	----	0	2
	110	----	0	2
	110	----	0	2

To Download the Data Collected:

Pull back the cap of the USB port on the oven.

Insert the USB stick. The USB stick, if recognized, will automatically take the user to the download page. If the USB stick is not recognized by the Combitherm oven, a question mark will appear on screen. Try again with another flash drive device or call Alto-Shaam Service.

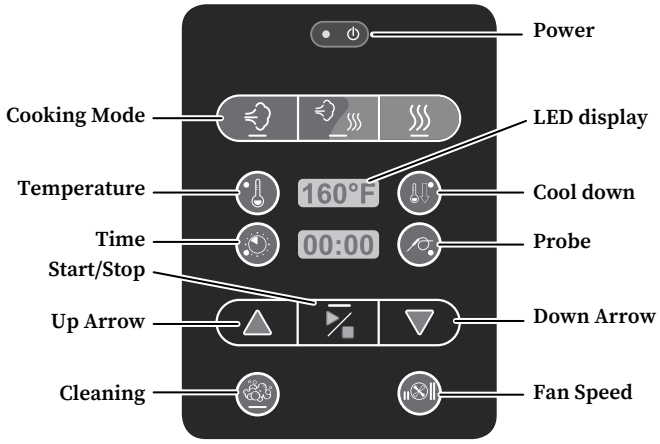
When the data has made a successful transfer to the USB drive, the screen will change. See below.

Touch the green Check Mark icon to complete the process.

Remove the USB stick and close the cap on the USB port on the oven.

The download process will automatically create a folder on the USB stick titled “haccp”. Each text file contains cooking program specifics and each function the oven performed.

Control Panel Identification



The **Steam** mode provides the operator with the ability to steam, poach, blanch, or sous vide. This mode will automatically steam at the boiling point of water; quick-steam above the boiling point for faster cooking results; or low temperature steam, below the boiling point, for more delicate products such as pâté, mousse, seafood, or custard.

The **Combination** mode will prove to be the most versatile and widely used mode the Combitherm oven has to offer. It will produce the best possible results on the widest variety of products — all within the shortest period of time. The unique control function of this mode enables the operator to roast or bake with a combination of steam and convection heat. In addition to shorter cooking times, this combination of steam and heat offers less product shrinkage and more moisture retention than obtained in a standard convection oven.

The **Convection** mode operates with hot circulated air within a temperature range of 85°F to 575°F (29°C to 300°C). For many applications, better results may be achieved with the Combination mode; therefore, the operator may want to consider using the Convection mode on a more limited basis.

NOTE: In the event of a power failure, the oven will not operate.

Oven Cool Down Process:
- Cooking process must be inactive
- Press "Cool Down" button until LED lights (LED remains ON while in Cool Down mode)
- Press "Decrease Value" or "Increase Value" to adjust cool down temperature
- Cook temperature display area is used to display cool down temperature
- Display will show last valid cool down temperature
- Cool down temperature range is 85°F - 575°F (30°C - 300°C)
- Press "Start/Stop" until LED lights to accept cool down temperature and initiate cool down process
- Door must be open to start cool down process; Cook time display area will display "door" if door is not open
- Cook temperature display area will display set cool down temperature
- Cook time display area will display current cool down temperature

Fahrenheit or Celsius Function - choose temperature format:
- Unit is not in a cooking or cleaning process
- Press "Set Cooking Temperature", "Decrease Value" and "Increase Value" buttons simultaneously for 1 second
- Cooking temperature display area will display last value "C" or "F"; Display will alternate between "C" and "F" every 2 seconds
- Press "Start/Stop" key when the display is showing the desired value ("C" or "F")

How To Turn On the Appliance

Prerequisites

1. Turn on the exhaust hood.
2. Make sure that the water supply to the appliance is turned on.
3. Make sure that the electrical power supply to the appliance is turned on.
4. For gas applicances, make sure the gas supply valve is in the open position.

Steps

1. Press the ON/OFF button  .

   The ON/OFF indicator glows green.

   NOTE: If the appliance has a steam generator, the steam generator fills with water and the appliance heats the water to an initial temperature of 188°F (77°C).

NOTE: To power off the appliance, press and hold the Power button for 5 to 10 seconds to initiate the power shut down sequence to the oven.

The oven will not shut down during a cooking cycle.

NOTICE: In the event of a power failure, the oven will not operate.

DANGER

Before starting the appliance, make certain you do not detect the odor of gas.
If you smell gas:
- **Shut off the gas supply immediately.**
- **Do not attempt to light any appliance.**
- **Do not touch any electrical elements.**
- **Extinguish any open flame.**
- **Evacuate the area.**
- **Use a telephone outside the property and immediately contact your gas supplier.**
- **If unable to contact your as supplier, contact the fire department.**

CAUTION

Accumulations on the main burners of gas appliances can result in firing out of normal sequence. This delayed ignition creates an alarmingly loud sound. If your appliance makes an especially loud noise when starting up, shut down the appliance and call a qualified and trained service technician.

How To Preheat the Appliance

Alto-Shaam recommends preheating the Combitherm® before cooking.

1. Press the **Power** button. 
2. Press the desired **Cook Mode** button.  Steam  Combi  Convection
3. Press the **Oven Temperature** button; adjust the temperature with the **Arrow** buttons. 
4. Press the **Cook Time** button; adjust the time with the **Arrow** buttons. 
5. Press the **Start/Stop** button. 

Cooking by Probe

1. Preheat the appliance.
2. Press the desired **Cook Mode** button.  Steam  Combi  Convection
3. Press the **Oven Temperature** button; adjust the temperature with the **Arrow** buttons. 
4. Press the **Probe Temperature** button; adjust the probe temperature with the **Arrow** buttons. 
5. Press the **Fan Speed** button to choose High Speed or Low Speed. 
6. Load food into the appliance and insert probe into the food.
7. Press the **Start/Stop** button. 

Cooking by Time

1. Preheat the appliance.
2. Press the desired **Cook Mode**.  Steam  Combi  Convection
3. Press the **Oven Temperature** button; adjust the temperature with the **Arrow** buttons. 
4. Press the **Cook Time** button; adjust the time with the **Arrow** buttons. 
5. Press the **Fan Speed** button to choose High Speed or Low Speed. 
6. Load food into the appliance.
7. Press the **Start/Stop** button. 

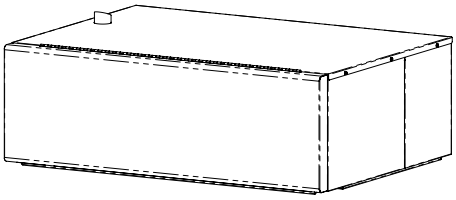
NOTE: In the event of a prolonged power failure during the cooking process, it is strongly recommended that you ensure the food is safe for consumption according to local health regulations.

Temperatures below 350°F (177°C) permit high speed fan and low speed fan operation. Temperatures at 350°F (177°C) or higher permit high speed fan operation.

CAUTION HOT

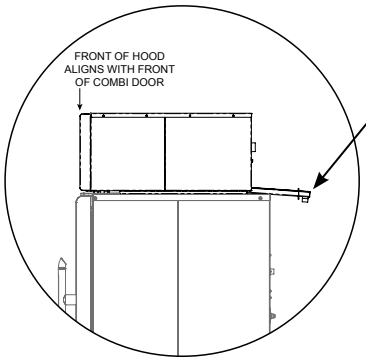
Use caution when opening the oven door when the cooking chamber is hot to avoid possible burns.

CombiHood PLUS™ Ventless Hood



The CombiHood PLUS option is factory installed directly on the top of the Alto-Shaam Combitherm CTP or CTC series oven.

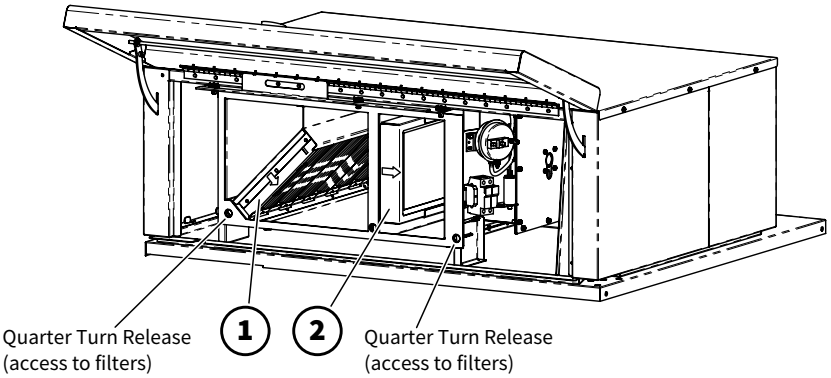
- Using EPA method 202 testing, grease laden vapors emitted by the Combi Ventless hood are 0.58 mg/m^3 – far less than U.L.'s established standard of 5 mg/m^3.
- A high-powered fan captures all steam and fumes from the oven cavity into the hood intake and out the back surface exhaust vent, trapping grease as the air moves through the filter system.
- As fumes and vapors are circulated through the hood, condensed steam drains from a drain at the rear of the hood.
- An activated charcoal filter cleans the air before venting it out the top of the hood.
- CombiHood PLUS™ performance is "smart"; engaging the fan during the last minute of the cook mode which provides quiet operation and consumes less power.



Condensate Drain

A condensate drain line to the floor drain must be installed. The 1/2" barbed connection is found at the back of the hood. The drain line must always be a positive gradient away from the Combitherm oven.

Test the drain for proper drainage and signs of leaking on a monthly basis.



① CombiHood Plus Washable Grease Filter with metal housing (5017362)
Washing frequency should be based on oven usage with a maximum of two weeks between cleaning if the oven is used for non-grease laden products or steam applications only. Grease laden products require cleaning frequency of at least once a week.

Remove the grease filter by pulling it straight out of the housing. Place the filter in the dishwasher or wash separately by placing in hot, soapy water until all grease and particles have been removed. Rinse thoroughly. Allow the filter to air dry before reinstalling.

The air flow arrow on the filter casing should point toward the hood fan when the filter is reinstalled.

② CombiHood Plus Charcoal Filter with paper housing, Class II (FI-25866)

CombiHood Plus Charcoal Filter with metal housing, Class I *required for New York City and Los Angeles* (FI-36620)

The charcoal filter should be inspected once a month for contaminants. Replacement must be made at a minimum of three month intervals — more often if heavy contaminants are visible or if the filter no longer controls odors.

To remove the filter, pull and slide out while holding the bottom housing. When replacing the filter, make certain the air flow arrow(s) point toward the hood fan, and that the filter is replaced in the three-sided metal frame provided with the hood.

NOTICE: A pressure switch is used to detect when the airflow through the charcoal filter is reduced by 25% - indicating a possible blockage. This will generate an E101 error message on the oven control display. The filters will need to cleaned or replaced.

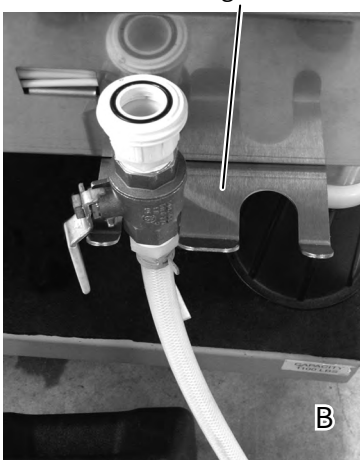
If the filters are not seated properly, an error code E102 will appear on the oven control display at the end of a cooking cycle.

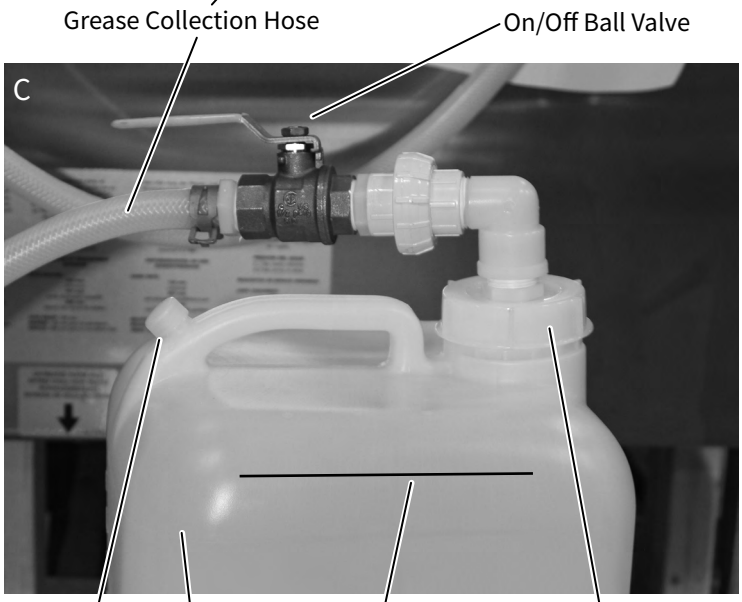
Connecting the Optional Grease Collection System

- Grease Collection Hose Assembly is attached to the oven in the back.
- The hose guide bracket can be attached on either the left side or the right side toward the back. Placement on the left side is recommended whenever possible. Thumb screws are in position for this purpose. Remove thumb screws, position hose guide bracket and secure screws (photo a). Thread grease hose through the guide.
- The hose hanger bracket can be attached on either the left side or the right side toward the front of the oven. Placement on the left side is recommended whenever possible. Philips screws are in position beneath the oven for this purpose. Remove Philips screws, position hose hanger bracket and secure screws (photo b). The hanger bracket is used to secure the grease collection hose while changing grease collection containers.
- Place Grease Collection Containers inside the tray of the Mobile Grease Collection Cart. Roll into place next to the oven and apply the caster brake.

❖• Loosen vent cap on container. Pull out the Grease Collection Hose Assembly from the back of the unit. Remove collection container fill cap (photo c).

- Screw Grease Collection Hose Assembly on to collection container until snug.
- Turn ball valve handle to the ON position.
- If this auxiliary function has been chosen while setting your cooking mode, the automatic grease collection system is electronically activated during the cooking process [u.s. patent 8,997,730 b2]. It is designed to save labor and provide greater employee safety by eliminating the need to handle hot grease in shallow pans.
- Grease Collection container has a 5 gallon (19 liter) capacity and holds approximately 3 full loads of poultry grease.
- At a minimum, empty and clean the container when material reaches the fill line on the bottle or at 4 gallons to avoid hot grease overflow.
- Turn the ball valve handle to the OFF position.
- The ball valve handle must be in the OFF position when changing the collection container.
- Unscrew the container fill cap.
- Using a new container, screw Grease Collection Hose Assembly on to collection container until snug.
- Turn ball valve handle to the ON position.





WARNING

To prevent SERIOUS INJURY or PROPERTY DAMAGE:

ALWAYS apply caster brakes on mobile carts, appliances, or accessories when stationary. Equipment on casters can move or roll on uneven floors.

Check grease collection connections and replace the containers when filled to the recommended capacity.

Connecting the Optional Liquid Cleaner

- Removable, cleaner support tray can be mounted on the left or right exterior wall of the oven. Slide slotted openings on the tray over the mounting studs.
- Support tray holds a 2-1/2-gallon (9,5 liter) bottle and measures 10-1/2" x 7-3/4" (267mm x 194mm).
- Place liquid oven cleaner bottle inside tray.

❖• Wearing protective rubber gloves and eye wear, remove cap from liquid oven cleaner bottle. Pull out the Cleaner Cap and Tubing Assembly from the back of the unit screw on to liquid oven cleaner bottle.

❖• Position cap to ensure the hose is not kinked after tightening.

- Combitherm liquid oven cleaner jugs are quickly and easily replaced.
- Combitherm liquid oven cleaner is automatically pumped through the system, saving labor and providing greater employee safety by eliminating the need to handle caustic cleaning liquids each day.

WARNING

ALWAYS wear protective eye wear and rubber gloves when using liquid oven cleaner to prevent eye, skin, and respiratory tract irritation.

Keep out of reach of children.

See Safety Data Sheet for additional information.

WARNING

To prevent SERIOUS INJURY or DEATH, NEVER operate this appliance in a cleaning mode without the liquid cleaner connected, with a kink in the cleaning hose line, or with an empty liquid cleaner container. Failure to do so may result in poor oven cleaning, grease and/or carbon accumulating inside the oven cavity and increased risk of fire.

⚠WARNING

To prevent **serious personal injury**, **death**, or **property damage**:

The appliance must be cleaned thoroughly to avoid deposits of grease and or food residues inside the appliance that may catch fire. If fat deposits and/or food waste inside the appliance ignite, shut down the appliance immediately and keep the appliance door closed to extinguish the fire. If further extinguishing is required, disconnect the appliance from the main power and use a fire extinguisher (do not use water to extinguish a grease fire!). Failure to clean the appliance properly invalidates the warranty and relieves Alto-Shaam of all liability.

For Gas Models:

The gas Combitherm must use a connector that complies with The Standard for Connectors for Movable Gas Appliances, ANSI Z21.69 CSA 6.16 and addenda Z21.69a-1989. A quick disconnect device must be installed to comply with The Standard for Quick Disconnect Devices for Use with Gas Fuel, ANSI Z21 CSA 6.9. and European Standard EN203.

Adequate means must be provided to limit the movement of this appliance. Limitation of movement must be made without depending on the connector, the quick disconnect device, nor the associated piping designed to limit appliance movement. If it becomes necessary to disconnect the restraint, it must be reconnected immediately following the return of the appliance to its original position.

1. Install a manual gas shut-off valve along with an approved disconnect device.
2. Install an A.G.A. certified, heavy-duty connector that complies with ANSI Z 21.69 or CAN 1-6.10m88 along with a quick-disconnect device in compliance with ANSI Z21.41 or CAN 1-6.9m70. Connectors must be installed with a cable restraint to prevent excessive tension from being placed on the connector.

FIRE HAZARD

To prevent SERIOUS INJURY or DEATH, your appliance must be secured to building structure to prevent unintended movement.

For Electric Models:

This section is provided for the assistance of qualified and trained service technicians only and is not intended for use by untrained or unauthorized service personnel. Failure to observe this precaution may void the warranty.

WARNING

ELECTRIC SHOCK HAZARD.

To prevent SERIOUS INJURY or DEATH, your appliance must be secured to building structure to prevent unintended movement.

Any appliance that includes a set of casters must be installed with a tether. Adequate means must be provided to limit the movement of this appliance without depending on or transmitting stress to the electrical conduit. The following requirements apply:

1. Casters must be a maximum height of 6" (152mm).
2. Two of the casters must be the locking type.
3. Such mobile appliances or appliances on mobile stands must be installed with the use of a flexible connector secured to the building structure.

A mounting connector for a restraining device is located on the lower back flange of the appliance chassis or on an oven stand, approximately 18" (457mm) from the floor. A flexible connector is not supplied by nor is it available from the factory.

CombiClean® Cleaning Agents

⚠ DANGER

ALWAYS wear rubber gloves when using CombiClean tablets or spray oven cleaner.

⚠ DANGER

ALWAYS wear protective eye wear when using spray oven cleaner.

Danger

- May be harmful if swallowed.
- May be harmful in contact with skin. Always wear rubber gloves when handling.
- Causes severe skin burns and eye damage.
- Tablet will begin to dissolve onto skin if handled with damp or wet hands.
- May cause respiratory irritation. May cause drowsiness or dizziness.
- Harmful to aquatic life with long lasting effects. Do not mix with anything but water.
- Do not breathe dust/fumes/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
- Use only outdoors or in a well-ventilated area. Avoid release to the environment. Store in a locked and well ventilated place. Keep container tightly closed. Dispose of contents/container to an approved waste disposal plant.

First Aid

Immediately call a POISON CENTER or doctor/physician. Specific treatment (See section 4 on the SDS).

- **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
- **IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
- **IF INHALED:** Move victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician if you feel unwell.
- **IF SWALLOWED:** Rinse mouth. DO NOT induce vomiting. Drink 2-3 glasses of water or milk. Immediately call a POISON CENTER or doctor/physician.

Preventative Maintenance

In addition to the routine cleaning and maintenance procedures, there are several additional steps to be taken for both sanitation and to keep the oven running efficiently. Refer to the following inspection checklists for a comprehensive approach to longevity and equipment efficiency. These additional safeguards will help prevent down time and costly repairs.

Do not dispose of grease, fat, wood chips or solid waste down the oven drain.

Fats and solids will eventually coagulate in the drain system, causing blockage. Consequently, water will back-up into the condenser and interior oven compartment, resulting in an oven that is inoperable.

Make certain the drain screen is always in place. Remove any solid waste material from the oven bottom and drain screen before it enters the drain system.

The routine removal of solids from the drain screen will help prevent blockage.

Use the authorized combitherm oven cleaner only.

The use of unauthorized cleaning agents may discolor or harm the interior surfaces of the oven.

To prolong the life of the door gasket, clean this item daily.

The acids and related compounds found in fat, particularly chicken fat, will weaken the composition of the gasket unless cleaned on a daily basis. Wipe with a hot, soapy cloth.

To additionally protect gasket life, allow oven door to remain slightly open at the end of the production day.

An open door will relieve the pressure on the door gasket.

Routinely clean door hinges.

Open oven door to relieve tension. Clean all parts of the hinge.

On a monthly basis, decalcify or descale the oven.

Using the Scale Free cleaner, CE-27889, place 7 ounces of the product in the drain. Run a heavy-duty cleaning cycle. After the cleaning cycle has been completed, use the hand shower to spray down the oven interior. Swing open the interior fan guard and spray down the area behind the panel. Direct a stream of water down the interior drain cover to thoroughly rinse the cleaner out of the oven. After the oven interior has been sprayed down, run a rinse cleaning cycle.

WARNING
When smoking is completed, remove the smoker box. Dispose of wood chips in a fire proof waste receptacle to prevent the risk of fire.

⚠ WARNING

To prevent serious personal injury, death, or property damage:

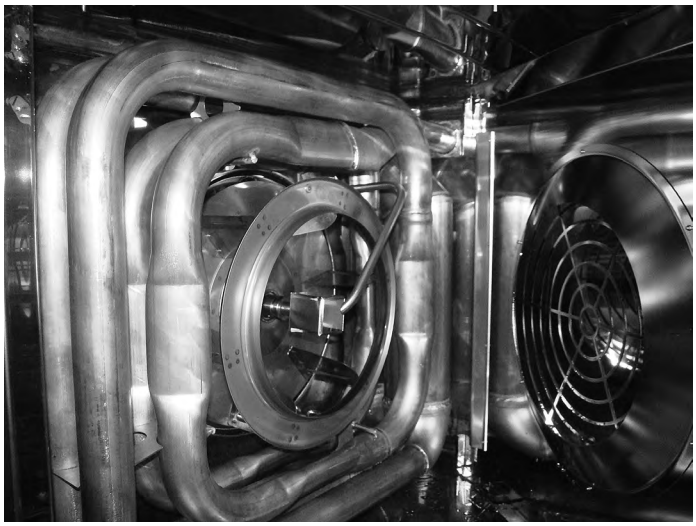
Do not steam clean, hose down or flood the interior or exterior with water or liquid solution of any kind. **Do not** use water jet to clean. Failure to observe this precaution will void the warranty.

Weekly Maintenance

On a weekly basis, the heat exchanger on gas models and convection elements on electric models must be inspected.

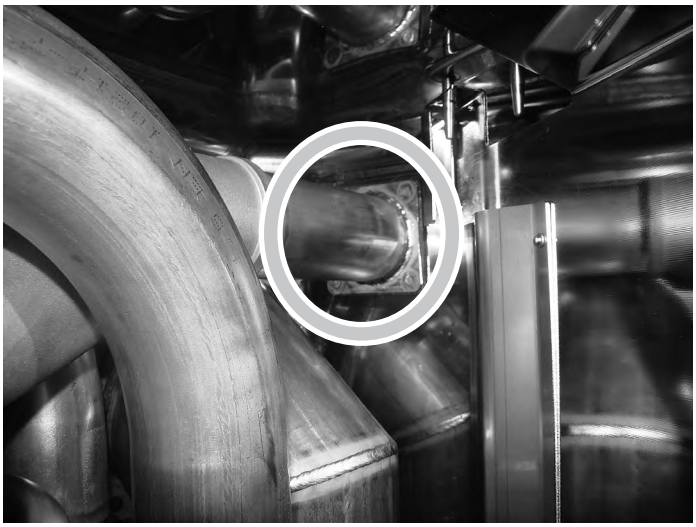
- Remove all wire shelves from inside the appliance.
- Remove left side rack from the oven cavity.
- Flip the tabs or loosen the thumb screws on the fan panel to the open position and swing the fan guard cover plate toward the back of the oven.
- Inspect the heat exchanger on gas models for signs of grease and/or carbon buildup, scale buildup, and any signs of major deformation. Refer to images A and B.
- Inspect that the flue pipe seal is tight and intact. Refer to image C.
- Inspect the convection elements for signs of cracking, grease and/or carbon buildup, scale buildup, and any signs of major deformation. Refer to image D.

A

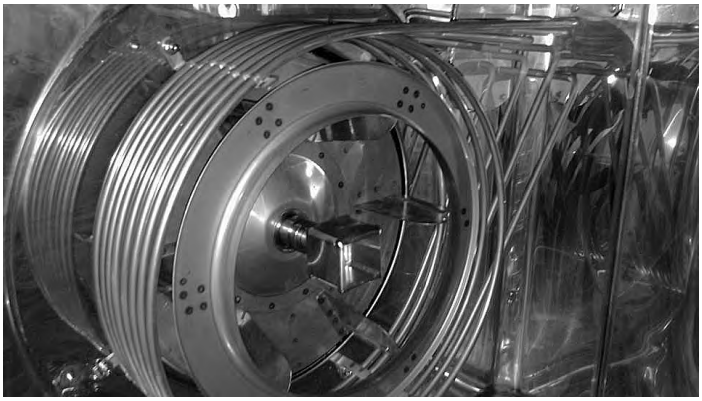


B

C



D



Daily Inspection

Unit Information

Business Name: _____ **Serial Number:** _____

Model Number: _____ **Daily Inspection Start Date:** _____

Daily Inspection Checklist

Inspect and clean:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Product probe (thermometer)							
Door gasket (inner door seal)							
Inner door glass							
Front drip tray							
Screen and overlay (inspect for cracks, peeling, moisture, etc.)							
Execute automatic wash cycle (with approved cleaning chemical ONLY)							
Employee initials							

Component Failure and Replacement

List details of the failure(s) next to the day they occurred. Leave blank if components are working properly.	
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

Weekly Inspection

Unit Information

Business Name: _____ **Serial Number:** _____

Model Number: _____ **Weekly Inspection Start Date:** _____

Weekly Inspection Checklist

Inspect - Oven cavity lamp	
Inspect - Oven cavity for signs of grease/carbon buildup	
Inspect - Loosen thumb screws to inspect behind the fan panel inside the oven cavity for signs of grease/carbon buildup	
Inspect - Loosen thumb screws to inspect behind the fan panel inside the oven cavity for signs of scale buildup	
G Inspect - The heat exchanger for any signs of major deformation. If yes, ***immediately*** remove from service and take corrective action steps.	
G Inspect - The heat exchanger for any loose/disconnected pipes or flanges. If yes, ***immediately*** remove from service and take corrective action steps.	
E Inspect - Convection elements for signs of cracking, deformation, or damage	
Clean ventless hood grease filters	
Employee initials	

G Gas units only E Electric units only

Component Failure and Replacement

List details of the failure(s) next to the day they occurred. Leave blank if components are working properly.	
Week 1	
Week 2	
Week 3	
Week 4	

Monthly Inspection

Unit Information

Business Name: _____ **Serial Number:** _____

Model Number: _____ **Monthly Inspection Start Date:** _____

Monthly Inspection Checklist

Inspect/Test - Proper draining of the oven cavity	
Inspect - All drain lines for leaks or clogs	
EB Descale the steam generator	
Inspect - Oven cavity for any signs of scale buildup	
Descale the oven interior	
Inspect ventless hood paper filter (replace as needed)	
Test ventless hood drain for proper drainage and signs of leaking	
Employee initials	

EB Electric boiler units only

Component Failure & Replacement

Summarize any component failure(s) that may have occurred during this month.

Yearly Inspection

Unit Information

Business Name: _____ **Serial Number:** _____

Model Number: _____ **12-Month Inspection Start Date:** _____

12-Month Inspection Checklist

Replace - Steam bypass hose	
Inspect - Cleaning pump hose	
Inspect/Test - Proper draining of the oven cavity	
Inspect - All drain lines for leaks or clogs	
Inspect - All solenoid hoses (both ends)	
Inspect - Upper browning valve hose	
Inspect - Low pressure relief valve & hose	
E Inspect - Convection element seal (from the electrical compartment)	
G Inspect - Gas heat exchanger seal (from the electrical compartment)	
Inspect - N6 oven temperature probe seal	
EB Descale the steam generator	
EB Remove & Inspect - Steam generator elements	
Inspect - Hand shower hose	
Inspect - Hand shower handle	
Inspect - Product probe	
Inspect - Water injection tube	
Inspect - Oven cavity for any signs of scale buildup	
Inspect - Oven cavity lamp	
Inspect - Oven cavity for signs of grease/carbon buildup	
Inspect - Behind the fan panel inside the oven cavity for signs of grease/carbon buildup	
Inspect - Behind the fan panel inside the oven cavity for signs of scale buildup	

EB Electric boiler units only **G** Gas units only **E** Electric units only

Unit Information

Business Name: _____ **Serial Number:** _____

Model Number: _____ **12-Month Inspection Start Date:** _____

12-Month Inspection Checklist

G Inspect - The heat exchanger for any signs of major deformation. If yes, ***immediately*** remove from service and take corrective action steps.	
G Inspect - The heat exchanger for any loose/disconnected pipes or flanges. If yes, ***immediately*** remove from service and take corrective action steps.	
G Inspect and Ensure - Exhaust pipes are exiting the oven cavity	
G Inspect - Heat exchanger flange gasket (replace as needed)	
G Inspect and Tighten - Heat exchanger flange bolts	
G Inspect and Tighten - Heat exchanger burner flange hardware & gasket (replace as needed)	
G Inspect and Tighten - Heat exchanger igniter flange hardware & gasket (replace as needed)	
G Inspect - Heat exchanger exhaust pipes (ensure they are exiting out past the oven cavity ceiling flange) - ESG models only	
G Inspect - Oven cavity ceiling flange & flange gasket - ESG models only	
G Tighten - Burner flange bolts	
G Tighten - Igniter flange bolts	
Inspect - Heat exchanger weep holes to ensure they are free of obstructions (if the hole is obstructed, immediately remove oven from service and replace the heat exchanger) - Not applicable to CTP/CTC models	
E Inspect - Convection elements for signs of cracking, deformation, or damage	
Replace - Oven lamp cover(s) & gasket(s)	
Descale the oven interior	
Inspect - Door gasket (replace as needed)	
Wipe the inner door glass	
Inspect - Front drip tray (clean as needed)	
Inspect - Front drip tray hose	
Inspect - Control overlay	
Inspect and Tighten - All electrical connections	
Inspect and Tighten - All cooling fans for proper operation	

EB Electric boiler units only **G** Gas units only **E** Electric units only

Cleaning and Maintenance

ALTO-SHAAM

Unit Information

Business Name: _____ **Serial Number:** _____

Model Number: _____ **12-Month Inspection Start Date:** _____

12-Month Inspection Checklist

Inspect and Tighten - Door hinges and lower hinge pin bolt	
Inspect and Tighten - Door handle	
If there is a smoker, inspect the smoke element for visual signs of deformation, cracks or breaks (replace as needed)	
Review - Error code history	
Note the software version (update if not current)	
Record - Water pressure (static & dynamic)	
Record - Line voltage across all lines	
Record - Line voltage to ground on each line	
Record - Amperage across all three legs (when heating)	
Function test all components (list components)	

Component Failure and Replacement

Summarize any component failure(s) that may have occurred during this month.

Customer Signature: _____

Technician Signature: _____

Protecting Stainless Steel Surfaces

It is important to guard against corrosion in the care of stainless steel surfaces. Harsh, corrosive, or inappropriate chemicals can completely destroy the protective surface layer of stainless steel. Abrasive pads, steel wool, or metal implements will abrade surfaces causing damage to this protective coating and will eventually result in areas of corrosion. Even water, particularly hard water that contains high to moderate concentrations of chloride, will cause oxidation and pitting that result in rust and corrosion. In addition, many acidic foods spilled and left to remain on metal surfaces are contributing factors that will corrode surfaces.

Proper cleaning agents, materials, and methods are vital to maintaining the appearance and life of this appliance. Spilled foods should be removed and the area wiped as soon as possible but at the very least, a minimum of once per day. Always thoroughly rinse surfaces after using a cleaning agent and wipe standing water as quickly as possible after rinsing.

Cleaning Agents

Use non-abrasive cleaning products designed for use on stainless steel surfaces. Cleaning agents must be chloride-free compounds and must not contain quaternary salts. Never use hydrochloric acid (muriatic acid) on stainless steel surfaces. Failure to observe this precaution will void the warranty. Always use the proper cleaning agent at the manufacturer's recommended strength. Contact your local cleaning supplier for product recommendations.

Cleaning Materials

Cleaning can usually be accomplished with the proper cleaning agent and a soft, clean cloth. When more aggressive methods are needed, use a non-abrasive scouring pad on difficult areas and make certain to scrub with the visible grain of surface metal to avoid surface scratches. Never use wire brushes, metal scouring pads, or scrapers to remove food residue. Failure to observe this precaution will void the warranty.

NOTICE

To protect stainless steel surfaces, completely avoid the use of abrasive cleaning compounds, chloride based cleaners, or cleaners containing quaternary salts. **Never** use hydrochloric acid (muriatic acid) on stainless steel. **Never** use wire brushes, metal scouring pads or scrapers.

⚠WARNING

To prevent **serious personal injury**, **death**, or **property damage**:

The appliance must be cleaned thoroughly to avoid deposits of grease and or food residue inside the appliance that may catch fire. If fat deposits and/or food waste inside the appliance ignite, shut down the appliance immediately and keep the appliance door closed to extinguish the fire. If further extinguishing is required, disconnect the appliance from the main power and use a fire extinguisher (do not use water to extinguish a grease fire!). Failure to clean the appliance properly invalidates the warranty and relieves Alto-Shaam of all liability.

⚠ WARNING

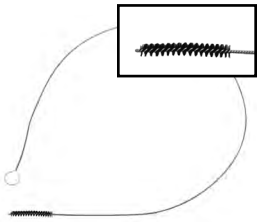
To prevent serious personal injury, death, or property damage:

Do not steam clean, hose down or flood the interior or exterior with water or liquid solution of any kind. **Do not** use water jet to clean. Failure to observe this precaution will void the warranty.

Daily Cleaning of the Oven

Cleaning is to be performed at the end of the production day or between production shifts.

1. Allow the oven to cool.
2. Remove the optional grill grate from the oven interior and wash separately in hot, soapy water to preserve the special non-stick coating.
3. Release the hinged inner glass on the CoolTouch3™ triple pane window door. Clean both sides of each pane of glass with a window cleaner or vinegar.
4. Wipe the control panel and door handle thoroughly.
5. Use the optional Drip Tray Clean-out Brush [5021126] to remove grease and food debris from the drip tray drain line. Insert brush first, and push into the drip tray drain opening until 6" (152mm) or less remains of the wire handle. Remove the brush and repeat as necessary.



6. Clean the door gasket. Wipe the gasket and crevices with a clean cloth soaked in non-abrasive cleaning agent. Wipe again with a cloth and clean rinse water. Certain conditions will accelerate the wear of the door seal and routine cleaning will prolong the life of the door gasket:
   - continuous operation at high cooking temperatures
   - use of low humidity levels
   - production with predominantly high-fat foods

Do not attempt to remove the gasket or place in the dishwasher.

7. To help maintain the protective film coating on polished stainless steel, clean the exterior of the appliance with a cleaner recommended for stainless steel surfaces. Spray the cleaning agent on a clean lint-free cloth and wipe with the grain of the stainless steel.

Probe and Probe Prong Cleaning

ls

and at the end of each production shift. Wipe the entire probe, probe cable assembly, probe prongs, and probe holding bracket with a clean cloth and warm detergent solution.

2. Remove detergent by wiping the probe, cable, probe prongs, and bracket with a cloth and clean rinse water.
3. Wipe the probe and probe bracket with a disposable alcohol pad or sanitizing solution recommended for food contact surfaces.
4. Allow the probe, probe prongs, and cable to air dry in the probe holding bracket.
5. Wipe the probe with a disposable alcohol pad prior to inserting into a new food product.

Cleaning the Roll-In Cart/Food Trolley

Roll-In Cart/Food Trolley Cleaning

the food trolley with a mild, non-abrasive cleaning detergent and warm water.

2. Hand wipe all framing, slides, drip pan, and base. Thoroughly clean debris from the casters. A spray hose can be used to clean the food trolley.
3. Remove detergent solution with warm water.
4. Wipe or spray with a sanitizing solution designed for use on metal and vinyl food contact surfaces.
5. Allow the food trolley to air dry.

As an alternative, food trolleys can be cleaned while inside the oven. Allow the trolley to remain in the oven through the heavy-duty cleaning cycle, followed by steps 2 through 5.

Monthly Cleaning

- spray head
- water intake filters
- drain pipe
- decalcify (descale) oven

CT PROtouch™ with CombiClean®

Five (5) cleaning levels are offered: rinse (20 minutes), light (30 minutes), normal (1 hour 20 minutes), heavy-duty (2 hours 6 minutes), and heavy-duty PLUS (3 hours 30 minutes) cleaning. CombiClean® 18 gram CombiTabs™ (CE-36354) or Combitherm® liquid spray cleaner (CE-24750) may be used. Side racks and shelves may remain inside oven during cleaning. Remove the optional Grill Grate from the oven interior and wash separately in hot, soapy water to preserve the special non-stick coating. Remove the smoker tray and any solid wastes from the drain screen and oven interior to prevent blockage.

NOTICE: If a power outage were to occur during any of the cleaning cycles, the oven will begin a six (6) minute forced-rinse cycle.

Be sure the water is turned on.

Touch the Cleaning icon found on the home screen.

If oven is too hot to proceed, the **Oven Too Hot** warning screen will appear. Open the oven door to allow the oven to cool below 150°F (66°C). When the oven is finished cooling, begin the cleaning procedure again.

Rinse | Light | Normal | Heavy-duty | Heavy-duty PLUS

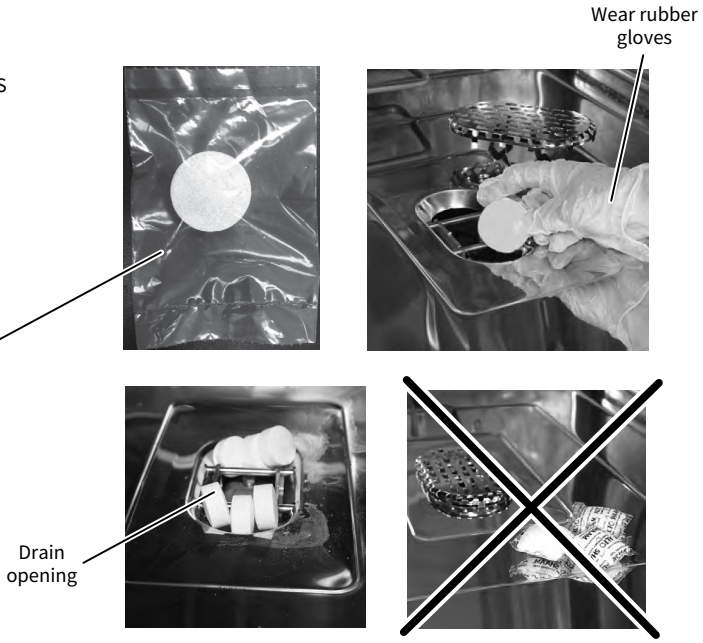
Select Rinse, Light, Normal, Heavy-duty, or Heavy-duty PLUS cleaning level.

- Wear rubber gloves to remove oven interior drain cover screen.
- Tear open or cut open the plastic wrap surrounding the cleaning tablets.
- Remove tablets from the packaging. Discard packaging. Insert the appropriate number of CombiClean® CombiTabs™ directly into the oven cavity drain or spray CombiClean liquid cleaner inside the oven.
- The number of tablets to be used can be increased depending upon how dirty the interior is.
- Close oven door.

Touch the green check mark key to begin the cleaning cycle.

Oven shuts down when the cleaning cycle is complete. Leave door slightly ajar when finished.

NOTICE: If the oven is equipped with the optional grease collection system, 3 cleaning levels are available.



NOTICE: All tablets should be placed inside the drain as best as possible and drain screen re-installed before starting the cleaning cycle. Tablets placed on top of the drain cover or placed on the bottom of the oven will not dissolve properly and will cause the oven interior to deteriorate.

CT PROtouch™ with Automatic Liquid Cleaning

There are five (5) cleaning levels for liquid cleaning.

- Rinse (20 minutes)
- Light (30 minutes)
- Normal (1 hour 20 minutes)
- Heavy-duty (2 hours 6 minutes)
- Heavy-duty PLUS (3 hours 30 minutes)

Use liquid cleaning solution (CE-36457) or Combitherm® liquid spray cleaner (CE-24750).

Side racks and shelves can remain inside the oven.

NOTICE: If a power outage happens during a cleaning cycle, the oven will begin a six (6) minute forced-rinse cycle the next time it starts.

NOTICE: Make sure the water is turned on and that enough liquid cleaner is available for the cleaning cycle.

Steps

1. Remove the optional grill grate from the oven interior and wash separately in hot, soapy water to preserve the special non-stick coating.
2. Remove the smoker tray
3. Remove all solid waste from the drain screen and oven interior.
4. Touch the cleaning icon  on the home screen. The cleaning screen ① displays.

If the cavity temperature is above 150°F (66°C), the Oven Too Hot warning displays. Open the door and allow the oven to cool before selecting a cleaning level.

5. Make sure the liquid cleaner container is filled.

Rinse | Light | Normal | Heavy-duty | Heavy-duty PLUS

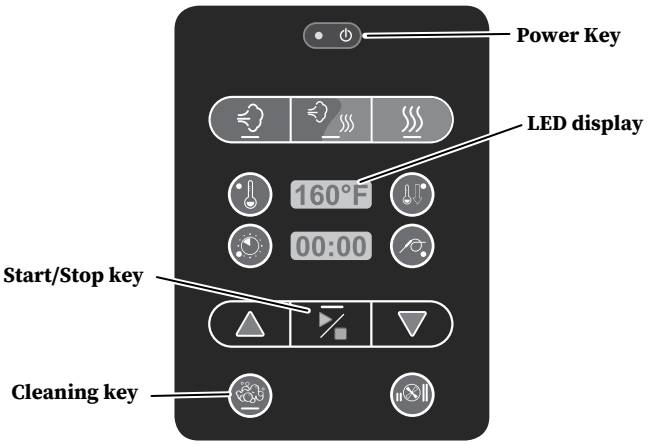
6. Select a cleaning level.
7. Touch the green check mark icon  .

   The oven shuts down when the cleaning cycle is complete. Leave the door open when the cleaning cycle is complete to speed drying.

Cleaning Classic Controlled Applicances

One (1) heavy-duty cleaning cycle (2 hours 5 minutes) is offered. CombiClean® CombiTabs™ CE-36354, 1 ounce packets or Combitherm Spray Cleaning Liquid CE-24750 may be used. Side racks and shelves may remain inside oven during cleaning. Remove solid wastes from the bottom of the oven and the drain screen to prevent blockage.

Note: If a power outage were to occur during any portion of the cleaning cycle, the oven will begin a six (6) minute forced-rinse cycle. Cook temperature display area will display "RIN". Cook time display area will display "-.--"



TO CLEAN THE OVEN

- **Press the Cleaning key.**
- **Insert appropriate number of CombiClean® tabs as directed by the LED Screen (CLn4 appears). The "4" refers to the number of cleaning tablets that are to be inserted in the cavity drain. User may add one additional tablet for particularly dirty ovens.**
- **Close the oven door and press the Start/Stop key.**
- **If oven is too hot to proceed, dOOr will display on the LED screen. Open the oven door to allow the oven to cool to below 150°F (66°C). When the oven is finished cooling, begin the cleaning procedure again.**
- **Oven beeps when it is done cleaning. Leave door slightly ajar when cleaning is finished.**

Error Codes

ALWAYS check the circuit breaker is turned "ON" and your unit is receiving power BEFORE calling your Authorized Alto-Shaam Service Agent.

NOTICE

This section is provided for the assistance of qualified and trained service technicians only and is not intended for use by untrained or unauthorized service personnel. Do not attempt to repair or service the oven beyond this point. Contact Alto-Shaam for the nearest authorized service agent. Repairs made by any other service agents without prior authorization by Alto-Shaam will void the warranty.

When the oven malfunctions, an error code will appear in the display.

Press the Start icon to acknowledge the error.

When the oven error notification has been acknowledged, the Combitherm will attempt to return to normal operation.

Error Code	Error Call Out in Display	Description of Error	Possible Cause(s)
E01	Low Water Boiler	Upper water level probe B1 is not satisfied within 5 minutes, after water solenoid valve Y1 is activated.	— Water supply is shut off. — Low water pressure. — Boiler drain cap is missing. — Boiler drain pump is defective. — Drain pump elbow leaking. — Water level probe has calcium build up. — Double water solenoid valve is defective (Y1). — Relay board, high voltage is defective.
E02	Control Temperature High	Low voltage relay board temperature higher than 176°F (80°C).	— Check wiring to all components listed below. — Cooling fan on relay board assembly is defective. — Cooling fan on display board assembly is defective. — Main cooling fan is defective. — Cooling fan on motor drive is defective.
E03	Fan Motor Error	Fan motor does not spin after 60 seconds, detected by the Hall Sensor. Error 03 does not appear if error E53 is detected first.	— Check wiring to all components listed below. — If LED on motor control flashes, see error codes for motor control. — Motor or fan wheel locked. — Hall sensor does not detect motor rotation. — Motor Thermo Temperature protection. — Fan wheel damaged.
E04	Lower Fan Motor Error	Lower Fan motor does not spin after 60 seconds, detected by the Hall Sensor. Error 04 does not appear if error E54 is detected first.	— Check wiring to all components mentioned below. — If LED on motor control flashes, see error codes for motor control. — Motor or fan wheel locked. — Hall sensor does not detect motor rotation. — Motor Thermo Temperature protection. — Fan wheel damaged.
E05	VFD Comm Failure	When VFD does not respond to a query on the CAN interface.	— Loss of power to VFD. — VFD malfunction. — CAN cable disconnected. — CAN address not correct on VFD.

CONTINUED ON NEXT PAGE

Error Codes

Error Code	Error Call Out in Display	Description of Error	Possible Cause(s)
E06	Lower VFD Comm Failure	When VFD does not respond to a query on the CAN interface.	— Loss of power to VFD. — VFD malfunction. — CAN cable disconnected. — CAN address not correct on VFD.
E07	Error Received from VFD	When VFD is flashing the green light	— Refer to VFD error code list and match to number of blinks on the green LED of VFD.
E08	Error Received from Lower VFD	When VFD is flashing the green light	— Refer to VFD error code list and match to number of blinks on the green LED of VFD.
E11	Convection Temperature High	In Combination program, cavity temperature N6 is measuring in excess of 572°F (300°C) for a minimum of 25 seconds In Convection program, cavity temperature N6 is measuring in excess of 572°F (300°C) for a minimum of 25 seconds	— Check wiring to all components mentioned below. — Steam element contactor locked/on. — N6 oven cavity temperature probe is defective. — N6 oven cavity temperature probe wires connected backwards — Relay board, high voltage, defective.
E13	Boiler Temperature High	Boiler temperature is more than 248°F (120°C) for more than 25 seconds, detected by B4 Probe	— Calcium build up in boiler — Check wiring to all components mentioned below. — Steam element contactor locked/on. — B4 boiler temperature probe is defective. — B4 probe wires connected backwards — Water level probe has calcium build up.
E15	Condensor Temperature High	Condensor water temperature is more than 212°F (100°C) for more than 180 seconds, detected by B3 probe	— Water supply is shut off. — Check wiring to all components mentioned below. — B3 condensor temperature probe is defective. — B3 condensor probe wires connected backwards — Single water solenoid valve defective (Y2). — Relay board, high voltage, defective.
E20	B11 Core Temperature Probe Single Point Fault	Single point core temperature probe defective or disconnected	— Clean probe receptacle pins with sand paper. — B11 Single Point Core Temperature probe with quick connect defective. — B11 Single Point Core Temperature probe wires with quick connect disconnected. — B11 Single Point Core Temperature probe receptacle defective. — B11 Single Point Core Temperature probe receptacle wires disconnected.
E21	N6 Cavity Probe Fault	Cavity temperature probe defective or disconnected	— N6 oven cavity temperature probe defective. — N6 oven cavity temperature probe wires.
E22	B10 Core Temperature Probe Multi-point Fault	Multipoint core temperature probe defective or disconnected	— B10 multipoint core temperature probe defective. — B10 multipoint core temperature probe wires disconnected.
E23	B4 Boiler Probe Fault	Boiler temperature probe defective or disconnected	— B4 boiler temperature probe defective. — B4 probe wires connected backwards.
E24	B5 Bypass Probe Fault	Bypass steam temperature probe defective or disconnected	— B5 bypass steam temperature probe defective. — B5 bypass steam temperature probe wires connected backwards.
E25	B3 Condensor Probe Fault	Condensor water temperature probe defective or disconnected.	— B3 condensor temperature probe defective. — B3 condensor probe wires connected backwards.
E26	B10 - Point 1 - Core Temperature Probe Multipoint Fault	Multipoint xore temperature probe defective or disconnected.	— B10 Multipoint Core Temperature probe defective. — B10 Multipoint Core Temperature probe wires disconnected.
E27	B10 - Point 2 - Core Temperature Probe Multipoint Fault	Multipoint core temperature probe defective or disconnected.	— B10 Multipoint Core Temperature probe defective. — B10 Multipoint Core Temperature probe wires disconnected.

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Error Codes

Error Code	Error Call Out in Display	Description of Error	Possible Cause(s)
E28	B10 - Point 3 - Core Temperature Probe Multipoint Fault	Multipoint core temperature probe defective or disconnected.	— B10 Multipoint Core Temperature probe defective. — B10 Multipoint Core Temperature probe wires disconnected.
E29	B10 - Point 4 - Core Temperature Probe Multipoint Fault	Multipoint core temperature probe defective or disconnected.	— B10 Multipoint Core Temperature probe defective. — B10 Multipoint Core Temperature probe wires disconnected.
E34	Steam Generator Drain Pump Fault	If water level does not drop below lower water level probe after three minutes when steam generator drain pump is activated in cleaning program.	— Calcium build up in steam generator drain pump. — Boiler drain pump defective. — Relay board, high voltage, defective. — Water level probe defective.
E36	Steam Temperature High	In Steam program, cavity temperature N6 is measuring in excess of 395°F (200°C) for more than 60 seconds. In Combination program, cavity temperature N6 is measuring in excess of 520°F (270°C), for more than 60 seconds. In Retherm program, cavity temperature N6 is measuring in excess of 395°F (200°C), for more than 60 seconds. In Cleaning program, cavity temperature N6 is measuring in excess of 395°F (200°C), for more than 60 seconds.	— Water supply is shut off. — Low water pressure. — Water injection pipe, calcium build up. — Water flow valve defect or calcium build up. — Double water solenoid valve defective (Y1). — Relay board, high voltage, defective.
E40	B3 Fault	B3 probe shorted to ground	— Defective or miswired probe.
E41	B4 Fault	B4 probe shorted to ground	— Defective or miswired probe.
E42	B5 Fault	B5 probe shorted to ground	— Defective or miswired probe.
E43	N6 Fault	N6 probe shorted to ground	— Defective or miswired probe.
E44	N8 Fault	N8 probe shorted to ground	— Defective or miswired probe.
E45	B10 Fault	B10 probe shorted to ground	— Defective or miswired probe.
E46	B10 - Point 1 Fault	B10 probe shorted to ground	— Defective or miswired probe.
E47	B10 - Point 2 Fault	B10 probe shorted to ground	— Defective or miswired probe.
E48	B10 - Point 3 Fault	B10 probe shorted to ground	— Defective or miswired probe.
E49	B10 - Point 4 Fault	B10 probe shorted to ground	— Defective or miswired probe.
E51	No Water In Boiler	Lower water level probe B2 is not satisfied within 5 minutes, after water solenoid valve Y1 is activated	— Water supply is shut off. — Low water pressure. — Boiler drain cap missing. — Boiler drain pump defective. — Drain pump elbow leaking. — Water level probe has calcium build up. — Double water solenoid valve defective (Y1). — Relay board, high voltage, defective.
E53	Fan Motor High Temperatures	Fan motor does not spin, result in over-heating, detected by motor coil safety thermo element. Temperature more than 320°F (160°C).	— Motor high limit open or wired incorrectly. — If LED on motor control flashes, see error codes for motor control. — Motor or fan wheel locked. — Fan wheel damaged.
E54	Lower Fan Motor High Temperature	Lower fan motor does not spin, result in over-heating, detected by motor coil safety thermo element. Temperature more than 320°F (160°C).	— Motor high limit open or wired incorrectly. — If LED on motor control flashes, see error codes for motor control. — Motor or fan wheel locked. — Fan wheel damaged.

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Error Codes

Error Code	Error Call Out in Display	Description of Error	Possible Cause(s)
E55	Vent Not Open (Lower vent on dual vent system)	60 seconds after the venting motor is activated the vent motor safety switch did not open.	— Alignment issue between motor cam and vent motor safety switch (micro switch). — Faulty vent valve (motor). — Faulty vent valve safety switch (micro switch).
E56	Vent 2 Not Open (Upper vent on dual vent system)	60 seconds after the venting motor is activated the vent motor safety switch did not open.	— Alignment issue between motor cam and vent motor safety switch (micro switch). — Faulty vent valve (motor). — Faulty vent valve safety switch (micro switch).
E57	No Rinse Water	Flow switch for solenoid valve Y4 does not detect any water flow for a minimum of 60 seconds.	— Water supply is shut off. — Low water pressure. — Flow switch is dirty or defective. — Double water solenoid valve defective (Y3). — Relay board, high voltage, defective.
E88	Lower Gas Ignition Failure NOTE: If after 2 attempts to clear this error, the error appears a third time, remove the oven from service and immediately contact an Alto-Shaam authorized service provider.	Reset output from Ignition Module is ON	— Hot surface ignitor not functioning. — No gas supply. — Flame sensor not functioning. — Faulty ignition control.
E89	Upper Gas Ignition Failure NOTE: If after 2 attempts to clear this error, the error appears a third time, remove the oven from service and immediately contact an Alto-Shaam authorized service provider.	Reset output from Ignition Module is ON	— Hot surface ignitor not functioning. — No gas supply. — Flame sensor not functioning. — Faulty ignition control.
E90	Lower Gas Combustion Blower Not at Speed	Speed is too slow.	— Power supply cable is not connected to blower motor. — Speed control cable is not connected to blower motor. — Blower motor is blocked, rotation is impeded, or motor is faulty. — Faulty control board.
E91	Upper Gas Blower Not at Speed	Speed is to slow.	— Power supply cable is not connected to blower motor — Speed control cable is not connected to blower motor — Blower motor is blocked, rotation is impeded, or motor is faulty — Faulty control board
E92	Communication Error CB does not properly respond	Twelve (12) instances of no-response from the relay board (CB) to the display board (IB).	— Check CAN cable connections. — CAN cable defective. — Relay board, low voltage, connector defective. — Display board connector defective.
E93	Interface Board (IB) and Control Board (CB) are in different states	The IB is in a different running state than the CB for more than 20 seconds.	— Check CAN cable connections. — CAN cable defective. — Relay board, low voltage, connector defective. — Display board connector defective.
E94	Communication Error, TO Interface Board	No signal transfer for more than 20 seconds between the Interface Board (IB) and the Control Board (CB).	— Check CAN cable connections. — CAN cable defective. — Relay board, low voltage, connector defective. — Display board connector defective.

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Error Codes

Error Code	Error Call Out in Display	Description of Error	Possible Cause(s)
E100	One or more maintenance reminder has timed out.	When any maintenance reminder has expired without action having been taken by the operator.	— Enter maintenance reminder screen and address the item that has timed out and reset
E101	Ventless Hood Fault - No Pressure	If the power switch or pressure switch is not closed.	— Check power switch is on. — Check vent motor is turning in the proper direction. — Pressure switch is miss wired or defective. — Filter(s) require cleaning or replacement
E102	Ventless Hood Fault — Filters Not Present	If the air filter switches are not closed.	— Check filters are installed and properly seated. — Check filter switches are not damaged, defective or dislodged.
E103	Option Board Doesn't Send Switch Setting	OB not communicating its switch settings to the CB.	— Check CAN cable connection between OB and CB. — Ensure CB dip switch is set to see an OB. — Incompatible OB and CB software (update software). — OB defective. — CB defective.
E104	Option Board Not Communicating	Option board is not communicating with CB.	— Check option board CAN connection at CB and OB. — Defective OB. — Defective CB.
E105	No or Low Water Pressure	Water pressure switch not activated.	— Water supply not connected. — Water supply is shut off. — Water supply to unit blocked or obstructed — Faulty or miswired pressure switch
E106	Boiler Drain Pump Fault	Hall effect or rotational sensor is not sending a signal to the relay board	— Drain pump motor not running or defective. — Hall effect sensor broken or incorrectly wired. — Motor improperly wired.
E108	Cooling Fan Failure	If the temperature on the control board (relay board) is greater than 140°F (60°C) and less than 176°F (80°C). (See error code E02)	— Cooling fan damaged. — Cooling fan blocked or blades have been kept from rotating. — Incoming air temperature exceeds 100°F (38°C). — Air inlet has become blocked.
E109	High Limit Switch NOTE: Any oven experiencing this error should be investigated by an authorized Alto-Shaam service provider.	The High Limit Switch input to the CB (N7) is "open"	— Unit has experienced an over heat condition. — Convection element contactors stuck closed. — Failed Y1 solenoid. — Obstruction between Y1 solenoid and injection pipe. — Improperly connected drain. — Condensate pan clean out not closed. — Improperly wired high limit switch at the switch or at the CB. — Defective high limit switch.

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Error Codes

Error Code	Error Call Out in Display	Description of Error	Possible Cause(s)
E200	The SD card has been detected to be larger than 2GB in size.	The SD card inserted is larger than 2GB in size.	— SD card is larger than 2GB in size. Contact service to order replacement SD card.
E210	VFD Under Voltage	VFD has detected an under-voltage situation.	— Possible VFD failure.
E211	VFD Over Voltage	VFD has detected an over-voltage situation.	— Possible VFD failure.
E212	VFD Overheating	VFD has detected an overheat situation.	— Unit has experienced an over heat condition. — Defective high limit switch. — Defective cooling fans. — Possible VFD failure.
E213	Motor Over Current	Motor over current detected.	— Blocked fan wheel. — Possible VFD failure.
E214	VFD Current Peak	VFD current peak detected.	— Possible VFD failure.
E215	VFD EEPROM Error	VFD EEPROM error detected.	— Possible VFD failure.
E216	VFD Over Current	VFD over current detected.	— Possible VFD failure.
E217	VFD Short Circuit	VFD Short Circuit detected.	— Possible VFD failure.
E218	VFD Voltage Error	VFD voltage does not correspond to jumper settings.	— VFD voltage jumper is not correct. — Possible VFD failure.
E220	Lower VFD Under Voltage	Lower VFD has detected an under-voltage situation.	— Possible Lower VFD failure.
E221	Lower VFD Over Voltage	Lower VFD has detected an over-voltage situation.	— Possible Lower VFD failure.
E222	Lower VFD Overheating	Lower VFD has detected an overheat situation.	— Unit has experienced an over heat condition. — Defective high limit switch. — Defective cooling fans. — Possible Lower VFD failure.
E223	Lower Motor Over Current	Lower Motor over current detected.	— Possible Lower VFD failure.
E224	Lower VFD Current Peak	Lower VFD current peak detected.	— Possible Lower VFD failure.
E225	Lower VFD EEPROM Error	Lower VFD EEPROM Error detected.	— Possible Lower VFD failure.
E226	Lower VFD Over Current	Lower VFD over current detected.	— Possible Lower VFD failure.
E227	Lower VFD Short Circuit	Lower VFD short circuit detected.	— Possible Lower VFD failure.
E228	Lower VFD Voltage Error	Lower VFD voltage does not correspond to jumper settings.	— Lower VFD voltage jumper is not correct. — Possible Lower VFD failure.
E289	Unknown Error from VFD	VFD has provided an unknown error.	— Possible VFD failure.
E290	Unknown Error from Lower VFD	Lower VFD has provided an unknown error.	— Possible Lower VFD failure.

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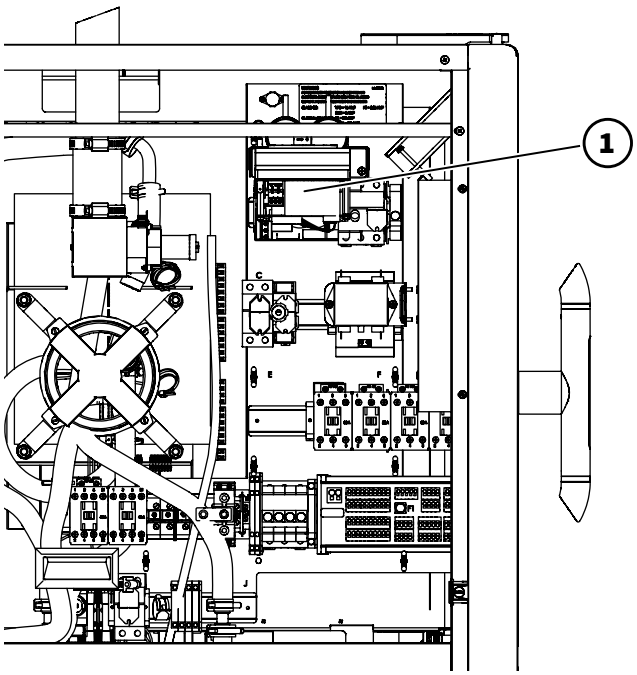
Error Codes

Error Code	Error Call Out in Display	Description of Error	Possible Cause(s)
E220	Lower VFD Under Voltage	Lower VFD has detected an under-voltage situation.	— Possible Lower VFD failure.
E221	Lower VFD Over Voltage	Lower VFD has detected an over-voltage situation.	— Possible Lower VFD failure.
E222	Lower VFD Overheating	Lower VFD has detected an overheat situation.	— Unit has experienced an over heat condition. — Defective high limit switch. — Defective cooling fans. — Possible Lower VFD failure.
E223	Lower Motor Over Current	Lower Motor over current detected.	— Possible Lower VFD failure.
E224	Lower VFD Current Peak	Lower VFD current peak detected.	— Possible Lower VFD failure.
E225	Lower VFD EEPROM Error	Lower VFD EEPROM Error detected.	— Possible Lower VFD failure.
E226	Lower VFD Over Current	Lower VFD over current detected.	— Possible Lower VFD failure.
E227	Lower VFD Short Circuit	Lower VFD short circuit detected.	— Possible Lower VFD failure.
E228	Lower VFD Voltage Error	Lower VFD voltage does not correspond to jumper settings.	— Lower VFD voltage jumper is not correct. — Possible Lower VFD failure.
E289	Unknown Error from VFD	VFD has provided an unknown error.	— Possible VFD failure.
E290	Unknown Error from Lower VFD	Lower VFD has provided an unknown error.	— Possible Lower VFD failure.

Touch Motor Control Error Codes

The LED is located on the variable frequency drive (VFD) ① of the oven.

Type of Error	Indication	Release of Error
Undervoltage	LED flashing sequence, with 1 flash per period.	Voltage of intermediate circuit is less than 250V
Overvoltage	LED flashing sequence, with 2 flashes per period.	Voltage of intermediate circuit exceeds 445V
Excess Temperature	LED flashing sequence, with 3 flashes per period.	Temperature sensor in the power unit is more than 199°F (93°C)
Current Peak	LED flashing sequence, with 4 flashes per period.	Blocked motor, detected by current peak monitoring from 900 rpm rotating field
Overcurrent	LED flashing sequence, with 5 flashes per period.	Intermediate circuit current exceeds 4.0 A
Short-circuit	LED flashing sequence, with 6 flashes per period.	Release of interrupt at intermediate circuit current larger than 53 A
Power on	LED flashing sequence, with 7 flashes per period.	Effective mains voltage does not correspond to jumper setting 115V/230V
Watchdog	LED flashing sequence, with 8 flashes per period.	Watchdog of the microcontroller released, program crash



- All troubleshooting trees based on a 7-20 208/240V 3ph model runnin at “ECO” power setting unless otherwise noted.

PROformance: Appliance Dead — No Display or Operation

Is power connected to the appliance?	No	Install power to the appliance, turn on main circuit breaker or plug in the appliance.
Yes		
Is there correct voltage at the power source (outlet)?	No	Inspect and/or reset the circuit breaker.
Yes		
Is there correct voltage at the main terminal block (L1/2/3)?	No	Repair or replace the faulty cord, plug, or wiring.
Yes		
Is there voltage at the F1 fuse block?	No	Repair the wiring.
Yes		
Is there continuity through the terminal module 8A fuse?	No	Replace the fuse and test.
Yes		
Is there voltage across L/N at the power supply?	No	Inspect/Repair wiring between terminal block 33-3 and power supply terminal L, and between terminal block terminal 27-1 and power supply terminal N.
Yes		
Is there 12 VDC output from the power supply?	No	Replace faulty power supply.
Yes		
Is there 12 VDC across the Control Board (CB) terminal X07 pins 1-4?	No	Repair wiring between power supply and the Control Board (CB) terminal X07.
Yes		
Is there 12 VDC across Interface Board (IB) terminal X07 pins 1-4?	No	Repair the wiring between Control Board (CB) X07 and Interface Board (IB) X07.
Yes		
Inspect, test and repair or replace the following connections and components as needed.		
Is the ethernet connection between the Interface Board (IB) X06 and the Control Board (CB) X15 okay?	No	Repair the ethernet connection.
Yes		
Is the Interface Board (IB) or touch display backlight cable connection X04 okay?	No	Repair the cable connection X04.
Yes		
Is the Interface Board (IB) or touch display connector cable X03 okay?	No	Repair cable connection X03.
Yes		
Is the Interface Board (IB) or touch display or LVDS cable X01 okay?	No	Repair the LVDS cable X01.
Yes		
Is the Interface Board (IB)on/off board input at X05 okay?	No	Repair on/off input X05.

PROformance, Electric, Boiler-Free: No Steam Production — Steam at 212°F (100°C)

Is the convection fan motor spinning?	No	See “Convection Motor Is Not Spinning”.
Yes		
Is the B5 probe below set point?	No	The appliance will not call for steam production until the B5 probe is below set point. If the B5 probe is reading incorrectly, test the probe and replace it if necessary.
Yes		
Are the K41 and K44 convection element contactors being energized?	No	Check for voltage across the coil of K41 and K42 convection element contactors. If voltage is present, replace faulty contactor(s). If voltage is not present, determine which leg is missing and correct. • A1 is L1 and it is supplied to K41 from the CB terminal X02 pin 1. • A1 is L1 and it is supplied to K44 from the CB terminal X02 pin 2. • A2 is L2 and it is supplied to K45 from the N4 high limit terminal 11 and then jumped over to A2 on K44.
Yes		
Is there line voltage being supplied to terminals 2-4-6 on the K41/K44 contactors?	No	Repair the wiring issue between the main terminal blocks 1-1, 6-1, 11-1 and the K41/K44 contactors.
Yes		
Is there line voltage across terminals 1-3-5 on the K41/K44 contactors?	No	Replace faulty contactor(s)
Yes		
Is there voltage across the element loops at the convection elements?	No	Repair the wiring between contactors and elements.
Yes		
Are all element loops drawing current?	No	Replace the faulty element assembly.
Yes		
Is the Y1 solenoid being energized?	No	Determine which line is missing at the solenoid: • A1 is L1 supplied from Control Board (CB) terminal X04 pin 3. • A2 is L2 supplied from Y3, A2 is supplied from terminal block 27-17.
Yes		
Is the solenoid valve opening?	No	Replace faulty solenoid.
Yes		
Is water going through the flow control valve?	No	Inspect, clean, or replace flow control valve as necessary.
Yes		
Is water being injected into the fan wheel inside the appliance?	No	Correct the obstruction between the flow control valve and the injection tube.
Yes		
Appliance should begin producing steam in 2-5 minutes.		

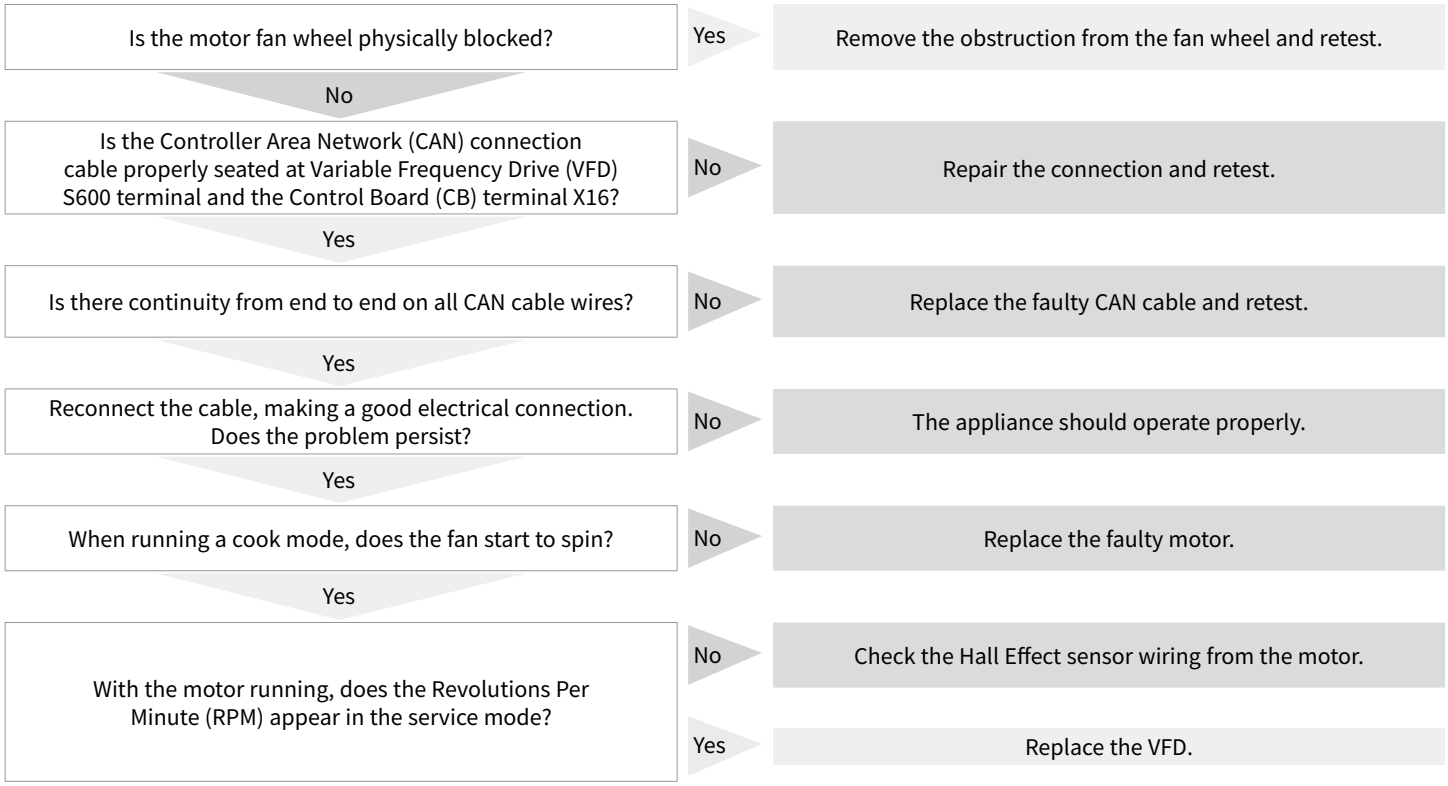
PROformance, Electric, Boiler-Free: No Steam Production — Steam Below 212°F (100°C)

Is the convection fan motor spinning?	No	See “Convection Motor Is Not Spinning”.
Yes		
Is the N6 probe below set point?	No	The appliance will not call for steam production until the N6 probe is below set point. If the N6 probe is reading incorrectly, test the probe and replace it if necessary.
Yes		
Are the K41 and K44 convection element contactors being energized?	No	Check for voltage across the coil of the K41 and K42 convection element contactors. If voltage is present, replace faulty contactor(s). If voltage is not present, determine which leg is missing and correct. • A1 is L1 and it is supplied to the K41 contactor from the Control Board (CB) terminal X02 pin 1. • A1 is L1 and it is supplied to the K44 contactor from the CB terminal X02 pin 2. • A2 is L2 and it is supplied to K45 from the N7 high limit terminal 11 and then jumped over to A2 on the K22.
Yes		
Is line voltage being supplied to terminals 2-4-6 on the K41/K44 contactors?	No	Repair the wiring issue between main terminal blocks 1-1, 6-1, 11-1 and the K41/K44 contactors.
Yes		
Is there line voltage across terminals 1-3-5 on the K41/K44 contactors?	No	Replace faulty contactor(s).
Yes		
Is there voltage across element loops at the convection elements?	No	Repair the wiring between contactors and elements.
Yes		
Are all element loops drawing current?	No	Replace faulty element assembly.
Yes		
Is the Y1 solenoid being energized?	No	Determine which line is missing at the solenoid. • A1 is L1 supplied from CB terminal X04 pin 3. • A2 is L2 supplied from Y3/A2 supplied from terminal block 27-17.
Yes		
Is the Y1 solenoid valve opening?	No	Replace faulty solenoid.
Yes		
Is water going through the flow control valve?	No	Inspect, clean, replace flow control valve as necessary.
Yes		
Is water being injected into the fan wheel inside the appliance?	No	Correct obstruction between flow control valve and injection tube.
Yes		
Appliance should begin producing steam in 2-5 minutes.		

PROformance, Electric: No Convection Heat

Is the convection fan motor spinning?	No	See “Convection Motor Is Not Spinning”.
Yes		
Is the N6 oven temperature probe below set point?	No	The convection element contactors will not be energized until the N6 probe is below set point.
Yes		
Are the K41 and K44 convection element contactors closed?	No	Check for voltage across the coil of the K41 and K42 convection element contactors. If voltage is present, replace faulty contactor(s). If voltage is not present, determine which leg is missing and correct. • A1 is L1 and it is supplied to the K41 contactor from the Control Board (CB) terminal X02 pin 1. • A1 is L1 and it is supplied to the K44 contactor from the CB terminal X02 pin 2. • A2 is L2 and it is supplied to K45 from the N7 high limit terminal 11 and then jumped over to A2 on the K44. Reset High Limit if tripped.
Yes		
Is there line voltage being supplied to terminals 2-4-6 on the K41/K44 contactors?	No	Repair wiring issue between pain terminal blocks 1-1, 6-1, 11-1 and K41/K44 contactors
Yes		
Is there line voltage across terminals 1-3-5 on the K41/K44 contactors?	No	Replace faulty contactor(s).
Yes		
Is there voltage across element loops at the convention elements?	No	Repair the wiring between contactors and elements.
Yes		
Are all element loops drawing current?	No	Replace faulty element assembly.

PROformance: Convection Motor Is Not Spinning (E03/E04)



PROformance: No Grease Collection Operation

Is the appliance equipped with a grease collection (GC) pump?
- No → Grease collection system is not available.
- Yes ↓

Is the control set up to operate a GC system?
- No → Turn on grease collection in option set up screen.
- Yes ↓

Is grease collection activated in the cooking program?
- No → Activate grease collection in the program and retest.
- Yes ↓

Is the grease collection pump being energized on its timed cycle?
- No → Determine which leg of the power is missing and correct.
  - A1 is L1 being switched from Control Board (CB) terminal X02 which is supplied by Option Board (OB) terminal X02 pin 1.
  - A2 is L2 supplied by CB terminal X02 pin 3 which is supplied from OB terminal X02 pin 4.
- Yes ↓

Is the grease collection pump running?
- No → Replace the faulty grease collection pump.
- Yes → Remove pump and clear obstruction between condensate pan and pump, or between pump and grease collection bin.

PROformance: No Liquid Clean Injection

Is the appliance equipped with a Liquid Cleaning (LC) system?	No	Liquid cleaning system is not available.
Yes		
Is the control set up to operate liquid cleaning chemical injection?	No	Turn on liquid clean injection in option set up screen.
Yes		
Is the Peristaltic Pump (P. Pump) being energized on its timed cycle?	No	Determine which leg of the power is missing and correct. • A1 is L1 supplied from the Option Board (OB) terminal X01 pin 6. • A2 is L2 supplied from the Terminal block (TB) 45 pin 6.
Yes		
Is the P. Pump running?	No	Replace the faulty liquid cleaning injection pump.
Yes		
Is the liquid cleaning pump hose connected to a chemical jug?	No	Connect the hose to the chemical jug and retest.
Yes		
Is there chemical inside the chemical jug?	No	Replace the chemical jug and retest.
Yes		
Is the hose between the pump and the liquid chemical jug free of obstruction or pinching?	No	Replace or correct as needed.
Yes		
Are you able to prime the cleaning pump through the service mode function?	No	Inspect the Peristaltic Pump hose and replace as needed.
	Yes	Retest the cleaning cycle.

PROformance: No Smoke Production During the Smoke Cycle

Make sure the smoke tray is installed with pre-soaked wood chips and that the smoke icon has been selected on the touch control.

Steam production and humidity control vents take priority over smoke production.

Is the smoke relay coil being energized?

No → Determine which side of the coil voltage is missing and correct.
- Terminal 14 of the smoke relay is L1 supplied from the Option Board (OB) X01 pin 2.
- Terminal 12 of the smoke relay is L2 supplied from the terminal block 45 pin 6.

Yes

Is L2 being supplied to terminal 12 on the smoke relay?

No → Repair the wiring issue between terminal 12 on the smoke relay and the terminal block 45 pin 5.

Yes

Is L2 being supplied to smoke relay pin 8?

No → Replace the faulty smoke relay.

Yes

Is there line voltage across the smoke element?

No → Determine which leg is missing and correct.
- L1 is constantly supplied to the smoke element from fuse F8 (replace fuse if blown).
- L2 is supplied from the smoke relay pin 8. Repair wiring as needed.

Yes

Is the smoke element drawing current?

No → Replace the faulty element.

Yes

Smoke production should be taking place.

PROformance and Classic: No Condensate Cooling (E15)

Is the B3 probe above the set point?	No	Condensate cooling is not active unless the B3 probe is above the set point.
Yes		
Is the incoming water line connected to the untreated water inlet on the back of the appliance?	No	Connect the cold water supply line to the untreated water inlet and test.
Yes		
Is the untreated water supply turned on?	No	Turn on the untreated water supply line.
Yes		
Is there line voltage across the Y2 solenoid?	No	Determine which leg is missing and correct: • A1 is L1 supplied from the Control Board (CB) terminal X04 pin 1 • A1 is L2 supplied from the terminal block 27-17
Yes		
Is the Y2 solenoid opening?	No	Replace the faulty solenoid.
Yes		
Is there water at the condensate cooling injection port?	No	Repair or remove the obstruction between the Y2 solenoid and the cooling port.
Yes		
Is the injection pipe clear of obstructions?	No	Clean the cooling injection pipe.
Yes		
Is the condensate pan drain hose plugged?	No	Unplug the drain hose and retest.
	Yes	Inspect and/or replace the B3 probe and its wiring.

PROformance and Classic: No Rinse Water During the Cleaning Cycle

Is the Wash Cycle Rinse Water Y3 solenoid being energized on its timed cycle?

No → Determine which leg of the power is missing at the Y3 solenoid and correct.
- A1 is L1 supplied from the Control Board (CB) terminal X04 pin 2.
- A2 is L2 supplied from terminal block 27-17.

Yes

Is the Y3 solenoid opening?

No → Replace the faulty solenoid.

Yes

Is there water at the rinse water flow control valve?

No → Repair the hose between the Y3 solenoid and rinse flow control valve.

Yes

Is the rinse flow control valve clean of debris?

No → Clean or replace the rinse flow control valve.

Yes

Is water at the injection pipe of the appliance?

No → Clean or repair water manifold and/or hose from manifold to the injection pipe.

Yes

Is the injection pipe clear of debris?

No → Repair or replace the injection pipe as needed.

Yes

The rinse water plumbing should be working properly.

PROformance and Classic: Cleaning System is Not Operating

Is the Y4 cleaning pump being energized at its timed cycle?
- No: Determine which leg of the power is missing at the Y4 solenoid and correct.
  - A1 is L1 from the Control Board (CB) terminal X03 pin 3.
  - A2 is L2 supplied from the Control Board (CB) terminal X03 pin 5 which is supplied from the CB terminal X03 pin 6.
- Yes

Is the Y4 cleaning pump running?
- No: Replace the faulty cleaning pump.
- Yes

Is there cleaning water at the pump inlet?
- No: Make sure the condensate pan clean out hose is unplugged and that the Y2 cooling water solenoid is operating properly.
- Yes

Is there cleaning water at the water manifold inlet from the Y4 pump?
- No: Inspect or replace the hose between Y4 cleaning pump and the water manifold. If the hose is okay, replace the faulty Y4 cleaning pump.
- Yes

Is there cleaning water at the injection pipe?
- No: Remove the obstruction between the water manifold and the injection pipe.
- Yes

Is the injection pipe clear of debris?
- No: Clean or replace the injection pipe as needed.
- Yes

The cleaning pump and plumbing circuit should be working properly.

PROformance, Electric with Boiler: No Steam Generator Fill

Are the High Water Level Probe B1 and Low Water Level Probe B2 reading empty?
- No → The control will not energize the Y1 fill solenoid until the water level drops below the B2 sensing probe. If the tank is known to be empty, investigate for scale build up and/or a shorted water level probe.
- Yes ↓

Is the Y1 steam injection solenoid being energized?
- No → Determine which side of the solenoid coil voltage is missing and correct:
  - A1 is L1 supplied from Control Board (CB) terminal X04 pin 3.
  - A2 is L2 supplied from A2 Y3 which is supplied from terminal block 27-17.
- Yes ↓

Is the Y1 solenoid opening?
- No → Make sure the connected water pressure does not exceed 90 psi and/or replace the faulty solenoid.
- Yes ↓

Is the generator filling with water? (It should take approximately 45 seconds to satisfy the B2 sensing probe.)
- No → Check for an obstruction or leak between the Y1 solenoid and the steam generator. Also check if the water supply is turned off or disconnected, or check for a plugged filter cartridge.
- Yes ↓

Is the B2 water level probe satisfied? If not, water should be exiting the steam exit port inside the appliance cavity.
- No → Investigate for scale build up inside the tank, around the water level probes and/or faulty water level probe assembly.
- Yes ↓

Is the B1 water level probe satisfied? The B1 water level probe should satisfy approximately 10-15 seconds after B2.
- No → Investigate for scale build up inside the tank, around the water level probes and/or faulty water level probe assembly.
- Yes ↓

Does the Y1 solenoid de-energize?
- No → Investigate the Control Board (CB).
- Yes ↓

Does the Y1 solenoid close and stop the fill cycle?
- No → Ensure the water pressure meets minimum and maximum requirements and/or replace the faulty solenoid valve.
- Yes ↓

The fill cycle is complete.

PROformance with Boiler Option: No Steam Production — Steam at 212°F (100°C)

Is the convection fan motor spinning?	No	See “Convection Motor Is Not Spinning”.
Yes		
Are the Boiler Water Level probes B1 and B2 satisfied?	No	Troubleshoot the boiler not filling.
Yes		
Is the Steam Bypass Probe B5 below the set point?	No	Appliance will produce steam if B5 is above set point. If B5 should go below set point, inspect B5 and its wiring. Correct or replace as needed.
Yes		
Are the coils for the Boiler Element Contactor K1 and K2 closed?	No	Check for voltage across the coil of the K1 and K2 boiler element contactors. If voltage is present, replace the faulty contactor. If voltage is not present, determine which leg is missing and correct. • A1 is L1 supplied to the K1 boiler element contactor from Control Board (CB) terminal X01 pin 2. • A1 is L1 supplied from the K1 boiler element contactor A1 to the K2 contactor A1. • A2 is L2 supplied from the N9 boiler high limit terminal 12 (reset the N9 boiler high limit if it is tripped) to the K2 contactor and then jumped to K1 boiler element contactor A2.
Yes		
Is there line voltage across terminals 1/3/5 of the K1 and K2 boiler element contactors?	No	Repair any wiring issues between terminal blocks TB1-2, TB6-2, TB11-2 and K1 and K2 boiler element contactors.
Yes		
Is there line voltage across terminals 2/4/6 of the K1 and K2 boiler element contactors?	No	Replace the faulty contactor(s).
Yes		
Is there voltage across the immersion element loops?	No	Repair any wiring issue between the K1 and K2 boiler element contactors and the immersion elements.
Yes		
Are the element loops drawing current?	No	Replace the faulty immersion element(s).
Yes		
After 5 minutes, is steam being produced in the appliance?	No	Check inside the boiler for scale build up around the elements and descale as needed.
Yes		
The steam cycle is working.		

PROformance with Boiler Option: No Steam Production — Steam at 212°F (100°C)

Is the convection fan motor spinning?	No	See “Convection Motor Is Not Spinning”.
Yes		
Are the Boiler Water Level probes B1 and B2 satisfied?	No	Troubleshoot the boiler not filling.
Yes		
Is the Steam Bypass Probe B5 below the set point?	No	Appliance will produce steam if B5 is above set point. If B5 should go below set point, inspect B5 and its wiring. Correct or replace as needed.
Yes		
Are the coils for the Boiler Element Contactor K1 and K2 closed?	No	Check for voltage across the coil of the K1 and K2 boiler element contactors. If voltage is present, replace the faulty contactor. If voltage is not present, determine which leg is missing and correct. • A1 is L1 supplied to the K1 boiler element contactor from Control Board (CB) terminal X01 pin 2. • A1 is L1 supplied from the K1 boiler element contactor A1 to the K2 contactor A1. • A2 is L2 supplied from the N9 boiler high limit terminal 12 (reset the N9 boiler high limit if it is tripped) to the K2 contactor and then jumped to K1 boiler element contactor A2.
Yes		
Is there line voltage across terminals 1/3/5 of the K1 and K2 boiler element contactors?	No	Repair any wiring issues between terminal blocks TB1-2, TB6-2, TB11-2 and K1 and K2 boiler element contactors.
Yes		
Is there line voltage across terminals 2/4/6 of the K1 and K2 boiler element contactors?	No	Replace the faulty contactor(s).
Yes		
Is there voltage across the immersion element loops?	No	Repair any wiring issue between the K1 and K2 boiler element contactors and the immersion elements.
Yes		
Are the element loops drawing current?	No	Replace the faulty immersion element(s).
Yes		
After 5 minutes, is steam being produced in the appliance?	No	Check inside the boiler for scale build up around the elements and descale as needed.
Yes		
The steam cycle is working.		

Classic, Boiler Free: Appliance Dead — No Display or Operation

Is power connected to the appliance?	No	Install power to the appliance, turn on main circuit breaker or plug in the appliance.
Yes		
Is there correct voltage at the power source (outlet)?	No	Inspect and/or reset the circuit breaker.
Yes		
Is there correct voltage at the main terminal block (L1/2/3)?	No	Repair or replace the faulty cord, plug, or wiring.
Yes		
Is there voltage at the F1 fuse block?	No	Repair the wiring.
Yes		
Is there continuity through the terminal module 8A fuse?	No	Replace the fuse and test.
Yes		
Is there voltage across L/N at the power supply?	No	Inspect and repair the wiring between terminal block 33-3 and the power supply terminal L, and between the terminal block 27-1 and the power supply terminal N.
Yes		
Is there 12 VDC output from the power supply?	No	Replace the faulty power supply.
Yes		
Is there 12 VDC across Control Board (CB) terminal X07 pins 1-4?	No	Repair the wiring between the power supply and the CB terminal X07.
Yes		
Is the 12 VDC across Interface Board (IB) terminal X01 pins 1-4?	No	Repair the wiring between the CB X07 and the IB X01.
Yes		
Inspect, test, repair, or replace the following connections and component as needed.		
Is the ethernet connected between the IB (X05) and the CB (X15)?	No	Connect the ethernet cable between the IB X05 and the CB X15.
Yes		
Is the IB on/off board input X06?	No	Repair the IB on/off input X07.
Yes		
The appliance should be working.		

Classic, Boiler-Free: Appliance Dead — No Display or Operation

Is power connected to the appliance?	No	Install power to the appliance, turn on main circuit breaker or plug in the appliance.
Yes		
Is there correct voltage at the power source (outlet)?	No	Inspect and/or reset the circuit breaker.
Yes		
Is there correct voltage at the main terminal block (L1/2/3)?	No	Repair or replace the faulty cord, plug, or wiring.
Yes		
Is there voltage at the F1 fuse block?	No	Repair the wiring.
Yes		
Is there continuity through the terminal module 8A fuse?	No	Replace the fuse and test.
Yes		
Is there voltage across L/N at the power supply?	No	Inspect and repair the wiring between terminal block 33-3 and the power supply terminal L, and between the terminal block 27-1 and the power supply terminal N.
Yes		
Is there 12 VDC output from the power supply?	No	Replace the faulty power supply.
Yes		
Is there 12 VDC across Control Board (CB) terminal X07 pins 1-4?	No	Repair the wiring between the power supply and the CB terminal X07.
Yes		
Is the 12 VDC across Interface Board (IB) terminal X01 pins 1-4?	No	Repair the wiring between the CB X07 and the IB X01.
Yes		
Inspect, test, repair, or replace the following connections and component as needed.		
Is the ethernet connected between the IB (X05) and the CB (X15)?	No	Connect the ethernet cable between the IB X05 and the CB X15.
Yes		
Is the IB on/off board input X06?	No	Repair the IB on/off input X07.
Yes		
The appliance is working.		

Classic, Electric, Boiler-Free: No Steam Production — Steam at 212°F (100°C)

Is the convection fan motor spinning?	No	See “Convection Motor Is Not Spinning”.
Yes		
Is the Steam Bypass Probe B5 below the set point?	No	The appliance will not call for steam production until the B5 probe is below the set point. If the B5 probe is reading incorrectly, test the probe and replace the probe if necessary
Yes		
Is the Convection Element Contactor K41 closed?	No	Check for voltage across the coil of K41. If voltage is present, replace the faulty contactor. If voltage is not present, determine which leg is missing and correct: • A1 is L1 and it is supplied to the K41 contactor from the Control Board (CB) terminal X02 pin 1. • A2 is L2 and it is supplied to the K41 convection element contactor from the Cavity High Limit Reset N7 terminal 11. Reset the High Limit if it is tripped.
Yes		
Is there line voltage being supplied to terminals 2-4-6 on the K41/K44 contactors?	No	Repair the wiring issue between the main terminal blocks 1-1, 6-1, 11-1 and the K41 contactors.
Yes		
Is there line voltage across terminals 1-3-5 on the K41 contactor?	No	Replace the faulty contactor(s).
Yes		
Is there voltage across element loops at the convection elements?	No	Repair the wiring between the contactors and the elements.
Yes		
Are all element loops drawing current?	No	Replace the faulty element assembly.
Yes		
Is the Steam Injection Solenoid Y1 being energized?	No	Determine which line is missing at the solenoid. • A1 is L1 supplied from CB terminal X04 pin 3 • A2 is L2 supplied from Y3/A2 which is supplied from terminal block 27-17
Yes		
Is the Y1 solenoid valve opening?	No	Replace the faulty solenoid.
Yes		
Is water going through the steam water flow control?	No	Inspect, clean, or replace the steam water flow control as necessary.
Yes		
Is water being injected into the fan wheel inside the appliance?	No	Correct the obstruction between the flow control valve and the injection tube.
Yes		
The appliance should begin producing steam in 5 minutes.		

Classic: No Low Speed Convection Motor Operation (E03/E04)

Does the motor fan wheel spin freely?
- No → Remove the obstruction and/or replace the convection motor as needed.

Yes

Is the K51 high speed contactor being energized?
- No → Determine which leg of power is missing and correct:
  - A1 is L1 supplied from the Control Board (CB) terminal X01 pin 3 through the N/C contacts 21/22 on the K50 contactor (K51 will not energize if K50 is energized).
  - A2 is L2 supplied from K50 A2 which is supplied terminal block TB 27-19.

Yes

Is the K51 contactor closing?
- No → Replace the faulty contactor.

Yes

Is there line voltage across terminals 1/3/5 on the K51 contactor?
- No → Test for blown F4/F6/F7 fuse(s) and/or repair the wiring issue between the fuses, K50, or K51 contactors.

Yes

Is there line voltage across terminals 2/4/6 on the K51 contactor?
- No → Replace the faulty contactor.

Yes

Is there line voltage across the black/blue/brown wires at the convection motor?
- No → Repair the wiring issue between the K51 contactor and the convection motor.

Yes

Is the convection motor running?
- No → Replace the faulty convection motor and the capacitors as applicable.

Yes

The low speed convection motor is operating.

Classic: No High Speed Convection Motor Operation (E03/E04)

Does the motor fan wheel spin freely?
- No → Remove the obstruction and/or replace the motor as needed.
- Yes ↓

Is the K50 high speed contactor being energized?
- No → Determine which leg of power is missing and correct:
  - A1 is L1 supplied from Control Board (CB) terminal X01 pin 2.
  - A2 is L2 supplied from terminal block TB 27-19.
- Yes ↓

Is the K50 contactor closing?
- No → Replace the faulty contactor.
- Yes ↓

Is there line voltage across terminals 1/3/5 on the K50 contactor?
- No → Test for blown F4/F6/F7 fuse(s) and/or repair the wiring issue between fuses and K50.
- Yes ↓

Is there line voltage across terminals 2/4/6 on the K50 contactor?
- No → Replace the faulty contactor.
- Yes ↓

Is there line voltage across the red/white/yellow wires at the convection motor?
- No → Repair the wiring issue between K50 and the convection motor.
- Yes ↓

Is the motor running?
- No → Replace the faulty motor and capacitors as applicable.
- Yes ↓

The high speed motor is operating.

Classic: No Low Speed Convection Motor Operation (E03/E04)

Does the motor fan wheel spin freely?
- No → Remove the obstruction and/or replace the convection motor as needed.

Yes

Is the K51 high speed contactor being energized?
- No → Determine which leg of power is missing and correct:
  - A1 is L1 supplied from the Control Board (CB) terminal X01 pin 3 through the N/C contacts 21/22 on the K50 contactor (K51 will not energize if K50 is energized).
  - A2 is L2 supplied from K50 A2 which is supplied terminal block TB 27-19.

Yes

Is the K51 contactor closing?
- No → Replace the faulty contactor.

Yes

Is there line voltage across terminals 1/3/5 on the K51 contactor?
- No → Test for blown F4/F6/F7 fuse(s) and/or repair the wiring issue between the fuses, K50, or K51 contactors.

Yes

Is there line voltage across terminals 2/4/6 on the K51 contactor?
- No → Replace the faulty contactor.

Yes

Is there line voltage across the black/blue/brown wires at the convection motor?
- No → Repair the wiring issue between the K51 contactor and the convection motor.

Yes

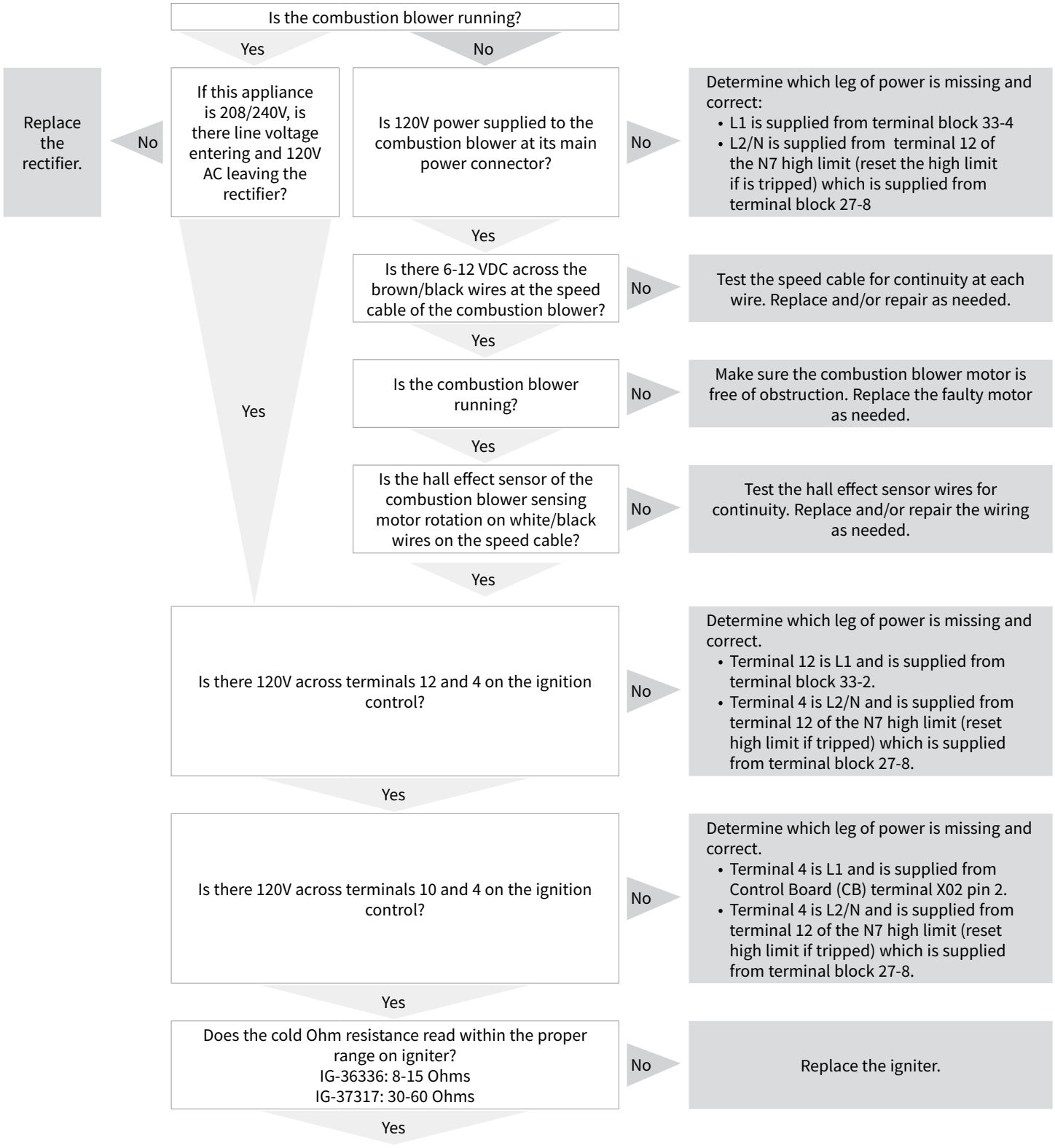
Is the convection motor running?
- No → Replace the faulty convection motor and the capacitors as applicable.

Yes

The low speed convection motor is operating.

PROformance and Classic Gas: No Combustion On A Call For Heat

- All GAS troubleshooting trees based on a 7-20 120V 1PH model running at “ECO” power setting unless otherwise noted.
- The gas pressure to the appliance should be tested first to ensure that the connected pressure falls between the minimum/maximum pressures called out in the installation manual for the appliance.



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Is 120V power supplied to the igniter?

No → Repair the wiring issue between the igniter and the control. Replace the ignition control as required.

Yes

Is the igniter drawing 1.5 amps?

No → Test the continuity of the igniter, replace if required.

Yes

Is the gas valve opening? To test for this, remove the igniter wire and smell for gas at the outlet of the heat exchanger flue.

No → Replace the faulty ignition control and/or gas valve.

Yes

Is the burner igniting? Measure the micro amps in series with the ignition module and the flame sensor.

No → Inspect the burner. Adjust tune of burner to achieve combustion per Alto-Shaam specific tuning instruction.

Yes

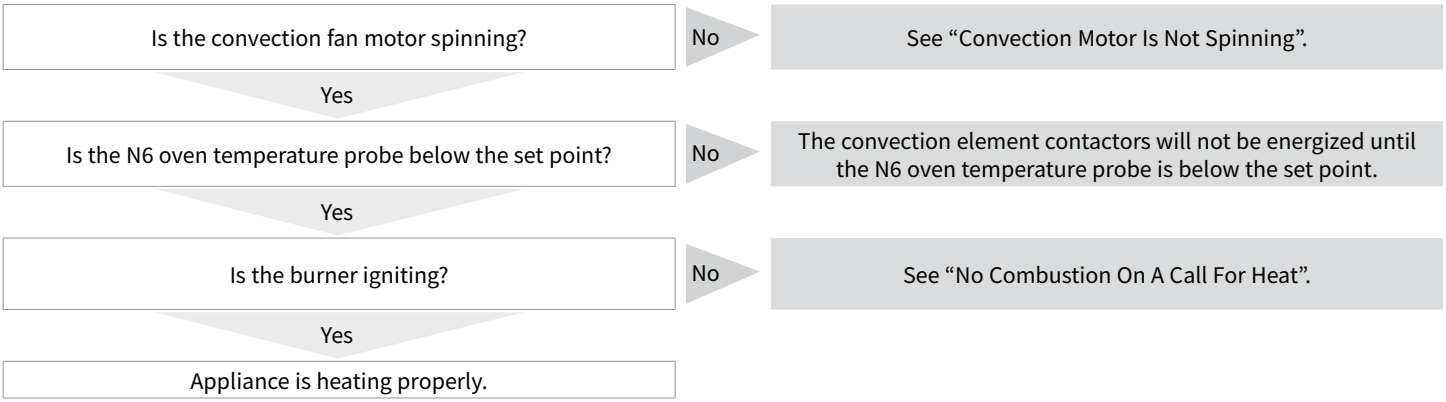
Is the flame signal above 0.5uA being sensed?

No → Inspect the flame sensor and the flame sensor wiring by taking a resistance reading from the flame sensing tip to the end of the connector.

Yes → Test the flame signal input at CB.

- 0VDC = Flame being sensed at the Ignition Control (IC), the ignition trial is successful.
- 5VDC = Flame is not being sensed at the ignition control.
- If a flame is present, and microamps are measuring above 0.5uA, replace the ignition control.
- If a flame is present but the micro amps are below 0.5uA, inspect the flame sensor and the associated wiring.

PROformance, Gas: No Convection Heat



Classic, Gas: No Convection Heat

Is the convection fan motor spinning?
- No → See “No High Speed Convection Motor Operation”.
- Yes ↓

Is the N6 oven temperature probe below the set point?
- No → The convection element contactors will not be energized until the N6 oven temperature probe is below the set point.
- Yes ↓

Is the burner igniting?
- No → See “No Combustion On A Call For Heat”.
- Yes ↓

The appliance is heating properly.

PROformance, Gas, Boiler-Free: No Steam Production — Steam at 212°F (100°C)

Is the convection fan motor spinning?	No	See “Convection Motor Is Not Spinning”.
Yes		
Is the Steam Bypass Temperature Probe B5 below the set point?	No	The appliance will not call for steam production until the B5 probe is below the set point. If the B5 probe is reading incorrectly, test the probe and replace if necessary.
Yes		
Is the burner igniting?	No	See “No Combustion On A Call For Heat”.
Yes		
Is the Filtered Steam Injection Solenoid Y1 being energized?	No	Determine which line is missing at the Y1 solenoid. • A1 is L1 supplied from the Control Board (CB) terminal X04 pin 3. • A2 is L2 supplied from Y3/A2 which is supplied from terminal block 27-17.
Yes		
Is the Y1 solenoid valve opening?	No	Replace the faulty solenoid.
Yes		
Is water flowing though the flow control valve?	No	Inspect, clean, replace the flow control as necessary.
Yes		
Is water being injected into the fan wheel inside the appliance?	No	Remove the obstruction between the flow control valve and the injection tube.
Yes		
The appliance should begin producing steam in 5 minutes.		

Classic, Gas, Boiler-Free: No Steam Production — Steam at 212°F (100°C)

Is the convection fan motor spinning?	No	See “No High Speed Convection Motor Operation”.
Yes		
Is the Steam Bypass Temperature Probe B5 below the set point?	No	The appliance will not call for steam production until the B5 probe is below the set point. If the B5 probe is reading incorrectly, test the probe and replace if necessary.
Yes		
Is the burner igniting?	No	See “No Combustion On A Call For Heat”.
Yes		
Is the Filtered Steam Injection Solenoid Y1 being energized?	No	Determine which line is missing at the Y1 solenoid. • A1 is L1 supplied from Control Board (CB) terminal X04 pin 3. • A2 is L2 supplied from Y3/A2 which is supplied from terminal block 27-17.
Yes		
Is the Y1 solenoid valve opening?	No	Replace the faulty solenoid.
Yes		
Is water going through the flow control valve?	No	Inspect, clean, replace the flow control valve as necessary.
Yes		
Is water being injected into the fan wheel inside the appliance?	No	Remove the obstruction between the flow control valve and the injection tube.
Yes		
The appliance should begin producing steam in 5 minutes.		

PROformance, Gas, Boiler-Free: No Steam Production — Steam Below 212°F (100°C)

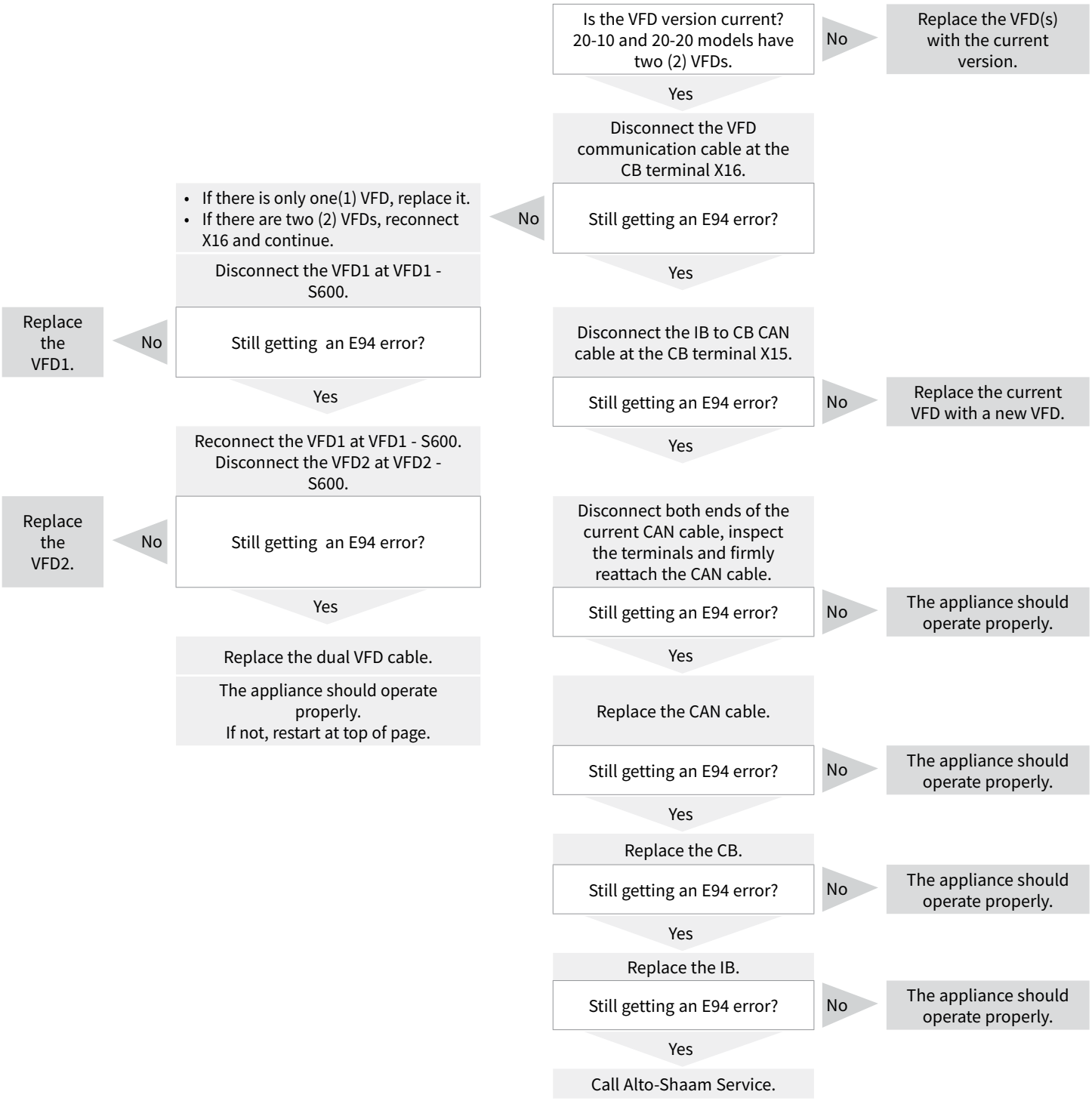
Is the convection fan motor spinning?	No	See “Convection Motor Is Not Spinning”.
Yes		
Is the Oven Cavity Temperature Probe N6 below the set point?	No	The appliance will not call for steam production until the N6 probe is below the set point. If the N6 probe is reading incorrectly, test the probe and replace if necessary.
Yes		
Is the burner igniting?	No	See “No Combustion On A Call For Heat”
Yes		
Is the Filtered Steam Injection Solenoid Y1 being energized?	No	Determine which line is missing at the Y1 solenoid. • A1 is L1 supplied from Control Board (CB) terminal X04 pin 3. • A2 is L2 supplied from Y3/A2 which is supplied from terminal block 27-17.
Yes		
Is the Y1 solenoid valve opening?	No	Replace the faulty solenoid.
Yes		
Is water going through the flow control valve?	No	Inspect, clean, replace the flow control valve as necessary.
Yes		
Is water being injected into the fan wheel inside the appliance?	No	Remove the obstruction between the flow control valve and the injection tube.
Yes		
The appliance should begin producing steam in 5 minutes.		

Classic, Gas Boiler-Free: No Steam Production — Steam Below 212°F (100°C)

Is the convection fan motor spinning?	No	See “No High Speed Convection Motor Operation”.
Yes		
Is the Oven Cavity Temperature Probe N6 below the set point?	No	The appliance will not call for steam production until the N6 probe is below the set point. If the N6 probe is reading incorrectly, test the probe and replace if necessary.
Yes		
Is the burner igniting?	No	See “No Combustion On A Call For Heat”.
Yes		
Is the Filtered Steam Injection Solenoid Y1 being energized?	No	Determine which line is missing at the Y1 solenoid. • A1 is L1 supplied from Control Board (CB) terminal X04 pin 3. • A2 is L2 supplied from Y3/A2 which is supplied from terminal block 27-17
Yes		
Is the Y1 solenoid valve opening?	No	Replace the faulty solenoid.
Yes		
Is water going through the flow control valve?	No	Inspect, clean, or replace the flow control valve as necessary.
Yes		
Is water being injected into the fan wheel inside the appliance?	No	Remove the obstruction between the flow control valve and the injection tube.
Yes		
The appliance should begin producing steam in 5 minutes.		

Error Code E94

Request E94 service kit (includes Interface Board (IB), Control Board (CB), Controller Area Network (CAN) cable, and Variable Frequency Drive (VFD) and dispatch service agent.



Error Code E05/E06

Request E05 service kit and dispatch service agent.

Is the Variable Frequency Drive (VFD) address jumper properly populated on the board?
- No → Add or remove the jumper and retest.
- Yes ↓

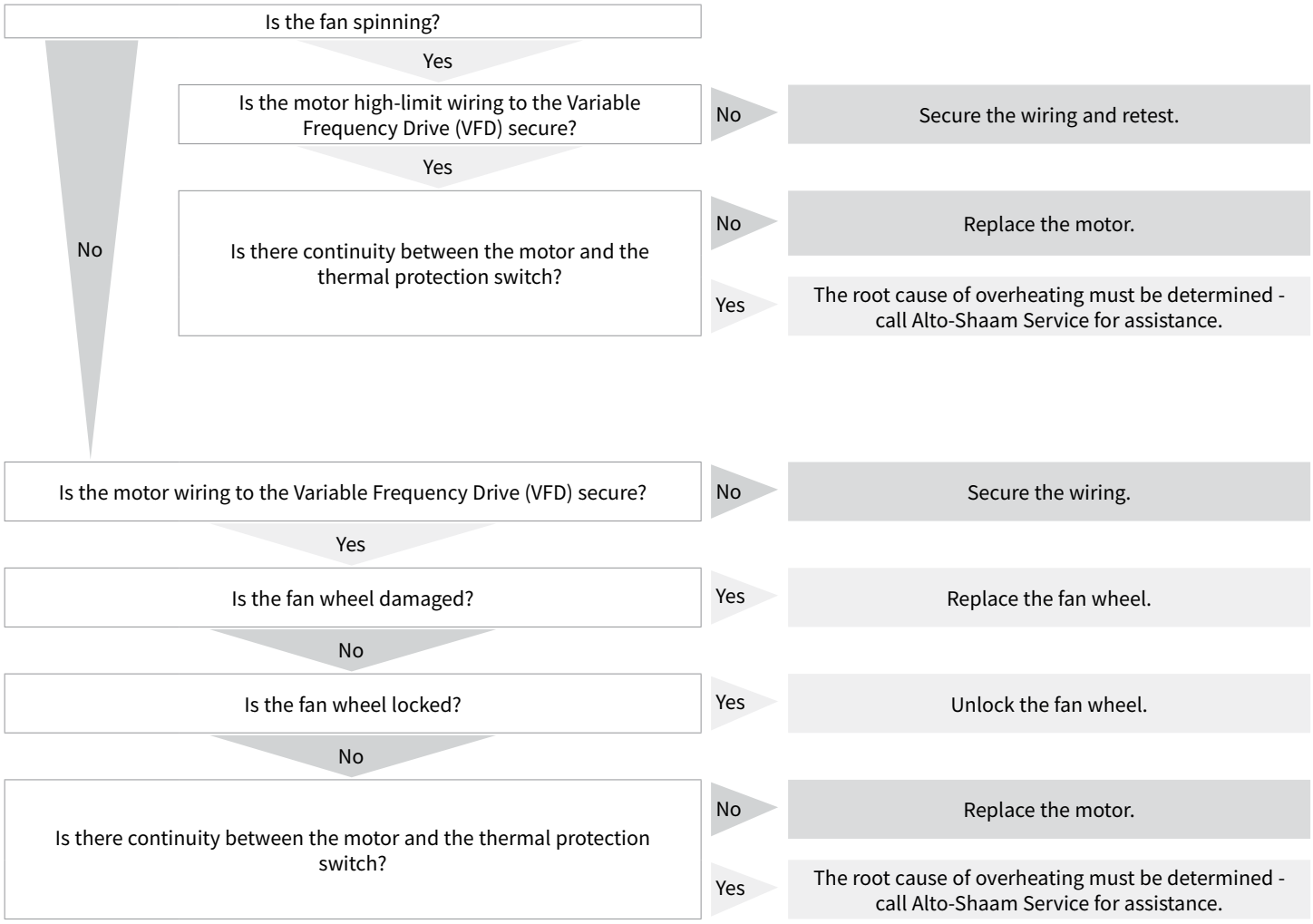
Is S905 populated with the jumper (on single VFD systems) or the last VFD (on dual VFD systems)?
- No → Populate and retest.
- Yes ↓

Is the LED on the VFD illuminated?
- No → Check the fuses for continuity, replace the blown fuses. L1 is supplied from the F4 fuse. L2 is supplied by terminal 5 of RL Y50. Retest.
- Yes ↓

Is voltage supplied to the VFD on terminal S105 L1/L2?
- No → Replace the VFD.

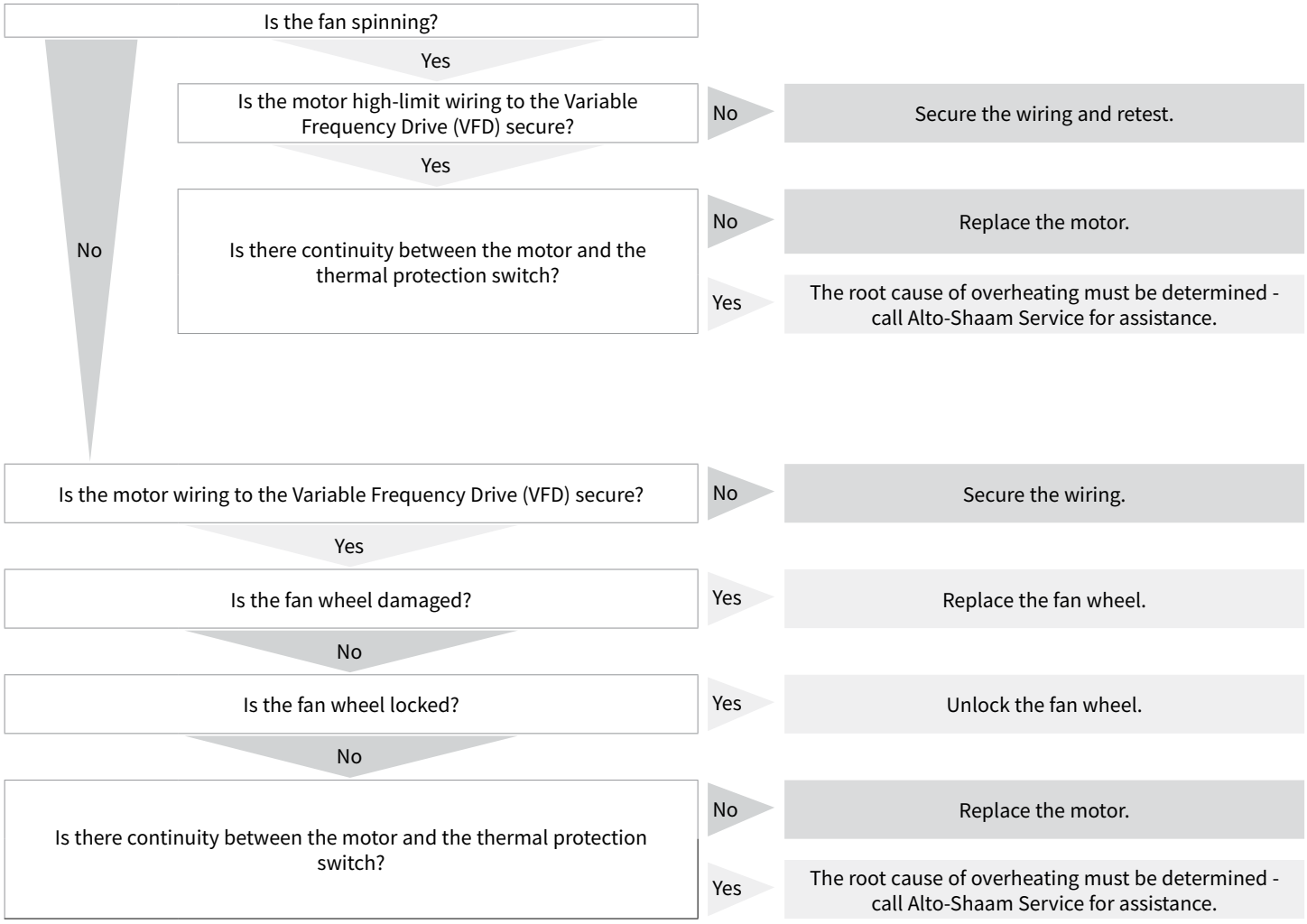
PROformance: Fan Motor Temperatures E53 and E54

E53 = Single/Upper Fan Motor High Limit / E54 = Lower Fan Motor High Limit



Classic: Fan Motor Temperatures E53 and E54

E53 = Single/Upper Fan Motor High Limit / E54 = Lower Fan Motor High Limit



Service Log

Name	Date	Issue	Actions Taken	Resolved?

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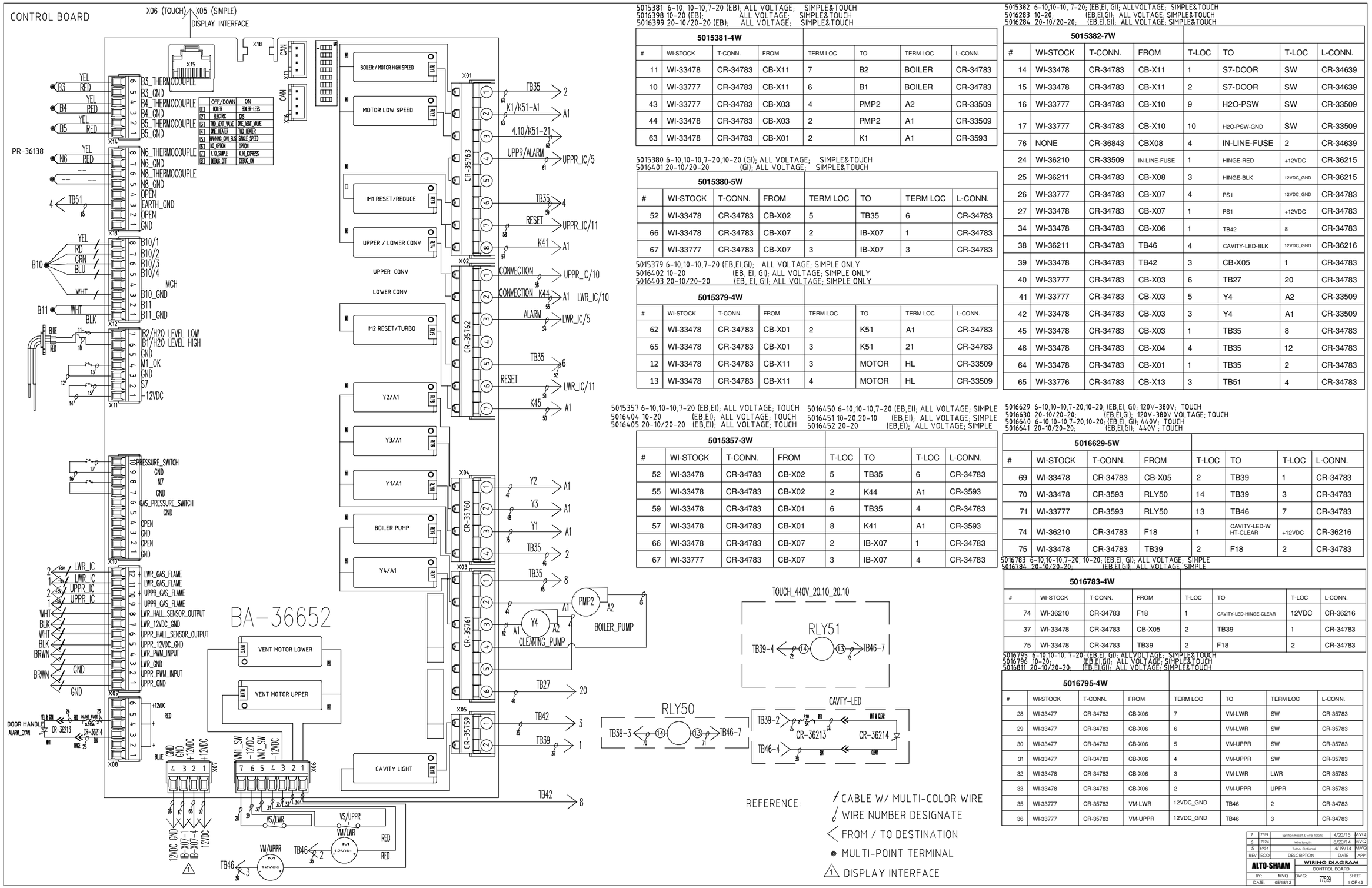
Control Board



5015381 6-10, 10-10,7-20 (EB); ALL VOLTAGE; SIMPLE&TOUCH
5016398 10-20 (EB); ALL VOLTAGE; SIMPLE&TOUCH
5016399 20-10/20-20 (EB); ALL VOLTAGE; SIMPLE&TOUCH

5015381-4W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
11	WI-33478	CR-34783	CB-X11	7	B2	BOILER	CR-34783
10	WI-33777	CR-34783	CB-X11	6	B1	BOILER	CR-34783
43	WI-33777	CR-34783	CB-X03	4	PMP2	A2	CR-33509
44	WI-33478	CR-34783	CB-X03	2	PMP2	A1	CR-33509
63	WI-33478	CR-34783	CB-X01	2	K1	A1	CR-3593

5015380 6-10,10-10,7-20,10-20 (GI); ALL VOLTAGE; SIMPLE&TOUCH
5016401 20-10/20-20 (GI); ALL VOLTAGE; SIMPLE&TOUCH

5015380-5W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
52	WI-33478	CR-34783	CB-X02	5	TB35	6	CR-34783
66	WI-33478	CR-34783	CB-X07	2	IB-X07	1	CR-34783
67	WI-33777	CR-34783	CB-X07	3	IB-X07	3	CR-34783

5015379 6-10,10-10,7-20 (EB,EI,GI); ALL VOLTAGE; SIMPLE ONLY
5016402 10-20 (EB, EI, GI); ALL VOLTAGE; SIMPLE ONLY
5016403 20-10/20-20 (EB, EI, GI); ALL VOLTAGE; SIMPLE ONLY

5015379-4W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
62	WI-33478	CR-34783	CB-X01	2	K51	A1	CR-34783
65	WI-33478	CR-34783	CB-X01	3	K51	21	CR-34783
12	WI-33478	CR-34783	CB-X11	3	MOTOR	HL	CR-33509
13	WI-33478	CR-34783	CB-X11	4	MOTOR	HL	CR-33509

5015382 6-10,10-10, 7-20; (EB,EI, GI); ALLVOLTAGE; SIMPLE&TOUCH
5016283 10-20, (EB,EI,GI); ALL VOLTAGE; SIMPLE&TOUCH
5016284 20-10/20-20; (EB,EI,GI); ALL VOLTAGE; SIMPLE&TOUCH

5015382-7W

#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
14	WI-33478	CR-34783	CB-X11	1	S7-DOOR	SW	CR-34639
15	WI-33478	CR-34783	CB-X11	2	S7-DOOR	SW	CR-34639
16	WI-33777	CR-34783	CB-X10	9	H2O-PSW	SW	CR-33509
17	WI-33777	CR-34783	CB-X10	10	H2O-PSW-GND	SW	CR-33509
76	NONE	CR-36843	CBX08	4	IN-LINE-FUSE	2	CR-34639
24	WI-36210	CR-33509	IN-LINE-FUSE	1	HINGE-RED	+12VDC	CR-36215
25	WI-36211	CR-34783	CB-X08	3	HINGE-BLK	12VDC_GND	CR-36215
26	WI-33777	CR-34783	CB-X07	4	PS1	12VDC_GND	CR-34783
27	WI-33478	CR-34783	CB-X07	1	PS1	+12VDC	CR-34783
34	WI-33478	CR-34783	CB-X06	1	TB42	8	CR-34783
38	WI-36211	CR-34783	TB46	4	CAVITY-LED-BLK	12VDC_GND	CR-36216
39	WI-33478	CR-34783	TB42	3	CB-X05	1	CR-34783
40	WI-33777	CR-34783	CB-X03	6	TB27	20	CR-34783
41	WI-33777	CR-34783	CB-X03	5	Y4	A2	CR-33509
42	WI-33478	CR-34783	CB-X03	3	Y4	A1	CR-33509
45	WI-33478	CR-34783	CB-X03	1	TB35	8	CR-34783
46	WI-33478	CR-34783	CB-X04	4	TB35	12	CR-34783
64	WI-33478	CR-34783	CB-X01	1	TB35	2	CR-34783
65	WI-33776	CR-34783	CB-X13	3	TB51	4	CR-34783

5015357 6-10,10-10,7-20 (EB,EI); ALL VOLTAGE; TOUCH
5016404 10-20 (EB,EI); ALL VOLTAGE; TOUCH
5016405 20-10/20-20 (EB,EI); ALL VOLTAGE; TOUCH

5016450 6-10,10-10,7-20 (EB,EI); ALL VOLTAGE; SIMPLE
5016451 10-20,20-10 (EB,EI); ALL VOLTAGE; SIMPLE
5016452 20-20 (EB,EI); ALL VOLTAGE; SIMPLE

5015357-3W

#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
52	WI-33478	CR-34783	CB-X02	5	TB35	6	CR-34783
55	WI-33478	CR-34783	CB-X02	2	K44	A1	CR-3593
59	WI-33478	CR-34783	CB-X01	6	TB35	4	CR-34783
57	WI-33478	CR-34783	CB-X01	8	K41	A1	CR-3593
66	WI-33478	CR-34783	CB-X07	2	IB-X07	1	CR-34783
67	WI-33777	CR-34783	CB-X07	3	IB-X07	4	CR-34783

5016629 6-10,10-10,7-20,10-20; (EB,EI, GI); 120V-380V; TOUCH
5016630 20-10/20-20; (EB,EI,GI); 120V-380V VOLTAGE; TOUCH
5016640 6-10,10-10,7-20,10-20; (EB,EI, GI); 440V; TOUCH
5016641 20-10/20-20; (EB,EI,GI); 440V ; TOUCH

5016629-5W

#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
69	WI-33478	CR-34783	CB-X05	2	TB39	1	CR-34783
70	WI-33478	CR-3593	RLY50	14	TB39	3	CR-34783
71	WI-33777	CR-3593	RLY50	13	TB46	7	CR-34783
74	WI-36210	CR-34783	F18	1	CAVITY-LED-WHT-CLEAR	+12VDC	CR-36216
75	WI-33478	CR-34783	TB39	2	F18	2	CR-34783

5016783 6-10,10-10,7-20, 10-20; (EB,EI, GI); ALL VOLTAGE; SIMPLE
5016784 20-10/20-20; (EB,EI,GI); ALL VOLTAGE; SIMPLE

5016783-4W

#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
74	WI-36210	CR-34783	F18	1	CAVITY-LED-HINGE-CLEAR	12VDC	CR-36216
37	WI-33478	CR-34783	CB-X05	2	TB39	1	CR-34783
75	WI-33478	CR-34783	TB39	2	F18	2	CR-34783

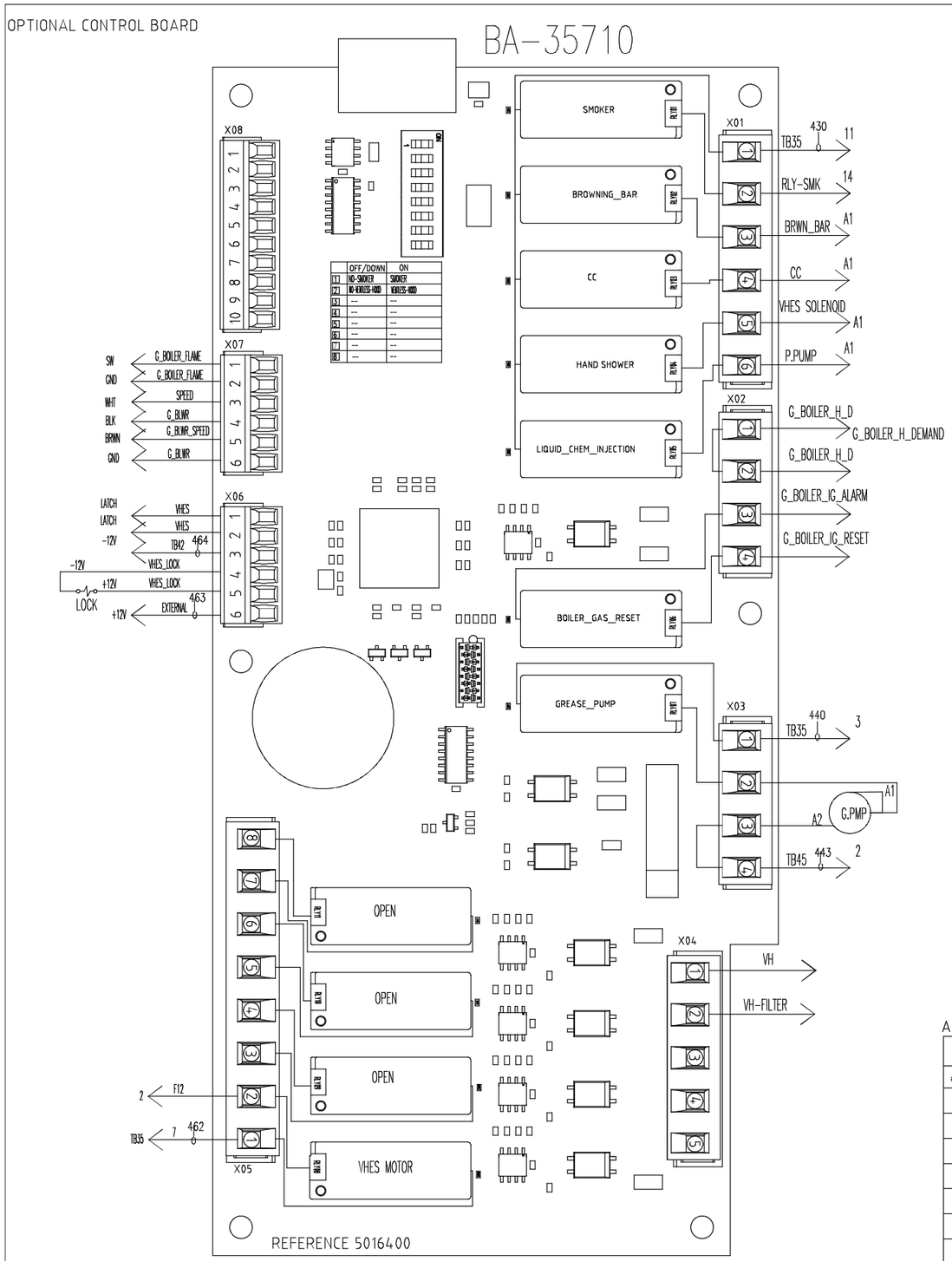
5016795 6-10,10-10, 7-20; (EB,EI, GI); ALLVOLTAGE; SIMPLE&TOUCH
5016796 10-20, (EB,EI,GI); ALL VOLTAGE; SIMPLE&TOUCH
5016811 20-10/20-20; (EB,EI,GI); ALL VOLTAGE; SIMPLE&TOUCH

5016795-4W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
28	WI-33477	CR-34783	CB-X06	7	VM-LWR	SW	CR-35783
29	WI-33477	CR-34783	CB-X06	6	VM-LWR	SW	CR-35783
30	WI-33477	CR-34783	CB-X06	5	VM-UPPR	SW	CR-35783
31	WI-33477	CR-34783	CB-X06	4	VM-UPPR	SW	CR-35783
32	WI-33478	CR-34783	CB-X06	3	VM-LWR	LWR	CR-35783
33	WI-33478	CR-34783	CB-X06	2	VM-UPPR	UPPR	CR-35783
35	WI-33777	CR-35783	VM-LWR	12VDC_GND	TB46	2	CR-34783
36	WI-33777	CR-35783	VM-UPPR	12VDC_GND	TB46	3	CR-34783

REV	ECO	DESCRIPTION	DATE	APP
7	7399	Ignition Reset & wire ndtoh	4/20/15	MVQ
6	7124	Wire length	8/20/14	MVQ
5	6954	Turbo Optional	4/19/14	MVQ

ALTO-SHAAM — WIRING DIAGRAM — CONTROL BOARD
BY: MVQ DWG: 77529 SHEET 1 OF 42
DATE: 05/18/12

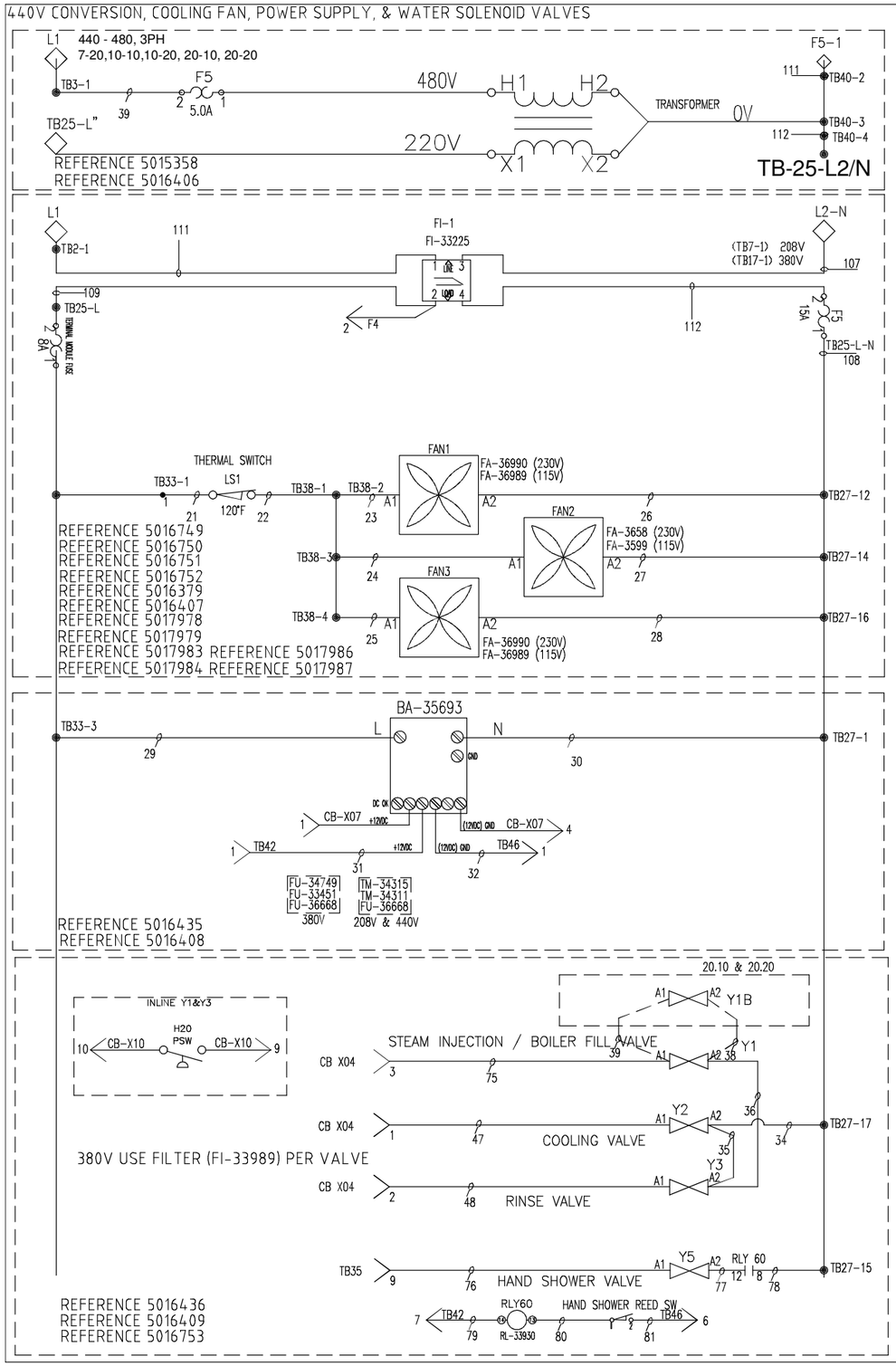


ALL MODELS, ALL VOLTAGE, OPTION BOARD

5016400-4W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
424	WI-33777	CR-34783	TB27	9	TB45	1	CR-34783
430	WI-33478	CR-34783	TB35	11	OB-X01	1	CR-34783
440	WI-33478	CR-34783	TB35	3	OB-X03	1	CR-34783
443	WI-33777	CR-34783	TB45	2	OB-X03	4	CR-34783
462	WI-33478	CR-34783	TB35	7	OB-X05	1	CR-34783
463	WI-33478	CR-34783	TB42	6	OB-X06	6	CR-34783
464	WI-33777	CR-34783	TB46	5	OB-X06	3	CR-34783

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM | WIRING DIAGRAM | OPTIONAL CONTROL BOARD
BY: AFT | DWG: 77529 | SHEET 2 OF 42
DATE: 04/12/12



5015358 6-10,10-10,7-20,10-20; 440V ; SIMPLE & TOUCH

5015358-4W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
39	WI-3815	CR-34782	TB2	1	F5	2	CR-34782
111	WI-33777	CR-34783	F6	1	TB40	2	CR-34783
112	WI-33777	CR-34783	TB40	4	TB -25	L2/N	CR-34783

5016749 6-10,10-10,7-20,10-20; 120V, 208V; TOUCH
5016750 6-10,10-10,7-20,10-20; 380V; TOUCH
5017978 6-10,10-10,7-20,10-20; 120V, 208V; SIMPLE
5017986 6-10,10-10,7-20,10-20; 380V; SIMPLE

5016749-6W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
107	WI-3815	CR-34782	TB7	1	FI-1	LINE-3	CR-3068
108	WI-3815	CR-34782	F5	1	TB25	L-N	CR-34782
112	WI-3815	CR-3068	FI-1	LOAD-4	F5	2	CR-34782
109	WI-3815	CR-3068	FI-1	LOAD-2	TB25	L	CR-34782
111	WI-3815	CR-3068	FI-1	LINE-1	TB2	1	CR-34782

5016379 6-10,10-10,7-20,10-20; ALL VOLTAGE; TOUCH 5017979 6-10,10-10,7-20,10-20; ALL VOLTAGE; SIMPLE

5016379-5W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
21	WI-33478	CR-34783	TB33	1	LS1	1	CR-33509
22	WI-33478	CR-34783	TB38	1	LS1	2	CR-33509
23	WI-33478	CR-34783	TB38	2	FAN1	A1	CR-3584
24	WI-33478	CR-34783	TB38	3	FAN2	A1	CR-3584
25	WI-33478	CR-34783	TB38	4	FAN3	A1	CR-3584
26	WI-33777	CR-34783	TB27	12	FAN1	A2	CR-3584
27	WI-33777	CR-34783	TB27	14	FAN2	A2	CR-3584
28	WI-33777	CR-34783	TB27	16	FAN3	A2	CR-3584
110	WI-33478	CR-34783	TB33	7	TB35	1	CR-34783

5016435 6-10,10-10,7-20,10-20; ALL VOLTAGE; SIMPLE&TOUCH

5016435-4W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
29	WI-33478	CR-34783	TB33	3	PS1	L	CR-34783
30	WI-33777	CR-34783	TB27	1	PS1	N	CR-34783
31	WI-33478	CR-34783	PS1	+12VDC	TB42	1	CR-34783
32	WI-33777	CR-34783	PS1	12VDC(GND)	TB46	1	CR-34783

5016436 6-10,10-10,7-20,10-20; ALL VOLTAGE; SIMPLE&TOUCH

5016436-4W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
34	WI-33777	CR-34783	TB27	17	Y2	A2	CR-34774
36	WI-33777	CR-34774	Y3	A2	Y1	A2	CR-33509
35	WI-33777	CR-33509	Y3	A2	Y2	A2	CR-33509
75	WI-33478	CR-33509	Y1	A1	CB-X04	3	CR-34783
47	WI-33478	CR-33509	Y2	A1	CB-X04	1	CR-34783
48	WI-33478	CR-33509	Y3	A1	CB-X04	2	CR-34783

5016753 ALL MODEL; ALL VOLTAGE; SIMPLE&TOUCH HAND SHOWER

5016753-4W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
76	WI-33478	CR-34783	TB35	9	Y5	A1	CR-33509
77	WI-33777	CR-3593	RLY60	12	Y5	A2	CR-33509
78	WI-33777	CR-3593	RLY60	8	TB27	15	CR-34783
79	WI-33478	CR-34783	TB42	7	RLY60	14	CR-3593
80	WI-33777	CR-3593	RLY60	13	HANDSHOWER R-SW	1	CR-33509
81	WI-33777	CR-34783	TB46	6	HANDSHOWER R-SW	2	CR-34639

5016406 20-10/20-20; 440V; SIMPLE&TOUCH

5016406-4W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
39	WI-3815	CR-34782	TB3	1	F5	2	CR-34782
111	WI-33777	CR-34783	F6	1	TB40	2	CR-34783
112	WI-33777	CR-34783	TB40	4	TB -25	L2/N	CR-34783

5016751 20-10/20-20; 120V,208V; TOUCH
5016752 20-10/20-20; 380V; TOUCH
5017983 20-10/20-20; 120V,208V; SIMPLE
5017987 20-10/20-20; 380V; SIMPLE

5016751-4W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
107	WI-3815	CR-34782	TB7	1	FI-1	LINE-3	CR-3068
108	WI-3815	CR-34782	F5	1	TB25	L-N	CR-34782
112	WI-3815	CR-3068	FI-1	LOAD-4	F5	2	CR-34782
109	WI-3815	CR-3068	FI-1	LOAD-2	TB25	L	CR-34782
111	WI-3815	CR-3068	FI-1	LINE-1	TB2	1	CR-34782

5016407 20-10/20-20; ALL VOLTAGE; TOUCH
5017984 20-10/20-20; ALL VOLTAGE; SIMPLE

5016407-6W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
21	WI-33478	CR-34783	TB33	1	LS1	1	CR-33509
22	WI-33478	CR-34783	TB38	1	LS1	2	CR-33509
23	WI-33478	CR-34783	TB38	2	FAN1	A1	CR-3584
24	WI-33478	CR-34783	TB38	3	FAN2	A1	CR-3584
25	WI-33478	CR-34783	TB38	4	FAN3	A1	CR-3584
26	WI-33777	CR-34783	TB27	12	FAN1	A2	CR-3584
27	WI-33777	CR-34783	TB27	14	FAN2	A2	CR-3584
28	WI-33777	CR-34783	TB27	16	FAN3	A2	CR-3584
110	WI-33478	CR-34783	TB33	7	TB35	1	CR-34783

5016408 20-10/20-20; ALL VOLTAGE; SIMPLE&TOUCH

5016408-4W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
29	WI-33478	CR-34783	TB33	3	PS1	L	CR-34783
30	WI-33777	CR-34783	TB27	1	PS1	N	CR-34783
31	WI-33478	CR-34783	PS1	+12VDC	TB42	1	CR-34783
32	WI-33777	CR-34783	PS1	12VDC(GND)	TB46	1	CR-34783

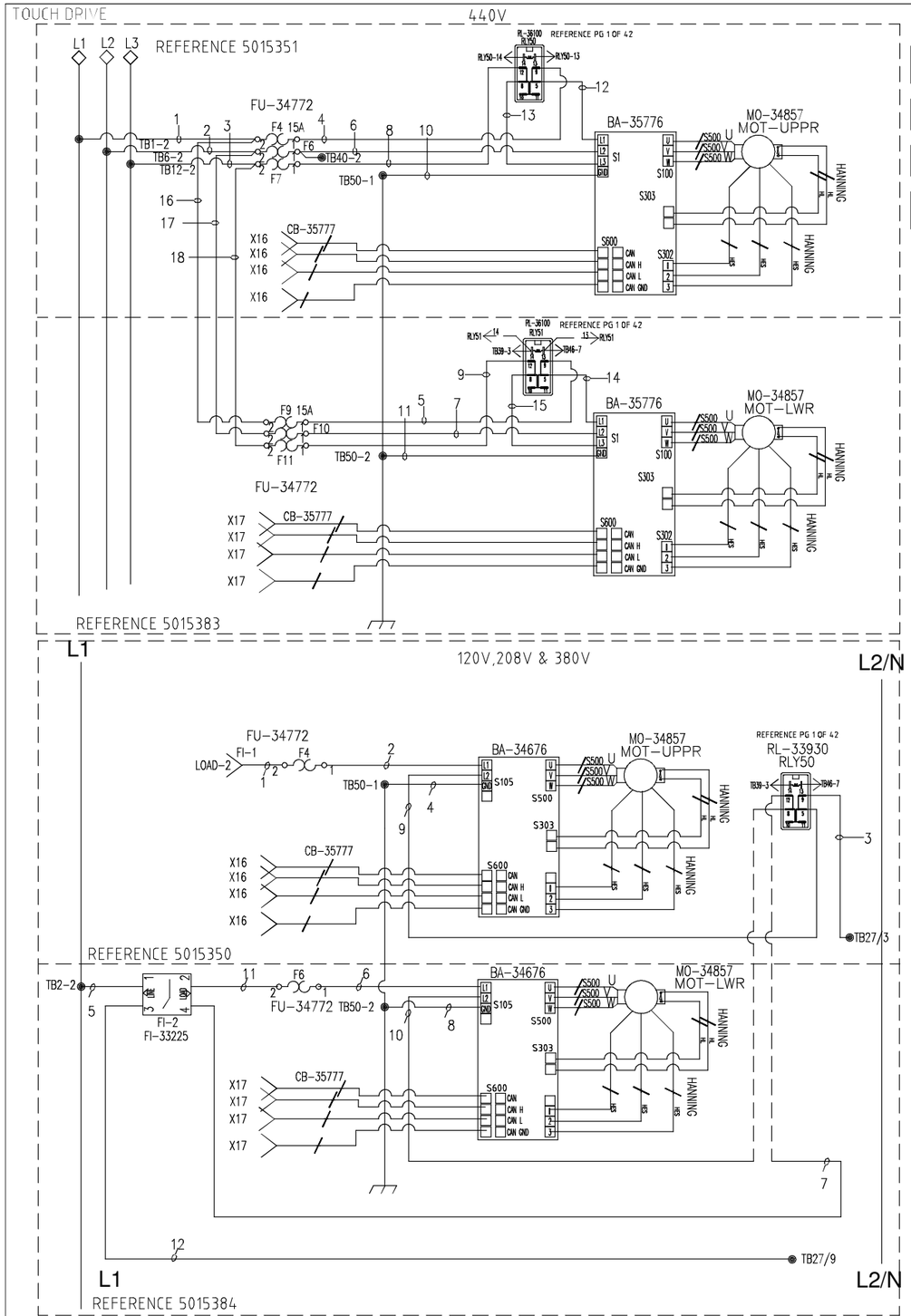
5016409 20-10/20-20; ALL VOLTAGE; SIMPLE&TOUCH

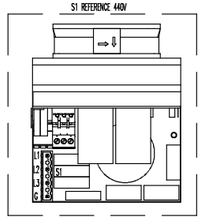
5016409-5W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
34	WI-33777	CR-34783	TB27	17	Y2	A2	CR-34774
36	WI-33777	CR-34774	Y3	A2	Y2	A2	CR-33509
35	WI-33777	CR-33509	Y3	A2	Y1	A2	CR-34774
38	WI-33777	CR-33509	Y1B	A2	Y1	A2	CR-33509
75	WI-33478	CR-33509	Y1	A1	CB-X04	3	CR-34783
39	WI-33478	CR-34774	Y1	A1	Y1B	A1	CR-33509
47	WI-33478	CR-33509	Y3	A1	CB-X04	1	CR-34783
48	WI-33478	CR-33509	Y2	A1	CB-X04	2	CR-34783

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM
COOLING FANS & WATER SOLENOID
BY: AFT | DWG: 77529 | SHEET 3 OF 42
DATE: 04/12/12





5015383 20-10, & 20-20 (EB,EI); 440V; TOUCH

5015383-5W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-3815	CR-34782	TB1	2	F4	2	CR-34782
2	WI-3815	CR-34782	TB6	2	F6	2	CR-34782
3	WI-3815	CR-34782	TB12	2	F7	2	CR-34782
4	WI-33478	CR-34783	F4	1	RLY50	9	CR-3593
5	WI-33478	CR-34783	F9	1	RLY51	9	CR-3593
6	WI-33777	CR-34783	F6	1	S1	L2-UPPR	CR-34783
7	WI-33777	CR-34783	F10	1	S1	LWR	CR-34783
8	WI-33478	CR-34783	F7	1	RLY50	12	CR-3593
9	WI-33478	CR-34783	F11	1	RLY51	12	CR-34783
10	WI-33776	CR-34783	TB50	1	S1	G-UPPR	CR-34783
11	WI-33776	CR-34783	TB50	2	S1	G-LWR	CR-34783
12	WI-33478	CR-3593	RLY50	5	S1	L1-UPPR	CR-34783
13	WI-33478	CR-3593	RLY50	8	S1	L3-UPPR	CR-34783
14	WI-33478	CR-3593	RLY50	5	S1	L1-LWR	CR-34783
15	WI-33478	CR-3593	RLY50	8	S1	L3-LWR	CR-34783
16	WI-3815	CR-34782	F9	2	F4	2	CR-34782
17	WI-3815	CR-34782	F10	2	F6	2	CR-34782
18	WI-3815	CR-34782	F11	2	F7	2	CR-34782

5015351 6-10,10-10,7-20,10-20 (EB,EI) 440V; TOUCH

5015351-4W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-3815	CR-34782	TB1	2	F4	2	CR-34782
2	WI-3815	CR-34782	TB6	2	F6	2	CR-34782
3	WI-3815	CR-34782	TB12	2	F7	2	CR-34782
4	WI-33478	CR-34783	F4	1	RLY50	9	CR-3593
6	WI-33777	CR-34783	F6	1	S1	L2-UPPR	CR-34783
8	WI-33478	CR-34783	F7	1	RLY50	12	CR-3593
10	WI-33776	CR-34783	TB50	1	S1	G-UPPR	CR-34783
12	WI-33478	CR-3593	RLY50	5	S1	L1-UPPR	CR-34783
13	WI-33478	CR-3593	RLY50	8	S1	L3-UPPR	CR-34783

5015384 20-10 & 20-20 (EB,EI,GI); 120V, 208V, 380V; TOUCH

5015384-5W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-33478	CR-34774	F4	2	FI-1	LOAD-2	CR-34782
2	WI-33478	CR-34783	F4	1	S105	L-UPPR	CR-34783
3	WI-33777	CR-34783	TB27	3	RLY50	9	CR-3593
4	WI-33776	CR-34783	TB50	1	S105	G-UPPR	CR-34783
5	WI-3815	CR-3068	FI-2	LINE-1	TB2	2	CR-34782
6	WI-33478	CR-34783	F6	1	S105	L-LWR	CR-34783
7	WI-33777	CR-34783	RLY50	12	FI-2	LOAD-2	CR-3068
8	WI-33776	CR-34783	TB50	2	S105	G-LWR	CR-34783
9	WI-33777	CR-3593	RLY50	5	S105	N-UPPR	CR-34783
10	WI-33777	CR-3593	RLY50	8	S105	N-LWR	CR-34783
11	WI-3815	CR-34782	F6	2	FI-2	LOAD-2	CR-3068
12	WI-33777	CR-33509	FI-2	LINE-3	TB27	9	CR-34783

5015350 6-10,10-10,7-20,10-20 (EB,EI,GI); 120V, 208V, 380V; TOUCH

5015350-5W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-33478	CR-34783	F4	2	FI-1	LOAD-2	CR-34774
2	WI-33478	CR-34783	F4	1	S105	L-UPPR	CR-34783
3	WI-33777	CR-34783	TB27	3	RLY50	9	CR-3593
4	WI-33776	CR-34783	TB50	1	S105	G-UPPR	CR-34783
9	WI-33777	CR-3593	RLY50	5	S105	N-UPPR	CR-34783

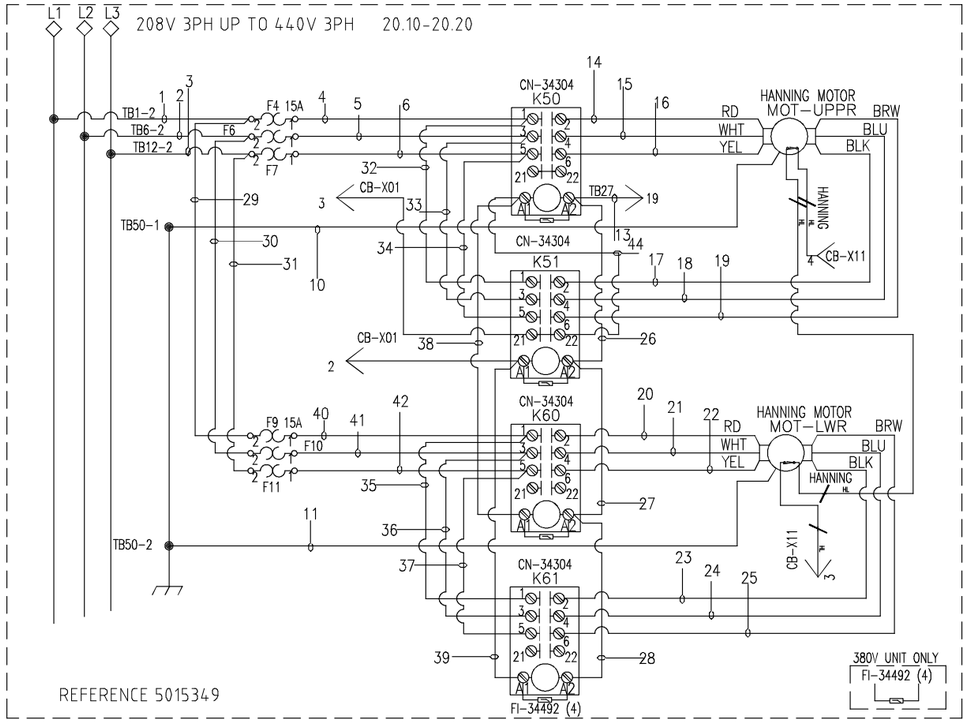
REFERENCE:

- CABLE W/ MULTI-COLOR WIRE
- WIRE NUMBER DESIGNATE
- FROM / TO DESTINATION
- MULTI-POINT TERMINAL

REV	ECO	DESCRIPTION	DATE	APP

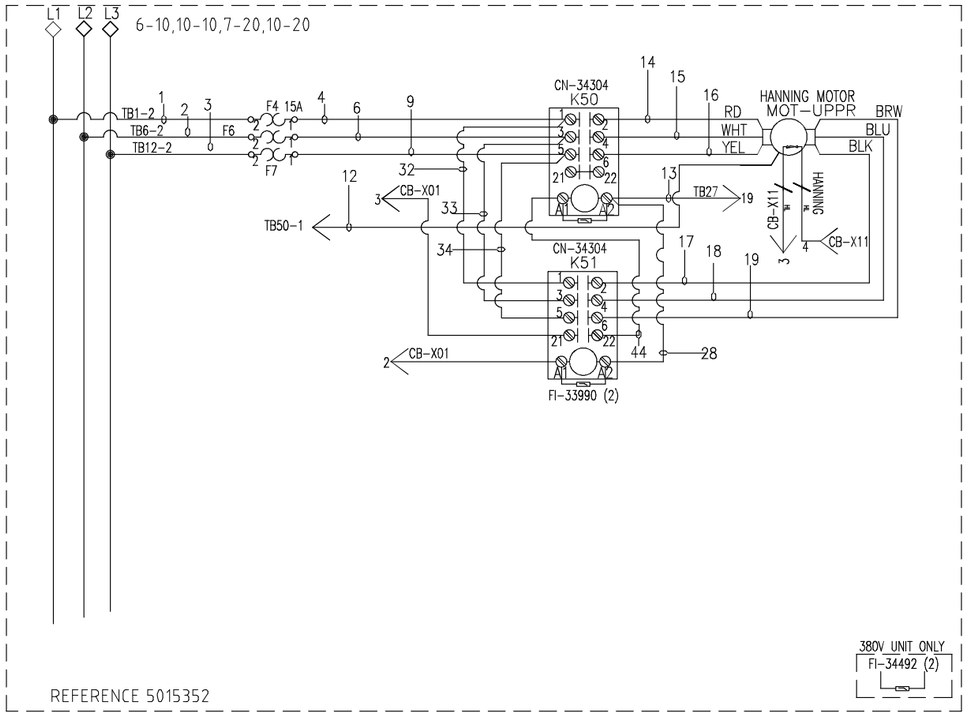
ALTO-SHAAM — WIRING DIAGRAM
6.10-UP-TO-20.20 10PH TOUCH MOTOR
BY: AFT | DWG: 77529 | SHEET 4 OF 42
DATE: 04/12/12

SIMPLE MOTOR CONTACTOR



5015349 20-10,20-20 (ES,ESI,ESG); 208,380,440V 3PH; SIMPLE

5015349-4W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-3815	CR-34782	TB1	2	F4	2	CR-34782
2	WI-3815	CR-34782	TB6	2	F6	2	CR-34782
3	WI-3815	CR-34782	TB12	2	F7	2	CR-34782
4	WI-33478	CR-34783	F4	1	K50	1	CR-34783
5	WI-33478	CR-34783	F6	1	K50	3	CR-34783
6	WI-33478	CR-34783	F7	1	K50	5	CR-34783
10	WI-33776	CR-34783	TB50	1	MOTOR	GND	CR-34783
11	WI-33776	CR-34783	TB50	2	MOTOR	GND	CR-34783
13	WI-33777	CR-34783	K50	A2	TB27	19	CR-34783
14	WI-33478	CR-34783	K50	2	MOTOR-UPPR-RD	CON	CR-34783
15	WI-33478	CR-34783	K50	4	MOTOR-UPPR-WHT	CON	CR-34783
16	WI-33478	CR-34783	K50	6	MOTOR-UPPR-YEL	CON	CR-34783
17	WI-33478	CR-34783	K51	2	MOTOR-UPPR-BLK	CON	CR-34783
18	WI-33478	CR-34783	K51	4	MOTOR-UPPR-BLU	CON	CR-34783
19	WI-33478	CR-34783	K51	6	MOTOR-UPPR-BRW	CON	CR-34783
20	WI-33478	CR-34783	K60	2	MOTOR-LWR-RD	CON	CR-34783
21	WI-33478	CR-34783	K60	4	MOTOR-LWR-WHT	CON	CR-34783
22	WI-33478	CR-34783	K60	6	MOTOR-LWR-YEL	CON	CR-34783
23	WI-33478	CR-34783	K61	2	MOTOR-LWR-BLK	CON	CR-34783
24	WI-33478	CR-34783	K61	4	MOTOR-LWR-BLU	CON	CR-34783
25	WI-33478	CR-34783	K61	6	MOTOR-LWR-BRW	CON	CR-34783
26	WI-33777	CR-34783	K50	A2	K51	A2	CR-34783
27	WI-33777	CR-34783	K60	A2	K51	A2	CR-34783
28	WI-33777	CR-34783	K60	A2	K61	A2	CR-34783
29	WI-3815	CR-34782	F4	2	F9	2	CR-34782
30	WI-3815	CR-34782	F6	2	F10	2	CR-34782
31	WI-3815	CR-34782	F7	2	F11	2	CR-34782
32	WI-33478	CR-34783	K50	1	K51	1	CR-34783
33	WI-33478	CR-34783	K50	3	K51	3	CR-34783
34	WI-33478	CR-34783	K50	5	K51	5	CR-34783
35	WI-33478	CR-34783	K60	1	K61	1	CR-34783
36	WI-33478	CR-34783	K60	3	K61	3	CR-34783
37	WI-33478	CR-34783	K60	5	K61	5	CR-34783
38	WI-33478	CR-34783	K50	A1	K60	A1	CR-34783
39	WI-33478	CR-34783	K51	A1	K61	A1	CR-34783
40	WI-33478	CR-34783	F9	2	F4	2	CR-34783
41	WI-33478	CR-34783	F10	2	F6	2	CR-34783
42	WI-33478	CR-34783	F11	2	F7	2	CR-34783
44	WI-33478	CR-34783	K51	22	K50	A1	CR-34783



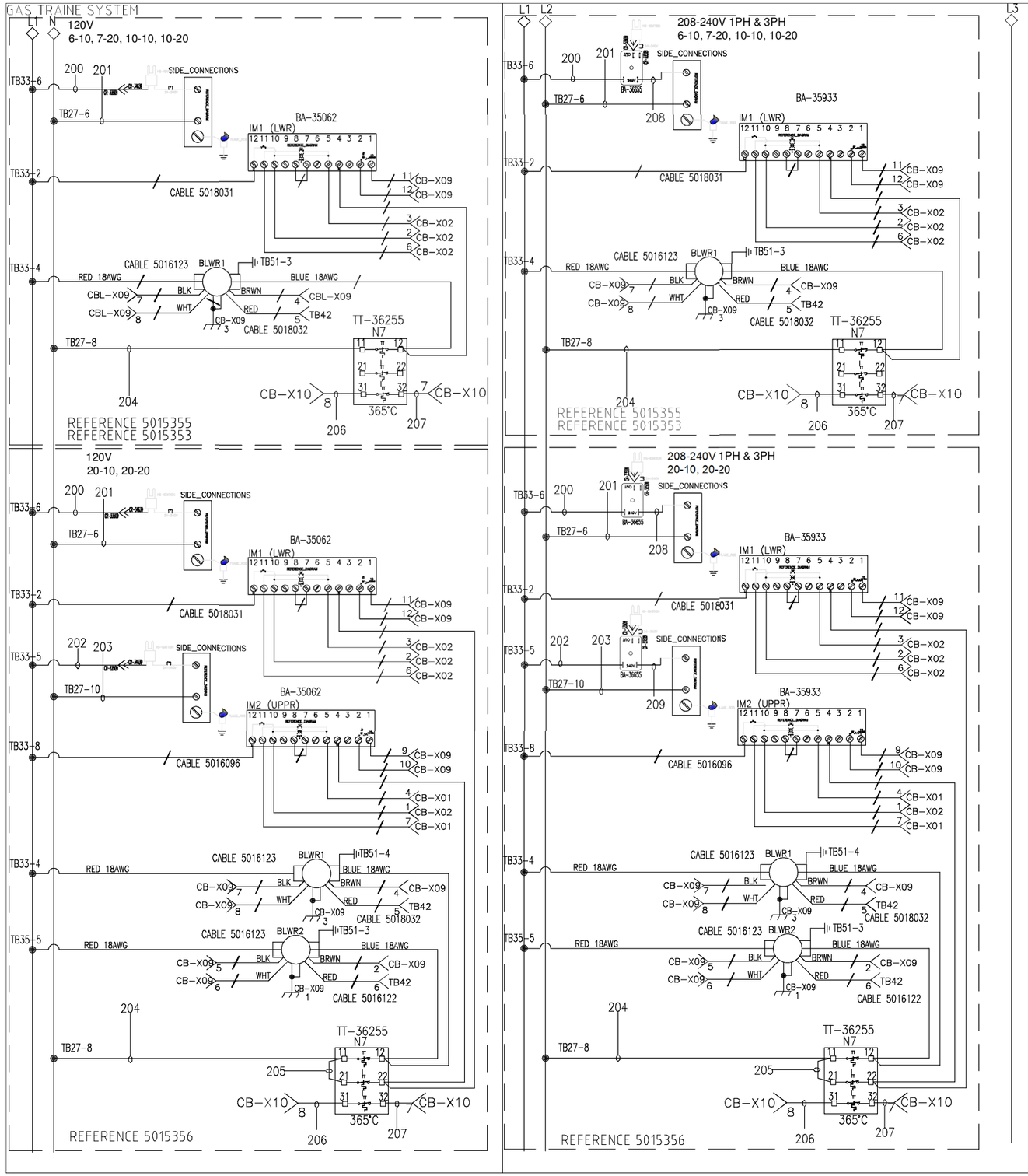
5015352 6-10,10-10,7-20,10-20 (ES,ESI,ESG); 204,380,44V 3PH; SIMPLE

5015352-5W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-3815	CR-34782	TB1	2	F4	2	CR-34782
2	WI-3815	CR-34782	TB6	2	F6	2	CR-34782
3	WI-3815	CR-34782	TB12	2	F7	2	CR-34782
4	WI-33478	CR-34783	F4	1	K50	1	CR-34783
6	WI-33478	CR-34783	F6	1	K50	3	CR-34783
9	WI-33478	CR-34783	F7	1	K50	5	CR-34783
12	WI-33776	CR-34783	TB50	1	MOTOR	GND	BARE
13	WI-33777	CR-34783	K50	A2	TB27	19	CR-34783
14	WI-33478	CR-34783	K50	2	MOTOR-UPPR-RD	CON	CR-34783
15	WI-33478	CR-34783	K50	4	MOTOR-UPPR-WHT	CON	CR-34783
16	WI-33478	CR-34783	K50	6	MOTOR-UPPR-YEL	CON	CR-34783
17	WI-33478	CR-34783	K51	2	MOTOR-UPPR-BLK	CON	CR-34783
18	WI-33478	CR-34783	K51	4	MOTOR-UPPR-BLU	CON	CR-34783
19	WI-33478	CR-34783	K51	6	MOTOR-UPPR-BRW	CON	CR-34783
28	WI-33777	CR-34783	K50	A2	K51	A2	CR-34783
32	WI-33478	CR-34783	K51	1	K50	1	CR-34783
33	WI-33478	CR-34783	K51	3	K50	3	CR-34783
34	WI-33478	CR-34783	K51	5	K50	5	CR-34783
44	WI-33478	CR-34783	K51	22	K50	A1	CR-34783

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 6,10,UP TO 20,20 3PH SIMPLE MOTOR

BY: AFT | DWG: 77529 | SHEET 5 OF 42 | DATE: 04/12/12



5015355 6-10,10-10,7-20 (GI); 120V,208V,380V; SIMPLE & TOUCH

5015355-6W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
200	WI-33478	CR-34783	TB33	6	IGNTR	LWR	CR-33509
201	WI-33777	CR-34783	TB-27	6	IGNTR	N	CR-36869
206	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
207	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
204	WI-33777	CR-33509	N7	11	TB27	8	CR-34783

5015353 10-20 (GI); 120V,208V,380V; SIMPLE & TOUCH

5015353-6W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
200	WI-33478	CR-34783	TB33	6	IGNTR	LWR	CR-33509
201	WI-33777	CR-34783	TB-27	6	IGNTR	N	CR-36869
206	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
207	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
204	WI-33777	CR-33509	N7	11	TB27	8	CR-34783

5015356 20-10/20-20 (GI); 120V,208V,380V; SIMPLE & TOUCH

5015356-2W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
200	WI-33478	CR-34783	TB33	6	IGNTR	LWR	CR-33509
201	WI-33777	CR-34783	TB27	6	IGNTR	N	CR-34562
202	WI-33478	CR-34783	TB33	5	IGNTR	UPPR	CR-33509
203	WI-33777	CR-34783	TB27	10	IGNTR	N	CR-34562
204	WI-33777	CR-34783	TB27	8	N7	11	CR-34774
205	WI-33777	CR-33509	N7	21	N7	11	CR-33509
206	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
207	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

5017494 6-10,10-10,7-20, 10.20 (GI); 208V,380V; SIMPLE & TOUCH

5017494-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
208	WI-33478	CR-33509	BA-36655	2	IGNTR	LWR	CR-36869

5017495 20-10/20-20 (GI); 208V,380V; SIMPLE & TOUCH

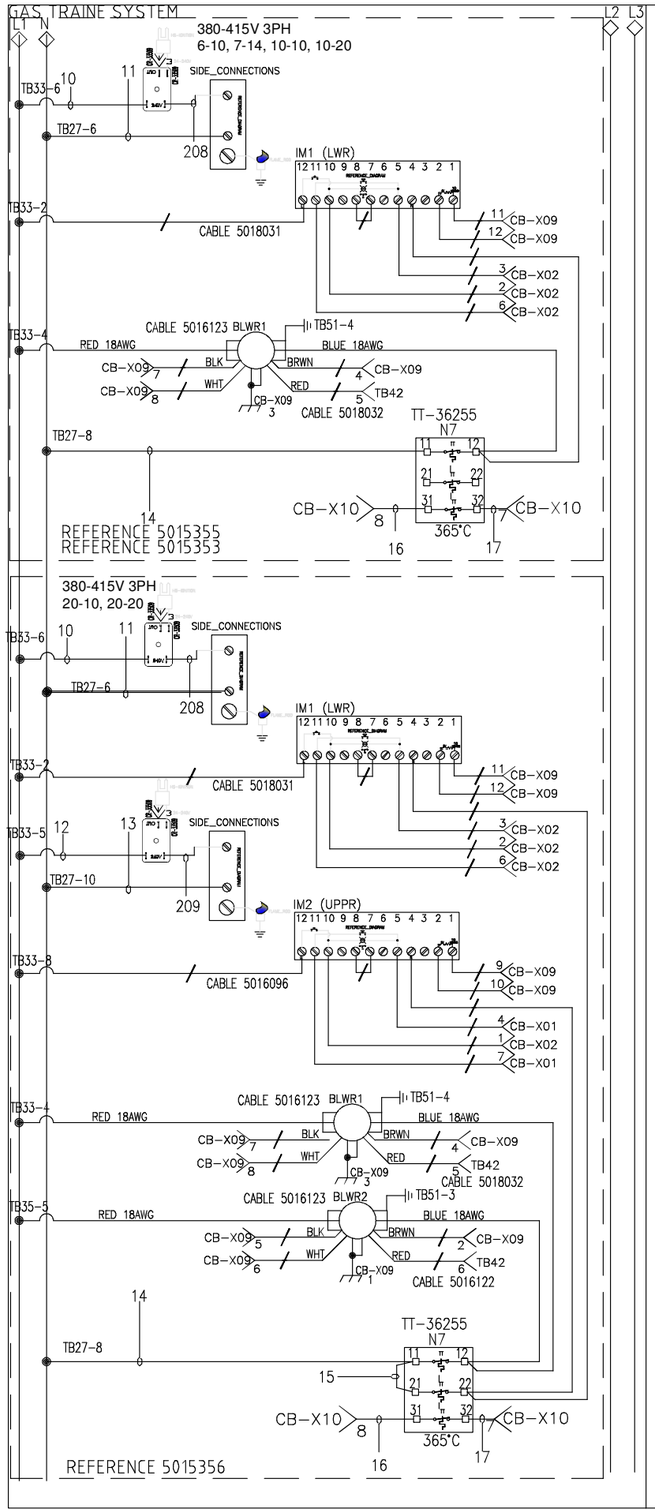
5017495-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
208	WI-33478	CR-33509	BA-36655	2	IGNTR	LWR	CR-36869
209	WI-33478	CR-33509	BA-36655	2	IGNTR	UPPR	CR-36869

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 6.10 UP TO 20.20 120V/208V GAS MODEL

BY: AFT | DWG: 77529 | SHEET 6 OF 42

DATE: 04/12/12



5015355 6-10,10-10,7-20 (GI); 380V; SIMPLE & TOUCH

5015355-6W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
200	WI-33478	CR-34783	TB33	6	IGNTR	LWR	CR-33509
201	WI-33777	CR-34783	TB-27	6	IGNTR	N	CR-36869
206	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
207	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
204	WI-33777	CR-33509	N7	11	TB27	8	CR-34783

5015353 10-20 (GI); 380V; SIMPLE & TOUCH

5015353-6W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
200	WI-33478	CR-34783	TB33	6	IGNTR	LWR	CR-33509
201	WI-33777	CR-34783	TB-27	6	IGNTR	N	CR-36869
206	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
207	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
204	WI-33777	CR-33509	N7	11	TB27	8	CR-34783

5015356 20-10/20-20 (GI); 380V; SIMPLE & TOUCH

5015356-3W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
200	WI-33478	CR-34783	TB33	6	IGNTR	LWR	CR-33509
201	WI-33777	CR-34783	TB27	6	IGNTR	N	CR-36869
202	WI-33478	CR-34783	TB33	5	IGNTR	UPPR	CR-33509
203	WI-33777	CR-34783	TB27	10	IGNTR	N	CR-36869
204	WI-33777	CR-34783	TB27	8	N7	11	CR-34774
205	WI-33777	CR-33509	N7	21	N7	11	CR-33509
206	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
207	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

5017494 6-10,10-10,7-20, 10.20 (GI); 208V,380V; SIMPLE & TOUCH

5017494-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
208	WI-33478	CR-33509	BA-36655	2	IGNTR	LWR	CR-36869

5017495 20-10/20-20 (GI); 208V,380V; SIMPLE & TOUCH

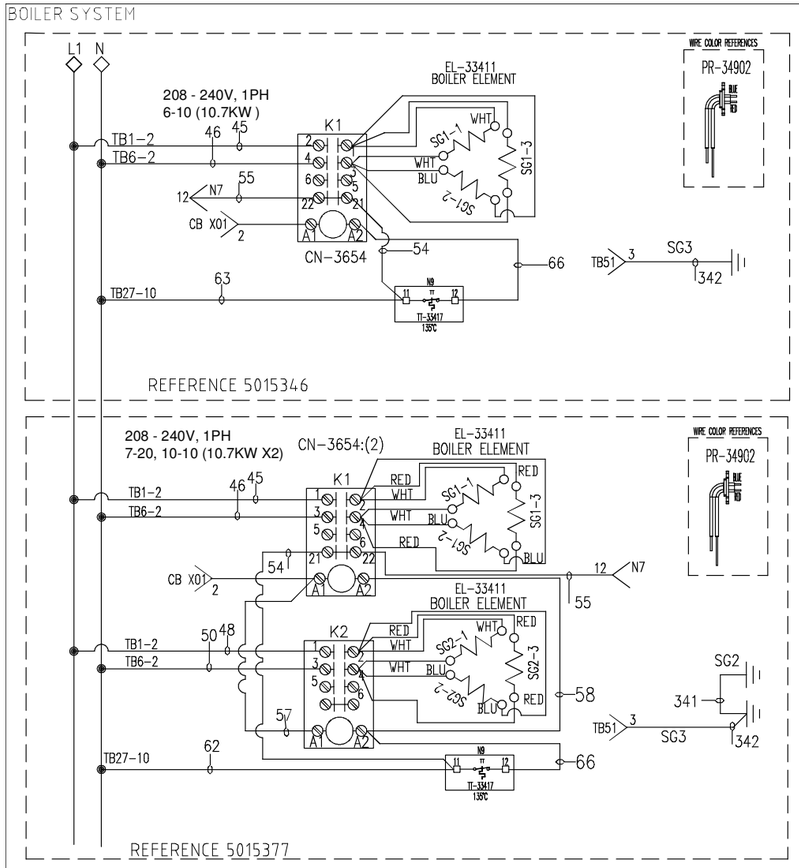
5017495-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
208	WI-33478	CR-33509	BA-36655	2	IGNTR	LWR	CR-36869
209	WI-33478	CR-33509	BA-36655	2	IGNTR	UPPR	CR-36869

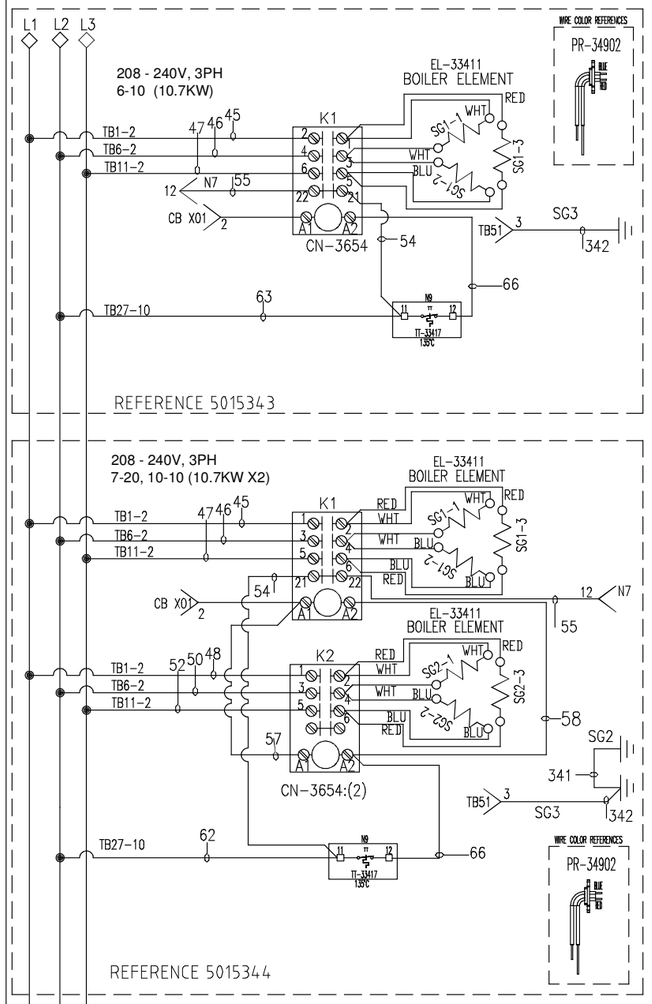
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 6.10 UP-TO 20.20 380V GAS MODEL

BY: AFT | DWG: 77529 | SHEET 7 OF 42

DATE: 04/12/12





5015346 6-10 (EB); 208V 1PH; SIMPLE & TOUCH

5015346-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
45	WI-3816	CR-34781	TB1	2	K1	2	CR-34775
46	WI-3816	CR-34781	TB6	2	K1	4	CR-34775
54	WI-33777	CR-34774	N9	11	K1	21	CR-3593
55	WI-33777	CR-3593	K1	22	N7	12	CR-33509
63	WI-33777	CR-3593	N9	11	TB27	10	CR-34783
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
66	WI-33777	CR-33509	N9	12	K1	A2	CR-3593

5015377 10-10,7-20 (EB); 208V 1PH; SIMPLE & TOUCH

5015377-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
45	WI-3816	CR-34781	TB1	2	K1	2	CR-34775
46	WI-3816	CR-34781	TB6	2	K1	4	CR-34775
48	WI-3816	CR-34781	TB1	2	K2	2	CR-34775
50	WI-3816	CR-34781	TB6	2	K2	4	CR-34775
54	WI-33777	CR-34774	N9	11	K1	21	CR-3593
55	WI-33777	CR-3593	K1	22	N7	12	CR-33509
63	WI-33777	CR-33509	N9	11	TB27	10	CR-34783
341	WI-33776	CR-33509	SG2	GND	SG3	GND	CR-34774
342	WI-33776	CR-34783	TB51	3	SG3	GDN	CR-33509
66	WI-33777	CR-33509	N9	12	K1	A2	CR-3593

5015343 6-10 (EB); 208V 3PH; SIMPLE & TOUCH

5015343-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
45	WI-3816	CR-34781	TB1	2	K1	2	CR-34775
46	WI-3816	CR-34781	TB6	2	K1	4	CR-34775
47	WI-3816	CR-34781	TB11	2	K1	6	CR-34775
54	WI-33777	CR-34774	N9	11	K1	21	CR-3593
55	WI-33777	CR-3593	K1	22	N7	12	CR-33509
63	WI-33777	CR-33509	N9	11	TB27	10	CR-3593
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
66	WI-33777	CR-33509	N9	12	K1	A2	CR-3593

5015344 10-10,7-20 (EB); 208V 3PH; SIMPLE & TOUCH

5015344-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
45	WI-3816	CR-34781	TB1	2	K1	1	CR-34775
46	WI-3816	CR-34781	TB6	2	K1	3	CR-34775
47	WI-3816	CR-34781	TB11	2	K1	5	CR-34775
48	WI-3816	CR-34781	TB1	2	K2	1	CR-34775
50	WI-3816	CR-34781	TB6	2	K2	3	CR-34775
52	WI-3816	CR-34781	TB11	2	K2	5	CR-34775
54	WI-33777	CR-34774	N9	11	K1	21	CR-3593
55	WI-33777	CR-3593	K1	22	N7	12	CR-33509
57	WI-33478	CR-3593	K2	A1	K1	A1	CR-3593
58	WI-33777	CR-3593	K2	A2	K1	A2	CR-3593
62	WI-33777	CR-33509	N9	11	TB27	10	CR-34783
341	WI-33776	CR-33509	SG2	GND	SG3	GND	CR-34774
342	WI-33776	CR-34783	TB51	3	SG3	GND	CR-33509
66	WI-33777	CR-33509	N9	12	K2	A2	CR-3593

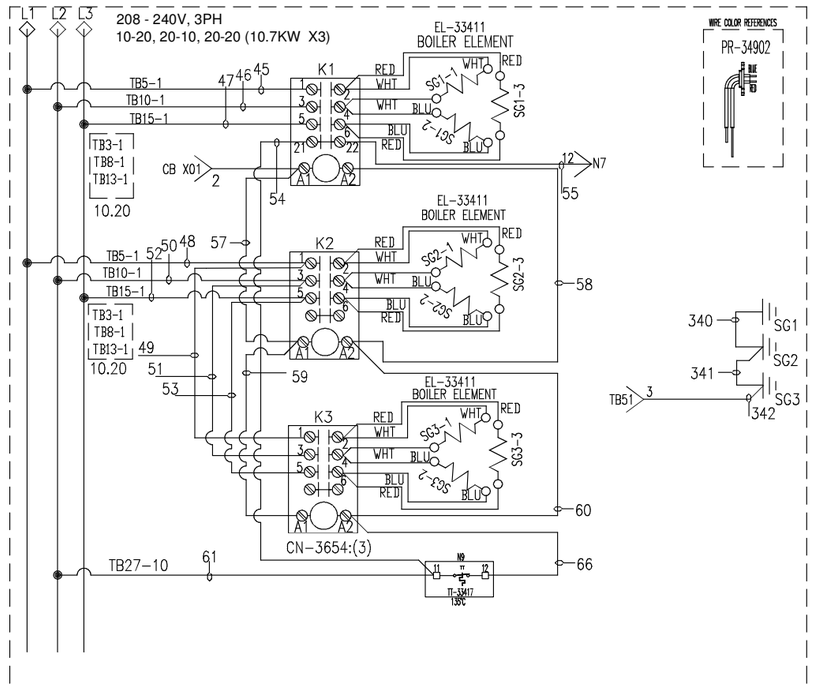
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 6.10-10.10-7.14 1 & 3 PH 208-240V BOILER

BY: AFT | DWG: 77529 | SHEET 8 OF 42

DATE: 05/12/12

BOILER SYSTEM



5015345 10-20 (EB); 208V 3PH; SIMPLE & TOUCH

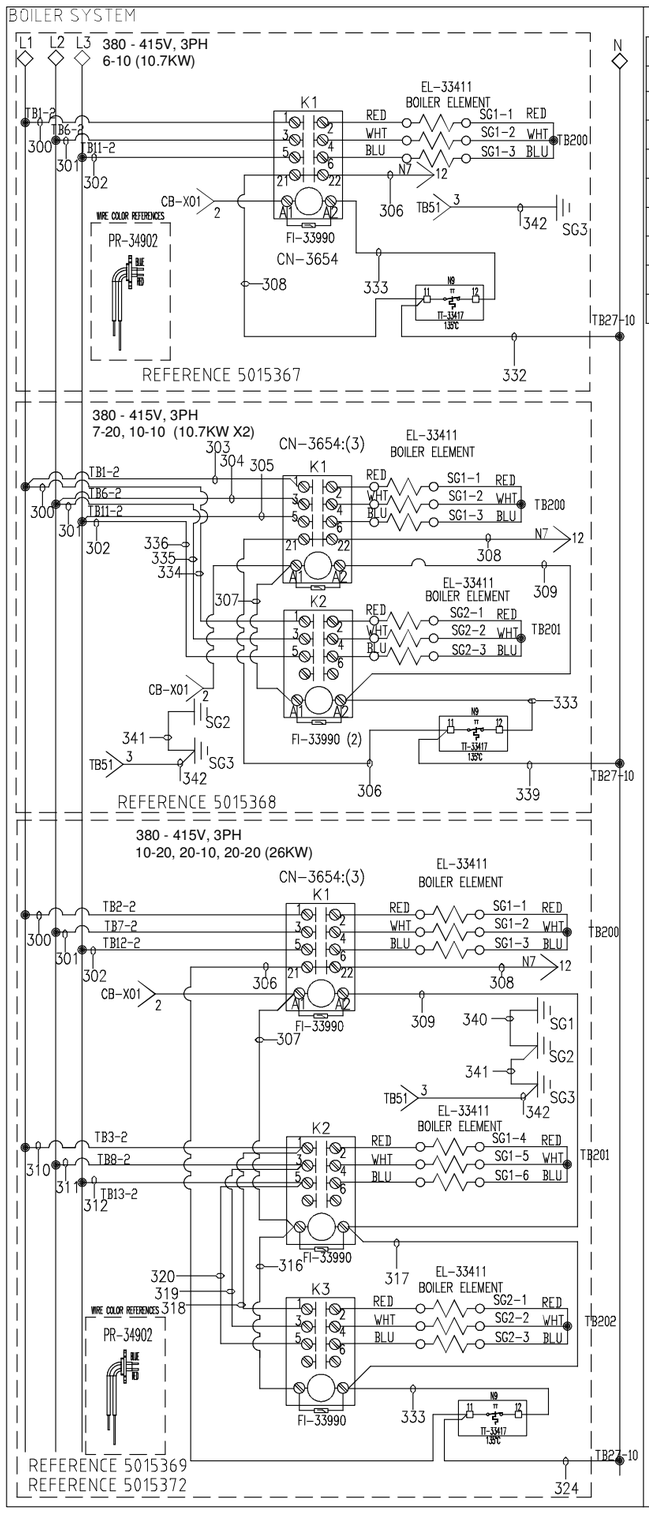
5015345-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
45	WI-3816	CR-34781	TB3	1	K1	1	CR-34775
46	WI-3816	CR-34781	TB8	1	K1	3	CR-34775
47	WI-3816	CR-34781	TB13	1	K1	5	CR-34775
48	WI-3816	CR-34781	TB3	1	K2	1	CR-34775
49	WI-3816	CR-34775	K2	1	K3	1	CR-34775
50	WI-3816	CR-34781	TB8	1	K2	3	CR-34775
51	WI-3816	CR-34775	K2	3	K3	3	CR-34775
52	WI-3816	CR-34781	TB13	1	K2	5	CR-34775
53	WI-3816	CR-34775	K2	5	K3	5	CR-34775
54	WI-33777	CR-34774	N9	11	K1	21	CR-3593
55	WI-33777	CR-3593	K1	22	N7	12	CR-33509
57	WI-33478	CR-3593	K2	A1	K1	A1	CR-3593
58	WI-33777	CR-3593	K2	A2	K1	A2	CR-3593
59	WI-33478	CR-3593	K2	A1	K3	A1	CR-3593
60	WI-33777	CR-3593	K3	A2	K2	A2	CR-3593
61	WI-33777	CR-33509	N9	11	TB27	16	CR-3593
340	WI-33776	CR-33509	SG1	GND	SG2	GND	CR-34774
341	WI-33776	CR-34774	SG3	GND	SG2	GND	CR-33509
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
66	WI-33777	CR-33509	N9	12	K3	A2	CR-3593

5015373 20-10/20-20 (EB); 208V 3PH; SIMPLE & TOUCH

5015373-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
45	WI-3816	CR-34781	TB5	1	K1	1	CR-34775
46	WI-3816	CR-34781	TB10	1	K1	3	CR-34775
47	WI-3816	CR-34781	TB15	1	K1	5	CR-34775
48	WI-3816	CR-34781	TB5	1	K2	1	CR-34775
49	WI-3816	CR-34775	K2	1	K3	1	CR-34775
50	WI-3816	CR-34781	TB10	1	K2	3	CR-34775
51	WI-3816	CR-34775	K2	3	K3	3	CR-34775
52	WI-3816	CR-34781	TB15	1	K2	5	CR-34775
53	WI-3816	CR-34775	K2	5	K3	5	CR-34775
54	WI-33777	CR-34774	N9	11	K1	21	CR-3593
55	WI-33777	CR-3593	K1	22	N7	12	CR-33509
57	WI-33478	CR-3593	K2	A1	K1	A1	CR-3593
58	WI-33777	CR-3593	K2	A2	K1	A2	CR-3593
59	WI-33478	CR-3593	K2	A1	K3	A1	CR-3593
60	WI-33777	CR-3593	K3	A2	K2	A2	CR-3593
61	WI-33777	CR-33509	N9	11	TB27	10	CR-34783
340	WI-33776	CR-33509	SG1	GND	SG2	GND	CR-34774
341	WI-33776	CR-34774	SG3	GND	SG2	GND	CR-33509
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
66	WI-33777	CR-33509	N9	12	K3	A2	CR-3593

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM
10-18-20,10-20-20 BOILER 208-240V 3Ph
BY: AFT | DATE: 04/12/12 | DWG: 77529 | SHEET 9 OF 42



5015367 6-10 (EB); 380V 3PH; SIMPLE & TOUCH

5015367-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB1	2	K1	2	CR-34775
301	WI-3816	CR-34781	TB6	2	K1	4	CR-34775
302	WI-3816	CR-34781	TB11	2	K1	6	CR-34775
306	WI-33777	CR-3593	K1	22	N7	12	CR-33509
308	WI-33777	CR-34774	N9	11	K1	21	CR-3593
332	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
333	WI-33777	CR-33509	N9	12	K1	A2	CR-3593

5015368 7-20/10-10 (EB); 380V 3PH; SIMPLE & TOUCH

5015368-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB1	2	K1	1	CR-34775
300	WI-3816	CR-34781	TB1	2	K2	1	CR-34775
301	WI-3816	CR-34781	TB6	2	K1	3	CR-34775
301	WI-3816	CR-34781	TB6	2	K2	3	CR-34775
302	WI-3816	CR-34781	TB11	2	K1	5	CR-34775
302	WI-3816	CR-34781	TB11	2	K2	5	CR-34775
306	WI-33777	CR-3593	K1	21	N9	11	CR-34774
307	WI-33478	CR-3593	K1	A1	K2	A1	CR-3593
308	WI-33777	CR-33509	N7	12	K1	22	CR-3593
309	WI-33777	CR-3593	K1	A2	K2	A2	CR-3593
339	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
341	WI-33776	CR-33509	SG2	GND	SG3	GND	CR-34774
342	WI-33776	CR-34783	TB51	3	SG3	GND	CR-33509
333	WI-33777	CR-33509	N9	12	K2	A2	CR-3593

5015369 10-20 (EB); 380V 3PH; SIMPLE & TOUCH

5015369-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB1	2	K1	1	CR-34775
301	WI-3816	CR-34781	TB6	2	K1	3	CR-34775
302	WI-3816	CR-34781	TB11	2	K1	5	CR-34775
306	WI-33777	CR-3593	K1	21	N9	11	CR-34774
307	WI-33478	CR-3593	K1	A1	K2	A1	CR-3593
308	WI-33777	CR-3593	K1	22	N7	12	CR-33509
309	WI-33777	CR-3593	K1	A2	K2	A2	CR-3593
310	WI-3816	CR-34781	TB1	2	K2	1	CR-34775
311	WI-3816	CR-34781	TB6	2	K2	3	CR-34775
312	WI-3816	CR-34781	TB11	2	K2	5	CR-34775
316	WI-33478	CR-3593	K2	A1	K3	A1	CR-3593
317	WI-33777	CR-3593	K2	A2	K3	A2	CR-3593
318	WI-3816	CR-34775	K2	1	K3	1	CR-34775
319	WI-3816	CR-34775	K2	3	K3	3	CR-34775
320	WI-3816	CR-34775	K2	5	K3	5	CR-34775
324	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
340	WI-33776	CR-33509	SG1	GND	SG2	GND	CR-34774
341	WI-33776	CR-34774	SG2	GND	SG3	GND	CR-33509
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
333	WI-33777	CR-33509	N9	12	K3	A2	CR-3593

5015372 20-10/20-20 (EB); 380V 3PH; SIMPLE & TOUCH

5015372-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB2	2	K1	1	CR-34775
301	WI-3816	CR-34781	TB7	2	K1	3	CR-34775
302	WI-3816	CR-34781	TB12	2	K1	5	CR-34775
306	WI-33777	CR-3593	K1	21	N9	11	CR-34774
307	WI-33478	CR-3593	K1	A1	K2	A1	CR-3593
308	WI-33777	CR-33509	N7	12	K1	22	CR-3593
309	WI-33777	CR-3593	K1	A2	K2	A2	CR-3593
310	WI-3816	CR-34781	TB3	2	K2	1	CR-34775
311	WI-3816	CR-34781	TB8	2	K2	3	CR-34775
312	WI-3816	CR-34781	TB13	2	K2	5	CR-34775
316	WI-33478	CR-3593	K2	A1	K3	A1	CR-3593
317	WI-33777	CR-3593	K2	A2	K3	A2	CR-3593
318	WI-3816	CR-34775	K2	1	K3	1	CR-34775
319	WI-3816	CR-34775	K2	3	K3	3	CR-34775
320	WI-3816	CR-34775	K2	5	K3	5	CR-34775
324	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
340	WI-33776	CR-33509	SG1	GND	SG2	GND	CR-34774
341	WI-33776	CR-34774	SG2	GND	SG3	GND	CR-33509
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
333	WI-33776	CR-33509	N9	12	K3	A2	CR-3593

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 6.10 UP-TO 20.20 380V BOILER

BY: AFT | DWG: 77529 | SHEET 10 OF 42

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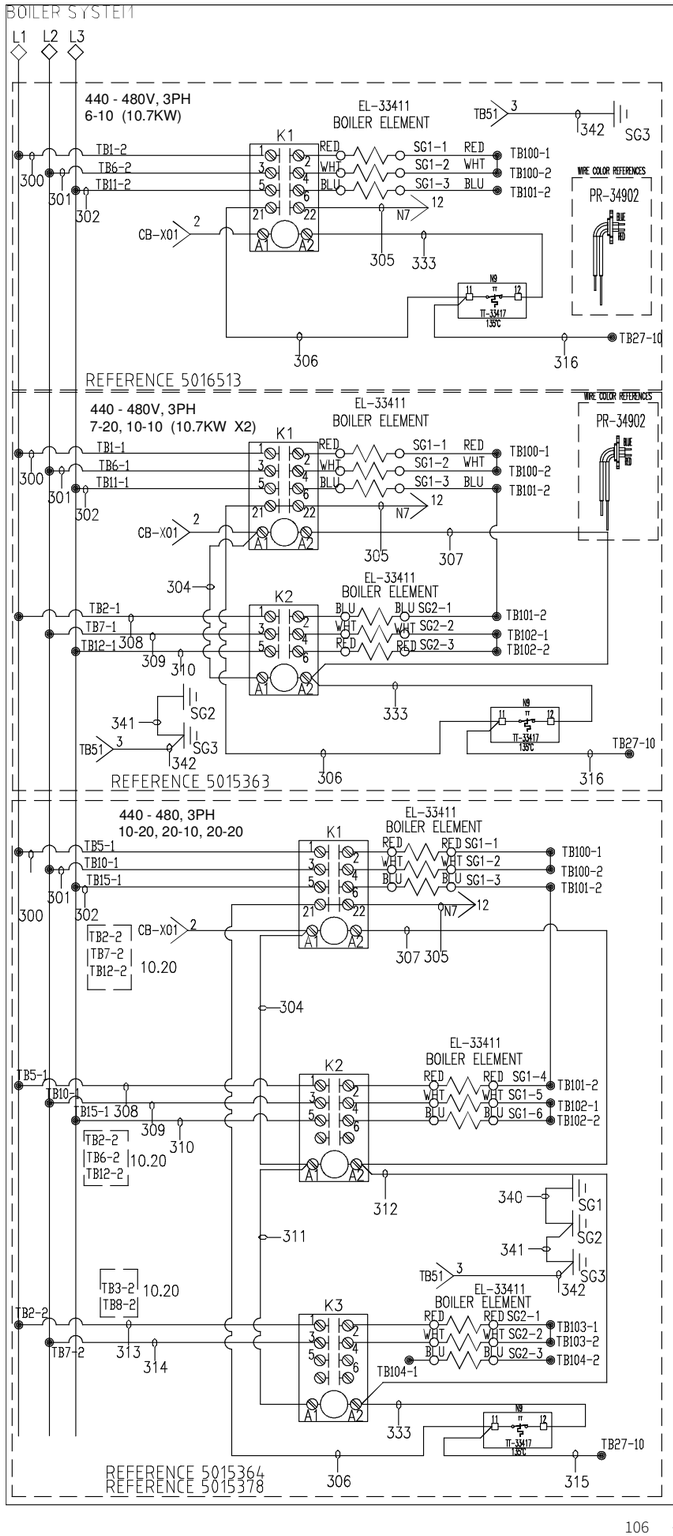

5016513 6-10 (EB); 440V 3PH; SIMPLE & TOUCH

5016513-4W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB1	1	K1	1	CR-34775
301	WI-3816	CR-34781	TB6	1	K1	3	CR-34775
302	WI-3816	CR-34781	TB11	1	K1	5	CR-34775
305	WI-33777	CR-3593	K1	22	N7	12	CR-33509
306	WI-33777	CR-3593	K1	21	N9	11	CR-34774
316	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
342	WI-33776	CR-34783	TB51	3	SG3	GND	CR-33509
333	WI-33777	CR-33509	N9	12	K1	A2	CR-3593

5015363 7-20/10-10 (EB); 440V 3PH; SIMPLE & TOUCH

5015363-4W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB1	1	K1	1	CR-34775
301	WI-3816	CR-34781	TB6	1	K1	3	CR-34775
302	WI-3816	CR-34781	TB11	1	K1	5	CR-34775
304	WI-33478	CR-3593	K1	A1	K2	A1	CR-3593
305	WI-33777	CR-3593	K1	22	N7	12	CR-33509
306	WI-33777	CR-3593	K1	21	N9	11	CR-34774
307	WI-33777	CR-3593	K1	A2	K2	A2	CR-3593
308	WI-3816	CR-34781	TB2	1	K2	1	CR-34775
309	WI-3816	CR-34781	TB7	1	K2	3	CR-34775
310	WI-3816	CR-34781	TB12	1	K2	5	CR-34775
316	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
341	WI-33776	CR-33509	SG2	GND	SG3	GND	CR-34774
342	WI-33776	CR-34783	TB51	3	SG3	GND	CR-33509
333	WI-33776	CR-33509	N9	12	K2	A2	CR-3593

5015364 10-20 (EB); 440V 3PH; SIMPLE & TOUCH

5015364-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB2	2	K1	1	CR-34775
301	WI-3816	CR-34781	TB7	2	K1	3	CR-34775
302	WI-3816	CR-34781	TB12	2	K1	5	CR-34775
304	WI-33478	CR-3593	K1	A1	K2	A1	CR-3593
305	WI-33777	CR-3593	K1	22	N7	12	CR-33509
306	WI-33777	CR-3593	K1	21	N9	11	CR-34774
307	WI-33777	CR-3593	K1	A2	K2	A2	CR-3593
308	WI-3816	CR-34781	TB2	2	K2	1	CR-34775
309	WI-3816	CR-34781	TB6	2	K2	3	CR-34775
310	WI-3816	CR-34781	TB11	2	K2	5	CR-34775
311	WI-33478	CR-3593	K2	A1	K3	A1	CR-3593
312	WI-33777	CR-3593	K2	A2	K3	A2	CR-3593
313	WI-3816	CR-34781	TB3	2	K3	1	CR-34775
314	WI-3816	CR-34781	TB8	2	K3	3	CR-34775
315	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
340	WI-33776	CR-33509	SG1	GND	SG2	GND	CR-34774
341	WI-33776	CR-34774	SG3	GND	SG2	GND	CR-33509
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
333	WI-33777	CR-33509	N9	12	K3	A2	CR-3593

5015378 20-10/20-20 (EB); 440V 3PH; SIMPLE & TOUCH

5015378-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB5	1	K1	1	CR-34775
301	WI-3816	CR-34781	TB10	1	K1	3	CR-34775
302	WI-3816	CR-34781	TB15	1	K1	5	CR-34775
304	WI-33478	CR-3593	K1	A1	K2	A1	CR-3593
305	WI-33777	CR-3593	K1	22	N7	12	CR-33509
306	WI-33777	CR-3593	K1	21	N9	11	CR-34774
307	WI-33777	CR-3593	K1	A2	K2	A2	CR-3593
308	WI-3816	CR-34781	TB5	1	K2	1	CR-34775
309	WI-3816	CR-34781	TB10	1	K2	3	CR-34775
310	WI-3816	CR-34781	TB15	1	K2	5	CR-34775
311	WI-33478	CR-3593	K2	A1	K3	A1	CR-3593
312	WI-33777	CR-3593	K2	A2	K3	A2	CR-3593
313	WI-3816	CR-34781	TB2	2	K3	1	CR-34775
314	WI-3816	CR-34781	TB7	2	K3	3	CR-34775
315	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
340	WI-33776	CR-33509	SG2	GND	SG3	GND	CR-34774
341	WI-33776	CR-34774	SG3	GND	SG2	GND	CR-33509
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
333	WI-33777	CR-33509	N9	12	K3	A2	CR-3593

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 7.10 UP-TO 20.20 440V BOILER

BY: AFT | DWG: 77529 | SHEET 11 OF 42

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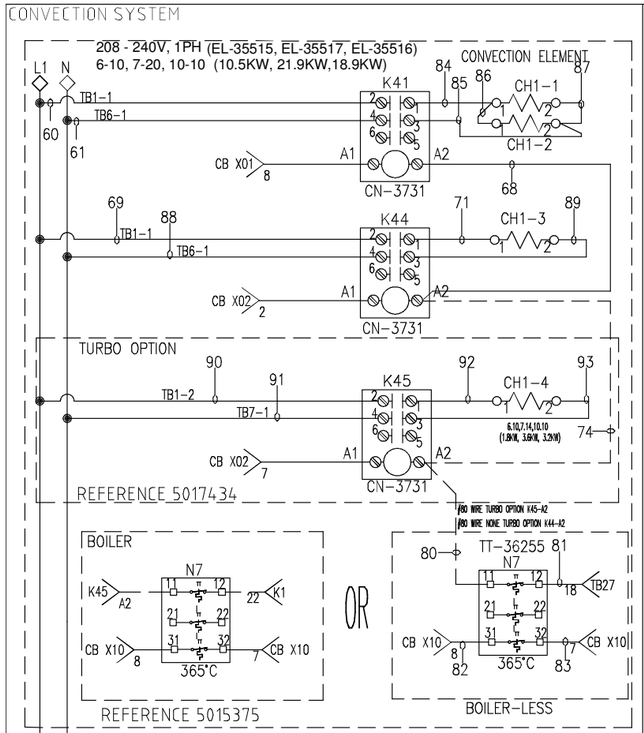
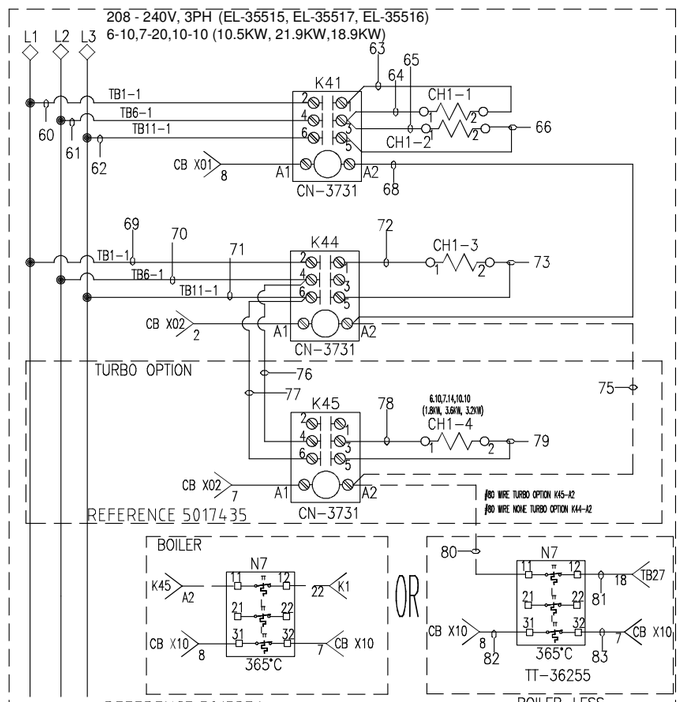




5015376 6-10,10-10,7-20 (EI); 208V 3PH TOUCH

5015376-4W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K41	4	CR-34781
62	WI-3816	CR-34781	TB11	1	K41	6	CR-34781
63	WI-3816	CR-34781	K41	1	CH1	1-2	CR-33008
64	WI-3816	CR-34781	K41	3	CH1	1-1	CR-33008
65	WI-3816	CR-34781	K41	3	CH1	2-1	CR-33008
66	WI-3816	CR-34781	K41	5	CH1	2-2	CR-33008
68	WI-33777	CR-3593	K41	A2	K44	A2	CR-3593
69	WI-3816	CR-34781	TB1	1	K44	2	CR-34781
70	WI-3816	CR-34781	TB6	1	K44	4	CR-34781
71	WI-3816	CR-34781	TB11	1	K44	6	CR-34781
72	WI-3816	CR-34781	K44	1	CH1	3-1	CR-33008
73	WI-3816	CR-34781	K44	5	CH1	3-2	CR-33008
80	WI-33777	CR-3593	K44	A2	N7	11	CR-33509
81	WI-33777	CR-33509	N7	12	TB27	18	CR-34783
82	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
83	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

5015375 6-10,10-10,7-20 (EI); 208V 1PH; TOUCH

5015375-2W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K41	4	CR-34781
68	WI-33777	CR-3593	K41	A2	K44	A2	CR-3593
69	WI-3816	CR-34781	TB1	1	K44	2	CR-34781
71	WI-3816	CR-34781	K44	1	CH1	3-1	CR-33008
80	WI-33777	CR-3593	K44	A2	N7	11	CR-33509
81	WI-33777	CR-33509	N7	12	TB27	18	CR-34783
82	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
83	WI-33777	CR-33509	N7	32	CB-X10	7	CR-3593
84	WI-3816	CR-34781	K41	1	CH1	1-1	CR-33008
85	WI-3816	CR-34781	K41	3	CH1	2-2	CR-33008
86	WI-3816	CR-33008	CH1	1-1	CH1	2-1	CR-33008
87	WI-3816	CR-33008	CH1	1-2	CH1	2-2	CR-33008
88	WI-3816	CR-34781	TB6	1	K44	4	CR-34781
89	WI-3816	CR-34781	K44	3	CH1	3-1	CR-33008

5017434 6-10,10-10,7-20 (EI); 208V 1PH; TOUCH TURBO OPTION

5017434-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-3593
74	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
90	WI-3816	CR-34781	TB2	1	K45	2	CR-34781
91	WI-3816	CR-34781	TB7	1	K45	4	CR-34781
92	WI-3816	CR-34781	K45	1	CH1	4-1	CR-33008
93	WI-3816	CR-34781	K45	3	CH1	4-2	CR-33008

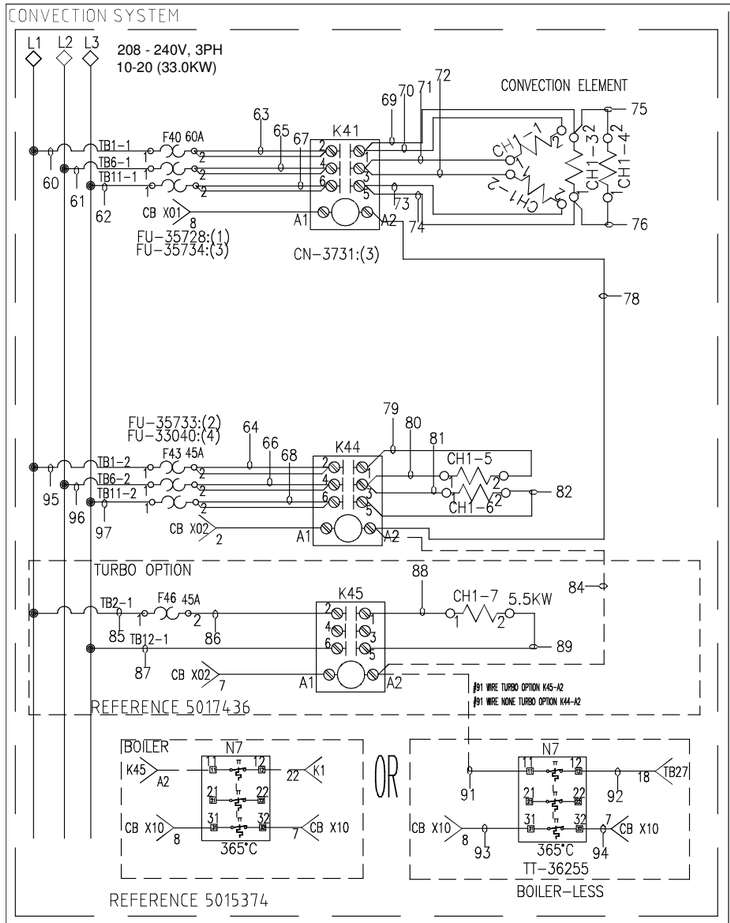
5017435 6-10,10-10,7-20 (EI); 208V 3PH TOUCH TURBO OPTION

5017435-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-3593
75	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
76	WI-3816	CR-34781	K44	4	K45	4	CR-34781
77	WI-3816	CR-34781	K44	6	K45	6	CR-34781
78	WI-3816	CR-34781	K45	3	CH1	4-1	CR-33008
79	WI-3816	CR-34781	K45	5	CH1	4-2	CR-33008

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM
6-10-10-10-7-14 ES-208-240V 1/3Ph 50/60Hz
BY: AFT DATE: 04/12/12 DWG: 77529 SHEET: 12 OF 42

Convection System (Touch): 10-20 – 208V 3PH



5015374 10-20 (EI); 208V 3PH; TOUCH

5015374-2W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
69	WI-3816	CR-34781	K41	1	CH1	3-2	CR-3071
70	WI-3816	CR-34781	K41	1	CH1	1-2	CR-3071
71	WI-3816	CR-34781	K41	3	CH1	1-1	CR-3071
72	WI-3816	CR-34781	K41	3	CH1	2-1	CR-3071
73	WI-3816	CR-34781	K41	5	CH1	2-2	CR-3071
74	WI-3816	CR-34781	K41	5	CH1	3-1	CR-3071
75	WI-3816	CR-3071	CH1	3-2	CH1	4-2	CR-3071
76	WI-3816	CR-3071	CH1	3-1	CH1	4-1	CR-3071
78	WI-33777	CR-3593	K41	A2	K44	A2	CR-3593
79	WI-3816	CR-34781	K44	1	CH1	5-2	CR-3071
80	WI-3816	CR-34781	K44	3	CH1	5-1	CR-3071
81	WI-3816	CR-34781	K44	3	CH1	6-1	CR-3071
82	WI-3816	CR-34781	K44	5	CH1	6-2	CR-3071
91	WI-33777	CR-3593	K44	A2	N7	11	CR-33509
92	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
93	WI-33777	CR-34783	CB-X10	8	N7	31	CR-33509
94	WI-33777	CR-34783	CB-X10	7	N7	32	CR-33509
95	WI-3816	CR-34781	TB1	2	F43	1	CR-34781
95	WI-3816	CR-34781	TB1	2	F43	1	CR-34781
96	WI-3816	CR-34781	TB6	2	F44	1	CR-34781
96	WI-3816	CR-34781	TB6	2	F44	1	CR-34781
97	WI-3816	CR-34781	TB11	2	F45	1	CR-34781
97	WI-3816	CR-34781	TB11	2	F45	1	CR-34781

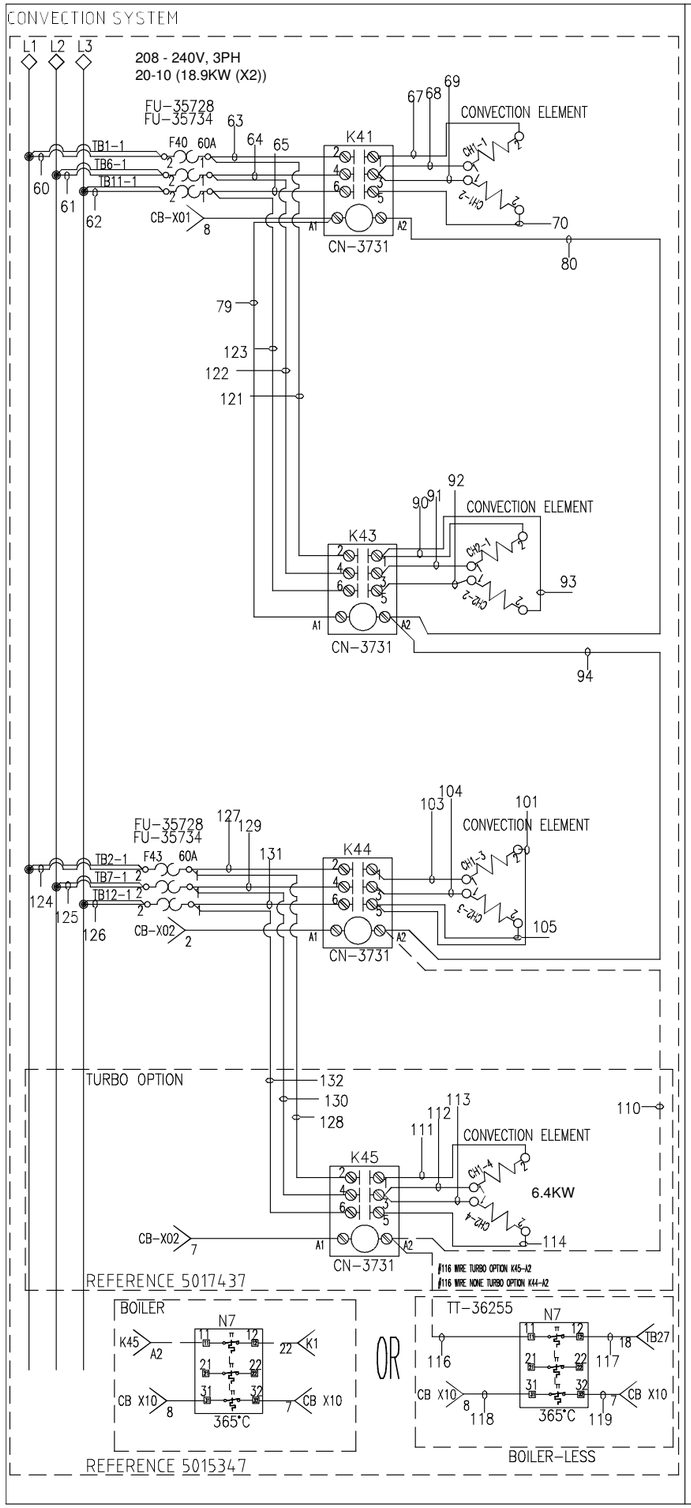
5017436 10-20 (EI); 208V 3PH; TOUCH TURBO OPTION

5017436-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-3593
84	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
85	WI-3816	CR-34781	TB2	1	F46	1	CR-34781
86	WI-3816	CR-34781	K45	2	F46	2	CR-34781
87	WI-3816	CR-34781	TB12	1	K45	6	CR-34781
88	WI-3816	CR-34781	K45	1	CH1	7-1	CR-3071

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM | WIRING DIAGRAM
10.18 208-240V 3Ph CONVECTION
BY: AFT | DWG: 77529 | SHEET 13 OF 42
DATE: 04/12/12

Convection System (Touch): 20-10 – 208V 3PH



5015347 20-10 (EI); 208V 3PH; TOUCH

5015347-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
67	WI-3816	CR-34781	K41	1	CH1	1-2	CR-33008
68	WI-3816	CR-34781	K41	3	CH1	1-1	CR-33008
69	WI-3816	CR-34781	K41	3	CH1	2-1	CR-33008
70	WI-3816	CR-34781	K41	5	CH1	2-2	CR-33008
79	WI-33478	CR-3593	K41	A1	K43	A1	CR-3593
80	WI-33777	CR-3593	K41	A2	K43	A2	CR-3593
90	WI-3816	CR-34781	K43	1	CH2	1-2	CR-33008
91	WI-3816	CR-34781	K43	3	CH2	1-1	CR-33008
92	WI-3816	CR-34781	K43	5	CH2	2-1	CR-33008
93	WI-3816	CR-34781	K43	1	CH2	2-2	CR-33008
94	WI-33777	CR-3593	K44	A2	K43	A2	CR-3593
101	WI-3816	CR-34781	K44	5	CH1	3-2	CR-33008
103	WI-3816	CR-34781	K44	1	CH1	3-1	CR-33008
104	WI-3816	CR-34781	K44	3	CH2	3-1	CR-33008
105	WI-3816	CR-34781	K44	5	CH2	3-2	CR-33008
116	WI-33777	CR-3593	K44	A2	N7	11	CR-33509
117	WI-33777	CR-33509	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
121	WI-3816	CR-34781	F40	1	K43	2	CR-34781
122	WI-3816	CR-34781	F41	1	K43	4	CR-34781
123	WI-3816	CR-34781	F42	1	K43	6	CR-34781
124	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
124	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
125	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
125	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
126	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
126	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
127	WI-3816	CR-34781	K44	2	F43	1	CR-34781
129	WI-3816	CR-34781	K44	4	F44	1	CR-34781
131	WI-3816	CR-34781	K44	6	F45	1	CR-34781

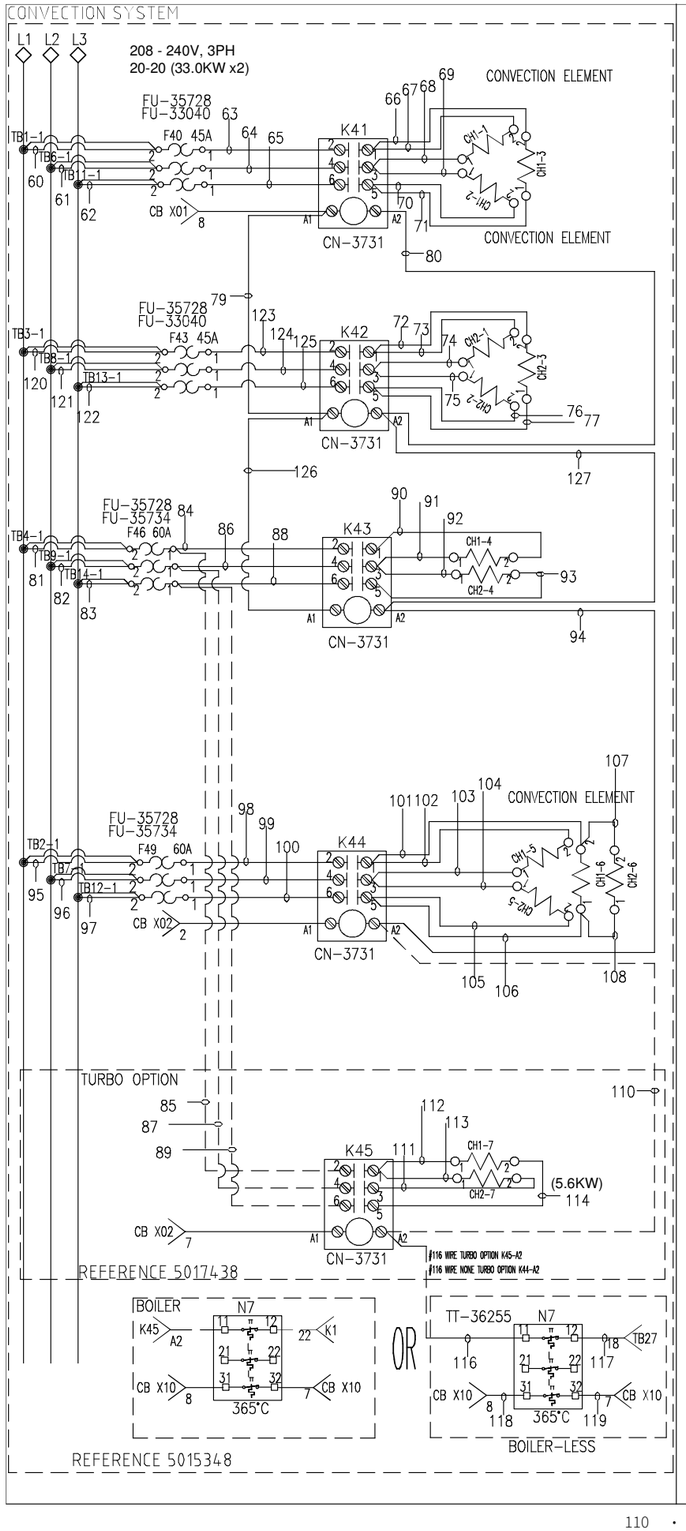
5017437 20-10 (EI); 208V 3PH; TOUCH TURBO OPTION

5017437-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-3593
110	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
111	WI-3816	CR-34781	K45	1	CH1	4-2	CR-33008
112	WI-3816	CR-34781	K45	3	CH1	4-1	CR-33008
113	WI-3816	CR-34781	K45	3	CH2	4_1	CR-33008
114	WI-3816	CR-34781	K45	5	CH2	4-2	CR-33008
128	WI-3816	CR-34781	K45	2	F43	1	CR-34781
130	WI-3816	CR-34781	K45	4	F44	1	CR-34781
132	WI-3816	CR-34781	K45	6	F45	1	CR-34781

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM
20.10 208V 3PH CONVECTION
BY: AFT | DWG: 77529 | SHEET 14 OF 42
DATE: 04/12/12

Convection System (Touch): 20-20 – 208V 3PH



5015348 20-20 (EI); 208V 3PH; TOUCH

0							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
66	WI-3816	CR-34781	K41	1	CH1	3-2	CR-3071
67	WI-3816	CR-34781	K41	1	CH1	1-2	CR-3071
68	WI-3816	CR-34781	K41	3	CH1	1-1	CR-3071
69	WI-3816	CR-34781	K41	3	CH1	2-1	CR-3071
70	WI-3816	CR-34781	K41	5	CH1	2-2	CR-3071
71	WI-3816	CR-34781	K41	5	CH1	3-1	CR-3071
72	WI-3816	CR-34781	K42	1	CH2	3-2	CR-3071
73	WI-3816	CR-34781	K42	1	CH2	1-2	CR-3071
74	WI-3816	CR-34781	K42	3	CH2	1-1	CR-3071
75	WI-3816	CR-34781	K42	3	CH2	2-1	CR-3071
76	WI-3816	CR-34781	K42	5	CH2	2-2	CR-3071
77	WI-3816	CR-34781	K42	5	CH2	3-1	CR-3071
79	WI-33478	CR-3593	K41	A1	K42	A1	CR-3593
80	WI-33777	CR-3593	K41	A2	K42	A2	CR-3593
81	WI-3816	CR-34781	TB4	1	F46	2	CR-34781
81	WI-3816	CR-34781	TB4	1	F46	2	CR-34781
82	WI-3816	CR-34781	TB9	1	F47	2	CR-34781
82	WI-3816	CR-34781	TB9	1	F47	2	CR-34781
83	WI-3816	CR-34781	TB14	1	F48	2	CR-34781
83	WI-3816	CR-34781	TB14	1	F48	2	CR-34781
84	WI-3816	CR-34781	K43	2	F46	1	CR-34781
86	WI-3816	CR-34781	K43	4	F47	1	CR-34781
88	WI-3816	CR-34781	K43	6	F48	1	CR-34781
90	WI-3816	CR-34781	K43	1	CH1	4-2	CR-3071
91	WI-3816	CR-34781	K43	3	CH1	4-1	CR-3071
92	WI-3816	CR-34781	K43	3	CH2	4-1	CR-3071
93	WI-3816	CR-34781	K43	5	CH2	4-2	CR-3071
94	WI-33777	CR-3593	K44	A2	K43	A2	CR-3593
95	WI-3816	CR-34781	TB2	1	F49	2	CR-34781
95	WI-3816	CR-34781	TB2	1	F49	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F50	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F50	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F51	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F51	2	CR-34781
98	WI-3816	CR-34781	K44	2	F49	1	CR-34781
98	WI-3816	CR-34781	K44	2	F49	1	CR-34781
99	WI-3816	CR-34781	K44	4	F50	1	CR-34781
99	WI-3816	CR-34781	K44	4	F50	1	CR-34781
100	WI-3816	CR-34781	K44	6	F51	1	CR-34781
100	WI-3816	CR-34781	K44	6	F51	1	CR-34781
101	WI-3816	CR-34781	K44	1	CH1	6-2	CR-3071
102	WI-3816	CR-34781	K44	1	CH1	5-2	CR-3071
103	WI-3816	CR-34781	K44	3	CH1	5-1	CR-3071
104	WI-3816	CR-34781	K44	3	CH2	5-1	CR-3071
105	WI-3816	CR-34781	K44	5	CH2	5-2	CR-3071
106	WI-3816	CR-34781	K44	5	CH1	6-1	CR-3071
107	WI-3816	CR-3071	CH1	6-2	CH2	6-2	CR-3071
108	WI-3816	CR-3071	CH1	6-1	CH2	6-1	CR-3071
116	WI-33777	CR-3593	K44	A2	N7	11	CR-33509
117	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
120	WI-3816	CR-34781	TB3	1	F43	2	CR-34781
120	WI-3816	CR-34781	TB3	1	F43	2	CR-34781
121	WI-3816	CR-34781	TB8	1	F44	2	CR-34781
121	WI-3816	CR-34781	TB8	1	F44	2	CR-34781
122	WI-3816	CR-34781	TB13	1	F45	2	CR-34781
122	WI-3816	CR-34781	TB13	1	F45	2	CR-34781
123	WI-3816	CR-34781	K42	2	F43	1	CR-34781
123	WI-3816	CR-34781	K42	2	F43	1	CR-34781
124	WI-3816	CR-34781	K42	4	F44	1	CR-34781
124	WI-3816	CR-34781	K42	4	F44	1	CR-34781
125	WI-3816	CR-34781	K42	6	F45	1	CR-34781
125	WI-3816	CR-34781	K42	6	F45	1	CR-34781
126	WI-33478	CR-3593	K43	A1	K42	A1	CR-3593
127	WI-33777	CR-3593	K42	A2	K43	A2	CR-3593
L1	WI-3817	BARE	BK-33996	L1	TB3	2	CR-33043
L1	WI-3817	BARE	BK-33996	L1	TB4	2	CR-33043
L1	WI-3817	BARE	BK-33996	L1	TB5	2	CR-33043
L2	WI-3817	BARE	BK-33996	L2	TB8	2	CR-33043
L2	WI-3817	BARE	BK-33996	L2	TB9	2	CR-33043
L2	WI-3817	BARE	BK-33996	L2	TB10	2	CR-33043
L3	WI-3817	BARE	BK-33996	L3	TB13	2	CR-33043
L3	WI-3817	BARE	BK-33996	L3	TB14	2	CR-33043
L3	WI-3817	BARE	BK-33996	L3	TB15	2	CR-33043

5017438 20-20 (EI); 208V 3PH; TOUCH TURBO OPTION

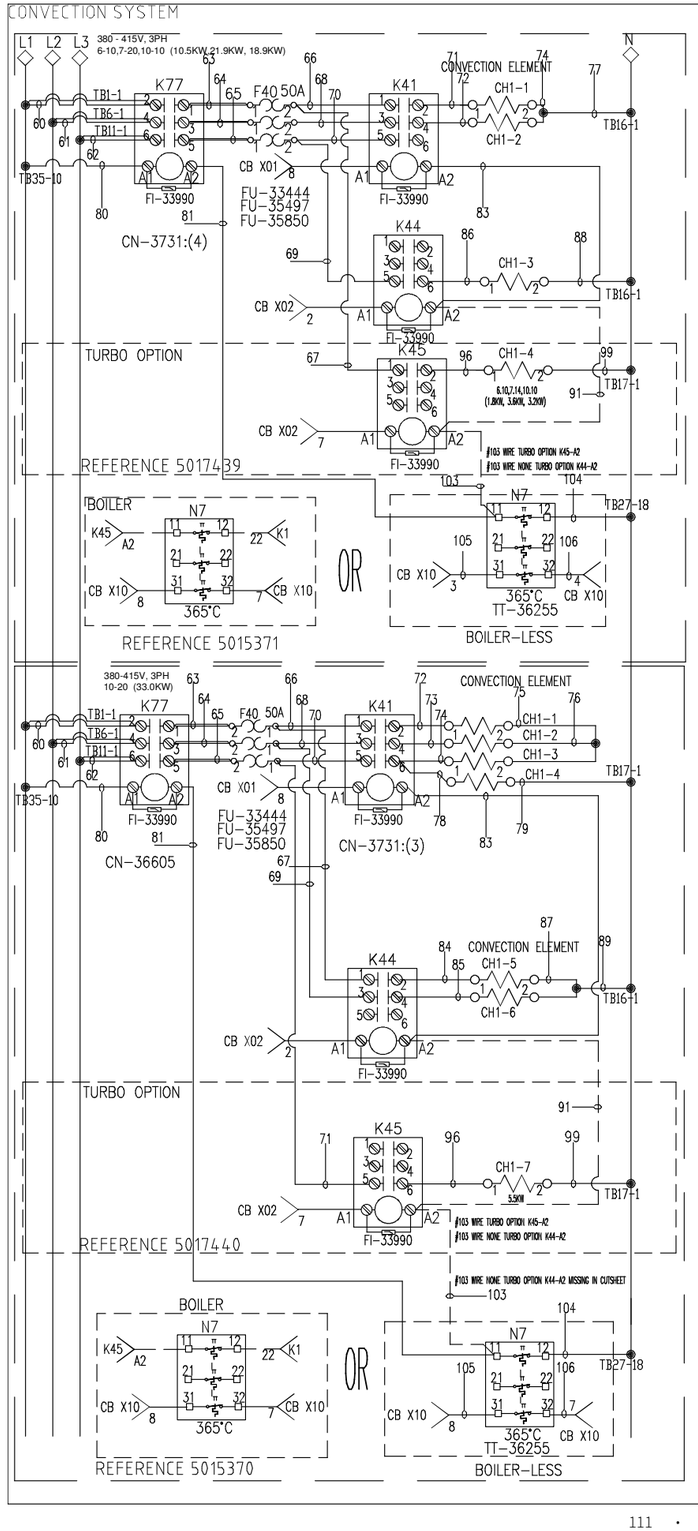
5017438-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-3593
85	WI-3816	CR-34781	F46	1	K45	2	CR-34781
87	WI-3816	CR-34781	F47	1	K45	4	CR-34781
89	WI-3816	CR-34781	F48	1	K45	6	CR-34781
110	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
111	WI-3816	CR-34781	K45	3	CH2	7-2	CR-3071
112	WI-3816	CR-34781	K45	1	CH1	7-1	CR-3071
113	WI-3816	CR-34781	K45	1	CH2	7-1	CR-3071
114	WI-3816	CR-34781	K45	5	CH1	7-2	CR-3071

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 20.20 208V 3PH CONVECTION

BY: AFT | DWG: 77529 | SHEET 15 OF 42

DATE: 04/12/12



5015371 6-10,10-10,7-20 (EI); 380V 3PH; TOUCH

5015371-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K77	2	CR-34781
60	WI-3816	CR-34781	TB1	1	K77	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K77	4	CR-34781
61	WI-3816	CR-34781	TB6	1	K77	4	CR-34781
62	WI-3816	CR-34781	TB11	1	K77	6	CR-34781
62	WI-3816	CR-34781	TB11	1	K77	6	CR-34781
63	WI-3816	CR-34775	F40	1	K77	1	CR-34781
63	WI-3816	CR-34775	F40	1	K77	1	CR-34781
64	WI-3816	CR-34775	F41	1	K77	3	CR-34781
64	WI-3816	CR-34775	F41	1	K77	3	CR-34781
65	WI-3816	CR-34775	F42	1	K77	5	CR-34781
65	WI-3816	CR-34775	F42	1	K77	5	CR-34781
66	WI-3816	CR-34775	F40	2	K41	1	CR-34781
68	WI-3816	CR-34775	F41	2	K41	3	CR-34781
69	WI-3816	CR-34775	F42	2	K44	5	CR-34781
70	WI-3816	CR-34775	F42	2	K41	5	CR-34781
71	WI-3816	CR-34781	K41	2	CH1	1-1	CR-33008
72	WI-3816	CR-34781	K41	4	CH1	2-1	CR-33008
74	WI-3816	CR-33008	CH1	1-2	CH1	2-2	CR-33008
77	WI-3816	CR-33008	CH1	2-2	TB16	1	CR-34781
80	WI-33478	CR-34783	TB35	10	K77	A1	CR-3593
81	WI-33777	CR-3593	K77	A2	N7	11	CR-33509
83	WI-33777	CR-3593	K41	A2	K44	A2	CR-3593
86	WI-3816	CR-34781	K44	6	CH1	3-1	CR-33008
88	WI-3816	CR-33008	CH1	3-2	TB16	1	CR-34781
103	WI-33777	CR-3593	K44	A2	N7	11	CR-34774
104	WI-33777	CR-33509	N7	12	TB17	18	CR-34783
105	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
106	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

5017439 6-10,10-10,7-20 (EI); 380V 3PH; TOUCH TURBO OPTION

5017439-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-3593
67	WI-3816	CR-34781	K45	1	F40	2	CR-34775
91	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
96	WI-3816	CR-34781	K45	2	CH1	4-1	CR-33008
99	WI-3816	CR-33008	CH1	4-2	TB17	1	CR-34781

5015370 10-20 (EI); 380V 3PH; TOUCH

5015370-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K77	2	CR-34781
60	WI-3816	CR-34781	TB1	1	K77	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K77	4	CR-34781
61	WI-3816	CR-34781	TB6	1	K77	4	CR-34781
62	WI-3816	CR-34781	TB11	1	K77	6	CR-34781
62	WI-3816	CR-34781	TB11	1	K77	6	CR-34781
63	WI-3816	CR-34775	F40	2	K77	1	CR-34781
63	WI-3816	CR-34775	F40	2	K77	1	CR-34781
64	WI-3816	CR-34775	F41	2	K77	3	CR-34781
64	WI-3816	CR-34775	F41	2	K77	3	CR-34781
65	WI-3816	CR-34775	F42	2	K77	5	CR-34781
65	WI-3816	CR-34775	F42	2	K77	5	CR-34781
66	WI-3816	CR-34775	F40	1	K41	1	CR-34775
67	WI-3816	CR-34781	K44	1	F40	1	CR-34775
68	WI-3816	CR-34775	F41	1	K41	3	CR-34781
69	WI-3816	CR-34781	K44	3	F41	1	CR-34775
70	WI-3816	CR-34775	F42	1	K41	5	CR-34781
72	WI-3816	CR-34781	K41	2	CH1	1-1	CR-3071
73	WI-3816	CR-34781	K41	4	CH1	2-1	CR-3071
74	WI-3816	CR-34781	K41	6	CH1	3-1	CR-3071
75	WI-3816	CR-3071	CH1	2-2	CH1	1-2	CR-3071
76	WI-3816	CR-3071	CH1	2-2	CH1	3-2	CR-3071
78	WI-3816	CR-34781	K41	6	CH1	4-1	CR-3071
79	WI-3816	CR-34781	TB17	1	CH1	4-2	CR-3071
80	WI-33478	CR-34783	TB35	10	K77	A1	CR-3593
81	WI-33777	CR-3593	K77	A2	N7	11	CR-33509
83	WI-33777	CR-3593	K41	A2	K44	A2	CR-3593
84	WI-3816	CR-34781	K44	2	CH1	5-1	CR-3071
85	WI-3816	CR-34781	K44	4	CH1	6-1	CR-3071
87	WI-3816	CR-3071	CH1	5-2	CH1	6-2	CR-3071
89	WI-3816	CR-3071	CH1	5-2	TB16	1	CR-34781
103	WI-33777	CR-3593	K44	A2	N7	11	CR-34774
104	WI-33777	CR-33509	N7	12	TB27	18	CR-3593
105	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
106	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

5017440 10-20 (EI); 380V 3PH; TOUCH TURBO OPTION

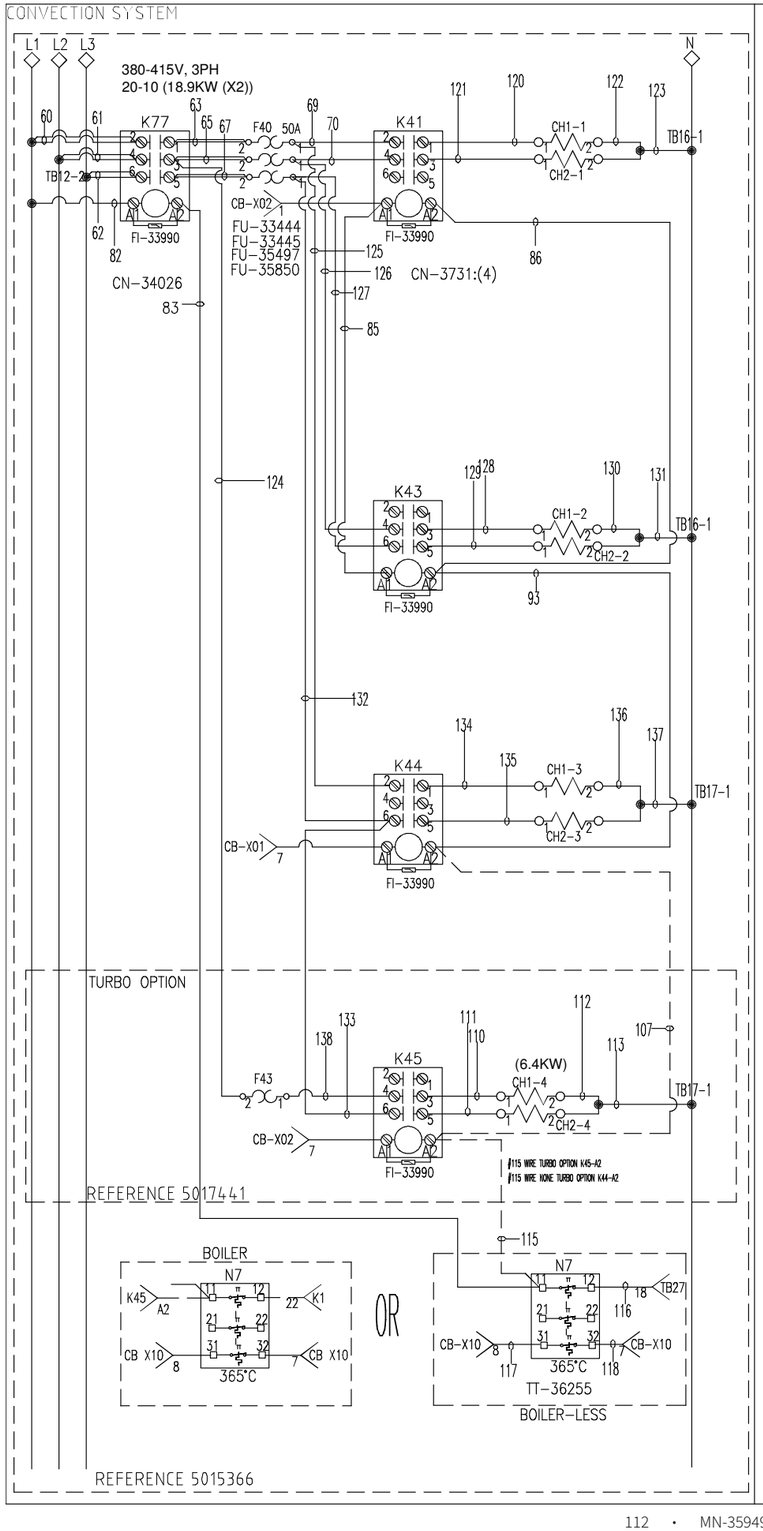
5017440-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-3593
71	WI-3816	CR-34781	K45	5	F42	1	CR-34775
91	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
96	WI-3816	CR-34781	K45	6	CH1	7-1	CR-3071
99	WI-3816	CR-3071	CH1	7-2	TB17	1	CR-34781

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM
6-10 TO 10-18 380-415V 3PH 50HZ CONVECTION

BY:	AFT	DWG:	77529	SHEET
DATE:	04/12/12			16 OF 42

Convection System (Touch): 20-10 – 380V 3PH



5015366 20-10 (EI); 380V 3PH; TOUCH

5015366-4W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
107	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
60	WI-3816	CR-34781	TB2	2	K77	2	CR-34781
60	WI-3816	CR-34781	TB2	2	K77	2	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
63	WI-3816	CR-34775	F40	2	K77	1	CR-34781
63	WI-3816	CR-34775	F40	2	K77	1	CR-34781
65	WI-3816	CR-34775	F41	2	K77	3	CR-34781
65	WI-3816	CR-34775	F41	2	K77	3	CR-34781
67	WI-3816	CR-34775	F42	2	K77	5	CR-34781
67	WI-3816	CR-34775	F42	2	K77	5	CR-34781
69	WI-3816	CR-34775	F40	1	K41	2	CR-34781
70	WI-3816	CR-34775	F41	1	K41	4	CR-34781
82	WI-33478	CR-34783	TB35	10	K77	A1	CR-3593
83	WI-33777	CR-3593	K77	A2	N7	11	CR-33509
85	WI-33478	CR-3593	K41	A1	K43	A1	CR-3593
86	WI-33777	CR-3593	K41	A2	K43	A2	CR-3593
93	WI-33777	CR-3593	K43	A2	K44	A2	CR-3593
115	WI-33777	CR-3593	K44	A2	N7	11	CR-34774
116	WI-33777	CR-3593	TB27	18	N7	12	CR-33509
117	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
118	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
120	WI-3816	CR-34781	K41	1	CH1	1-1	CR-33008
121	WI-3816	CR-34781	K41	3	CH2	1-1	CR-33008
122	WI-3816	CR-33008	CH1	1-2	CH2	1-2	CR-33008
123	WI-3816	CR-33008	CH2	1-2	TB16	1	CR-33008
124	WI-3816	CR-34781	K77	3	F43	2	CR-34775
125	WI-3816	CR-34775	F40	1	K44	2	CR-34781
126	WI-3816	CR-34775	F41	1	K43	4	CR-34781
127	WI-3816	CR-34775	F42	1	K43	6	CR-34781
128	WI-3816	CR-34781	K43	3	CH1	2-1	CR-33008
129	WI-3816	CR-34781	K43	5	CH2	2-1	CR-33008
130	WI-3816	CR-33008	CH1	2-2	CH2	2-2	CR-33008
131	WI-3816	CR-33008	CH2	2-2	TB16	1	CR-34781
132	WI-3816	CR-34775	F42	1	K44	6	CR-34781
134	WI-3816	CR-34781	K44	1	CH1	3-1	CR-33008
135	WI-3816	CR-34781	K44	5	CH2	3-1	CR-33008
136	WI-3816	CR-33008	CH1	3-2	CH2	3-2	CR-33008

5017441 20-10 (EI); 380V 3PH; TOUCH

5017441-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-3593
107	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
110	WI-3816	CR-34781	K45	3	CH1	4-1	CR-33008
111	WI-3816	CR-34781	K45	5	CH2	4-1	CR-33008
112	WI-3816	CR-33008	CH1	4-2	CH2	4-2	CR-33008
113	WI-3816	CR-33008	CH2	4-2	TB17	1	CR-34781
133	WI-3816	CR-34781	K44	6	K45	6	CR-34781
138	WI-3816	CR-34775	F43	1	K45	4	CR-34781

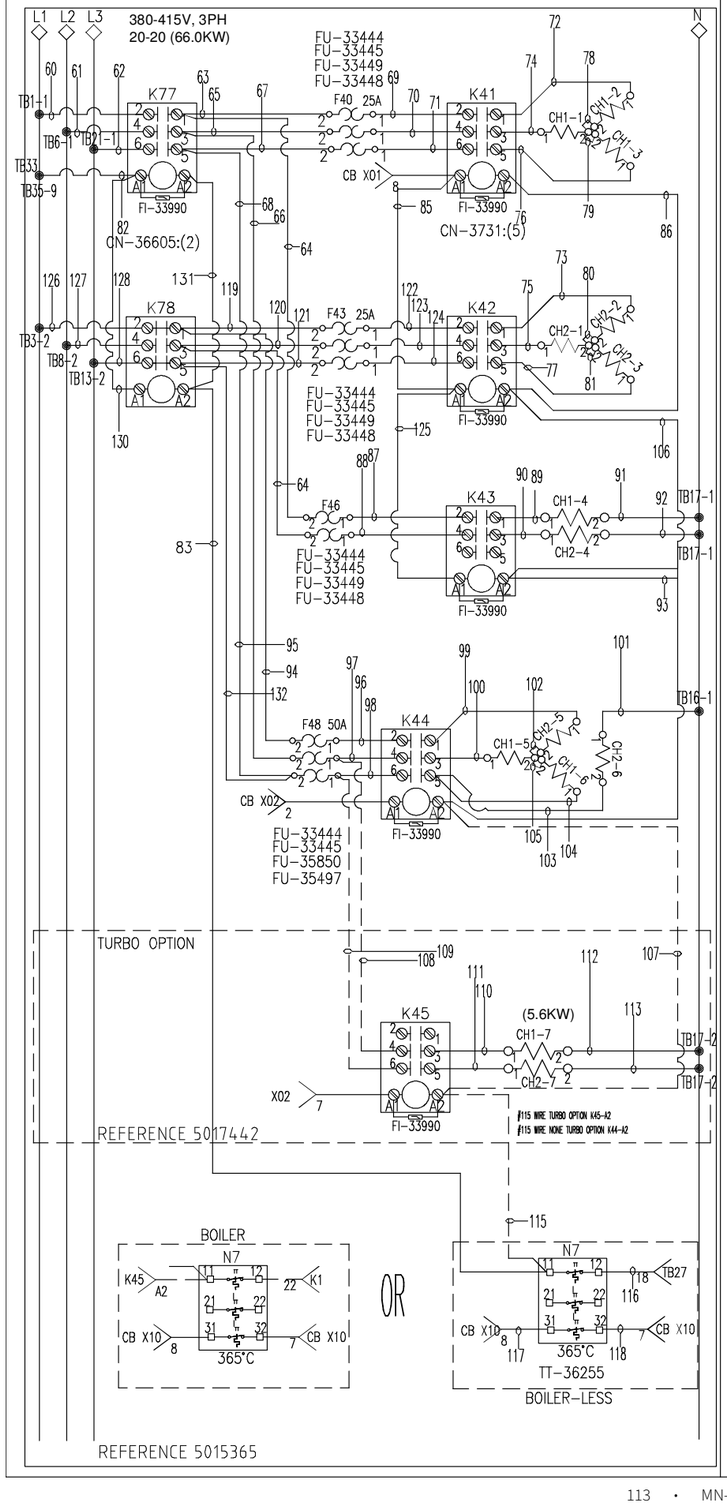
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 20.10 380-415V 3Ph 50Hz CONVECTION

BY: AFT | DWG: 77529 | SHEET 17 OF 42

DATE: 04/12/12

Convection System (Touch): 20-20 – 380V 3PH



5015365 20-20 (EI); 380V 3PH; TOUCH

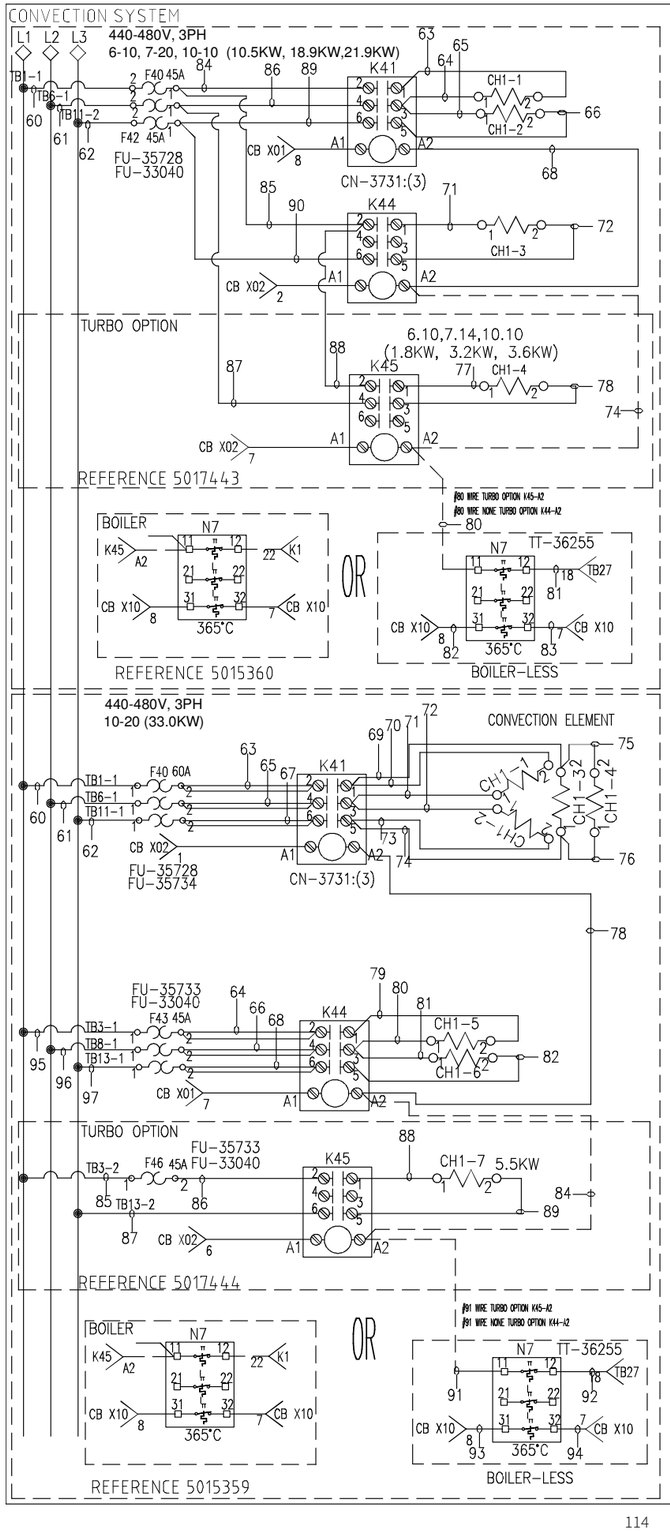
5015365-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB3	2	K77	2	CR-34781
60	WI-3816	CR-34781	TB3	2	K77	2	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
63	WI-3816	CR-34775	F40	2	K77	1	CR-34781
64	WI-3816	CR-34781	K77	1	F46	2	CR-34775
65	WI-3816	CR-34775	F41	2	K77	3	CR-34781
66	WI-3816	CR-34781	K77	3	F49	2	CR-34775
67	WI-3816	CR-34775	F42	1	K77	5	CR-34781
68	WI-3816	CR-34781	K77	5	F50	2	CR-34775
69	WI-3816	CR-34775	F40	1	K41	2	CR-34781
70	WI-3816	CR-34775	F41	1	K41	4	CR-34781
70	WI-3816	CR-34775	F41	1	K41	4	CR-34781
71	WI-3816	CR-34775	F42	1	K41	6	CR-34781
71	WI-3816	CR-34775	F42	1	K41	6	CR-34781
72	WI-3816	CR-34781	K41	1	CH1	2-1	CR-3071
73	WI-3816	CR-34781	K42	1	CH2	2-1	CR-3071
74	WI-3816	CR-34781	K41	3	CH1	1-1	CR-3071
75	WI-3816	CR-34781	K42	3	CH2	1-1	CR-3071
76	WI-3816	CR-34781	K41	5	CH1	3-1	CR-3071
77	WI-3816	CR-34781	K42	5	CH2	3-1	CR-3071
78	WI-3816	CR-3071	CH1	1-2	CH1	2-2	CR-3071
79	WI-3816	CR-3071	CH1	1-2	CH1	3-2	CR-3071
80	WI-3816	CR-3071	CH2	1-2	CH2	2-2	CR-3071
81	WI-3816	CR-3071	CH2	1-2	CH2	3-2	CR-3071
82	WI-33478	CR-34783	TB35	9	K77	A1	CR-3593
83	WI-33777	CR-3593	K78	A2	N7	11	CR-33509
85	WI-33478	CR-3593	K41	A1	K42	A1	CR-3593
86	WI-33777	CR-3593	K41	A2	K42	A2	CR-3593
87	WI-3816	CR-34775	F46	1	K43	2	CR-34781
88	WI-3816	CR-34775	F47	1	K43	4	CR-34781
89	WI-3816	CR-34781	K43	1	CH1	4-1	CR-3071
90	WI-3816	CR-34781	K43	3	CH2	4-1	CR-3071
91	WI-3816	CR-3071	CH1	4-2	TB17	1	CR-34781
92	WI-3816	CR-3071	CH2	4-2	TB17	1	CR-34781
93	WI-33777	CR-3593	K43	A2	K44	A2	CR-3593
94	WI-3816	CR-34781	K78	1	F48	2	CR-34775
95	WI-3816	CR-34781	K78	3	F47	2	CR-34775
96	WI-3816	CR-34775	F48	1	K44	2	CR-34781
97	WI-3816	CR-34775	F49	1	K44	4	CR-34781
98	WI-3816	CR-34775	F50	1	K44	6	CR-34781
99	WI-3816	CR-34781	K44	1	CH2	5-1	CR-3071
100	WI-3816	CR-34781	K44	3	CH1	5-1	CR-3071
101	WI-3816	CR-3071	CH2	6-1	TB16	1	CR-34781
102	WI-3816	CR-3071	CH1	5-2	CH2	5-2	CR-3071
103	WI-3816	CR-34781	K44	5	CH2	6-2	CR-3071
104	WI-3816	CR-34781	K44	5	CH1	6-1	CR-3071
105	WI-3816	CR-3071	CH1	5-2	CH1	6-2	CR-3071
106	WI-33777	CR-3593	K42	A2	K43	A2	CR-3593
115	WI-33777	CR-3593	K44	A2	N7	11	CR-34774
116	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
117	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
118	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
119	WI-3816	CR-34781	K78	1	F43	2	CR-34775
120	WI-3816	CR-34781	K78	3	F44	2	CR-34775
121	WI-3816	CR-34781	K78	5	F45	2	CR-34775
122	WI-3816	CR-34781	K42	2	F43	1	CR-34775
123	WI-3816	CR-34781	K42	4	F44	1	CR-34775
124	WI-3816	CR-34781	K42	6	F45	1	CR-34775
125	WI-33478	CR-3593	K42	A1	K43	A1	CR-3593
126	WI-3816	CR-34781	TB4	2	K78	2	CR-34781
126	WI-3816	CR-34781	TB4	2	K78	2	CR-34781
127	WI-3816	CR-34781	TB8	2	K78	4	CR-34781
127	WI-3816	CR-34781	TB8	2	K78	4	CR-34781
128	WI-3816	CR-34781	TB13	2	K78	6	CR-34781
128	WI-3816	CR-34781	TB13	2	K78	6	CR-34781
130	WI-33478	CR-3593	K77	A1	K78	A1	CR-3593
131	WI-33777	CR-3593	K77	A2	K78	A2	CR-3593
132	WI-3816	CR-34781	K78	5	F50	2	CR-34775
127	WI-3816	CR-34781	TB8	2	K77	4	CR-34781

5015365 20-20 (EI); 380V 3PH; TOUCH TURBO OPTION

5017442-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-3593
107	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
108	WI-3816	CR-34775	F49	1	K45	4	CR-34781
109	WI-3816	CR-34775	F50	1	K45	6	CR-34781
110	WI-3816	CR-34781	K45	3	CH1	7-1	CR-3071
111	WI-3816	CR-34781	K45	5	CH2	7-1	CR-3071
112	WI-3816	CR-3071	CH1	7-2	TB17	2	CR-34781
113	WI-3816	CR-3071	CH2	7-2	TB17	2	CR-34781

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM | WIRING DIAGRAM
20.20 380V 3Ph 50Hz CONVECTION
BY: AFT | DWG: 77529 | SHEET 18 OF 42
DATE: 04/12/12



5015360 6-10,10-10,7-20 (EI); 440V 3PH; TOUCH

5015360-2W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	1	CH1	1-2	CR-33008
64	WI-3816	CR-34781	K41	3	CH1	1-1	CR-33008
65	WI-3816	CR-34781	K41	3	CH1	2-1	CR-33008
66	WI-3816	CR-34781	K41	5	CH1	2-2	CR-33008
68	WI-33777	CR-3593	K41	A2	K44	A2	CR-3593
71	WI-3816	CR-34781	K44	1	CH1	3-1	CR-33008
72	WI-3816	CR-34781	K44	5	CH1	3-2	CR-33008
80	WI-33777	CR-3593	K44	A2	N7	11	CR-33509
81	WI-33777	CR-33509	TB27	18	N7	12	CR-33509
82	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
83	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
84	WI-3816	CR-34781	F40	1	K41	2	CR-34781
85	WI-3816	CR-34781	F40	1	K44	2	CR-34781
86	WI-3816	CR-34781	F41	1	K41	4	CR-34781
89	WI-3816	CR-34781	F42	1	K41	6	CR-34781
90	WI-3816	CR-34781	F42	1	K44	6	CR-34781

5017443 6-10,10-10,7-20 (EI); 440V 3PH; TOUCH TURBO OPTION

5017443-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-3593
74	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
77	WI-3816	CR-34781	K45	1	CH1	4-1	CR-33008
78	WI-3816	CR-34781	K45	3	CH1	4-2	CR-33008
87	WI-3816	CR-34781	F41	1	K45	4	CR-34781
88	WI-3816	CR-34781	K44	2	K45	2	CR-34781

5017444 10-20 (EI); 440V 3PH; TOUCH TURBO OPTION

5017444-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-3593
84	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
85	WI-3816	CR-34781	TB3	2	F46	1	CR-34781
86	WI-3816	CR-34781	K45	2	F46	2	CR-34781
87	WI-3816	CR-34781	TB13	2	K45	6	CR-34781
88	WI-3816	CR-34781	K45	1	CH1	7-1	CR-3071
89	WI-3816	CR-34781	K45	5	CH1	7-2	CR-3071

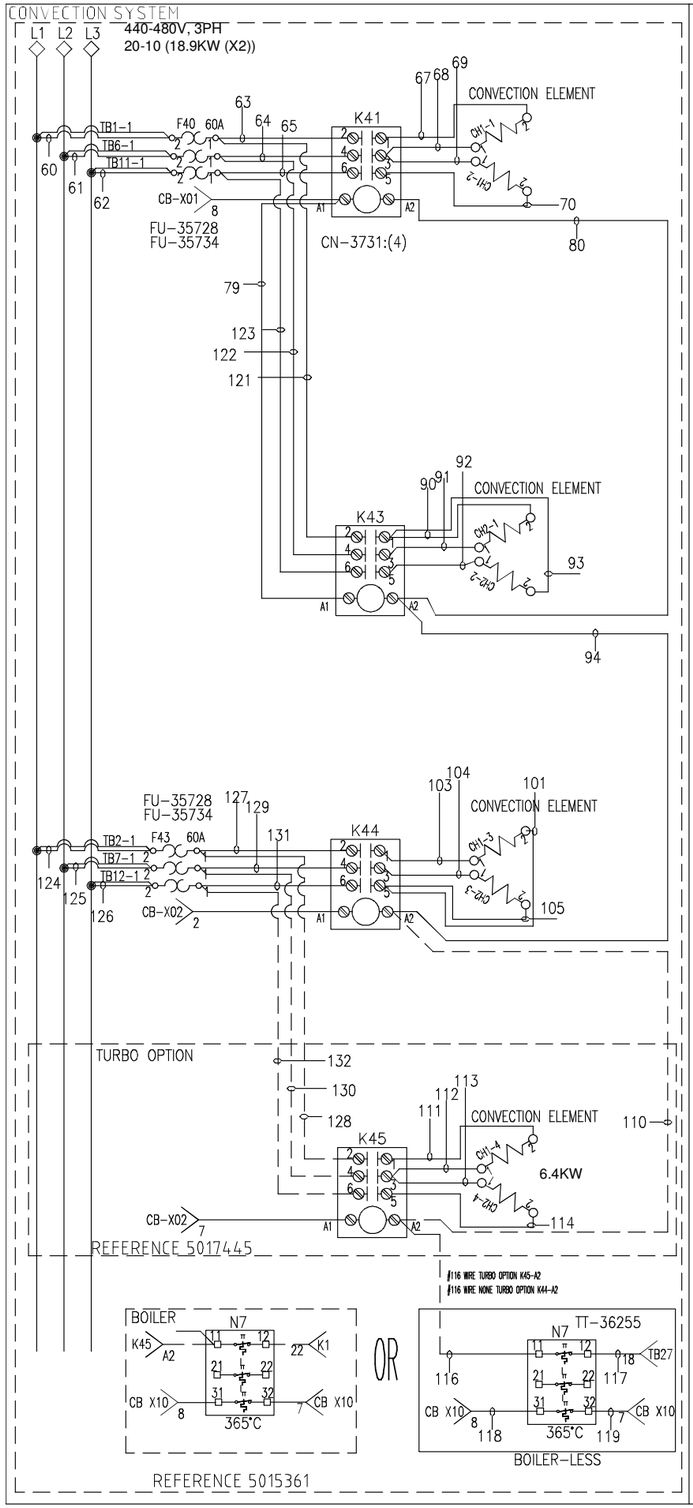
5015359 10-20 (EI); 440V 3PH; TOUCH

5015359-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
69	WI-3816	CR-34781	K41	1	CH1	3-2	CR-3071
70	WI-3816	CR-34781	K41	1	CH1	1-2	CR-3071
71	WI-3816	CR-34781	K41	3	CH1	1-1	CR-3071
72	WI-3816	CR-34781	K41	3	CH1	2-1	CR-3071
73	WI-3816	CR-34781	K41	5	CH1	2-2	CR-3071
74	WI-3816	CR-34781	K41	5	CH1	3-1	CR-3071
75	WI-3816	CR-3071	CH1	3-2	CH1	4-2	CR-3071
76	WI-3816	CR-3071	CH1	3-1	CH1	4-1	CR-3071
78	WI-33777	CR-3593	K41	A2	K44	A2	CR-3593
79	WI-3816	CR-34781	K44	1	CH1	5-2	CR-3071
80	WI-3816	CR-34781	K44	3	CH1	5-1	CR-3071
81	WI-3816	CR-34781	K44	3	CH1	6-1	CR-3071
82	WI-3816	CR-34781	K44	5	CH1	6-2	CR-3071
91	WI-33777	CR-3593	K44	A2	N7	11	CR-33509
92	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
93	WI-33777	CR-34783	CB-X10	8	N7	31	CR-33509
94	WI-33777	CR-34783	CB-X10	7	N7	32	CR-33509
95	WI-3816	CR-34781	TB3	1	F43	1	CR-34781
95	WI-3816	CR-34781	TB3	1	F43	1	CR-34781
96	WI-3816	CR-34781	TB8	1	F44	1	CR-34781
96	WI-3816	CR-34781	TB8	1	F44	1	CR-34781
97	WI-3816	CR-34781	TB13	1	F45	1	CR-34781
97	WI-3816	CR-34781	TB13	1	F45	1	CR-34781

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM
6,10 UP TO 10,18 440V 3PH 60Hz CONVECTION

BY:	DWG:	SHEET:
AFT	77529	19 OF 42
DATE: 04/12/12		



5015361 20-10 (EI); 440V 3PH; TOUCH

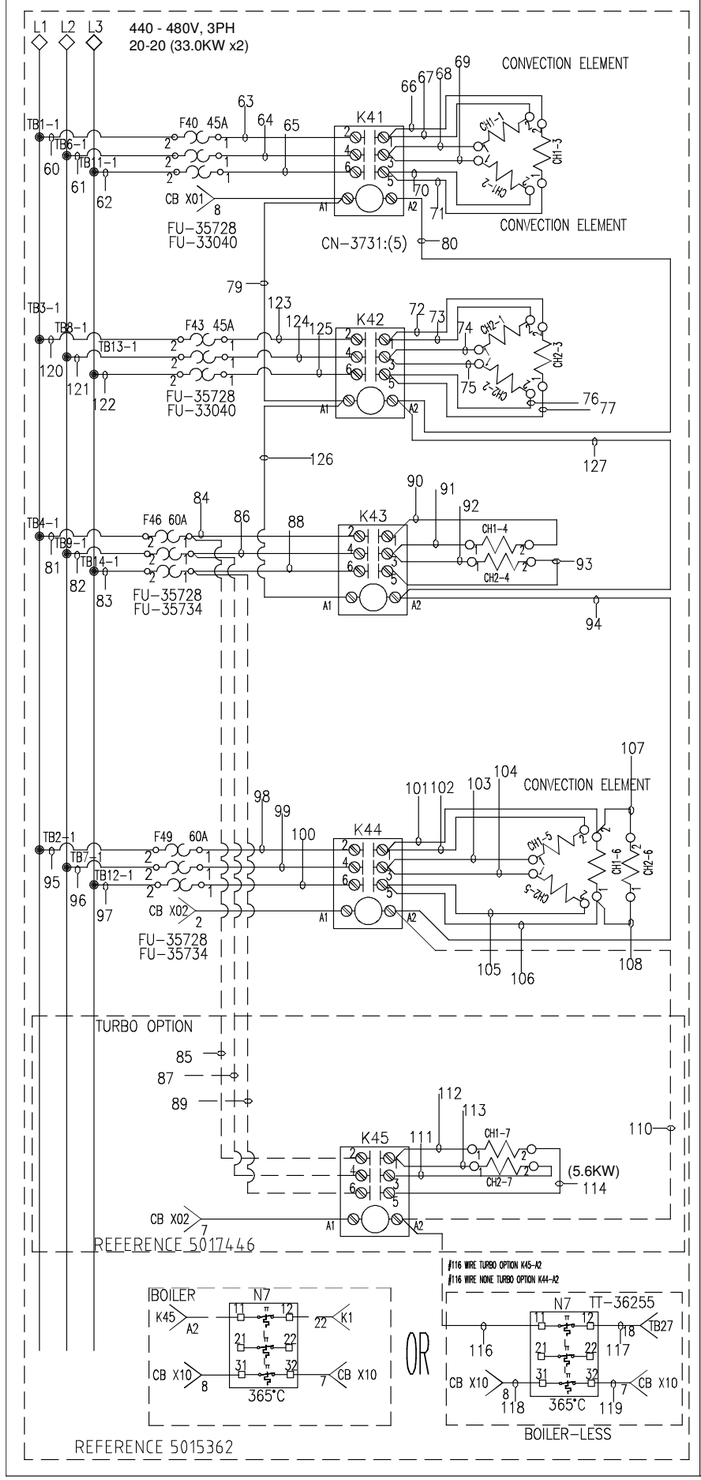
5015361-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
67	WI-3816	CR-34781	K41	1	CH1	1-2	CR-33008
68	WI-3816	CR-34781	K41	3	CH1	1-1	CR-33008
69	WI-3816	CR-34781	K41	3	CH1	2-1	CR-33008
70	WI-3816	CR-34781	K41	5	CH1	2-2	CR-33008
79	WI-33478	CR-3593	K41	A1	K43	A1	CR-3593
80	WI-33777	CR-3593	K41	A2	K43	A2	CR-3593
90	WI-3816	CR-34781	K43	1	CH2	1-2	CR-33008
91	WI-3816	CR-34781	K43	3	CH2	1-1	CR-33008
92	WI-3816	CR-34781	K43	5	CH2	2-1	CR-33008
93	WI-3816	CR-34781	K43	1	CH2	2-2	CR-33008
94	WI-33777	CR-3593	K44	A2	K43	A2	CR-3593
101	WI-3816	CR-34781	K44	5	CH1	3-2	CR-33008
103	WI-3816	CR-34781	K44	1	CH1	3-1	CR-33008
104	WI-3816	CR-34781	K44	3	CH2	3-1	CR-33008
105	WI-3816	CR-34781	K44	5	CH2	3-2	CR-33008
116	WI-33777	CR-3593	K44	A2	N7	11	CR-33509
117	WI-33777	CR-33509	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
121	WI-3816	CR-34781	F40	1	K43	2	CR-34781
122	WI-3816	CR-34781	F41	1	K43	4	CR-34781
123	WI-3816	CR-34781	F42	1	K43	6	CR-34781
124	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
124	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
125	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
125	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
126	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
126	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
127	WI-3816	CR-34781	K44	2	F43	1	CR-34781
129	WI-3816	CR-34781	K44	4	F44	1	CR-34781
131	WI-3816	CR-34781	K44	6	F45	1	CR-34781

5017445 20-10 (EI); 440V 3PH; TOUCH TURBO OPTION

5017445-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-3593
110	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
111	WI-3816	CR-34781	K45	1	CH1	4-2	CR-33008
112	WI-3816	CR-34781	K45	3	CH1	4-1	CR-33008
113	WI-3816	CR-34781	K45	3	CH2	4-1	CR-33008
114	WI-3816	CR-34781	K45	5	CH2	4-2	CR-33008
128	WI-3816	CR-34781	K45	2	F43	1	CR-34781
130	WI-3816	CR-34781	K45	4	F44	1	CR-34781
132	WI-3816	CR-34781	K45	6	F45	1	CR-34781

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM | WIRING DIAGRAM | 20-10 440V 3Ph 60Hz CONVECTION
BY: AFT | DWG: 77529 | SHEET 20 OF 42
DATE: 04/12/12



5015362 20-20 (EI); 440V 3PH; TOUCH

5015362-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
66	WI-3816	CR-34781	K41	1	CH1	3-2	CR-3071
67	WI-3816	CR-34781	K41	1	CH1	1-2	CR-3071
68	WI-3816	CR-34781	K41	3	CH1	1-1	CR-3071
69	WI-3816	CR-34781	K41	3	CH1	2-1	CR-3071
70	WI-3816	CR-34781	K41	5	CH1	2-2	CR-3071
71	WI-3816	CR-34781	K41	5	CH1	3-1	CR-3071
72	WI-3816	CR-34781	K42	1	CH2	3-2	CR-3071
73	WI-3816	CR-34781	K42	1	CH2	1-2	CR-3071
74	WI-3816	CR-34781	K42	3	CH2	1-1	CR-3071
75	WI-3816	CR-34781	K42	3	CH2	2-1	CR-3071
76	WI-3816	CR-34781	K42	5	CH2	2-2	CR-3071
77	WI-3816	CR-34781	K42	5	CH2	3-1	CR-3071
79	WI-33478	CR-3593	K41	A1	K42	A1	CR-3593
80	WI-33777	CR-3593	K41	A2	K42	A2	CR-3593
81	WI-3816	CR-34781	TB4	1	F46	2	CR-34781
81	WI-3816	CR-34781	TB4	1	F46	2	CR-34781
82	WI-3816	CR-34781	TB9	1	F47	2	CR-34781
82	WI-3816	CR-34781	TB9	1	F47	2	CR-34781
83	WI-3816	CR-34781	TB14	1	F48	2	CR-34781
83	WI-3816	CR-34781	TB14	1	F48	2	CR-34781
84	WI-3816	CR-34781	K43	2	F46	1	CR-34781
86	WI-3816	CR-34781	K43	4	F47	1	CR-34781
88	WI-3816	CR-34781	K43	6	F48	1	CR-34781
90	WI-3816	CR-34781	K43	1	CH1	4-2	CR-3071
91	WI-3816	CR-34781	K43	3	CH1	4-1	CR-3071
92	WI-3816	CR-34781	K43	3	CH2	4-1	CR-3071
93	WI-3816	CR-34781	K43	5	CH2	4-2	CR-3071
94	WI-33777	CR-3593	K44	A2	K43	A2	CR-3593
95	WI-3816	CR-34781	TB2	1	F49	2	CR-34781
95	WI-3816	CR-34781	TB2	1	F49	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F50	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F50	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F51	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F51	2	CR-34781
98	WI-3816	CR-34781	K44	2	F49	1	CR-34781
98	WI-3816	CR-34781	K44	2	F49	1	CR-34781
99	WI-3816	CR-34781	K44	4	F50	1	CR-34781
99	WI-3816	CR-34781	K44	4	F50	1	CR-34781
100	WI-3816	CR-34781	K44	6	F51	1	CR-34781
100	WI-3816	CR-34781	K44	6	F51	1	CR-34781
101	WI-3816	CR-34781	K44	1	CH1	6-2	CR-3071
102	WI-3816	CR-34781	K44	1	CH1	5-2	CR-3071
103	WI-3816	CR-34781	K44	3	CH1	5-1	CR-3071
104	WI-3816	CR-34781	K44	3	CH2	5-1	CR-3071
105	WI-3816	CR-34781	K44	5	CH2	5-2	CR-3071
106	WI-3816	CR-34781	K44	5	CH1	6-1	CR-3071
107	WI-3816	CR-3071	CH1	6-2	CH2	6-2	CR-3071
108	WI-3816	CR-3071	CH1	6-1	CH2	6-1	CR-3071
116	WI-33777	CR-3593	K44	A2	N7	11	CR-33509
117	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
120	WI-3816	CR-34781	TB3	1	F43	2	CR-34781
120	WI-3816	CR-34781	TB3	1	F43	2	CR-34781
121	WI-3816	CR-34781	TB8	1	F44	2	CR-34781
121	WI-3816	CR-34781	TB8	1	F44	2	CR-34781
122	WI-3816	CR-34781	TB13	1	F45	2	CR-34781
122	WI-3816	CR-34781	TB13	1	F45	2	CR-34781
123	WI-3816	CR-34781	K42	2	F43	1	CR-34781
123	WI-3816	CR-34781	K42	2	F43	1	CR-34781
124	WI-3816	CR-34781	K42	4	F44	1	CR-34781
124	WI-3816	CR-34781	K42	4	F44	1	CR-34781
125	WI-3816	CR-34781	K42	6	F45	1	CR-34781
125	WI-3816	CR-34781	K42	6	F45	1	CR-34781
126	WI-33478	CR-3593	K43	A1	K42	A1	CR-3593
127	WI-33777	CR-3593	K42	A2	K43	A2	CR-3593

5017446 20-20 (EI); 440V 3PH; TOUCH TURBO OPTION

5017446-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-3593
85	WI-3816	CR-34781	F46	1	K45	2	CR-34781
87	WI-3816	CR-34781	F47	1	K45	4	CR-34781
89	WI-3816	CR-34781	F48	1	K45	6	CR-34781
110	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
111	WI-3816	CR-34781	K45	3	CH2	7-2	CR-3071
112	WI-3816	CR-34781	K45	1	CH1	7-1	CR-3071
113	WI-3816	CR-34781	K45	1	CH2	7-1	CR-3071
114	WI-3816	CR-34781	K45	5	CH1	7-2	CR-3071

REV	ECO	DESCRIPTION	DATE	APP

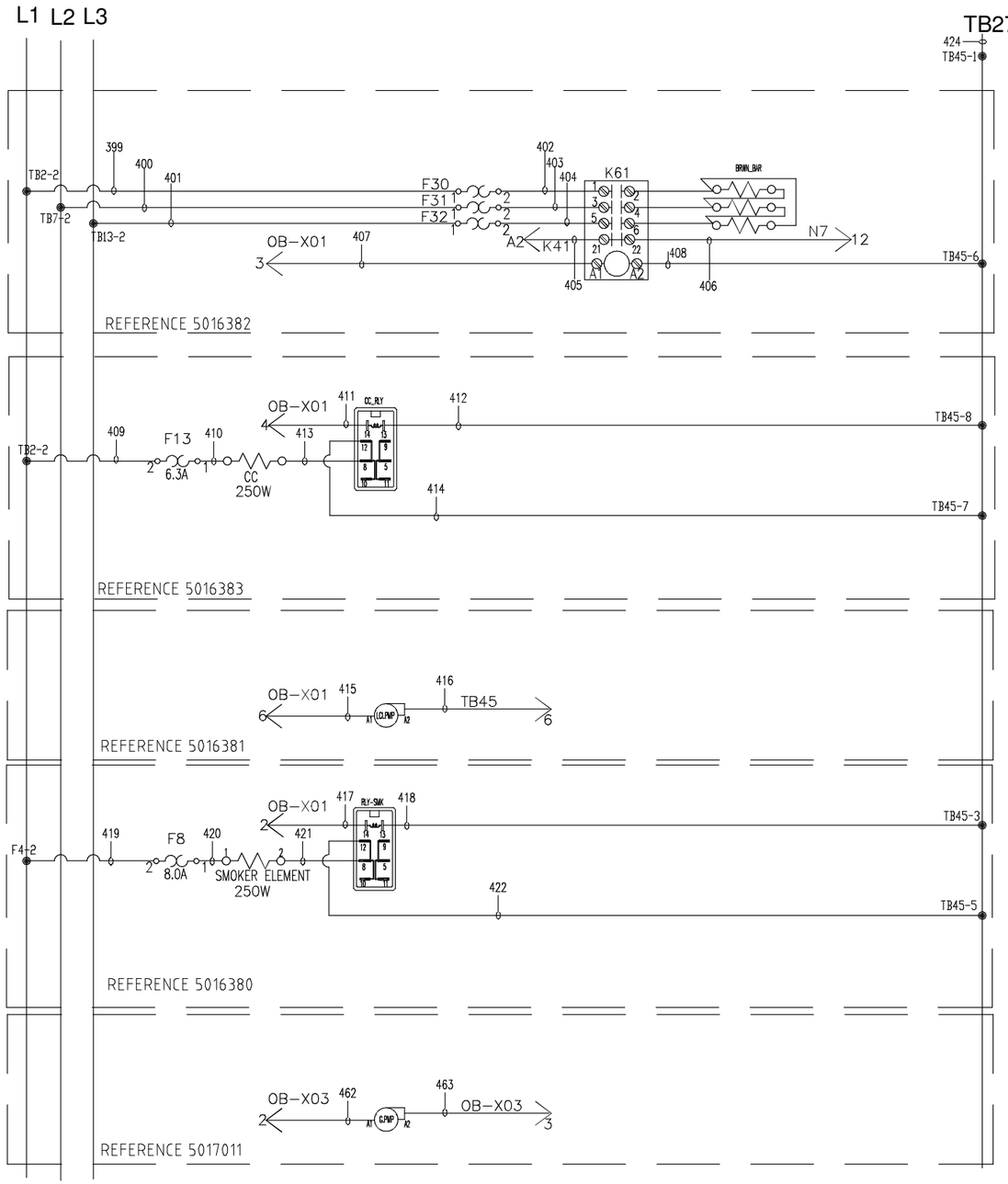
ALTO-SHAAM — WIRING DIAGRAM — 20.20 440-480V 3Ph 60Hz CONVECTION

BY: AFT | DWG: 77529 | SHEET 21 OF 42

DATE: 04/12/12

Option Diagram (Touch)

OPTIONS



5016382 ALL MODELS; ALL VOLTAGE; BRWN_BAR

5016382-2W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
399	WI-3816	CR-34781	TB2	2	F30	2	CR-34781
400	WI-3816	CR-34781	TB7	2	F31	2	CR-34781
401	WI-3816	CR-34781	TB13	2	F32	2	CR-34781
402	WI-3816	CR-34775	K61	1	F30	1	CR-34781
403	WI-3816	CR-34775	K61	3	F31	1	CR-34781
404	WI-3816	CR-34775	K61	5	F31	1	CR-34781
405	WI-33777	CR-3593	K41	A2	K61	21	CR-3593
406	WI-33777	CR-3593	N7	12	K61	22	CR-3593
407	WI-33478	CR-3593	K61	A1	OB-X01	3	CR-34783
408	WI-33777	CR-3593	K61	A2	TB45	6	CR-34783

5016383 ALL MODELS; ALL VOLTAGE; CC

5016383-1w							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
409	WI-33478	CR-34782	TB2	2	F13	2	CR-34782
410	WI-33462	CR-34782	F13	1	CC_EL	1	CR-33509
411	WI-33478	CR-3593	CC_RLY	14	OB-X01	4	CR-34783
412	WI-33777	CR-3593	CC_RLY	13	TB45	8	CR-34783
413	WI-33462	CR-3593	CC_RLY	8	CC_EL	2	CR-33509
414	WI-33777	CR-34783	TB47	7	CC_RLY	12	CR-3593

5016381 ALL MODELS; ALL VOLTAGE; CHEMICAL PUMP

5016381-3W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
415	WI-33478	CR-33509	LCI.PUMP	A1	OB-X01	6	CR-34783
416	WI-33777	CR-33509	LCI.PUMP	A2	TB45	8	CR-34783

5016380 ALL MODELS; ALL VOLTAGE; SMOKER OPTION

5016380-4W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
417	WI-33478	CR-3593	RLY-SMK	14	OB-X01	2	CR-34783
418	WI-33777	CR-3593	RLY-SMK	13	TB45	3	CR-34783
419	WI-33478	CR-34783	F4	2	F8	2	CR-34783
420	WI-33462	CR-34783	F8	1	SMK-EL	1	CR-3226
421	WI-33462	CR-3593	RLY-SMK	8	SMK-EL	2	CR-3226
422	WI-33777	CR-3593	RLY-SMK	12	TB45	5	CR-34783

5017011 ALL MODELS; ALL VOLTAGE; GREASE PUMP

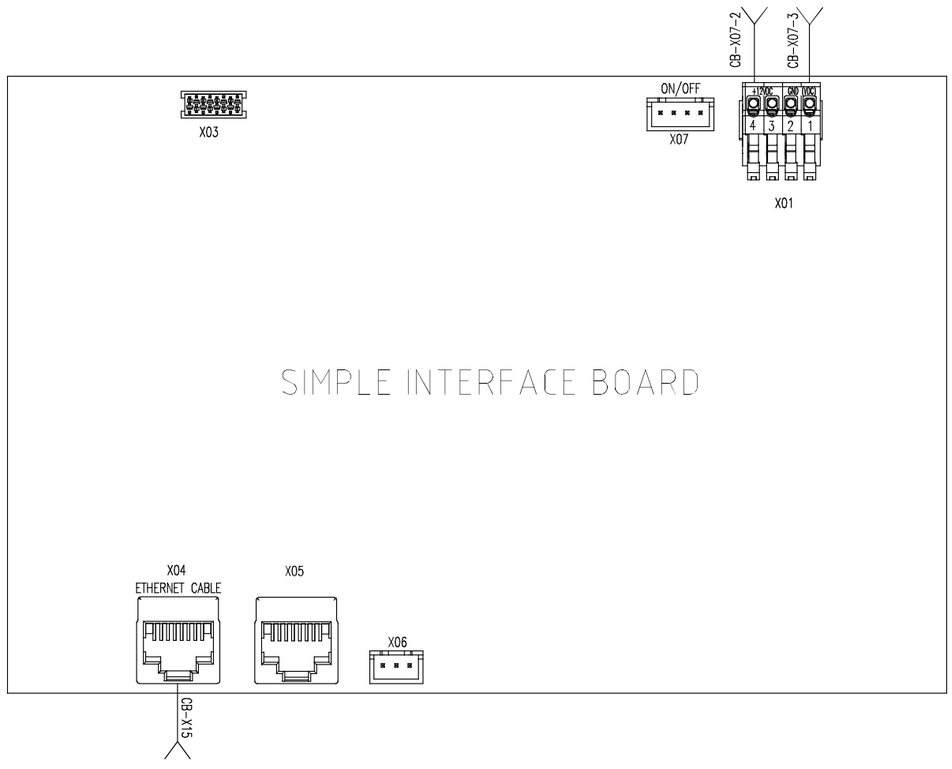
5017011-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
462	WI-33478	CR-34783	OB-X03	2	G.PUMP	A1	CR-33509
463	WI-33777	CR-34783	OB-X03	3	G.PUMP	A2	CR-33509

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — OPTIONAL DIAGRAM

BY: AFT | DATE: 04/12/12 | DWG: 77529 | SHEET: 22 OF 42

SIMPLE INTERFACE BOARD

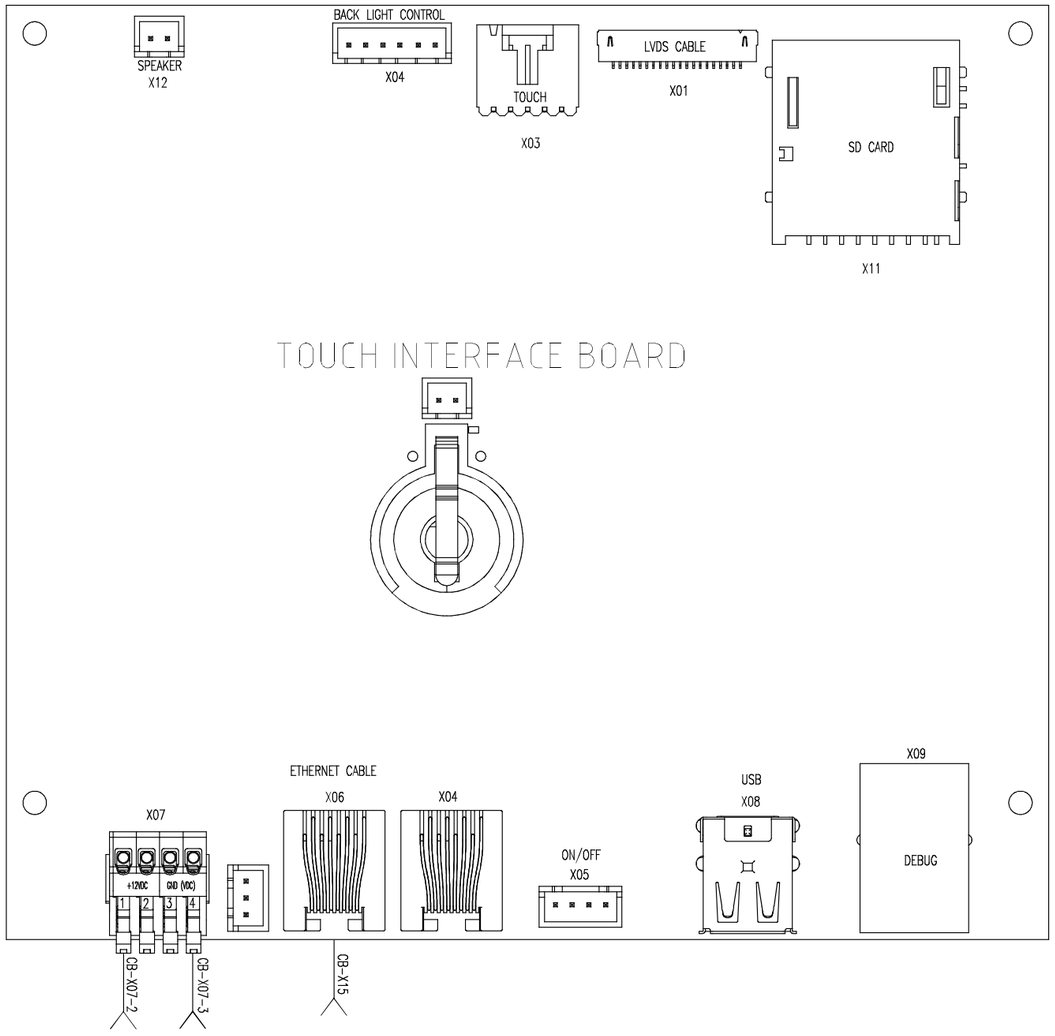


REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM | WIRING DIAGRAM | SIMPLE INTERFACE BOARD

BY: AFT | DWG: 77529 | SHEET: 23 OF 42

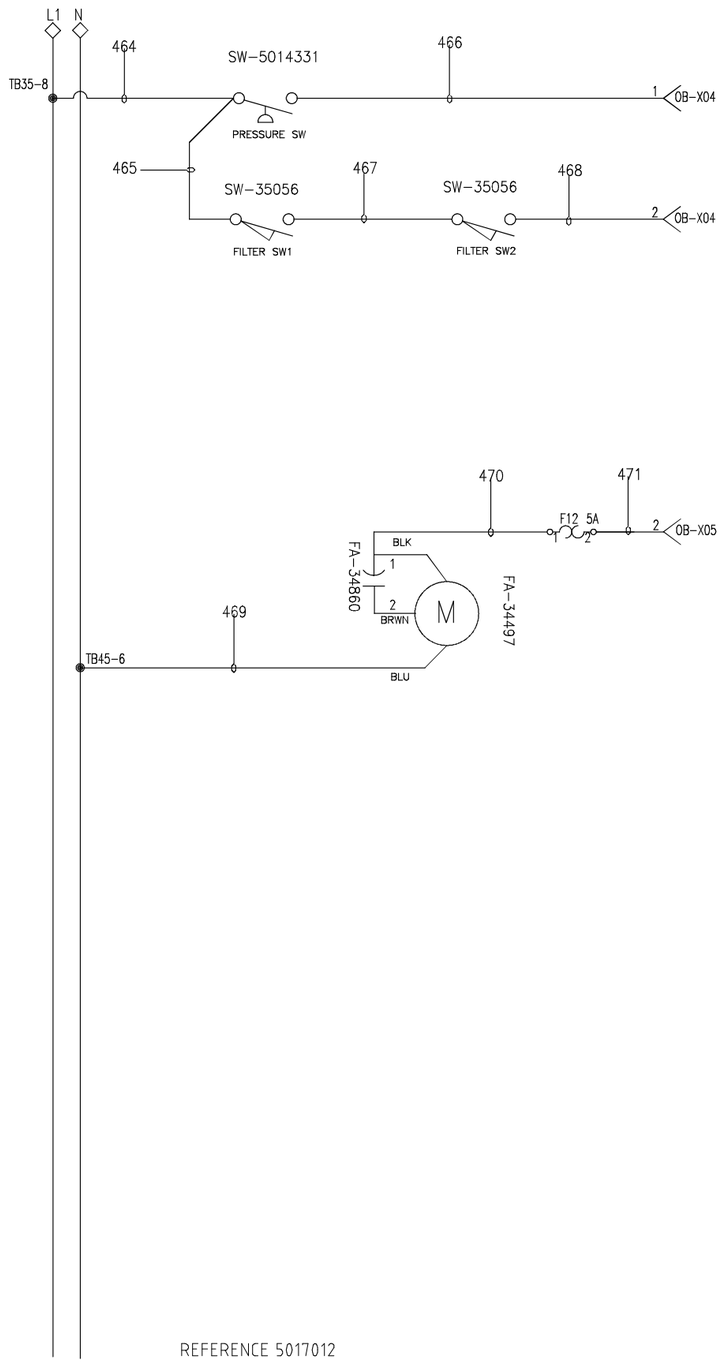
TOUCH INTERFACE BOARD



REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM	WIRING DIAGRAM		
	TOUCH INTERFACE BOARD		
BY: AFT	DWG: 77529		SHEET 24 OF 42
DATE: 04/12/12			

VENTLESS HOOD



REFERENCE 5017012

ALL MODELS, ALL VOLTAGE, VENT-LESS HOOD

5017012-2W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
464	WI-33478	CR-34783	TB35	8	PSSW	1	CR-34774
465	WI-33478	CR-33509	FLTSW1	1	PSSW	1	CR-33509
466	WI-33777	CR-34783	OB-X04	1	PSSW	2	CR-33509
467	WI-33478	CR-33509	FLTSW1	2	FLTSW2	1	CR-33509
468	WI-33777	CR-34783	OB-X04	2	FLTSW2	2	CR-33509
469	WI-33777	CR-34783	TB45	6	VH-MOTOR	BLK	CR-34639
470	WI-33478	CR-34774	VH-MOTOR	BLU	F12	1	CR-34783
471	WI-33478	CR-34783	OB-X05	2	F12	2	CR-34783

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — VENT-LESS HOOD

BY: AFT — DATE: 04/12/12 — DWG: 77529 — SHEET 25 OF 42

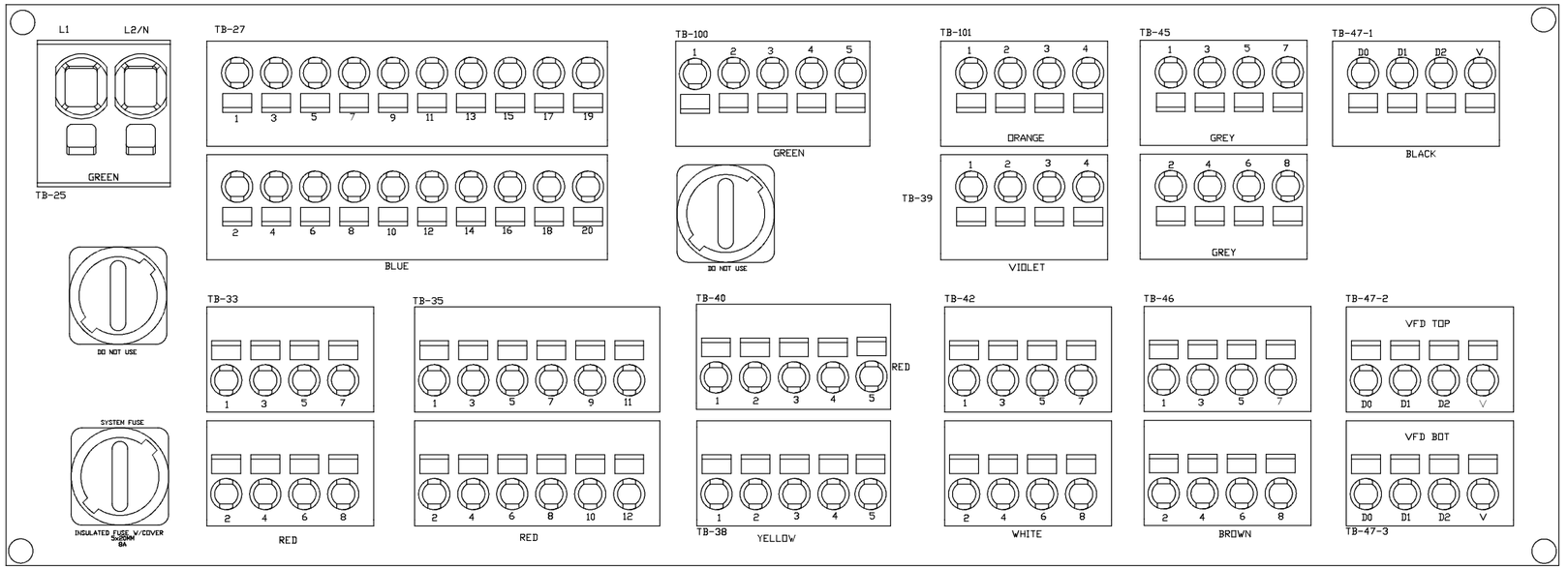
BA-35209

TB-27
1-Power supply (N)
2-BLANK
3-RLY50-9
4-BLANK
5-BLANK
6-LWR IGNITOR MODULE (HSI)
7-Power supply (N)
8-OVEN HIGH LIMIT (N7)
9-FILTER 2 LOAD-3
10-UPPR IGNITOR MODULE (HSI)/BOILER HIGH LIMIT N9
11-TB45-1
12-COOLING FAN 1-A2
13-COOLING FAN 2-A2
14-COOLING FAN 2-A2
15-RLY60-8
16-COOLING FAN 3-A2
17-Y2 SOLENOID A1
18-BLANK
19-K50-A2
20-CB-X03-6

TB-33
1-COOLING FAN LIMIT SWITCH
2-IGNITOR MODULE PIN 12
3-Power supply (L)
4-LWR COMBUSTION BLOWER
5-UPPR HSI
6-LWR HOT SURFACE IGNITOR (HSI)
7-TB-35-1
8-UPPR IGNITOR MODULE

TB-35
1-Power supply (N)
2-CB-X01-1
3-DB-03-1
4-CB-X01-6
5-UPPR COMBUSITON BLOWER
6-CB-X02-5
7-DB-X06-1
8-CB-X03-1
9-HAND SHOWER SOLENOID A1
10-Power supply (N)
11-DB-X01-1
12-CB-X04-4
13-BLANK
14-BLANK)
15-BLANK
16-BLANK
17-BLANK
18-BLANK
19-BLANK
20-CB-X03-6

TB-38
1-COOLING FAN LIMIT SWITCH
2-COOLONG FAN 1-A1
3-COOLING FAN 2-A1
4-COOLING FAN 3-A1
5-BLANK



NOTE: SYSTEM FUSE 5X20MM (8AMP) PROTECTING TB-33 & TB-35

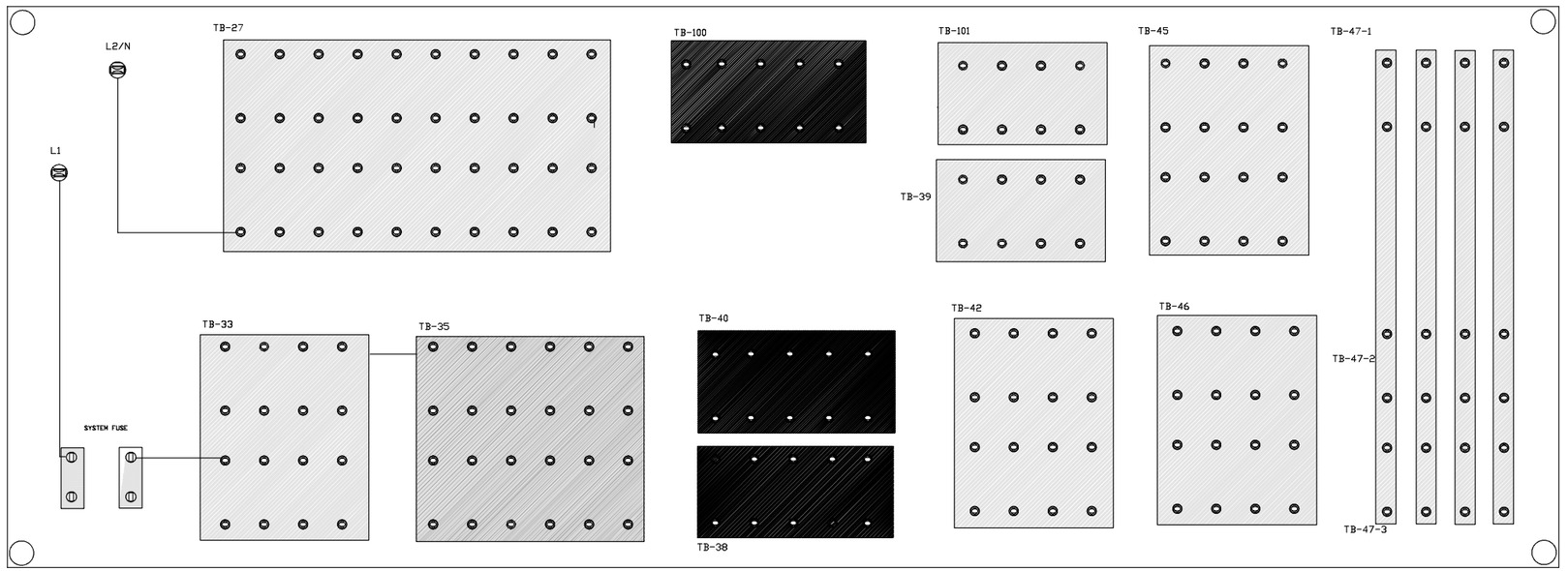
TB-45
1-TB27-11
2-DB-X03-4
3-BLANK
4-BLANK
5-BLANK
6-BLANK
7-BLANK
8-BLANK

TB-40
1-BLANK
2-F6 BOTTOM
3-TB-25L2/N
4-TB-25L2/N
5-BLANK

TB-46
1-Power supply (-12VDC)
2-LOWER VENT MOTOR
3-UPPER VENT MOTOR
4-CAVITY LED BLK WIRE
5-DB-X06-3
6-HAND SHOWER REED SWITCH
7-RLY50-13
8-BLANK

TB-39
1-CB-X05-2
2-F18-FUSE-BOTTOM
3-RLY50-14
4-RLY51-14

TB-42
1-Power supply (+12VDC)
2-DB-X06-6
3-CB-X05-1
4-Power supply (N)
5-LWR COMBUSTION BLOWER (PWM)
6-UPPR COMBUSTION BLOWER (PWM)
7-RLY60-14
8-CB-X06-1



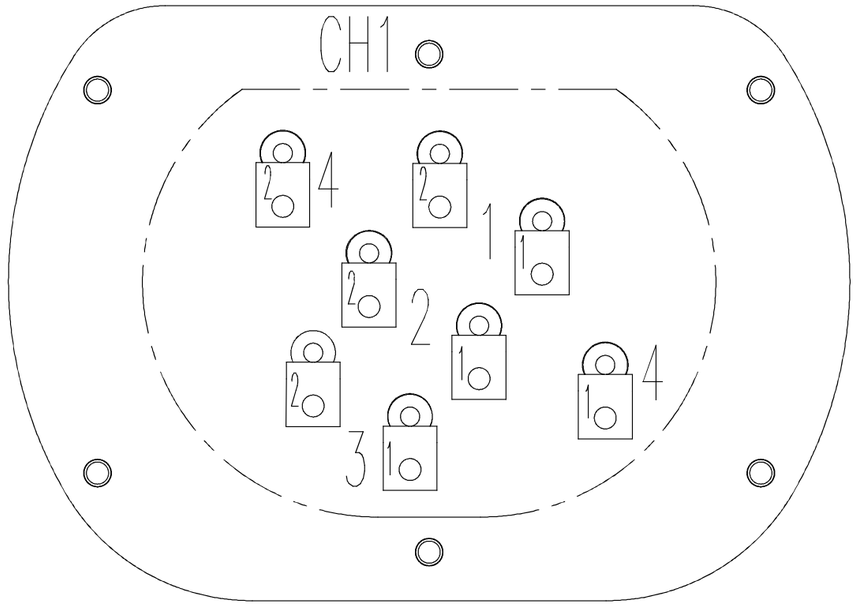
REV	ECO	DESCRIPTION	DATE	APP

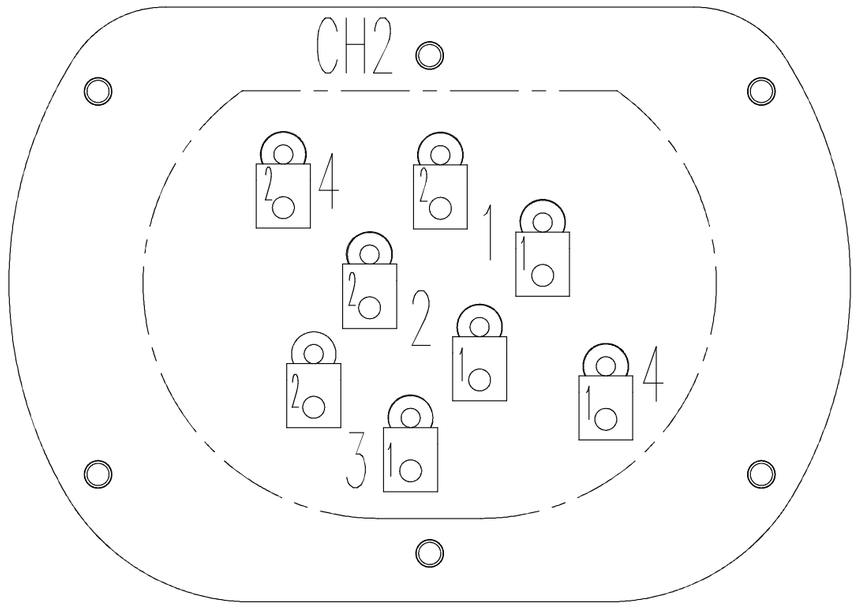
ALTO-SHAAM — WIRING DIAGRAM — Floor Model Chassis

BY: AFT | DWG: 77529 | SHEET 26 OF 42

DATE: 04/12/12

EL-35516 20-10 Model

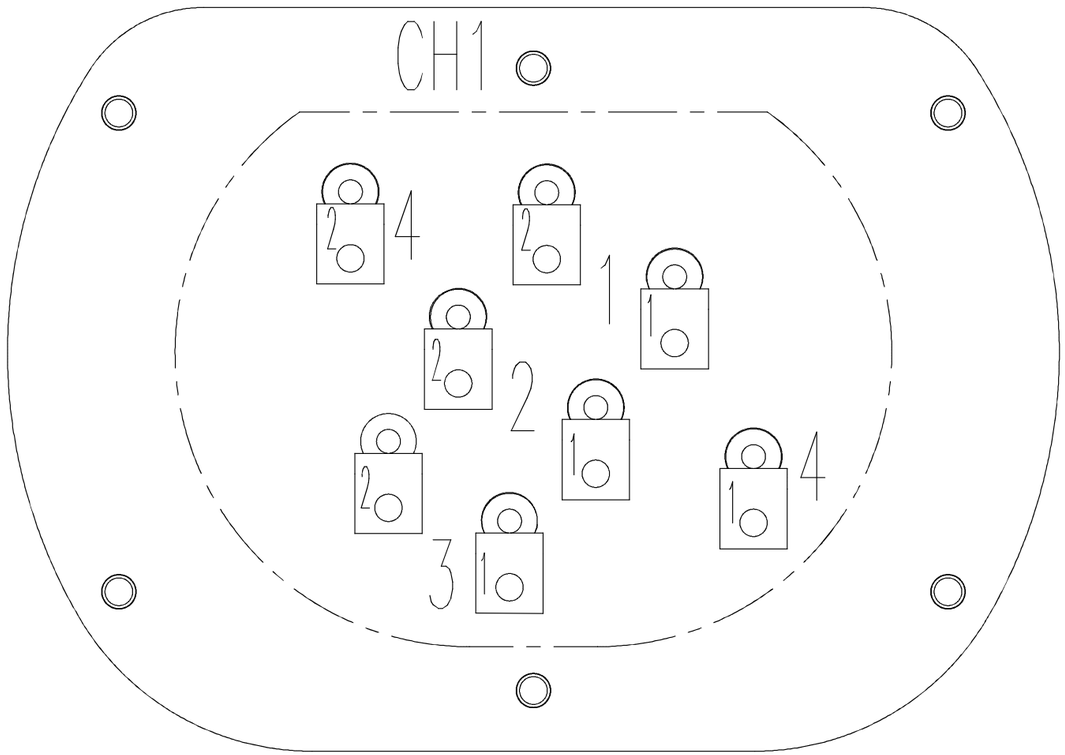




REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM	WIRING DIAGRAM		
	7.14 ES 380V LEGEND		
BY: AFT	DWG: 77529		SHEET 27 OF 42
DATE: 04/12/12			

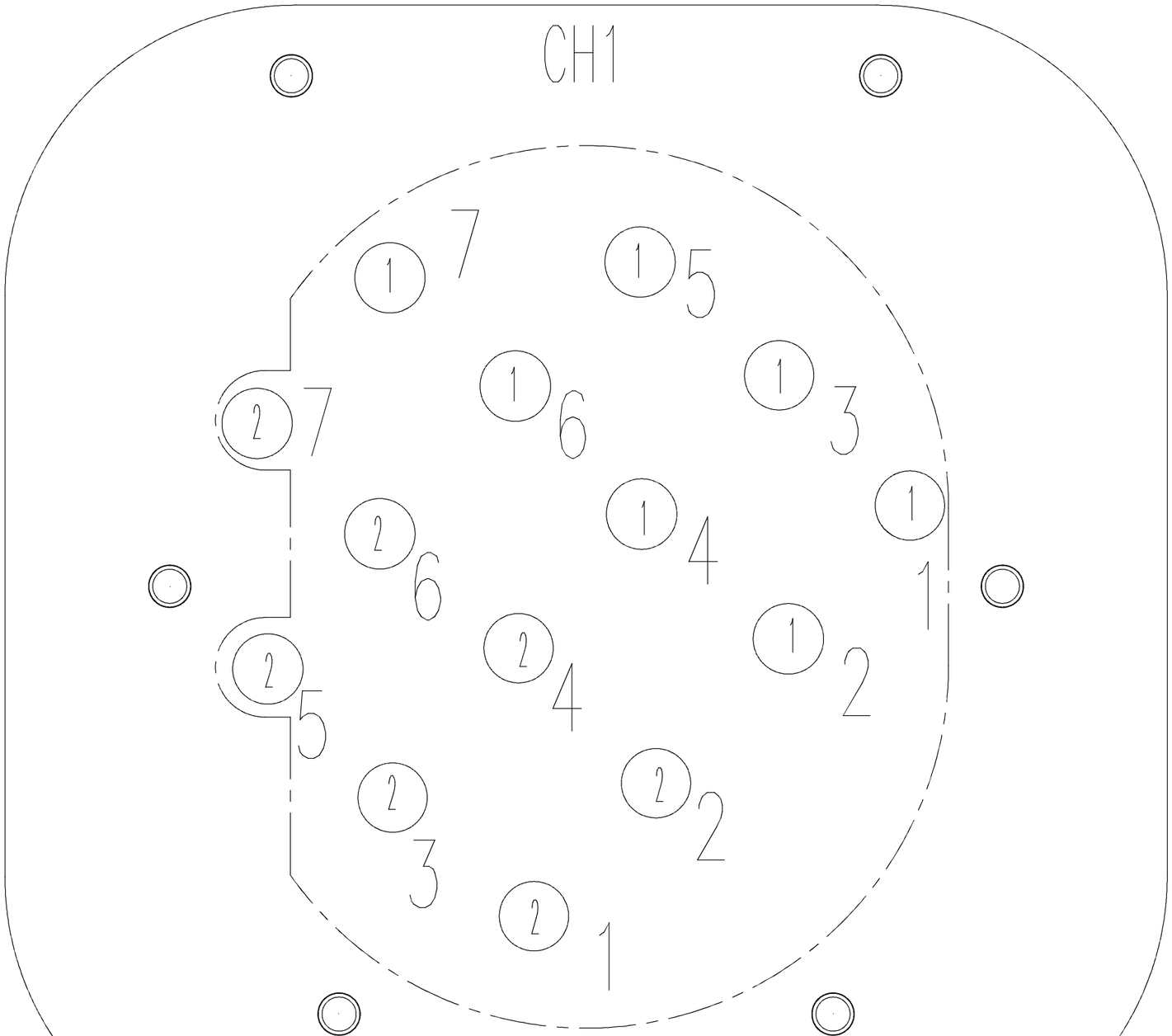
EL-35516



REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM | WIRING DIAGRAM
6.10-10.10-7.14 ELEMENT PINS LAYOUT
BY: AFT | DWG: 77529 | SHEET 28 OF 42
DATE: 04/12/12

EL-35518



REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM

WIRING DIAGRAM

EL-35518 (10-18) LEGEND

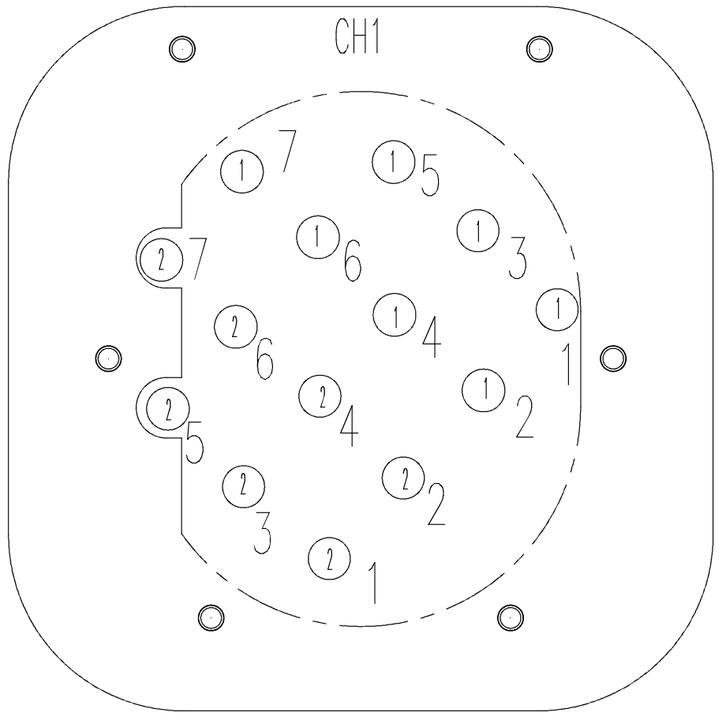
BY: AFT

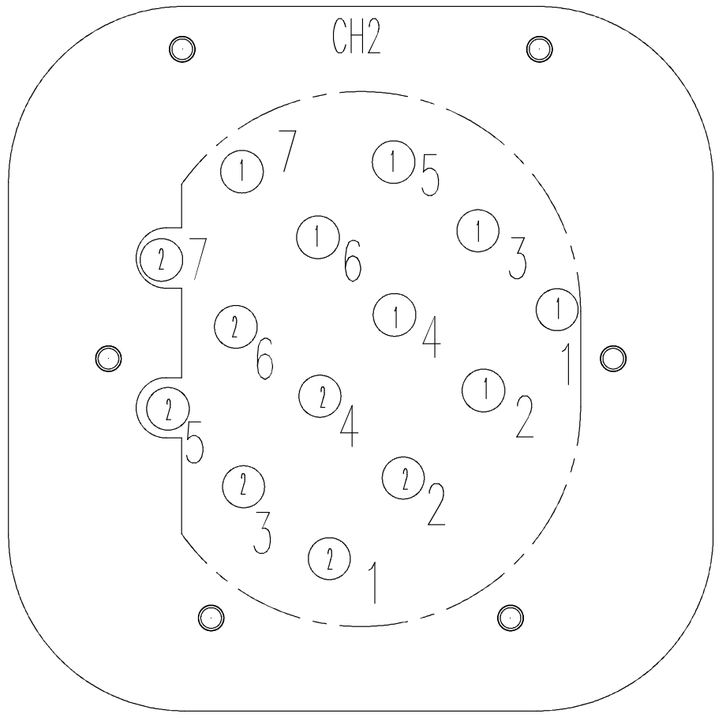
DATE: 04/12/12

DWG: 77529

SHEET 29 OF 42

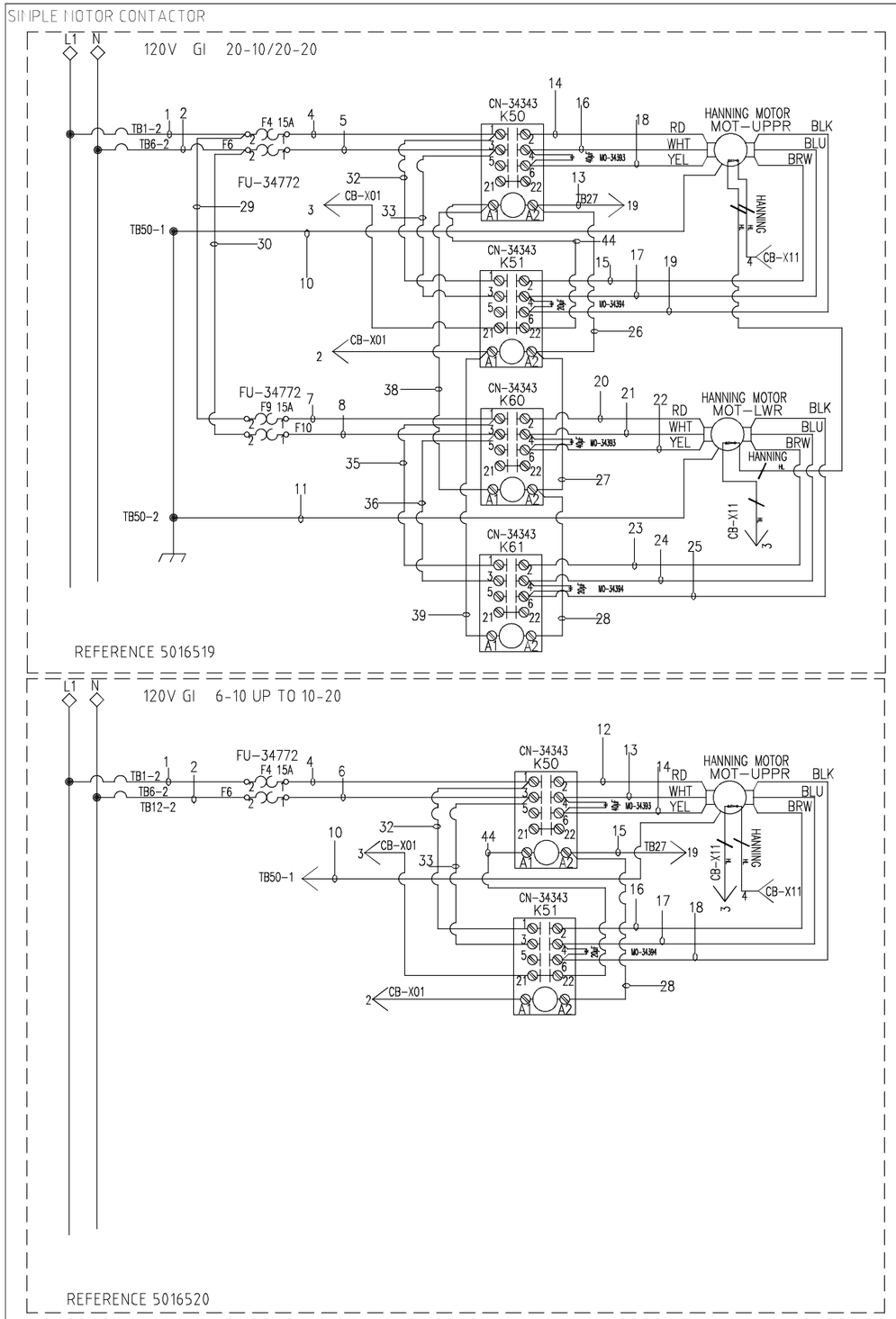
DUAL ELEMENT EL-35518





REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM	WIRING DIAGRAM EL-35518 20.20 LEGEND		
BY: AFT	DWG: 77529	SHEET 30 OF 42	
DATE: 04/12/12			



5016519 20-10/20-20 (GI); 120V; SIMPLE

5016519-4W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-3815	CR-34782	TB1	2	F4	2	CR-34782
2	WI-3815	CR-34782	TB6	2	F6	2	CR-34782
4	WI-33478	CR-34783	F4	1	K50	1	CR-34783
5	WI-33478	CR-34783	F6	1	K50	3	CR-34783
7	WI-33478	CR-34783	F9	1	K60	1	CR-34783
8	WI-33478	CR-34783	F10	1	K60	3	CR-34783
10	WI-33776	CR-34783	MOTOR	GND	TB50	1	CR-34783
11	WI-33776	CR-34783	MOTOR	GND	TB50	2	CR-34783
13	WI-33777	CR-34783	K50	A2	TB27	19	CR-34783
14	WI-33478	CR-34783	K50	2	MOTOR UPPR	CON	CR-34783
15	WI-33478	CR-34783	K51	2	MOTOR UPPR	CON	CR-34783
16	WI-33478	CR-34783	K50	4	MOTOR UPPR	CON	CR-34783
17	WI-33478	CR-34783	K51	4	MOTOR UPPR	CON	CR-34783
18	WI-33478	CR-34783	K50	6	MOTOR UPPR	CON	CR-34783
19	WI-33478	CR-34783	K51	6	MOTOR UPPR	CON	CR-34783
20	WI-33478	CR-34783	K60	2	MOTOR LWR	CON	CR-34783
21	WI-33478	CR-34783	K60	4	MOTOR LWR	CON	CR-34783
22	WI-33478	CR-34783	K60	6	MOTOR LWR	CON	CR-34783
23	WI-33478	CR-34783	K61	2	MOTOR LWR	CON	CR-34783
24	WI-33478	CR-34783	K61	4	MOTOR LWR	CON	CR-34783
25	WI-33478	CR-34783	K61	6	MOTOR LWR	CON	CR-34783
26	WI-33777	CR-34783	K50	A2	K51	A2	CR-34783
27	WI-33777	CR-34783	K51	A2	K60	A2	CR-34783
28	WI-33777	CR-34783	K60	A2	K61	A2	CR-34783
29	WI-3815	CR-34782	F9	2	F4	2	CR-34782
30	WI-3815	CR-34782	F10	2	F6	2	CR-34782
32	WI-33478	CR-34783	K50	1	K51	1	CR-34783
33	WI-33478	CR-34783	K50	3	K51	3	CR-34783
35	WI-33478	CR-34783	K60	1	K61	1	CR-34783
36	WI-33478	CR-34783	K60	3	K61	3	CR-34783
38	WI-33478	CR-34783	K50	A1	K60	A1	CR-34783
39	WI-33478	CR-34783	K51	A1	K61	A1	CR-34783
44	WI-33478	CR-34783	K51	22	K50	A1	CR-34783

5016520 6-10,10-10,7-20,10-20 (EB,EI,GI); 120V; SIMPLE

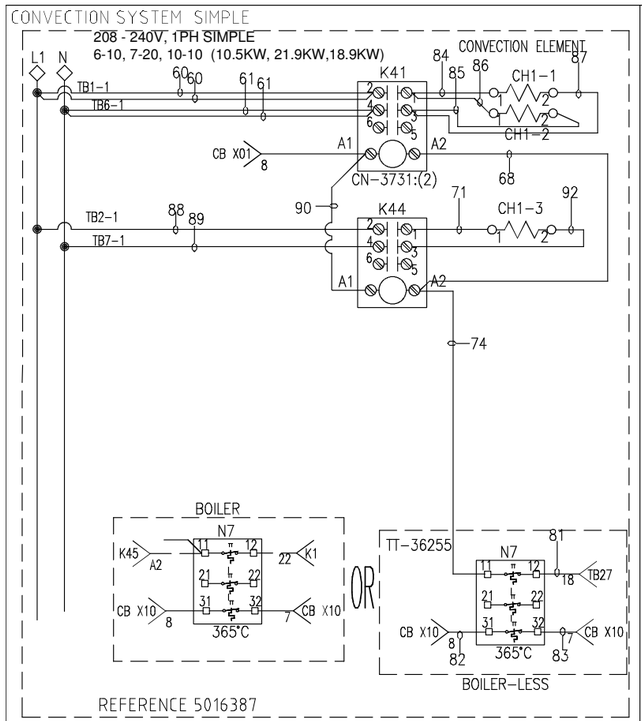
5016520-4W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-3815	CR-34782	TB1	2	F4	2	CR-34782
2	WI-3815	CR-34782	TB6	2	F6	2	CR-34782
4	WI-33478	CR-34783	F4	1	K50	1	CR-34783
6	WI-33478	CR-34783	F6	1	K50	3	CR-34783
10	WI-33776	CR-34783	TB50	1	MOTOR	GND	BARE
12	WI-33478	CR-34783	K50	2	MOTOR	CON	CR-34783
13	WI-33478	CR-34783	K50	4	MOTOR	CON	CR-34783
14	WI-33478	CR-34783	K50	6	MOTOR	CON	CR-34783
15	WI-33777	CR-34783	K50	A2	TB27	19	CR-34783
16	WI-33478	CR-34783	K51	2	MOTOR	CON	CR-34783
17	WI-33478	CR-34783	K51	4	MOTOR	CON	CR-34783
18	WI-33478	CR-34783	K51	6	MOTOR	CON	CR-34783
28	WI-33777	CR-34783	K51	A2	K50	A2	CR-34783
32	WI-33478	CR-34783	K50	1	K51	1	CR-34783
33	WI-33478	CR-34783	K50	3	K51	3	CR-34783
44	WI-33478	CR-34783	K51	22	K50	A1	CR-34783

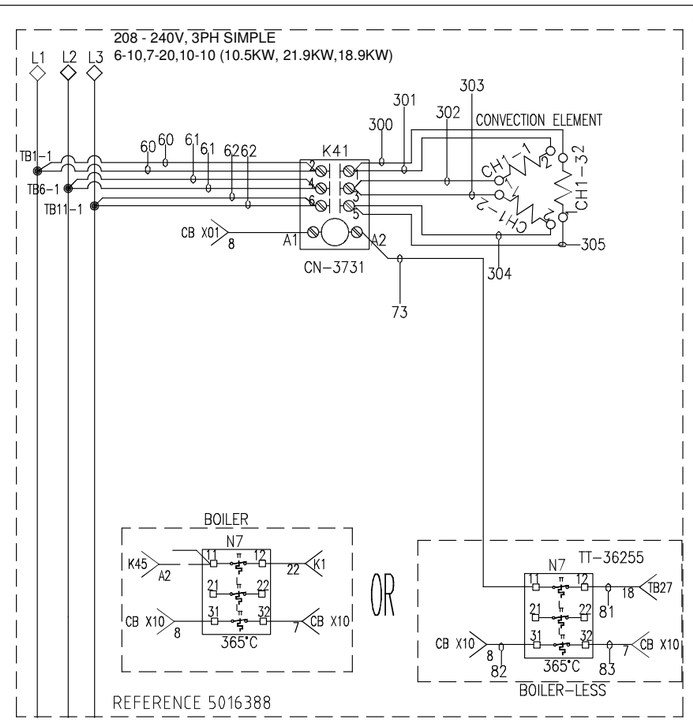
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM
6.10 UP-TO 20.20 1PH SIMPLE MOTOR

BY:	AFT	DWG:	77529	SHEET
DATE:	04/12/12			32 OF 42

Convection System (Simple): 6-10, 10-10, 7-20 208V 1/3PH





5016387 6-10,10-10, 7-20; (EI); 208V 1PH; SIMPLE

5016387-2w							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K41	2	CR-34781
60	WI-3816	CR-34781	TB1	1	K41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K41	4	CR-34781
61	WI-3816	CR-34781	TB6	1	K41	4	CR-34781
68	WI-33777	CR-3593	K41	A2	K44	A2	CR-3593
71	WI-3816	CR-34781	K44	1	CH1	3-1	CR-33008
74	WI-33777	CR-3593	K44	A2	N7	11	CR-33509
81	WI-33777	CR-33509	N7	12	TB27	18	CR-34783
82	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
83	WI-33777	CR-33509	N7	32	CB-X10	7	CR-3593
84	WI-3816	CR-34781	K41	1	CH1	1-1	CR-33008
85	WI-3816	CR-34781	K41	3	CH1	2-2	CR-33008
86	WI-3816	CR-34781	K41	1	CH1	2-1	CR-33008
87	WI-3816	CR-34781	K41	3	CH1	1-2	CR-33008
88	WI-3816	CR-34781	TB2	1	K44	2	CR-34781
89	WI-3816	CR-34781	TB7	1	K44	4	CR-34781
90	WI-33478	CR-3593	K41	A1	K44	A1	CR-3593
92	WI-3816	CR-34781	K44	3	CH1	3-2	CR-33008

5016388 6-10,10-10,7-20; (EI); 208V 1PH; SIMPLE

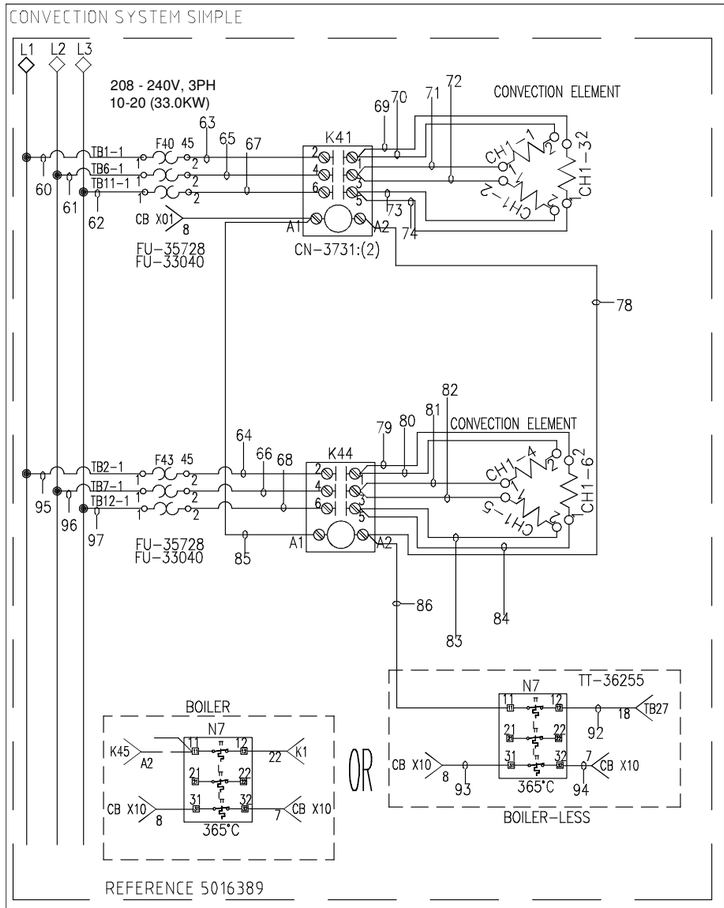
5016388-2W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K41	2	CR-34781
60	WI-3816	CR-34781	TB1	1	K41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K41	4	CR-34781
61	WI-3816	CR-34781	TB6	1	K41	4	CR-34781
62	WI-3816	CR-34781	TB11	1	K41	6	CR-34781
62	WI-3816	CR-34781	TB11	1	K41	6	CR-34781
300	WI-3816	CR-34781	K41	1	CH1	3-2	CR-33008
301	WI-3816	CR-34781	K41	1	CH1	1-2	CR-33008
302	WI-3816	CR-34781	K41	3	CH1	1-1	CR-33008
303	WI-3816	CR-34781	K41	3	CH1	2-1	CR-33008
304	WI-3816	CR-34781	K41	5	CH1	2-2	CR-33008
305	WI-3816	CR-34781	K41	5	CH1	3-1	CR-33008
73	WI-33777	CR-3593	K41	A2	N7	11	CR-33509
81	WI-33777	CR-33509	N7	12	TB27	18	CR-34783
82	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
83	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

REFERENCE 5016387
REFERENCE 5016388

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM
6-10 UP TO 7-14 208V 1&3PH CONVECTION SIMPLE

BY:	AFT	DWG:	77529	SHEET
DATE:	04/12/12			33 OF 42



5016389 10-20(EI); 208V 3PH; SIMPLE ONLY

5016389-3W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
64	WI-3816	CR-34781	F43	2	K443	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
69	WI-3816	CR-34781	K41	1	CH1	3-2	CR-33008
70	WI-3816	CR-34781	K41	1	CH1	1-2	CR-33008
70	WI-3816	CR-34781	K41	1	CH1	1-2	CR-33008
71	WI-3816	CR-34781	K41	3	CH1	1-1	CR-33008
72	WI-3816	CR-34781	K41	3	CH1	2-1	CR-33008
73	WI-3816	CR-34781	K41	5	CH1	2-2	CR-33008
74	WI-3816	CR-34781	K41	5	CH1	3-1	CR-33008
78	WI-33777	CR-3593	K41	A2	K44	A2	CR-3593
79	WI-3816	CR-34781	K44	1	CH1	6-2	CR-33008
80	WI-3816	CR-34781	K44	1	CH1	4-2	CR-33008
81	WI-3816	CR-34781	K44	3	CH1	4-1	CR-33008
82	WI-3816	CR-34781	K44	3	CH1	5-1	CR-33008
83	WI-3816	CR-34781	K44	5	CH1	5-2	CR-33008
84	WI-3816	CR-34781	K44	5	CH1	6-1	CR-33008
85	WI-33478	CR-3593	K41	A1	K44	A1	CR-3593
86	WI-33777	CR-33509	N7	11	K44	A2	CR-3593
92	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
93	WI-33777	CR-34783	CB-X10	8	N7	31	CR-33509
94	WI-33777	CR-34783	CB-X10	7	N7	32	CR-33509
95	WI-3816	CR-34781	TB2	1	F43	1	CR-34781
95	WI-3816	CR-34781	TB2	1	F43	1	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	1	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	1	CR-34781
97	WI-3816	CR-34781	TB12	1	F45	1	CR-34781
97	WI-3816	CR-34781	TB12	1	F45	1	CR-34781

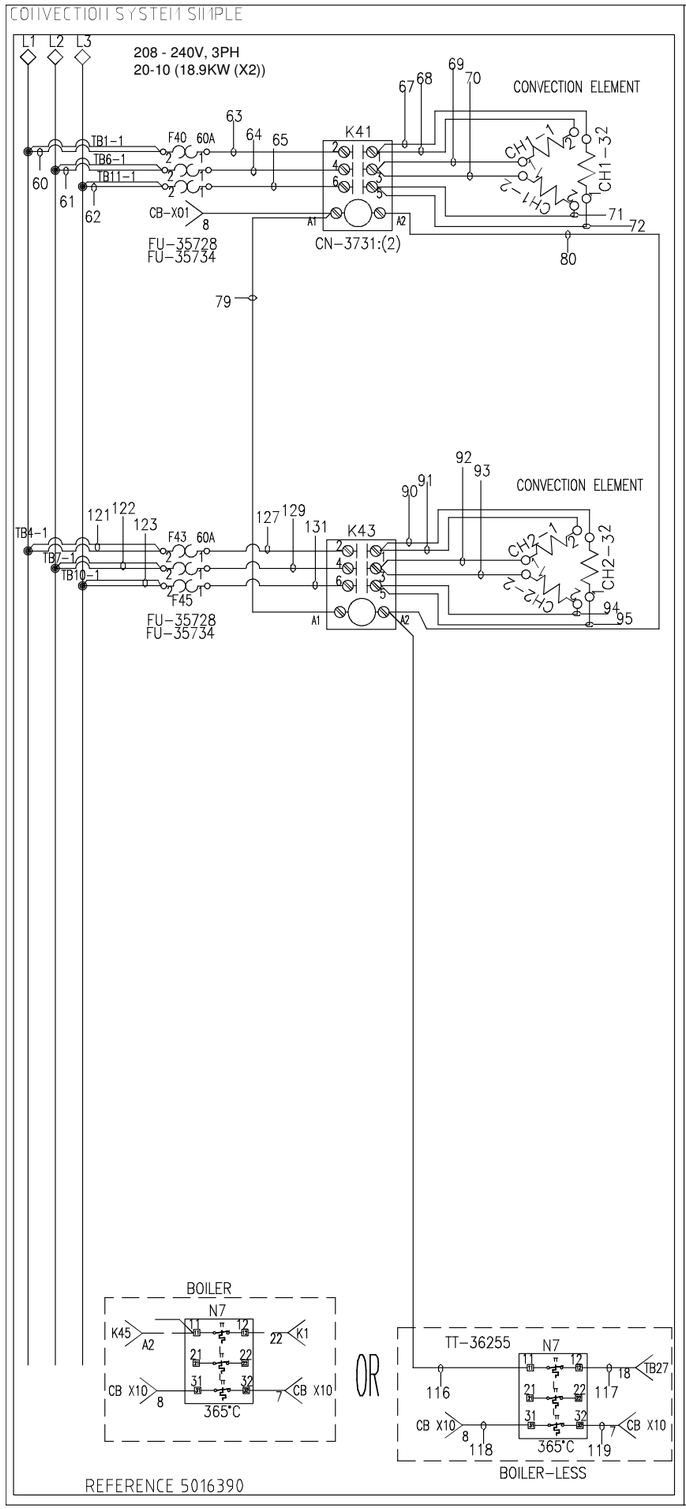
REFERENCE 5016389

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 10-10 208V 3PH CONVECTION SIMPLE

BY: AFT | DWG: 77529 | SHEET 34 OF 42

DATE: 04/12/12



50156390 20-10 (EI); 208V 3PH; SIMPLE

5016390-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
67	WI-3816	CR-34781	K41	1	CH1	3-2	CR-33008
68	WI-3816	CR-34781	K41	1	CH1	1-2	CR-33008
69	WI-3816	CR-34781	K41	3	CH1	1-1	CR-33008
70	WI-3816	CR-34781	K41	3	CH1	2-1	CR-33008
71	WI-3816	CR-34781	K41	5	CH1	2-2	CR-33008
72	WI-3816	CR-34781	K41	5	CH1	3-1	CR-33008
79	WI-33478	CR-3593	K41	A1	K43	A1	CR-3593
80	WI-33777	CR-3593	K41	A2	K43	A2	CR-3593
90	WI-3816	CR-34781	K43	1	CH2	3-2	CR-33008
91	WI-3816	CR-34781	K43	1	CH2	1-2	CR-33008
92	WI-3816	CR-34781	K43	3	CH2	1-1	CR-33008
93	WI-3816	CR-34781	K43	3	CH2	2-1	CR-33008
94	WI-3816	CR-34781	K43	5	CH2	2-2	CR-33008
95	WI-3816	CR-34781	K43	5	CH2	3-1	CR-33008
116	WI-33777	CR-3593	K43	A2	N7	11	CR-33509
117	WI-33777	CR-33509	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
121	WI-3816	CR-34781	K43	2	F43	2	CR-34781
121	WI-3816	CR-34781	K43	2	F43	2	CR-34781
122	WI-3816	CR-34781	K43	4	F44	2	CR-34781
122	WI-3816	CR-34781	K43	4	F44	2	CR-34781
123	WI-3816	CR-34781	K43	6	F45	2	CR-34781
123	WI-3816	CR-34781	K43	6	F45	2	CR-34781
127	WI-3816	CR-34781	K43	2	F43	1	CR-34781
129	WI-3816	CR-34781	K43	4	F44	1	CR-34781
131	WI-3816	CR-34781	K43	6	F45	1	CR-34781

REFERENCE 5016390

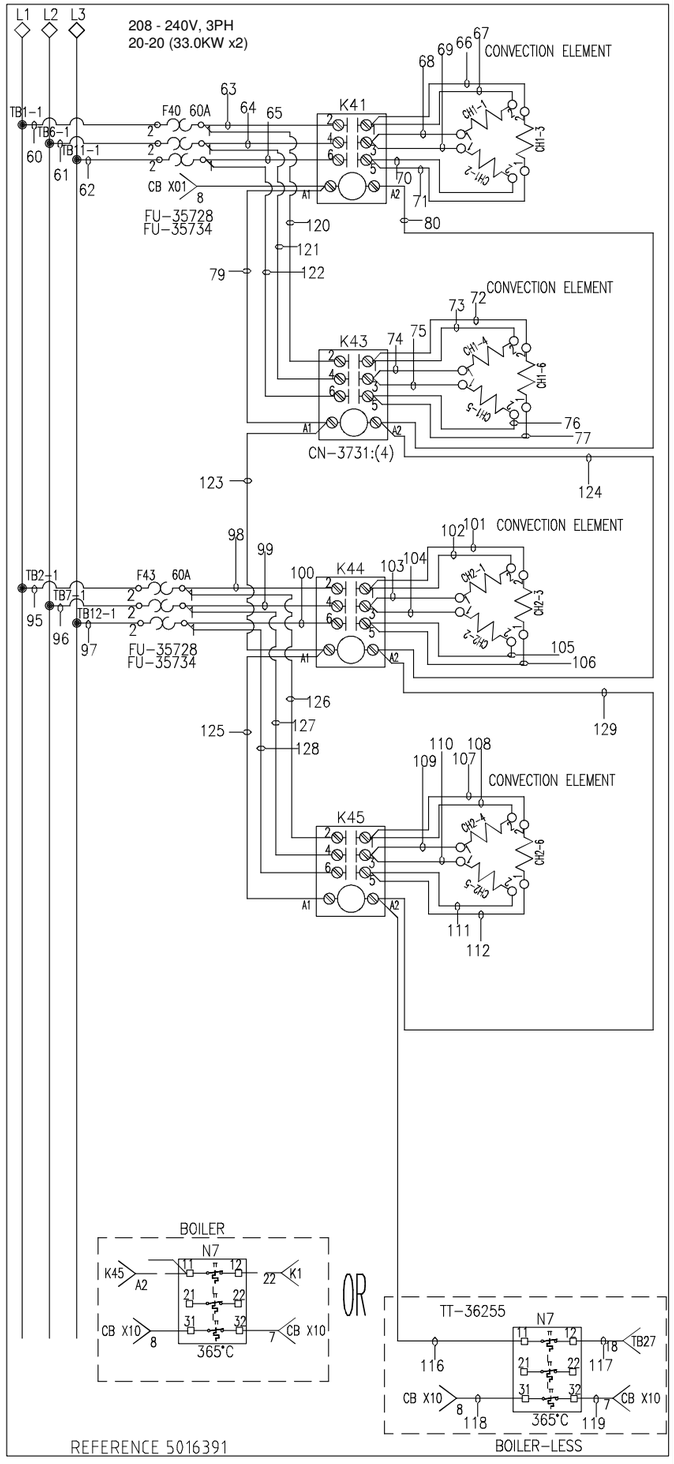
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 20-10 208V 3PH CONVECTION SIMPLE

BY: AFT | DWG: 77529 | SHEET: 35 OF 42

DATE: 04/12/12

CONVECTION SYSTEM SIMPLE



5016391 20-20 (EII); 208V 3PH; SIMPLE

5016391-3W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
66	WI-3816	CR-34781	K41	1	CH1	3-2	CR-3071
67	WI-3816	CR-34781	K41	1	CH1	1-2	CR-3071
68	WI-3816	CR-34781	K41	3	CH1	1-1	CR-3071
69	WI-3816	CR-34781	K41	3	CH1	2-1	CR-3071
70	WI-3816	CR-34781	K41	5	CH1	2-2	CR-3071
71	WI-3816	CR-34781	K41	5	CH1	3-1	CR-3071
72	WI-3816	CR-34781	K43	1	CH1	6-2	CR-3071
73	WI-3816	CR-34781	K43	1	CH1	4-2	CR-3071
74	WI-3816	CR-34781	K43	3	CH1	4-1	CR-3071
75	WI-3816	CR-34781	K43	3	CH1	5-1	CR-3071
76	WI-3816	CR-34781	K43	5	CH1	5-2	CR-3071
77	WI-3816	CR-34781	K43	5	CH1	6-1	CR-3071
79	WI-33478	CR-3593	K41	A1	K43	A1	CR-3593
80	WI-33777	CR-3593	K41	A2	K43	A2	CR-3593
95	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
95	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
98	WI-3816	CR-34781	K44	2	F43	1	CR-34781
99	WI-3816	CR-34781	K44	4	F44	1	CR-34781
100	WI-3816	CR-34781	K44	6	F45	1	CR-34781
101	WI-3816	CR-34781	K44	1	CH2	3-2	CR-3071
102	WI-3816	CR-34781	K44	1	CH2	1-2	CR-3071
103	WI-3816	CR-34781	K44	3	CH2	1-1	CR-3071
104	WI-3816	CR-34781	K44	3	CH2	2-1	CR-3071
105	WI-3816	CR-34781	K44	5	CH2	2-2	CR-3071
106	WI-3816	CR-34781	K44	5	CH2	3-1	CR-3071
107	WI-3816	CR-34781	K45	1	CH2	6-2	CR-3071
108	WI-3816	CR-34781	K45	1	CH2	4-2	CR-3071
109	WI-3816	CR-34781	K45	3	CH2	4-1	CR-3071
110	WI-3816	CR-34781	K45	3	CH2	5-1	CR-3071
111	WI-3816	CR-34781	K45	5	CH2	5-2	CR-3071
112	WI-3816	CR-34781	K45	5	CH2	6-1	CR-3071
116	WI-33777	CR-3593	K45	A2	N7	11	CR-33509
117	WI-33777	CR-33509	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
120	WI-3816	CR-34781	K43	2	F40	1	CR-34781
121	WI-3816	CR-34781	K43	4	F41	1	CR-34781
122	WI-3816	CR-34781	K43	6	F42	1	CR-34781
123	WI-33478	CR-3593	K43	A1	K44	A1	CR-3593
124	WI-33777	CR-3593	K43	A2	K44	A2	CR-3593
125	WI-33478	CR-3593	K44	A1	K45	A1	CR-3593
126	WI-3816	CR-34781	K45	2	F43	1	CR-34781
127	WI-3816	CR-34781	K45	4	F44	1	CR-34781
128	WI-3816	CR-34781	K45	6	F45	1	CR-34781
129	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
L1	WI-3817	BARE	BK-33996	L1	TB3	2	CR-33043
L1	WI-3817	BARE	BK-33996	L1	TB4	2	CR-33043
L1	WI-3817	BARE	BK-33996	L1	TB5	2	CR-33043
L2	WI-3817	BARE	BK-33996	L2	TB8	2	CR-33043
L2	WI-3817	BARE	BK-33996	L2	TB9	2	CR-33043
L2	WI-3817	BARE	BK-33996	L2	TB10	2	CR-33043
L3	WI-3817	BARE	BK-33996	L3	TB13	2	CR-33043
L3	WI-3817	BARE	BK-33996	L3	TB14	2	CR-33043
L3	WI-3817	BARE	BK-33996	L3	TB15	2	CR-33043

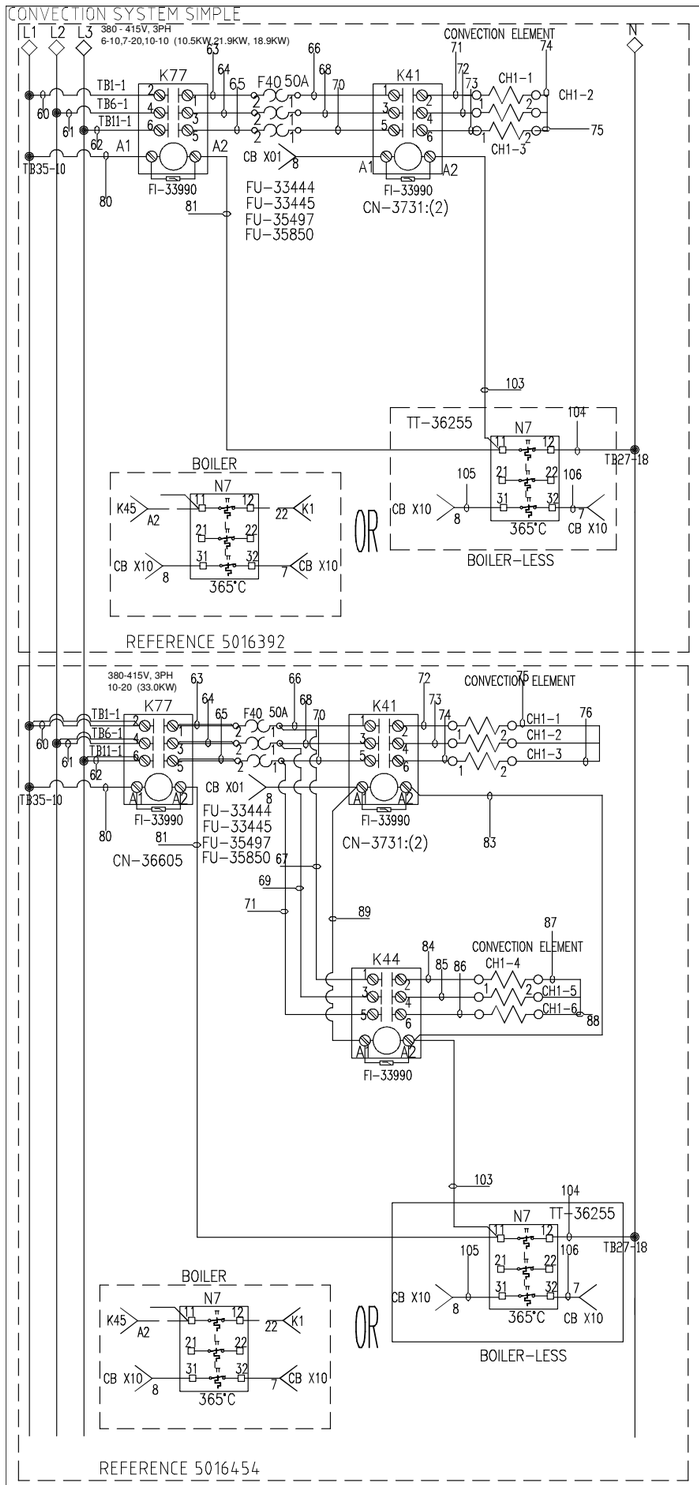
REFERENCE 5016391

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 20-20 208V 3PH CONVECTION SIMPLE

BY: AFT | DWG: 77529 | SHEET 36 OF 42
DATE: 04/12/12

Convection System (Simple): 6-10, 10-10, 7-20, 10-20 380V-415 3PH



5016392 6-10,10-10,7-20 (EI); 380V 3PH; SIMPLE

5016392-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K77	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K77	4	CR-34781
62	WI-3816	CR-34781	TB11	1	K77	6	CR-34781
63	WI-3816	CR-34781	F40	1	K77	1	CR-34781
64	WI-3816	CR-34781	F41	1	K77	3	CR-34781
65	WI-3816	CR-34781	F42	1	K77	5	CR-34781
66	WI-3816	CR-34781	F40	2	K41	1	CR-34781
68	WI-3816	CR-34781	F41	2	K41	3	CR-34781
70	WI-3816	CR-34781	F42	2	K41	5	CR-34781
71	WI-3816	CR-34781	K41	2	CH1	1-1	CR-33008
72	WI-3816	CR-34781	K41	4	CH1	2-1	CR-33008
73	WI-3816	CR-34781	K41	6	CH1	2-1	CR-33008
74	WI-3816	CR-34781	CH1	1-2	CH1	2-2	CR-33008
75	WI-3816	CR-33008	CH1	2-2	CH1	3-2	CR-33008
80	WI-33478	CR-34783	TB35	10	K77	A1	CR-3593
81	WI-33777	CR-3593	K77	A2	N7	11	CR-33509
103	WI-33777	CR-3593	K41	A2	N7	11	CR-33509
104	WI-33777	CR-33509	N7	12	TB27	18	CR-3593
105	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
106	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

5016454 10-20 (EI); 380V 3PH; SIMPLE

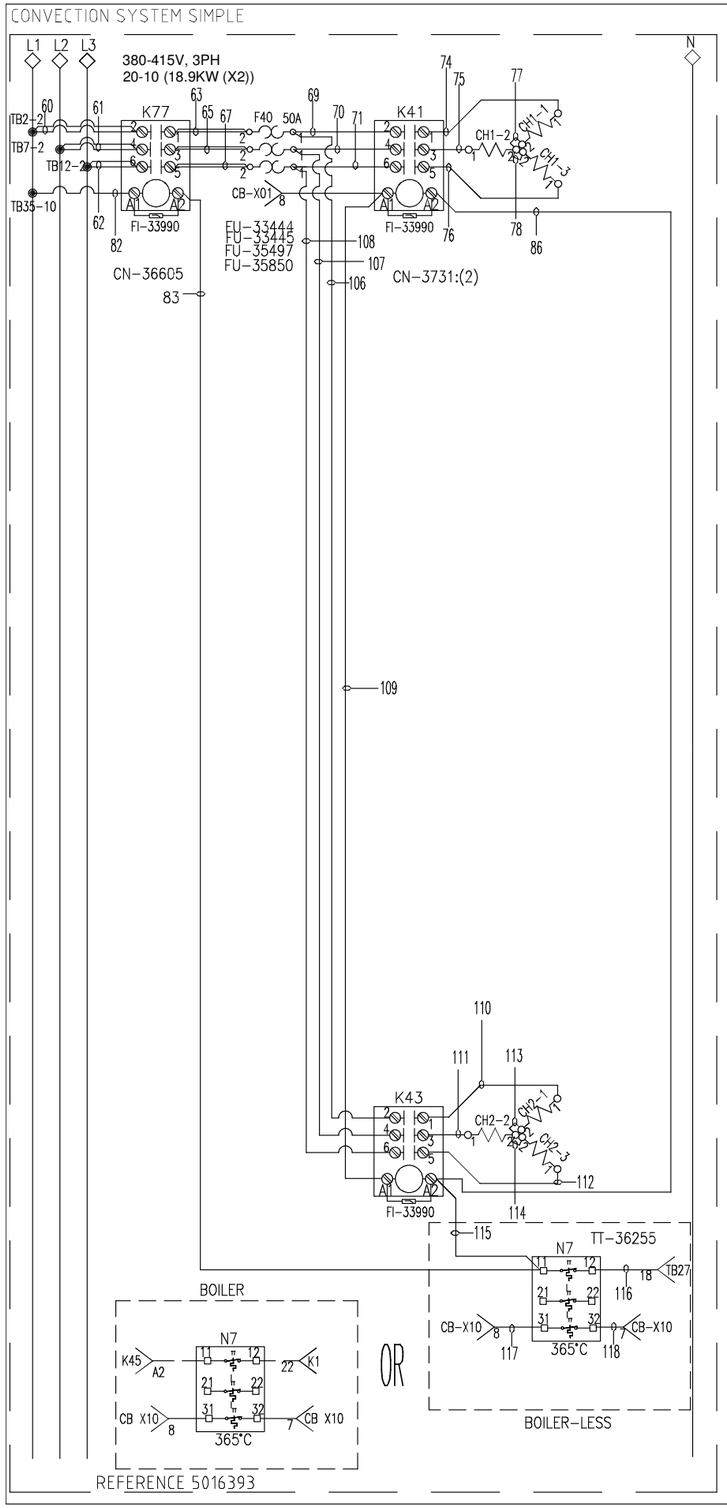
5016454-4W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K77	2	CR-34781
60	WI-3816	CR-34781	TB1	1	K77	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K77	4	CR-34781
61	WI-3816	CR-34781	TB6	1	K77	4	CR-34781
62	WI-3816	CR-34781	TB11	1	K77	6	CR-34781
62	WI-3816	CR-34781	TB11	1	K77	6	CR-34781
63	WI-3816	CR-34781	F40	2	K77	1	CR-34781
63	WI-3816	CR-34781	F40	2	K77	1	CR-34781
64	WI-3816	CR-34781	F41	2	K77	3	CR-34781
64	WI-3816	CR-34781	F41	2	K77	3	CR-34781
65	WI-3816	CR-34781	F42	2	K77	5	CR-34781
65	WI-3816	CR-34781	F42	2	K77	5	CR-34781
66	WI-3816	CR-34781	F40	1	K41	1	CR-34781
67	WI-3816	CR-34781	F40	1	K44	1	CR-34781
68	WI-3816	CR-34781	F41	1	K41	3	CR-34781
69	WI-3816	CR-34781	F41	1	K44	3	CR-34781
70	WI-3816	CR-34781	F42	1	K41	5	CR-34781
71	WI-3816	CR-34781	F42	1	K44	5	CR-34781
72	WI-3816	CR-34781	K41	2	CH1	1-1	CR-3071
73	WI-3816	CR-34781	K41	4	CH1	2-1	CR-3071
74	WI-3816	CR-34781	K41	6	CH1	3-1	CR-3071
75	WI-3816	CR-34781	CH1	1-2	CH1	2-2	CR-3071
76	WI-3816	CR-34781	CH1	3-2	CH1	2-2	CR-3071
80	WI-33478	CR-34783	TB35	10	K77	A1	CR-3593
81	WI-33777	CR-3593	K77	A2	N7	11	CR-33509
83	WI-33777	CR-3593	K41	A2	K44	A2	CR-3593
84	WI-3816	CR-34781	K44	2	CH1	4-1	CR-3071
85	WI-3816	CR-34781	K44	4	CH1	5-1	CR-3071
86	WI-3816	CR-34781	K44	6	CH1	6-1	CR-3071
87	WI-3816	CR-34781	CH1	5-2	CH1	4-2	CR-3071
88	WI-3816	CR-34781	CH1	5-2	CH1	6-2	CR-3071
89	WI-33478	CR-3593	K41	A1	K44	A1	CR-3593
103	WI-33777	CR-3593	K44	A2	N7	11	CR-34774
104	WI-33777	CR-33509	N7	12	TB27	18	CR-3593
105	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783

REFERENCE 5016392

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 6-10,10-10,7-20,10-20 380V 50Hz CONVECTION-SIMPLE

BY: AFT | DWG: 77529 | SHEET 37 OF 42



5016393 20-10 (EI); 380V 3PH; SIMPLE

5016393-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB2	2	K77	2	CR-34781
60	WI-3816	CR-34781	TB2	2	K77	2	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
63	WI-3816	CR-34775	F40	2	K77	1	CR-34781
63	WI-3816	CR-34775	F40	2	K77	1	CR-34781
65	WI-3816	CR-34775	F41	2	K77	3	CR-34781
65	WI-3816	CR-34775	F41	2	K77	3	CR-34781
67	WI-3816	CR-34775	F42	2	K77	5	CR-34781
67	WI-3816	CR-34775	F42	2	K77	5	CR-34781
69	WI-3816	CR-34775	F40	1	K41	2	CR-34781
70	WI-3816	CR-34775	F41	1	K41	4	CR-34781
71	WI-3816	CR-34775	F42	1	K41	6	CR-34781
74	WI-3816	CR-34781	K41	1	CH1	1-1	CR-33008
75	WI-3816	CR-34781	K41	3	CH1	2-1	CR-33008
76	WI-3816	CR-33008	K41	5	CH1	3-1	CR-33008
77	WI-3816	CR-33008	CH1	1-2	CH1	2-2	CR-33008
78	WI-3816	CR-33008	CH1	3-2	CH1	2-2	CR-33008
82	WI-33478	CR-34783	TB35	10	K77	A1	CR-3593
83	WI-33777	CR-3593	K77	A2	N7	11	CR-33509
86	WI-33777	CR-3593	K41	A2	K43	A2	CR-3593
106	WI-3816	CR-34775	F40	1	K43	2	CR-34781
107	WI-3816	CR-34775	F41	1	K43	4	CR-34781
108	WI-3816	CR-34775	F42	1	K43	6	CR-34781
109	WI-33478	CR-3593	K41	A1	K43	A1	CR-3593
110	WI-3816	CR-34781	K43	1	CH2	1-1	CR-33008
111	WI-3816	CR-34781	K43	3	CH2	2-1	CR-33008
112	WI-3816	CR-33008	K43	5	CH2	3-1	CR-33008
113	WI-3816	CR-33008	CH2	1-2	CH2	2-2	CR-33008
114	WI-3816	CR-33008	CH2	3-2	CH2	2-2	CR-33008
115	WI-33777	CR-3593	K43	A2	N7	11	CR-34774
116	WI-33777	CR-3593	TB27	18	N7	12	CR-33509
117	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
118	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

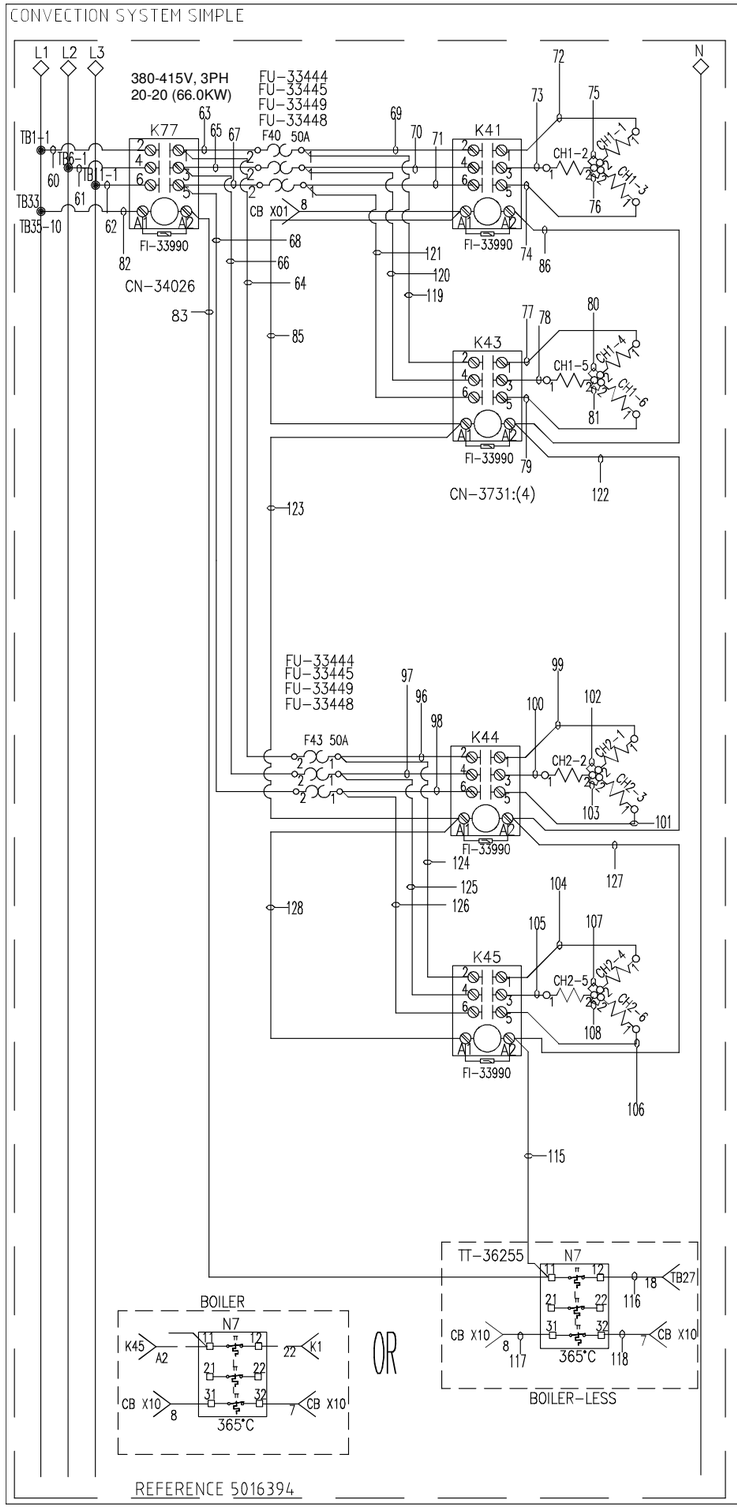
REFERENCE 5016393

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 20-10 3PH-380V-50Hz-CONVECTION-SIMPLE

BY: AFT | DWG: 77529 | SHEET 38 OF 42

DATE: 04/12/12



5016394 20-20 (EI), 380V 3PH; SIMPLE

5016394-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB2	2	K77	2	CR-34781
60	WI-3816	CR-34781	TB2	2	K77	2	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
63	WI-3816	CR-34775	K77	1	F40	2	CR-34781
64	WI-3816	CR-34781	K77	1	F43	2	CR-34781
65	WI-3816	CR-34775	K77	3	F41	2	CR-34781
66	WI-3816	CR-34781	K77	3	F44	2	CR-34781
67	WI-3816	CR-34775	K77	5	F42	2	CR-34781
68	WI-3816	CR-34781	K77	5	F45	2	CR-34781
69	WI-3816	CR-34775	F40	1	K41	2	CR-34781
70	WI-3816	CR-34775	F41	1	K41	4	CR-34781
71	WI-3816	CR-34775	F42	1	K41	6	CR-34781
72	WI-3816	CR-34781	K41	1	CH1	1-1	CR-33008
73	WI-3816	CR-34781	K41	3	CH1	2-1	CR-33008
74	WI-3816	CR-34781	K41	5	CH1	3-1	CR-33008
75	WI-3816	CR-34781	CH1	1-2	CH1	2-2	CR-33008
76	WI-3816	CR-34781	CH1	3-2	CH1	2-2	CR-33008
77	WI-3816	CR-34781	K43	1	CH1	4-1	CR-33008
78	WI-3816	CR-34781	K43	3	CH1	5-1	CR-33008
79	WI-3816	CR-34781	K43	5	CH1	6-1	CR-33008
80	WI-3816	CR-33008	CH1	5-2	CH1	4-2	CR-33008
81	WI-3816	CR-33008	CH1	5-2	CH1	6-2	CR-33008
82	WI-33478	CR-34783	TB35	10	K77	A1	CR-3593
83	WI-33777	CR-3593	K77	A2	N7	11	CR-33509
85	WI-33478	CR-3593	K41	A1	K43	A1	CR-3593
86	WI-33777	CR-3593	K41	A2	K43	A2	CR-3593
96	WI-3816	CR-34775	F43	1	K44	2	CR-34781
97	WI-3816	CR-34775	F44	1	K44	4	CR-34781
98	WI-3816	CR-34775	F45	1	K44	6	CR-34781
99	WI-3816	CR-34781	K44	1	CH2	1-1	CR-33008
100	WI-3816	CR-34781	K44	3	CH2	2-1	CR-33008
101	WI-3816	CR-34781	K44	5	CH2	3-1	CR-33008
102	WI-3816	CR-33008	CH2	1-2	CH2	2-2	CR-33008
103	WI-3816	CR-33008	CH2	3-2	CH2	2-2	CR-3593
104	WI-3816	CR-34781	K45	1	CH2	4-1	CR-33008
105	WI-3816	CR-34781	K45	3	CH2	5-1	CR-33008
106	WI-3816	CR-34781	K45	5	CH2	6-1	CR-33008
107	WI-3816	CR-33008	CH2	4-2	CH2	5-2	CR-33008
108	WI-3816	CR-33008	CH2	6-2	CH2	5-2	CR-33008
115	WI-33777	CR-3593	K45	A2	N7	11	CR-34774
116	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
117	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
118	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
119	WI-3816	CR-34781	F40	1	K43	2	CR-34781
120	WI-3816	CR-34781	F41	1	K43	4	CR-34781
121	WI-3816	CR-34781	F42	1	K43	6	CR-34781
127	WI-33777	CR-3593	K43	A2	K44	A2	CR-3593
123	WI-33478	CR-3593	K43	A1	K44	A1	CR-3593
124	WI-3816	CR-34781	F43	1	K45	2	CR-34781
125	WI-3816	CR-34781	F44	1	K45	4	CR-34781
126	WI-3816	CR-34781	F45	1	K45	6	CR-34781
127	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593
128	WI-33478	CR-3593	K44	A1	K45	A1	CR-3593

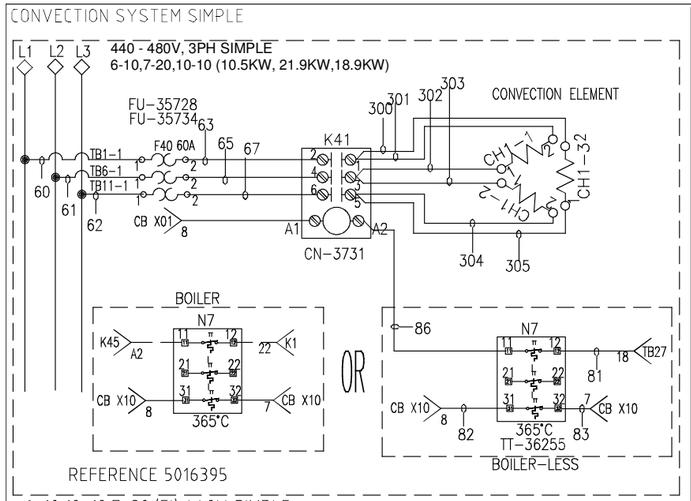
REFERENCE 5016394

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 05.10 3Ph 380V 50Hz CONVECTION SIMPLE

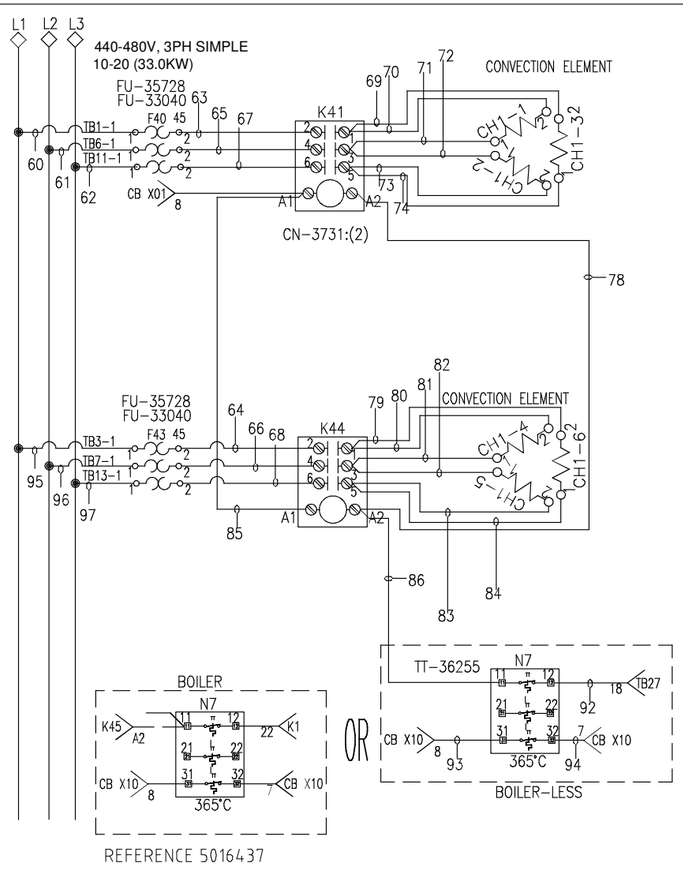
BY: AFT | DWG: 77529 | SHEET 39 OF 42

DATE: 04/12/12



6-10,10-10,7-20,(EI) 440V SIMPLE

5016395-1w							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
300	WI-3816	CR-34781	K41	1	CH1	3-2	CR-33008
301	WI-3816	CR-34781	K41	1	CH1	1-2	CR-33008
302	WI-3816	CR-34781	K41	3	CH1	1-1	CR-33008
303	WI-3816	CR-34781	K41	3	CH1	2-1	CR-33008
304	WI-3816	CR-34781	K41	5	CH1	2-2	CR-33008
305	WI-3816	CR-34781	K41	5	CH1	3-1	CR-33008
86	WI-33777	CR-33509	N7	11	K41	A2	CR-3593
81	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
82	WI-33777	CR-34783	CB-X10	8	N7	31	CR-33509
83	WI-33777	CR-34783	CB-X10	7	N7	32	CR-33509



5016437 10-20; (EI); 440V; SIMPLE

5016437-2W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
69	WI-3816	CR-34781	K41	1	CH1	3-2	CR-3071
70	WI-3816	CR-34781	K41	1	CH1	1-2	CR-3071
71	WI-3816	CR-34781	K41	3	CH1	1-1	CR-3071
72	WI-3816	CR-34781	K41	3	CH1	2-1	CR-3071
73	WI-3816	CR-34781	K41	5	CH1	2-2	CR-3071
74	WI-3816	CR-34781	K41	5	CH1	3-1	CR-3071
78	WI-33777	CR-3593	K41	A2	K44	A2	CR-3593
79	WI-3816	CR-34781	K44	1	CH1	6-2	CR-3071
80	WI-3816	CR-34781	K44	1	CH1	4-2	CR-3071
81	WI-3816	CR-34781	K44	3	CH1	4-1	CR-3071
82	WI-3816	CR-34781	K44	3	CH1	5-1	CR-3071
83	WI-3816	CR-34781	K44	5	CH1	5-2	CR-3071
84	WI-3816	CR-34781	K44	5	CH1	6-1	CR-3071
85	WI-33478	CR-3593	K41	A2	K44	A2	CR-3593
86	WI-33777	CR-33509	N7	11	K44	A2	CR-3593
92	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
93	WI-33777	CR-34783	CB-X10	8	N7	31	CR-33509
94	WI-33777	CR-34783	CB-X10	7	N7	32	CR-33509
95	WI-3816	CR-34781	TB3	1	F43	1	CR-34781
95	WI-3816	CR-34781	TB3	1	F43	1	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	1	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	1	CR-34781
97	WI-3816	CR-34781	TB13	1	F45	1	CR-34781
97	WI-3816	CR-34781	TB13	1	F45	1	CR-34781

REFERENCE 5016395

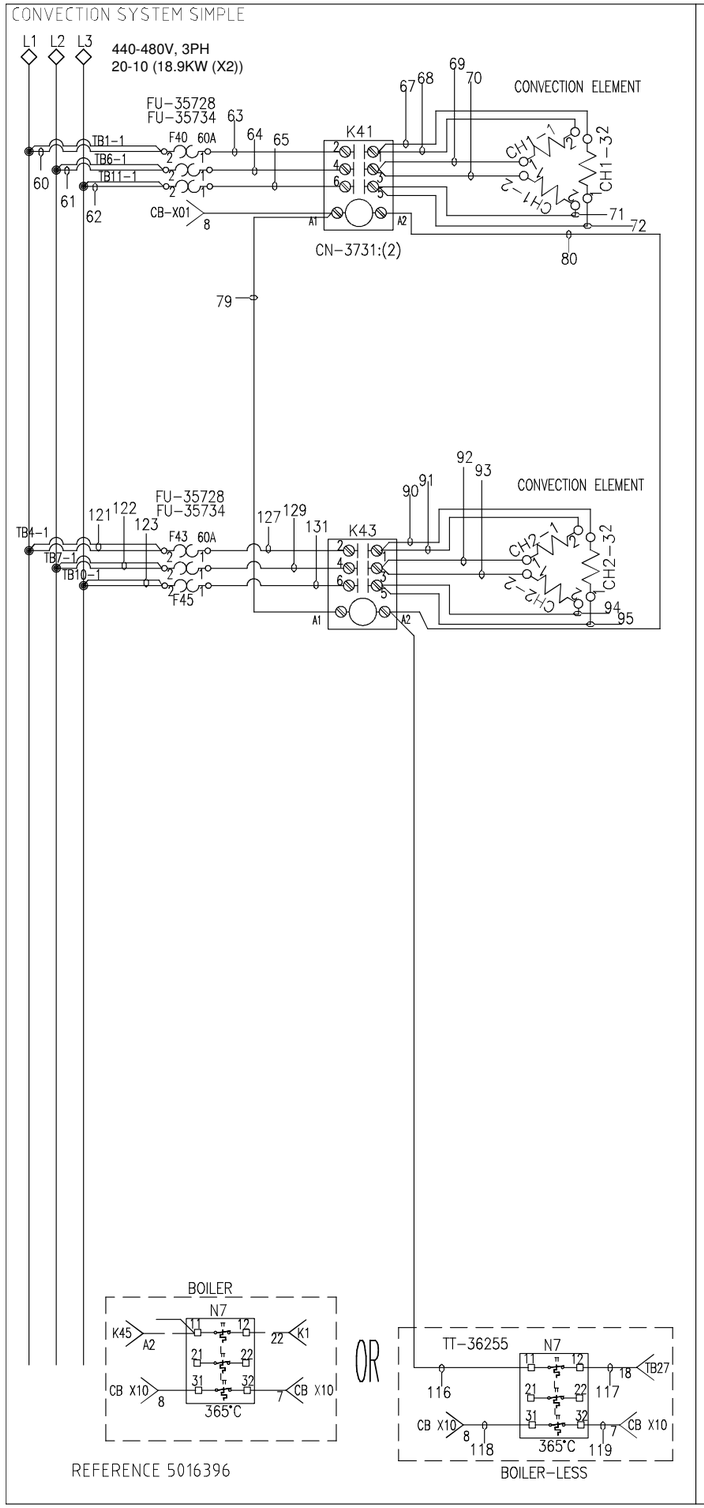
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM | WIRING DIAGRAM | 6-10 UP-TO-10.18-440V-CONVECTION-SIMPLE

BY: AFT | DWG: 77529 | SHEET 40 OF 42

DATE: 04/12/12

Convection System (Simple): 20-10 440V



50156396 20-10 (EI); 440V 3PH; SIMPLE

5016396-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
67	WI-3816	CR-34781	K41	1	CH1	3-2	CR-33008
68	WI-3816	CR-34781	K41	1	CH1	1-2	CR-33008
69	WI-3816	CR-34781	K41	3	CH1	1-1	CR-33008
70	WI-3816	CR-34781	K41	3	CH1	2-1	CR-33008
71	WI-3816	CR-34781	K41	5	CH1	2-2	CR-33008
72	WI-3816	CR-34781	K41	5	CH1	3-1	CR-33008
79	WI-33478	CR-3593	K41	A1	K43	A1	CR-3593
80	WI-33777	CR-3593	K41	A2	K43	A2	CR-3593
90	WI-3816	CR-34781	K43	1	CH2	3-2	CR-33008
91	WI-3816	CR-34781	K43	1	CH2	1-2	CR-33008
92	WI-3816	CR-34781	K43	3	CH2	1-1	CR-33008
93	WI-3816	CR-34781	K43	3	CH2	2-1	CR-33008
94	WI-3816	CR-34781	K43	5	CH2	2-2	CR-33008
95	WI-3816	CR-34781	K43	5	CH2	3-1	CR-33008
116	WI-33777	CR-3593	K43	A2	N7	11	CR-33509
117	WI-33777	CR-33509	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
121	WI-3816	CR-34781	K43	2	F43	2	CR-34781
121	WI-3816	CR-34781	K43	2	F43	2	CR-34781
122	WI-3816	CR-34781	K43	4	F44	2	CR-34781
122	WI-3816	CR-34781	K43	4	F44	2	CR-34781
123	WI-3816	CR-34781	K43	6	F45	2	CR-34781
123	WI-3816	CR-34781	K43	6	F45	2	CR-34781
127	WI-3816	CR-34781	K43	2	F43	1	CR-34781
129	WI-3816	CR-34781	K43	4	F44	1	CR-34781
131	WI-3816	CR-34781	K43	6	F45	1	CR-34781

REFERENCE 5016396

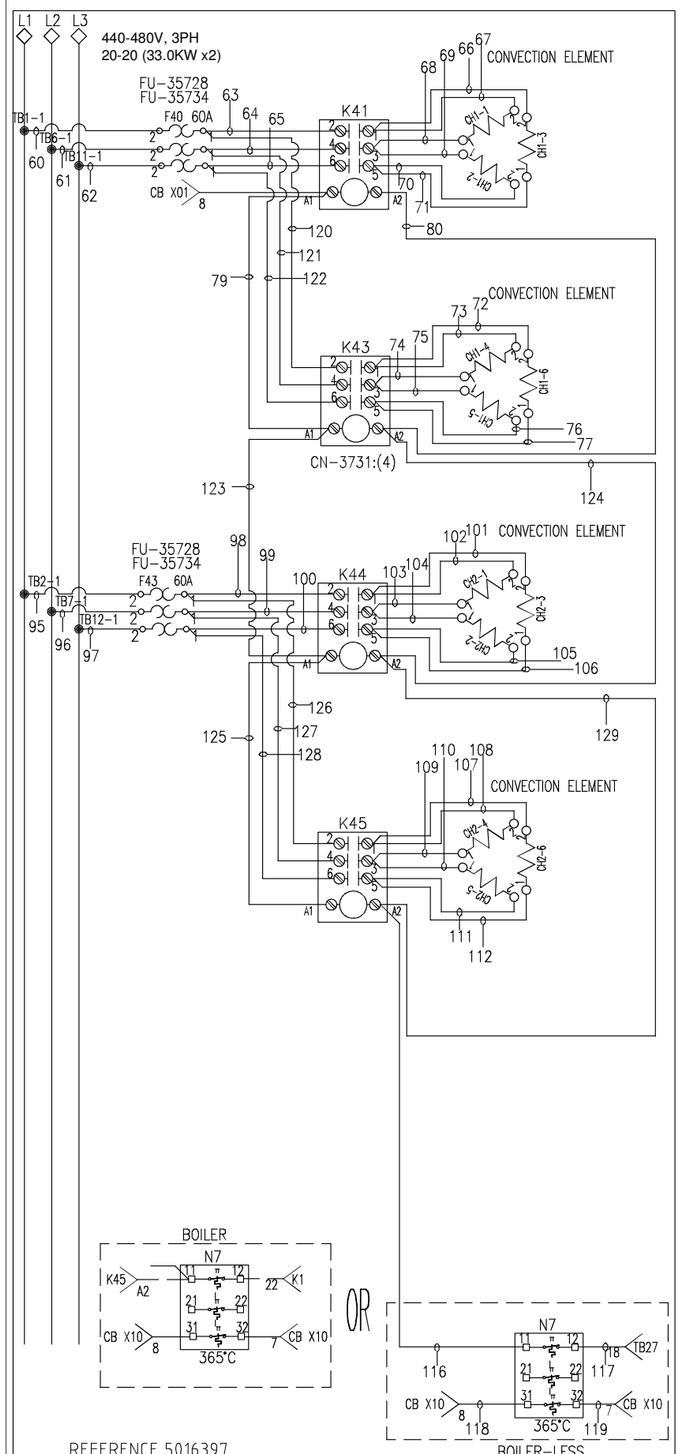
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 20-10 440V CONVECTION SIMPLE

BY: AFT | DWG: 77529 | SHEET 41 OF 42

DATE: 04/12/12

CONVECTION SYSTEM SIMPLE



5016397 20-20 (EI); 440V 3PH; SIMPLE

5016397-2W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
66	WI-3816	CR-34781	K41	1	CH1	3-2	CR-3071
67	WI-3816	CR-34781	K41	1	CH1	1-2	CR-3071
68	WI-3816	CR-34781	K41	3	CH1	1-1	CR-3071
69	WI-3816	CR-34781	K41	3	CH1	2-1	CR-3071
70	WI-3816	CR-34781	K41	5	CH1	2-2	CR-3071
71	WI-3816	CR-34781	K41	5	CH1	3-1	CR-3071
72	WI-3816	CR-34781	K43	1	CH1	6-2	CR-3071
73	WI-3816	CR-34781	K43	1	CH1	4-2	CR-3071
74	WI-3816	CR-34781	K43	3	CH1	4-1	CR-3071
75	WI-3816	CR-34781	K43	3	CH1	5-1	CR-3071
76	WI-3816	CR-34781	K43	5	CH1	5-2	CR-3071
77	WI-3816	CR-34781	K43	5	CH1	6-1	CR-3071
79	WI-33478	CR-3593	K41	A1	K43	A1	CR-3593
80	WI-33777	CR-3593	K41	A2	K43	A2	CR-3593
95	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
95	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
98	WI-3816	CR-34781	K44	2	F43	1	CR-34781
99	WI-3816	CR-34781	K44	4	F44	1	CR-34781
100	WI-3816	CR-34781	K44	6	F45	1	CR-34781
101	WI-3816	CR-34781	K44	1	CH2	3-2	CR-3071
102	WI-3816	CR-34781	K44	1	CH2	1-2	CR-3071
103	WI-3816	CR-34781	K44	3	CH2	1-1	CR-3071
104	WI-3816	CR-34781	K44	3	CH2	2-1	CR-3071
105	WI-3816	CR-34781	K44	5	CH2	2-2	CR-3071
106	WI-3816	CR-34781	K44	5	CH2	3-1	CR-3071
107	WI-3816	CR-34781	K45	1	CH2	6-2	CR-3071
108	WI-3816	CR-34781	K45	1	CH2	4-2	CR-3071
109	WI-3816	CR-34781	K45	3	CH2	4-1	CR-3071
110	WI-3816	CR-34781	K45	3	CH2	5-1	CR-3071
111	WI-3816	CR-34781	K45	5	CH2	5-2	CR-3071
112	WI-3816	CR-34781	K45	5	CH2	6-1	CR-3071
116	WI-33777	CR-3593	K45	A2	N7	11	CR-33509
117	WI-33777	CR-33509	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
120	WI-3816	CR-34781	K43	2	F40	1	CR-34781
121	WI-3816	CR-34781	K43	4	F41	1	CR-34781
122	WI-3816	CR-34781	K43	6	F42	1	CR-34781
123	WI-33478	CR-3593	K43	A1	K44	A1	CR-3593
124	WI-33777	CR-3593	K43	A2	K44	A2	CR-3593
125	WI-33478	CR-3593	K44	A1	K45	A1	CR-3593
126	WI-3816	CR-34781	K45	2	F43	1	CR-34781
127	WI-3816	CR-34781	K45	4	F44	1	CR-34781
128	WI-3816	CR-34781	K45	6	F45	1	CR-34781
129	WI-33777	CR-3593	K44	A2	K45	A2	CR-3593

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM | WIRING DIAGRAM | 20-20 440V CONVECTION SIMPLE
BY: AFT | DWG: 77529 | SHEET 42 OF 42
DATE: 04/12/12

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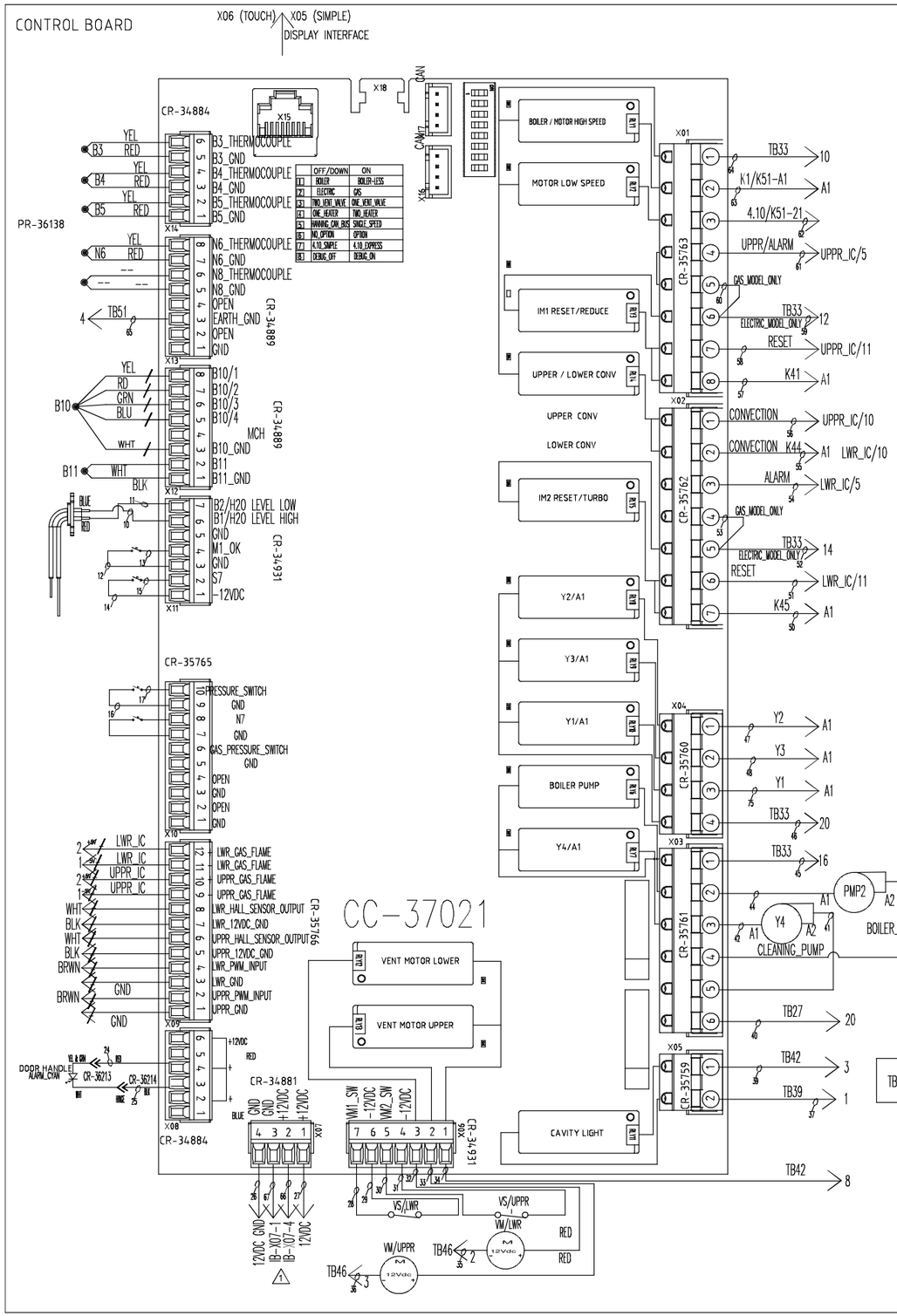
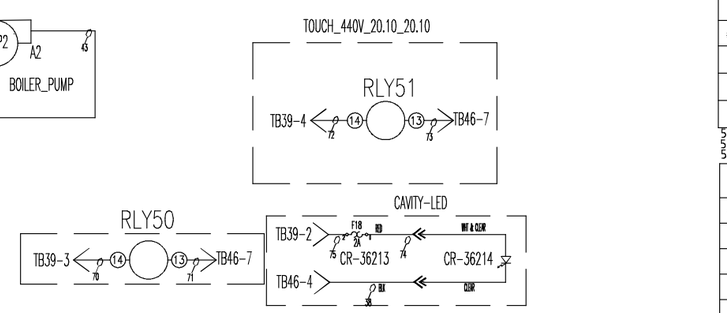
Control Board





REFERENCE:
- CABLE W/ MULTI-COLOR WIRE
- WIRE NUMBER DESIGNATE
- FROM / TO DESTINATION
- MULTI-POINT TERMINAL
- 1 DISPLAY INTERFACE

5015381 6-10, 10-10,7-20 (EB); ALL VOLTAGE; SIMPLE&TOUCH
5016398 10-20 (EB); ALL VOLTAGE; SIMPLE&TOUCH
5016399 20-10/20-20 (EB); ALL VOLTAGE; SIMPLE&TOUCH

5015381-W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
11	WI-33478	CR-34783	CB-X11	7	B2	BOILER	CR-34783
10	WI-33777	CR-34783	CB-X11	6	B1	BOILER	CR-34783
43	WI-33777	CR-34783	CB-X03	4	PMP2	A2	CR-33509
44	WI-33478	CR-34783	CB-X03	2	PMP2	A1	CR-33509
63	WI-33478	CR-34783	CB-X01	2	K1	A1	CR-38389

5015380 6-10,10-10,7-20,10-20 (GI); ALL VOLTAGE; SIMPLE&TOUCH
5016401 20-10/20-20 (GI); ALL VOLTAGE; SIMPLE&TOUCH

5015380-7W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
53	WI-33478	CR-34783	CB-X02	4	CB-X02	5	CR-34783
66	WI-33478	CR-34783	CB-X07	2	IB-X07	1	CR-34783
67	WI-33777	CR-34783	CB-X07	3	IB-X07	3	CR-34783

5015379 6-10,10-10,7-20 (EB,EI,GI); ALL VOLTAGE; SIMPLE ONLY
5016402 10-20 (EB, EI, GI); ALL VOLTAGE; SIMPLE ONLY
5016403 20-10/20-20 (EB, EI, GI); ALL VOLTAGE; SIMPLE ONLY

5015379-4W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
62	WI-33478	CR-34783	CB-X01	2	K51	A1	CR-34783
65	WI-33478	CR-34783	CB-X01	3	K51	21	CR-34783
12	WI-33478	CR-34783	CB-X11	3	MOTOR	HL	CR-33509
13	WI-33478	CR-34783	CB-X11	4	MOTOR	HL	CR-33509

5015357 6-10,10-10,7-20 (EB,EI); ALL VOLTAGE; TOUCH
5016404 10-20 (EB,EI); ALL VOLTAGE; TOUCH
5016405 20-10/20-20 (EB,EI); ALL VOLTAGE; TOUCH

5016450 6-10,10-10,7-20 (EB,EI); ALL VOLTAGE; SIMPLE
5016451 10-20,20-10 (EB,EI); ALL VOLTAGE; SIMPLE
5016452 20-20 (EB,EI); ALL VOLTAGE; SIMPLE

5015357-6W

#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
52	WI-33478	CR-34783	CB-X02	5	TB33	14	CR-34783
55	WI-33478	CR-34783	CB-X02	2	K44	A1	CR-3593
59	WI-33478	CR-34783	CB-X01	6	TB33	12	CR-34783
57	WI-33478	CR-34783	CB-X01	8	K41	A1	CR-3593
66	WI-33478	CR-34783	CB-X07	2	IB-X07	1	CR-34783
67	WI-33777	CR-34783	CB-X07	3	IB-X07	4	CR-34783

5015382 6-10,10-10, 7-20; (EB,EI, GI); ALLVOLTAGE; SIMPLE&TOUCH
5016283 10-20, (EB,EI,GI); ALL VOLTAGE; SIMPLE&TOUCH
5016284 20-10/20-20; (EB,EI,GI); ALL VOLTAGE; SIMPLE&TOUCH

5015382-13W

#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
14	WI-33478	CR-34783	CB-X11	1	S7-DOOR	SW	CR-34639
15	WI-33478	CR-34783	CB-X11	2	S7-DOOR	SW	CR-34639
16	WI-33777	CR-34783	CB-X10	9	H2O-PSW	SW	CR-33509
17	WI-33777	CR-34783	CB-X10	10	H2O-PSW-GND	SW	CR-33509
24	WI-36210	CR-33509	CB-X09	4	HINGE-RED	+12VDC	CR-36215
25	WI-36211	CR-34783	CB-X08	3	HINGE-BLK	12VDC_GND	CR-36215
26	WI-33777	CR-34783	CB-X07	4	PS1	12VDC_GND	CR-34783
27	WI-33478	CR-34783	CB-X07	1	PS1	+12VDC	CR-34783
34	WI-33478	CR-34783	CB-X06	1	TB42	8	CR-34783
38	WI-36211	CR-34783	TB46	4	CAVITY-LED-BLK	12VDC_GND	CR-36216
39	WI-33478	CR-34783	TB42	3	CB-X05	1	CR-34783
40	WI-33777	CR-34783	CB-X03	6	TB27	20	CR-34783
41	WI-33777	CR-34783	CB-X03	5	Y4	A2	CR-33509
42	WI-33478	CR-34783	CB-X03	3	Y4	A1	CR-33509
45	WI-33478	CR-34783	CB-X03	1	TB33	16	CR-34783
46	WI-33478	CR-34783	CB-X04	4	TB33	20	CR-34783
64	WI-33478	CR-34783	CB-X01	1	TB33	10	CR-34783
65	WI-33776	CR-34783	CB-X13	3	TB51	4	CR-34783

5016629 6-10,10-10,7-20,10-20; (EB,EI, GI); 120V-380V; TOUCH
5016630 20-10/20-20; (EB,EI,GI); 120V-380V VOLTAGE; TOUCH
5016640 6-10,10-10,7-20,10-20; (EB,EI, GI); 440V; TOUCH
5016641 20-10/20-20; (EB,EI,GI); 440V ; TOUCH

5016629-6W

#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
69	WI-33478	CR-34783	CB-X05	2	TB39	1	CR-34783
70	WI-33478	CR-3593	RLY50	14	TB39	3	CR-34783
71	WI-33777	CR-3593	RLY50	13	TB46	7	CR-34783
74	WI-36210	CR-34783	F18	1	CAVITY-LED-WHT-CLEAR	+12VDC	CR-36216
75	WI-33478	CR-34783	TB39	2	F18	2	CR-34783

5016783 6-10,10-10,7-20, 10-20; (EB,EI, GI); ALL VOLTAGE; SIMPLE
5016784 20-10/20-20; (EB,EI,GI); ALL VOLTAGE; SIMPLE

5016783-5W

#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
74	WI-36210	CR-34783	F18	1	CAVITY-LED-HINGE-CLEAR	12VDC	CR-36216
37	WI-33478	CR-34783	CB-X05	2	TB39	1	CR-34783
75	WI-33478	CR-34783	TB39	2	F18	2	CR-34783

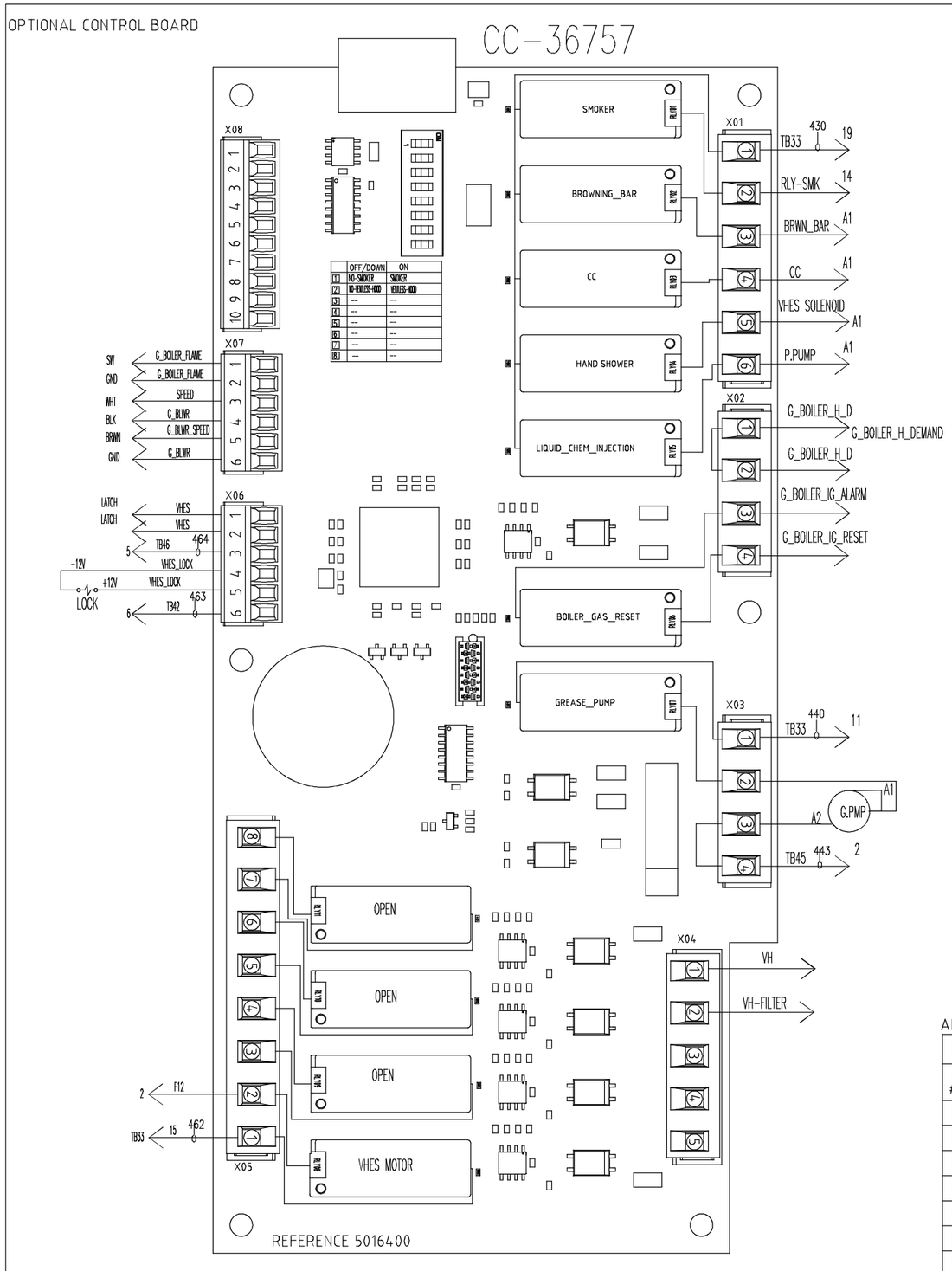
5016795 6-10,10-10, 7-20; (EB,EI, GI); ALLVOLTAGE; SIMPLE&TOUCH
5016796 10-20; (EB,EI,GI); ALL VOLTAGE; SIMPLE&TOUCH
5016811 20-10/20-20; (EB,EI,GI); ALL VOLTAGE; SIMPLE&TOUCH

5016795-6W

#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
28	WI-33477	CR-34783	CB-X06	7	VM-2	SW	CR-34638
29	WI-33477	CR-34783	CB-X06	6	VM-2	SW	CR-34638
30	WI-33477	CR-34783	CB-X06	5	VM-1	SW	CR-33510
31	WI-33477	CR-34783	CB-X06	4	VM-1	SW	CR-33510
32	WI-33478	CR-34783	CB-X06	3	VM	2	CR-33509
33	WI-33478	CR-34783	CB-X06	2	VM	1	CR-34639
35	WI-33777	CR-34639	VM-2	12VDC_GND	TB46	2	CR-34783
36	WI-33777	CR-33509	VM-1	12VDC_GND	TB46	3	CR-34783

REV	ECO	DESCRIPTION	DATE	APP
5	7661	New Connectors refer to EC#	04/28/16	MVQ
4	7674	Golden Sample	01/08/16	MVQ
3	7605	Remove wire 32 & 37 from CB-X03 & X01	11/09/15	MVQ

ALTO-SHAAM — WIRING DIAGRAM — CONTROL BOARD
BY: MVQ DWG: 77623 SHEET: 1 OF 42
DATE: 07/27/15



ALL MODELS, ALL VOLTAGE, OPTION BOARD

5016400-7W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
424	WI-33777	CR-34783	TB27	9	TB45	1	CR-34783
430	WI-33478	CR-34783	TB33	19	OB-X01	1	CR-34783
440	WI-33478	CR-34783	TB33	11	OB-X03	1	CR-34783
443	WI-33777	CR-34783	TB45	2	OB-X03	4	CR-34783
462	WI-33478	CR-34783	TB33	15	OB-X05	1	CR-34783
463	WI-33478	CR-34783	TB42	6	OB-X06	6	CR-34783
464	WI-33777	CR-34783	TB46	5	OB-X06	3	CR-34783

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM | WIRING DIAGRAM | OPTIONAL CONTROL BOARD
BY: AFT | DWG: 77623 | SHEET 2 OF 42
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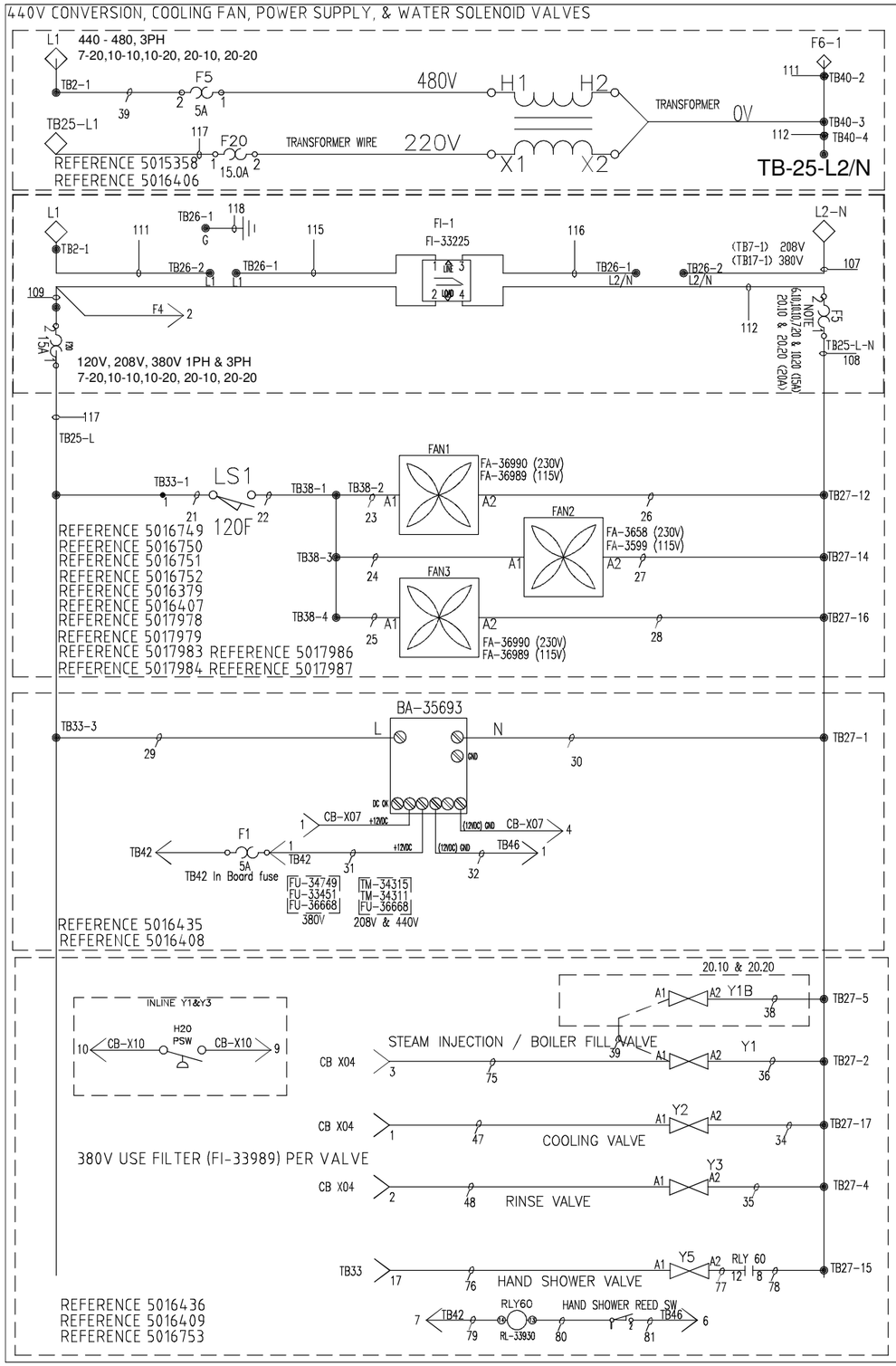

5015358 6-10,10-10,7-20,10-20; 440V ; SIMPLE & TOUCH

5015358-6W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
39	WI-3815	CR-34782	TB2	1	F5	2	CR-34782
111	WI-33777	CR-34783	F6	1	TB40	2	CR-34783
112	WI-33777	CR-34783	TB40	4	TB -25	L2/N	CR-34783
117	WI-3815	CR-34782	TB25	L1	F20	1	CR-34782

5016749 6-10,10-10,7-20,10-20; 120V, 208V; TOUCH 5017978 6-10,10-10,7-20,10-20; 120V, 208V; SIMPLE
5016750 6-10,10-10,7-20,10-20; 380V; TOUCH 5017986 6-10,10-10,7-20,10-20; 380V; SIMPLE

5016749-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
107	WI-3815	CR-34782	TB7	1	TB26-2	L2/N	CR-34782
116	WI-3815	CR-33511	FI-1	LINE-3	TB26-1	L2/N	CR-34782
108	WI-3815	CR-34782	F5	1	TB25	L-N	CR-34782
112	WI-3815	CR-33511	FI-1	LOAD-4	F5	2	CR-34782
109	WI-3815	CR-33511	FI-1	LOAD-2	F20	2	CR-34782
111	WI-3815	CR-34782	TB26-2	L1	TB2	1	CR-34782
115	WI-3815	CR-34782	TB26-1	L1	FI-1	LINE-1	CR-33511
117	WI-3815	CR-34782	F20	1	TB25	L1	CR-34782

5016379 6-10,10-10,7-20,10-20; ALL VOLTAGE; TOUCH 5017979 6-10,10-10,7-20,10-20; ALL VOLTAGE; SIMPLE

5016379-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
21	WI-33478	CR-34783	TB33	1	LS1	1	CR-33509
22	WI-33478	CR-34783	TB38	1	LS1	2	CR-33509
23	WI-33478	CR-34783	TB38	2	FAN1	A1	CR-3584
24	WI-33478	CR-34783	TB38	3	FAN2	A1	CR-3584
25	WI-33478	CR-34783	TB38	4	FAN3	A1	CR-3584
26	WI-33777	CR-34783	TB27	12	FAN1	A2	CR-3584
27	WI-33777	CR-34783	TB27	14	FAN2	A2	CR-3584
28	WI-33777	CR-34783	TB27	16	FAN3	A2	CR-3584
110	WI-33478	CR-34783	TB33	7	TB35	1	CR-34783

5016435 6-10,10-10,7-20,10-20; ALL VOLTAGE; SIMPLE&TOUCH

5016435-6W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
29	WI-33478	CR-34783	TB33	3	PS1	L	CR-34783
30	WI-33777	CR-34783	TB27	1	PS1	N	CR-34783
31	WI-33478	CR-34783	PS1	+12VDC	TB42	1	CR-34783
32	WI-33777	CR-34783	PS1	12VDC(GND)	TB46	1	CR-34783

5016436 6-10,10-10,7-20,10-20; ALL VOLTAGE; SIMPLE&TOUCH

5016436-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
34	WI-33777	CR-34783	TB27	17	Y2	A2	CR-34774
36	WI-33777	CR-34774	TB27	2	Y1	A2	CR-33509
35	WI-33777	CR-33509	TB27	4	Y3	A2	CR-33509
75	WI-33478	CR-33509	Y1	A1	CB-X04	3	CR-34783
47	WI-33478	CR-33509	Y2	A1	CB-X04	1	CR-34783
48	WI-33478	CR-33509	Y3	A1	CB-X04	2	CR-34783

5016753 ALL MODEL; ALL VOLTAGE; SIMPLE&TOUCH HAND SHOWER

5016753-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
76	WI-33478	CR-34783	TB33	17	Y5	A1	CR-33509
77	WI-33777	CR-38389	RLY60	12	Y5	A2	CR-33509
78	WI-33777	CR-38389	RLY60	8	TB27	15	CR-34783
79	WI-33478	CR-34783	TB42	7	RLY60	14	CR-38389
80	WI-33777	CR-38389	RLY60	13	HANDSHOWER R-SW	1	CR-34639
81	WI-33777	CR-34783	TB46	6	HANDSHOWER R-SW	2	CR-34639

5016406 20-10/20-20; 440V; SIMPLE&TOUCH

5016406-6W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
39	WI-3815	CR-34782	TB3	1	F5	2	CR-34782
111	WI-33777	CR-34783	F6	1	TB40	2	CR-34783
112	WI-33777	CR-34783	TB40	4	TB -25	L2/N	CR-34783
117	WI-3815	CR-34782	TB25	L1	F20	1	CR-34782

5016751 20-10/20-20; 120V,208V; TOUCH 5017983 20-10/20-20; 120V,208V; SIMPLE
5016752 20-10/20-20; 380V; TOUCH 5017987 20-10/20-20; 380V; SIMPLE

5016751-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
107	WI-3815	CR-34782	TB7	1	TB26-2	L2/N	CR-34782
116	WI-3815	CR-33511	FI-1	LINE-3	TB26-1	L2/N	CR-34782
108	WI-3815	CR-34782	F5	1	TB25	L-N	CR-34782
112	WI-3815	CR-33511	FI-1	LOAD-4	F5	2	CR-34782
109	WI-3815	CR-33511	FI-1	LOAD-2	F20	2	CR-34782
117	WI-3815	CR-34782	TB25	L	F20	1	CR-34782
111	WI-3815	CR-34782	TB2	1	TB26-2	L1	CR-34782
115	WI-3815	CR-33511	FI-1	LINE-1	TB26-1	L1	CR-34782
118	WI-38095	CR-34782	TB26-1	G	PE	1	CR-34782

5016407 20-10/20-20; ALL VOLTAGE; TOUCH 5017984 20-10/20-20; ALL VOLTAGE; SIMPLE

5016407-7W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
21	WI-33478	CR-34783	TB33	1	LS1	1	CR-33509
22	WI-33478	CR-34783	TB38	1	LS1	2	CR-33509
23	WI-33478	CR-34783	TB38	2	FAN1	A1	CR-3584
24	WI-33478	CR-34783	TB38	3	FAN2	A1	CR-3584
25	WI-33478	CR-34783	TB38	4	FAN3	A1	CR-3584
26	WI-33777	CR-34783	TB27	12	FAN1	A2	CR-3584
27	WI-33777	CR-34783	TB27	14	FAN2	A2	CR-3584
28	WI-33777	CR-34783	TB27	16	FAN3	A2	CR-3584

5016408 20-10/20-20; ALL VOLTAGE; SIMPLE&TOUCH

5016408-6W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
29	WI-33478	CR-34783	TB33	3	PS1	L	CR-34783
30	WI-33777	CR-34783	TB27	1	PS1	N	CR-34783
31	WI-33478	CR-34783	PS1	+12VDC	TB42	1	CR-34783
32	WI-33777	CR-34783	PS1	12VDC(GND)	TB46	1	CR-34783

5016409 20-10/20-20; ALL VOLTAGE; SIMPLE&TOUCH

5016409-6W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
34	WI-33777	CR-34783	TB27	17	Y2	A2	CR-34774
36	WI-33777	CR-34774	TB27	2	Y3	A2	CR-33509
35	WI-33777	CR-33509	TB27	4	Y1	A2	CR-34774
38	WI-33777	CR-33509	TB27	5	Y1B	A2	CR-33509
75	WI-33478	CR-33509	Y1	A1	CB-X04	3	CR-34783
39	WI-33478	CR-34774	Y1	A1	Y1B	A1	CR-33509
47	WI-33478	CR-33509	Y3	A1	CB-X04	1	CR-34783
48	WI-33478	CR-33509	Y2	A1	CB-X04	2	CR-34783

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — COOLING FANS & WATER SOLENOID

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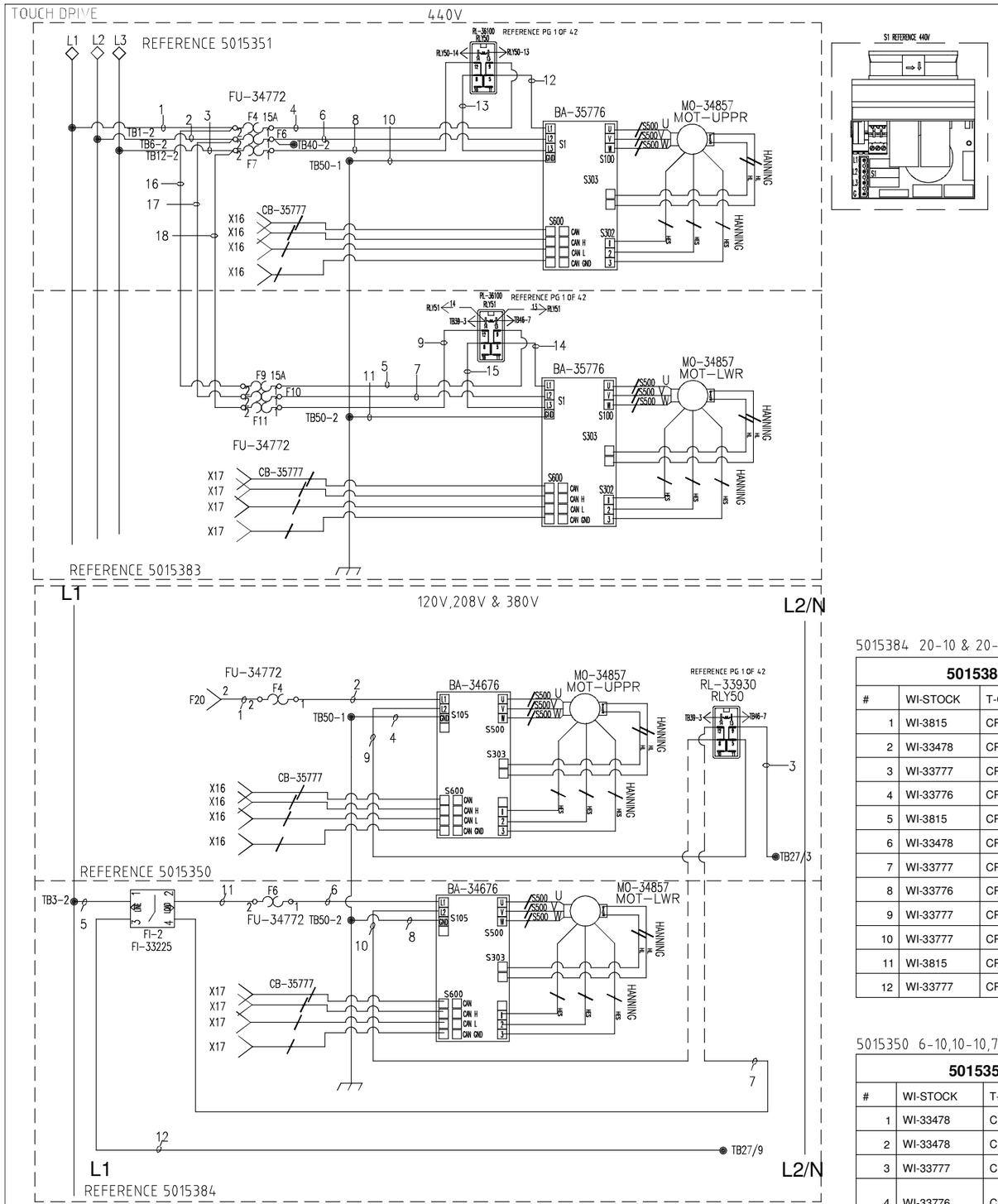

5015383 20-10, & 20-20 (EB,EI); 440V; TOUCH

5015383-W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-3815	CR-34782	TB1	2	F4	2	CR-34782
2	WI-3815	CR-34782	TB6	2	F6	2	CR-34782
3	WI-3815	CR-34782	TB12	2	F7	2	CR-34782
4	WI-33478	CR-34783	F4	1	RLY50	9	CR-38389
5	WI-33478	CR-34783	F9	1	RLY51	9	CR-38389
6	WI-33777	CR-34783	F6	1	S1	L2-UPPR	CR-34783
7	WI-33777	CR-34783	F10	1	S1	LWR	CR-34783
8	WI-33478	CR-34783	F7	1	RLY50	12.000000	CR-38389
9	WI-33478	CR-34783	F11	1	RLY51	12.000000	CR-38389
10	WI-33776	CR-34783	TB50	1	S1	G-UPPR	CR-34783
11	WI-33776	CR-34783	TB50	2	S1	G-LWR	CR-34783
12	WI-33478	CR-38389	RLY50	5	S1	L1-UPPR	CR-34783
13	WI-33478	CR-38389	RLY50	8	S1	L3-UPPR	CR-34783
14	WI-33478	CR-38389	RLY51	5	S1	L1-LWR	CR-34783
15	WI-33478	CR-38389	RLY51	8	S1	L3-LWR	CR-34783
16	WI-3815	CR-34782	F9	2	F4	2	CR-34782
17	WI-3815	CR-34782	F10	2	F6	2	CR-34782
18	WI-3815	CR-34782	F11	2	F7	2	CR-34782

5015351 6-10,10-10,7-20,10-20 (EB,EI) 440V; TOUCH

5015351-W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-3815	CR-34782	TB1	2	F4	2	CR-34782
2	WI-3815	CR-34782	TB6	2	F6	2	CR-34782
3	WI-3815	CR-34782	TB12	2	F7	2	CR-34782
4	WI-33478	CR-34783	F4	1	RLY50	9	CR-38389
6	WI-33777	CR-34783	F6	1	S1	L2-UPPR	CR-34783
8	WI-33478	CR-34783	F7	1	RLY50	12	CR-38389
10	WI-33776	CR-34783	TB50	1	S1	G-UPPR	CR-34783
12	WI-33478	CR-38389	RLY50	5	S1	L1-UPPR	CR-34783
13	WI-33478	CR-38389	RLY50	8	S1	L3-UPPR	CR-34783

5015384 20-10 & 20-20 (EB,EI,GI); 120V, 208V, 380V; TOUCH

5015384-W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-3815	CR-34782	F4	2	F20	2	CR-34782
2	WI-33478	CR-34783	F4	1	S105	L-UPPR	CR-34783
3	WI-33777	CR-34783	TB27	3	RLY50	9	CR-38389
4	WI-33776	CR-34783	TB50	1	S105	G-UPPR	CR-34783
5	WI-3815	CR-33511	FI-2	LINE-1	TB2	2	CR-34782
6	WI-33478	CR-34783	F6	1	S105	L-LWR	CR-34783
7	WI-33777	CR-38389	RLY50	12	FI-2	LOAD-2	CR-33509
8	WI-33776	CR-34783	TB50	2	S105	G-LWR	CR-34783
9	WI-33777	CR-38389	RLY50	5	S105	N-UPPR	CR-34783
10	WI-33777	CR-38389	RLY50	8	S105	N-LWR	CR-34783
11	WI-3815	CR-34782	F6	2	FI-2	LOAD-2	CR-33511
12	WI-33777	CR-33509	FI-2	LINE-3	TB27	9	CR-34783

5015350 6-10,10-10,7-20,10-20 (EB,EI,GI); 120V, 208V, 380V; TOUCH

5015350-W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-33478	CR-34783	F4	2	F20	2	CR-34783
2	WI-33478	CR-34783	F4	1	S105	L-UPPR	CR-34783
3	WI-33777	CR-34783	TB27	3	RLY50	9	CR-38389
4	WI-33776	CR-34783	TB50	1	S105	G-UPPR	CR-34783
9	WI-33777	CR-38389	RLY50	5	S105	N-UPPR	CR-34783

REFERENCE:

- CABLE W/ MULTI-COLOR WIRE
- WIRE NUMBER DESIGNATE
- FROM / TO DESTINATION
- MULTI-POINT TERMINAL

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 6.10-UP-TO-20.20 10PH TOUCH MOTOR
BY: AFT — DWG: 77623 — SHEET 4 OF 42
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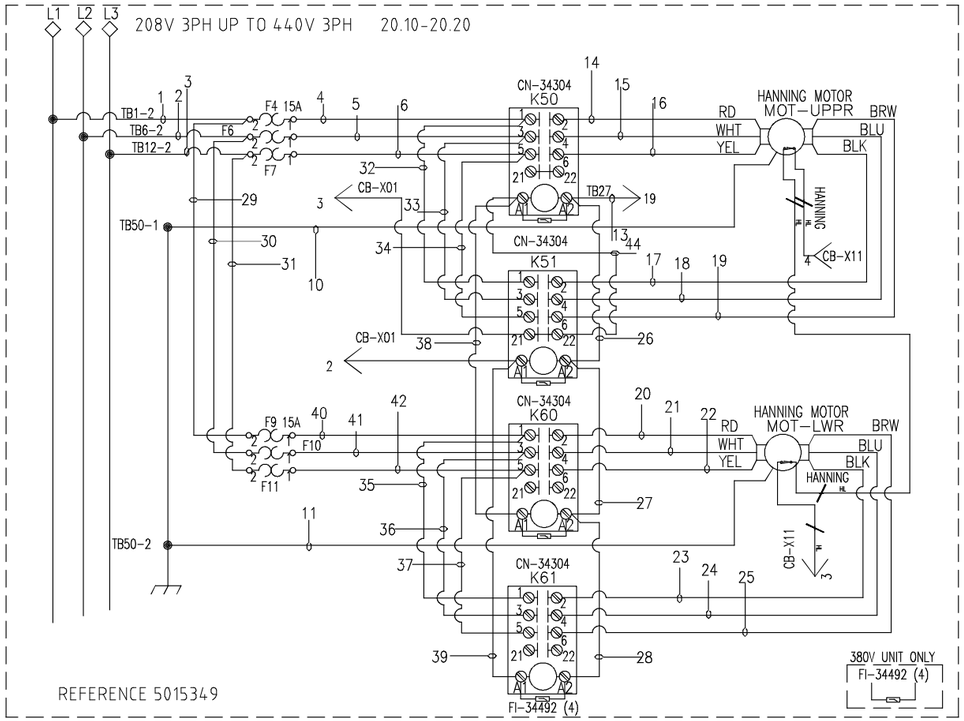
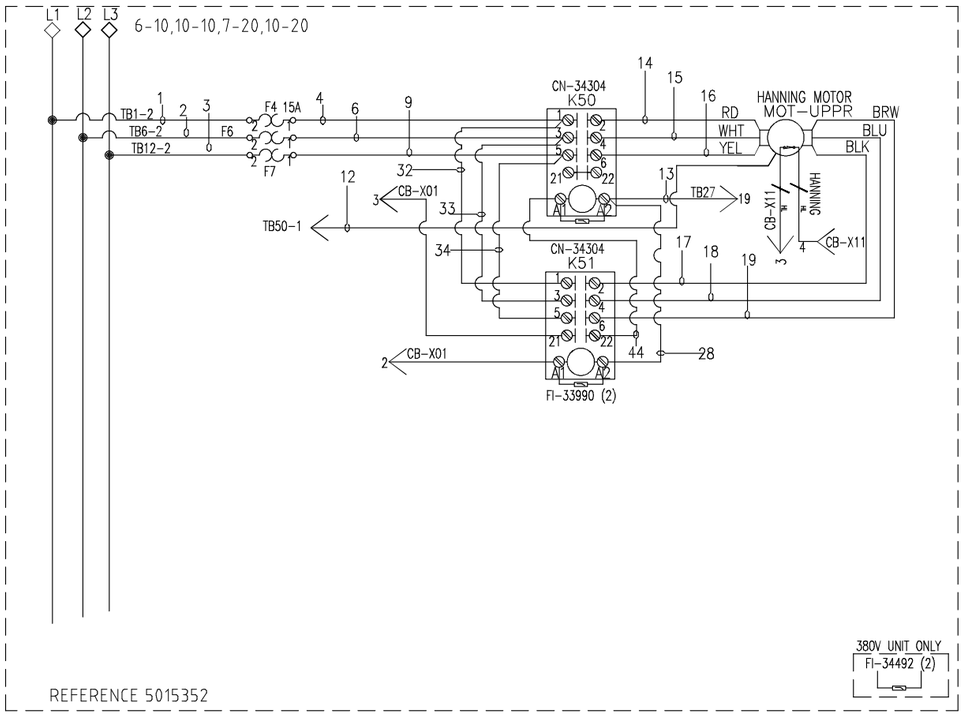
SIMPLE MOTOR CONTACTOR



5015349 20-10,20-20 (ES,ESI,ESG); 208,380,440V 3PH; SIMPLE

5015349-4W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-3815	CR-34782	TB1	2	F4	2	CR-34782
2	WI-3815	CR-34782	TB6	2	F6	2	CR-34782
3	WI-3815	CR-34782	TB12	2	F7	2	CR-34782
4	WI-33478	CR-34783	F4	1	K50	1	CR-34783
5	WI-33478	CR-34783	F6	1	K50	3	CR-34783
6	WI-33478	CR-34783	F7	1	K50	5	CR-34783
10	WI-33776	CR-34783	TB50	1	MOTOR	GND	CR-34783
11	WI-33776	CR-34783	TB50	2	MOTOR	GND	CR-34783
13	WI-33777	CR-34783	K50	A2	TB27	19	CR-34783
14	WI-33478	CR-34783	K50	2	MOTOR-UPPR	CON	CR-34783
15	WI-33478	CR-34783	K50	4	MOTOR-UPPR	CON	CR-34783
16	WI-33478	CR-34783	K50	6	MOTOR-UPPR	CON	CR-34783
17	WI-33478	CR-34783	K51	2	MOTOR-UPPR	CON	CR-34783
18	WI-33478	CR-34783	K51	4	MOTOR-UPPR	CON	CR-34783
19	WI-33478	CR-34783	K51	6	MOTOR-UPPR	CON	CR-34783
20	WI-33478	CR-34783	K60	2	MOTOR-LWR	CON	CR-34783
21	WI-33478	CR-34783	K60	6	MOTOR-LWR	CON	CR-34783
22	WI-33478	CR-34783	K60	4	MOTOR-LWR	CON	CR-34783
23	WI-33478	CR-34783	K61	2	MOTOR-LWR	CON	CR-34783
24	WI-33478	CR-34783	K61	6	MOTOR-LWR	CON	CR-34783
25	WI-33478	CR-34783	K61	4	MOTOR-LWR	CON	CR-34783
26	WI-33777	CR-34783	K50	A2	K51	A2	CR-34783
27	WI-33777	CR-34783	K60	A2	K51	A2	CR-34783
28	WI-33777	CR-34783	K60	A2	K61	A2	CR-34783
29	WI-3815	CR-34782	F4	2	F9	2	CR-34782
30	WI-3815	CR-34782	F6	2	F10	2	CR-34782
31	WI-3815	CR-34782	F7	2	F11	2	CR-34782
32	WI-33478	CR-34783	K50	1	K51	1	CR-34783
33	WI-33478	CR-34783	K50	3	K51	3	CR-34783
34	WI-33478	CR-34783	K50	5	K51	5	CR-34783
35	WI-33478	CR-34783	K60	1	K61	1	CR-34783
36	WI-33478	CR-34783	K60	3	K61	3	CR-34783
37	WI-33478	CR-34783	K60	5	K61	5	CR-34783
38	WI-33478	CR-34783	K50	A1	K60	A1	CR-34783
39	WI-33478	CR-34783	K51	A1	K61	A1	CR-34783
40	WI-33478	CR-34783	F9	1	K60	1	CR-34783
41	WI-33478	CR-34783	F10	1	K60	3	CR-34783
42	WI-33478	CR-34783	F11	1	K60	5	CR-34783
44	WI-33478	CR-34783	K51	22	K50	A1	CR-34783



5015352 6-10,10-7,20,10-20 (ES,ESI,ESG); 204,380,44V 3PH; SIMPLE

5015352-6W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-3815	CR-34782	TB1	2	F4	2	CR-34782
2	WI-3815	CR-34782	TB6	2	F6	2	CR-34782
3	WI-3815	CR-34782	TB12	2	F7	2	CR-34782
4	WI-33478	CR-34783	F4	1	K50	1	CR-34783
6	WI-33478	CR-34783	F6	1	K50	3	CR-34783
9	WI-33478	CR-34783	F7	1	K50	5	CR-34783
12	WI-33776	CR-34783	TB50	1	MOTOR	GND	BARE
13	WI-33777	CR-34783	K50	A2	TB27	19	CR-34783
14	WI-33478	CR-34783	K50	2	MOTOR-UPPR-RD	CON	CR-34783
15	WI-33478	CR-34783	K50	4	MOTOR-UPPR-WHT	CON	CR-34783
16	WI-33478	CR-34783	K50	6	MOTOR-UPPR-YEL	CON	CR-34783
17	WI-33478	CR-34783	K51	2	MOTOR-UPPR-BLK	CON	CR-34783
18	WI-33478	CR-34783	K51	4	MOTOR-UPPR-BLU	CON	CR-34783
19	WI-33478	CR-34783	K51	6	MOTOR-UPPR-BRW	CON	CR-34783
28	WI-33777	CR-34783	K50	A2	K51	A2	CR-34783
32	WI-33478	CR-34783	K51	1	K50	1	CR-34783
33	WI-33478	CR-34783	K51	3	K50	3	CR-34783
34	WI-33478	CR-34783	K51	5	K50	5	CR-34783
44	WI-33478	CR-34783	K51	22	K50	A1	CR-34783

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 6.10-UP-TO-20.20 3PH SIMPLE MOTOR

BY: AFT | DWG: 77623 | SHEET 5 OF 42

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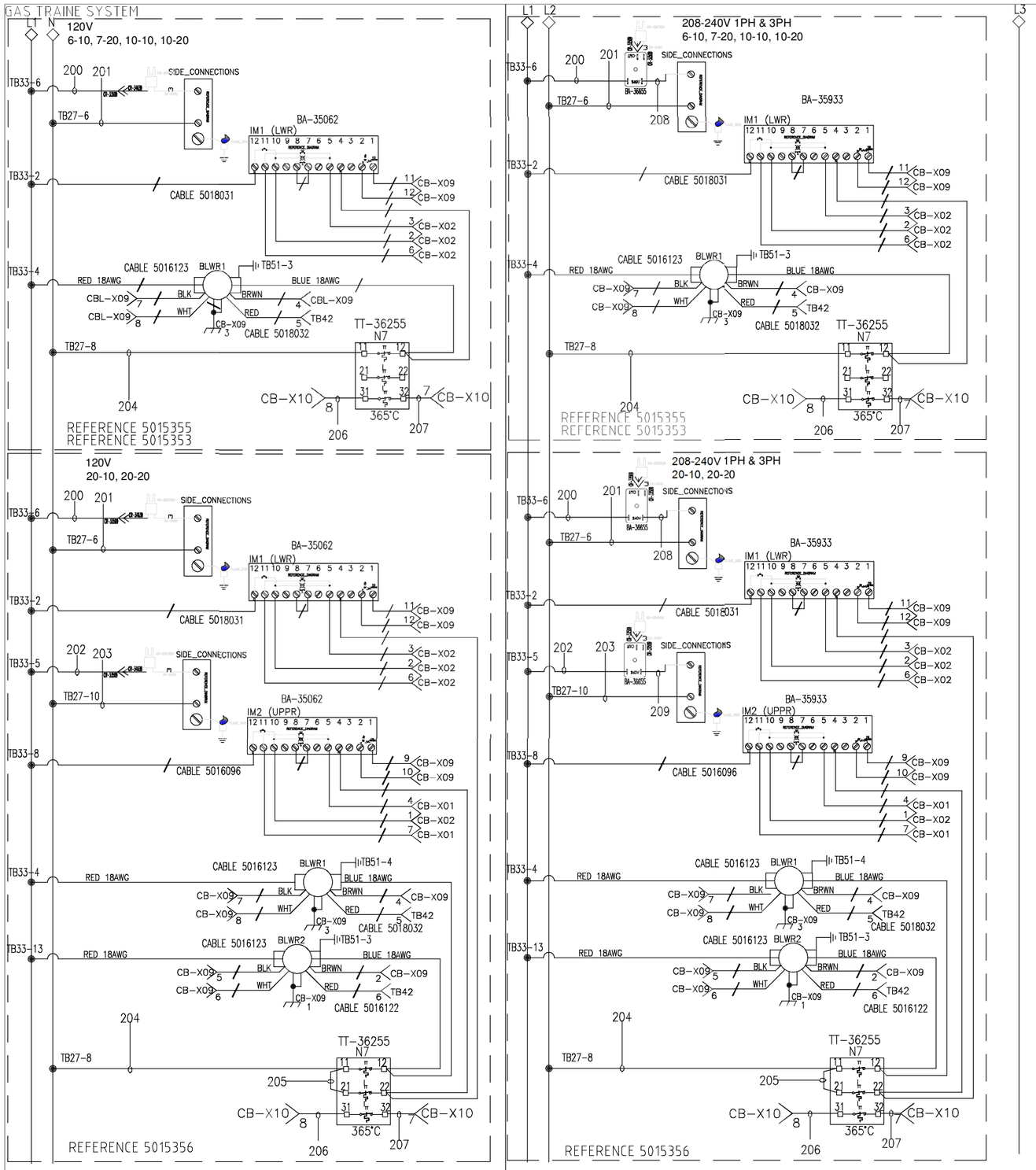


5015355 6-10,10-10,7-20 (GI); 120V,208V,380V; SIMPLE & TOUCH

5015355-7W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
200	WI-33478	CR-34783	TB33	6	IGNTR	LWR	CR-33509
201	WI-33777	CR-34783	TB-27	6	IGNTR	N	CR-36869
206	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
207	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
204	WI-33777	CR-33509	N7	11	TB27	8	CR-34783

5015353 10-20 (GI); 120V,208V,380V; SIMPLE & TOUCH

5015353-7W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
200	WI-33478	CR-34783	TB33	6	IGNTR	LWR	CR-33509
201	WI-33777	CR-34783	TB-27	6	IGNTR	N	CR-36869
206	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
207	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
204	WI-33777	CR-33509	N7	11	TB27	8	CR-34783

5015356 20-10/20-20 (GI); 120V,208V,380V; SIMPLE & TOUCH

5015356-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
200	WI-33478	CR-34783	TB33	6	IGNTR	LWR	CR-33509
201	WI-33777	CR-34783	TB27	6	IGNTR	N	CR-36869
202	WI-33478	CR-34783	TB33	5	IGNTR	UPPR	CR-33509
203	WI-33777	CR-34783	TB27	10	IGNTR	N	CR-36869
204	WI-33777	CR-34783	TB27	8	N7	11	CR-34774
205	WI-33777	CR-33509	N7	21	N7	11	CR-33509
206	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
207	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

5017494 6-10,10-10,7-20, 10.20 (GI); 208V,380V; SIMPLE & TOUCH

5017494-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
208	WI-33478	CR-33509	BA-36655	2	IGNTR	LWR	CR-36869

5017495 20-10/20-20 (GI); 208V,380V; SIMPLE & TOUCH

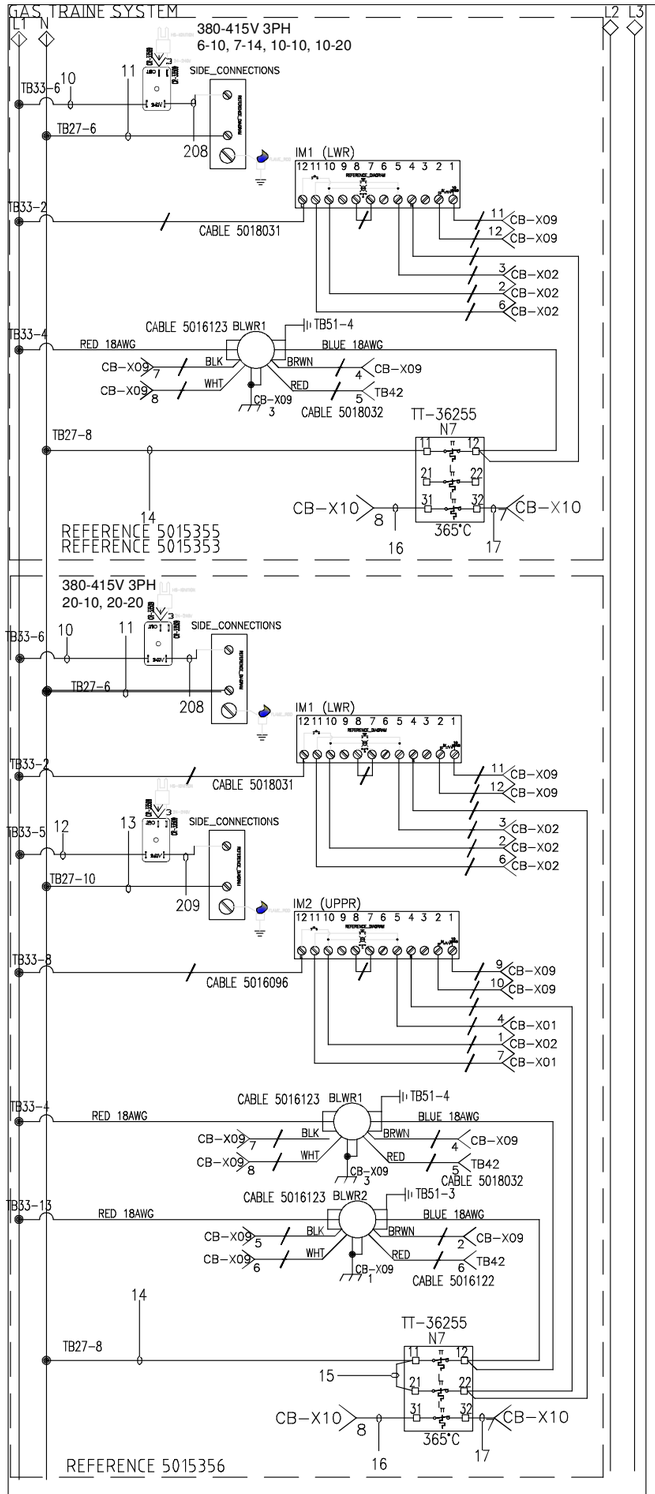
5017495-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
208	WI-33478	CR-33509	BA-36655	2	IGNTR	LWR	CR-36869
209	WI-33478	CR-33509	BA-36655	2	IGNTR	UPPR	CR-36869

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 6.10 UP-TO 20.20 120V/208V GAS MODELS

BY: AFT | DWG: 77623 | SHEET 6 OF 42

DATE: 07/27/15



5015355 6-10,10-10,7-20 (GI); 380V; SIMPLE & TOUCH

5015355-7W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
200	WI-33478	CR-34783	TB33	6	IGNTR	LWR	CR-33509
201	WI-33777	CR-34783	TB-27	6	IGNTR	N	CR-36869
206	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
207	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
204	WI-33777	CR-33509	N7	11	TB27	8	CR-34783

5015353 10-20 (GI); 380V; SIMPLE & TOUCH

5015353-7W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
200	WI-33478	CR-34783	TB33	6	IGNTR	LWR	CR-33509
201	WI-33777	CR-34783	TB-27	6	IGNTR	N	CR-36869
206	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
207	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
204	WI-33777	CR-33509	N7	11	TB27	8	CR-34783

5015356 20-10/20-20 (GI); 380V; SIMPLE & TOUCH

5015356-5W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
200	WI-33478	CR-34783	TB33	6	IGNTR	LWR	CR-33509
201	WI-33777	CR-34783	TB27	6	IGNTR	N	CR-36869
202	WI-33478	CR-34783	TB33	5	IGNTR	UPPR	CR-33509
203	WI-33777	CR-34783	TB27	10	IGNTR	N	CR-36869
204	WI-33777	CR-34783	TB27	8	N7	11	CR-34774
205	WI-33777	CR-33509	N7	21	N7	11	CR-33509
206	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
207	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

5017494 6-10,10-10,7-20, 10.20 (GI); 208V,380V; SIMPLE & TOUCH

5017494-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
208	WI-33478	CR-33509	BA-36655	2	IGNTR	LWR	CR-36869

5017495 20-10/20-20 (GI); 208V,380V; SIMPLE & TOUCH

5017495-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
208	WI-33478	CR-33509	BA-36655	2	IGNTR	LWR	CR-36869
209	WI-33478	CR-33509	BA-36655	2	IGNTR	UPPR	CR-36869

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM
6.10 UP-TO 20.20 380V GAS MODEL
BY: AFT | DWG: 77623 | SHEET 7 OF 42
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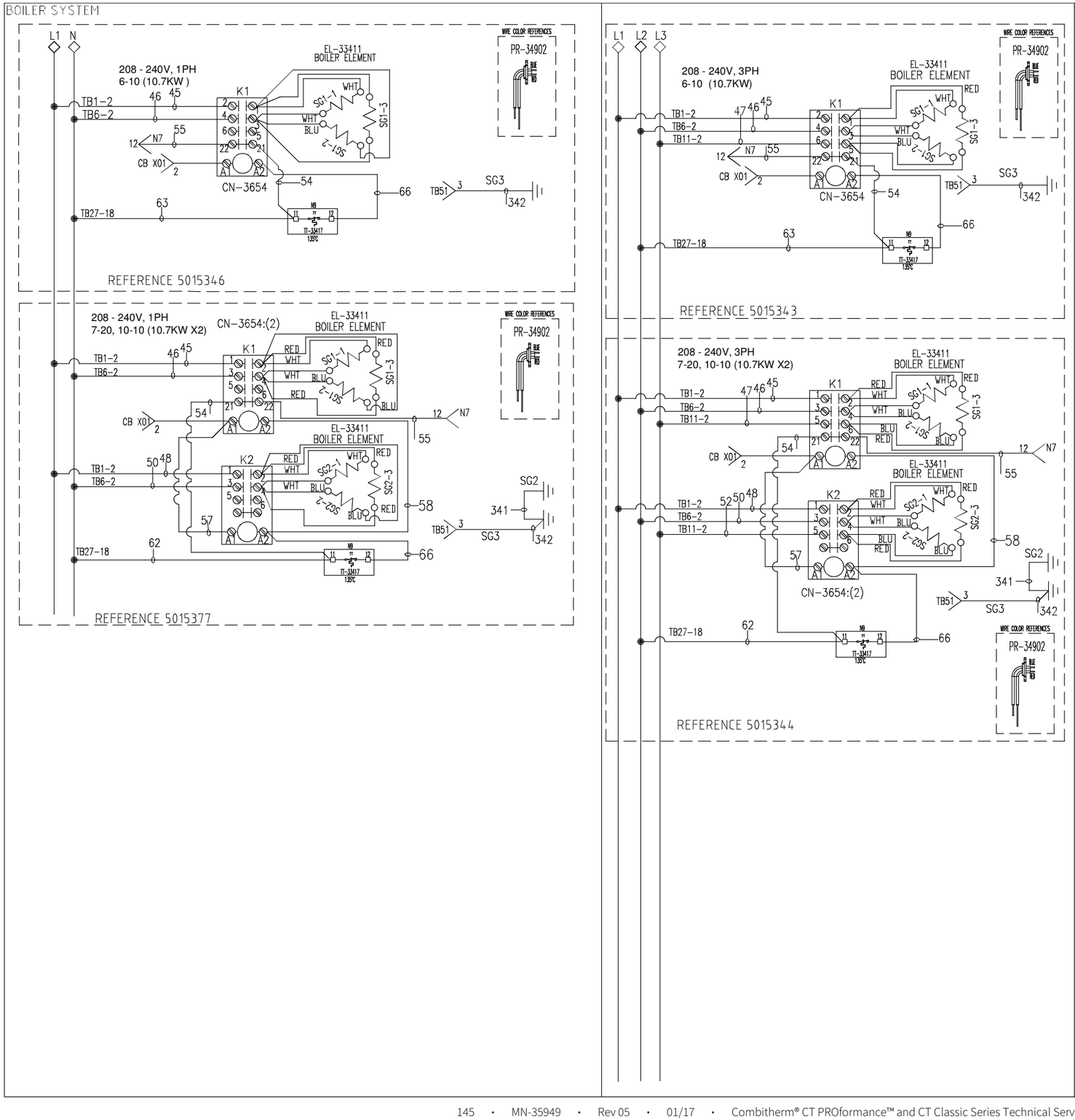
Boiler System (Simple/Touch): 6-10, 10-10, 7-20 – 208V 1/3PH



5015346 6-10 (EB); 208V 1PH; SIMPLE & TOUCH

5015346-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
45	WI-3816	CR-34781	TB1	2	K1	2	CR-34775
46	WI-3816	CR-34781	TB6	2	K1	4	CR-34775
54	WI-33777	CR-34774	N9	11	K1	21	CR-38389
55	WI-33777	CR-38389	K1	22	N7	12	CR-33509
63	WI-33777	CR-38389	N9	11	TB27	18	CR-34783
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
66	WI-33777	CR-33509	N9	12	K1	A2	CR-38389

5015377 10-10,7-20 (EB); 208V 1PH; SIMPLE & TOUCH

5015377-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
45	WI-3816	CR-34781	TB1	2	K1	2	CR-34775
46	WI-3816	CR-34781	TB6	2	K1	4	CR-34775
48	WI-3816	CR-34781	TB1	2	K2	2	CR-34775
50	WI-3816	CR-34781	TB6	2	K2	4	CR-34775
54	WI-33777	CR-34774	N9	11	K1	21	CR-38389
55	WI-33777	CR-38389	K1	22	N7	12	CR-33509
63	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
341	WI-33776	CR-33509	SG2	GND	SG3	GND	CR-34774
342	WI-33776	CR-34783	TB51	3	SG3	GDN	CR-33509
66	WI-33777	CR-33509	N9	12	K1	A2	CR-38389

5015343 6-10 (EB); 208V 3PH; SIMPLE & TOUCH

5015343-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
45	WI-3816	CR-34781	TB1	2	K1	2	CR-34775
46	WI-3816	CR-34781	TB6	2	K1	4	CR-34775
47	WI-3816	CR-34781	TB11	2	K1	6	CR-34775
54	WI-33777	CR-34774	N9	11	K1	21	CR-38389
55	WI-33777	CR-38389	K1	22	N7	12	CR-33509
63	WI-33777	CR-33509	N9	11	TB27	18	CR-38389
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
66	WI-33777	CR-33509	N9	12	K1	A2	CR-38389

5015344 10-10,7-20 (EB); 208V 3PH; SIMPLE & TOUCH

5015344-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
45	WI-3816	CR-34781	TB1	2	K1	1	CR-34775
46	WI-3816	CR-34781	TB6	2	K1	3	CR-34775
47	WI-3816	CR-34781	TB11	2	K1	5	CR-34775
48	WI-3816	CR-34781	TB1	2	K2	1	CR-34775
50	WI-3816	CR-34781	TB6	2	K2	3	CR-34775
52	WI-3816	CR-34781	TB11	2	K2	5	CR-34775
54	WI-33777	CR-34774	N9	11	K1	21	CR-38389
55	WI-33777	CR-38389	K1	22	N7	12	CR-33509
57	WI-33478	CR-38389	K2	A1	K1	A1	CR-38389
58	WI-33777	CR-38389	K2	A2	K1	A2	CR-38389
62	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
341	WI-33776	CR-33509	SG2	GND	SG3	GND	CR-34774
342	WI-33776	CR-34783	TB51	3	SG3	GND	CR-33509
66	WI-33777	CR-33509	N9	12	K2	A2	CR-38389

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM

6.10-10.10-7.14 1 & 3 PH 208-240V BOILER

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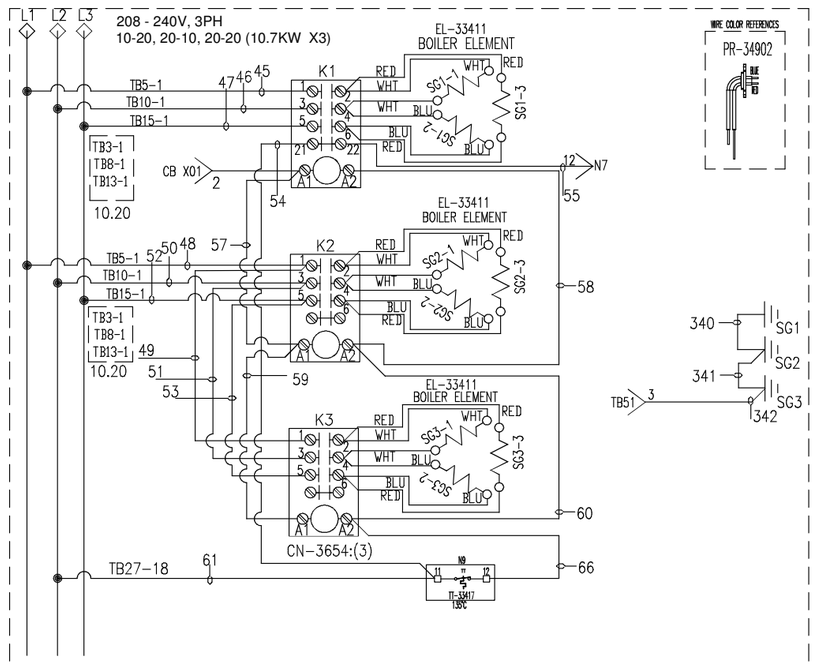
DATE: 07/27/15

BOILER SYSTEM



5015345 10-20 (EB); 208V 3PH; SIMPLE & TOUCH

5015345-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
45	WI-3816	CR-34781	TB3	1	K1	1	CR-34775
46	WI-3816	CR-34781	TB8	1	K1	3	CR-34775
47	WI-3816	CR-34781	TB13	1	K1	5	CR-34775
48	WI-3816	CR-34781	TB3	1	K2	1	CR-34775
49	WI-3816	CR-34775	K2	1	K3	1	CR-34775
50	WI-3816	CR-34781	TB8	1	K2	3	CR-34775
51	WI-3816	CR-34775	K2	3	K3	3	CR-34775
52	WI-3816	CR-34781	TB13	1	K2	5	CR-34775
53	WI-3816	CR-34775	K2	5	K3	5	CR-34775
54	WI-33777	CR-34774	N9	11	K1	21	CR-38389
55	WI-33777	CR-38389	K1	22	N7	12	CR-33509
57	WI-33478	CR-38389	K2	A1	K1	A1	CR-38389
58	WI-33777	CR-38389	K2	A2	K1	A2	CR-38389
59	WI-33478	CR-38389	K2	A1	K3	A1	CR-38389
60	WI-33777	CR-38389	K3	A2	K2	A2	CR-38389
61	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
340	WI-33776	CR-33509	SG1	GND	SG2	GND	CR-34774
341	WI-33776	CR-34774	SG3	GND	SG2	GND	CR-33509
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
66	WI-33777	CR-33509	N9	12	K3	A2	CR-38389

5015373 20-10/20-20 (EB); 208V 3PH; SIMPLE & TOUCH

5015373-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
45	WI-3816	CR-34781	TB5	1	K1	1	CR-34775
46	WI-3816	CR-34781	TB10	1	K1	3	CR-34775
47	WI-3816	CR-34781	TB15	1	K1	5	CR-34775
48	WI-3816	CR-34781	TB5	1	K2	1	CR-34775
49	WI-3816	CR-34775	K2	1	K3	1	CR-34775
50	WI-3816	CR-34781	TB10	1	K2	3	CR-34775
51	WI-3816	CR-34775	K2	3	K3	3	CR-34775
52	WI-3816	CR-34781	TB15	1	K2	5	CR-34775
53	WI-3816	CR-34775	K2	5	K3	5	CR-34775
54	WI-33777	CR-34774	N9	11	K1	21	CR-38389
55	WI-33777	CR-38389	K1	22	N7	12	CR-33509
57	WI-33478	CR-38389	K2	A1	K1	A1	CR-38389
58	WI-33777	CR-38389	K2	A2	K1	A2	CR-38389
59	WI-33478	CR-38389	K2	A1	K3	A1	CR-38389
60	WI-33777	CR-38389	K3	A2	K2	A2	CR-38389
61	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
340	WI-33776	CR-33509	SG1	GND	SG2	GND	CR-34774
341	WI-33776	CR-34774	SG3	GND	SG2	GND	CR-33509
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
66	WI-33777	CR-33509	N9	12	K3	A2	CR-38389

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 10.18-20.10-20.20 BOILER 208-240V 3Ph

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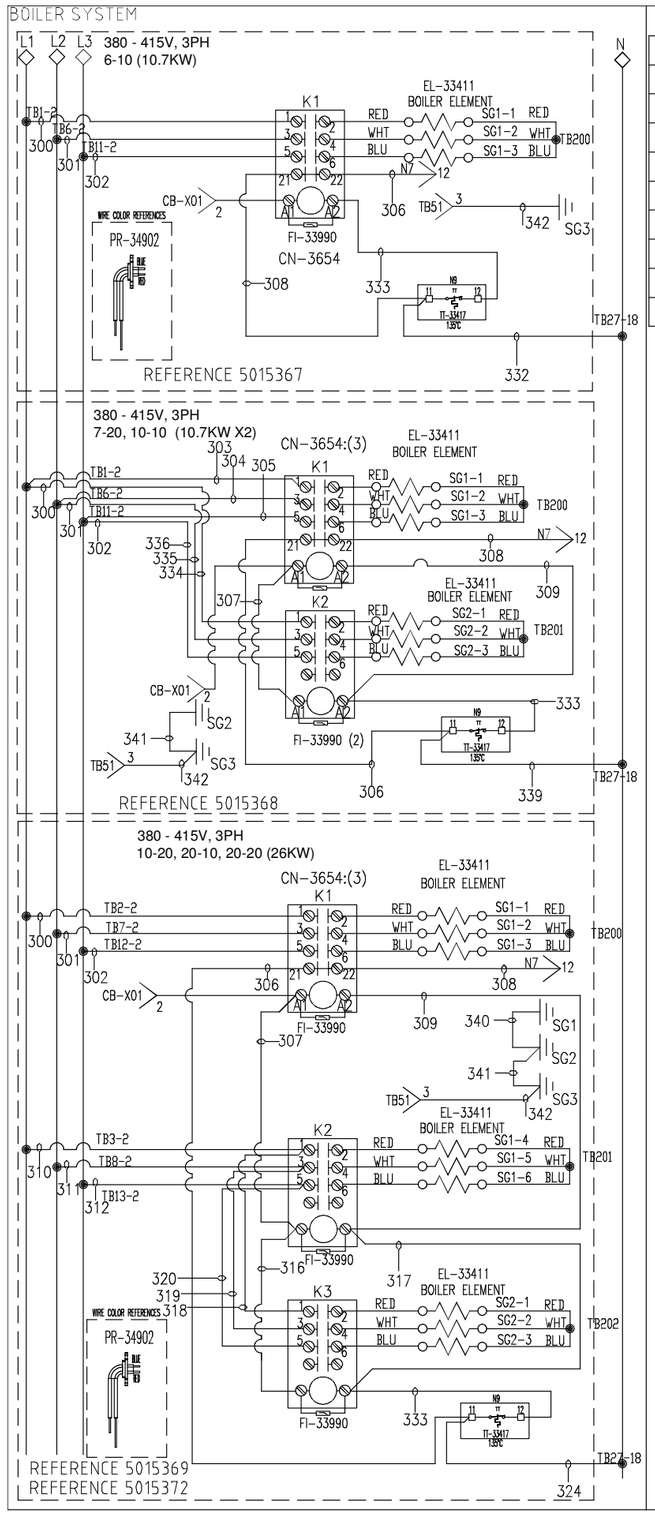

5015367 6-10 (EB); 380V 3PH; SIMPLE & TOUCH

5015367-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB1	2	K1	2	CR-34775
301	WI-3816	CR-34781	TB6	2	K1	4	CR-34775
302	WI-3816	CR-34781	TB11	2	K1	6	CR-34775
306	WI-33777	CR-38389	K1	22	N7	12	CR-33509
308	WI-33777	CR-34774	N9	11	K1	21	CR-38389
332	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
333	WI-33777	CR-33509	N9	12	K1	A2	CR-38389

5015368 7-20/10-10 (EB); 380V 3PH; SIMPLE & TOUCH

5015368-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB1	2	K1	1	CR-34775
300	WI-3816	CR-34781	TB1	2	K2	1	CR-34775
301	WI-3816	CR-34781	TB6	2	K1	3	CR-34775
301	WI-3816	CR-34781	TB6	2	K2	3	CR-34775
302	WI-3816	CR-34781	TB11	2	K1	5	CR-34775
302	WI-3816	CR-34781	TB11	2	K2	5	CR-34775
306	WI-33777	CR-38389	K1	21	N9	11	CR-34774
307	WI-33478	CR-38389	K1	A1	K2	A1	CR-38389
308	WI-33777	CR-33509	N7	12	K1	22	CR-38389
309	WI-33777	CR-38389	K1	A2	K2	A2	CR-38389
339	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
341	WI-33776	CR-33509	SG2	GND	SG3	GND	CR-34774
342	WI-33776	CR-34783	TB51	3	SG3	GND	CR-33509
333	WI-33777	CR-33509	N9	12	K2	A2	CR-38389

5015369 10-20 (EB); 380V 3PH; SIMPLE & TOUCH

5015369-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB1	2	K1	1	CR-34775
301	WI-3816	CR-34781	TB6	2	K1	3	CR-34775
302	WI-3816	CR-34781	TB11	2	K1	5	CR-34775
306	WI-33777	CR-38389	K1	21	N9	11	CR-34774
307	WI-33478	CR-38389	K1	A1	K2	A1	CR-38389
308	WI-33777	CR-38389	K1	22	N7	12	CR-33509
309	WI-33777	CR-38389	K1	A2	K2	A2	CR-38389
310	WI-3816	CR-34781	TB1	2	K2	1	CR-34775
311	WI-3816	CR-34781	TB6	2	K2	3	CR-34775
312	WI-3816	CR-34781	TB11	2	K2	5	CR-34775
316	WI-33478	CR-38389	K2	A1	K3	A1	CR-38389
317	WI-33777	CR-38389	K2	A2	K3	A2	CR-38389
318	WI-3816	CR-34775	K2	1	K3	1	CR-34775
319	WI-3816	CR-34775	K2	3	K3	3	CR-34775
320	WI-3816	CR-34775	K2	5	K3	5	CR-34775
324	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
340	WI-33776	CR-33509	SG1	GND	SG2	GND	CR-34774
341	WI-33776	CR-34774	SG2	GND	SG3	GND	CR-33509
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
333	WI-33777	CR-33509	N9	12	K3	A2	CR-38389

5015372 20-10/20-20 (EB); 380V 3PH; SIMPLE & TOUCH

5015372-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB2	2	K1	1	CR-34775
301	WI-3816	CR-34781	TB7	2	K1	3	CR-34775
302	WI-3816	CR-34781	TB12	2	K1	5	CR-34775
306	WI-33777	CR-38389	K1	21	N9	11	CR-34774
307	WI-33478	CR-38389	K1	A1	K2	A1	CR-38389
308	WI-33777	CR-33509	N7	12	K1	22	CR-38389
309	WI-33777	CR-38389	K1	A2	K2	A2	CR-38389
310	WI-3816	CR-34781	TB3	2	K2	1	CR-34775
311	WI-3816	CR-34781	TB8	2	K2	3	CR-34775
312	WI-3816	CR-34781	TB13	2	K2	5	CR-34775
316	WI-33478	CR-38389	K2	A1	K3	A1	CR-38389
317	WI-33777	CR-38389	K2	A2	K3	A2	CR-38389
318	WI-3816	CR-34775	K2	1	K3	1	CR-34775
319	WI-3816	CR-34775	K2	3	K3	3	CR-34775
320	WI-3816	CR-34775	K2	5	K3	5	CR-34775
324	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
340	WI-33776	CR-33509	SG1	GND	SG2	GND	CR-34774
341	WI-33776	CR-34774	SG2	GND	SG3	GND	CR-33509
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
333	WI-33776	CR-33509	N9	12	K3	A2	CR-38389

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 6.10 UP-TO 20.20 380V BOILER

BY: AFT | DWG: 77623 | SHEET 10 OF 42

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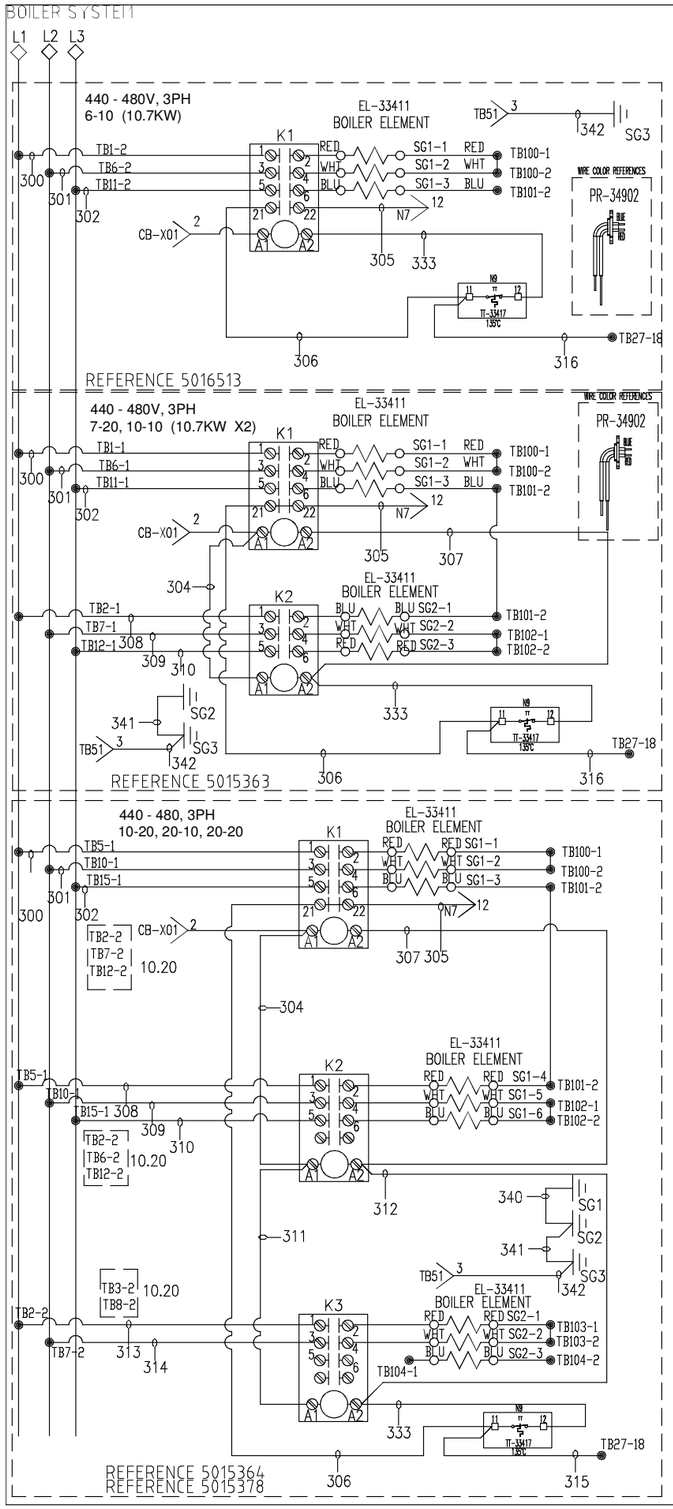


5016513 6-10 (EB); 440V 3PH; SIMPLE & TOUCH

5016513-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB1	1	K1	1	CR-34775
301	WI-3816	CR-34781	TB6	1	K1	3	CR-34775
302	WI-3816	CR-34781	TB11	1	K1	5	CR-34775
305	WI-33777	CR-38389	K1	22	N7	12	CR-33509
306	WI-33777	CR-38389	K1	21	N9	11	CR-34774
316	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
342	WI-33776	CR-34783	TB51	3	SG3	GND	CR-33509
333	WI-33777	CR-33509	N9	12	K1	A2	CR-38389

5015363 7-20/10-10 (EB); 440V 3PH; SIMPLE & TOUCH

5015363-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB1	1	K1	1	CR-34775
301	WI-3816	CR-34781	TB6	1	K1	3	CR-34775
302	WI-3816	CR-34781	TB11	1	K1	5	CR-34775
304	WI-33478	CR-38389	K1	A1	K2	A1	CR-38389
305	WI-33777	CR-38389	K1	22	N7	12	CR-33509
306	WI-33777	CR-38389	K1	21	N9	11	CR-34774
307	WI-33777	CR-38389	K1	A2	K2	A2	CR-38389
308	WI-3816	CR-34781	TB2	1	K2	1	CR-34775
309	WI-3816	CR-34781	TB7	1	K2	3	CR-34775
310	WI-3816	CR-34781	TB12	1	K2	5	CR-34775
316	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
341	WI-33776	CR-33509	SG2	GND	SG3	GND	CR-34774
342	WI-33776	CR-34783	TB51	3	SG3	GND	CR-33509
333	WI-33776	CR-33509	N9	12	K2	A2	CR-38389

5015364 10-20 (EB); 440V 3PH; SIMPLE & TOUCH

5015364-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB2	2	K1	1	CR-34775
301	WI-3816	CR-34781	TB7	2	K1	3	CR-34775
302	WI-3816	CR-34781	TB12	2	K1	5	CR-34775
304	WI-33478	CR-38389	K1	A1	K2	A1	CR-38389
305	WI-33777	CR-38389	K1	22	N7	12	CR-33509
306	WI-33777	CR-38389	K1	21	N9	11	CR-34774
307	WI-33777	CR-38389	K1	A2	K2	A2	CR-38389
308	WI-3816	CR-34781	TB2	2	K2	1	CR-34775
309	WI-3816	CR-34781	TB6	2	K2	3	CR-34775
310	WI-3816	CR-34781	TB11	2	K2	5	CR-34775
311	WI-33478	CR-38389	K2	A1	K3	A1	CR-38389
312	WI-33777	CR-38389	K2	A2	K3	A2	CR-38389
313	WI-3816	CR-34781	TB3	2	K3	1	CR-34775
314	WI-3816	CR-34781	TB8	2	K3	3	CR-34775
315	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
340	WI-33776	CR-33509	SG1	GND	SG2	GND	CR-34774
341	WI-33776	CR-34774	SG3	GND	SG2	GND	CR-33509
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
333	WI-33777	CR-33509	N9	12	K3	A2	CR-38389

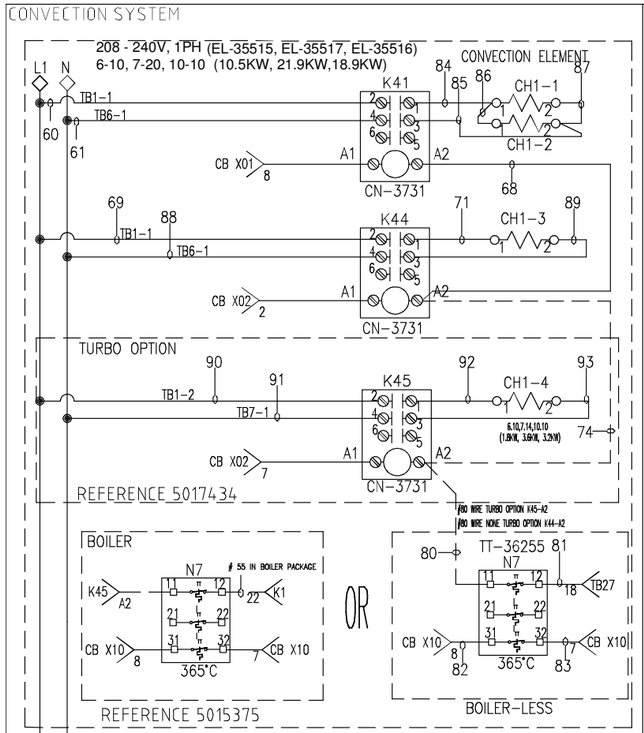
5015378 20-10/20-20 (EB); 440V 3PH; SIMPLE & TOUCH

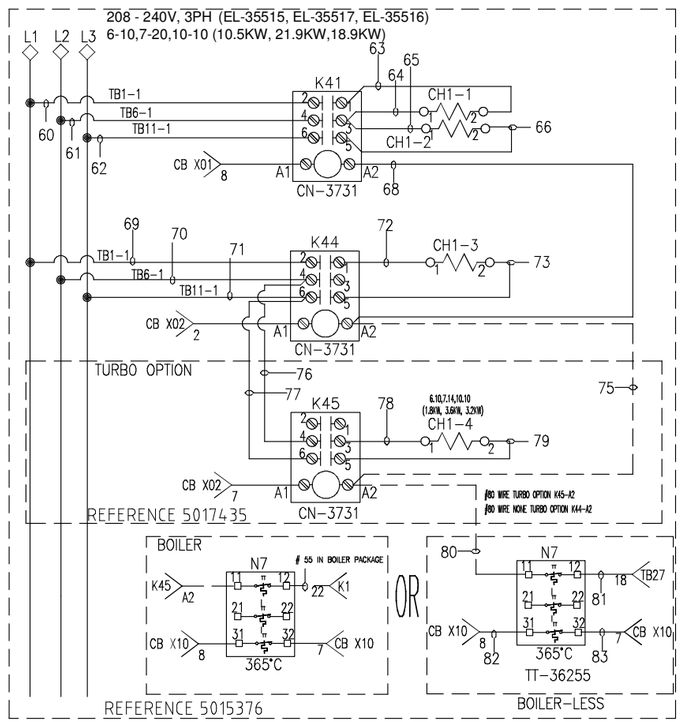
5015378-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
300	WI-3816	CR-34781	TB5	1	K1	1	CR-34775
301	WI-3816	CR-34781	TB10	1	K1	3	CR-34775
302	WI-3816	CR-34781	TB15	1	K1	5	CR-34775
304	WI-33478	CR-38389	K1	A1	K2	A1	CR-38389
305	WI-33777	CR-38389	K1	22	N7	12	CR-33509
306	WI-33777	CR-38389	K1	21	N9	11	CR-34774
307	WI-33777	CR-38389	K1	A2	K2	A2	CR-38389
308	WI-3816	CR-34781	TB5	1	K2	1	CR-34775
309	WI-3816	CR-34781	TB10	1	K2	3	CR-34775
310	WI-3816	CR-34781	TB15	1	K2	5	CR-34775
311	WI-33478	CR-38389	K2	A1	K3	A1	CR-38389
312	WI-33777	CR-38389	K2	A2	K3	A2	CR-38389
313	WI-3816	CR-34781	TB2	2	K3	1	CR-34775
314	WI-3816	CR-34781	TB7	2	K3	3	CR-34775
315	WI-33777	CR-33509	N9	11	TB27	18	CR-34783
340	WI-33776	CR-33509	SG1	GND	SG2	GND	CR-34774
341	WI-33776	CR-34774	SG3	GND	SG2	GND	CR-33509
342	WI-33776	CR-33509	SG3	GND	TB51	3	CR-34783
333	WI-33777	CR-33509	N9	12	K3	A2	CR-38389

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 7.10 UP-TO 20.20 440V BOILER

BY: AFT | DWG: 77623 | SHEET: 11 OF 42
DATE: 07/27/15





5015376 6-10,10-10,7-20 (EI); 208V 3PH TOUCH

5015376-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K41	4	CR-34781
62	WI-3816	CR-34781	TB11	1	K41	6	CR-34781
63	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
64	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
65	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
66	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
68	WI-33777	CR-38389	K41	A2	K44	A2	CR-38389
69	WI-3816	CR-34781	TB1	1	K44	2	CR-34781
70	WI-3816	CR-34781	TB6	1	K44	4	CR-34781
71	WI-3816	CR-34781	TB11	1	K44	6	CR-34781
72	WI-3816	CR-34781	K44	1	CH1	3-1	CR-38575
73	WI-3816	CR-34781	K44	5	CH1	3-2	CR-38575
80	WI-33777	CR-38389	K44	A2	N7	11	CR-33509
81	WI-33777	CR-33509	N7	12	TB27	18	CR-34783
82	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
83	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

5015375 6-10,10-10,7-20 (EI); 208V 1PH; TOUCH

5015375-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K41	4	CR-34781
68	WI-33777	CR-38389	K41	A2	K44	A2	CR-38389
69	WI-3816	CR-34781	TB1	1	K44	2	CR-34781
71	WI-3816	CR-34781	K44	1	CH1	3-1	CR-38575
80	WI-33777	CR-38389	K44	A2	N7	11	CR-33509
81	WI-33777	CR-33509	N7	12	TB27	18	CR-34783
82	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
83	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
84	WI-3816	CR-34781	K41	1	CH1	1-1	CR-38575
85	WI-3816	CR-34781	K41	3	CH1	2-2	CR-38575
86	WI-3816	CR-38575	CH1	1-1	CH1	2-1	CR-38575
87	WI-3816	CR-38575	CH1	1-2	CH1	2-2	CR-38575
88	WI-3816	CR-34781	TB6	1	K44	4	CR-34781
89	WI-3816	CR-34781	K44	3	CH1	3-1	CR-38575

5017434 6-10,10-10,7-20 (EI); 208V 1PH; TOUCH TURBO OPTION

5017434-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-38389
74	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
90	WI-3816	CR-34781	TB2	1	K45	2	CR-34781
91	WI-3816	CR-34781	TB7	1	K45	4	CR-34781
92	WI-3816	CR-34781	K45	1	CH1	4-1	CR-38575
93	WI-3816	CR-34781	K45	3	CH1	4-2	CR-38575

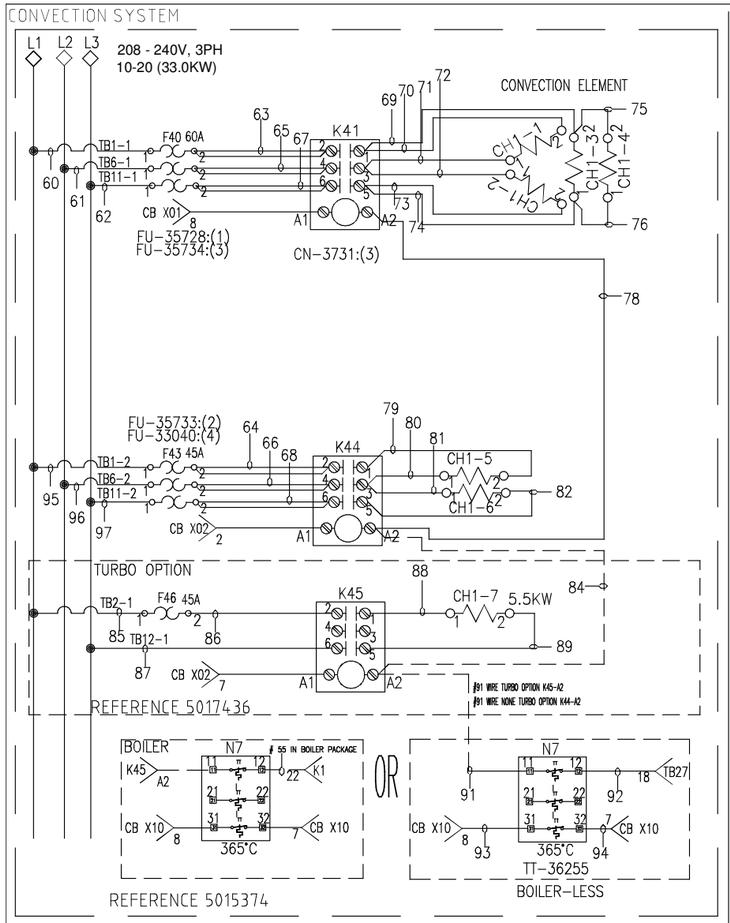
5017435 6-10,10-10,7-20 (EI); 208V 3PH TOUCH TURBO OPTION

5017435-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-38389
75	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
76	WI-3816	CR-34781	K44	4	K45	4	CR-34781
77	WI-3816	CR-34781	K44	6	K45	6	CR-34781
78	WI-3816	CR-34781	K45	3	CH1	4-1	CR-38575
79	WI-3816	CR-34781	K45	5	CH1	4-2	CR-38575

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM
6-10-10-10-7-14 ES 208-240V 1/3Ph 50/60Hz
BY: AFT | DWG: 77623 | SHEET: 12 OF 42
DATE: 07/27/15

Convection System (Touch): 10-20 – 208V 3PH



5015374 10-20 (EI); 208V 3PH; TOUCH

5015374-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
69	WI-3816	CR-34781	K41	1	CH1	3-2	CR-38575
70	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
71	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
72	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
73	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
74	WI-3816	CR-34781	K41	5	CH1	3-1	CR-38575
75	WI-3816	CR-38575	CH1	3-2	CH1	4-2	CR-38575
76	WI-3816	CR-38575	CH1	3-1	CH1	4-1	CR-38575
78	WI-33777	CR-38389	K41	A2	K44	A2	CR-38389
79	WI-3816	CR-34781	K44	1	CH1	5-2	CR-38575
80	WI-3816	CR-34781	K44	3	CH1	5-1	CR-38575
81	WI-3816	CR-34781	K44	3	CH1	6-1	CR-38575
82	WI-3816	CR-34781	K44	5	CH1	6-2	CR-38575
91	WI-33777	CR-38389	K44	A2	N7	11	CR-33509
92	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
93	WI-33777	CR-34783	CB-X10	8	N7	31	CR-33509
94	WI-33777	CR-34783	CB-X10	7	N7	32	CR-33509
95	WI-3816	CR-34781	TB1	2	F43	1	CR-34781
95	WI-3816	CR-34781	TB1	2	F43	1	CR-34781
96	WI-3816	CR-34781	TB6	2	F44	1	CR-34781
96	WI-3816	CR-34781	TB6	2	F44	1	CR-34781
97	WI-3816	CR-34781	TB11	2	F45	1	CR-34781
97	WI-3816	CR-34781	TB11	2	F45	1	CR-34781

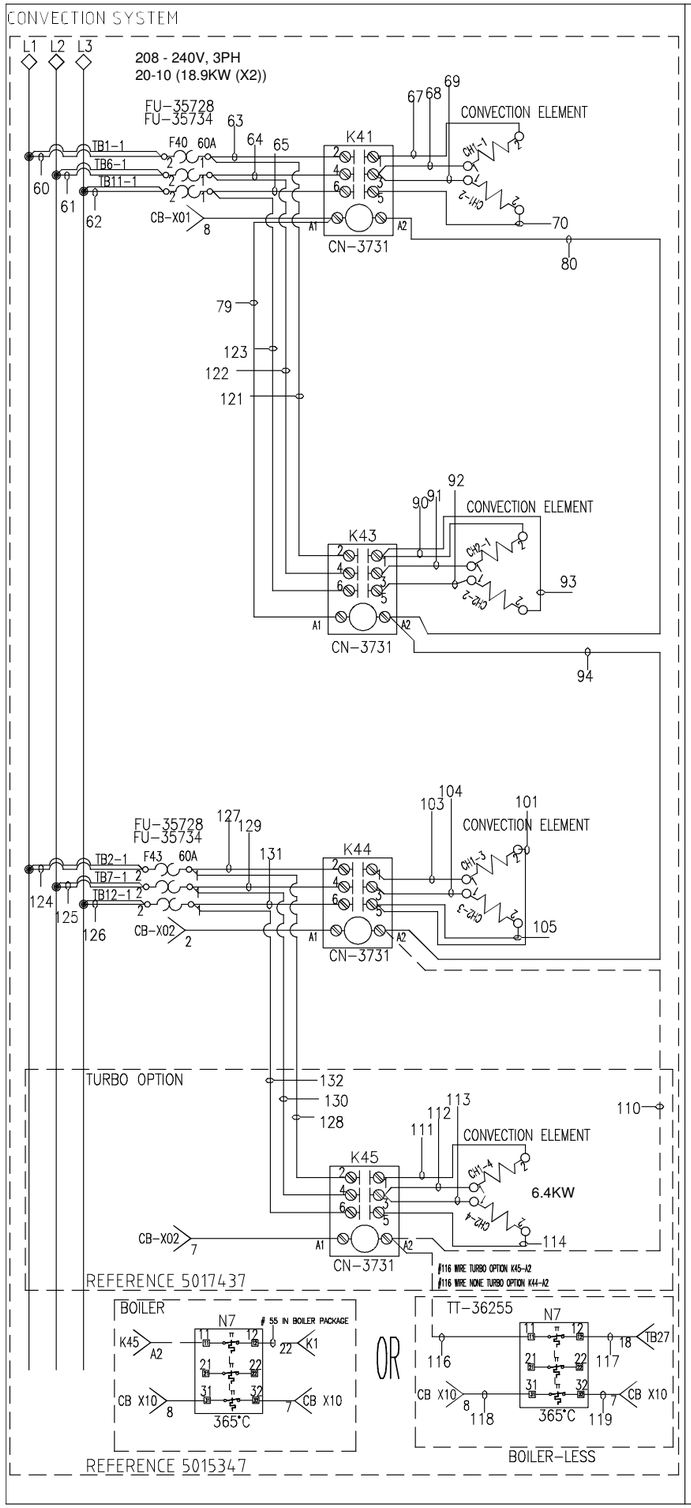
5017436 10-20 (EI); 208V 3PH; TOUCH TURBO OPTION

5017436-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-38389
84	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
85	WI-3816	CR-34781	TB2	1	F46	1	CR-34781
86	WI-3816	CR-34781	K45	2	F46	2	CR-34781
87	WI-3816	CR-34781	TB12	1	K45	6	CR-34781
88	WI-3816	CR-34781	K45	1	CH1	7-1	CR-38575

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM | WIRING DIAGRAM | 10.18 208-240V 3Ph CONVECTION
BY: AFT | DWG: 77623 | SHEET 13 OF 42
DATE: 07/27/15

Convection System (Touch): 20-10 – 208V 3PH



5015347 20-10 (EI); 208V 3PH; TOUCH

5015347-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
67	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
68	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
69	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
70	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
79	WI-33478	CR-38389	K41	A1	K43	A1	CR-38389
80	WI-33777	CR-38389	K41	A2	K43	A2	CR-38389
90	WI-3816	CR-34781	K43	1	CH2	1-2	CR-38575
91	WI-3816	CR-34781	K43	3	CH2	1-1	CR-38575
92	WI-3816	CR-34781	K43	5	CH2	2-1	CR-38575
93	WI-3816	CR-34781	K43	1	CH2	2-2	CR-38575
94	WI-33777	CR-38389	K44	A2	K43	A2	CR-38389
101	WI-3816	CR-34781	K44	5	CH1	3-2	CR-38575
103	WI-3816	CR-34781	K44	1	CH1	3-1	CR-38575
104	WI-3816	CR-34781	K44	3	CH2	3-1	CR-38575
105	WI-3816	CR-34781	K44	5	CH2	3-2	CR-38575
116	WI-33777	CR-38389	K44	A2	N7	11	CR-33509
117	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
121	WI-3816	CR-34781	F40	1	K43	2	CR-34781
122	WI-3816	CR-34781	F41	1	K43	4	CR-34781
123	WI-3816	CR-34781	F42	1	K43	6	CR-34781
124	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
124	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
125	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
125	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
126	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
126	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
127	WI-3816	CR-34781	K44	2	F43	1	CR-34781
129	WI-3816	CR-34781	K44	4	F44	1	CR-34781
131	WI-3816	CR-34781	K44	6	F45	1	CR-34781

5017437 20-10 (EI); 208V 3PH; TOUCH TURBO OPTION

5017437-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-38389
110	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
111	WI-3816	CR-34781	K45	1	CH1	4-2	CR-38575
112	WI-3816	CR-34781	K45	3	CH1	4-1	CR-38575
113	WI-3816	CR-34781	K45	3	CH2	4_1	CR-38575
114	WI-3816	CR-34781	K45	5	CH2	4-2	CR-38575
128	WI-3816	CR-34781	K45	2	F43	1	CR-34781
130	WI-3816	CR-34781	K45	4	F44	1	CR-34781
132	WI-3816	CR-34781	K45	6	F45	1	CR-34781

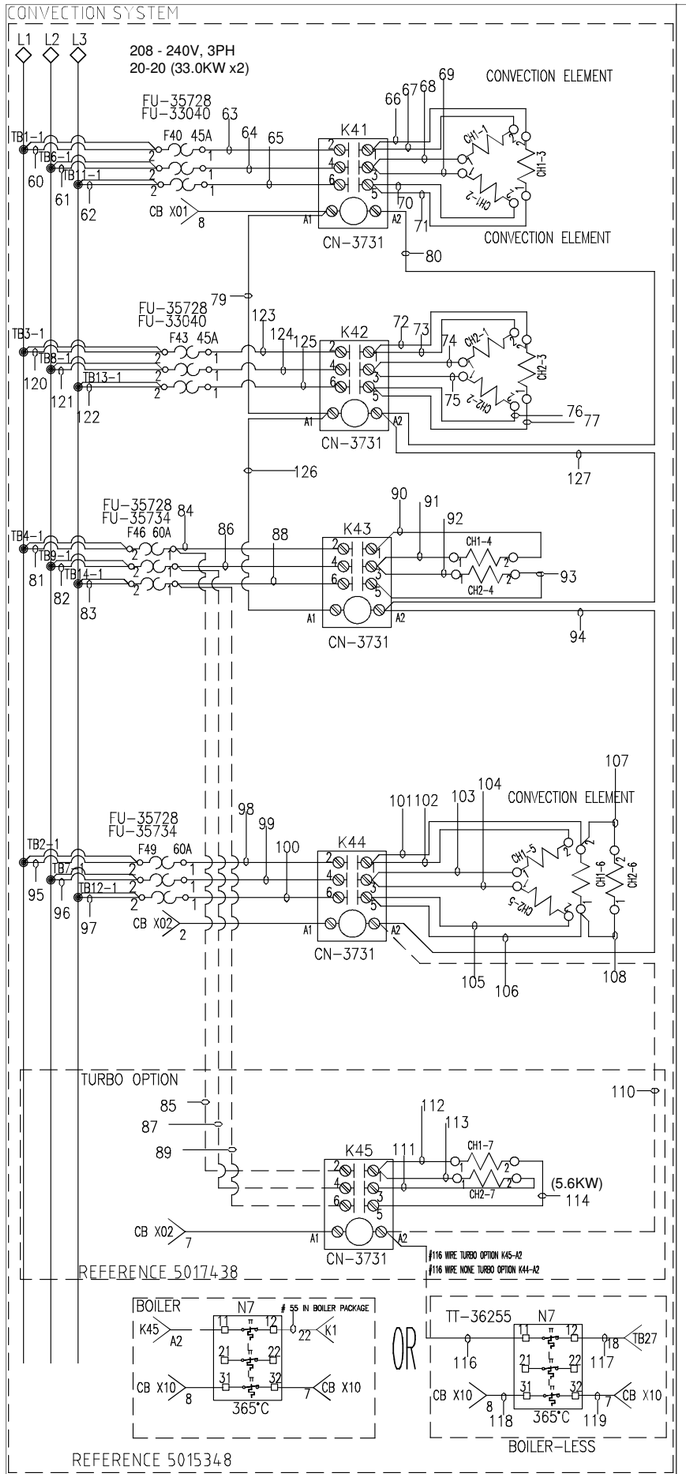
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 20.10 208V 3PH CONVECTION

BY: AFT | DWG: 77623 | SHEET 14 OF 42

DATE: 07/27/15

Convection System (Touch): 20-20 – 208V 3PH



5015348 20-20 (EI); 208V 3PH; TOUCH

5015348-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
66	WI-3816	CR-34781	K41	1	CH1	3-2	CR-38575
67	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
68	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
69	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
70	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
71	WI-3816	CR-34781	K41	5	CH1	3-1	CR-38575
72	WI-3816	CR-34781	K42	1	CH2	3-2	CR-38575
73	WI-3816	CR-34781	K42	1	CH2	1-2	CR-38575
74	WI-3816	CR-34781	K42	3	CH2	1-1	CR-38575
75	WI-3816	CR-34781	K42	3	CH2	2-1	CR-38575
76	WI-3816	CR-34781	K42	5	CH2	2-2	CR-38575
77	WI-3816	CR-34781	K42	5	CH2	3-1	CR-38575
79	WI-33478	CR-38389	K41	A1	K42	A1	CR-38389
80	WI-33777	CR-38389	K41	A2	K42	A2	CR-38389
81	WI-3816	CR-34781	TB4	1	F46	2	CR-34781
81	WI-3816	CR-34781	TB4	1	F46	2	CR-34781
82	WI-3816	CR-34781	TB9	1	F47	2	CR-34781
82	WI-3816	CR-34781	TB9	1	F47	2	CR-34781
83	WI-3816	CR-34781	TB14	1	F48	2	CR-34781
83	WI-3816	CR-34781	TB14	1	F48	2	CR-34781
84	WI-3816	CR-34781	K43	2	F46	1	CR-34781
86	WI-3816	CR-34781	K43	4	F47	1	CR-34781
88	WI-3816	CR-34781	K43	6	F48	1	CR-34781
90	WI-3816	CR-34781	K43	1	CH1	4-2	CR-38575
91	WI-3816	CR-34781	K43	3	CH1	4-1	CR-38575
92	WI-3816	CR-34781	K43	3	CH2	4-1	CR-38575
93	WI-3816	CR-34781	K43	5	CH2	4-2	CR-38575
94	WI-33777	CR-38389	K44	A2	K43	A2	CR-38389
95	WI-3816	CR-34781	TB2	1	F49	2	CR-34781
95	WI-3816	CR-34781	TB2	1	F49	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F50	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F50	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F51	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F51	2	CR-34781
98	WI-3816	CR-34781	K44	2	F49	1	CR-34781
98	WI-3816	CR-34781	K44	2	F49	1	CR-34781
99	WI-3816	CR-34781	K44	4	F50	1	CR-34781
99	WI-3816	CR-34781	K44	4	F50	1	CR-34781
100	WI-3816	CR-34781	K44	6	F51	1	CR-34781
100	WI-3816	CR-34781	K44	6	F51	1	CR-34781
101	WI-3816	CR-34781	K44	1	CH1	6-2	CR-38575
102	WI-3816	CR-34781	K44	1	CH1	5-2	CR-38575
103	WI-3816	CR-34781	K44	3	CH1	5-1	CR-38575
104	WI-3816	CR-34781	K44	3	CH2	5-1	CR-38575
105	WI-3816	CR-34781	K44	5	CH2	5-2	CR-38575
106	WI-3816	CR-34781	K44	5	CH1	6-1	CR-38575
107	WI-3816	CR-38575	CH1	6-2	CH2	6-2	CR-38575
108	WI-3816	CR-38575	CH1	6-1	CH2	6-1	CR-38575
116	WI-33777	CR-38389	K44	A2	N7	11	CR-33509
117	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
120	WI-3816	CR-34781	TB3	1	F43	2	CR-34781
120	WI-3816	CR-34781	TB3	1	F43	2	CR-34781
121	WI-3816	CR-34781	TB8	1	F44	2	CR-34781
121	WI-3816	CR-34781	TB8	1	F44	2	CR-34781
122	WI-3816	CR-34781	TB13	1	F45	2	CR-34781
122	WI-3816	CR-34781	TB13	1	F45	2	CR-34781
123	WI-3816	CR-34781	K42	2	F43	1	CR-34781
123	WI-3816	CR-34781	K42	2	F43	1	CR-34781
124	WI-3816	CR-34781	K42	4	F44	1	CR-34781
124	WI-3816	CR-34781	K42	4	F44	1	CR-34781
125	WI-3816	CR-34781	K42	6	F45	1	CR-34781
125	WI-3816	CR-34781	K42	6	F45	1	CR-34781
126	WI-33478	CR-38389	K43	A1	K42	A1	CR-38389
127	WI-33777	CR-38389	K42	A2	K43	A2	CR-38389
L1	WI-3817	BARE	BK-33996	L1	TB3	2	CR-33043
L1	WI-3817	BARE	BK-33996	L1	TB4	2	CR-33043
L1	WI-3817	BARE	BK-33996	L1	TB5	2	CR-33043
L2	WI-3817	BARE	BK-33996	L2	TB8	2	CR-33043
L2	WI-3817	BARE	BK-33996	L2	TB9	2	CR-33043
L2	WI-3817	BARE	BK-33996	L2	TB10	2	CR-33043
L3	WI-3817	BARE	BK-33996	L3	TB13	2	CR-33043
L3	WI-3817	BARE	BK-33996	L3	TB14	2	CR-33043
L3	WI-3817	BARE	BK-33996	L3	TB15	2	CR-33043

5017438 20-20 (EI); 208V 3PH; TOUCH TURBO OPTION

5017438-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-38389
85	WI-3816	CR-34781	F46	1	K45	2	CR-34781
87	WI-3816	CR-34781	F47	1	K45	4	CR-34781
89	WI-3816	CR-34781	F48	1	K45	6	CR-34781
110	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
111	WI-3816	CR-34781	K45	3	CH2	7-2	CR-38575
112	WI-3816	CR-34781	K45	1	CH1	7-1	CR-38575
113	WI-3816	CR-34781	K45	1	CH2	7-1	CR-38575
114	WI-3816	CR-34781	K45	5	CH1	7-2	CR-38575

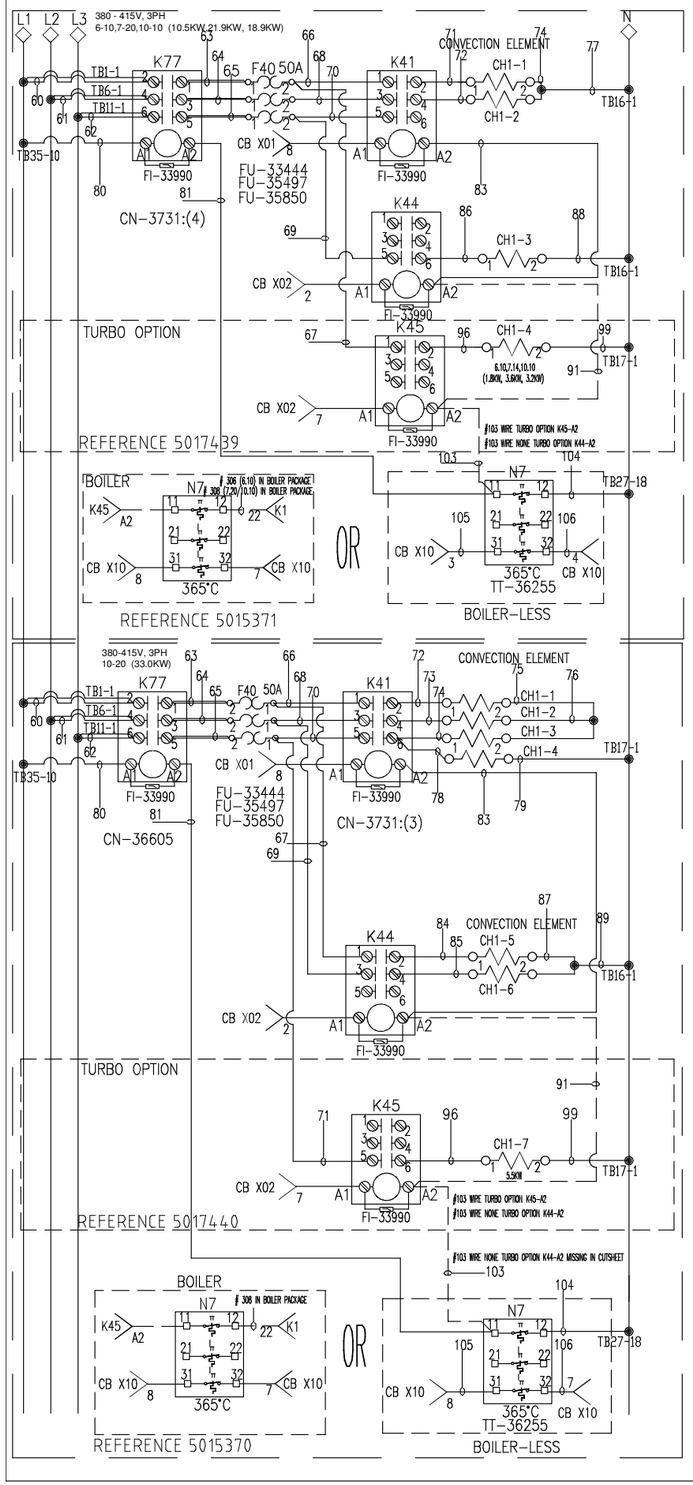
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM | WIRING DIAGRAM | 20-20 208V 3PH CONVECTION

BY: AFT | DWG: 77623 | SHEET 15 OF 42

DATE: 07/27/15

CONVECTION SYSTEM



5015371 6-10,10-10,7-20 (EI); 380V 3PH; TOUCH

5015371-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K77	2	CR-34781
60	WI-3816	CR-34781	TB1	1	K77	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K77	4	CR-34781
61	WI-3816	CR-34781	TB6	1	K77	4	CR-34781
62	WI-3816	CR-34781	TB11	1	K77	6	CR-34781
62	WI-3816	CR-34781	TB11	1	K77	6	CR-34781
63	WI-3816	CR-34775	F40	1	K77	1	CR-34781
63	WI-3816	CR-34775	F40	1	K77	1	CR-34781
64	WI-3816	CR-34775	F41	1	K77	3	CR-34781
64	WI-3816	CR-34775	F41	1	K77	3	CR-34781
65	WI-3816	CR-34775	F42	1	K77	5	CR-34781
65	WI-3816	CR-34775	F42	1	K77	5	CR-34781
66	WI-3816	CR-34775	F40	2	K41	1	CR-34781
68	WI-3816	CR-34775	F41	2	K41	3	CR-34781
69	WI-3816	CR-34775	F42	2	K44	5	CR-34781
70	WI-3816	CR-34775	F42	2	K41	5	CR-34781
71	WI-3816	CR-34781	K41	2	CH1	1-1	CR-38575
72	WI-3816	CR-34781	K41	4	CH1	2-1	CR-38575
74	WI-3816	CR-38575	CH1	1-2	CH1	2-2	CR-38575
77	WI-3816	CR-38575	CH1	2-2	TB16	1	CR-34781
80	WI-33478	CR-34783	TB33	18	K77	A1	CR-38389
81	WI-33777	CR-38389	K77	A2	N7	11	CR-33509
83	WI-33777	CR-38389	K41	A2	K44	A2	CR-38389
86	WI-3816	CR-34781	K44	6	CH1	3-1	CR-38575
88	WI-3816	CR-38575	CH1	3-2	TB16	1	CR-34781
103	WI-33777	CR-38389	K44	A2	N7	11	CR-34774
104	WI-33777	CR-33509	N7	12	TB27	18	CR-34783
105	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
106	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

5017439 6-10,10-10,7-20 (EI); 380V 3PH; TOUCH TURBO OPTION

5017439-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-38389
67	WI-3816	CR-34781	K45	1	F40	2	CR-34775
91	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
96	WI-3816	CR-34781	K45	2	CH1	4-1	CR-38575
99	WI-3816	CR-38575	CH1	4-2	TB17	1	CR-34781

5015370 10-20 (EI); 380V 3PH; TOUCH

5015370-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K77	2	CR-34781
60	WI-3816	CR-34781	TB1	1	K77	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K77	4	CR-34781
61	WI-3816	CR-34781	TB6	1	K77	4	CR-34781
62	WI-3816	CR-34781	TB11	1	K77	6	CR-34781
62	WI-3816	CR-34781	TB11	1	K77	6	CR-34781
63	WI-3816	CR-34775	F40	2	K77	1	CR-34781
63	WI-3816	CR-34775	F40	2	K77	1	CR-34781
64	WI-3816	CR-34775	F41	2	K77	3	CR-34781
64	WI-3816	CR-34775	F41	2	K77	3	CR-34781
65	WI-3816	CR-34775	F42	2	K77	5	CR-34781
65	WI-3816	CR-34775	F42	2	K77	5	CR-34781
66	WI-3816	CR-34775	F40	1	K41	1	CR-34781
67	WI-3816	CR-34781	K44	1	F40	1	CR-34775
68	WI-3816	CR-34775	F41	1	K41	3	CR-34781
69	WI-3816	CR-34781	K44	3	F41	1	CR-34775
70	WI-3816	CR-34775	F42	1	K41	5	CR-34781
72	WI-3816	CR-34781	K41	2	CH1	1-1	CR-38575
73	WI-3816	CR-34781	K41	4	CH1	2-1	CR-38575
74	WI-3816	CR-34781	K41	6	CH1	3-1	CR-38575
75	WI-3816	CR-38575	CH1	2-2	CH1	1-2	CR-38575
76	WI-3816	CR-38575	CH1	2-2	CH1	3-2	CR-38575
78	WI-3816	CR-34781	K41	6	CH1	4-1	CR-38575
79	WI-3816	CR-34781	TB17	1	CH1	4-2	CR-38575
80	WI-33478	CR-34783	TB35	10	K77	A1	CR-38389
81	WI-33777	CR-38389	K77	A2	N7	11	CR-33509
83	WI-33777	CR-38389	K41	A2	K44	A2	CR-38389
84	WI-3816	CR-34781	K44	2	CH1	5-1	CR-38575
85	WI-3816	CR-34781	K44	4	CH1	6-1	CR-38575
87	WI-3816	CR-38575	CH1	5-2	CH1	6-2	CR-38575
89	WI-3816	CR-38575	CH1	5-2	TB16	1	CR-34781
103	WI-33777	CR-38389	K44	A2	N7	11	CR-34774
104	WI-33777	CR-33509	N7	12	TB27	18	CR-34783
105	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
106	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

5017440 10-20 (EI); 380V 3PH; TOUCH TURBO OPTION

5017440-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-38389
71	WI-3816	CR-34781	K45	5	F42	1	CR-34775
91	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
96	WI-3816	CR-34781	K45	6	CH1	7-1	CR-38575
99	WI-3816	CR-38575	CH1	7-2	TB17	1	CR-34781

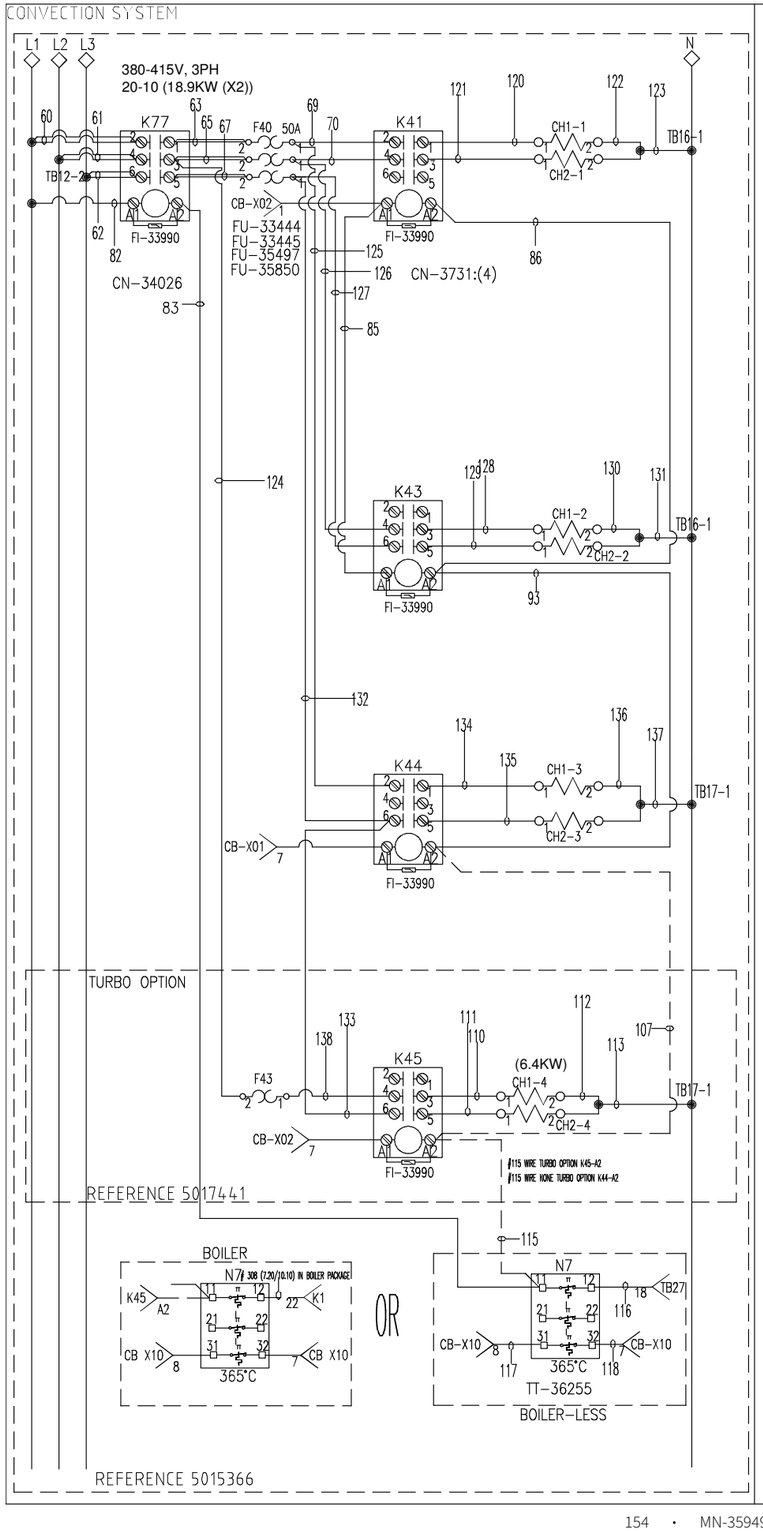
REV.	ECO	DESCRIPTION	DATE	APP.

ALTO-SHAAM — WIRING DIAGRAM — 6-10 TO 10-18 380-415V 3PH 50HZ CONVECTION

BY: AFT | DWG: 77623 | SHEET: 16 OF 42

DATE: 07/27/15

Convection System (Touch): 20-10 – 380V 3PH



5015366 20-10 (EI); 380V 3PH; TOUCH

5015366-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB2	2	K77	2	CR-34781
60	WI-3816	CR-34781	TB2	2	K77	2	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
63	WI-3816	CR-34775	F40	2	K77	1	CR-34781
63	WI-3816	CR-34775	F40	2	K77	1	CR-34781
65	WI-3816	CR-34775	F41	2	K77	3	CR-34781
65	WI-3816	CR-34775	F41	2	K77	3	CR-34781
67	WI-3816	CR-34775	F42	2	K77	5	CR-34781
67	WI-3816	CR-34775	F42	2	K77	5	CR-34781
69	WI-3816	CR-34775	F40	1	K41	2	CR-34781
70	WI-3816	CR-34775	F41	1	K41	4	CR-34781
82	WI-33478	CR-34783	TB35	10	K77	A1	CR-38389
83	WI-33777	CR-38389	K77	A2	N7	11	CR-33509
85	WI-33478	CR-38389	K41	A1	K43	A1	CR-38389
86	WI-33777	CR-38389	K41	A2	K43	A2	CR-38389
93	WI-33777	CR-38389	K43	A2	K44	A2	CR-38389
115	WI-33777	CR-38389	K44	A2	N7	11	CR-34774
116	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
117	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
118	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
120	WI-3816	CR-34781	K41	1	CH1	1-1	CR-38575
121	WI-3816	CR-34781	K41	3	CH2	1-1	CR-38575
122	WI-3816	CR-38575	CH1	1-2	CH2	1-2	CR-38575
123	WI-3816	CR-38575	CH2	1-2	TB16	1	CR-34781
124	WI-3816	CR-34781	K77	3	F43	2	CR-34775
125	WI-3816	CR-34775	F40	1	K44	2	CR-34781
126	WI-3816	CR-34775	F41	1	K43	4	CR-34781
127	WI-3816	CR-34775	F42	1	K43	6	CR-34781
128	WI-3816	CR-34781	K43	3	CH1	2-1	CR-38575
129	WI-3816	CR-34781	K43	5	CH2	2-1	CR-38575
130	WI-3816	CR-38575	CH1	2-2	CH2	2-2	CR-38575
131	WI-3816	CR-38575	CH2	2-2	TB16	1	CR-34781
132	WI-3816	CR-34775	F42	1	K44	6	CR-34781
134	WI-3816	CR-34781	K44	1	CH1	3-1	CR-38575
135	WI-3816	CR-34781	K44	5	CH2	3-1	CR-38575
136	WI-3816	CR-38575	CH1	3-2	CH2	3-2	CR-38575
137	WI-3816	CR-38575	CH2	3-2	TB17	1	CR-34781

5017441 20-10 (EI); 380V 3PH; TOUCH

5017441-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-38389
107	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
110	WI-3816	CR-34781	K45	3	CH1	4-1	CR-38575
111	WI-3816	CR-34781	K45	5	CH2	4-1	CR-38575
112	WI-3816	CR-38575	CH1	4-2	CH2	4-2	CR-38575
113	WI-3816	CR-38575	CH2	4-2	TB17	1	CR-34781
133	WI-3816	CR-34781	K44	6	K45	6	CR-34781
138	WI-3816	CR-34775	F43	1	K45	4	CR-34781

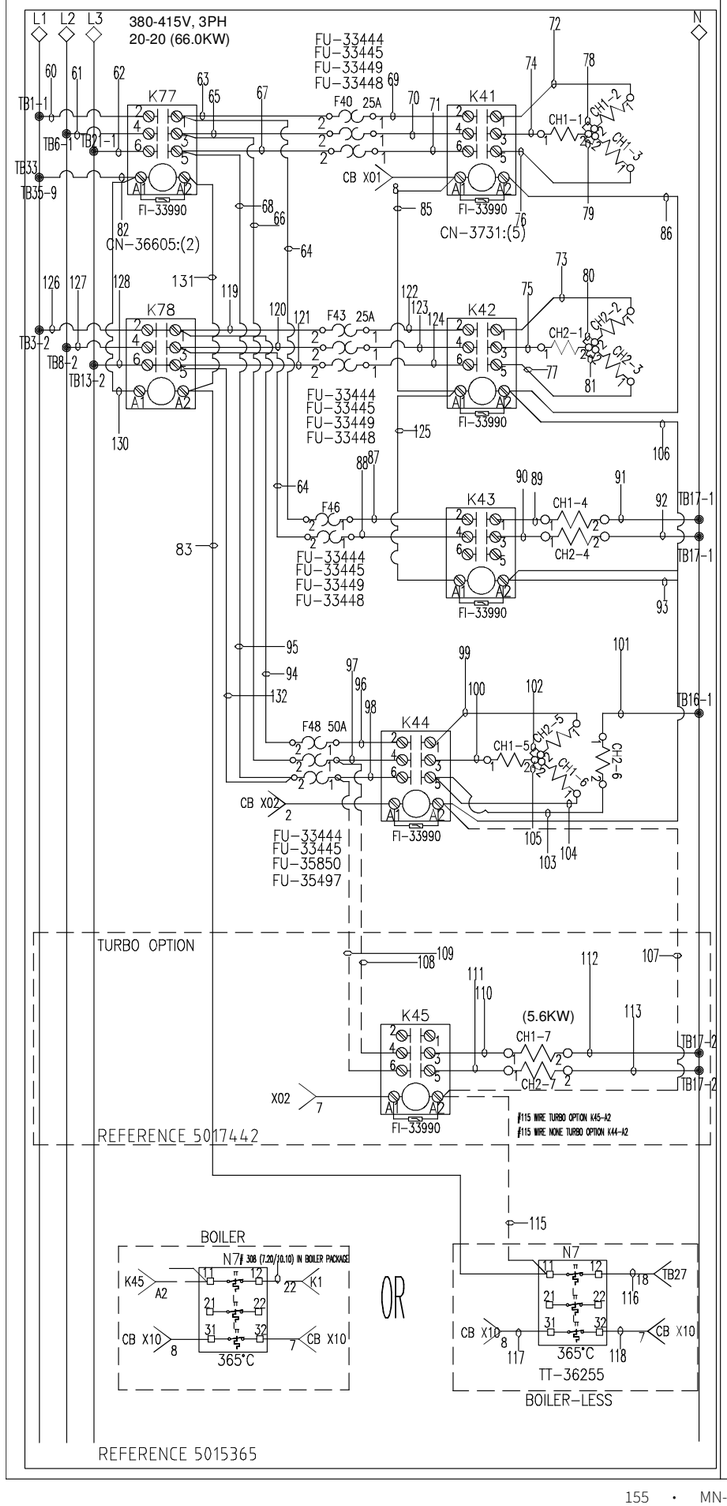
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 20.10 380-415V 3Ph 50Hz CONVECTION

BY: AFT | DWG: 77623 | SHEET 17 OF 42

DATE: 07/27/15

CONVECTION SYSTEM



5015365 20-20 (EI); 380V 3PH; TOUCH

5015365-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB3	2	K77	2	CR-34781
60	WI-3816	CR-34781	TB3	2	K77	2	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
63	WI-3816	CR-34775	F40	2	K77	1	CR-34781
64	WI-3816	CR-34781	K77	1	F46	2	CR-34775
65	WI-3816	CR-34775	F41	2	K77	3	CR-34781
66	WI-3816	CR-34781	K77	3	F49	2	CR-34775
67	WI-3816	CR-34775	F42	2	K77	5	CR-34781
68	WI-3816	CR-34781	K77	5	F50	2	CR-34775
69	WI-3816	CR-34775	F40	1	K41	2	CR-34781
70	WI-3816	CR-34775	F41	1	K41	4	CR-34781
70	WI-3816	CR-34775	F41	1	K41	4	CR-34781
71	WI-3816	CR-34775	F42	1	K41	6	CR-34781
71	WI-3816	CR-34775	F42	1	K41	6	CR-34781
72	WI-3816	CR-34781	K41	1	CH1	2-1	CR-38575
73	WI-3816	CR-34781	K42	1	CH2	2-1	CR-38575
74	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
75	WI-3816	CR-34781	K42	3	CH2	1-1	CR-38575
76	WI-3816	CR-34781	K41	5	CH1	3-1	CR-38575
77	WI-3816	CR-34781	K42	5	CH2	3-1	CR-38575
78	WI-3816	CR-38575	CH1	1-2	CH1	2-2	CR-38575
79	WI-3816	CR-38575	CH1	1-2	CH1	3-2	CR-38575
80	WI-3816	CR-38575	CH2	1-2	CH2	2-2	CR-38575
81	WI-3816	CR-38575	CH2	1-2	CH2	3-2	CR-38575
82	WI-33478	CR-34783	TB33	18	K77	A1	CR-38389
83	WI-33777	CR-38389	K78	A2	N7	11	CR-33509
85	WI-33478	CR-38389	K41	A1	K42	A1	CR-38389
86	WI-33777	CR-38389	K41	A2	K42	A2	CR-38389
87	WI-3816	CR-34775	F46	1	K43	2	CR-34781
88	WI-3816	CR-34775	F47	1	K43	4	CR-34781
89	WI-3816	CR-34781	K43	1	CH1	4-1	CR-38575
90	WI-3816	CR-34781	K43	3	CH2	4-1	CR-38575
91	WI-3816	CR-38575	CH1	4-2	TB17	1	CR-34781
92	WI-3816	CR-38575	CH2	4-2	TB17	1	CR-34781
93	WI-33777	CR-38389	K43	A2	K44	A2	CR-38389
94	WI-3816	CR-34781	K78	1	F48	2	CR-34775
95	WI-3816	CR-34781	K78	3	F47	2	CR-34775
96	WI-3816	CR-34775	F48	1	K44	2	CR-34781
97	WI-3816	CR-34775	F49	1	K44	4	CR-34781
98	WI-3816	CR-34775	F50	1	K44	6	CR-34781
99	WI-3816	CR-34781	K44	1	CH2	5-1	CR-38575
100	WI-3816	CR-34781	K44	3	CH1	5-1	CR-38575
101	WI-3816	CR-38575	CH2	6-1	TB16	1	CR-34781
102	WI-3816	CR-38575	CH1	5-2	CH2	5-2	CR-38575
103	WI-3816	CR-34781	K44	5	CH2	6-2	CR-38575
104	WI-3816	CR-34781	K44	5	CH1	6-1	CR-38575
105	WI-3816	CR-38575	CH1	5-2	CH1	6-2	CR-38575
106	WI-33777	CR-38389	K42	A2	K43	A2	CR-38389
115	WI-33777	CR-38389	K44	A2	N7	11	CR-34774
116	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
117	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
118	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
119	WI-3816	CR-34781	K78	1	F43	2	CR-34775
120	WI-3816	CR-34781	K78	3	F44	2	CR-34775
121	WI-3816	CR-34781	K78	5	F45	2	CR-34775
122	WI-3816	CR-34781	K42	2	F43	1	CR-34775
123	WI-3816	CR-34781	K42	4	F44	1	CR-34775
124	WI-3816	CR-34781	K42	6	F45	1	CR-34775
125	WI-33478	CR-38389	K42	A1	K43	A1	CR-38389
126	WI-3816	CR-34781	TB4	2	K78	2	CR-34781
126	WI-3816	CR-34781	TB4	2	K78	2	CR-34781
127	WI-3816	CR-34781	TB8	2	K78	4	CR-34781
127	WI-3816	CR-34781	TB8	2	K78	4	CR-34781
128	WI-3816	CR-34781	TB13	2	K78	6	CR-34781
128	WI-3816	CR-34781	TB13	2	K78	6	CR-34781
130	WI-33478	CR-38389	K77	A1	K78	A1	CR-38389
131	WI-33777	CR-38389	K77	A2	K78	A2	CR-38389
132	WI-3816	CR-34781	K78	5	F50	2	CR-34775

5017442 20-20 (EI); 380V 3PH; TOUCH TURBO OPTION

5017442-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-38389
107	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
108	WI-3816	CR-34775	F49	1	K45	4	CR-34781
109	WI-3816	CR-34775	F50	1	K45	6	CR-34781
110	WI-3816	CR-34781	K45	3	CH1	7-1	CR-38575
111	WI-3816	CR-34781	K45	5	CH2	7-1	CR-38575
112	WI-3816	CR-38575	CH1	7-2	TB17	2	CR-34781
113	WI-3816	CR-38575	CH2	7-2	TB17	2	CR-34781

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM | WIRING DIAGRAM
20.20 380V 3Ph 50Hz CONVECTION
BY: AFT | DWG: 77623 | SHEET 18 OF 42
DATE: 07/27/15

Convection System (Touch): 6-10, 10-10, 7-20, 10-20 – 440V 3PH

5015360 6-10,10-10,7-20 (EI); 440V 3PH; TOUCH

5015360-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
64	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
65	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
66	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
68	WI-33777	CR-38389	K41	A2	K44	A2	CR-38389
71	WI-3816	CR-34781	K44	1	CH1	3-1	CR-38575
72	WI-3816	CR-34781	K44	5	CH1	3-2	CR-38575
80	WI-33777	CR-38389	K44	A2	N7	11	CR-33509
81	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
82	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
83	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
84	WI-3816	CR-34781	F40	1	K41	2	CR-34781
85	WI-3816	CR-34781	F40	1	K44	2	CR-34781
86	WI-3816	CR-34781	F41	1	K41	4	CR-34781
89	WI-3816	CR-34781	F42	1	K41	6	CR-34781
90	WI-3816	CR-34781	F42	1	K44	6	CR-34781

5017443 6-10,10-10,7-20 (EI); 440V 3PH; TOUCH TURBO OPTION

5017443-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-38389
74	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
77	WI-3816	CR-34781	K45	1	CH1	4-1	CR-38575
78	WI-3816	CR-34781	K45	3	CH1	4-2	CR-38575
87	WI-3816	CR-34781	F41	1	K45	4	CR-34781
88	WI-3816	CR-34781	K44	2	K45	2	CR-34781

5017444 10-20 (EI); 440V 3PH; TOUCH TURBO OPTION

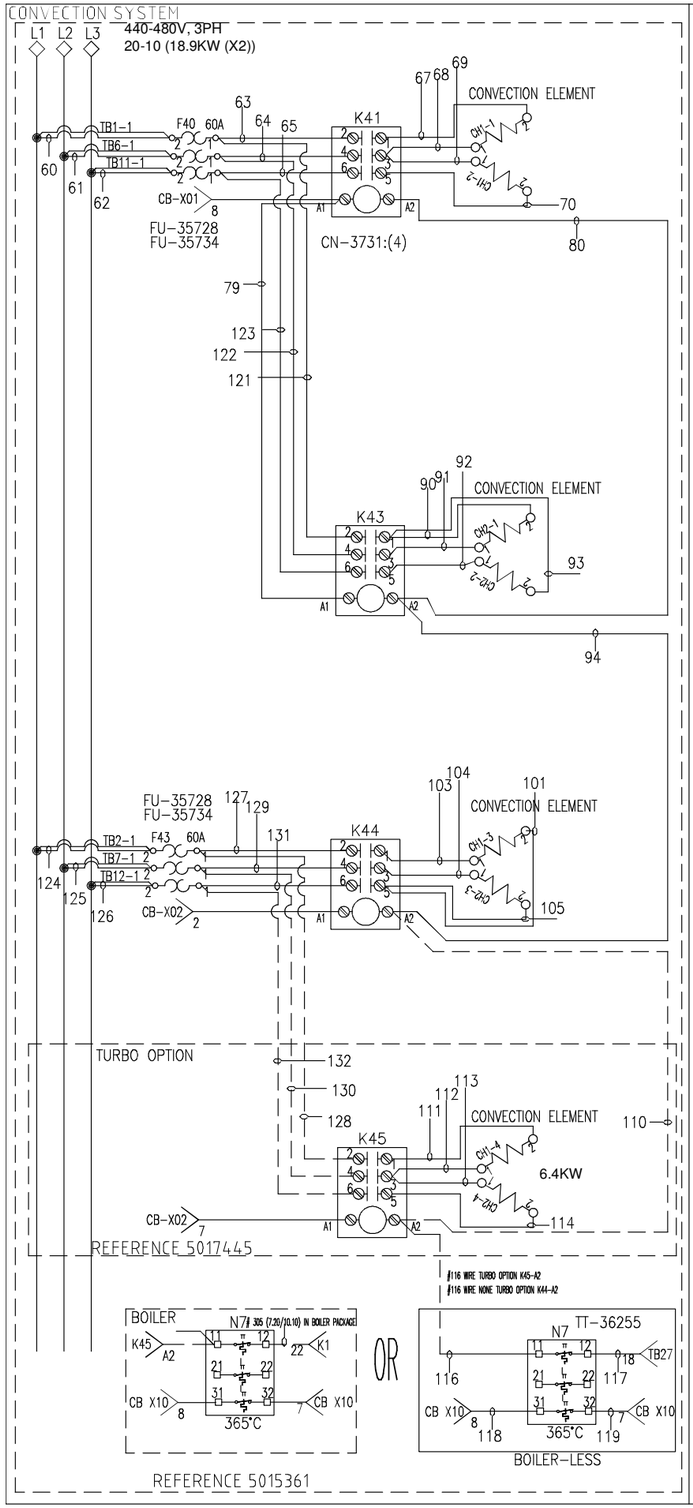
5017444-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-38389
84	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
85	WI-3816	CR-34781	TB3	2	F46	1	CR-34781
86	WI-3816	CR-34781	K45	2	F46	2	CR-34781
87	WI-3816	CR-34781	TB13	2	K45	6	CR-34781
88	WI-3816	CR-34781	K45	1	CH1	7-1	CR-38575
89	WI-3816	CR-34781	K45	5	CH1	7-2	CR-38575

5015359 10-20 (EI); 440V 3PH; TOUCH

5015359-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
69	WI-3816	CR-34781	K41	1	CH1	3-2	CR-38575
70	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
71	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
72	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
73	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
74	WI-3816	CR-34781	K41	5	CH1	3-1	CR-38575
75	WI-3816	CR-38575	CH1	3-2	CH1	4-2	CR-38575
76	WI-3816	CR-38575	CH1	3-1	CH1	4-1	CR-38575
78	WI-33777	CR-38389	K41	A2	K44	A2	CR-38389
79	WI-3816	CR-34781	K44	1	CH1	5-2	CR-38575
80	WI-3816	CR-34781	K44	3	CH1	5-1	CR-38575
81	WI-3816	CR-34781	K44	3	CH1	6-1	CR-38575
82	WI-3816	CR-34781	K44	5	CH1	6-2	CR-38575
91	WI-33777	CR-38389	K44	A2	N7	11	CR-33509
92	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
93	WI-33777	CR-34783	CB-X10	8	N7	31	CR-33509
94	WI-33777	CR-34783	CB-X10	7	N7	32	CR-33509
95	WI-3816	CR-34781	TB3	1	F43	1	CR-34781
95	WI-3816	CR-34781	TB3	1	F43	1	CR-34781
96	WI-3816	CR-34781	TB8	1	F44	1	CR-34781
96	WI-3816	CR-34781	TB8	1	F44	1	CR-34781
97	WI-3816	CR-34781	TB13	1	F45	1	CR-34781
97	WI-3816	CR-34781	TB13	1	F45	1	CR-34781

REV.	ECO	DESCRIPTION	DATE	APP.

ALTO-SHAAM — WIRING DIAGRAM
6,10 UP TO 10,18 440V 3PH 60Hz CONVECTION
BY: AFT | DWG: 77623 | SHEET: 19 OF 42
DATE: 07/27/15



5015361 20-10 (EI); 440V 3PH; TOUCH

5015361-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
67	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
68	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
69	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
70	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
79	WI-33478	CR-38389	K41	A1	K43	A1	CR-38389
80	WI-33777	CR-38389	K41	A2	K43	A2	CR-38389
90	WI-3816	CR-34781	K43	1	CH2	1-2	CR-38575
91	WI-3816	CR-34781	K43	3	CH2	1-1	CR-38575
92	WI-3816	CR-34781	K43	5	CH2	2-1	CR-38575
93	WI-3816	CR-34781	K43	1	CH2	2-2	CR-38575
94	WI-33777	CR-38389	K44	A2	K43	A2	CR-38389
101	WI-3816	CR-34781	K44	5	CH1	3-2	CR-38575
103	WI-3816	CR-34781	K44	1	CH1	3-1	CR-38575
104	WI-3816	CR-34781	K44	3	CH2	3-1	CR-38575
105	WI-3816	CR-34781	K44	5	CH2	3-2	CR-38575
116	WI-33777	CR-38389	K44	A2	N7	11	CR-33509
117	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
121	WI-3816	CR-34781	F40	1	K43	2	CR-34781
122	WI-3816	CR-34781	F41	1	K43	4	CR-34781
123	WI-3816	CR-34781	F42	1	K43	6	CR-34781
124	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
124	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
125	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
125	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
126	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
126	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
127	WI-3816	CR-34781	K44	2	F43	1	CR-34781
129	WI-3816	CR-34781	K44	4	F44	1	CR-34781
131	WI-3816	CR-34781	K44	6	F45	1	CR-34781

5017445 20-10 (EI); 440V 3PH; TOUCH TURBO OPTION

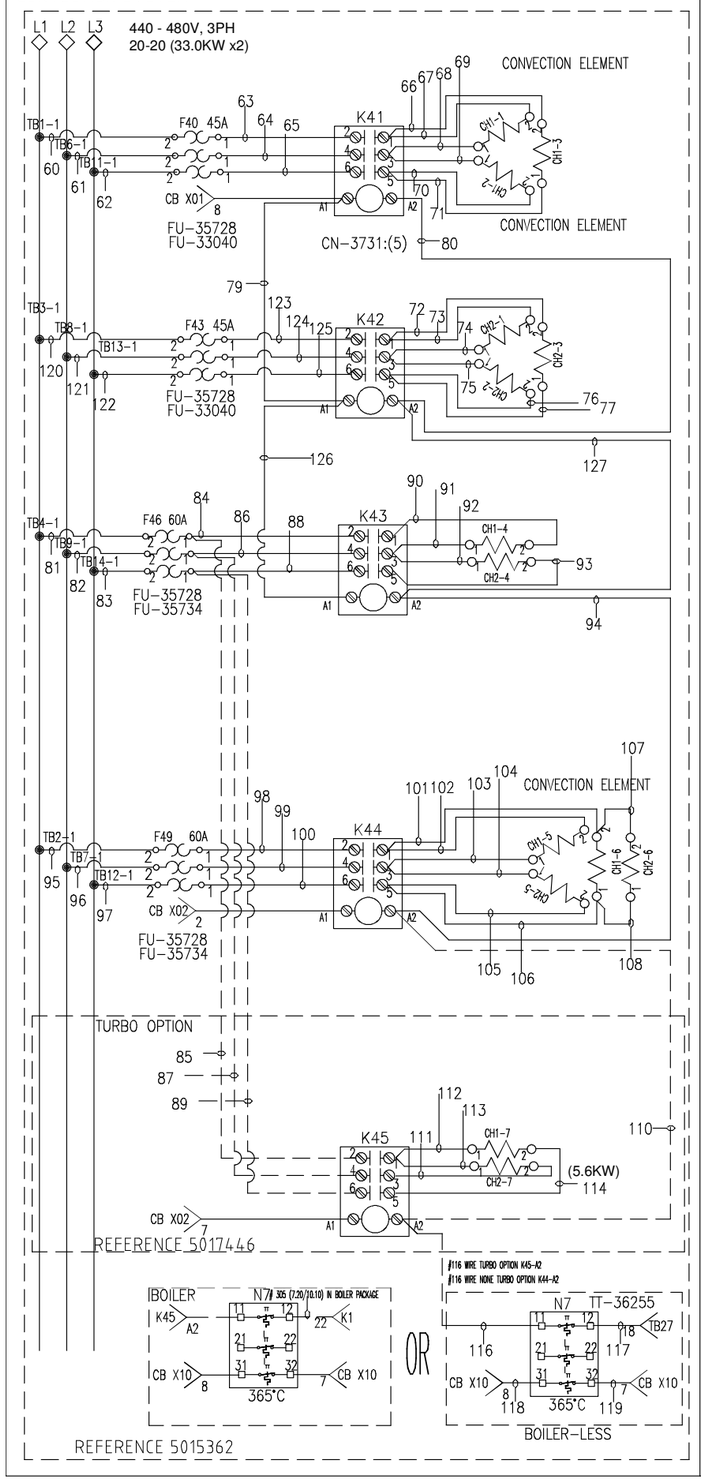
5017445-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-38389
110	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
111	WI-3816	CR-34781	K45	1	CH1	4-2	CR-38575
112	WI-3816	CR-34781	K45	3	CH1	4-1	CR-38575
113	WI-3816	CR-34781	K45	3	CH2	4-1	CR-38575
114	WI-3816	CR-34781	K45	5	CH2	4-2	CR-38575
128	WI-3816	CR-34781	K45	2	F43	1	CR-34781
130	WI-3816	CR-34781	K45	4	F44	1	CR-34781
132	WI-3816	CR-34781	K45	6	F45	1	CR-34781

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 20.10 440V 3Ph 60Hz CONVECTION

BY: AFT | DWG: 77623 | SHEET 20 OF 42

DATE: 07/27/15



5015362 20-20 (EI); 440V 3PH; TOUCH

5015362-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
66	WI-3816	CR-34781	K41	1	CH1	3-2	CR-38575
67	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
68	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
69	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
70	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
71	WI-3816	CR-34781	K41	5	CH1	3-1	CR-38575
72	WI-3816	CR-34781	K42	1	CH2	3-2	CR-38575
73	WI-3816	CR-34781	K42	1	CH2	1-2	CR-38575
74	WI-3816	CR-34781	K42	3	CH2	1-1	CR-38575
75	WI-3816	CR-34781	K42	3	CH2	2-1	CR-38575
76	WI-3816	CR-34781	K42	5	CH2	2-2	CR-38575
77	WI-3816	CR-34781	K42	5	CH2	3-1	CR-38575
79	WI-33478	CR-38389	K41	A1	K42	A1	CR-38389
80	WI-33777	CR-38389	K41	A2	K42	A2	CR-38389
81	WI-3816	CR-34781	TB4	1	F46	2	CR-34781
81	WI-3816	CR-34781	TB4	1	F46	2	CR-34781
82	WI-3816	CR-34781	TB9	1	F47	2	CR-34781
82	WI-3816	CR-34781	TB9	1	F47	2	CR-34781
83	WI-3816	CR-34781	TB14	1	F48	2	CR-34781
83	WI-3816	CR-34781	TB14	1	F48	2	CR-34781
84	WI-3816	CR-34781	K43	2	F46	1	CR-34781
86	WI-3816	CR-34781	K43	4	F47	1	CR-34781
88	WI-3816	CR-34781	K43	6	F48	1	CR-34781
90	WI-3816	CR-34781	K43	1	CH1	4-2	CR-38575
91	WI-3816	CR-34781	K43	3	CH1	4-1	CR-38575
92	WI-3816	CR-34781	K43	3	CH2	4-1	CR-38575
93	WI-3816	CR-34781	K43	5	CH2	4-2	CR-38575
94	WI-33777	CR-38389	K44	A2	K43	A2	CR-38389
95	WI-3816	CR-34781	TB2	1	F49	2	CR-34781
95	WI-3816	CR-34781	TB2	1	F49	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F50	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F50	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F51	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F51	2	CR-34781
98	WI-3816	CR-34781	K44	2	F49	1	CR-34781
98	WI-3816	CR-34781	K44	2	F49	1	CR-34781
99	WI-3816	CR-34781	K44	4	F50	1	CR-34781
99	WI-3816	CR-34781	K44	4	F50	1	CR-34781
100	WI-3816	CR-34781	K44	6	F51	1	CR-34781
100	WI-3816	CR-34781	K44	6	F51	1	CR-34781
101	WI-3816	CR-34781	K44	1	CH1	6-2	CR-38575
102	WI-3816	CR-34781	K44	1	CH1	5-2	CR-38575
103	WI-3816	CR-34781	K44	3	CH1	5-1	CR-38575
104	WI-3816	CR-34781	K44	3	CH2	5-1	CR-38575
105	WI-3816	CR-34781	K44	5	CH2	5-2	CR-38575
106	WI-3816	CR-34781	K44	5	CH1	6-1	CR-38575
107	WI-3816	CR-38575	CH1	6-2	CH2	6-2	CR-38575
108	WI-3816	CR-38575	CH1	6-1	CH2	6-1	CR-38575
116	WI-33777	CR-38389	K44	A2	N7	11	CR-33509
117	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
120	WI-3816	CR-34781	TB3	1	F43	2	CR-34781
120	WI-3816	CR-34781	TB3	1	F43	2	CR-34781
121	WI-3816	CR-34781	TB8	1	F44	2	CR-34781
121	WI-3816	CR-34781	TB8	1	F44	2	CR-34781
122	WI-3816	CR-34781	TB13	1	F45	2	CR-34781
122	WI-3816	CR-34781	TB13	1	F45	2	CR-34781
123	WI-3816	CR-34781	K42	2	F43	1	CR-34781
123	WI-3816	CR-34781	K42	2	F43	1	CR-34781
124	WI-3816	CR-34781	K42	4	F44	1	CR-34781
124	WI-3816	CR-34781	K42	4	F44	1	CR-34781
125	WI-3816	CR-34781	K42	6	F45	1	CR-34781
125	WI-3816	CR-34781	K42	6	F45	1	CR-34781
126	WI-33478	CR-38389	K43	A1	K42	A1	CR-38389
127	WI-33777	CR-38389	K42	A2	K43	A2	CR-38389

5017446 20-20 (EI); 440V 3PH; TOUCH TURBO OPTION

5017446-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
50	WI-33478	CR-34783	CB-X02	7	K45	A1	CR-38389
85	WI-3816	CR-34781	F46	1	K45	2	CR-34781
87	WI-3816	CR-34781	F47	1	K45	4	CR-34781
89	WI-3816	CR-34781	F48	1	K45	6	CR-34781
110	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
111	WI-3816	CR-34781	K45	3	CH2	7-2	CR-38575
112	WI-3816	CR-34781	K45	1	CH1	7-1	CR-38575
113	WI-3816	CR-34781	K45	1	CH2	7-1	CR-38575
114	WI-3816	CR-34781	K45	5	CH1	7-2	CR-38575

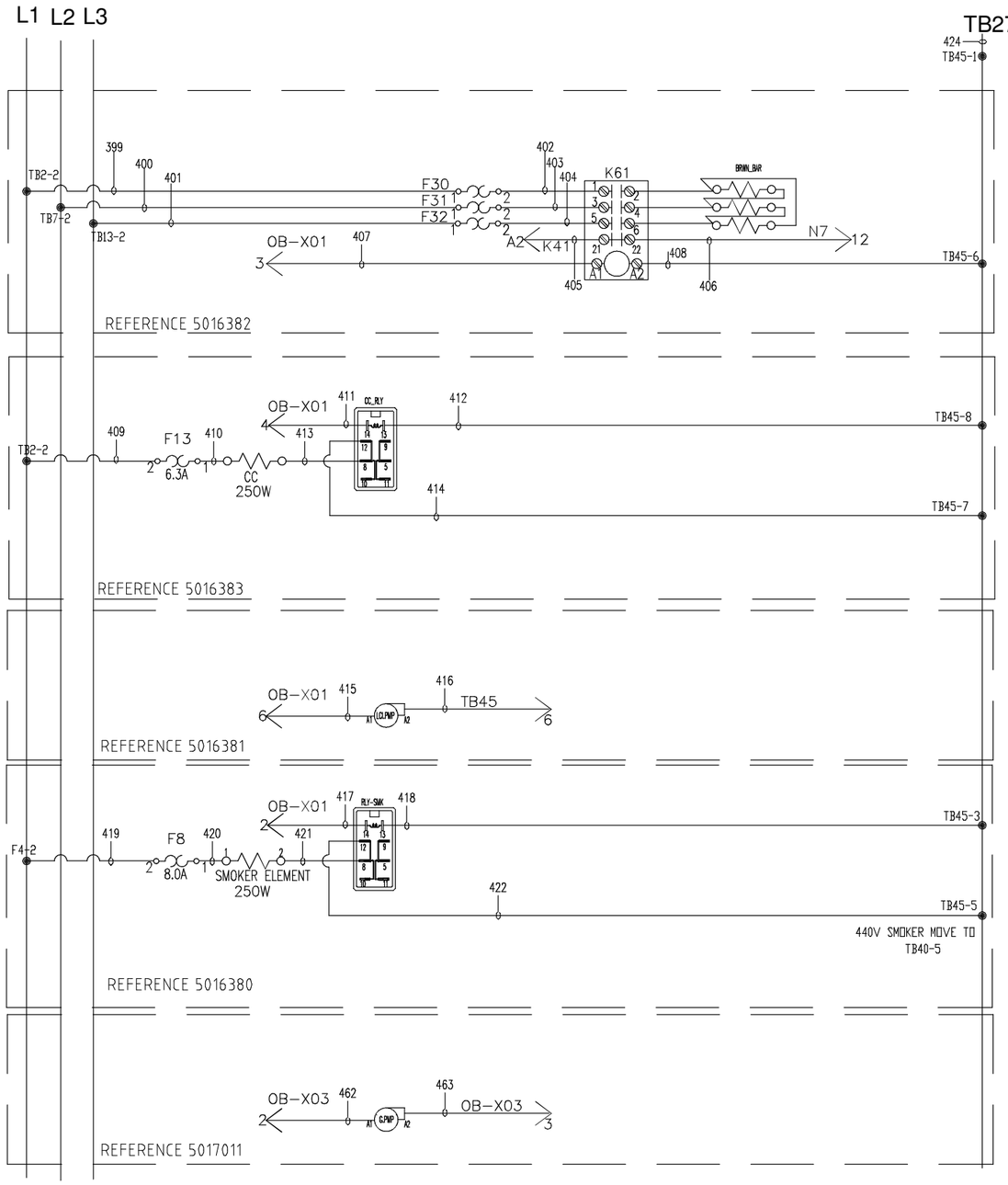
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 20.20 440-480V 3Ph 60Hz CONVECTION

BY: AFT | DWG: 77623 | SHEET 21 OF 42

DATE: 07/27/15

OPTIONS



5016382 ALL MODELS; ALL VOLTAGE; BRWN_BAR

5016382-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
399	WI-3816	CR-34781	TB2	2	F30	2	CR-34781
400	WI-3816	CR-34781	TB7	2	F31	2	CR-34781
401	WI-3816	CR-34781	TB13	2	F32	2	CR-34781
402	WI-3816	CR-34775	K61	1	F30	1	CR-34781
403	WI-3816	CR-34775	K61	3	F31	1	CR-34781
404	WI-3816	CR-34775	K61	5	F31	1	CR-34781
405	WI-33777	CR-38389	K41	A2	K61	21	CR-38389
406	WI-33777	CR-38389	N7	12	K61	22	CR-38389
407	WI-33478	CR-38389	K61	A1	OB-X01	3	CR-34783
408	WI-33777	CR-38389	K61	A2	TB45	6	CR-34783

5016383 ALL MODELS; ALL VOLTAGE; CC

5016383-w							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
409	WI-33478	CR-34782	TB2	2	F13	2	CR-34782
410	WI-33462	CR-34782	F13	1	CC_EL	1	CR-33509
411	WI-33478	CR-38389	CC_RLY	14	OB-X01	4	CR-34783
412	WI-33777	CR-38389	CC_RLY	13	TB45	8	CR-34783
413	WI-33462	CR-38389	CC_RLY	8	CC_EL	2	CR-33509
414	WI-33777	CR-34783	TB47	7	CC_RLY	12	CR-38389

5016381 ALL MODELS; ALL VOLTAGE; CHEMICAL PUMP

5016381-3W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
415	WI-33478	CR-33509	LCI.PUMP	A1	OB-X01	6	CR-34783
416	WI-33777	CR-33509	LCI.PUMP	A2	TB45	8	CR-34783

5016380 ALL MODELS; ALL VOLTAGE; SMOKER OPTION

5016380-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
417	WI-33478	CR-38389	RLY-SMK	14	OB-X01	2	CR-34783
418	WI-33777	CR-38389	RLY-SMK	13	TB45	3	CR-34783
419	WI-33478	CR-34783	F4	2	F8	2	CR-34783
420	WI-33462	CR-34783	F8	1	SMK-EL	1	CR-34534
421	WI-33462	CR-38389	RLY-SMK	8	SMK-EL	2	CR-34534
422	WI-33777	CR-38389	RLY-SMK	12	TB45	5	CR-34783

5017011 ALL MODELS; ALL VOLTAGE; GREASE PUMP

5017011-1W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
462	WI-33478	CR-34783	OB-X03	2	G.PUMP	A1	CR-33509
463	WI-33777	CR-34783	OB-X03	3	G.PUMP	A2	CR-33509

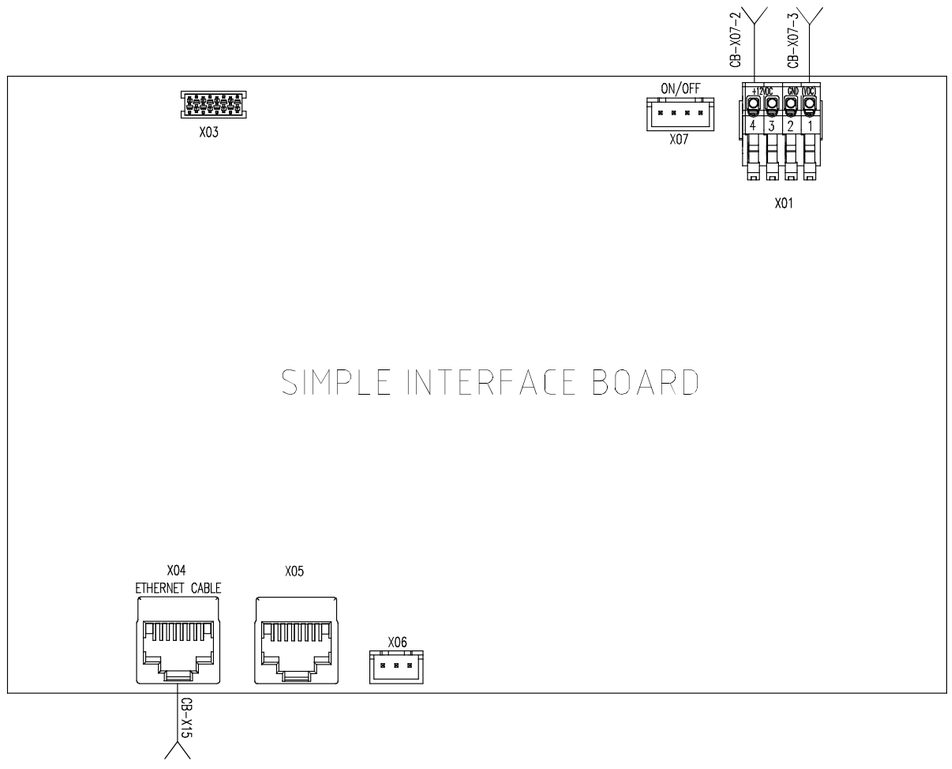
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — OPTIONAL DIAGRAM

BY: AFT | DWG: 77623 | SHEET: 22 OF 42

DATE: 07/27/15

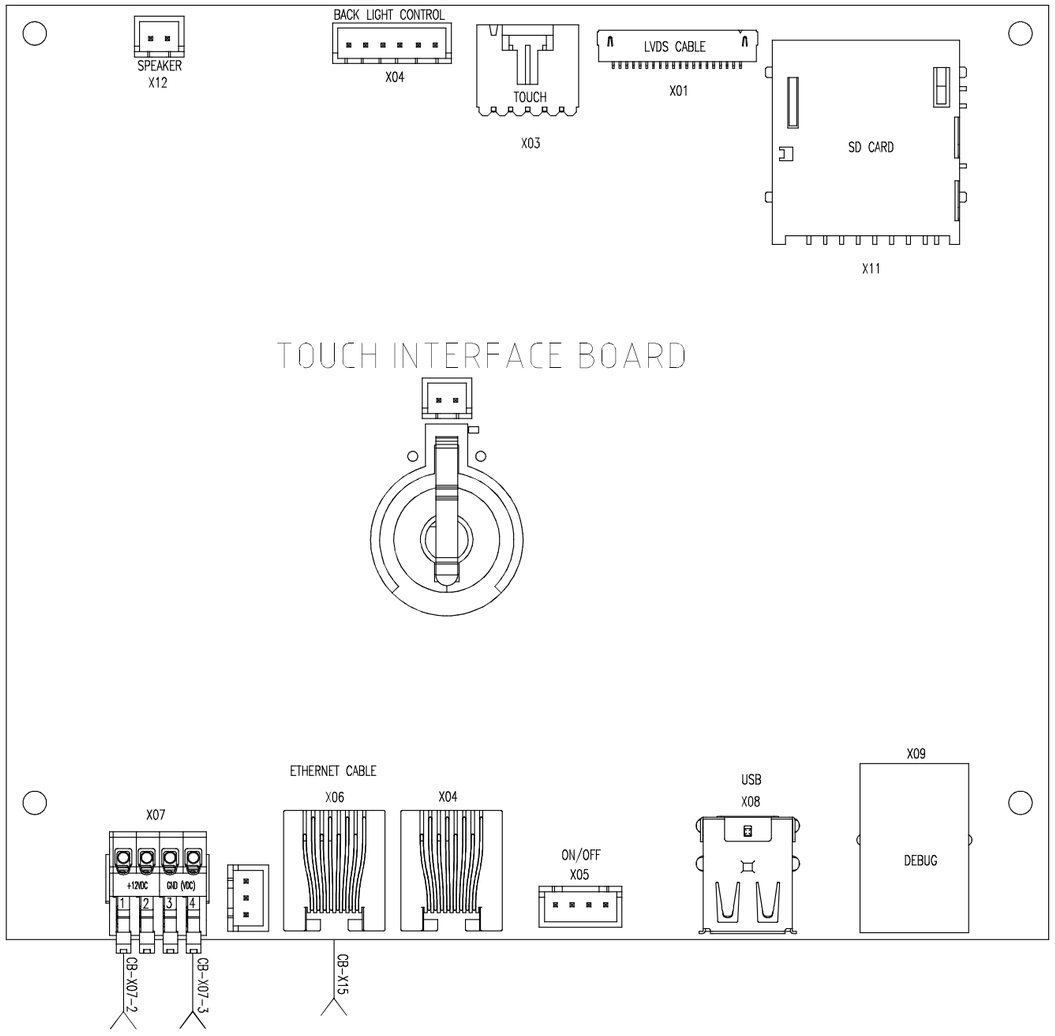
SIMPLE INTERFACE BOARD



REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM	WIRING DIAGRAM
	SIMPLE INTERFACE BOARD
BY: AFT	DWG: 77623
DATE: 07/27/15	SHEET 23 OF 42

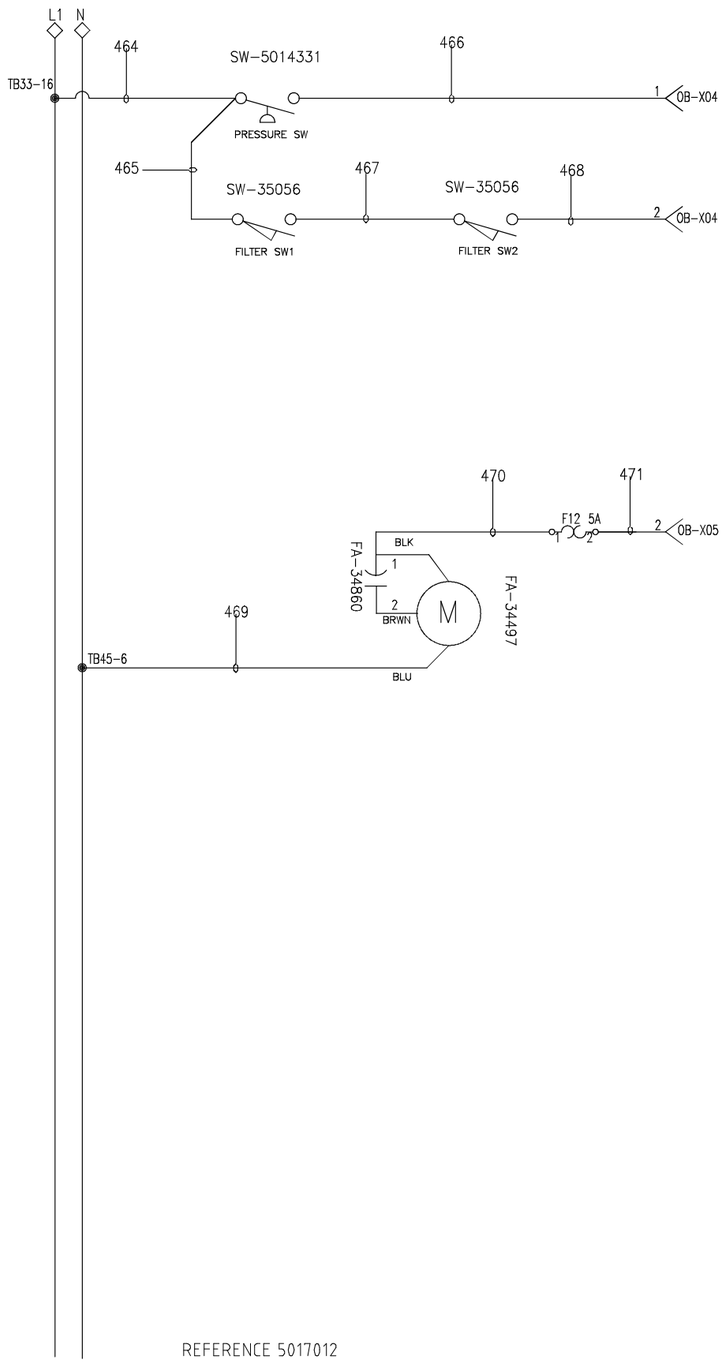
TOUCH INTERFACE BOARD



REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM	WIRING DIAGRAM		
	TOUCH INTERFACE BOARD		
BY: AFT	DWG: 77623		SHEET 24 OF 42
DATE: 07/27/15			

VENTLESS HOOD



REFERENCE 5017012

ALL MODELS, ALL VOLTAGE, VENT-LESS HOOD

5017012-3W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
464	WI-33478	CR-34783	TB33	18	PSSW	COMMON	CR-34774
465	WI-33478	CR-33509	FLTSW1	1	PSSW	COMMON	CR-33509
466	WI-33777	CR-34783	OB-X04	1	PSSW	NORMAL OPEN	CR-33509
467	WI-33478	CR-33509	FLTSW1	2	FLTSW2	1	CR-33509
468	WI-33777	CR-34783	OB-X04	2	FLTSW2	2	CR-33509
469	WI-33777	CR-34783	TB45	6	VH-MOTOR	BLK	CR-34639
470	WI-33478	CR-34774	VH-MOTOR	BLU	F12	1	CR-34783
471	WI-33478	CR-34783	OB-X05	2	F12	2	CR-34783

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — VENT-LESS HOOD

BY: AFT | DWG: 77623 | SHEET 25 OF 42

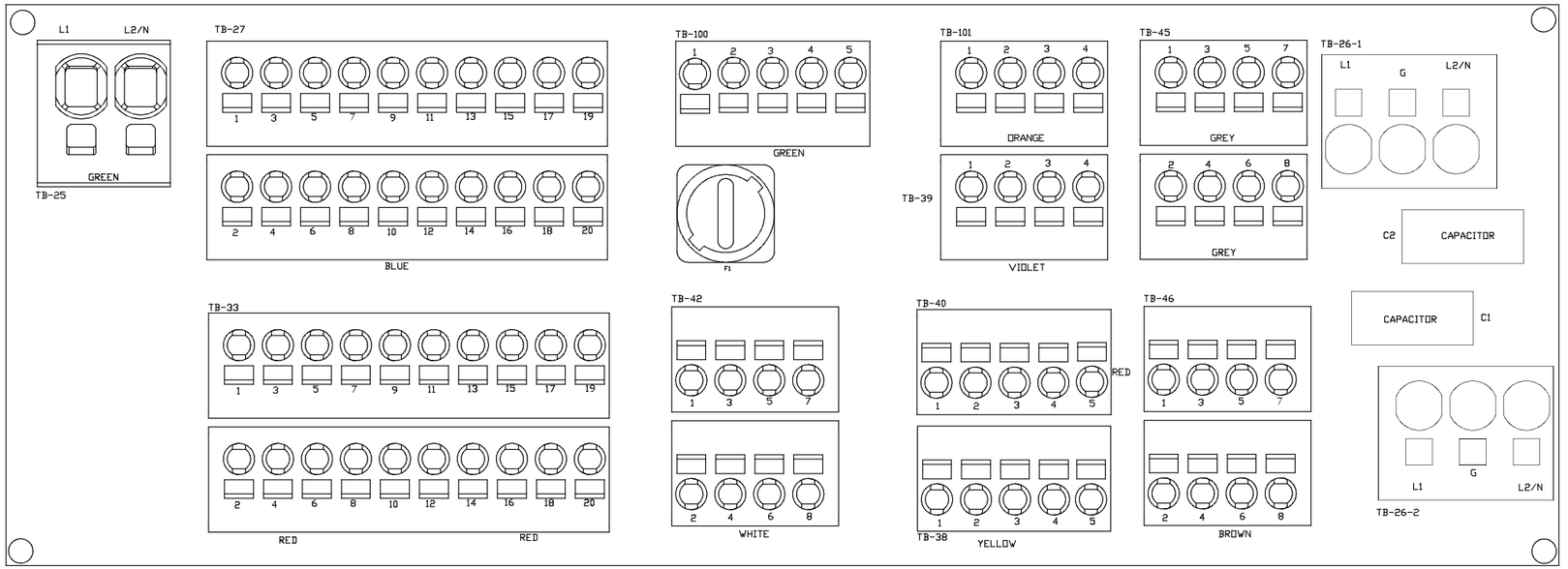
BA-35209

TB-27
1-Power supply (N)
2-BLANK
3-RLY50-9
4-BLANK
5-BLANK
6-LWR IGNITOR MODULE (HSI)
7-Power supply (N)
8-OVEN HIGH LIMIT (N7)
9-FILTER 2 LOAD-3
10-UPPR IGNITOR MODULE (HSI)/BOILER HIGH LIMIT N9
11-TB45-1
12-COOLING FAN 1-A2
13-COOLING FAN 2-A2
14-COOLING FAN 2-A2
15-RLY60-8
16-COOLING FAN 3-A2
17-Y2 SOLENOID A1
18-BLANK
19-K50-A2
20-CB-X03-6

TB-33
1-COOLING FAN LIMIT SWITCH
2-IGNITOR MODULE PIN 12
3-Power supply (L)
4-LWR COMBUSTION BLOWER
5-UPPR HSI
6-LWR HOT SURFACE IGNITOR (HSI)
7-BLANK
8-UPPR IGNITOR MODULE

9- BLANK
10-CB-X01-1
11-DB-03-1
12-CB-X01-6
13-UPPR COMBUSITON BLOWER
14-CB-X02-5
15-DB-X05-1
16-CB-X03-1
17-HAND SHOWER SOLENOID A1
18-
19-DB-X01-1
20-CB-X04-4

TB-38
1-COOLING FAN LIMIT SWITCH
2-COOLING FAN 1-A1
3-COOLING FAN 2-A1
4-COOLING FAN 3-A1
5-BLANK



TB-45
1-TB27-11
2-DB-X03-4
3-BLANK
4-BLANK
5-BLANK
6-BLANK
7-BLANK
8-BLANK

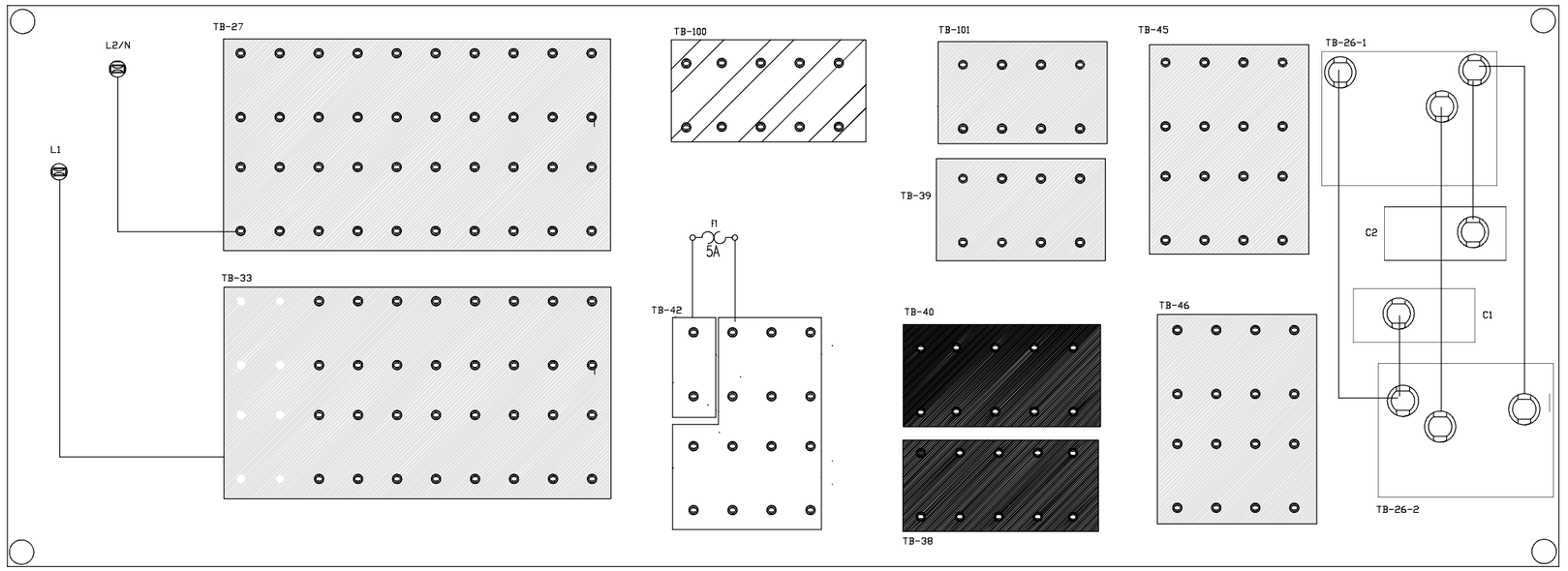
TB-40
1-BLANK
2-F6 BOTTOM
3-TB-25L2/N
4-TB-25L2/N
5-BLANK

TB-46
1-Power supply (-12VDC)
2-LOWER VENT MOTOR
3-UPPER VENT MOTOR
4-CAVITY LED BLK WIRE
5-DB-X06-3
6-HAND SHOWER REED SWITCH
7-RLY50-13
8-BLANK

TB-39
1-CB-X05-2
2-F18-FUSE-BOTTOM
3-RLY50-14
4-RLY51-14

TB-42
1-Power supply (+12VDC)
2-DB-X06-6
3-CB-X05-1
4-Power supply (N)
5-LWR COMBUSTION BLOWER (PWM)
6-UPPR COMBUSTION BLOWER (PWM)
7-RLY60-14
8-CB-X06-1

NOTE: SYSTEM FUSE 5X20MM (8AMP) PROTECTING TB-33 & TB-35

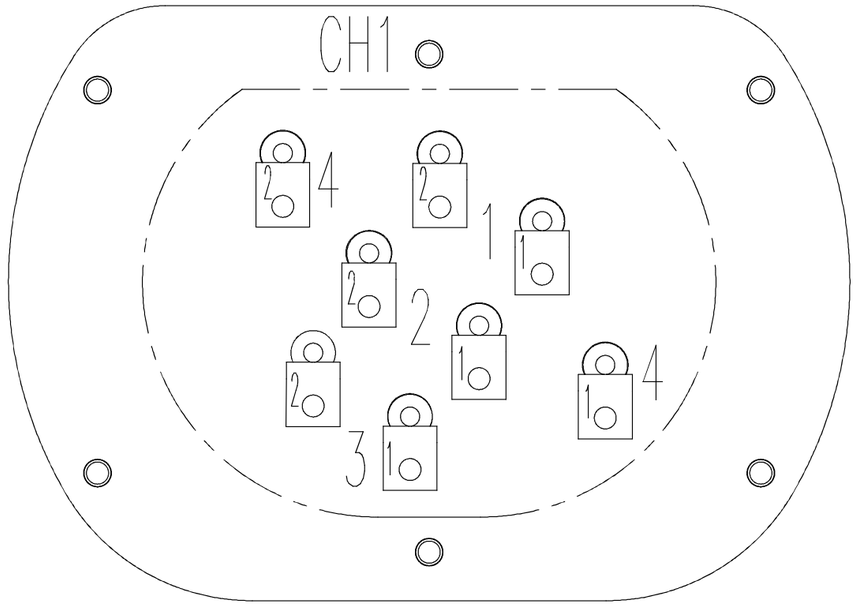


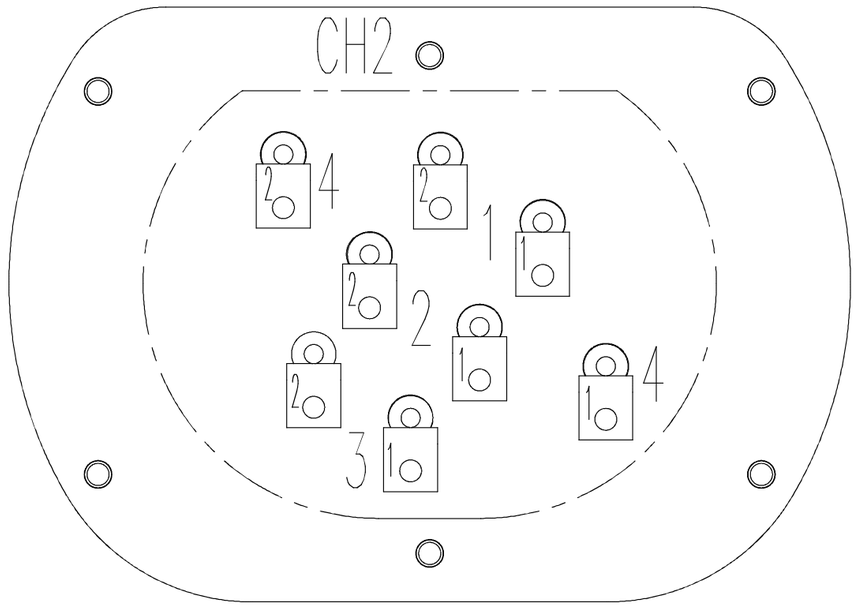
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — Floor Model Chassis

BY:	AFT	DWG:	77623	SHEET
DATE:	07/27/15			26 OF 42

EL-35516 20-10 Model

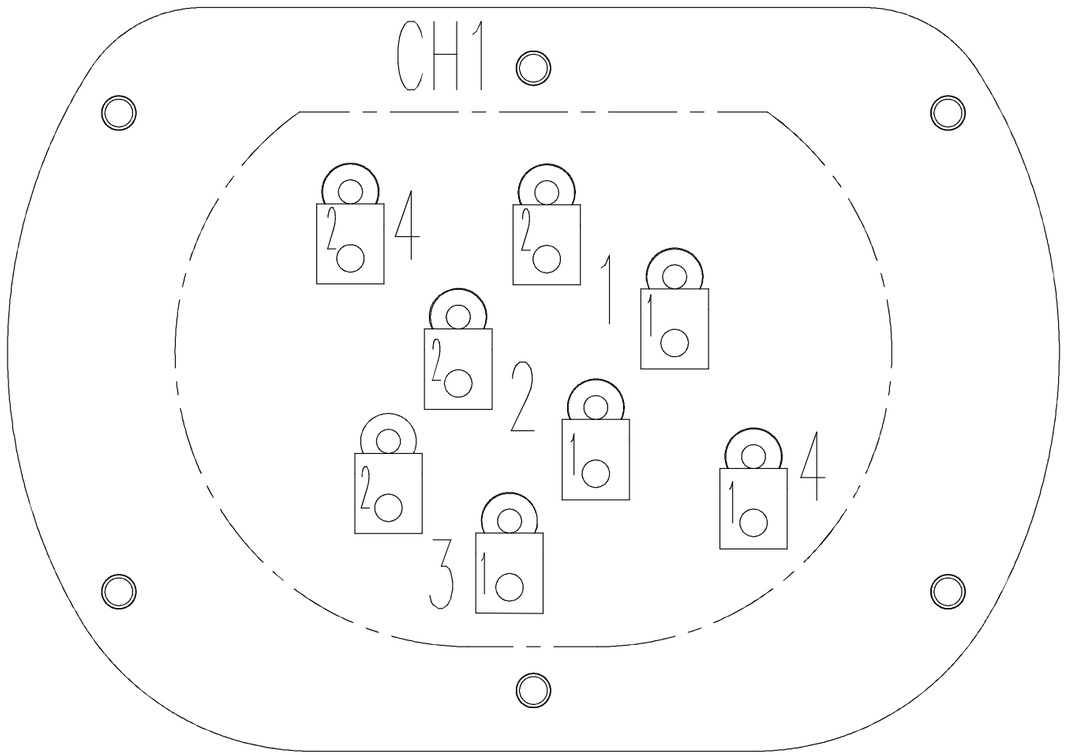




REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM	WIRING DIAGRAM		
	7.14 ES 380V LEGEND		
BY: AFT	DWG: 77623		SHEET 27 OF 42
DATE: 07/27/15			

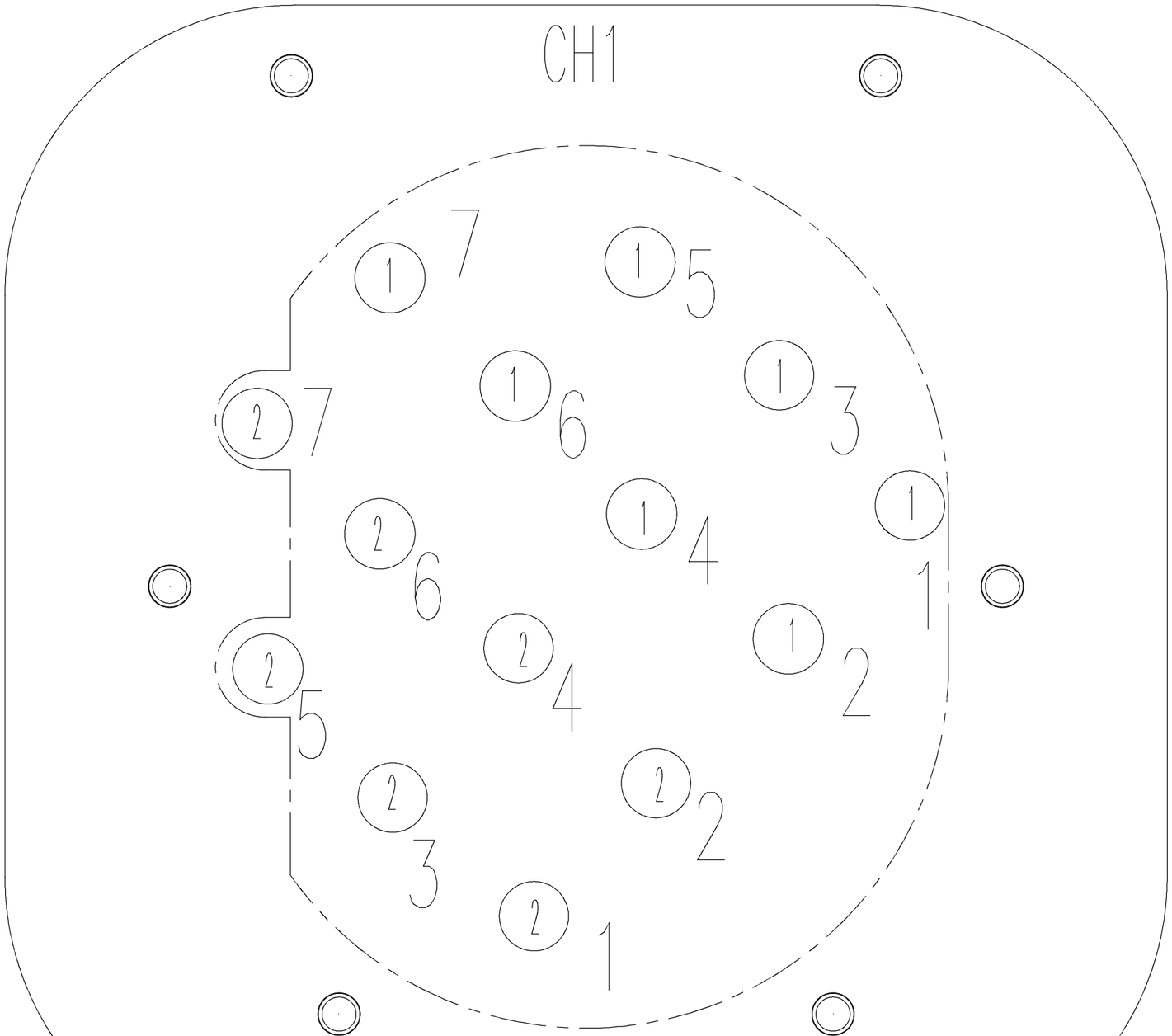
EL-35516



REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM	WIRING DIAGRAM		
	6.10-10.10-7.14 ELEMENT PINS LAYOUT		
BY: AFT	DWG: 77623	SHEET	
DATE: 07/27/15		28 OF 42	

EL-35518



REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM

WIRING DIAGRAM

EL-35518 (10-18) LEGEND

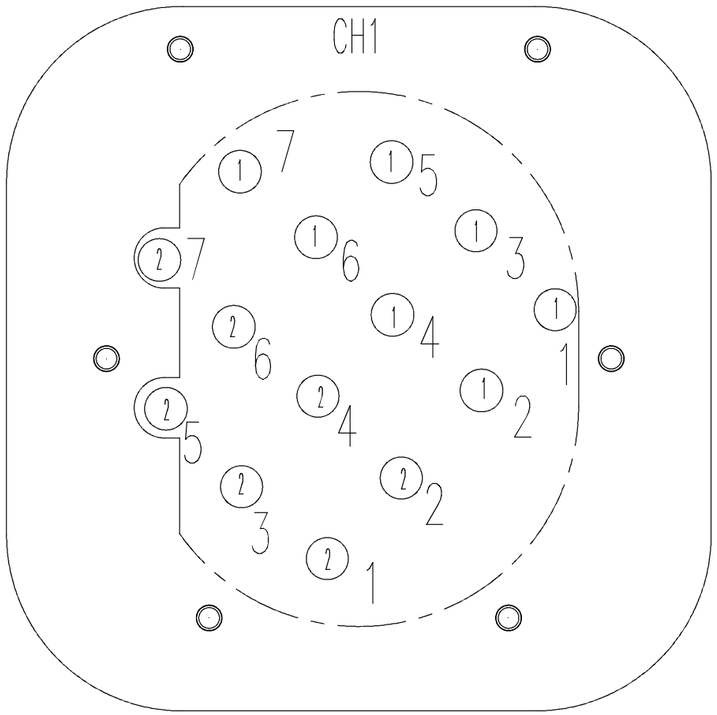
BY: AFT

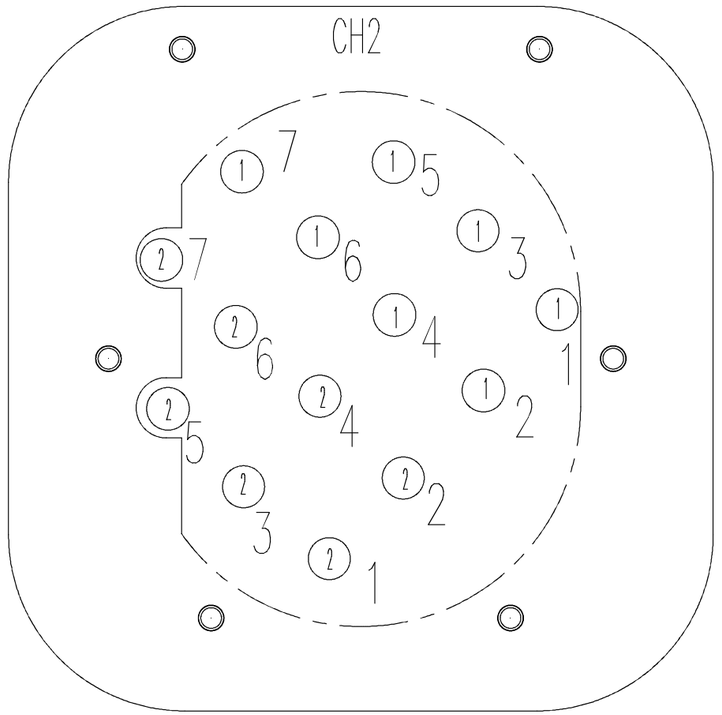
DATE: 07/27/15

DWG: 77623

SHEET 29 OF 42

DUAL ELEMENT EL-35518

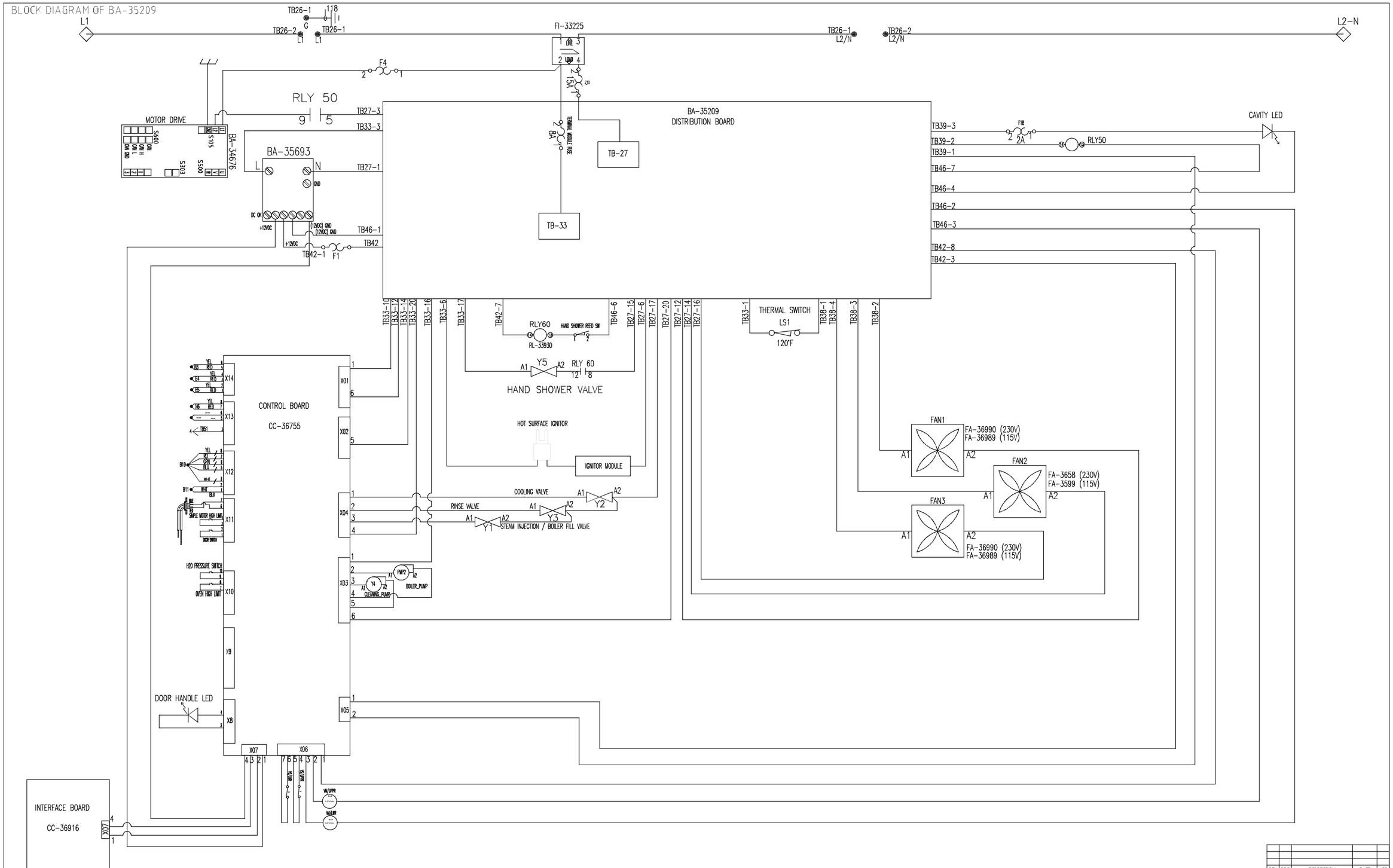




REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM	WIRING DIAGRAM EL-35518 20.20 LEGEND		
BY: AFT	DWG: 77623	SHEET 30 OF 42	
DATE: 07/27/15			

BA-35209 Block Diagram



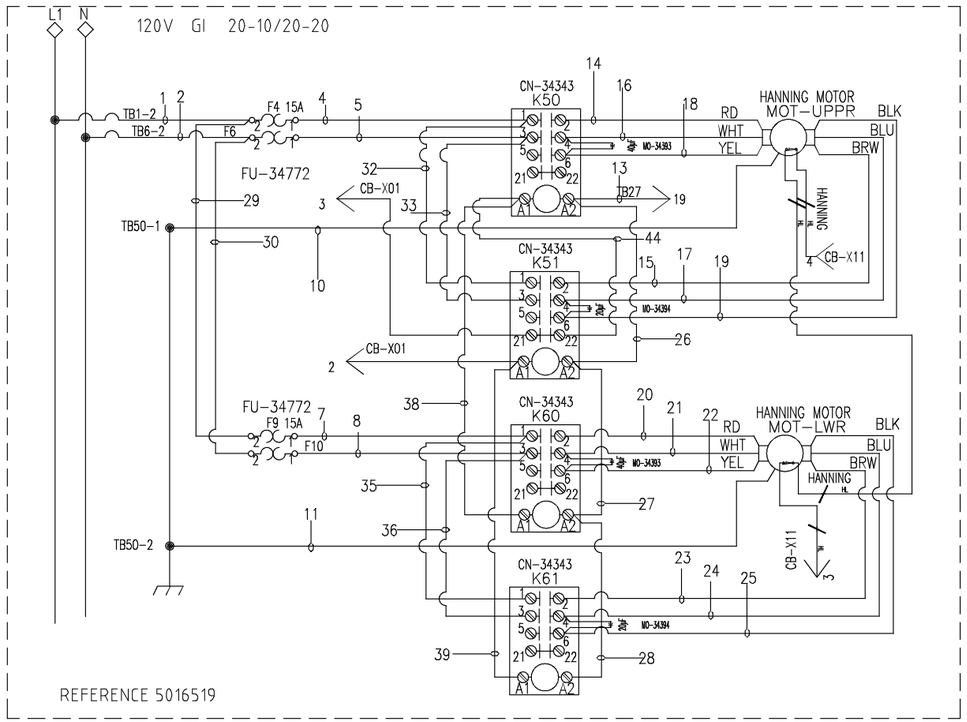
REV	ECO	DESCRIPTION	DATE	APP

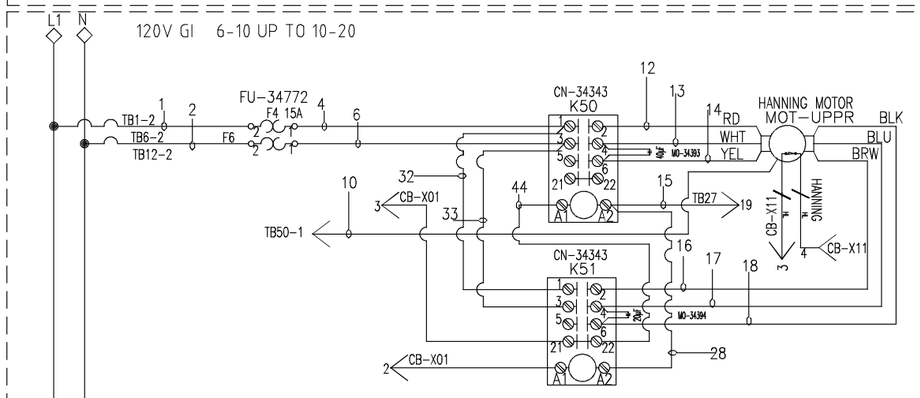
ALTO-SHAAM

WIRING DIAGRAM
BLOCK DIAGRAM

BY: AFT
DATE: 07/27/15
DWG: 77623
SHEET 31 OF 42

SIMPLE MOTOR CONTACTOR





5016519 20-10/20-20 (GI); 120V; SIMPLE

5016519-4W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-3815	CR-34782	TB1	2	F4	2	CR-34782
2	WI-3815	CR-34782	TB6	2	F6	2	CR-34782
4	WI-33478	CR-34783	F4	1	K50	1	CR-34783
5	WI-33478	CR-34783	F6	1	K50	3	CR-34783
7	WI-33478	CR-34783	F9	1	K60	1	CR-34783
8	WI-33478	CR-34783	F10	1	K60	3	CR-34783
10	WI-33776	CR-34783	MOTOR	GND	TB50	1	CR-34783
11	WI-33776	CR-34783	MOTOR	GND	TB50	2	CR-34783
13	WI-33777	CR-34783	K50	A2	TB27	19	CR-34783
14	WI-33478	CR-34783	K50	2	MOTOR UPPR	CON	CR-34783
15	WI-33478	CR-34783	K51	2	MOTOR UPPR	CON	CR-34783
16	WI-33478	CR-34783	K50	4	MOTOR UPPR	CON	CR-34783
17	WI-33478	CR-34783	K51	4	MOTOR UPPR	CON	CR-34783
18	WI-33478	CR-34783	K50	6	MOTOR UPPR	CON	CR-34783
19	WI-33478	CR-34783	K51	6	MOTOR UPPR	CON	CR-34783
20	WI-33478	CR-34783	K60	2	MOTOR LWR	CON	CR-34783
21	WI-33478	CR-34783	K60	4	MOTOR LWR	CON	CR-34783
22	WI-33478	CR-34783	K60	6	MOTOR LWR	CON	CR-34783
23	WI-33478	CR-34783	K61	2	MOTOR LWR	CON	CR-34783
24	WI-33478	CR-34783	K61	4	MOTOR LWR	CON	CR-34783
25	WI-33478	CR-34783	K61	6	MOTOR LWR	CON	CR-34783
26	WI-33777	CR-34783	K50	A2	K51	A2	CR-34783
27	WI-33777	CR-34783	K51	A2	K60	A2	CR-34783
28	WI-33777	CR-34783	K60	A2	K61	A2	CR-34783
29	WI-3815	CR-34782	F9	2	F4	2	CR-34782
30	WI-3815	CR-34782	F10	2	F6	2	CR-34782
32	WI-33478	CR-34783	K50	1	K51	1	CR-34783
33	WI-33478	CR-34783	K50	3	K51	3	CR-34783
35	WI-33478	CR-34783	K60	1	K61	1	CR-34783
36	WI-33478	CR-34783	K60	3	K61	3	CR-34783
38	WI-33478	CR-34783	K50	A1	K60	A1	CR-34783
39	WI-33478	CR-34783	K51	A1	K61	A1	CR-34783
44	WI-33478	CR-34783	K51	22	K50	A1	CR-34783

5016520 6-10,10-10,7-20,10-20 (EB,EI,GI); 120V; SIMPLE

5016520-4W							
#	WI-STOCK	T-CONN.	FROM	T-LOC	TO	T-LOC	L-CONN.
1	WI-3815	CR-34782	TB1	2	F4	2	CR-34782
2	WI-3815	CR-34782	TB6	2	F6	2	CR-34782
4	WI-33478	CR-34783	F4	1	K50	1	CR-34783
6	WI-33478	CR-34783	F6	1	K50	3	CR-34783
10	WI-33776	CR-34783	TB50	1	MOTOR	GND	BARE
12	WI-33478	CR-34783	K50	2	MOTOR	CON	CR-34783
13	WI-33478	CR-34783	K50	4	MOTOR	CON	CR-34783
14	WI-33478	CR-34783	K50	6	MOTOR	CON	CR-34783
15	WI-33777	CR-34783	K50	A2	TB27	19	CR-34783
16	WI-33478	CR-34783	K51	2	MOTOR	CON	CR-34783
17	WI-33478	CR-34783	K51	4	MOTOR	CON	CR-34783
18	WI-33478	CR-34783	K51	6	MOTOR	CON	CR-34783
28	WI-33777	CR-34783	K51	A2	K50	A2	CR-34783
32	WI-33478	CR-34783	K50	1	K51	1	CR-34783
33	WI-33478	CR-34783	K50	3	K51	3	CR-34783
44	WI-33478	CR-34783	K51	22	K50	A1	CR-34783

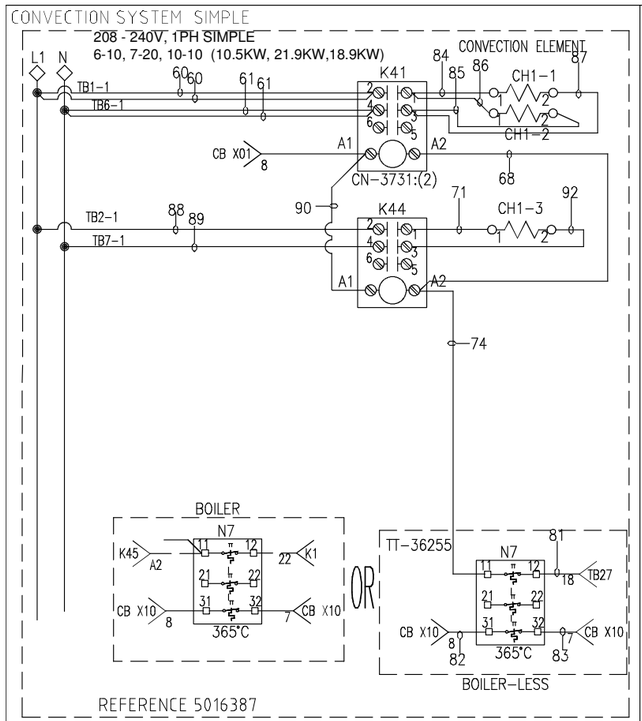
REV	ECO	DESCRIPTION	DATE	APP

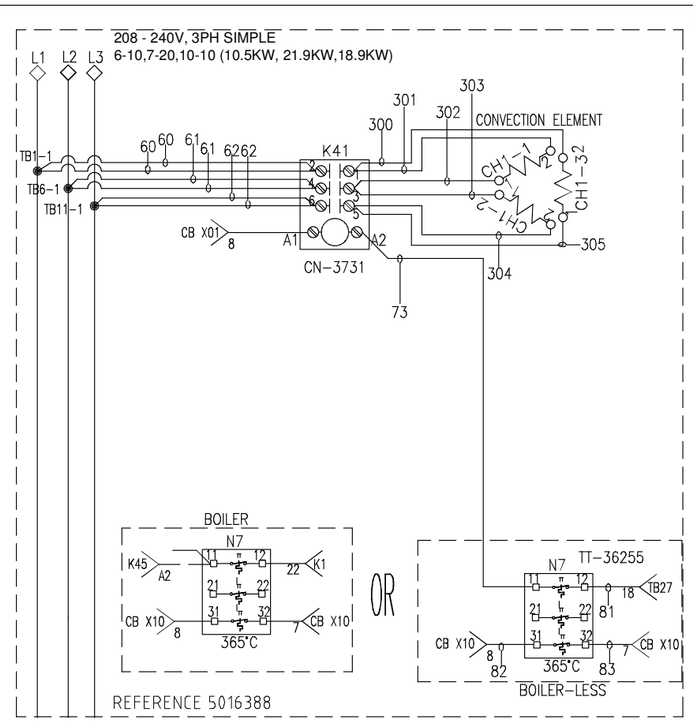
ALTO-SHAAM — WIRING DIAGRAM — 6.10 UP-TO 20.20 1PH SIMPLE MOTOR

BY: AFT | DWG: 77623 | SHEET: 32 OF 42

DATE: 07/27/15

Convection System (Simple): 6-10, 10-10, 7-20 208V 1/3PH





5016387 6-10,10-10, 7-20; (EI); 208V 1PH; SIMPLE

5016387-w							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K41	2	CR-34781
60	WI-3816	CR-34781	TB1	1	K41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K41	4	CR-34781
61	WI-3816	CR-34781	TB6	1	K41	4	CR-34781
68	WI-33777	CR-38389	K41	A2	K44	A2	CR-38389
71	WI-3816	CR-34781	K44	1	CH1	3-1	CR-38575
74	WI-33777	CR-38389	K44	A2	N7	11	CR-33509
81	WI-33777	CR-33509	N7	12	TB27	18	CR-34783
82	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
83	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
84	WI-3816	CR-34781	K41	1	CH1	1-1	CR-38575
85	WI-3816	CR-34781	K41	3	CH1	2-2	CR-38575
86	WI-3816	CR-34781	K41	1	CH1	2-1	CR-38575
87	WI-3816	CR-34781	K41	3	CH1	1-2	CR-38575
88	WI-3816	CR-34781	TB2	1	K44	2	CR-34781
89	WI-3816	CR-34781	TB7	1	K44	4	CR-34781
90	WI-33478	CR-38389	K41	A1	K44	A1	CR-38389
92	WI-3816	CR-34781	K44	3	CH1	3-2	CR-38575

5016388 6-10,10-10,7-20; (EI); 208V 1PH; SIMPLE

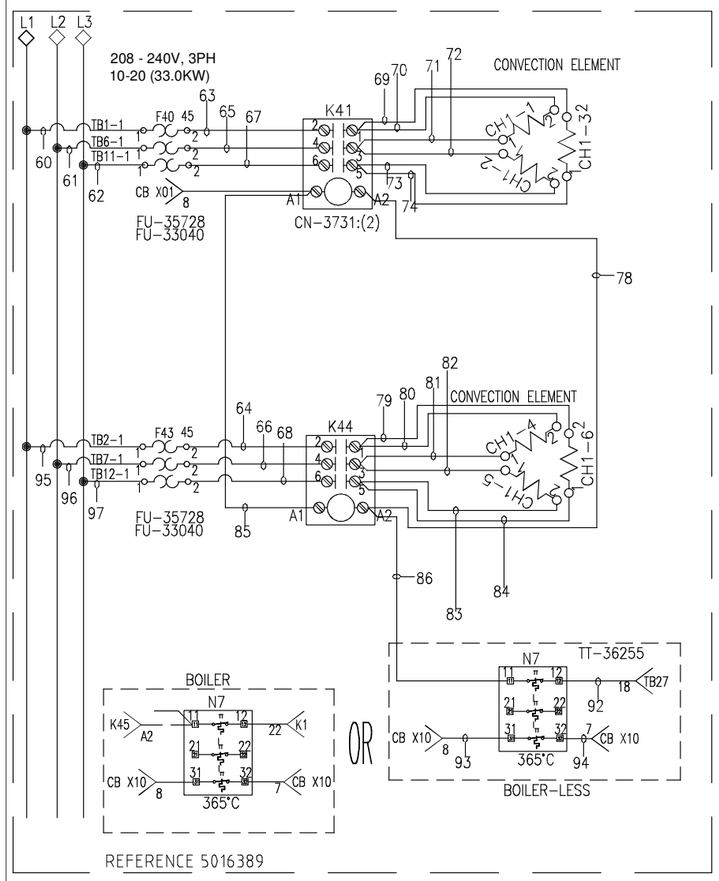
5016388-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K41	2	CR-34781
60	WI-3816	CR-34781	TB1	1	K41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K41	4	CR-34781
61	WI-3816	CR-34781	TB6	1	K41	4	CR-34781
62	WI-3816	CR-34781	TB11	1	K41	6	CR-34781
62	WI-3816	CR-34781	TB11	1	K41	6	CR-34781
300	WI-3816	CR-34781	K41	1	CH1	3-2	CR-38575
301	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
302	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
303	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
304	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
305	WI-3816	CR-34781	K41	5	CH1	3-1	CR-38575
73	WI-33777	CR-38389	K41	A2	N7	11	CR-33509
81	WI-33777	CR-33509	N7	12	TB27	18	CR-34783
82	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
83	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

REFERENCE 5016387
REFERENCE 5016388

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM
6-10 UP TO 7-14 208V 1&3PH CONVECTION SIMPLE

BY:	AFT	DWG:	77623	SHEET
DATE:	07/27/15			33 OF 42



5016389 10-20(EI); 208V 3PH; SIMPLE ONLY

5016389-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
69	WI-3816	CR-34781	K41	1	CH1	3-2	CR-38575
70	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
71	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
72	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
73	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
74	WI-3816	CR-34781	K41	5	CH1	3-1	CR-38575
78	WI-33777	CR-38389	K41	A2	K44	A2	CR-38389
79	WI-3816	CR-34781	K44	1	CH1	6-2	CR-38575
80	WI-3816	CR-34781	K44	1	CH1	4-2	CR-38575
81	WI-3816	CR-34781	K44	3	CH1	4-1	CR-38575
82	WI-3816	CR-34781	K44	3	CH1	5-1	CR-38575
83	WI-3816	CR-34781	K44	5	CH1	5-2	CR-38575
84	WI-3816	CR-34781	K44	5	CH1	6-1	CR-38575
85	WI-33478	CR-38389	K41	A1	K44	A1	CR-38389
86	WI-33777	CR-33509	N7	11	K44	A2	CR-38389
92	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
93	WI-33777	CR-34783	CB-X10	8	N7	31	CR-33509
94	WI-33777	CR-34783	CB-X10	7	N7	32	CR-33509
95	WI-3816	CR-34781	TB2	1	F43	1	CR-34781
95	WI-3816	CR-34781	TB2	1	F43	1	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	1	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	1	CR-34781
97	WI-3816	CR-34781	TB12	1	F45	1	CR-34781
97	WI-3816	CR-34781	TB12	1	F45	1	CR-34781

REFERENCE 5016389

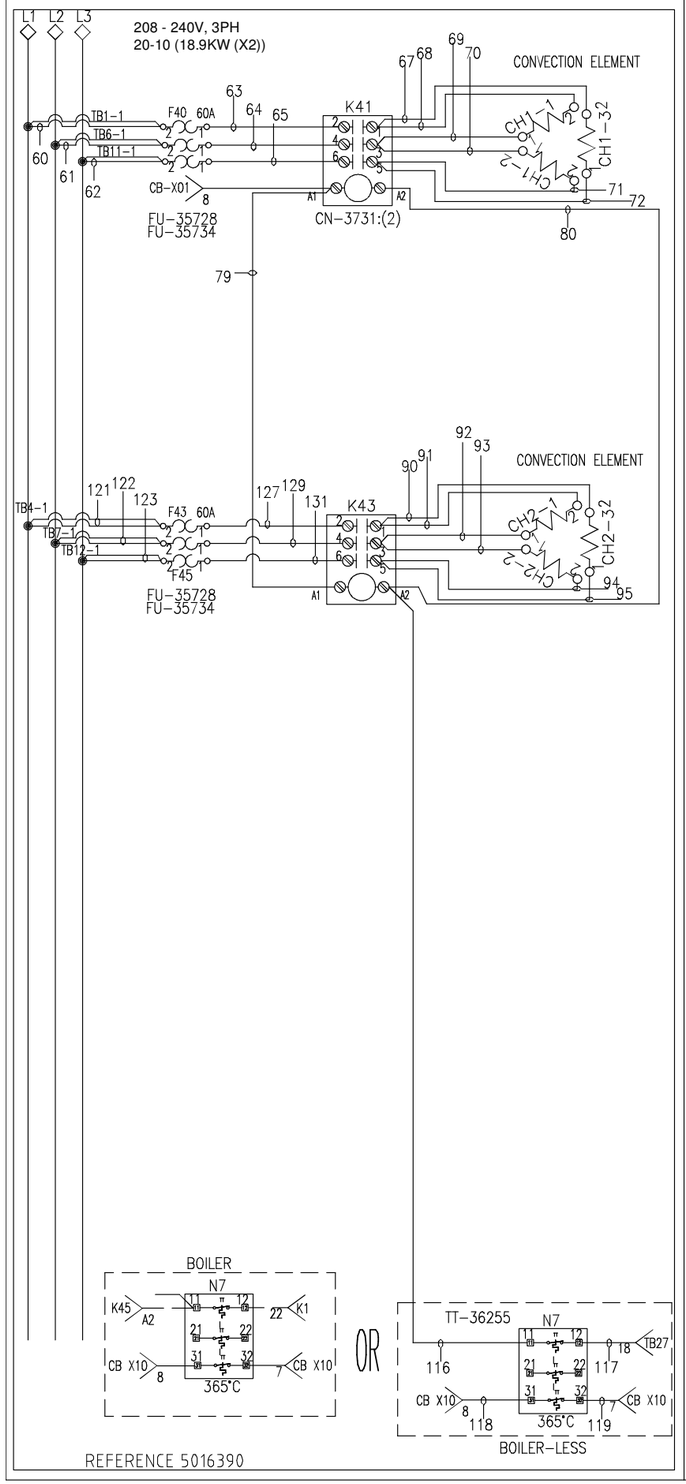
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 10-10 208V 3PH CONVECTION SIMPLE

BY: AFT | DWG: 77623 | SHEET 34 OF 42

DATE: 07/27/15

CONVECTION SYSTEM SIMPLE



50156390 20-10 (EI); 208V 3PH; SIMPLE

5016390-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
67	WI-3816	CR-34781	K41	1	CH1	3-2	CR-38575
68	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
69	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
70	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
71	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
72	WI-3816	CR-34781	K41	5	CH1	3-1	CR-38575
79	WI-33478	CR-38389	K41	A1	K43	A1	CR-38389
80	WI-33777	CR-38389	K41	A2	K43	A2	CR-38389
90	WI-3816	CR-34781	K43	1	CH2	3-2	CR-38575
91	WI-3816	CR-34781	K43	1	CH2	1-2	CR-38575
92	WI-3816	CR-34781	K43	3	CH2	1-1	CR-38575
93	WI-3816	CR-34781	K43	3	CH2	2-1	CR-38575
94	WI-3816	CR-34781	K43	5	CH2	2-2	CR-38575
95	WI-3816	CR-34781	K43	5	CH2	3-1	CR-38575
116	WI-33777	CR-38389	K43	A2	N7	11	CR-33509
117	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
121	WI-3816	CR-34781	TB4	1	F43	2	CR-34781
121	WI-3816	CR-34781	TB4	1	F43	2	CR-34781
122	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
122	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
123	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
123	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
127	WI-3816	CR-34781	K43	2	F43	1	CR-34781
129	WI-3816	CR-34781	K43	4	F44	1	CR-34781
131	WI-3816	CR-34781	K43	6	F45	1	CR-34781

REFERENCE 5016390

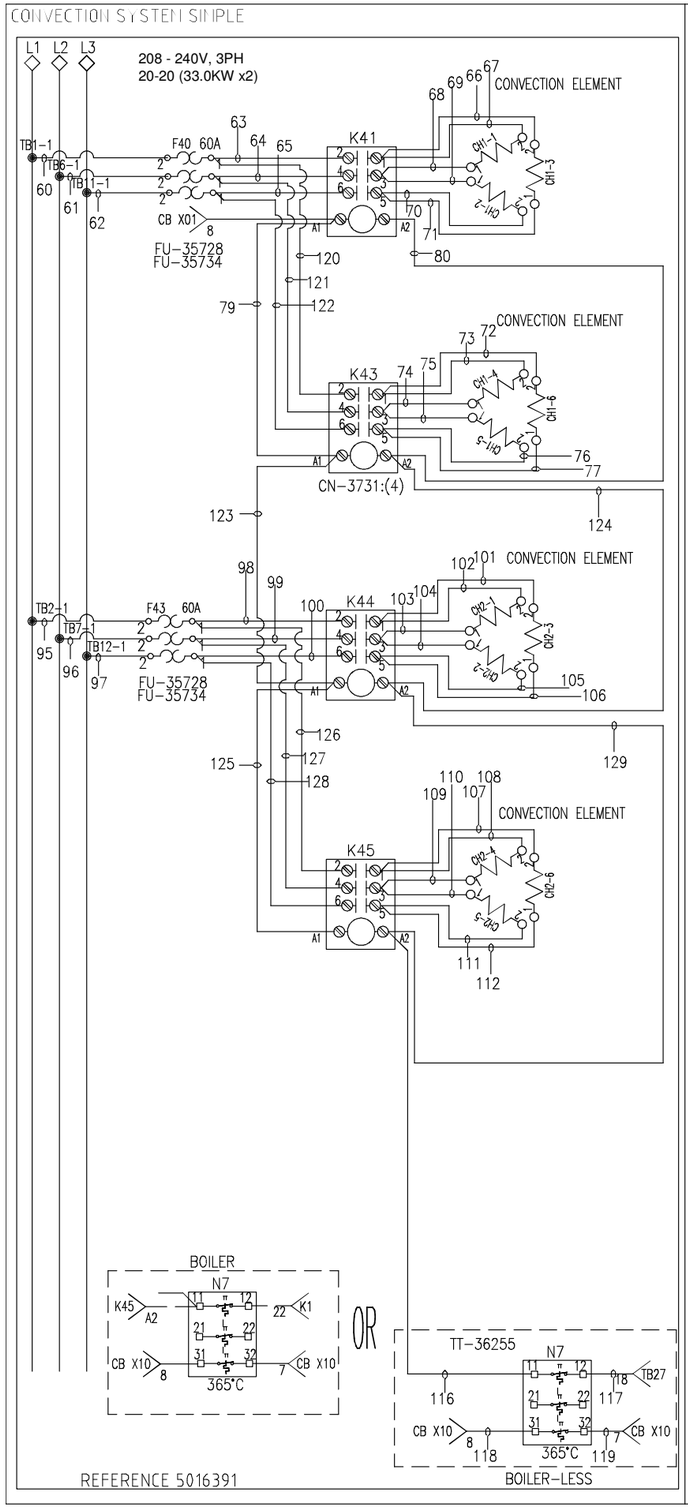
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM

20-10 208V 3PH CONVECTION SIMPLE

BY: AFT | DWG: 77623 | SHEET 35 OF 42

Convection System (Simple): 20-20 208V 3PH



5016391 20-20 (EII); 208V 3PH; SIMPLE

5016391-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
66	WI-3816	CR-34781	K41	1	CH1	3-2	CR-38575
67	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
68	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
69	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
70	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
71	WI-3816	CR-34781	K41	5	CH1	3-1	CR-38575
72	WI-3816	CR-34781	K43	1	CH1	6-2	CR-38575
73	WI-3816	CR-34781	K43	1	CH1	4-2	CR-38575
74	WI-3816	CR-34781	K43	3	CH1	4-1	CR-38575
75	WI-3816	CR-34781	K43	3	CH1	5-1	CR-38575
76	WI-3816	CR-34781	K43	5	CH1	5-2	CR-38575
77	WI-3816	CR-34781	K43	5	CH1	6-1	CR-38575
79	WI-33478	CR-38389	K41	A1	K43	A1	CR-38389
80	WI-33777	CR-38389	K41	A2	K43	A2	CR-38389
95	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
95	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
98	WI-3816	CR-34781	K44	2	F43	1	CR-34781
99	WI-3816	CR-34781	K44	4	F44	1	CR-34781
100	WI-3816	CR-34781	K44	6	F45	1	CR-34781
101	WI-3816	CR-34781	K44	1	CH2	3-2	CR-38575
102	WI-3816	CR-34781	K44	1	CH2	1-2	CR-38575
103	WI-3816	CR-34781	K44	3	CH2	1-1	CR-38575
104	WI-3816	CR-34781	K44	3	CH2	2-1	CR-38575
105	WI-3816	CR-34781	K44	5	CH2	2-2	CR-38575
106	WI-3816	CR-34781	K44	5	CH2	3-1	CR-38575
107	WI-3816	CR-34781	K45	1	CH2	6-2	CR-38575
108	WI-3816	CR-34781	K45	1	CH2	4-2	CR-38575
109	WI-3816	CR-34781	K45	3	CH2	4-1	CR-38575
110	WI-3816	CR-34781	K45	3	CH2	5-1	CR-38575
111	WI-3816	CR-34781	K45	5	CH2	5-2	CR-38575
112	WI-3816	CR-34781	K45	5	CH2	6-1	CR-38575
116	WI-33777	CR-38389	K45	A2	N7	11	CR-33509
117	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
120	WI-3816	CR-34781	K43	2	F40	1	CR-34781
121	WI-3816	CR-34781	K43	4	F41	1	CR-34781
122	WI-3816	CR-34781	K43	6	F42	1	CR-34781
123	WI-33478	CR-38389	K43	A1	K44	A1	CR-38389
124	WI-33777	CR-38389	K43	A2	K44	A2	CR-38389
125	WI-33478	CR-38389	K44	A1	K45	A1	CR-38389
126	WI-3816	CR-34781	K45	2	F43	1	CR-34781
127	WI-3816	CR-34781	K45	4	F44	1	CR-34781
128	WI-3816	CR-34781	K45	6	F45	1	CR-34781
129	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
L1	WI-3817	BARE	BK-33996	L1	TB3	2	CR-33043
L1	WI-3817	BARE	BK-33996	L1	TB4	2	CR-33043
L1	WI-3817	BARE	BK-33996	L1	TB5	2	CR-33043
L2	WI-3817	BARE	BK-33996	L2	TB8	2	CR-33043
L2	WI-3817	BARE	BK-33996	L2	TB9	2	CR-33043
L2	WI-3817	BARE	BK-33996	L2	TB10	2	CR-33043
L3	WI-3817	BARE	BK-33996	L3	TB13	2	CR-33043
L3	WI-3817	BARE	BK-33996	L3	TB14	2	CR-33043
L3	WI-3817	BARE	BK-33996	L3	TB15	2	CR-33043

REFERENCE 5016391

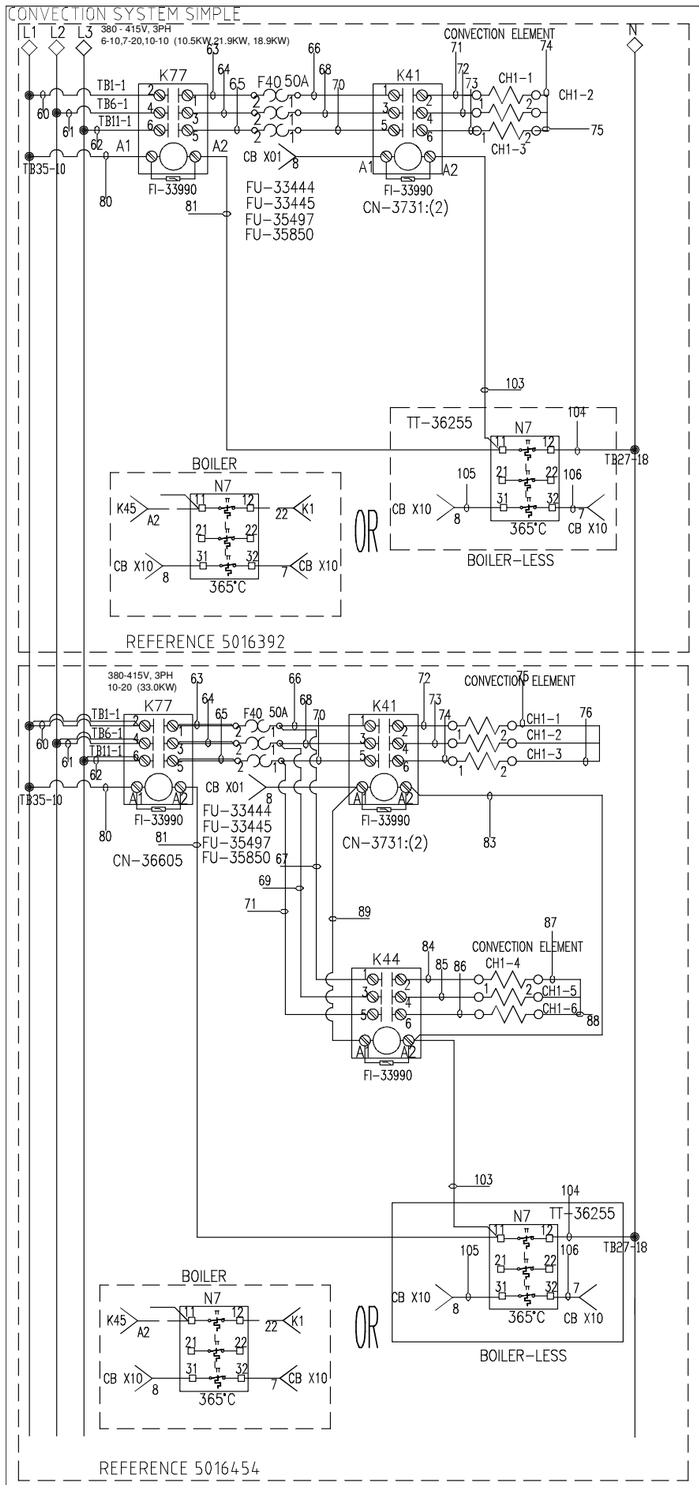
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 20-20 208V 3PH CONVECTION SIMPLE

BY: AFT | DWG: 77623 | SHEET 36 OF 42

DATE: 07/27/15

Convection System (Simple): 6-10, 10-10, 7-20, 10-20 380V 3PH



5016392 6-10,10-10,7-20 (EI); 380V 3PH; SIMPLE

5016392-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K77	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K77	4	CR-34781
62	WI-3816	CR-34781	TB11	1	K77	6	CR-34781
63	WI-3816	CR-34775	F40	1	K77	1	CR-34781
64	WI-3816	CR-34775	F41	1	K77	3	CR-34781
65	WI-3816	CR-34775	F42	1	K77	5	CR-34781
66	WI-3816	CR-34775	F40	2	K41	1	CR-34781
68	WI-3816	CR-34775	F41	2	K41	3	CR-34781
70	WI-3816	CR-34775	F42	2	K41	5	CR-34781
71	WI-3816	CR-34781	K41	2	CH1	1-1	CR-38575
72	WI-3816	CR-34781	K41	4	CH1	2-1	CR-38575
73	WI-3816	CR-34781	K41	6	CH1	2-1	CR-38575
74	WI-3816	CR-38575	CH1	1-2	CH1	2-2	CR-38575
75	WI-3816	CR-38575	CH1	2-2	CH1	3-2	CR-38575
80	WI-33478	CR-34783	TB35	10	K77	A1	CR-38389
81	WI-33777	CR-38389	K77	A2	N7	11	CR-33509
103	WI-33777	CR-38389	K41	A2	N7	11	CR-33509
104	WI-33777	CR-33509	N7	12	TB27	18	CR-34783
105	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
106	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

5016454 10-20 (EI); 380V 3PH; SIMPLE

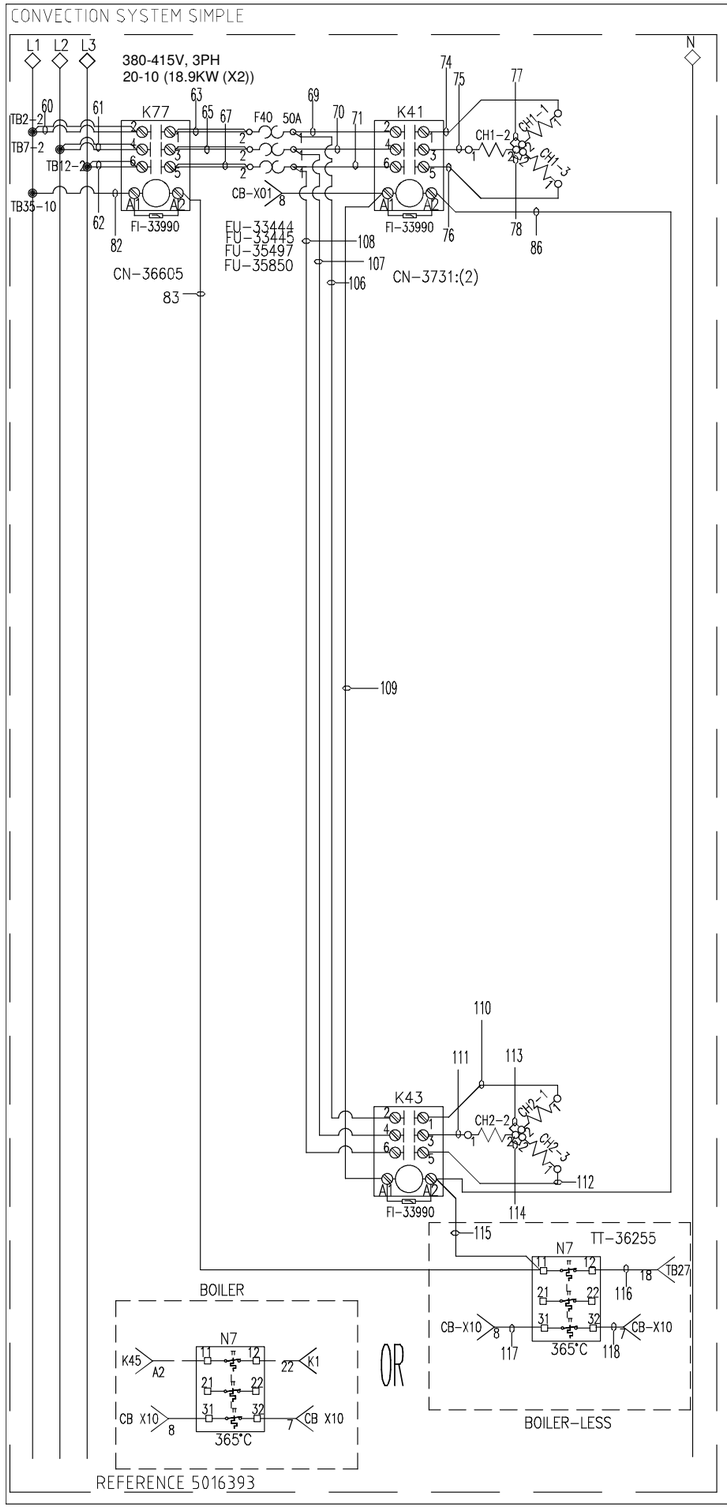
5016454-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	K77	2	CR-34781
60	WI-3816	CR-34781	TB1	1	K77	2	CR-34781
61	WI-3816	CR-34781	TB6	1	K77	4	CR-34781
61	WI-3816	CR-34781	TB6	1	K77	4	CR-34781
62	WI-3816	CR-34781	TB11	1	K77	6	CR-34781
62	WI-3816	CR-34781	TB11	1	K77	6	CR-34781
63	WI-3816	CR-34781	F40	2	K77	1	CR-34781
63	WI-3816	CR-34781	F40	2	K77	1	CR-34781
64	WI-3816	CR-34781	F41	2	K77	3	CR-34781
64	WI-3816	CR-34781	F41	2	K77	3	CR-34781
65	WI-3816	CR-34781	F42	2	K77	5	CR-34781
65	WI-3816	CR-34781	F42	2	K77	5	CR-34781
66	WI-3816	CR-34781	F40	1	K41	1	CR-34781
67	WI-3816	CR-34781	F40	1	K44	1	CR-34781
68	WI-3816	CR-34781	F41	1	K41	3	CR-34781
69	WI-3816	CR-34781	F41	1	K44	3	CR-34781
70	WI-3816	CR-34781	F42	1	K41	5	CR-34781
71	WI-3816	CR-34781	F42	1	K44	5	CR-34781
72	WI-3816	CR-34781	K41	2	CH1	1-1	CR-38575
73	WI-3816	CR-34781	K41	4	CH1	2-1	CR-38575
74	WI-3816	CR-34781	K41	6	CH1	3-1	CR-38575
75	WI-3816	CR-34781	CH1	1-2	CH1	2-2	CR-38575
76	WI-3816	CR-34781	CH1	3-2	CH1	2-2	CR-38575
80	WI-33478	CR-34783	TB35	10	K77	A1	CR-38389
81	WI-33777	CR-38389	K77	A2	N7	11	CR-33509
83	WI-33777	CR-38389	K41	A2	K44	A2	CR-38389
84	WI-3816	CR-34781	K44	2	CH1	4-1	CR-38575
85	WI-3816	CR-34781	K44	4	CH1	5-1	CR-38575
86	WI-3816	CR-34781	K44	6	CH1	6-1	CR-38575
87	WI-3816	CR-34781	CH1	5-2	CH1	4-2	CR-38575
88	WI-3816	CR-34781	CH1	5-2	CH1	6-2	CR-38575
89	WI-33478	CR-38389	K41	A1	K44	A1	CR-38389
103	WI-33777	CR-38389	K44	A2	N7	11	CR-34774
104	WI-33777	CR-33509	N7	12	TB27	18	CR-38389
105	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783

REFERENCE 5016392

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 6-10,10-10,7-20,10-20 380V 3PH CONVECTION-SIMPLE

BY: AFT | DWG: 77623 | SHEET: 37 OF 42 | DATE: 07/27/15



5016393 20-10 (EI); 380V 3PH; SIMPLE

5016393-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB2	2	K77	2	CR-34781
60	WI-3816	CR-34781	TB2	2	K77	2	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
63	WI-3816	CR-34775	F40	2	K77	1	CR-34781
63	WI-3816	CR-34775	F40	2	K77	1	CR-34781
65	WI-3816	CR-34775	F41	2	K77	3	CR-34781
65	WI-3816	CR-34775	F41	2	K77	3	CR-34781
67	WI-3816	CR-34775	F42	2	K77	5	CR-34781
67	WI-3816	CR-34775	F42	2	K77	5	CR-34781
69	WI-3816	CR-34775	F40	1	K41	2	CR-34781
70	WI-3816	CR-34775	F41	1	K41	4	CR-34781
71	WI-3816	CR-34775	F42	1	K41	6	CR-34781
74	WI-3816	CR-34781	K41	1	CH1	1-1	CR-38575
75	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
76	WI-3816	CR-38575	K41	5	CH1	3-1	CR-38575
77	WI-3816	CR-38575	CH1	1-2	CH1	2-2	CR-38575
78	WI-3816	CR-38575	CH1	3-2	CH1	2-2	CR-38575
82	WI-33478	CR-34783	TB35	10	K77	A1	CR-38389
83	WI-33777	CR-38389	K77	A2	N7	11	CR-33509
86	WI-33777	CR-38389	K41	A2	K43	A2	CR-38389
106	WI-3816	CR-34775	F40	1	K43	2	CR-34781
107	WI-3816	CR-34775	F41	1	K43	4	CR-34781
108	WI-3816	CR-34775	F42	1	K43	6	CR-34781
109	WI-33478	CR-38389	K41	A1	K43	A1	CR-38389
110	WI-3816	CR-34781	K43	1	CH2	1-1	CR-38575
111	WI-3816	CR-34781	K43	3	CH2	2-1	CR-38575
112	WI-3816	CR-38575	K43	5	CH2	3-1	CR-38575
113	WI-3816	CR-38575	CH2	1-2	CH2	2-2	CR-38575
114	WI-3816	CR-38575	CH2	3-2	CH2	2-2	CR-38575
115	WI-33777	CR-38389	K43	A2	N7	11	CR-34774
116	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
117	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
118	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783

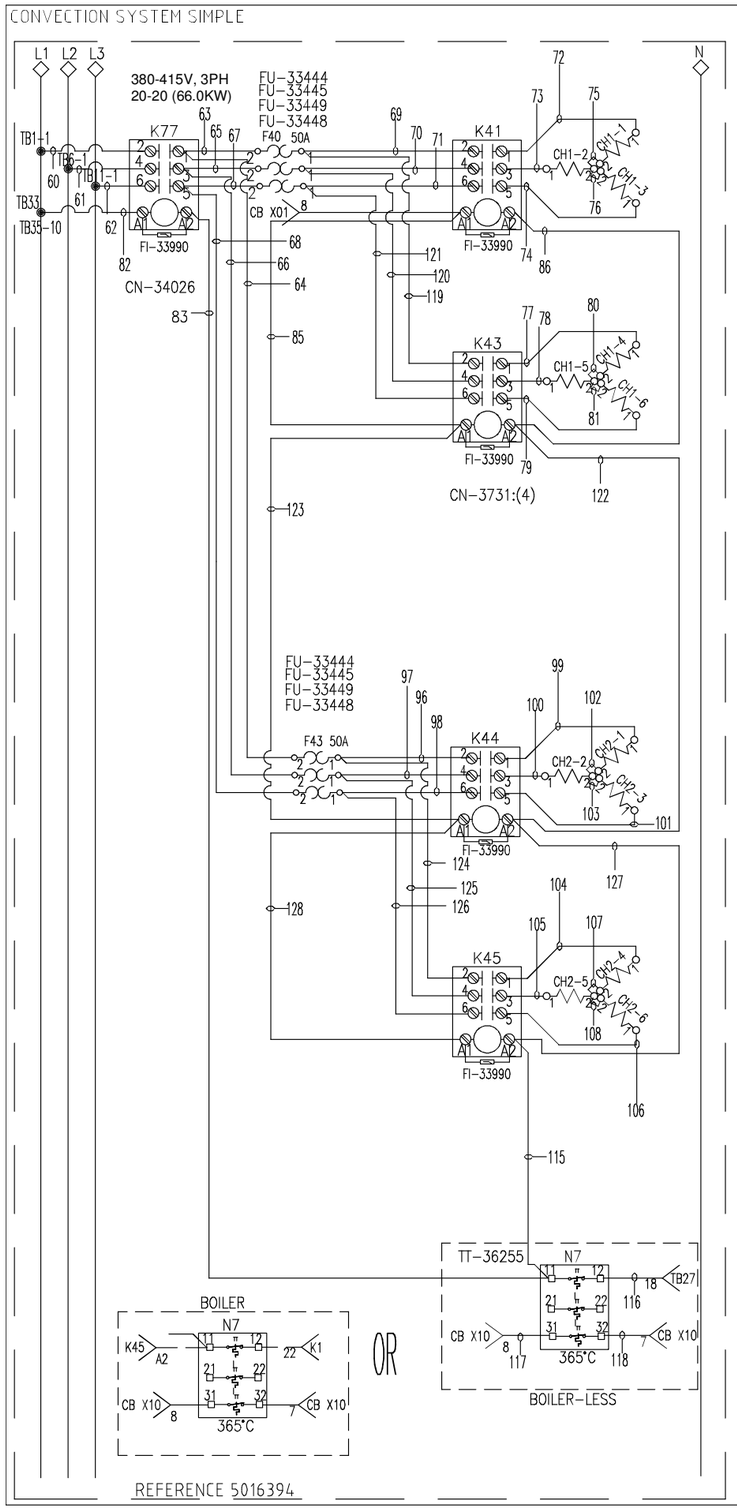
REFERENCE 5016393

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM | WIRING DIAGRAM | 20-10 3Ph 380V 50Hz CONVECTION SIMPLE

BY: AFT | DWG: 77623 | SHEET 38 OF 42

DATE: 07/27/15



5016394 20-20 (EI), 380V 3PH; SIMPLE

5016394-2W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB2	2	K77	2	CR-34781
60	WI-3816	CR-34781	TB2	2	K77	2	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
61	WI-3816	CR-34781	TB7	2	K77	4	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
62	WI-3816	CR-34781	TB12	2	K77	6	CR-34781
63	WI-3816	CR-34775	K77	1	F40	2	CR-34781
64	WI-3816	CR-34781	K77	1	F43	2	CR-34775
65	WI-3816	CR-34775	K77	3	F41	2	CR-34781
66	WI-3816	CR-34781	K77	3	F44	2	CR-34775
67	WI-3816	CR-34775	K77	5	F42	2	CR-34781
68	WI-3816	CR-34781	K77	5	F45	2	CR-34775
69	WI-3816	CR-34775	F40	1	K41	2	CR-34781
70	WI-3816	CR-34775	F41	1	K41	4	CR-34781
71	WI-3816	CR-34775	F42	1	K41	6	CR-34781
72	WI-3816	CR-34781	K41	1	CH1	1-1	CR-38575
73	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
74	WI-3816	CR-34781	K41	5	CH1	3-1	CR-38575
75	WI-3816	CR-38575	CH1	1-2	CH1	2-2	CR-38575
76	WI-3816	CR-38575	CH1	3-2	CH1	2-2	CR-38575
77	WI-3816	CR-34781	K43	1	CH1	4-1	CR-38575
78	WI-3816	CR-34781	K43	3	CH1	5-1	CR-38575
79	WI-3816	CR-34781	K43	5	CH1	6-1	CR-38575
80	WI-3816	CR-38575	CH1	5-2	CH1	4-2	CR-38575
81	WI-3816	CR-38575	CH1	5-2	CH1	6-2	CR-38575
82	WI-33478	CR-34783	TB35	10	K77	A1	CR-38389
83	WI-33777	CR-38389	K77	A2	N7	11	CR-33509
85	WI-33478	CR-38389	K41	A1	K43	A1	CR-38389
86	WI-33777	CR-38389	K41	A2	K43	A2	CR-38389
96	WI-3816	CR-34775	F43	1	K44	2	CR-34781
97	WI-3816	CR-34775	F44	1	K44	4	CR-34781
98	WI-3816	CR-34775	F45	1	K44	6	CR-34781
99	WI-3816	CR-34781	K44	1	CH2	1-1	CR-38575
100	WI-3816	CR-34781	K44	3	CH2	2-1	CR-38575
101	WI-3816	CR-34781	K44	5	CH2	3-1	CR-38575
102	WI-3816	CR-38575	CH2	1-2	CH2	2-2	CR-38575
103	WI-3816	CR-38575	CH2	3-2	CH2	2-2	CR-38575
104	WI-3816	CR-34781	K45	1	CH2	4-1	CR-38575
105	WI-3816	CR-34781	K45	3	CH2	5-1	CR-38575
106	WI-3816	CR-34781	K45	5	CH2	6-1	CR-38575
107	WI-3816	CR-38575	CH2	4-2	CH2	5-2	CR-38575
108	WI-3816	CR-38575	CH2	6-2	CH2	5-2	CR-38575
115	WI-33777	CR-38389	K45	A2	N7	11	CR-34774
116	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
117	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
118	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
119	WI-3816	CR-34775	F40	1	K43	2	CR-34781
120	WI-3816	CR-34775	F41	1	K43	4	CR-34781
121	WI-3816	CR-34775	F42	1	K43	6	CR-34781
127	WI-33777	CR-38389	K43	A2	K44	A2	CR-38389
123	WI-33478	CR-38389	K43	A1	K44	A1	CR-38389
124	WI-3816	CR-34775	F43	1	K45	2	CR-34781
125	WI-3816	CR-34775	F44	1	K45	4	CR-34781
126	WI-3816	CR-34775	F45	1	K45	6	CR-34781
127	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389
128	WI-33478	CR-38389	K44	A1	K45	A1	CR-38389

REFERENCE 5016394

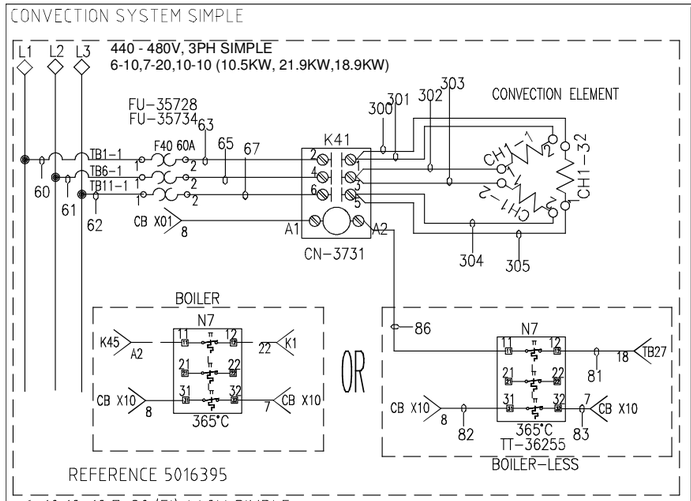
REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM

5016394-2W 380V 3PH 50Hz CONVECTION SIMPLE

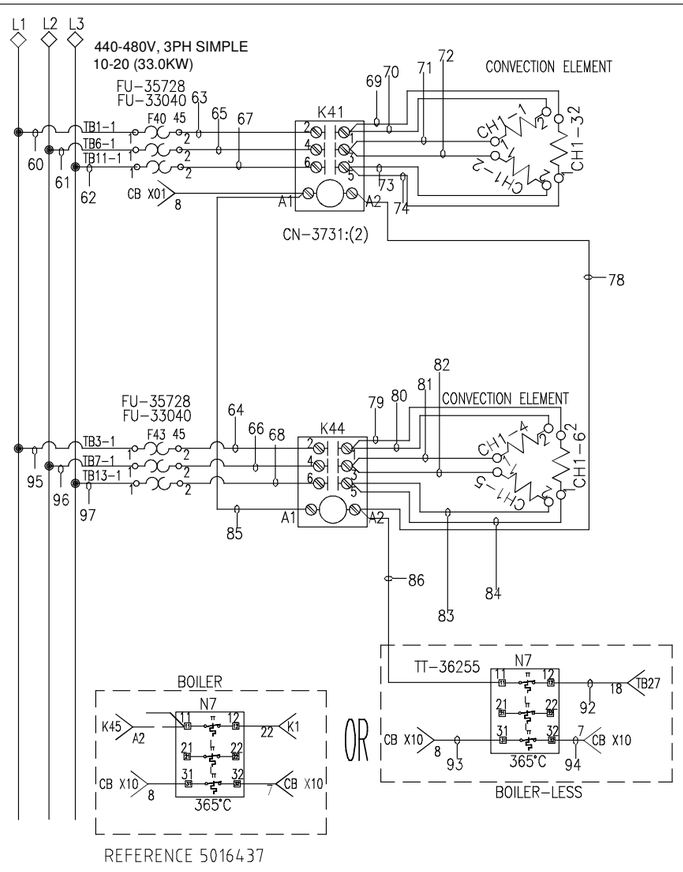
BY: AFT | DWG: 77623 | SHEET 39 OF 42

DATE: 07/27/15



6-10,10-10,7-20,(EI) 440V SIMPLE

5016395-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
300	WI-3816	CR-34781	K41	1	CH1	3-2	CR-38575
301	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
302	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
303	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
304	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
305	WI-3816	CR-34781	K41	5	CH1	3-1	CR-38575
86	WI-33777	CR-33509	N7	11	K41	A2	CR-38385
81	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
82	WI-33777	CR-34783	CB-X10	8	N7	31	CR-33509
83	WI-33777	CR-34783	CB-X10	7	N7	32	CR-33509



5016437 10-20; (EI); 440V; SIMPLE

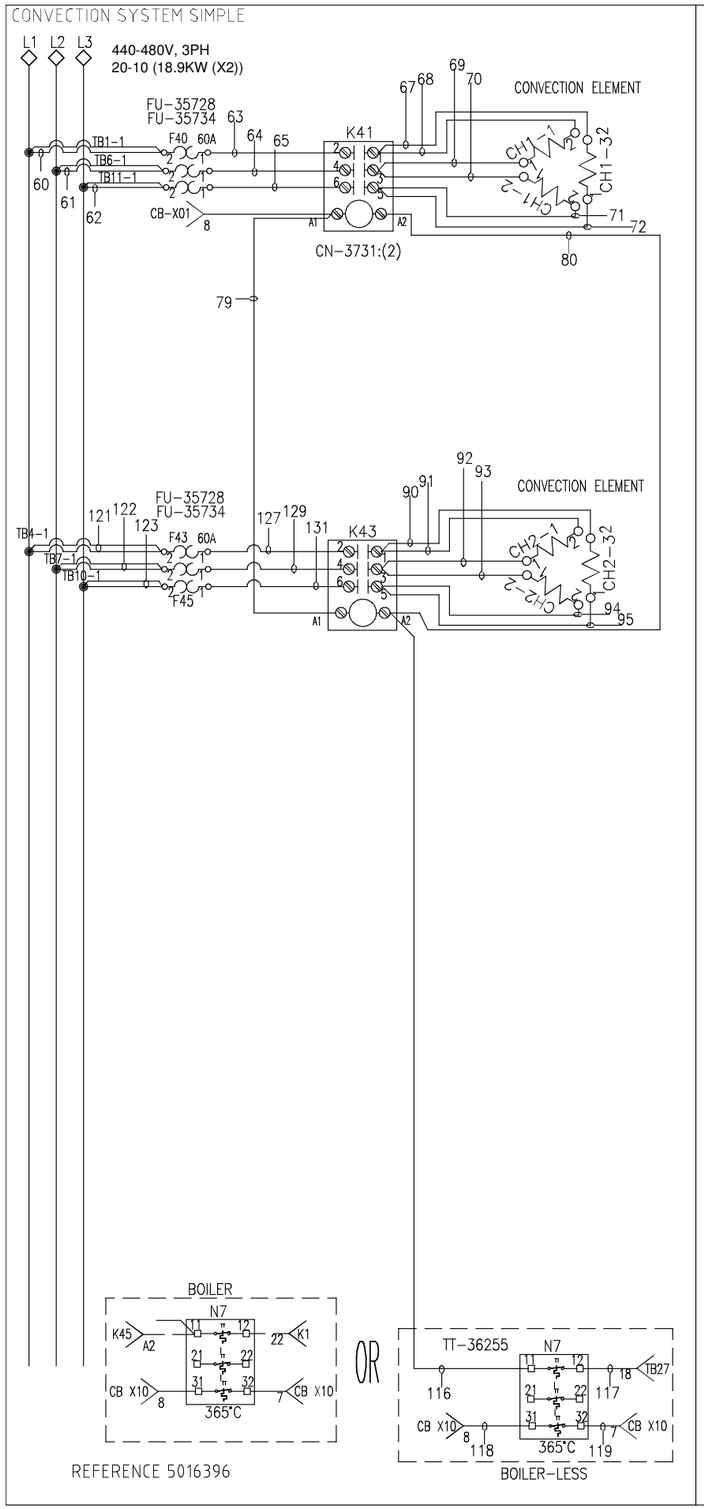
5016437-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	1	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
64	WI-3816	CR-34781	F43	2	K44	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
65	WI-3816	CR-34781	K41	4	F41	2	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
66	WI-3816	CR-34781	F44	2	K44	4	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
67	WI-3816	CR-34781	K41	6	F42	2	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
68	WI-3816	CR-34781	F45	2	K44	6	CR-34781
69	WI-3816	CR-34781	K41	1	CH1	3-2	CR-38575
70	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
71	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
72	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
73	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
74	WI-3816	CR-34781	K41	5	CH1	3-1	CR-38575
78	WI-33777	CR-38389	K41	A2	K44	A2	CR-38389
79	WI-3816	CR-34781	K44	1	CH1	6-2	CR-38575
80	WI-3816	CR-34781	K44	1	CH1	4-2	CR-38575
81	WI-3816	CR-34781	K44	3	CH1	4-1	CR-38575
82	WI-3816	CR-34781	K44	3	CH1	5-1	CR-38575
83	WI-3816	CR-34781	K44	5	CH1	5-2	CR-38575
84	WI-3816	CR-34781	K44	5	CH1	6-1	CR-38575
85	WI-33478	CR-38389	K41	A1	K44	A1	CR-38389
86	WI-33777	CR-33509	N7	11	K44	A2	CR-38389
92	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
93	WI-33777	CR-34783	CB-X10	8	N7	31	CR-33509
94	WI-33777	CR-34783	CB-X10	7	N7	32	CR-33509
95	WI-3816	CR-34781	TB3	1	F43	1	CR-34781
95	WI-3816	CR-34781	TB3	1	F43	1	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	1	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	1	CR-34781
97	WI-3816	CR-34781	TB13	1	F45	1	CR-34781
97	WI-3816	CR-34781	TB13	1	F45	1	CR-34781

REFERENCE 5016395

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM | WIRING DIAGRAM
6-10 UP-TO-10-18-440V-CONVECTION-SIMPLE
BY: AFT | DWG: 77623 | SHEET 40 OF 42
DATE: 07/27/15

Convection System (Simple): 20-10 440V



50156396 20-10 (EI); 440V 3PH; SIMPLE

5016396-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
67	WI-3816	CR-34781	K41	1	CH1	3-2	CR-38575
68	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
69	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
70	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
71	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
72	WI-3816	CR-34781	K41	5	CH1	3-1	CR-38575
79	WI-33478	CR-38389	K41	A1	K43	A1	CR-38389
80	WI-33777	CR-38389	K41	A2	K43	A2	CR-38389
90	WI-3816	CR-34781	K43	1	CH2	3-2	CR-38575
91	WI-3816	CR-34781	K43	1	CH2	1-2	CR-38575
92	WI-3816	CR-34781	K43	3	CH2	1-1	CR-38575
93	WI-3816	CR-34781	K43	3	CH2	2-1	CR-38575
94	WI-3816	CR-34781	K43	5	CH2	2-2	CR-38575
95	WI-3816	CR-34781	K43	5	CH2	3-1	CR-38575
116	WI-33777	CR-38389	K43	A2	N7	11	CR-33509
117	WI-33777	CR-33509	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
121	WI-3816	CR-34781	K43	2	F43	2	CR-34781
121	WI-3816	CR-34781	K43	2	F43	2	CR-34781
122	WI-3816	CR-34781	K43	4	F44	2	CR-34781
122	WI-3816	CR-34781	K43	4	F44	2	CR-34781
123	WI-3816	CR-34781	K43	6	F45	2	CR-34781
123	WI-3816	CR-34781	K43	6	F45	2	CR-34781
127	WI-3816	CR-34781	K43	2	F43	1	CR-34781
129	WI-3816	CR-34781	K43	4	F44	1	CR-34781
131	WI-3816	CR-34781	K43	6	F45	1	CR-34781

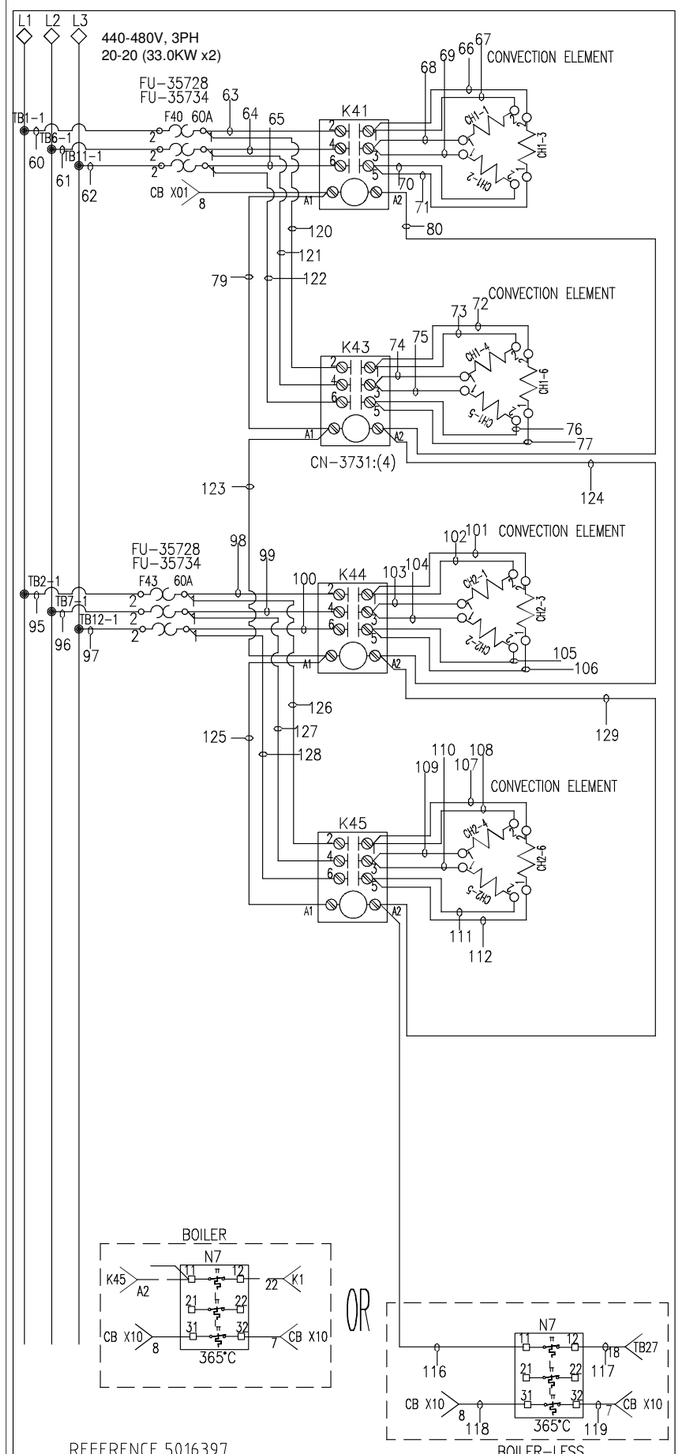
REFERENCE 5016396

REV	ECO	DESCRIPTION	DATE	APP

ALTO-SHAAM — WIRING DIAGRAM — 20-10 440V CONVECTION SIMPLE

BY:	AFT	DWG:	77623	SHEET
DATE:	07/27/15			41 OF 42

CONVECTION SYSTEM SIMPLE



5016397 20-20 (EI); 440V 3PH; SIMPLE

5016397-W							
#	WI-STOCK	T-CONN.	FROM	TERM LOC	TO	TERM LOC	L-CONN.
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
60	WI-3816	CR-34781	TB1	1	F40	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
61	WI-3816	CR-34781	TB6	1	F41	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
62	WI-3816	CR-34781	TB11	1	F42	2	CR-34781
63	WI-3816	CR-34781	K41	2	F40	1	CR-34781
64	WI-3816	CR-34781	K41	4	F41	1	CR-34781
65	WI-3816	CR-34781	K41	6	F42	1	CR-34781
66	WI-3816	CR-34781	K41	1	CH1	3-2	CR-38575
67	WI-3816	CR-34781	K41	1	CH1	1-2	CR-38575
68	WI-3816	CR-34781	K41	3	CH1	1-1	CR-38575
69	WI-3816	CR-34781	K41	3	CH1	2-1	CR-38575
70	WI-3816	CR-34781	K41	5	CH1	2-2	CR-38575
71	WI-3816	CR-34781	K41	5	CH1	3-1	CR-38575
72	WI-3816	CR-34781	K43	1	CH1	6-2	CR-38575
73	WI-3816	CR-34781	K43	1	CH1	4-2	CR-38575
74	WI-3816	CR-34781	K43	3	CH1	4-1	CR-38575
75	WI-3816	CR-34781	K43	3	CH1	5-1	CR-38575
76	WI-3816	CR-34781	K43	5	CH1	5-2	CR-38575
77	WI-3816	CR-34781	K43	5	CH1	6-1	CR-38575
79	WI-33478	CR-38389	K41	A1	K43	A1	CR-38389
80	WI-33777	CR-38389	K41	A2	K43	A2	CR-38389
95	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
95	WI-3816	CR-34781	TB2	1	F43	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
96	WI-3816	CR-34781	TB7	1	F44	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
97	WI-3816	CR-34781	TB12	1	F45	2	CR-34781
98	WI-3816	CR-34781	K44	2	F43	1	CR-34781
99	WI-3816	CR-34781	K44	4	F44	1	CR-34781
100	WI-3816	CR-34781	K44	6	F45	1	CR-34781
101	WI-3816	CR-34781	K44	1	CH2	3-2	CR-38575
102	WI-3816	CR-34781	K44	1	CH2	1-2	CR-38575
103	WI-3816	CR-34781	K44	3	CH2	1-1	CR-38575
104	WI-3816	CR-34781	K44	3	CH2	2-1	CR-38575
105	WI-3816	CR-34781	K44	5	CH2	2-2	CR-38575
106	WI-3816	CR-34781	K44	5	CH2	3-1	CR-38575
107	WI-3816	CR-34781	K45	1	CH2	6-2	CR-38575
108	WI-3816	CR-34781	K45	1	CH2	4-2	CR-38575
109	WI-3816	CR-34781	K45	3	CH2	4-1	CR-38575
110	WI-3816	CR-34781	K45	3	CH2	5-1	CR-38575
111	WI-3816	CR-34781	K45	5	CH2	5-2	CR-38575
112	WI-3816	CR-34781	K45	5	CH2	6-1	CR-38575
116	WI-33777	CR-38389	K45	A2	N7	11	CR-33509
117	WI-33777	CR-34783	TB27	18	N7	12	CR-33509
118	WI-33777	CR-33509	N7	31	CB-X10	8	CR-34783
119	WI-33777	CR-33509	N7	32	CB-X10	7	CR-34783
120	WI-3816	CR-34781	K43	2	F40	1	CR-34781
121	WI-3816	CR-34781	K43	4	F41	1	CR-34781
122	WI-3816	CR-34781	K43	6	F42	1	CR-34781
123	WI-33478	CR-38389	K43	A1	K44	A1	CR-38389
124	WI-33777	CR-38389	K43	A2	K44	A2	CR-38389
125	WI-33478	CR-38389	K44	A1	K45	A1	CR-38389
126	WI-3816	CR-34781	K45	2	F43	1	CR-34781
127	WI-3816	CR-34781	K45	4	F44	1	CR-34781
128	WI-3816	CR-34781	K45	6	F45	1	CR-34781
129	WI-33777	CR-38389	K44	A2	K45	A2	CR-38389

REV	ECO	DESCRIPTION	DATE	APP

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DATE: 07/27/15

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