

737-800 WIRING DIAGRAM MANUAL

AVIA CAPITAL SERVICES

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This manual is applicable to the aircraft on this list:

	Operator			Manufacturer		
Model-Series	Identification Code	Effectivity Code	Block Number	Serial Number	Line Number	Registration Number
737-8LJ	ARO	001	YT101	41195	4590	VP-BRF
737-8LJ	ARO	002	YT102	41196	4665	VP-BRH
737-8LJ	ARO	003	YT103	41197	4710	VP-BRR
737-8LJ	ARO	004	YT104	41198	4753	VP-BZA
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737-8LJ	ARO	009	YT107	41203	5253	VQ-BVO
737-8LJ	ARO	010	YT108	41204	5291	VQ-BVP
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737-8LJ	ARO	020	YT114	41214	5690	VQ-BWF
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737-8LJ	STG	019	YT131	41212	5576	VQ-BWJ



AVIA CAPITAL SERVICES Revision No. 14

Jun 21/2016

To: All holders of this Boeing Document D280A351

Attached is the current revision to the 737 Wiring Diagram Manual (WDM).

The manual is available either as a printed manual, digital products, or any combination of the two. This revision replaces all digital products. All digital products are reissued with all obsolete data deleted and all updated pages added.

For printed manuals, changes are indicated on the Effective Pages. The pages which are revised will be identified on the Effective Pages by an R (Revised), A (Added), O (Overflow, i.e. changes to the document structure and/or page layout), or D (Deleted). Each page in the Effective Pages is identified by Chapter-Section-Subject number, page number and page date. Pages replaced or deleted by this revision should be removed and destroyed.

All pages are included in this revision. Revision bars on the pages identify current revision changes.

NOTE: IF YOU RECEIVE PRINTED REVISIONS, PLEASE VERIFY THAT YOU HAVE RECEIVED AND FILED THE PREVIOUS REVISION. BOEING MUST BE NOTIFIED WITHIN 30 DAYS IF YOU HAVE NOT RECEIVED THE PREVIOUS REVISION. REQUESTS FOR REVISIONS OTHER THAN THE PREVIOUS REVISION WILL REQUIRE A COMPLETE MANUAL REPRINT SUBJECT TO REPRINT CHARGES SHOWN IN THE DATA AND SERVICES CATALOG.



Location of Change Description of Change

SERVICE BULLETIN LIST SB 22-1295 Added

CHAPTER 22

22-11-75

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A 2	2-1295	Jun 21/2016	S	YT101-YT104	22-11-75	AUTOFLIGHT - ALTITUDE ALERT LOGIC THRESHOLD - 200/900 FEET - REVISION
3	4-2618	Dec 10/2015	С	YT105		NAVIGATION - ENHANCED GROUND PROXIMITY WARNING SYSTEM - AIR SPEED LOW ALERT CHANGE
4	4-1010	Dec 10/2015	С	YT101-YT102	44-21-12 44-35-20 44-35-22	CABIN SYSTEMS - BROADBAND COMMUNICATION - INSTALLATION OF WIRING AND THREE WIRELESS ACCESS POINTS TO ENABLE THE PANASONIC EXW IN-FLIGHT ENTERTAINMENT SYSTEM

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INTRODUCTION

1. APPLICABILITY

This Wiring Diagram Manual is applicable only to those Boeing airplanes listed on the Effective Aircraft page. The instructions and information contained herein apply solely to those airplanes and are not suitable for use with any other Boeing airplane(s).

2. GENERAL DESCRIPTION

The Boeing Wiring Diagram Manual (WDM) is a collection of diagrams, drawings, and Lists which define the wiring and hookup of associated equipment installed on the listed Boeing airplanes. These data are prepared essentially in accordance with the ATA Specification No. 2200, revision 2001.1.

This manual may also contain data and information provided by the customer. The Boeing Company assumes no responsibility for the accuracy and validity of data and information provided by a customer.

The WDM document number is unique to the customer whose name appears on the title page. Each chapter is preceded by its own Table of Contents (TOC), List of Effective Pages (LEP), and Alphabetical Index.

NOTE: System Schematics reside in a separate System Schematics Manual. Standard Wiring Practices—Chapter 20 reside in a separate Standard Wiring Practices manual (D6-54446).

All Wiring Diagrams are shown, unless otherwise specified, with the airplane on the ground, after normal flight, with the shutdown checklist complete (power off).

3. PROCESS CONTROLS

Control of the various manufacturing and installation processes used for wiring the airplane is covered in D6-36911 - Electrical Wiring Assembly and Installation Processes.

4. BOEING CHANGE DEFINITIONS

Changes used by Boeing to implement airplane changes that may affect this manual are listed below.

A. Customer Originated Changes (COC)

Customer Originated Changes are requests to incorporate airplane data, information, changes and modifications authorized by a customer into the WDM.

MOTE: Boeing will not undertake to test or evaluate, in any form, the validity or the technical accuracy of Customer Originated Changes. This will remain the sole responsibility of the customer submitting the Customer Originated Change request.

B. Service Bulletin (SB)

Service Bulletins provide information for accomplishing an engineering change on in-service airplanes.

Service Bulletins are incorporated into this manual only upon customer request.

Incorporation status change of Service Bulletins can be requested using MyBoeingFleet (MBF). On MBF select "Maintenance Documents", "Document Change Requests", and then "Service Bulletin Incorporation" and fill out the SBI form. This form will be electronically submitted to Boeing for document changes.



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C. Service Letter (SL)

Service Letters notify customers of unique maintenance or operational items.

D. Master Change (MC)

An engineering change is classified as a Master Change if the change appreciably affects the terms and conditions of the purchase agreement and/or the customer detail specification. Consequently, a Master Change must be negotiated with the customer to revise the airplane delivery schedule, contract price, performance, weight and balance, or any other design affecting specification language.

E. Production Revision Record (PRR)

A Production Revision Record is an engineering change initiated by Boeing which is nonnegotiable and is used to make airplane changes such as design improvements.

F. Rapid Revision (RR)

A Rapid Revision is a minor change to an airplane, requested by a customer, which is too late in the production process to generate a Master Change and is not applicable for PRR action.

G. Modification Revision (MR)

A Modification Revision is used by Boeing to describe, negotiate, control and record changes to a customer's airplane configuration after an airplane has been certified and used in revenue service, then returned to Boeing jurisdiction for rework. Modification Revisions may also be used to modify an airplane directly off the assembly line.

Modification Revisions are negotiable changes and may include engineering, fabrication, assembly and/or installation revisions. They may be used by Boeing to incorporate customer furnished kits and parts, or to incorporate Boeing furnished parts which are not in kit form.

Modification Revisions may include SB's, PRR's (represented by a SB), MC's, RR's, etc. On a modification program, whenever a SB number is available, it will be used in preference to the associated MR number.

H. Electrical Liaison Change Commitment Record (ELCCR)

An Electrical Liaison Change Commitment Record is used to process miscellaneous changes on an expedited basis (out of sequence), and to incorporate these changes into the airplane in sequence in the shortest possible time.

I. Boeing Change Reason (BCR)

Boeing Change Reason provides tracking of a change made to the content of the manual that apply to all users of the manual.

5. DESCRIPTION OF SERVICE BULLETIN LIST AND CUSTOMER CHANGE LIST

A. Number Field

The service bulletin or customer change number with it's revision level

B. Incorporated

The date of the manual revision which incorporated the change.

C. Started/Completed

The status of the change. An 'S' is used in the Started/Completed column to indicate Start (Dual) configuration, a 'C' is used to indicate Complete (Final) configuration and a 'X' indicates canceled changes that have been removed from the manual.

D. Effectivity

The aircraft affected by the referenced change.

E. ATA

The list of drawings affected by the referenced change.

F. Subject

The title of the service bulletin or customer change.

6. BOEING COMMERCIAL PUBLICATION CHANGE REQUEST (PCR)

Communications concerning this manual should be directed to:

The Boeing Commercial Airplane Group Attention: Supervisor, Commercial Publications PO Box 3707 M/S 2H-61 Seattle, WA 98124-2207

Or access MyBoeingFleet website and complete the online PCR form.

To facilitate uniform handling and to provide direct routing of questions to the proper Boeing organization, use of the Publication Change Request is encouraged. Boeing makes this form available through the customer's publications organizations.

7. REFERENCE LINES

The Reference Lines provide an exact position within the airplane to aide in locating equipment.

A. Station Line (STA)

Edge view of vertical reference plane which divides the body, wing, nacelle etc., into sections.

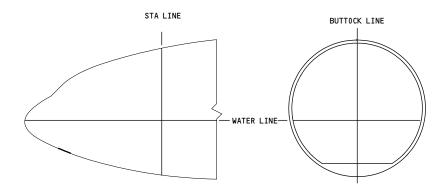
B. Waterline (WL)

Edge view of longitudinal horizontal reference plane.



C. Buttock Line (BL)

Edge view of longitudinal vertical reference plane.



8. WIRE SEPARATION

Airplane wiring installation complies with Federal Aviation Regulation (FAR) 25. Special emphasis is placed on wire separation of redundant systems for safety and other considerations. Wire separation is also utilized to minimize electromagnetic interference.

For further information see Codes section of the Introduction.



The following is a list of abbreviations and acronyms used in this manual. Where marked with an asterisk (*), see the GENERAL INFORMATION section, in the Wiring Diagram manual, for additional definition information.

A/C Air Conditioning

A/C Aircraft
A/R Altitude Rate

ACARS Aircraft Communications Addressing and Reporting System

ACE Actuator Control Electronics

ACESS Advanced Cabin Entertainment and Service System

ACM Air Cycle Machine

ACMP Alternating Current Motor Pump (See also EMP)

ACMS Airplane Conditioning Monitoring System

ACP Audio Control Panel

ADF Automatic Direction Finder
ADI Attitude Director Indicator

ADIRS Air Data Inertial Reference System
ADIRU Air Data Inertial Reference Unit

Air Driven Pump

ADL Airborne Data Loader ADM Air Data Module

ADRS Address

ADP

ADS Air Data Systems
ADU Air Drive Unit

AEM Audio Entertainment Multiplexer

AFDC Air Flight Data Control

AFDS Autopilot Flight Director System

AFL Air Flow

AIDS Airborne Integrated Data System

AIMS Airplane Information Management System

AMU Audio Management Unit

ANCMT Announcement
ANCPT Anticipate
ANCPTR Anticipator

ANS Ambient Noise Sensor

ANTI-COLL Anti-Collision

AOA Angle of Attack

AOC Air/Oil Cooler

APB Auxiliary Power Breaker
APID Airplane Identification
APU Auxiliary Power Unit



ARINC Aeronautical Radio Incorporated
ASA Autoflight Status Annunciator

ASCPC Air Supply Cabin Pressure Controller
ASCTS Air Supply Control and Test System
ASCTU Air Supply Control and Test Unit

ASP Audio Select Panel

AVM Airborne Vibration Monitor

BDY BLK Burndy Block

BFE Buyer Furnished Equipment
BPCU Bus Power Control Unit
BSCU Brake System Control Unit

BST Boost

BTB Bus Tie Breaker

BTLCS Brake Torque Limiting Control System
BTMU Brake Temperature Monitor Unit

C Cold

CACTS Cabin Air Conditioning & Temperature Control System

CADS Central Air Data System

CALIB Calibrator CAP Capture

CAP Contact Authorized Proposal
CAPC Cabin Area Control Panel

CAPT Captain

CCA Central Control Actuator
CCL Cargo Control Logic
CCM Cargo Control Module
CCU Cargo Control Unit
CDU Control Display Unit

CFDS Centralized Fault Detection System
CFE Customer Furnished Equipment

CHKPT Checkpoint

CHSP Course Heading Select Panel
CIC Cabin Interphone Controller

CIWS Central Instrument Warning System
CMC Central Maintenance Computer

CMD Command

CMM Component Maintenance Manual
CMS Cabin Management System
COC* Customer Originated Change

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COF MKR Coffee Maker
COLL Collision

COM/NAV Communication/Navigation

COR Corrector
CP Control Panel

CPCS Cabin Pressure Control System

CRKG Cranking

CSB Compressor Stability Bleed
CSMU Cabin System Management Unit

CT Control Transformer

CTC Cabin Temperature Controller
CTS Cabin Temperature Selector
CTS Conversational Terminal System

CVR Cockpit Voice Recorder **CWS** Control Wheel Steering DAA Digital/Analog Adapter DADC Digital Air Data Computer DAR Digital Aids Recorder **DED** Dead Ended Shield DEL Diagram Equipment List **DFCS** Digital Flight Control System **DFDAU** Digital Flight Data Acquisition Unit

DFDR Digital Flight Data Recorder

DH Decision Height
DIU Digital Interface Unit
DMU Data Management Unit
DP Differential Protection
DPA Digital Pre-Assembly

DPCT Differential Protective Current Transformer

DPLY Deploy

DSP Display Select Panel E/E Electrical/Electronics

EADI Electronic Attitude Director Indicator
ECS Environmental Control System
EDIU Engine Data Interface Unit

EDP Engine Driven Pump

EEC Electronic Engine Control (Unit)

EFIS Electronic Flight Instrument System

EHSI Electronic Horizontal Situation Indicator

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EICAS Engine Indicating and Crew Alerting System

EIU EFIS/EICAS Interface Unit

ELCCR* Electrical Liaison Change Commitment Record

ELCU Electrical Load Control Unit

ELMS Electrical Load Management System

EMC Electromagnetic Compatibility

EMP Electric Motor Pump (See also ACMP)

ENTMT Entertainment ENWY Entryway

EPR Engine Pressure Ratio

EPRL Engine Pressure Ratio Limit

ESCC Electrical Supply and Control Center

ESNTL Essential ESS Essential

ETC Electronic Temperature Control
ETOPS Extended Twin (Engine) Operations

EXCHR Exchanger EXTD Extend

F/D Flight Director
F/E Flight Engineer
F/F Fuel Flow
F/O First Officer

FADEC Full Authority Digital Engine Control

FAR Full Authority Fuel Control
FAR Federal Aviation Regulations

FBW Fly-by-Wire

FCC Flight Control Computer

FCU Flap Control Unit

FDAU Flight Data Acquisition Unit

FLMTR Flowmeter

FMC Flight Management Computer

FMCS Flight Management Computer System

FMU Fuel Metering Unit
FMV Fuel Metering Valve
FOC Fuel/Oil Cooler

FQIS Fuel Quantity Indication System
FQPU Fuel Quantity Processor Unit
FSEU Flap/Slat Electronics Unit
GCB Generator Circuit Breaker

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GCR Generator Control Relay
GCU Generator Control Unit

GPWS Ground Proximity Warning System

GS Glide Slope

GSB Ground Service Bus

GSPR Gasper H Hot

HLCU High Lift Control Unit
HMU Hydromechanical Unit

HND Hand

HPC High Pressure Compressor (N2 Rotor)

HPSOV High Pressure Shutoff Valve
HPT High Pressure Turbine
HYDIM Hydraulic Interface Module

HYQUIM Hydraulic Quantity Interface Module

HZ Hertz (Cycles Per Second)

IBIT Initiated Built In Test

IBVSU Instrument Bus Voltage Sense Unit

IDG Integrated Drive Generator
IDS Integrated Display System
ILES Inboard Leading Edge Station
INS Inertial Navigation System

INTC Interconnect

IOEU Inboard Overhead Electronics Unit

IPC Illustrated Parts Catalog
IPL Illustrated Parts List
IRS Inertial Reference System

JPR Jumper KHZ Kilohertz

KVA Kilovolt Ampere

LGHTNG Lightning
LMP Lamp
LO Lock Out

LP Lightning Protector
LPT Low Pressure Turbine
LRRA Low Range Radio Altimeter
LRU Line Replaceable Unit

LSDA Low Speed Digital To Analog

M Mach



M MUX Main Multiplexer

MAI Multiplexer Action Item

MAWEA Modularized Avionics and Warning Electronics Assembly

MC* Master Change

MCDP Maintenance Control and Display Panel MCDU Multipurpose Control and Display Unit

MCP Mode Control Panel MD&T Master Dim and Test

MGSCU Main Gear Steering Control Unit
MHRS Magnetic Heading Reference System

MHZ Megahertz

MIDU Multipurpose Interactive Display Unit

MKR BCN Marker Beacon

MLS Microwave Landing System

MNFST Manifest

MOSFET Metallic Oxide Semiconductor Field Effect Transistor

MR* Modification Revision

MTCHG Matching
MTG Muting
NBR Number

ND Navigation Display

NGT Night

OAP Output Audio Processor

OFCR Officer
OFL Outflow

OMS Onboard Maintenance System

OOEU Outboard Overhead Electronics Unit
OPAS Overhead Panel ARINC 629 System
OPBC Overhead Panel Bus Controller

OVDR Overdoor
OVFL Overfill
OVHT Overheat
OVWG Overwing

PA Passenger Address

PA/CI Passenger Address/Cabin Interphone

PCH Patch PCT Percent

PDU Power Drive Unit

PES Passenger Entertainment System



PFC Primary Flight Computer
PFD Primary Flight Display

PFIDS Passenger Flight Information Display System

PIS Passenger Information Sign

PKG Parking

PMA Permanent Magnet Alternator
PMG Permanent Magnet Generator
PMS Performance Management System

POR Point of Regulation

PRCLR Precooler
PROT Protection

PRR* Production Revision Record

PRSOV Pressure Regulating Shut-Off Valve

PSA Power Supply Assembly

PSEU Proximity Switch Electronics Unit

PSU Passenger Service Unit
PTT Press To Talk/Push To Talk

PVD Paravisual Display

PYL Pylon

QAM Quadrature Amplitude Modulation Unit

QAR Quick Access Recorder

QDT Quadrantal
RAT Ram Air Turbine

RDMI Radio Distance Magnetic Indicator

RDP Roller Drive Power
RDU Remote Display Unit

REP Repellent
RFLNG Refueling
RGLTN Regulation

RMCP Radio Management Control Panel

RR* Rapid Revision

RST Reset
RSV Reserve

RTC Rudder Trim Control

RVSG Reversing

RVT Rotational Variable Transformer

SAARU Standby Attitude/Air Data Reference Unit

SAT Static Air Temperature
SATCOM Satellite Communications



SB* Service Bulletin SCF System Cardfile

SCM Spoiler Control Module

SCU Seat Control Unit

SDI Source Destination Identifier

SEB Seat Electronics Box

SEB/ST Seat Electronics Box With Self Test

SEI Standby Engine Instruments

SEU Seat Electronics Unit

SHVR Shaver

SL* Service Letter

SN Sign SO Shut-off

SO Standard Option SPL Splice List

SRM Stabilizer Trim/Rudder Ratio Module

SUP-NUM Supernumerary SVU Seat Video Unit

SWDL Software Data Loader

SWL Sidewall

SWPM Standard Wiring Practices Manual

T/M Torque Motor
T/R Thrust Reverser
TAI Thermal Anti-Ice
TAT Total Air Temperature

TBV Turbine Bypass Valve
TCA Turbine Cooling Air

TCAS Traffic Alert and Collision Avoidance System

TCC Turbine Case Cooling
TDL Time Delay Logic
TDO Time Delay on Operate

TDX Torque Differential Transmitter

TERM BLK Terminal Block

TGT Turbine Gas Temperature

THSHD, THRSH Threshold

TL Tilt

TLA Thrust Lever Angle

TMC Thrust Management Computer
TMS Thrust Management System



TO Turn-off

TPIS Tire Pressure Indication System
TPMU Tire Pressure Monitor Unit

TR Torque Receiver
TR Transformer Rectifier
TRA Thrust Resolver Angle
TRC Thermatic Rotor Control
TRU Transformer Rectifier Unit

TS Terminal Strip
TTG Time To Go
TURB Turbulence

TX Torque Transmitter

UNLK Unlock

VBV Variable Bypass Valve VCC Video Control Center

VES Video Entertainment System
VGH Velocity, Gravity, Height
VIGV Variable Inlet Guide Vane

VLV Valve

VSI Vertical Speed Indicator VSV Variable Stator Vane

VTY Vanity

W/A Wrap Around WAI Wing Anti-Ice

WBA Wire Bundle Assembly
WEU Warning Electronic Unit
WF Fuel Flow (Weight of Fuel)

WF or wf Weight of Fuel

WHCU Window Heat Control Unit WIU Wire Integration Unit

WXR Weather Radar
XFD Crossfeed
XNT Transient

XPC External Power Contactor

XPNDR Transponder

ZMU Zone Management Unit

Where marked with an asterisk (*), see the GENERAL INFORMATION section, in the Wiring Diagram manual, for additional definition information.



1. EQUIPMENT LIST—GENERAL

Electrical and electronic equipment are shown on wiring diagrams and schematics with alphanumeric designators. These designators are used as cross-reference symbols to the Equipment List where the Part Numbers and Part Descriptions are shown. Splices, grounds, terminals and wire bundles are not included in the Equipment List.

A. Equipment List Data Fields

(a) EQUIP Field (Equipment Number)

The Equipment Number field may contain up to ten (10) alphanumeric characters. The Equipment Number always begins with a letter and may contain a space followed by another character.

NOTE: Equipment numbers 9000 through 9999 and 90000 through 99999 are reserved for customer use. Using these customer assigned equipment numbers facilitates identification of customer installed equipment. Customers should use only customer assigned equipment numbers, not Boeing assigned equipment numbers reported in the Equipment List.

The following list shows the categories assigned to the Basic Equipment Designators.

EQUIPMENT DESIGNATOR	TYPE OF EQUIPMENT
Α	Anti-Icing Controls
	Anti-Icing Equipment
	De-Icing Boots
	Ice Detector
	NESA Windows
	Pitot Heater
В	Black Box
С	Circuit Breakers
	Protective Equipment
D	Connectors
E	Equipment Racks
F	Fuel system components
G	Generator
GD	Grounds (Airframe)
Н	Overflow Categories, Miscellaneous Bundle Equipment
J	Junction boxes
L	Lamp Assemblies
	Lights, Lamps



EQUIPMENT DESIGNATOR	TYPE OF EQUIPMENT
continued	
M	Accessory Units
	Amplifiers
	Antenna
	Antenna Tuners
	Ballast Assemblies
	Batteries
	Bells
	Capacitors
	Chimes
	Computers
	Control Units
	Directional Gyros
	Filters
	Flux Valves
	Horns
	ILS Racks
	Lavatory Assemblies
	Motors
	Phase Adaptors
	Power Units
	Pumps
	Receivers
	Selcal
	Selcal Chimes
	Tape Recorders
	Transmitters
	Vertical Gyros
	Water Heaters
	Other Equipment
N	Indicators
Р	Panels
R	Potentiometer
	Rectifiers
	Relays
	Resistors
	Rheostats
S	Switches



EQUIPMENT DESIGNATOR	TYPE OF EQUIPMENT
continued	
SM	Splices (Within a bundle)
SP	Splices (Between bundles)
Т	Temperature Bulbs
	Terminal Strips
	Transformer
	Transmitters
ТВ	Terminal Blocks
V	Valves
Υ	Line Replaceable Units

1) An Equipment Fixture Code is identified when the Equipment Number contains a space followed by another character. The Equipment Fixture Code is typically an alphabetic character.

TYPE OF FIXTURE	FIXTURE CODES
Equipment Mating Connector Fixture (Clamps, Adapters, Backshell, etc.)	T, U, V
Inline Connector Fixtures: ●Receptacle Fixture ●Plug Fixture	K, L, M Q, R, S
Receptacle Identification Fixture: •Decal •Adapter •Plug Button •Cover	W X Y Z
Coaxial Tee's, Connector Fixture	T, U, V
Components of Purchased Assemblies	A-Z
Lights: Bulbs Connectors Caps Ballasts which are non-optional parts (unique part numbers) but serve alternate functions.	T, U, V D C A, B
Customer Designated Fixtures	Y, Z

(b) OPT Field (Option)

The Option field indicates if optional part numbers may be used, and if so, the order of preference.



1) Boeing "as delivered" Options:

When the OPT field is empty or a zero appears, no options are permitted due to systems or physical restrictions. A "1" indicates that options are available.

OPT	Option Available	
	No	
0	No	
1	First Option	
2	Second Option	
3	Third Option	

2) Customer Requested Options:

Customer requested options are used for the incorporation of post-delivery changes, such as Boeing Service Bulletins and Customer Originated Changes. Option "9" is used for the incorporation of these changes. When more than one option is available, the four allowed options are:

OPT	Option Available
9	First Option
8	Second Option
7	Third Option
6	Fourth Option

(c) PART NUMBER Field

The Part Number field provides the part number for the equipment item. It will be a unique number defined by either vendor, Military or Boeing drawing and/or specification.

(d) PART DESCRIPTION Field

The Part Description is derived from the actual use of the item or the title of its associated drawing or specification.

(e) USED ON DWG Field (Used On Drawing)

The Drawing that contains installation details for that part.

(f) VENDOR Field (Vendor Code)

For Vendor Code translation, refer to:

H4-1: Federal Supply Code for Manufacturers-Name to Code H4-2: Federal Supply Code for Manufacturers-Code to Name



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SPECIAL VENDOR CODE ASSIGNMENT

See the Vendor Codes section.

(g) QTY Field (Quantity)

The Quantity shown reflects the number of times each item is used on the airplane.

(h) DIAGRAM Field

The Diagram listed is the diagram or schematic on which the item appears. However, one item may be shown on more than one diagram or schematic.

(i) STATION/WL/BL Field (Location)

Location information is shown directly below the Vendor Code. If the equipment is located on or near a panel, equipment rack, disconnect panel or terminal block, that item is referenced for locations. All other equipment locations are shown by station line, water line, and buttock line. See the Manual Usage section for a more detailed explanation.

(j) EFFECTIVITY Field

This is a Boeing or a Customer assigned number to keep track of airplanes. An effectivity is presented as a single airplane or in a range, e.g., PP001-PP099 or 001-999 or AAA-ZZZ, covering several airplanes. The word "ALL" means that the item is applicable for all aircraft listed in the Effective Aircraft section.

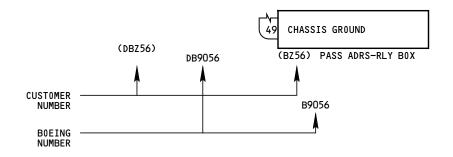
2. CUSTOMER ASSIGNED INCOMPATIBLE EQUIPMENT, WIRE AND BUNDLE NUMBERS

Customer assigned equipment item, wire and/or bundle numbers that are not compatible with the Boeing computer program will have an additional number assigned. This Boeing assigned number, will appear in the computer generated listings, i.e., Equipment, Wire, Ground, Splice, Terminal Strip and Hookup Lists.

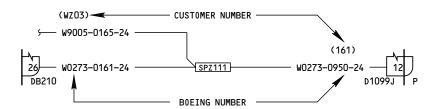
<u>NOTE:</u> On the wiring diagram, the customer assigned equipment item, wire and/or bundle numbers will be placed in parenthesis next to the Boeing assigned numbers.



CUSTOMER ASSIGNED EQUIPMENT ITEM NUMBER



CUSTOMER ASSIGNED WIRE AND BUNDLE NUMBER



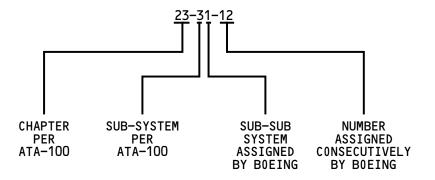


1. BASIC INFORMATION ABOUT WIRING DIAGRAMS

A. Wiring Diagram And Page Numbering

(a) Wiring Diagram Numbering

The Diagram numbering is in accordance with ATA Specification 2200 Revision 2001.1



The first three digits will be identical on diagrams and schematics.

NOTE: When a diagram is referenced to another, only the diagram number is used. Therefore, where there is more than one page of the same diagram, it is necessary to refer to the effectivity block to make certain the diagram applies to the airplane of interest.

(b) Diagram Page Numbering

Diagram page numbering begins at 1 then 2, 3 etc. Each page reflects different delivered configurations between aircraft. See the following example.

DIAGRAM	PAGE	EFFECTIVITY
21-31-12	1	001-004
21-31-12	2	005-999

The Page numbers (Page 1, 2, etc.) are used to represent different delivered configurations of a given schematic which may be applicable to different airplanes within the customer's fleet. When a page number has a suffix (e.g., 1A, 2A for Customer Originated Changes or 1.1, 2.1, etc. for Service Bulletins) it reflects a post-delivery configuration for the same airplane(s). Both the configuration delivered by Boeing and the configuration after modification remain in the manual until the airline notifies Boeing that the post-delivery change has been incorporated in the customer's entire fleet of that model, and requests Boeing to delete the obsolete configurations.

(c) Diagram Sheet Numbering

If Diagrams of the same circuit can not be shown on one sheet, they are shown on additional sheets having the same title, diagram number and page number.



When reference is made to a multisheet diagram, the sheets will be included in the reference.

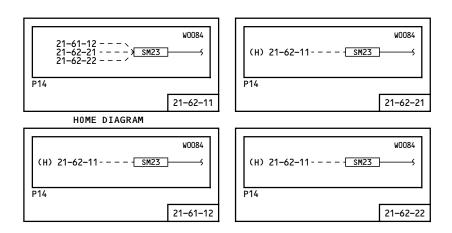
EXAMPLE:

34-11-11	34-11-11
SH 1	SH 3
34-11-11	34-11-11
SH 2	SH 4

B. Home Diagram

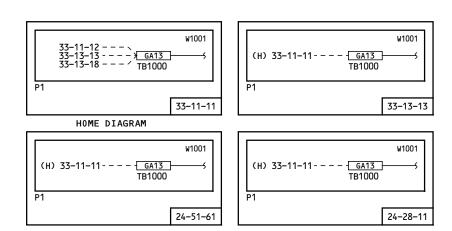
Any wire termination which is used for three or more wires shown on three or more wiring diagrams shall be assigned a "Home" diagram. The "Home" diagram shall indicate all connections on the termination and reference the diagram that shows the connection.

(a) Splices

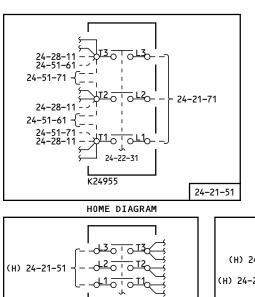


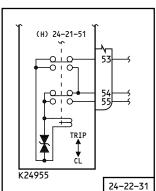


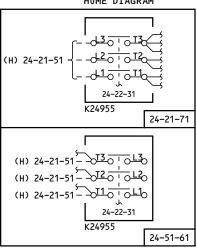
(b) Terminal Blocks

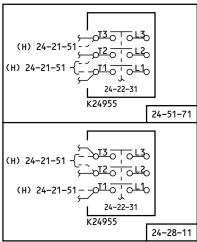


(c) Relays (The Mechanical Linkage is referenced to the diagram containing the control circuit)



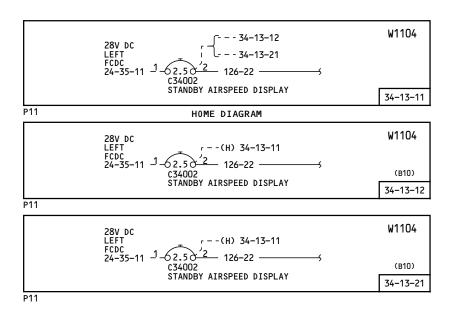








(d) Circuit Breaker

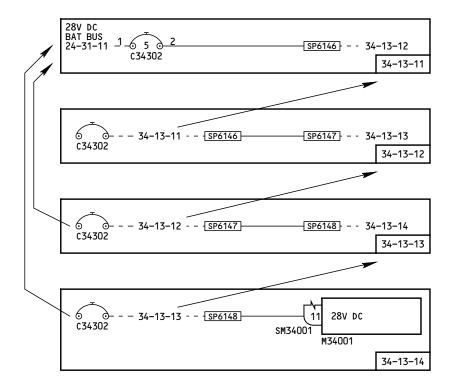




C. Power and Ground Indication

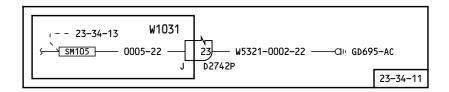
(a) Power Source Indication

The circuit breaker symbol, equipment designator, nomenclature and grid location, and diagram number of power source, are shown for circuits which are routed through connectors, splices and terminals.



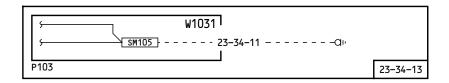
(b) Ground Indication

The diagram detailing the complete ground circuit may contain references to other diagrams.



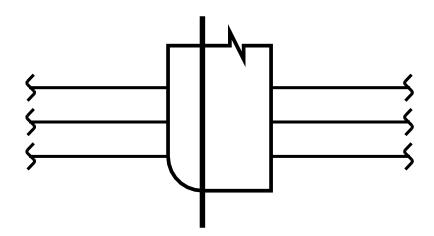


The referenced diagrams contain the ground symbol and a reference to the diagram which depicts the complete ground circuit.



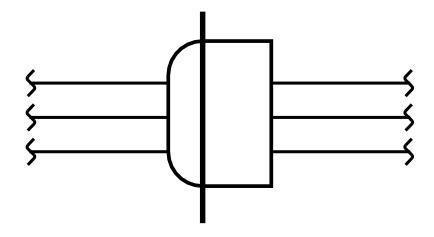
D. Connector Symbols

Connector symbols are shown broken when the same connector is shown elsewhere on that or another diagram.





Connector symbols are shown complete when all used contacts are shown on one diagram.

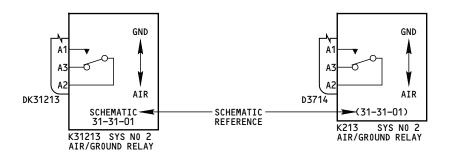


E. Galleys and Lavatories

Wiring Diagrams will show Boeing wiring to the interface with the galley and lavatory units.

F. Schematic References Shown on Wiring Diagrams

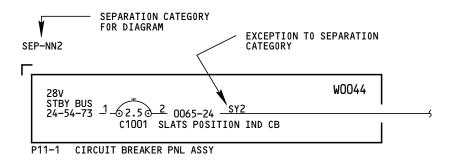
An ATA number on Wiring Diagrams shown with the word SCHEMATIC, SCHEM, or in parentheses within modules, is a Schematic reference. See the following example.





G. Wire Separation Identification

- (a) The wire separation category assigned to the majority of wires on a diagram is shown in the upper left hand corner of each diagram, e.g., SEP-NN2. Wires on a diagram not part of that category are individually labeled.
- (b) The actual code definitions may be found in the Codes section of the Introduction.
- (c) These wire separation codes are intended for production use. Chapter 91-21-13 Master Bundle List includes the wire separation codes. The lack of a wire separation code on a diagram does not indicate there is no wire separation required. Consult the Master Bundle List for the wire separation assigned to the bundle.





1. CHARTS

The Chapter 91 Charts contain airplane station arrangements, wire zones, major wire bundle pathways, panel and equipment shelf locations, circuit breaker panel charts, disconnect bracket charts and Master Bundle information.

2. LISTS

The Chapter 91 Lists are numbered as follows:

91-02-00	 Circuit Breaker List
91-04-00	 Bracket List
91-21-11	 Wire List
91-21-12	 Spare Wire List
91-21-13	 Master Bundle List
91-21-21	 Ground List
91-21-31	 Splice List
91-21-41	 Terminal Strip List
91-21-51	 Hookup List

The following paragraphs in this section define the contents of Chapter 91 Lists. The Wire List is the Primary source for Spare Wire through Hookup Lists.

A. Circuit Breaker List—Chapter 91-02-00

- (a) The Circuit Breaker List reflects all the circuit breakers within an airplane and is derived from data contained in the Equipment List. It lists, in alphanumeric order, each Panel/Access Door, the Description and the Diagram of that panel.
- (b) For each Panel/Access Door the grid location (Grid No), the circuit breaker number (Ckt Bkr), circuit breaker label (Description), Diagram and Effectivity are listed.
- (c) Unused grid locations are not listed.
- (d) The Circuit Breaker List is used as supplemental data for all Chapter 91-02-XX Panel Charts containing circuit breakers.

B. Bracket List—Chapter 91-04-00

- (a) The Bracket List reflects all the disconnect brackets within an airplane and is derived from data contained in the Equipment List. It lists, in alphanumeric order, each disconnect bracket (BRACKET NO.), title (DESCRIPTION), EFFECTIVITY, and where the information is available: maximum number of positions (MAX POS), and location (STATION/WL/BL).
- (b) Each POSITION within a bracket, that is being used, is listed, followed by the mounted receptacle number (RECEPTACLE) and its wire bundle number (BUNDLE), the mating plug (PLUG) and wire bundle number (BUNDLE) and the EFFECTIVITY.

- (c) Positions not containing connectors are not listed but can be determined by viewing the graphical representation of the bracket in the 91-04-XX Disconnect Bracket Charts. In general, brackets with numerically numbered positions (001, 002, 003...) are consecutively numbered and any omitted number is likely present on the bracket but unused. On brackets with alphanumeric grid positions (A01, A02, B04, C07...) are probably approximately rectangular with the alpha part representing one axis of the grid and the numeric part representing the other axis of the grid. In those cases, the positions are generally going to be numbered in a consistent rectangular grid method (A01, A02, ... A05, B01, B02, ... B05, ... F01, F02, ... F05). Any positions in this pattern that are not listed as used are likely on the bracket but unused. Some bracket positions are also numbered with strictly alphabetical values (A, B, C, F, G...). In all of these cases, it is necessary to reference the graphical representation of the bracket to be sure of the existence of a particular unused bracket position.
- (d) The Bracket List is used as supplemental data for all 91-04-XX Disconnect Bracket Charts.

C. Wire List—Chapter 91-21-11

The Wire List reflects all the wire bundles within an airplane. It lists, in alphanumeric order, each Bundle Number (Bundle No.), Part Number, Description and the wires within each bundle.

(a) BUNDLE NO. Field (Wire Bundle Number)

Each wire bundle is given an item number beginning with "W". This item number is the first part of the wire number and is derived from the wire bundle drawing number. The four digits XXXX of the item number is the wire bundle number. The first part of the wire number thus becomes WXXXX.

Wire bundle numbers W9001-W9999 are reserved for customer use.

(b) PART NUMBER and DESCRIPTION Fields

The wire bundle part number is derived from the wire bundle drawing number. A description of the bundle follows the part number.

(c) WIRE No./GA/CO Field (Wire Number/Gauge/Color)

A typical wire number consists of the wire identifier and gauge. A color designator may appear at the end of the wire identifier or gauge number. For wires without a color designator, refer to SWPM 20-00-13 for the standard color. See Paragraph 3, for wire number details.

The wire numbers are physically printed or stamped on each wire and are also used on the Wiring Diagrams to identify the wires.

Wire numbers 901-999 and 9001-9999 are reserved for customer use.

(d) TY Field (Wire Type)

The Wire Type code is a two-character identifier for the type of wire used. These codes are described in 20-00-13 of the Standard Wiring Practices (Chapter 20).



(e) Fam Field (Wire Family)

Multi-conductor wires such as twisted or shielded wires are grouped as a family of wires. Each family of wires is given a code which is unique per bundle. Therefore, the family code is used to denote that some wires are physically related to each other either by being twisted together or by sharing the same shield or jacket. Family codes are assigned a code between A-ZZ.

(f) FT-IN Field (Wire Length)

1) The length of the wire is shown in this field.

Critical lengths and tolerances will be shown on diagrams for applicable wires or bundles.

Measure the wire length from the connector face or terminal ring centerline to the connector face or terminal ring centerline at the opposite wire end.

2) A wire without a length will appear if it is part of a family of wires. The length for this particular wire is usually specified on the lowest wire number in that family group.

(g) DIAGRAM Field (Diagram Reference)

1) The numbers in this field reflect the diagram on which the wire appears. The diagram references apply to any functional, ARINC Spare, or System Spare wire. These wires will not be shown on the wire diagram and are not spare wires.

MOTE: The diagram reference "99-99-99" is used for the wire bundle manufacturing process (e.g., Stub wires or wires to maintain pin circuit separation).

- 2) Spare wires may be found in the Chapter 91 Wire List, Ground List, Terminal Strip List, Splice List and Hookup List with "SPARE" in the DIAGRAM field. These spare wires may be used by the customer for Kit and Service Bulletin incorporations by assigning diagram numbers to those particular wires used.
- 3) Boeing identifies wires as spare that are no longer functional but may remain in a bundle. These wires will be identified in the Chapter 91 Lists as "SPARE*", and the wires will be deleted from the diagrams. These wires are available for customer use on an individual airplane basis. Boeing may choose to delete or re-use these wires.

(h) EQUIP From and To Field (Equipment Number)

There are two EQUIP fields, one for each end of the wire. Any item designator found in this field, other than splices and grounds, will be defined in the Equipment List.

(i) TERM From and To Field (Terminal Number)

There are two TERM fields, one for each end of the wire. The contact identifiers in these fields are typically alphanumeric characters.

- 1) An equal sign (=) appearing ahead of the identifier means no identification is to be found on the part and the identifiers used are for hookup and test purposes.
- "REF" is used to indicate a termination in the vicinity of, but not in, the splice or terminal indicated in the EQUIP field. It may be used with an SP number instead of SPREF in the EQUIP field.



- 3) "DED" indicates the shield is dead ended and not terminated by pigtail or jumper wire.
- 4) "CAP" indicates a wire terminated by an end cap near the equipment shown.
- 5) Ground terminations are shown as A., AC Ground; D., DC Ground; S., Static or Shield or Special Ground.
- 6) Color codes represent the pin identification codes of colored pigtails from vendor furnished equipment. See Paragraph 3.B(4) for TERM color codes. The wire number associated with the pigtails are in the form A-A thru Z-9.
- 7) Pin and socket lower case letter identifiers are indicated by an upper case letter followed by a minus sign (-), (e.g. F- = f).
- 8) The following are special shield terminations:
 - PER-S280W605 Backshell Zero Inch Termination
 - PERB-S280W603 Backshell Zero Inch Termination
 - PERG-S280W601 Multi Insert Ground Block 3 Inch Maximum
 - S/R-Strain Relief 2 Inch Maximum
 - G-Terminal Track Ground 2 Inch Maximum

(j) Type Field From and To (Terminal Type)

The Terminal Type codes appearing in this field are defined in the CODES section identifying:

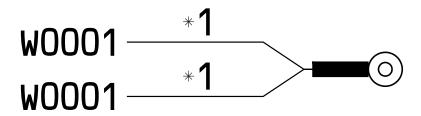
- 1) Codes for Lug (Stud) size (diagram symbol depicted).
- 2) Codes for Special Terminals.
- 3) Codes for Special Contacts.

(k) SPLICE Field From and To (Splice)

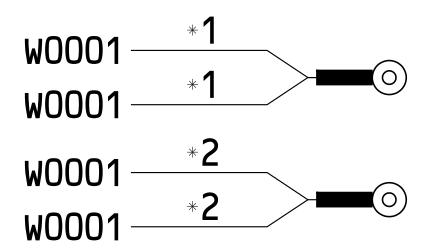
This field shows conditions under which the connection is made:



1) * In the splice field indicates two or more wires terminate in the same attaching device, i.e., lug, pin, or solder terminal (not used on SP or SM splices).



2) * 1, * 2, * 3 designate which wires appear in which single device, i.e., * 1 wires are lugged together; * 2 wires are lugged together in a second lug and * 3 wires are lugged together in the third lug.



3) Ferrule groups or shielded wires with shields tied together with jumpers are identified as a common terminus by a two letter F() code. All shields with an "FA" in either SP field are common.



Sometimes a jumper wire number FR-() is used to connect the FA shields and a termination such as a pin in a connector or to a ground. Jumper FRAA is required to terminate FA, jumper FRAB is required for FB and so on.

4) Shields terminating in a splice will show "A", "B", and so on, in the SP field. The wire from the splice to another termination will be numbered "JPA", "JPB", and so on.

(I) EFFECTIVITY Field

This is a Boeing or a Customer assigned number to keep track of airplanes. An effectivity is presented as a single airplane or in a range, e.g., PP001-PP099 or 001-999 or AAA-ZZZ, covering several airplanes. The word "ALL" means that the item is applicable for all aircraft listed in the Effective Aircraft section.

D. Spare Wire List—Chapter 91-21-12

- (a) The Spare Wire List reflects all spare wires within the airplane. Spare Wires are reported in order by From Matewith Equipment, Position Number on that Equipment, the Wire Bundle Number, then Wire Bundle Separation Code, From Terminating Equipment Number, and Wire Number.
- (b) Additional information provided in the Spare Wire List is Wire Bundle Description, Terminal Number on the From Equipment, Terminal Type on the From Equipment, the Wire Gauge, Wire Type, To Equipment Number, Terminal Number on the To Equipment, Terminal Type on the To Equipment, the To Matewith Equipment, the Position on the To Matewith Equipment, and Effectivity.

E. Master Bundle List—Chapter 91-21-13

- (a) The Master Bundle List reflects all wire bundles within the airplane. Master Bundle List is reported in Bundle number order with the corresponding Separation Code and Description.
- (b) (h) The Equipment field contains the Equipment Item Number of the ends of that Wire Bundle. The Matewith field contains the Equipment Item Number where the end equipment mates with. The LOCATION may contain position, Panel numbers or Station/Water/Buttock line information. The MW Connector field contains the Equipment number of the mating connector. The MW Bundle field contains the Bundle number for the MW Connector.

F. Ground List—Chapter 91-21-21

- (a) The Ground List reflects two types of airframe grounds used within an airplane. Ground Blocks (GB) are used only in pressurized areas, while Ground Studs (GD) are used in both pressurized and non-pressurized areas. Grounds on shelves and panels (GDM, GDX, GDY, GDZ, GBX, GBY, and GBZ) are not listed as they are unique within a specific shelf or panel.
- (b) Ground List reflects all grounds within the airplane. The Ground List is reported in alphanumeric order, with the corresponding Part Number and Location.
- (c) The detail rows below the Ground number contain Termination number, Termination type, Wire bundle number, Wire number within that bundle, wire gauge and color of that wire, diagram reference and effectivity.



G. Splice List—Chapter 91-21-31

- (a) The Splice List reflects all splices (SP) unique within an airplane. Splices (SP) are used when connecting wires from other wire bundles and vendor wires within the same wire bundle. Smoos (SM) are not listed as they are unique within a single wire bundle.
- (b) Splice List reflects all splices within an airplane. The Splice List is reported in alphanumeric order, with the Location (Station/WL/BL).
- (c) The detail rows below the Splice number contain Wire bundle number, Wire number within that bundle, wire gauge, color of that wire, type of wire and the diagram reference, and effectivity.

NOTE: Yellow flag markers may be observed throughout the ships wiring that indicate rework or repair that occurred during the build process prior to airplane delivery. The authority for the splice and/or tape wrap is indicated on the flag marker. These splices will not be shown in the Wiring Diagram Manual (WDM).

H. Terminal Strip List—Chapter 91-21-41

- (a) The Terminal Strip List reflects all the terminal strips within an airplane. The Terminal Strip List is reported in alphanumeric order with their part number and location (STATION/WL/BL).
- (b) The detail rows below the Terminal Strip number contain the terminal block fixture identifier, each terminal on a strip, the terminal type, the wire bundle number, the wire number, the gauge and color, the diagram depicting each wire and the effectivity for each wire.
- (c) The fixture (FIX) field reflects the type of terminal block installed on a terminal strip. The various types of terminal blocks are shown in the Symbols section.
- (d) The term G reflects the wire terminating at the integrated grounding module part of the terminal track.

I. Hookup List—Chapter 91-21-51

(a) The Hookup List reflects all wire terminating devises except grounds, splices, terminal strips and single-phase circuit breakers within an airplane. The Hookup List reports the Equipment in alphanumeric order with their location (STATION/WL/BL) and Description.

Single-phase (one circuit) circuit breakers are not listed for two primary reasons:

- Each unit is shown complete on the affected diagram. Hookup List data would be redundant.
- 2) The benefits to be derived from listing the units would not justify the increased size of the manual.
- (b) The detail rows below the Equipment contain the terminals on these devises and the terminal type. The wire bundles, their wire numbers, gauge and color terminating at each terminal is listed along with the diagram on which the terminal is depicted and its effectivity.



3. EXPLANATION OF WIRE NUMBERING AND COLOR CODES FOR THE CHAPTER 91 LISTS (91-21-11 THRU 91-21-51)

A. Wire Numbering

Wire serial numbers are wire bundle unique and are generally chosen from the following categories:

NOTE: Wire numbers reserved for Airline use are 901-999 and 9001-9999, based on the existing wire number patterns in a given Wire bundle. For example: Wire numbers with three numerics will use 901-999 and Wire numbers with four numerics will use 9001-9999.

CATEGORY	WIRE NUMBER
Fiber Optic	0001FO-0999FO
Single	0001-1999 5501-6999 8000-8990
Twisted Pair	2001B-2999B 2001R-2999R
Twisted Triple	3001B-3999B 3001R-3999R 3001Y-3999Y
Twisted Quad	4001B-4499B 4001G-4499G 4001R-4499R 4001Y-4499Y
Double Isolated Shields Inner Shield Outer Shield	NNNNZI NNNNZO
Special Wires (high temperature, thermocouple, etc.)	4501-4999 4501AA-4999YY
Overflow for Twisted Pair	5001B-5499B 5001R-5499R
Reserved for Wire Kits	7001-7999
Reserved for airlines	9001-9999
Coaxial cable (Shield)	001CX-999CX 001CO-999CO
Twinax cable (Shield)	001X2-999X2 001CP-999CO
Triaxial cable (Inner shield) (Outer shield)	001TX-999TX 001TI-999TI 001TO-999TO
Cable Assembly shielded with overall shield	8991-8999
Vendor Furnished Wires	A-A through Z-ZZ 1-1 through 8-99
Vendor Furnished Wires reserved for airlines	9-1 through 9-99
Shield pigtail wires	FRAA-FRZ9



CATEGORY	WIRE NUMBER
continued	
Separation Sleeving Protective Sleeving	S001-S999 P001-P999
Braid over bundle	YAAA-YZZZ
Polarizing plug in relay sockets Reserved for airlines	PA01-PY99 PZ01-PZ99
Bus bars: For terminal strips Insulated for circuit breakers Jumpers for circuit breakers	ZZQA-ZZWZ ZZAA-ZZPZ ZZXA-ZZZZ

B. Wire Color Codes

The following is a list of single character color codes used on the wire.

CODE
Α
В
G
K
L
N
0
P
R
Т
U
V
W
Υ

Wires may be identified by color instead of wire numbers.

WIRE COLOR	WIRE NUMBER
Black/Blue	KB
Black/Brown	KN
Black/Green	KG
Black/Gray	KA
Black/Orange	KO
Black/Red	KR
Black/Violet	KV
Black/Yellow	KY

CHARTS AND LISTS



continued Blue/Black BK Blue/Brown BN Blue/Green BG Blue/Orange BO Blue/Pink BP Blue/Purple BL Blue/Green/Black AC Brown/Orange NO Orange/Black OK Orange/Brown ON Orange/Yellow OY Red/Black RK Red/Blue RB Red/Green RG Red/Orange RO Red/Pink RP Red/Purple RL Red/Yellow RY Red/Yellow/Green AB White/Blue WB White/Brown WN White/Gray WA White/Grap WG White/Purple WL White/Pluk WP White/Plod WR White/Black/Nolet WR White/Black/Volet AL White/Black/Vollot AL	WIRE COLOR	WIRE NUMBER
Blue/Brown BN Blue/Green BG Blue/Orange BO Blue/Orange BO Blue/Purple BP Blue/Green/Black AC Brown/Orange NO Orange/Black OK Orange/Brown ON Orange/Yellow OY Red/Black RK Red/Blue RB Red/Brown RN Red/Green RG Red/Orange RO Red/Pink RP Red/Purple RL Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Brown WN White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Plow WR White/Plow WR White/Black/Red AG White/Black/Volet AL White/Black/Yellow AM	continued	
Blue/Green BG Blue/Orange BO Blue/Pink BP Blue/Purple BL Blue/Green/Black AC Brown/Orange NO Orange/Black OK Orange/Prown ON Orange/Yellow OY Red/Black RK Red/Blue RB Red/Brown RN Red/Green RG Red/Orange RO Red/Purple RL Red/Purple RL Red/Yellow/Green AB White/Black WK White/Brown WN White/Gray WA White/Grape WG White/Orange WO White/Pink WP White/Plow WR White/Black/Yellow WR White/Black/Yellow WY White/Black/Yellow AG White/Black/Yellow AM	Blue/Black	ВК
Blue/Yellow BY Blue/Orange BO Blue/Pink BP Blue/Purple BL Blue/Green/Black AC Brown/Orange NO Orange/Black OK Orange/Brown ON Orange/Yellow OY Red/Black RK Red/Blue RB Red/Brown RN Red/Brown RN Red/Green RG Red/Pink RP Red/Pink RP Red/Purple RL Red/Yellow RY Red/Yellow/Green AB White/Blue WB White/Brown WN White/Gray WA White/Gray WA White/Orange WO White/Pink WP White/Red WR White/Plow WY White/Black/Yellow AG White/Black/Violet AL White/Black/Yellow AM <	Blue/Brown	BN
Blue/Orange	Blue/Green	BG
Blue/Pink BP Blue/Green/Black AC Brown/Orange NO Orange/Black OK Orange/Brown ON Orange/Yellow OY Red/Black RK Red/Blue RB Red/Brown RN Red/Green RG Red/Orange RO Red/Pink RP Red/Pink RP Red/Violet RV Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Brown WN White/Gray WA White/Gray WA White/Orange WO White/Pink WP White/Pink WP White/Red WR White/Pellow WY White/Black/Red AG White/Black/Volet AL White/Black/Yellow AM	Blue/Yellow	BY
Blue/Purple BL Blue/Green/Black AC Brown/Orange NO Orange/Black OK Orange/Yellow OY Orange/Yellow OY Red/Black RK Red/Blue RB Red/Brown RN Red/Green RG Red/Orange RO Red/Pink RP Red/Purple RL Red/Yurple RL Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Brown WN White/Gray WA White/Gray WA White/Orange WO White/Pink WP White/Ped WR White/Red WR White/Slack/Red AG White/Black/Violet AL White/Black/Violet AL White/Black/Violet AL	Blue/Orange	ВО
Blue/Green/Black AC Brown/Orange NO Orange/Black OK Orange/Brown ON Orange/Yellow OY Red/Black RK Red/Blue RB Red/Blue RB Red/Blue RB Red/Brown RN Red/Green RG Red/Orange RO Red/Pink RP Red/Purple RL Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Blue WB White/Brown WN White/Gray WA White/Gray WA White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Vellow WY White/Black/Red AG White/Black/Yellow AM	Blue/Pink	BP
Brown/Orange NO Orange/Black OK Orange/Brown ON Orange/Yellow OY Red/Black RK Red/Blue RB Red/Brown RN Red/Brown RN Red/Green RG Red/Orange RO Red/Pink RP Red/Purple RL Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Blue WB White/Brown WN White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Violet WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	Blue/Purple	BL
Orange/Black OK Orange/Prellow ON Orange/Yellow OY Red/Black RK Red/Blue RB Red/Brown RN Red/Green RG Red/Orange RO Red/Pink RP Red/Purple RL Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Blue WB White/Gray WA White/Gray WA White/Orange WO White/Purple WL White/Purple WL White/Red WR White/Yellow WY White/Black/Red AG White/Black/Yellow AM	Blue/Green/Black	AC
Orange/Brown ON Orange/Yellow OY Red/Black RK Red/Blue RB Red/Brown RN Red/Green RG Red/Orange RO Red/Pink RP Red/Purple RL Red/Yurple RV Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Brown WN White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Yellow WY White/Slack/Red AG White/Black/Yellow AM	Brown/Orange	NO
Orange/Yellow OY Red/Black RK Red/Blue RB Red/Brown RN Red/Green RG Red/Orange RO Red/Pink RP Red/Purple RL Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Blue WB White/Brown WN White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Yellow WY White/Slack/Red AG White/Black/Violet AL White/Black/Yellow AM	Orange/Black	ОК
Red/Black RK Red/Blue RB Red/Brown RN Red/Green RG Red/Orange RO Red/Pink RP Red/Purple RL Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Brown WN White/Gray WA White/Green WG White/Pink WP White/Pink WP White/Purple WL White/Red WR White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	Orange/Brown	ON
Red/Blue RB Red/Brown RN Red/Green RG Red/Orange RO Red/Pink RP Red/Purple RL Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Brown WN White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Violet WV White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	Orange/Yellow	OY
Red/Brown RN Red/Green RG Red/Orange RO Red/Pink RP Red/Purple RL Red/Violet RV Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Blue WB White/Brown WN White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Violet WV White/Slack/Red AG White/Black/Red AL White/Black/Violet AM	Red/Black	RK
Red/Green RG Red/Pink RP Red/Purple RL Red/Violet RV Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Brown WN White/Gray WA White/Orange WG White/Pink WP White/Purple WL White/Red WR White/Yellow WY White/Black/Red AG White/Black/Yellow AM	Red/Blue	RB
Red/Orange RO Red/Pink RP Red/Purple RL Red/Violet RV Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Blue WB White/Brown WN White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Violet WY White/Slack/Red AG White/Black/Red AL White/Black/Yellow AM	Red/Brown	RN
Red/Pink RP Red/Purple RL Red/Violet RV Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Blue WB White/Brown WN White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Violet WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	Red/Green	RG
Red/Purple RL Red/Violet RV Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Blue WB White/Brown WN White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	Red/Orange	RO
Red/Violet RV Red/Yellow RY Red/Yellow/Green AB White/Black WK White/Blue WB White/Brown WN White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Violet WV White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	Red/Pink	RP
Red/Yellow/Green AB White/Black WK White/Blue WB White/Brown WN White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	Red/Purple	RL
Red/Yellow/GreenABWhite/BlackWKWhite/BlueWBWhite/BrownWNWhite/GrayWAWhite/GreenWGWhite/OrangeWOWhite/PinkWPWhite/PurpleWLWhite/RedWRWhite/VioletWVWhite/YellowWYWhite/Black/RedAGWhite/Black/VioletALWhite/Black/YellowAM	Red/Violet	RV
White/Black WK White/Blue WB White/Brown WN White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Violet WV White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	Red/Yellow	RY
White/Blue WB White/Brown WN White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Violet WV White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	Red/Yellow/Green	AB
White/Brown WN White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Violet WV White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	White/Black	WK
White/Gray WA White/Green WG White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Violet WV White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	White/Blue	WB
White/GreenWGWhite/OrangeWOWhite/PinkWPWhite/PurpleWLWhite/RedWRWhite/VioletWVWhite/YellowWYWhite/Black/RedAGWhite/Black/VioletALWhite/Black/YellowAM	White/Brown	WN
White/Orange WO White/Pink WP White/Purple WL White/Red WR White/Violet WV White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	White/Gray	WA
White/Pink WP White/Purple WL White/Red WR White/Violet WV White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	White/Green	WG
White/Purple WL White/Red WR White/Violet WV White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	White/Orange	WO
White/Red WR White/Violet WV White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	White/Pink	WP
White/Violet WV White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	White/Purple	WL
White/Yellow WY White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	White/Red	WR
White/Black/Red AG White/Black/Violet AL White/Black/Yellow AM	White/Violet	WV
White/Black/Violet AL White/Black/Yellow AM	White/Yellow	WY
White/Black/Yellow AM	White/Black/Red	AG
	White/Black/Violet	AL
White/Blue/Black AK	White/Black/Yellow	AM
	White/Blue/Black	AK

CHARTS AND LISTS



WIRE COLOR	WIRE NUMBER
continued	
White/Blue/Yellow	AA
White/Brown/Red	AH
White/Green/Red	AJ
White/Red/Blue	AD
White/Yellow/Red	AE
White/Purple/Red	AF
Yellow/Black	YK
Yellow/Green	YG
Yellow/Orange	YO
Yellow/Purple	YL

PSU Feeder Bundle Coloring:

In most airplanes, the wires in the PSU Feeder Bundles are identified by wire.

C. PSU Feeder Bundle Coloring

COLOR	
Black	
Brown	
Green	
Orange	
Purple	
White	
White/Blue	
White/Green	
White/Orange	
White/Red	
White/Violet	
White/Yellow	



1. WIRE TYPE CODE

This information is covered in Chapter 20, Standard Wiring Practices, Section 20-00-13.

2. VENDOR CODE

For Vendor Code translation, refer to:

H4-1: Federal Supply Code for Manufacturers-Name to Code H4-2: Federal Supply Code for Manufacturers-Code to Name

H4-3: Nato Supply Code for Manufacturers-Name to Code/Code to Name

Published by:

Defense Supply Agency Defense Logistics Services Center Federal Center Building Battle Creek, Michigan 49016

VENDOR CODE	SPECIAL VENDOR CODE ASSIGNMENT	
V96906	Parts having Military Part Numbers	
VAAL	American Airlines Inc. Tulsa, Oklahoma	
VAB	Coastal Mfg. Co. Santa Monica, California	
VAC	Safety Industries Inc. Glen Ellyn, Illinois	
VAD	Glarban Corp. Gordonville, N.Y.	
VAE	Ucinite Co., The Los Angeles, California	
VAF	Air France 1 Square Max Hymans 75, Paris 15, France	
VAI	Industrial Products Co. Gardena, California	
VAJ	Bozak Sales Co. Salisbury, Connecticut	
VAO	Teddington Controls Ltd. Tydfil, South Wales	
VARINC	Arinc	
VARMED	Airmed Ltd. Edinburgh Way Harlow, Essex, England	
VAZ	Murphy Radio Ltd. Welwyn Garden City Hertfordshire, England	



WIRING DIAGRAM MANUAL

INTRODUCTION

VENDOR CODE	SPECIAL VENDOR CODE ASSIGNMENT
VENDOR CODE	

continued...

VBB United Data Control Inc.

Pasadena, California

VBC Holmberg and Co.

Ohlaur Strausse 5-11 Berlin, S036

VBD John E. Lindberg Co.

Berkely, California

VBF The Firewall Co.

Subsidiary of Aro Corpl Los Angeles, California

VBFE Buyer Furnished Equipment **VBG**

Societe Française D'Equipments

(SFENA) Siege

Social 25A 20 Rue Du Point Nevilly, Seine, France

VBH Ackerman, Albert, Firma

Akerman Albert.

Gummersback/Rhld.. Germany

VBJ Smiths Aviation Division

Cricklewood, London, England

VBJ Standard Telephones and Cables Ltd.

> Connaught House, 63 Aldwich West Central 2, London, England

VBM Associated Industries

Seattle, Washington

VBO H.K. Wilson Co.

Bellevue, Washington

VBP Brook Part Laboratories, Inc.

Cleveland, Ohio

Amplivox Ltd., Industrial Div. **VBR**

Beresford, Av. Wembley,

Middlesex, England

VBRZVA Bronzavia-S.A.

207 Blvd. Saint-Denis 92 Courbevoie, France

Cosser Electronics Limited **VCELRD**

Radar Division

The Pinnalces, Elizabeth Way Harlow, Essex, England

VDELTA Delta Air Lines, Incorporated

Harsfield-Atlanta International Airport Atlanta, Georgia 30320

VEIA Electronic Industries Association



VENDOR CODE	SPECIAL VENDOR CODE ASSIGNMENT	
continued		
VELNO	Elno 18 Rue Du Val Notre Dame 95 Argenteuil, France	
VEPS	Electric Power Storage, Ltd. P.O. Box 5 Clifton Junction Swenton, Manchester England, M272LR	
VFO241	Filotex 140 Rue Eugene-Delacroix 97210 Draveil France	
VGRVNR	Graviner Inc. 1121 Bristol Rd Mountainside, N.J. 07092	
VIMP	Inflight Motion Pictures, Inc. 23-06 31st Ave. Long Island City, New York 11106	
VJAEGR	Jaeger 2 Rue Baudin Levallois-Perret 92 France	

3. TERMINAL INFORMATION

The following index of "Term Type Codes" lists the code, a description of the code and the part number. The code index is arranged in the following order:

- Single alphabetical letter
- Double alphabetical letters
- Single alphabetical letter + symbol
- Single alphabetical letter + number
- Number + alphabetical letter
- Numbers
- Symbols

See Standard Wiring Practices (Chapter 20) for maintenance or repair information.

A. Single alphabetical letter

TERM TYPE CODE	DESCRIPTION OF THE CODE	PART NUMBER
Α	Terminal Lug, #2 Stud	BACT12AC43, 324158 or 329636
В	Terminal Lug, #4 Stud	BACT12AR/AC/S or 2-323914-2
С	Terminal Lug, #6 Stud	BACT12AC(), AR(), S() or 2-326875-4
D	Terminal Lug, #8 Stud	BACT12AC(), AR() or S()



TERM TYPE CODE	DESCRIPTION OF THE CODE	PART NUMBER
continued		
Е	Terminal Lug, #10 Stud	BACT12AC3, 8, 12, 15, 19, 70, 71, or BACT12S9
F	Terminal Lug, 1/4" Stud	BACT12AR() or AC()
G	Terminal Lug, 5/16" Stud	BACT12AR() or AC()
Н	Terminal Lug, 3/8" Stud	BACT12AR() or AC()
1	Terminal Lug, #6 Stud	BACT12AR(), AC() or 2-326875-4
J	Terminal Lug, #2 Stud	BACT12M()
K	Terminal Lug, High Temperature, #4 Stud	BACT12M()
L	Terminal Lug, High Temperature, #6 Stud	BACT12M()
M	Terminal Lug, High Temperature, #8 Stud	BACT12M()
N	Terminal Lug, High Temperature, #10 Stud	BACT12M()
Ο	Terminal Lug, 1/2" Stud	BACT12AC()
Р	Terminal Lug, High Temperature, 1/4" Stud	BACT12M()
Q	Terminal Lug, High Temperature, 5/16" Stud	BACT12M()
R	Terminal Lug, High Temperature, 3/8" Stud	BACT12M()
S	Splice, Butt	NAS1388-() or NAS1389-()
V	Splice, Moisture Seal, Temp Grade A or B, Shielded	See SWPM
W	Splice, Moisture Seal, Closed-end	See SWPM
Υ	Cap & Stow after Test	
Z	Terminal, Faston, .250"	2-520184-4 or 640903-1

B. Double alphabetical letters

TERM TYPE CODE	DESCRIPTION OF THE CODE	PART NUMBER
AB	Terminal, Faston, .250", White	42640-2 and 1-480416-0
AC	Terminal, Faston, .250", Blue	42640-2 and 1-480416-3
AD	Terminal, Faston, .250", Red	42640-2 and 1-480416-4
AG	Terminal Lug, Chromel, #6 Stud	AN5548-1
AH	Terminal Lug, Alumel, #6 Stud	AN5548-2
AW	Terminal Lug, Thick Tongue, #10 Stud	150247
AY	Terminal Lug, 60 Degree, 3/8" Stud	324103



TERM TYPE CODE	DESCRIPTION OF THE CODE	PART NUMBER
continued		
AZ	Terminal Lug, Miscellaneous	YAES18-L85
BC	Splice, End Cap	328308
BD	Splice, Parallel, High Temperature	2-34318-1
BH	Contact, Terminal Block	M39029/1-()-()
BJ	Contact, Terminal Block for BACM15C3()	M39029/11-145
BK	Contact, Manufacturer	60-1541-1
BM	Terminal Lug, Copalum, 1/4" Stud	277150-1
BN	Terminal, Faston, .062" Barrel	60900-1
BP	Splice, Parallel	NAS1387-3
BS	Terminal Lug, Copalum, Narrow Tongue, #10 Stud	277147-5
BT	Terminal Lug, Copalum, 3/8" Stud	277147-2
BU	Terminal Lug, Copalum, 1/4" Stud	277152-1
BV	Terminal, Faston, .110"	3-520370-2 or 640927-1
BX	Terminal, Faston, .110"	55319-1
BY	Terminal, Faston, .250"	41729 and 1-480416-0
CA	Contact, Coax, Pin	48-1226-02
СВ	Contact, Socket	CMP002-S103
CK	Terminal Lug, Flag, 1/4" Stud	YBM25-L1
CS	Stow With Protective Sleeving	
CT	Install & Stow, Contact	S280W555-916
CX	Terminal, Faston, .205"	640909-1
DD	Contact, Coax, Socket	249-1983-000
DG	Contact, Terminal Block	M39029/22-191
DN	Contact, Coax, Socket	BACC47EU4
FA	Ferrule, Fiber Optic	454819-162
FB	Ferrule, Fiber Optic	454900-162
FD	Ferrule, Fiber Optic	454819-145
GD	Splice, Copalum	277156-1
GJ	Splice, Copalum	277161-1
GS	Contact, Quick Disconnect	1841-1-5620
GU	Splice, Copalum	277164-1
GW	Terminal Lug, Nickel, High Temperature, #10 Stud	321894, 322338 or 323750
GX	Install Copalum In-Line Splice	See SWPM
GY	Terminal Lug, Nickel, High Temperature, 1/4" Stud	322320, 322341 or 323751



TERM TYPE CODE	DESCRIPTION OF THE CODE	PART NUMBER
continued		
HA	Terminal Lug, Flag, 3/8" Stud	BACT12G24
HC	Contact, Socket, Chromel	MS39029/86-512
HD	Contact, Pin	030-8400-500
HE	Contact	318-1616-253
HF	Contact, Socket, Alumel	MS39029/86-511
HG	Adapter, Solder	BACA14AB164
HH	Contact, Coax	349-0005-000
HL	Contact, Socket	031-8014-800
IA	Terminal Lug, 3/8" Dual Stud	YAV4C-2L38-NK
IX	Terminal Lug, Copalum, 1/4" Dual Stud	55836-1
JB	Install & Stow, Contact, Pin	BACC47CN1A
JD	Contact, Coax, Socket	BACC47EU1
JE	Install & Stow, Contact, Pin	BACC47CN3()
JK	Install & Stow, Contact, Socket	BACC47EG2
JS	Contact, Pin, Removable Splice	BACC47CN2
KA	Terminal Lug, #8 Stud	BACT12AL15 or 331456
LD	Terminal Lug, Hook Tongue, #8 Stud	32456
LF	Terminal Lug, Hook Tongue, #8 Stud	320381
LR	Terminal Lug, 90 Degree, #10 Stud	BACT12E()
LV	Terminal Lug, 45 Degree, 3/8" Stud	277069-1
LW	Splice, Removable	BACT12A()
OF	Set the Switch to the "OFF" Position	
ON	Set the Switch to the "ON" Position	
PP	Contact, Coax, Socket	21-33101-37
PQ	Contact, Coax, Pin	21-33102-37
RW	Splice, Moisture Seal, Closed-end	D436-60
TA	Contact, Socket, Alumel	031-1041-009
TC	Contact, Alumel	ZZL-4020-10R Pin or ZZL-4120-10R Socket
TD	Contact, Chromel	ZZL-4020-10P Pin or ZZL-4120-10P Socket
TE	Contact, Socket, Constantan	ZZL-4112-10N
TF	Contact, Pin, Constantan	ZZL-4012-10N
TG	Contact, Socket, Chromel	ZZL-4112-10P
TH	Contact, Socket, Alumel	ZZL-4112-10R
TJ	Contact, Pin, Chromel	ZZL-4012-10P
TK	Contact, Pin, Alumel	ZZL-4012-10R



TERM TYPE CODE	DESCRIPTION OF THE CODE	PART NUMBER
continued		
TL	Contact, Pin, Alumel	030-1879-009
TM	Contact, Pin, Chromel	030-1879-010
TU	Contact, Socket, Alumel	031-1113-009
TV	Contact, Socket, Chromel	031-1041-010
TW	Contact, Socket, Chromel	031-1113-010
VA	Contact, Coax	48-1227-54
VB	Contact, Coax	48-1226-54
VC	Contact, Special	66143-2LP
VG	Splice, Removable, Plug, with Pin	48-7190 or AIS16P, BACC47CN2 Pin
VJ	Contact, Socket	BACC47CP1T
VL	Splice, Moisture Seal, Shielded	See SWPM
VM	Install & Stow, Contact, Pin	BACC47EF1
VN	Contact, Socket, Shielded	10-60479-44
VP	Install & Stow, Contact	
VR	Splice, Removable, Plug, with Pin	48-7190-1 or AIS16P-1, BACC47CN2 Pin
VS	Splice, Removable, Receptacle, with Socket	48-7191-1 or AIS16R-1, BACC47CP2T Socket
VT	Splice, Removable, Plug, with Oversize Pin	48-7190 or AIS16P, 48-100-5021P Pin
VU	Splice, Removable, Receptacle, with Oversize Socket	48-7191 or AIS16R, 248-136-1614S-02 Socket
VV	Splice, Removable, with Oversize Socket	48-7191 or AIS16P-1, 48-100-5021P Pin
VW	Splice, Removable, Receptacle, with Oversize Socket	48-7191-1 or AIS16R-1,248-136-1614S-02 Socket
VX	Splice, Removable, with Pin	TSE-20-01 and 1841-1-5620 Pin
VY	Splice, Removable, Receptacle, with Socket	48-7191 or AIS16R, BACC47CP2() Socket
WI	Splice, Closed-end	35115 or 35653
XQ	Terminal Lug, Spade, #6 Stud	52420 or 52430
XR	Terminal Lug, Spade, #6 Stud	52409
ZA	Cap & Stow, Splice, Removable, Plug, with Pin	48-7190-1 and BACC47CN2 Pin
ZB	Cap & Stow, Splice, Removable, Receptacle, with Pin	48-7191-1 and BACC47CP2T Socket



C. Single alphabetical letter + symbol

TERM TYPE CODE	DESCRIPTION OF THE CODE	PART NUMBER
E*	Terminal Lug, Flag, #10 Stud	BACT12G81
E/	Terminal Lug, Copalum, Narrow Tongue, #10 Stud	277154-1
H*	Terminal Lug, Copalum, 3/8"Stud	277152-4

D. Single alphabetical letter + number

TERM TYPE CODE	DESCRIPTION OF THE CODE	PART NUMBER
E2	Terminal Lug, #10 Stud	324111
E3	Terminal Lug, #10 Stud	YAV14H
E6	Contact, Socket, Shielded	48-1227-02
E8	Terminal Lug, Copalum, #10 Stud	277147-1
F4	Terminal Lug, Copalum, 1/4" Stud	277149-2
F6	Terminal Lug, Copalum, Narrow Tongue, 1/4" Stud	277148-7 or 277154-2
F8	Terminal Lug, Flag, 1/4''Stud	BACT12G23
G3	Terminal Lug, Nickel, High Temperature, #8 Stud	321893, 322337 or 323749
G5	Terminal Lug, 5/16" Stud	324112
G7	Terminal Lug, Nickel, High Temperature, #6 Stud	321892 or 322332
H1	Terminal Lug, Copalum, 3/8" Stud	277151-2
H2	Terminal Lug, Copalum, 3/8" Stud	277150-3
H3	Terminal Lug, Copalum, 3/8" Stud	277153-1
H4	Terminal Lug, Copalum, 3/8" Stud	277149-4
H6	Terminal Lug, Copalum, 3/8" Stud	277148-4
H7	Terminal Lug, Flag, 3/8" Stud	BACT12G44
H8	Terminal Lug, Flag, 3/8" Stud	BACT12G102
J1	Contact, Coax, Socket	BACC47EU3
J3	Contact, Coax, Socket	S280W554-113
J5	Contact, Quadrax, Socket	BACC47GB1
V1	Splice Kit, High Temperature, Shielded	D-150-0251, -0252 or -0253
Z 1	Terminal, Faston, .110"	2-520081–2
Z2	Terminal, Faston, .058" Barrel	60789-2 or 640024-1
Z 3	Terminal, Faston, .187"	2-520194–2



E. Number + alphabetical letter

TERM TYPE CODE	DESCRIPTION OF THE CODE	PART NUMBER
1A	Contact, Terminal Block	S280W555-920
1C	Contact, Terminal Block	M39029/1-103
1D	Contact, Terminal Block	S280W555-918
1F	Contact, Terminal Block	M39029/58-360
1M	Contact, Socket	M39029/57-358
1N	Contact, Socket	M39029/57-359
4A	Contact, Pin, Alumel	5000-070-116
4B	Contact, Socket, Alumel	M39029/10-521
4C	Contact, Pin, Chromel	5000-070-216
4D	Contact, Socket, Chromel	M39029/10-522
4G	Contact, Pin, Alumel	ZZL-4016-10R
4H	Contact, Socket, Alumel	ZZL-4116-10R
4K	Contact, Pin, Chromel	ZZL-4016-10P
4L	Contact, Socket, Chromel	ZZL-4116-10P
4U	Terminal Lug, Chromel, #8 Stud	1-321897-0
4V	Terminal Lug, Alumel, #10 Stud	1-321898-0
5A	Contact, Coax, Socket	BACC47EN2
5E	Contact, Coax, Socket	BACC47EN1
5M	Contact, Coax, Pin	CQMEM-200()
5N	Contact, Coax, Socket	CQMEF-200
5P	Contact, Coax, 90 Degree, Pin	CMX010-P502
5Q	Contact, Coax, 90 Degree, Socket	CMX010-S502
70	Terminal Lug, Flag, 1/4" Stud	BACT12G-82
7T	Contact, Pin, Alumel	030-1878-007
7U	Contact, Pin, Chromel	030-1878-006

F. Numbers

TERM TYPE CODE	DESCRIPTION OF THE CODE	PART NUMBER
1	Contact, Terminal Block	S280W555-916
2	Contact, Terminal Block	BACC47DE()
4	Terminal Lug, 90 Degree, 1/4" Stud	BACT12E()
5	Terminal Lug, 90 Degree, 3/8" Stud	BACT12E()
8	Splice, Moisture Seal, High Temperature	See SWPM
9	Splice, Moisture Seal	See SWPM



TERM TYPE CODE	DESCRIPTION OF THE CODE	PART NUMBER
continued		
10	Contact, Oversize	P204540 Pin or P204541 Socket
14	Contact, Oversize	P208575-P Pin or P208575-S Socket
16	Contact, Oversize	31A-2016-035 Pin or P209439D Socket
18	Contact, Oversize	P209553D Pin or P209541D Socket
20	Contact, Socket, Oversize	100-2020S
22	Contact, Socket, Oversize	MS27491-22D
59	Contact, Coax Pin	1757624-1
62	Contact, Pin, Alumel	030–1975-009
63	Contact, Pin, Chromel	030–1975-010
69	Contact, Customer Installed	
98	Contact, Oversize #22	66169-2

G. Symbols

	TERM TYPE		
_	CODE	DESCRIPTION OF THE CODE	PART NUMBER
	-	Install & Stow, #4 Stud	BACT12AR()
	#	Install & Stow, Contact	BACC47DE()
	\$	Solder Connection	
	%	Install & Stow	M39029/11-145
	%A	Install & Stow	S280W555-920
	*	Install & Stow, #6 Stud	BACT12AC() or BACT12AR()
	+	Install & Stow, #8 Stud	BACT12AC() or BACT12AR()
	=	Install & Stow, #10 Stud	BACT12AC() or BACT12AR()

4. WIRE SEPARATION CATEGORY CODES

The Wire Separation Category is a three character code. Each character position is defined as follows:

- Power Separation
- Redundancy Separation
- EMC Separation

Power Separation Values	Redundancy Separation Values	EMC Separation Values
N-Neutral Circuits	N-No redundancy required	1–Source of Interference Circuits & Equipment
L-Left Power Circuits-Left Engine	A-1st, left or system	2-Passive Circuits & Equipment
R–Right Power Circuits-Right Engine	B-2nd (or Right) Redundant System Circuit	3–Sensitive (Susceptible) Circuits & Equipment



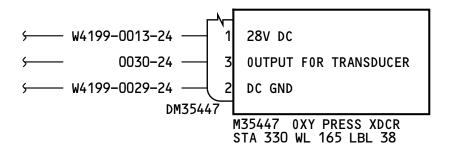
Power Separation Values	Redundancy Separation Values	EMC Separation Values
continued		
C-Center Power Circuits	C-3rd (or Center) Redundant System Circuit	
A–APU Control and Electric Power Circuits	D–4th Redundant System Circuit	
H–Hydraulic Motor Driven Generator		
S-Standby Power Circuits. Circuits powered by Battery, Hot Battery, and AC Standby Bus		



1. METHODS USED TO FIND INFORMATION

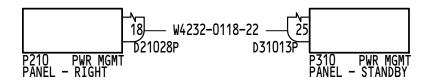
A. How To Locate A Diagram From A Wire Found In The Airplane

- (a) As an example, take wire number W4199-0013-24.
- (b) Knowing the wire bundle number W4199, refer to the Wire List in Chapter 91
- (c) Using Self Indexing wire list shown, locate wire bundle W4199.
- (d) Locate wire number 0013-24 and on the same line under the "Diagram" heading locate the diagram number 35-11-11.
- (e) Refer to Chapter 35 and locate the information needed on diagram 35-11-11.



B. How To Locate, In The Airplane, A Wire Found On A Wiring Diagram

- (a) Wire number W4232-0118-22 appears on Wiring Diagram 28-21-11.
- (b) Both ends of the wire are identified, disconnect D21028P at P210 panel and disconnect D31013P at P310 panel.



(c) Another method is to locate the bundle and wire number in the Wire List. The title of the bundle usually provides Station or Area for Airframe Bundles.



C. How To Locate Spare Wires Within A Wire Bundle

- (a) As an example, use wire bundle W487.
- (b) Knowing the wire bundle, refer to the Wire List in Chapter 91.
- (c) Using Self Indexing Wire List shown, locate wire bundle W487. In the "DIAGRAM' column you will find the wires that are spare wires are labeled "SPARE".
- (d) On the same line as the wire number, both end terminations will be indicated for all spare wires. (Check applicable airplane effectivity under the effectivity column.) Ground, Terminal Strip, Splice, and Hook-Up Lists will also show spare wires.
- (e) Spare wires are not shown on the wiring diagrams, only Airline Reserved Wires are shown, which are reserved for customer modifications.
- (f) Wires that become spare through an engineering change are identified by "SPARE" and are not part of the Customer spares equipment. Their use should be on an individual airplane basis.

D. How To Locate Unused Pins In A Connector

- (a) As an example use connector number DM31202A.
- (b) Knowing the connector number, refer to the Hook-Up List located Chapter 91
- (c) Using Self Indexing Hook-UP List shown, locate connector DM31202A.
- (d) Pin numbers 4-9 in the example are unused pins.

E. How To Determine The Number Of Pins In A Connector

- (a) To determine the number of pins in connector D01339J refer to the Equipment List.
- (b) Using Self Indexing Equipment List shown, locate connector D01339J.
- (c) To the right of D01339J the Part Number BACC45FN18-8P is shown. The number preceding "P" is 8 indicating there are a total of 8 pins in the connector.
- (d) For example, the graphic in the preceding section 1.D, connector DM31202A has 12 pins 6 used and 6 unused. For Non BACC45 type connectors, the number of pins in a connector can be determined by referring to:

Vendor Catalog

The number of pins in a BACC45 and a Non BACC45 type connector can also be determined by referring to the Hook-Up List.

F. Electrical Wiring Assembly and Installation Process How To Identify Lower Case Lettered Pins

Lower case lettered pins in disconnects are identified as A-.



G. How To Locate And Identify All Terminating Wires To A Terminal Strip

For a terminal module, the designator that represents all of the contact cavities in specific bus is the contact cavity with the lowest alphanumeric value. For example, if the bus indicator of the terminal module groups contact cavities A, B, and C, the item designator A is used to identify all three contact cavities.

- (a) As an example use Terminal Strip TB4301, and wires W5103-0002-*1 and W8100-0023-*1.
- (b) Knowing the terminal strip number TB4301, refer to Terminal Strip List in Chapter 91.
- (c) Using Self Indexing Terminal Strip List shown, locate terminal TB4301 at STA, WL, BL.
- (d) Locate the Wires terminating at Pins 2 as W5103-0002-*1 and W8100-0023-*1 and they are shown to be on diagram 24-21-11.
- (e) Refer to the Equipment List for complete information regarding TB4301.

H. How To Find The Remaining Wires Passing Through A Connector That Are Not Shown On The Particular Diagram Being Used.

- (a) As an example use connector DM31202A.
- (b) Note the connector equipment number and find that equipment number in the Hook-Up Charts as shown.
- (c) All wires in the connector are listed. The diagram for each wire is also shown.

I. How To Determine Splice Numbers Of Splices Found On The Airplane.

- (a) Determine the wire number of any wire terminating at the splice in question. As an example use wire number W0022-A-A.
- (b) Knowing the wire number, refer to the Wire List in Chapter 91-21-11.
- (c) Using the Self Indexing Wire List shown below, locate wire number W0022-A-A. Under the "EQUIP" column note the splice number SP00211.
- (d) The wiring diagram the splice is depicted on is listed under the "DIAGRAM" column. Refer to the Charts & Lists Section for more information.

NOTE: Yellow flag markers may be observed throughout the ships wiring that indicate rework or repair that occurred during the build process prior to airplane delivery. The authority for the splice and/or tape wrap is indicated on the flag marker. These splices will not be shown in the Wiring Diagram Manual (WDM).

J. How To Locate A Splice On The Airplane Which Is Shown On A Wiring Diagram

(a) There are several types of splices shown on wiring diagrams.

"SP" and "SPZ" splices connect wire from different wire bundles.

"SM" and "SMZ" splices connect wires of the same wire bundle.

"SPZ" and "SPZ" reflect customer assigned splice numbers.



- (b) "SP" and "SPZ" splice location information is derived from the Splice List in Chapter 91. For example, use "SP25005" and locate it in the self indexing Splice List shown.
 - 1) Read the station "STA", water line "WL", and buttock line "LBL" or "RBL".
 - 2) SP25005 is located at STA 1450, WL 300 and RBL 030. If more than one splice is at that location compare the airplane wire numbers to those listed in the Splice List to assure the correct splice has been found.
- (c) "SM" and "SMZ" splice location information is determined by noting the wire number of a wire terminating at the splice in question.
 - 1) Knowing the wire number W1071-2027R-22 locate it in the self indexing wire list shown.
 - 2) The end points of W1071-2027R-22 are listed under the "EQUIP" column as SM00006 and DS31105. The length of the wire is given under "FT/IN" column.
 - 3) Locate DS31105 in the Equipment List shown. Note the location of the equipment under "STATION-WL-BL" column. In this example the equipment is located in the P007 panel.
 - 4) If the location of the P007 panel is not known refer to the Equipment List. Locate P007 in the Equipment List example shown.
 - 5) Knowing P007 is at STA 0174, WL 250, LBL 000 go to the aircraft and locate it.
 - 6) Locate DS31105 inside the P007 panel. Refer to the wire list example below and note the wire length between SM00006 and DS31105 is 2 ft. The wire length given in the wire list is the finished wire length when feet and inches are listed. If only feet are listed then the finished length can be +/- 18 inches.
 - 7) Locate wire W1071-2027R-22 at DS31105 and trace it 2 ft +/- 6 inches and locate SM00006. Verify the wire leading away from splice is W1071-2027R-22.

K. How To Determine Part Numbers For Equipment Depicted On A Wiring Diagram

Electrical and electronic equipment shown on wiring diagrams are assigned alphanumeric designators. These designators are used as cross reference symbols to the Equipment List where the part numbers and part descriptions are shown. Splices, grounds, wire bundles and vendor controlled equipment numbers are not included in the Equipment List.

(a) Part Numbers For Special Contacts Used On Connectors

Special contacts for connectors are identified by a code in the Term Type (TT) column of the wire list. These codes and contact part number for each are listed in the Codes section.

(b) Part Numbers For Standard Contacts Used On Connectors

Standard contacts for connectors are not assigned term type codes. Part numbers are determined by locating the connector equipment number (i.e. D02516) in the Equipment List and its part number (i.e. BACS16W1). The connector part number and assembly are located in the Chapter 20 Standard Wiring Practices Manual, D6-54446. The contact number can then be determined by reviewing the connector assembly section.



(c) Part Numbers For Terminals

Part numbers for terminals depicted on wiring diagrams can be found in Chapter 20 Standard Wiring Practices Manual, D6-54446. The part numbers are based on the gage and type of wire.

(d) Part Numbers For Contacts Used On Terminal Blocks

The terminal block module part number must be determined by locating it in the Equipment List. Once this is known, refer to the Cross Reference Index in Chapter 20 to locate the contact part number and installation information.

L. How To Determine The Location Of Equipment Listed In The Equipment List

Each equipment location is defined by the following three dimensional coordinate system: Station Line, Water Line and Buttock Line.

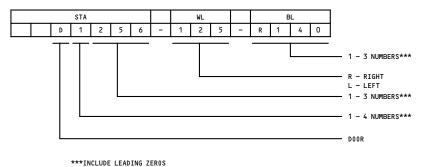
The airplane is divided into six different areas, each with its unique set of coordinates: (1) Body, (2) Wing, (3) Wing Tip, (4) Stabilizer, (5) Fin and (6) Nacelle.

The coordinate interrelations are defined in Chapter 91.

(a) The format of characters as indicated below represent the possible alpha-numeric combinations which define the different area coordinates.

1) Door Location

DOOR LOCATION





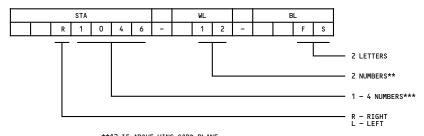
2) Body Location

- 1 - 4 NUMBERS***

***INCLUDE LEADING ZEROS

3) Wing Location

WING LOCATION

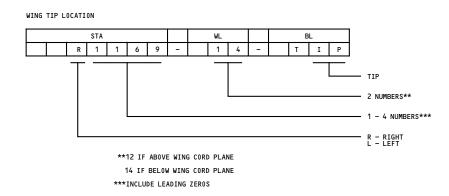


**12 IF ABOVE WING CORD PLANE
14 IF BELOW WING CORD PLANE

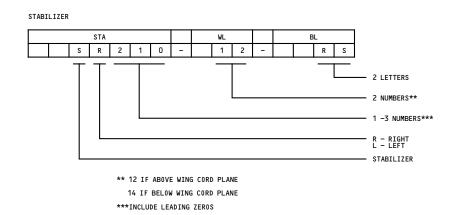
***INCLUDE LEADING ZEROS



4) Wing Tip Location

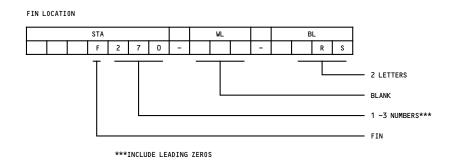


5) Stabilizer Location

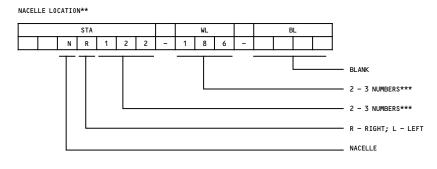




6) Fin Location



7) Nacelle Location



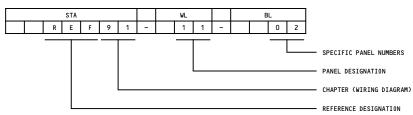
**NACELLE LOCATIONS INCLUDE BOTH ENGINE AND STRUT LOCATIONS

***INCLUDE LEADING ZEROS



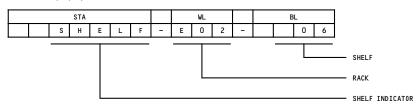
- (b) In addition to the aforementioned location definitions, the following special location definitions are necessary:
 - 1) Chapter 91 Cross Reference For Circuit Breaker

CHAPTER 91 CROSS REFERENCE FOR CIRCUIT BREAKER



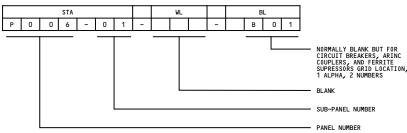
2) Shelves -E1, E2, E3, etc.

SHELVES - E1,E2,E3,ETC.



3) Panels -P1, P2, P3, etc.

PANEL - P1,P2,P3,ETC.

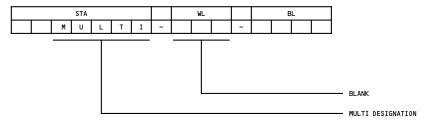




4) Multiple Location For Identical Units

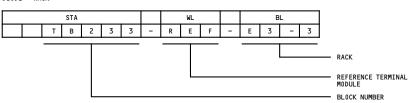
Nomenclature Of Item Denotes Location Usage

MULTI USAGE ITEM LOCATION



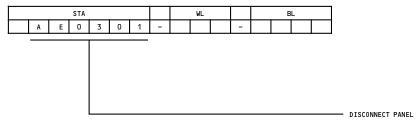
5) Diode-Rack

DIODE - RACK



6) Disconnect Panel Location

DISCONNECT PANEL LOCATION





7) The following areas and their codes give forward and aft positioning on wings, stabilizers, and fins.

IDENTIFIED AREA	CODE
Leading Edge	LE
Front Spar	FS
Mid Spar	MS
Rear Spar	RS
Trailing Edge	TE
Extended Trailing Edge	ET
Plus	Р
Minus	M

P or M define position, above or below respectively, of the wing or stabilizer chord plane.

2. METHODS USED TO ORDER A WIRE BUNDLE

A. How to Determine Wire Bundle (Harness) Information for Ordering a Wire Bundle

The Wire Bundle part numbers have been added to the Wire List for use when ordering a Wire Bundle from Boeing.

- (a) Find the Wire Bundle (ie. W0041) of interest in the Wire List.
 - Find the Part Number of the Wire Bundle, the second entry of the header row of each Wire Bundle.
- (b) Verify the Wire Bundle is applicable to the airplane of interest (Effectivity)
- (c) Provide Boeing the Wire Bundle Part Number and the airplane's Boeing Variable Number when ordering.



Chapter 20 consists of standard practices used to remove, repair and/or install wiring and equipment associated with wiring and its termination.

(This information is covered in D6-54446, the CHAPTER 20 STANDARD WIRING PRACTICES MANUAL.)