



Location of Change

Description of Change

NO HIGHLIGHTS

For training purposes only!

**HIGHLIGHTS**

Page 1  
Mar 07/2012

D280A238

Subject/Page	Date	Subject/Page	Date
TITLE PAGE		RECORD OF TEMPORARY REVISIONS	
R 1	Mar 07/2012	1	Jan 11/2006
2	BLANK	2	Jan 11/2006
EFFECTIVE AIRCRAFT		SERVICE BULLETIN LIST	
1	May 02/2008	1	Jun 30/2009
2	BLANK	2	Oct 05/2011
TRANSMITTAL LETTER		3	Oct 05/2011
R 1	Mar 07/2012	4	Oct 05/2011
2	BLANK	CUSTOMER CHANGE LIST	
HIGHLIGHTS		1	May 02/2008
R 1	Mar 07/2012	2	BLANK
2	BLANK	ALPHABETICAL INDEX	
EFFECTIVE PAGES		1	May 02/2008
1 thru 2	Mar 07/2012	2	May 02/2008
EFFECTIVE CHAPTERS		3	May 02/2008
R 1	Mar 07/2012	4	Jun 30/2009
2	Oct 05/2011	5	May 02/2008
BOEING REVISION		6	May 02/2008
R 1	Mar 07/2012	7	May 02/2008
2	BLANK	8	May 02/2008
REVISION RECORD		9	May 02/2008
1	Jan 11/2006	10	May 02/2008
2	Jan 11/2006	11	May 02/2008

A = Added, R = Revised, D = Deleted, O = Overflow

**EFFECTIVE PAGES**

Page 1  
Mar 07/2012

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

Subject/Page	Date	Subject/Page	Date
ALPHABETICAL INDEX (cont.)		SYSTEM SCHEMATICS (cont.)	
12	May 09/2011	5	May 02/2008
13	May 09/2011	6	BLANK
14	May 09/2011		
GENERAL INFORMATION			
1	May 02/2008		
2	Oct 05/2011		
3	Oct 05/2011		
4	BLANK		
DEFINITIONS			
1	Oct 05/2011		
2	May 02/2008		
3	May 02/2008		
4	May 02/2008		
5	May 02/2008		
R 6	Mar 07/2012		
7	Oct 05/2011		
8	BLANK		
SYSTEM SCHEMATICS			
1	May 02/2008		
2	May 02/2008		
3	May 02/2008		
4	May 02/2008		

A = Added, R = Revised, D = Deleted, O = Overflow

**EFFECTIVE PAGES**

Page 2  
Mar 07/2012

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

Chapter	Date	Title	
R	00	JUN 30/2009	GENERAL
	21	MAR 07/2012	AIR CONDITIONING
	22	MAY 09/2011	AUTOFLIGHT
	23	MAY 09/2011	COMMUNICATIONS
	24	OCT 05/2011	ELECTRICAL POWER
	25	JUN 30/2009	EQUIPMENT / FURNISHINGS
R	26	MAR 07/2012	FIRE PROTECTION
R	27	MAR 07/2012	FLIGHT CONTROLS
	28	OCT 05/2011	FUEL
	29	MAY 09/2011	HYDRAULIC POWER
R	30	MAR 07/2012	ICE AND RAIN PROTECTION
R	31	MAR 07/2012	INDICATING / RECORDING SYSTEMS
R	32	MAR 07/2012	LANDING GEAR
R	33	MAR 07/2012	LIGHTS
	34	OCT 05/2011	NAVIGATION
	35	MAY 02/2008	OXYGEN
R	36	MAR 07/2012	PNEUMATIC
	38	MAY 09/2011	WATER / WASTE
	49	JUN 30/2009	AIRBORNE AUXILIARY POWER
	52	MAY 09/2011	DOORS
	72	JAN 11/2006	ENGINE
	73	JUN 30/2009	ENGINE FUEL AND CONTROL
	74	JUN 30/2009	IGNITION
	75	JUN 30/2009	AIR

A = Added, R = Revised, D = Deleted

## EFFECTIVE CHAPTERS

Page 1  
Mar 07/2012

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

Chapter	Date	Title
76	OCT 05/2011	ENGINE CONTROLS
77	JUN 30/2009	ENGINE INDICATING
78	MAY 02/2008	EXHAUST
79	JUN 30/2009	OIL
80	MAY 09/2011	STARTING

A = Added, R = Revised, D = Deleted

## EFFECTIVE CHAPTERS

Page 2  
Oct 05/2011

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

Revision	Type	Date	Effectivity Range
0	Basic	Nov 05/1999	YD001-YD002
1	Follow-On	Feb 03/2000	YD003-YD005
2		May 01/2000	
3		Aug 01/2000	
4	Post Delivery	Nov 06/2000	
5	Post Delivery	Mar 27/2001	
6	Follow-On	Mar 06/2002	YD006
7		Jun 07/2002	
8		Sep 04/2002	
9	Follow-On	Feb 04/2003	YD007
10		May 06/2003	
11		Aug 04/2003	
12		Jan 11/2006	
13	Post Delivery	May 02/2008	
14	Post Delivery	Jun 30/2009	
15		May 09/2011	
16	Post Delivery	Oct 05/2011	
17	Post Delivery	Mar 07/2012	

**BOEING REVISION RECORD**

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

Page 1  
Mar 07/2012

All revisions to this manual will be accompanied by transmittal sheet bearing the revision number. Enter the revision number in numerical order, together with the revision date, the date filed and the initials of the person filing.

[illegible][illegible]

## REVISION RECORD

Page 1  
Jan 11/2006

D280A238

[illegible][illegible]

## REVISION RECORD

Page 2  
Jan 11/2006

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details





## 737-800 SYSTEM SCHEMATIC MANUAL

All temporary revisions to this manual will be accompanied by a cover sheet bearing the temporary revision number. Enter the temporary revision number in numerical order, together with the temporary revision date, the date the temporary revision is inserted and the initials of the person filing.

When the temporary revision is incorporated or cancelled, and the pages are removed, enter the date the pages are removed and the initials of the person who removed the temporary revision.

Temporary Revision		Inserted		Removed	
Number	Dated	Date	Initials	Date	Initials

Temporary Revision		Inserted		Removed	
Number	Dated	Date	Initials	Date	Initials

## RECORD OF TEMPORARY REVISION

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

Page 1  
Jan 11/2006

[illegible][illegible]

## RECORD OF TEMPORARY REVISION

Number	Incorporated	Started/ Completed	Effectivity	ATA	Subject
21-1163	Jun 30/2009	S	YD001-YD005	21-31-22 21-31-23	AIR CONDITIONING - PRESSURIZATION CONTROL - PRESSURIZATION CONTROL SYSTEM - CHANGE OF THE CABIN PRESSURE CONTROLLERS FOR 750 FEET PER MINUTE RATE OF DESCENT DURING A CARGO COMPARTMENT SMOKE EVENT
23-1218	Jun 07/2002	S	YD001-YD005	23-12-31 23-22-11 23-27-11 23-27-12 23-27-13 23-27-14 23-27-16 31-31-17 31-32-16 31-33-01 31-35-02 31-62-15 31-62-25 34-61-19 34-61-21 34-61-23	COMMUNICATIONS - ACARS AND VHF COMMUNICATION SYSTEMS - INSTALLATION OF THE SINGLE ACARS AND THIRD VHF COMMUNICATION SYSTEMS
23-1247	May 02/2008	S	YD001-YD007	23-34-01	COMMUNICATIONS - PASSENGER ENTERTAINMENT SYSTEM - DIGITAL AUDIO ENTERTAINMENT SYSTEM TEST SWITCH WIRING CHANGE
23A1170 R02	May 06/2003	S	YD001-YD004	23-12-11 23-12-21	COMMUNICATIONS - VHF COMMUNICATION SYSTEM - VHF-1 AND VHF-2 ANTENNAS INTERCHANGE

A = Added, R = Revised, D = Deleted

## SERVICE BULLETIN LIST

Page 1  
Jun 30/2009

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

Number	Incorporated	Started/ Completed	Effectivity	ATA	Subject
26-1121	Jun 30/2009	S	YD001-YD007	26-16-21	FIRE PROTECTION - LOWER CARGO COMPARTMENT SMOKE DETECTION - INSTALLATION OF FORWARD CARGO COMPARTMENT SMOKE PENETRATION SEALING PROVISIONS
26-1122	Jun 30/2009	S	YD001-YD007	21-25-11 21-27-21 21-27-31 21-43-21 31-31-15	FIRE PROTECTION - LOWER CARGO COMPARTMENT SMOKE DETECTION - FORWARD CARGO COMPARTMENT SMOKE PENETRATION ELECTRICAL CHANGES
27-1247 R01	Jan 11/2006	S	YD001-YD002 YD005	27-23-11 27-25-11	FLIGHT CONTROLS - RUDDER AND RUDDER TRIM CONTROL SYSTEM - WIRE PROVISIONS FOR RUDDER SYSTEM ENHANCEMENT
27-1253 R03	Jun 30/2009	C	YD001-YD006	22-23-11 27-23-11 27-25-11 29-35-11	FLIGHT CONTROLS - RUDDER AND RUDDER TRIM CONTROL SYSTEM - INSTALLATION OF AN ENHANCED RUDDER CONTROL SYSTEM (RSEP) - TEST
28-1159	Aug 01/2000	S	YD001-YD005	28-44-11	FUEL QUANTITY PRESELECT CAPABILITY ON RIGHT WING FUELING PANEL.
28A1201 R01	Oct 05/2011	C	YD005 YD007	28-23-11	FUEL - ENGINE FUEL FEED SYSTEM - FUEL PUMP CONTROL GROUND FAULT INTERRUPTER (GFI) RELAY INSTALLATION
28A1206	May 02/2008	S	YD001-YD004 YD006	28-23-11 28-43-11	FUEL - DISTRIBUTION - CENTER FUEL TANK BOOST PUMP AUTO SHUTOFF AND MASTER CAUTION LOGIC CHANGE
28A1206	Oct 05/2011	C	YD005 YD007	28-23-11 28-43-11	FUEL - DISTRIBUTION - CENTER FUEL TANK BOOST PUMP AUTO SHUTOFF AND MASTER CAUTION LOGIC CHANGE

A = Added, R = Revised, D = Deleted

## SERVICE BULLETIN LIST

Page 2  
Oct 05/2011

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

Number	Incorporated	Started/ Completed	Effectivity	ATA	Subject
28A1248	Jun 30/2009	S	YD001-YD004 YD006	28-23-11	FUEL - ENGINE FUEL FEED SYSTEM - CENTER FUEL TANK, FUEL PUMPS - POWER FAILED ON PROTECTION SYSTEM (UN-COMMANDED PUMP ON) - RELAYS INSTALLATION
28A1248	Oct 05/2011	C	YD005 YD007	28-23-11	FUEL - ENGINE FUEL FEED SYSTEM - CENTER FUEL TANK, FUEL PUMPS - POWER FAILED ON PROTECTION SYSTEM (UN-COMMANDED PUMP ON) - RELAYS INSTALLATION
28A1248 R01	Jun 30/2009	S	YD001-YD004 YD006	28-23-11	FUEL - ENGINE FUEL FEED SYSTEM - CENTER FUEL TANK, FUEL PUMPS - POWER FAILED ON PROTECTION SYSTEM (UN-COMMANDED PUMP ON) - RELAYS INSTALLATION
28A1248 R01	Oct 05/2011	C	YD005 YD007	28-23-11	FUEL - ENGINE FUEL FEED SYSTEM - CENTER FUEL TANK, FUEL PUMPS - POWER FAILED ON PROTECTION SYSTEM (UN-COMMANDED PUMP ON) - RELAYS INSTALLATION
30A1049 R01	May 02/2008	S	YD001-YD004	30-42-11	ICE AND RAIN PROTECTION - WINDOWS, WINDSHIELDS AND DOORS - WINDSHIELD WIPER SYSTEM - WIRING CHANGE
31-1449 R01	Oct 05/2011	S	YD006-YD007	31-31-15 32-09-12 76-21-11 76-21-21	INDICATING/RECORDING SYSTEMS - FLIGHT DATA RECORDER SYSTEM - GROUND WIRE CHANGE
34-1767 R01	Jan 11/2006	S	YD001-YD005 YD007	22-11-51 34-21-13 34-21-23 34-53-41 34-58-11 34-58-21 34-61-14	NAVIGATION - DEPENDENT POSITION DETERMINING - AIR TRAFFIC CONTROL (ATC) SYSTEM - WIRING PROVISIONS FOR FUTURE ACTIVATION OF ELEMENTARY SURVEILLANCE (ELS), ENHANCED SURVEILLANCE (EHS) AND EXTENDED SQUITTER (ES) PARAMETERS

A = Added, R = Revised, D = Deleted

## SERVICE BULLETIN LIST

Page 3  
Oct 05/2011

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



## 737-800 SYSTEM SCHEMATIC MANUAL

Number	Incorporated	Started/ Completed	Effectivity	ATA	Subject
34-1814	Jan 11/2006	S	YD001-YD005 YD007	34-53-11 34-53-21 34-53-31	NAVIGATION - AIR TRAFFIC CONTROL (ATC) SYSTEM - REPLACEMENT OF ATC TRANSPONDERS AND FEATURE ACTIVATION
34-1819	Jan 11/2006	S	YD006	22-11-51 34-21-13 34-21-23 34-53-11 34-53-21 34-53-41 34-58-11 34-58-21 34-61-14	NAVIGATION - DEPENDENT POSITION DETERMINING - AIR TRAFFIC CONTROL (ATC) SYSTEM - WIRING PROVISIONS FOR FUTURE ACTIVATION OF ELEMENTARY SURVEILLANCE (ELS), ENHANCED SURVEILLANCE (EHS) AND EXTENDED SQUITTER (ES) PARAMETERS
56-1017 R01	May 02/2008	S	YD001-YD007	30-41-11 30-41-12	WINDOWS - FLIGHT COMPARTMENT - CONTROL CABIN FIXED WINDOWS - DELETION OF NUMBER 4 AND NUMBER 5 WINDOWS
PD 0802664	Jun 30/2009	S	YD005	27-32-11 27-32-21 27-62-11 27-62-41 33-43-11 33-44-12	APB RETROFIT WINGLETS
PD 0802664	May 02/2008	S	YD006-YD007	27-32-11 27-32-21 27-62-11 27-62-41 33-43-11 33-44-12	APB RETROFIT WINGLETS

A = Added, R = Revised, D = Deleted

## SERVICE BULLETIN LIST

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

Page 4  
Oct 05/2011



Number	Incorporated	Started/ Completed	Effectivity	ATA	Subject
-No effect	-	-	-	-	

For training purposes only!

A = Added, R = Revised, D = Deleted

**CUSTOMER CHANGE LIST**

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

Page 1  
May 02/2008

CH-SC-SU	Title
24-52-11	115V AC GROUND SERVICE BUS
24-54-11	115V AC STANDBY BUS
24-51-11	115V AC TRANSFER BUS 1
24-51-21	115V AC TRANSFER BUS 2
24-53-11	28V AC BUSES
24-61-11	28V DC BUSES
24-28-11	AC INDICATION P5-13
24-28-21	AC SYSTEM GENERATOR & APU INDICATION P5-4
24-23-31	AC TIE BUS
23-27-12	ACARS (724B) - DFDAU AND OOOI INTERFACES
23-27-13	ACARS (724B) CONTROL AND DISPLAY
23-27-14	ACARS (724B) FMC, PRINTER AND DISCRETE INTERFACES
23-27-11	ACARS (724B) POWER, COMM AND ANNUNCIATION INTERFACES
23-27-16	ACARS (724B) REGISTRY AND AIRLINE ID CODING
34-21-16	ADIRS - NO COOLING AND "ON DC" OPERATION WARNING
26-16-22	AFT CARGO COMPARTMENT SMOKE DETECTION
27-10-01	AILERON - ROLL CONTROL
27-18-11	AILERON POSITION INDICATION

CH-SC-SU	Title
27-11-11	AILERON TRIM CONTROL
21-51-31	AIR CONDITIONING PACK CONTROL BITE
21-61-31	AIR CONDITIONING TEMPERATURE INDICATION
21-61-51	AIR CONDITIONING TEMPERATURE INDICATION
21-61-50	AIR CONDITIONING TEMPERATURE INDICATION SIMPLIFIED
34-21-15	AIR DATA - INERTIAL REFERENCE SYSTEM INERTIAL REF SIGNAL SWITCHING
34-16-11	AIR DATA - INERTIAL REFERENCE SYSTEM OVERSPEED TEST LEFT
34-16-21	AIR DATA - INERTIAL REFERENCE SYSTEM OVERSPEED TEST RIGHT
34-21-14	AIR DATA INERTIAL REFERENCE SYSTEM (ADIRS) - LEFT ADR OUTPUTS
34-21-11	AIR DATA INERTIAL REFERENCE SYSTEM (ADIRS) - LEFT CONTROL & WARNING
34-21-13	AIR DATA INERTIAL REFERENCE SYSTEM (ADIRS) - LEFT IR OUTPUTS
34-21-12	AIR DATA INERTIAL REFERENCE SYSTEM (ADIRS) - LEFT SYSTEM INPUTS
34-21-24	AIR DATA INERTIAL REFERENCE SYSTEM (ADIRS) - RIGHT ADR OUTPUTS
34-21-21	AIR DATA INERTIAL REFERENCE SYSTEM (ADIRS) - RIGHT CONTROL & WARNING

## ALPHABETICAL INDEX

Page 1  
May 02/2008

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



CH-SC-SU	Title
34-21-23	AIR DATA INERTIAL REFERENCE SYSTEM (ADIRS) - RIGHT IR OUTPUTS
34-21-22	AIR DATA INERTIAL REFERENCE SYSTEM (ADIRS) - RIGHT SYSTEM INPUTS
32-09-11	AIR/GND SYSTEM 1 & LEVER LATCH
32-09-12	AIR/GND SYSTEM 2 AND NOSE GEAR GROUND SENSING RELAYS
00-06-21	AIRPLANE STATION BODY AND STABILIZER
32-35-11	ALTERNATE LANDING GEAR EXTENSION SYSTEM
27-53-11	ALTERNATE TRAILING AND LEADING EDGE FLAP DRIVE
32-41-11	ANTISKID SYSTEM
49-52-31	APU BLEED AIR AND SURGE CONTROL SYSTEM
49-61-01	APU CONTROL
49-62-01	APU CONTROL SYSTEM
49-62-11	APU CONTROL- AIRPLANE INTERFACE
49-62-12	APU CONTROL- APU INTERFACE
49-52-01	APU ECU BLEED AIR AND SURGE CONTROL LOGIC
49-71-01	APU EGT INDICATION
49-71-21	APU EGT SYSTEM
26-11-31	APU FIRE DETECTION
49-31-00	APU FUEL DISTRIBUTION

CH-SC-SU	Title
49-00-00	APU GENERAL ARRANGEMENT
49-41-11	APU IGNITION AND STARTING SYSTEM
49-94-00	APU OIL DISTRIBUTION
49-94-01	APU OIL INDICATION
49-94-21	APU OIL SYSTEM
49-41-02	APU SCU/SPU START SYSTEM LOGIC
49-41-00	APU START SYSTEM
49-41-01	APU START SYSTEM
34-53-31	ATC ANTENNA SELECT
34-53-41	ATC ENHANCED SURVEILLANCE
34-53-11	ATC TRANSPONDER 1
34-53-21	ATC TRANSPONDER 2
33-26-11	ATTENDANT WORK LIGHTS
23-34-01	AUDIO ENTERTAINMENT SYSTEM
31-53-11	AURAL WARNING - TAKEOFF WARNING
31-51-11	AURAL WARNING SYSTEMS
32-42-11	AUTOBRAKE SYSTEM
34-57-11	AUTOMATIC DIRECTION FINDER NO. 1
34-57-21	AUTOMATIC DIRECTION FINDER NO. 2

## ALPHABETICAL INDEX

Page 2  
May 02/2008

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

CH-SC-SU	Title
27-62-11	AUTOMATIC GROUND SPEEDBRAKE CONTROL
24-28-41	AUTOMATIC LOAD SHED GALLEYS & MAIN BUSES
27-83-11	AUTOSLAT SYSTEM NO. 1
27-83-21	AUTOSLAT SYSTEM NO. 2
22-31-52	AUTOTHROTTLE SYSTEM - ARINC OUTPUT
22-31-21	AUTOTHROTTLE SYSTEM - DIGITAL INPUTS FROM MCP, FMC, ADIRU
22-31-22	AUTOTHROTTLE SYSTEM - DIGITAL INPUTS FROM SMYDC'S AND RA'S
22-31-51	AUTOTHROTTLE SYSTEM - ENGAGE/DISENGAGE
22-31-11	AUTOTHROTTLE SYSTEM - POWER, TOGA, PROGRAM PINS AND TEST BUSES
22-31-31	AUTOTHROTTLE SYSTEM - SERVO MOTOR 1
22-31-41	AUTOTHROTTLE SYSTEM - SERVO MOTOR 2
29-20-01	AUXILARY HYDRAULIC CONTROL
24-31-11	BATTERY AND BATTERY CHARGER
28-21-21	BATTERY AND CONTROL POWER ENGINE SPAR AND APU FUEL VALVES
24-31-12	BATTERY BUS
36-21-11	BLEED AIR PRESSURE INDICATION
36-11-11	BLEED AIR VALVE CONTROL

CH-SC-SU	Title
32-40-00	BRAKE SYSTEM
24-21-52	BUS POWER CONTROL UNIT BLOCK (G15)
21-25-11	CABIN AIR RECIRCULATION SYSTEM
23-42-12	CABIN INTERPHONE - BASELINE HANDSETS
23-42-13	CABIN INTERPHONE - OPTIONAL HANDSETS
21-33-11	CABIN PRESSURE WARNING
33-11-31	CAPTAIN'S & FIRST OFFICER'S CENTER INSTRUMENT PANEL
33-11-11	CAPTAIN'S INSTRUMENT PANEL LIGHTING
26-23-11	CARGO COMPARTMENT FIRE EXTINGUISHERS
31-62-13	CDS - CONTROL PANEL INTERFACES - CAPTAINS
31-62-23	CDS - CONTROL PANEL INTERFACES F/O
31-62-15	CDS - DEU 1 AVIONICS INTERFACES
31-62-14	CDS - DEU 1 ENGINE HYDRAULIC, APU AND FUEL INTERFACES
31-62-25	CDS - DEU 2 AVIONICS INTERFACES
31-62-24	CDS - DEU 2 ENGINE HYDRAULIC, APU AND FUEL INTERFACES
31-62-41	CDS - LRU SELECT AND PROGRAM PINS
31-62-11	CDS - POWER DISTRIBUTION AND INSTRUMENT LIGHTING CAPTAINS

## ALPHABETICAL INDEX

Page 3  
May 02/2008

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

CH-SC-SU	Title
31-62-21	CDS - POWER DISTRIBUTION AND INSTRUMENT LIGHTING FIRST OFFICER
31-62-12	CDS - VIDEO COAX SPLITTERS 1 AND 3 DU STATUS
31-62-22	CDS - VIDEO COAX SPLITTERS 2 AND 4 DU STATUS
34-61-23	CDU/MCDU INTERFACE
34-61-26	CDU/MCDU/DATA LOADER INTERFACE
33-22-12	CEILING LIGHTS
33-22-11	CEILING LIGHTS CONTROL
52-51-11	CONTROL CABIN DOOR LOCK
35-11-11	CREW OXYGEN SYSTEM
31-32-25	DATA LOADER INTERFACE (CENTER)
31-32-15	DATA LOADER INTERFACE (LEFT)
31-32-35	DATA LOADER INTERFACE (RIGHT)
24-33-13	DC BUS INDICATION DFDAU
24-33-11	DC VOLTAGE AND CURRENT INDICATIONS
22-12-31	DFCS - A A/P PITCH SENSORS AND ACTUATORS
22-11-31	DFCS - A AND B A/P ROLL SENSORS AND ACTUATORS
22-11-11	DFCS - A AND B FCC POWER AND 26V AC EXCITATION
22-11-75	DFCS - A AND B OPTION PINS AND DISCRETE OUTPUTS
22-13-11	DFCS - A AND B SPEED AND STABILIZER TRIM

CH-SC-SU	Title
22-11-12	DFCS - A AND B SYSTEM INTERLOCKS
22-14-11	DFCS - ANNUNCIATION AND WARNING
22-12-41	DFCS - B A/P PITCH SENSORS AND ACTUATORS
22-11-53	DFCS - DIGITAL BUS INTERFACES - DATA LOADER
22-11-52	DFCS - DIGITAL BUS INTERFACES - INPUT
22-11-51	DFCS - DIGITAL BUS INTERFACES - OUTPUT
22-11-16	DFCS - INTERSYSTEM INTERFACES - VOR, ILS, LRRA
22-11-14	DFCS - INTERSYSTEM SWITCHING
22-18-11	DFCS - MACH TRIM
22-11-81	DFCS - RUDDER COMMAND AND CONTROL
22-11-18	DFCS INTERSYSTEM SWITCHING - VHF NAV ANTENNAS
27-81-41	DFDAU AND TEST CONNECTOR INTERFACE
24-24-31	DIFFERENTIAL CURRENT PROTECTION APU GEN
24-24-11	DIFFERENTIAL CURRENT PROTECTION GEN NO.1
24-24-21	DIFFERENTIAL CURRENT PROTECTION GEN NO.2
31-31-00	DIGITAL FLIGHT DATA RECORDER SYSTEM - (OVER ALL SYSTEM)
31-35-02	DIGITAL FLIGHT DATA RECORDER SYSTEM - ACMS INTERFACE
31-31-14	DIGITAL FLIGHT DATA RECORDER SYSTEM - ANALOG INTERFACE

## ALPHABETICAL INDEX

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

Page 4  
Jun 30/2009

CH-SC-SU	Title
31-35-01	DIGITAL FLIGHT DATA RECORDER SYSTEM - DATA LOADER INTERFACE
31-31-13	DIGITAL FLIGHT DATA RECORDER SYSTEM - DIGITAL INTERFACE
31-31-11	DIGITAL FLIGHT DATA RECORDER SYSTEM - INTERFACE
31-31-16	DIGITAL FLIGHT DATA RECORDER SYSTEM AIRPLANE CODING
31-31-15	DIGITAL FLIGHT DATA RECORDER SYSTEM DISCRETE INTERFACE
31-31-17	DIGITAL FLIGHT DATA RECORDER SYSTEM MANDATORY OPTIONS
34-55-11	DME NO. 1
34-55-21	DME NO. 2
33-14-12	DOME LTG, CONTROL STAND FLOOD LTG, STBY COMPASS LTG, & C/B PNL LTG
21-42-11	DOOR AREA HEATERS
52-71-13	DOOR WARNING - LEFT OVERWING
52-71-14	DOOR WARNING - RIGHT OVERWING
52-71-12	DOOR WARNING SYSTEM - CARGO AND EQUIPMENT
52-71-11	DOOR WARNING SYSTEM - ENTRY AND SERVICE
30-71-11	DRAIN HEATERS

CH-SC-SU	Title
49-62-51	ECU PINOUT
24-33-12	ELEC LIGHT AND ALPHANUMERIC DISPLAY
29-11-12	ELECTRIC HYDRAULIC PUMP CONTROL
24-00-00	ELECTRICAL POWER SIMPLIFIED
24-00-10	ELECTRICAL POWER UNIT LOCATION
31-22-11	ELECTRONIC CLOCK
73-21-12	ELECTRONIC ENGINE CONTROL ALTERNATE MODE
73-22-11	ELECTRONIC ENGINE CONTROL ELECTRICAL POWER
27-30-01	ELEVATOR
27-31-37	ELEVATOR FEEL DIFFERENTIAL PRESSURE
27-38-11	ELEVATOR POSITION INDICATION
27-31-11	ELEVATOR TAB CONTROL
33-51-14	EMERGENCY EXIT LIGHTS - AFT
33-51-11	EMERGENCY EXIT LIGHTS - CONTROL
33-51-21	EMERGENCY EXIT LIGHTS - FLOOR PROXIMITY
33-51-12	EMERGENCY EXIT LIGHTS - FORWARD
33-51-13	EMERGENCY EXIT LIGHTS - MID
23-24-11	EMERGENCY LOCATOR TRANSMITTER (ELT)
73-24-11	ENGINE 1 DATABUS OUTPUT

**ALPHABETICAL INDEX**

Page 5  
May 02/2008

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

CH-SC-SU	Title
76-21-11	ENGINE 1 FUEL CONDITION CONTROL
73-25-11	ENGINE 1 FUEL CONTROL
78-34-11	ENGINE 1 THRUST REVERSER CONTROL
78-36-11	ENGINE 1 THRUST REVERSER FLIGHT DECK INDICATION
78-36-12	ENGINE 1 THRUST REVERSER MAINTENANCE INDICATION
78-35-11	ENGINE 1 THRUST REVERSER POSITION / THRUST LEVER INTERLOCK
78-32-51	ENGINE 1 THRUST REVERSER SYNCHRONOUS SHAFT LOCKS
75-31-11	ENGINE 1 TURBINE CLEARANCE / TEMPERATURE
75-31-12	ENGINE 1 VARIABLE STATOR VANE / BLEED CONTROL
73-24-21	ENGINE 2 DATABUS OUTPUT
76-21-21	ENGINE 2 FUEL CONDITION CONTROL
73-25-21	ENGINE 2 FUEL CONTROL
78-34-21	ENGINE 2 THRUST REVERSER CONTROL
78-36-21	ENGINE 2 THRUST REVERSER FLIGHT DECK INDICATION
78-36-22	ENGINE 2 THRUST REVERSER MAINTENANCE INDICATION

CH-SC-SU	Title
78-35-21	ENGINE 2 THRUST REVERSER POSITION / THRUST LEVER INTERLOCK
78-32-61	ENGINE 2 THRUST REVERSER SYNCHRONOUS SHAFT LOCKS
75-31-21	ENGINE 2 TURBINE CLEARANCE / TEMPERATURE
75-31-22	ENGINE 2 VARIABLE STATOR VANE / BLEED CONTROL
75-30-00	ENGINE AIR SYSTEM
26-21-11	ENGINE AND APU FIRE EXTINGUISHING SYSTEM
26-00-01	ENGINE AND APU FIRE/OVERHEAT DETECTION-SIMPLIFIED
73-21-31	ENGINE BLEED AIR THRUST CONTROL
72-30-00	ENGINE COMPRESSOR STAGES
73-32-11	ENGINE CONTROL FAULT INDICATION
73-24-12	ENGINE DATABUS INPUT
77-21-11	ENGINE EXHAUST GAS TEMPERATURE INDICATION
73-21-11	ENGINE EXTERNAL RESET AND CONFIGURATION CONTROL
28-21-11	ENGINE FUEL SHUT-OFF VALVES
73-31-11	ENGINE FUEL SYSTEM INDICATION
29-11-11	ENGINE HYDRAULIC PUMP CONTROL
73-23-11	ENGINE IDLE CONTROL

## ALPHABETICAL INDEX

Page 6  
May 02/2008

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

CH-SC-SU	Title
74-31-11	ENGINE IGNITION CONTROL
74-11-11	ENGINE IGNITION POWER
77-12-11	ENGINE N1 SPEED INDICATION
77-12-21	ENGINE N2 SPEED INDICATION
30-21-11	ENGINE NACELLE ANTI-ICE
26-11-11	ENGINE NO.1 FIRE DETECTION
26-11-21	ENGINE NO.2 FIRE DETECTION
79-33-11	ENGINE OIL FILTER BYPASS WARNING
79-32-11	ENGINE OIL PRESSURE INDICATION
79-31-11	ENGINE OIL QUANTITY INDICATION
79-34-11	ENGINE OIL TEMPERATURE INDICATION
73-22-31	ENGINE RUNNING CONTROL
80-11-11	ENGINE STARTING SYSTEM
80-00-00	ENGINE STARTING SYSTEM GENERAL ARRANGEMENT
78-31-00	ENGINE THRUST REVERSER GENERAL SYSTEM FUNCTION
73-21-21	ENGINE THRUST-LEVER-ANGLE RESOLVER
77-31-11	ENGINE VIBRATION MONITORING SYSTEM
33-29-11	ENTRY LIGHTS
21-27-21	EQUIPMENT COOLING - EXHAUST

CH-SC-SU	Title
21-27-31	EQUIPMENT COOLING - SUPPLY
33-44-11	EXTERIOR LIGHTS - ANTICOLLISION - RED
33-44-12	EXTERIOR LIGHTS - ANTICOLLISION - WHITE
33-42-11	EXTERIOR LIGHTS - LANDING
33-43-11	EXTERIOR LIGHTS - POSITION
33-49-11	EXTERIOR LIGHTS - STABILIZER (LOGO) FLOOD LIGHTS
33-45-11	EXTERIOR LIGHTS - TAXI AND RUNWAY TURNOFF
33-41-11	EXTERIOR LIGHTS - WING SCANNING
24-41-11	EXTERNAL POWER
26-00-05	FIRE/OVERHEAT DETECTOR LOCATIONS
33-11-21	FIRST OFFICER'S INSTRUMENT PANEL LIGHTING
23-42-11	FLIGHT AND GROUND CREW CALL
27-60-01	FLIGHT CONTROL AND GROUND SPOILER
27-23-14	FLIGHT CONTROL SYS "A" AND SYS "B" LOW PRESSURE INDICATION
27-23-11	FLIGHT CONTROL SYS "A" SYS "B", AND STANDBY RUDDER CONTROL
27-00-00	FLIGHT CONTROLS - SIMPLIFIED
23-51-11	FLIGHT INTERPHONE
34-61-17	FMCS ANALOG DISCRETES

## ALPHABETICAL INDEX

Page 7  
May 02/2008

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

CH-SC-SU	Title
34-61-13	FMCS ARINC 429 INPUTS
34-61-14	FMCS GENERAL OUTPUT BUSES FMC-01 AND FMC-02
34-61-21	FMCS INTERFACE WITH ACARS
34-61-24	FMCS INTERFACE WITH ARINC 740/744 PRINTER
34-61-16	FMCS MESSAGE AND FAIL STATUS
34-61-15	FMCS OUTPUT BUSSES FMC-08 AND FMC-09
34-61-11	FMCS POWER AND DISPLAY
34-61-19	FMCS PROGRAM PINS
34-61-12	FMCS SWITCHING AND INTER-SYSTEM BUS
34-61-18	FMCS/DATA LOADER INTERFACE
26-16-21	FORWARD CARGO COMPARTMENT SMOKE DETECTION
28-23-11	FUEL BOOST PUMPS
28-43-11	FUEL BOOST PUMPS LOW PRESSURE WARNING LIGHTS
28-22-11	FUEL CROSSFEED VALVE
28-41-11	FUEL QUANTITY
28-01-00	FUEL SYSTEM CONTROL
28-10-00	FUEL TANK VENT SYSTEM
28-42-11	FUEL TEMPERATURE INDICATION
33-26-21	GALLEY LIGHTS

CH-SC-SU	Title
25-31-11	GALLEY POWER
24-22-31	GENERATOR CONTROL UNIT APU
24-22-11	GENERATOR CONTROL UNIT NO.1
24-22-21	GENERATOR CONTROL UNIT NO.2
24-21-51	GENERATOR CONTROL UNITS BLOCK (G10, G12, G14)
24-28-31	GENERATOR DRIVE & STANDBY POWER SWITCHING INDICATION P5-5
24-21-31	GENERATOR POWER AND REGULATION - APU
24-21-11	GENERATOR POWER AND REGULATION - NO. 1
24-21-21	GENERATOR POWER AND REGULATION - NO. 2
34-58-11	GLOBAL POSITIONING SYSTEM GPSSU 1
34-58-21	GLOBAL POSITIONING SYSTEM GPSSU 2
23-43-11	GROUND CREW CALL
34-49-11	GROUND PROXIMITY WARNING
28-44-11	GROUND REFUELING
00-12-00	GROUND SERVICE ACCESS PANELS
24-23-51	GROUND SERVICE BUS CONTROL
23-11-11	HF COMMUNICATIONS 1
23-11-21	HF COMMUNICATIONS 2
27-50-01	HIGHLIFT SYSTEM OVERVIEW

## ALPHABETICAL INDEX

CH-SC-SU	Title
27-41-11	HORIZONTAL STABILIZER TRIM CONTROL
27-48-11	HORIZONTAL STABILIZER TRIM INDICATION
27-40-01	HORIZONTAL STABILIZERS
29-32-11	HYDRAULIC FLUID PRESSURE INDICATION
29-31-11	HYDRAULIC FLUID QUANTITY INDICATION
29-25-11	HYDRAULIC POWER TRANSFER UNIT CONTROL
29-10-01	HYDRAULIC PUMP CONTROLS
29-00-00	HYDRAULIC SYSTEM - SIMPLIFIED
29-33-11	HYDRAULIC SYSTEM LOW PRESSURE LIGHTS
24-11-11	IDG NO. 1
24-11-21	IDG NO. 2
23-31-13	INTEGRATED HANDSET CONTROLLER
23-41-11	INTERPHONE ATTENDANT AND SERVICE
32-30-00	LANDING GEAR EXTENSION AND RETRACTION
32-61-11	LANDING GEAR POSITION INDICATION SYSTEM 1
32-61-12	LANDING GEAR POSITION INDICATION SYSTEM 2
32-00-00	LANDING GEAR SYSTEMS- SIMPLIFIED
29-23-11	LANDING GEAR TRANSFER VALVE CONTROL
32-61-21	LANDING GEAR WARNING

CH-SC-SU	Title
33-26-31	LAVATORY LIGHTS AND SIGNS
26-14-11	LAVATORY SMOKE DETECTORS
38-21-11	LAVATORY WATER HEATERS
27-80-01	LEADING EDGE DRIVE AND INDICATION
27-81-31	LEADING EDGE FLAPS AND SLATS MASTER INDICATION
27-81-51	LEADING EDGE UNCOMMANDED MOTION PROTECTION
21-51-12	LEFT AIR CONDITIONING PACK CONTROL - AUTO
21-51-13	LEFT AIR CONDITIONING PACK CONTROL STANDBY
27-81-11	LEFT LEADING EDGE FLAP POSITION INDICATION
27-81-12	LEFT LEADING EDGE SLAT POSITION INDICATION
21-51-15	LEFT PACK PROTECTION
21-51-11	LEFT PACK VALVE CONTROL
21-51-14	LEFT RAM MODULATION CONTROL
24-32-11	MAIN DC BUSES
29-34-11	MAIN HYDRAULIC SYSTEM OVERHEAT LIGHTS
00-06-30	MAJOR EQUIPMENT CENTERS
33-17-11	MAP, FLIGHT KIT AND READING LIGHTS
34-32-11	MARKER BEACON

## ALPHABETICAL INDEX

Page 9  
May 02/2008

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



CH-SC-SU	Title
31-52-52	MASTER CAUTION SYSTEM- AIR CONDITIONING CONTROL, BLEED AIR
31-52-51	MASTER CAUTION SYSTEM- AIR CONDITIONING CONTROL, PACK & TEMP
31-52-55	MASTER CAUTION SYSTEM- ANTI-ICE CONTROL, PITOT HEAT
31-52-56	MASTER CAUTION SYSTEM- ANTI-ICE CONTROL, WINDOW/COWL HEAT
31-52-35	MASTER CAUTION SYSTEM- APU CONTROL
31-52-65	MASTER CAUTION SYSTEM- DOOR WARNING
31-52-31	MASTER CAUTION SYSTEM- ELECTRICAL CONTROL, GENERATOR
31-52-32	MASTER CAUTION SYSTEM- ELECTRICAL CONTROL, POWER BUS
31-52-61	MASTER CAUTION SYSTEM- ENGINE CONTROL
31-52-25	MASTER CAUTION SYSTEM- FLIGHT CONTROLS
31-52-41	MASTER CAUTION SYSTEM- FUEL CONTROL
31-52-21	MASTER CAUTION SYSTEM- HYDRAULIC CONTROL
31-52-00	MASTER CAUTION SYSTEM- INDEX
31-52-71	MASTER CAUTION SYSTEM- IRS CONTROL
31-52-75	MASTER CAUTION SYSTEM- OVERHEAD CONTROL
31-52-45	MASTER CAUTION SYSTEM- OVERHEAT DETECTION

CH-SC-SU	Title
31-52-11	MASTER CAUTION SYSTEM- POWER & CONTROL
33-18-41	MASTER DIM & TEST SYSTEM- AFT OVERHEAD PANEL, GROUP 1
33-18-42	MASTER DIM & TEST SYSTEM- AFT OVERHEAD PANEL, GROUP 2
33-18-61	MASTER DIM & TEST SYSTEM- AISLE STAND PANEL, GROUP 1
33-18-62	MASTER DIM & TEST SYSTEM- AISLE STAND PANEL, GROUP 2
33-18-63	MASTER DIM & TEST SYSTEM- AISLE STAND PANEL, GROUP 3
33-18-64	MASTER DIM & TEST SYSTEM- AISLE STAND PANEL, GROUP 4
33-18-31	MASTER DIM & TEST SYSTEM- FWD OVERHEAD PANEL, GROUP 1
33-18-32	MASTER DIM & TEST SYSTEM- FWD OVERHEAD PANEL, GROUP 2
33-18-33	MASTER DIM & TEST SYSTEM- FWD OVERHEAD PANEL, GROUP 3
33-18-34	MASTER DIM & TEST SYSTEM- FWD OVERHEAD PANEL, GROUP 4
33-18-35	MASTER DIM & TEST SYSTEM- FWD OVERHEAD PANEL, GROUP 5
33-18-36	MASTER DIM & TEST SYSTEM- FWD OVERHEAD PANEL, GROUP 6

## ALPHABETICAL INDEX

Page 10  
May 02/2008

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

CH-SC-SU	Title
33-18-37	MASTER DIM & TEST SYSTEM- FWD OVERHEAD PANEL, GROUP 7
33-18-51	MASTER DIM & TEST SYSTEM- GLARESHIELD PANEL
33-18-21	MASTER DIM & TEST SYSTEM- MAIN INSTRUMENT PANEL, CAPT
33-18-23	MASTER DIM & TEST SYSTEM- MAIN INSTRUMENT PANEL, CTR LEFT
33-18-24	MASTER DIM & TEST SYSTEM- MAIN INSTRUMENT PANEL, CTR RIGHT
33-18-22	MASTER DIM & TEST SYSTEM- MAIN INSTRUMENT PANEL, F/O
33-18-11	MASTER DIM & TEST SYSTEM- POWER & CONTROL
34-31-11	MMR - ILS NO. 1
34-31-21	MMR - ILS NO. 2
33-25-41	NO SMOKING/FASTEN SEAT BELT SIGNS - PASS SERVICE UNIT
32-51-11	NOSE GEAR STEERING
31-32-16	OPTIONAL DATA LOADER INTERFACE - LEFT
21-43-21	OVERBOARD EXHAUST VALVE CONTROL
33-12-11	OVERHEAD INSTRUMENT PANEL LIGHTS PART ONE
33-12-12	OVERHEAD INSTRUMENT PANEL LIGHTS PART TWO
35-21-41	OXYGEN DROP - PASS SERVICE UNIT

CH-SC-SU	Title
32-44-11	PARKING BRAKE SYSTEM
35-21-11	PASS OXYGEN - CONTROL
35-21-22	PASS OXYGEN - LEFT AFT
35-21-21	PASS OXYGEN - LEFT FWD
35-21-12	PASS OXYGEN - MISC
35-21-32	PASS OXYGEN - RIGHT AFT
35-21-31	PASS OXYGEN - RIGHT FWD
33-23-12	PASS READING LTS - LEFT AFT
33-23-11	PASS READING LTS - LEFT FWD
33-23-22	PASS READING LTS - RIGHT AFT
33-23-21	PASS READING LTS - RIGHT FWD
33-25-11	PASS SIGN - CONTROL
33-25-12	PASS SIGNS - MISC
33-25-22	PASS SIGNS - PSU LEFT AFT
33-25-21	PASS SIGNS - PSU LEFT FWD
33-25-32	PASS SIGNS - PSU RIGHT AFT
33-25-31	PASS SIGNS - PSU RIGHT FWD
23-31-11	PASSENGER ADDRESS SYSTEM
23-31-14	PASSENGER ADDRESS SYSTEM SPEAKERS

## ALPHABETICAL INDEX

Page 11  
May 02/2008

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

CH-SC-SU	Title
33-27-22	PASSENGER AND LAVATORY CALL - LEFT AFT
33-27-21	PASSENGER AND LAVATORY CALL - LEFT FWD
33-27-41	PASSENGER AND LAVATORY CALL - PSU
33-27-32	PASSENGER AND LAVATORY CALL - RIGHT AFT
33-27-31	PASSENGER AND LAVATORY CALL - RIGHT FWD
33-27-11	PASSENGER AND LAVATORY CALL CONTROL
23-32-12	PASSENGER FLIGHT INFORMATION SYSTEM
33-14-11	PILOT'S BACKGROUND LIGHTS
33-11-41	PILOTS CONTROL STAND LIGHTING
30-31-11	PITOT AND PROBE HEATERS - SYSTEM A
30-31-12	PITOT AND PROBE HEATERS - SYSTEM B
36-10-00	PNEUMATIC DISTRIBUTION SYSTEM
38-41-13	POTABLE WATER PRESSURE SYSTEM
23-31-12	PRE-RECORDER ANNOUNCEMENT MACHINE
21-31-22	PRESSURIZATION CONTROL AUTO 1
21-31-23	PRESSURIZATION CONTROL AUTO 2
21-31-24	PRESSURIZATION CONTROL AUTO CHANNEL INTERFACES
21-31-25	PRESSURIZATION CONTROL LCD LIGHTING
21-31-11	PRESSURIZATION CONTROL MANUAL MODE

CH-SC-SU	Title
31-33-01	PRINTER INTERFACE
34-33-11	RADIO ALTIMETER - 1
34-33-21	RADIO ALTIMETER - 2
33-23-31	READING LTS - PASS SERVICE UNIT
21-51-22	RIGHT AIR CONDITIONING PACK CONTROL - AUTO
21-51-23	RIGHT AIR CONDITIONING PACK CONTROL STANDBY
27-81-21	RIGHT LEADING EDGE FLAP POSITION INDICATION
27-81-22	RIGHT LEADING EDGE SLAT POSITION INDICATION
21-51-25	RIGHT PACK PROTECTION
21-51-21	RIGHT PACK VALVE CONTROL
21-51-24	RIGHT RAM MODULATION CONTROL
34-22-11	RMI BEARING AND HEADING
27-20-01	RUDDER
27-25-11	RUDDER AUTHORITY LIMITER
27-28-11	RUDDER TRIM AND POSITION INDICATION
27-21-11	RUDDER TRIM CONTROL
23-22-11	SELCAL
33-35-11	SERVICE LIGHTING - ACCESSORY COMPARTMENT
33-33-11	SERVICE LIGHTING - AIR CONDITIONING COMPARTMENT

## ALPHABETICAL INDEX

Page 12  
May 09/2011

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

CH-SC-SU	Title
33-36-12	SERVICE LIGHTING - CARGO COMPARTMENT - AFT
33-36-11	SERVICE LIGHTING - CARGO COMPARTMENT - FWD
33-34-11	SERVICE LIGHTING - EQUIPMENT RACK FORWARD LOWER COMPARTMENT
33-32-11	SERVICE LIGHTING - WHEEL WELLS
25-29-11	SERVICE OUTLETS
33-00-01	SPARE BULB STOWAGE
27-62-41	SPEEDBRAKE AUTOSTOW
27-62-21	SPEEDBRAKE DEPLOYED INDICATION
27-62-37	SPEEDBRAKE HANDLE POSITION INDICATION
27-62-14	SPOILER POSITION INDICATION
27-61-11	SPOILER SHUTOFF VALVES
27-32-31	STALL IDENTIFICATION- ELEVATOR FEEL SHIFT
27-32-12	STALL WARNING SYSTEM 1 DIGITAL INTERFACE
27-32-11	STALL WARNING SYSTEM 1 POWER AND ANALOGS
27-32-22	STALL WARNING SYSTEM 2 DIGITAL INTERFACE
27-32-21	STALL WARNING SYSTEM 2 POWER AND ANALOGS
34-24-11	STANDBY ATTITUDE - ILS
29-22-11	STANDBY HYDRAULIC PUMP CONTROL
29-35-11	STANDBY HYDRAULIC SYSTEM LOW PRESSURE LIGHTS

CH-SC-SU	Title
33-11-32	STANDBY INSTRUMENT AND PANEL LIGHTS - CAPT, F/O, CENTER PANELS
33-11-33	STANDBY INSTRUMENT AND PANEL LIGHTS - CONTROL STAND
24-34-11	STANDBY POWER
24-28-22	SWITCHING P5-4
00-00-00	SYMBOLS - MECHANICAL
27-54-11	TE FLAP LOAD RELIEF
21-61-14	TEMPERATURE CONTROL - AFT PASSENGER ZONE
21-61-12	TEMPERATURE CONTROL - FLIGHT DECK ZONE (BACKUP)
21-61-11	TEMPERATURE CONTROL - FLIGHT DECK ZONE (PRIMARY)
21-61-13	TEMPERATURE CONTROL - FWD PASSENGER ZONE
21-61-15	TEMPERATURE CONTROL - TRIM PRESSURE REGULATION
34-45-21	TRAFFIC COLLISION AVOIDANCE SYSTEM CONTROL AND DISPLAY
34-45-11	TRAFFIC COLLISION AVOIDANCE SYSTEM POWER INPUT, OUTPUT
27-53-12	TRAILING EDGE ALTERNATE FLAP DRIVE
27-52-11	TRAILING EDGE FLAP POSITION INDICATION

## ALPHABETICAL INDEX

Page 13  
May 09/2011

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

CH-SC-SU	Title
27-53-21	TRAILING EDGE FLAP SKEW DETECTION
27-51-11	TRAILING EDGE UNCOMMANDED MOTION PROTECTION
24-23-11	TRANSFER BUS CONTROL NO.1
24-23-21	TRANSFER BUS CONTROL NO.2
38-32-12	VACUUM WASTE SYSTEM CONTROL
38-32-13	VACUUM WASTE SYSTEM INDICATION
23-12-11	VHF COMMUNICATIONS 1
23-12-21	VHF COMMUNICATIONS 2
23-12-31	VHF COMMUNICATIONS 3
23-32-11	VIDEO CONTROL CENTER
23-32-31	VIDEO ENTERTAINMENT SYSTEM TRAY 1 VDU 1
23-32-32	VIDEO ENTERTAINMENT SYSTEM TRAY 1 VDU 2
23-32-41	VIDEO ENTERTAINMENT SYSTEM TRAY 2 VDU 5
23-32-51	VIDEO ENTERTAINMENT SYSTEM TRAY 3 VDU 9
23-32-61	VIDEO ENTERTAINMENT SYSTEM TRAY 4 VDU 13
23-71-11	VOICE RECORDER
34-51-11	VOR NO. 1
34-51-21	VOR NO. 2
34-51-41	VOR/ILS INSTRUMENT TRANSFER SWITCHING

CH-SC-SU	Title
38-41-11	WATER QUANTITY INDICATOR
34-41-11	WEATHER RADAR SYSTEM
27-24-11	WHEEL TO RUDDER INTERCONNECT SYSTEM
26-12-11	WHEEL WELL, WING AND LOWER AFT BODY OVERHEAT DETECTION
33-21-12	WINDOW LIGHTS
33-21-11	WINDOW LIGHTS CONTROL
30-41-11	WINDSHIELD HEAT SYSTEM - L. FRONT, R. SIDE AND OPTIONAL L3 WINDOWS
30-41-12	WINDSHIELD HEAT SYSTEM - R. FRONT, L. SIDE AND OPTIONAL R3 WINDOWS
30-42-11	WINDSHIELD WIPERS
30-11-11	WING THERMAL ANTI-ICE SYSTEM
22-23-11	YAW DAMPER ENGAGE INTERLOCKS
22-23-12	YAW DAMPER RUDDER CONTROL

## ALPHABETICAL INDEX

Page 14  
May 09/2011

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

## INTRODUCTION

### 1. APPLICABILITY

This System Schematic 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

This System Schematic Manual (SSM) is a collection of diagrams which define the airplane systems. These data are prepared essentially in accordance with 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 BOEING COMPANY HEREBY EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, ORAL OR WRITTEN, ARISING BY LAW, COURSE OF DEALING, OR OTHERWISE, AND WITHOUT LIMITATION ALL WARRANTIES AS TO QUALITY, OPERATION, MERCHANTABILITY, FITNESS, FOR ANY INTENDED PURPOSE, AND ALL OTHER CHARACTERISTICS WHATSOEVER, OF CUSTOMER ORIGINATED MATERIAL INCORPORATED INTO THE MANUAL. THE FOREGOING DISCLAIMER SHALL ALSO APPLY TO ANY OTHER PORTION OF THIS MANUAL WHICH MAY BE AFFECTED OR COMPROMISED BY SUCH CUSTOMER ORIGINATED CHANGES."

Every effort has been made to ensure that the information presented on these schematics is complete and correct. However, in the event of conflict between this manual and Boeing Wiring Diagrams or other engineering drawings, the wiring diagrams or drawings shall be the controlling definition.

### A. Purpose of Introduction Section

This Introduction Section is intended to provide the user with an overview of the SSM, an explanation of symbols used, and assumptions made while developing these schematics. Without an understanding of these symbols and assumptions, the user may not get the full value from the enclosed schematics.

### B. Purpose of System Schematic Manual

The System Schematic Manual (SSM) was prepared to serve as a source of information to assist in understanding system function and to facilitate fault isolation to the Line Replaceable Unit (LRU) level. It is not intended for use as a substitute for other maintenance documentation (i.e., Fault Isolation Manual, Maintenance Manual, Wiring Diagram Manual). The SSM does not include information for testing. The procedures in the Fault Isolation Manual should be used for any fault isolation requiring testing. The procedures in the Maintenance Manual should be used to support removal and installation of components. The Wiring Diagram Manual (WDM) should be used as a reference to isolate faults in wiring and in-line disconnects.

The data contained in this manual are customized for each airline. Except for those features added by service bulletin or specifically requested by the airline, these data include coverage for only those features that are part of the airplane as delivered by Boeing.

### 3. BOEING CHANGE DEFINITIONS

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

## GENERAL INFORMATION

## INTRODUCTION

**A. Customer Originated Changes (COC)**

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

**NOTE:** 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.

**C. 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.

**4. 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.

**5. BOEING COMMERCIAL PUBLICATION CHANGE REQUEST (PCR)**

Communications concerning this manual should be directed to:

The Boeing Commercial Airplane Group  
Attention: Supervisor, Commercial Publications

## GENERAL INFORMATION



### INTRODUCTION

PO Box 3707 M/S 2H-61  
Seattle, WA 98124-2207

Or access MyBoeingFleet website and complete an 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.

For training purposes only!

### GENERAL INFORMATION

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

Page 3  
Oct 05/2011



## 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
ACCESS	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
ADL	Airborne Data Loader
ADM	Air Data Module
ADP	Air Driven Pump
ADRS	Address
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
ASCP	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
BT LCS	Brake Torque Limiting Control System

## DEFINITIONS

Page 1  
Oct 05/2011

D280A238

**INTRODUCTION**

BTMU	Brake Temperature Monitor Unit	COM/NAV	Communication/Navigation
C	Cold	COR	Corrector
CACTS	Cabin Air Conditioning & Temperature Control System	CP	Control Panel
CADS	Central Air Data System	CPCS	Cabin Pressure Control System
CALIB	Calibrator	CRKG	Cranking
CAP	Capture	CSB	Compressor Stability Bleed
CAP	Contact Authorized Proposal	CSMU	Cabin System Management Unit
CAPC	Cabin Area Control Panel	CT	Control Transformer
CAPT	Captain	CTC	Cabin Temperature Controller
CCA	Central Control Actuator	CTS	Cabin Temperature Selector
CCL	Cargo Control Logic	CTS	Conversational Terminal System
CCM	Cargo Control Module	CVR	Cockpit Voice Recorder
CCU	Cargo Control Unit	CWS	Control Wheel Steering
CDU	Control Display Unit	DAA	Digital/Analog Adapter
CFDS	Centralized Fault Detection System	DADC	Digital Air Data Computer
CFE	Customer Furnished Equipment	DAR	Digital Aids Recorder
CHKPT	Checkpoint	DED	Dead Ended Shield
CHSP	Course Heading Select Panel	DEL	Diagram Equipment List
CIC	Cabin Interphone Controller	DFCS	Digital Flight Control System
CIWS	Central Instrument Warning System	DFDAU	Digital Flight Data Acquisition Unit
CMC	Central Maintenance Computer	DFDR	Digital Flight Data Recorder
CMD	Command	DH	Decision Height
CMM	Component Maintenance Manual	DIU	Digital Interface Unit
CMS	Cabin Management System	DMU	Data Management Unit
COC*	Customer Originated Change	DP	Differential Protection
COF MKR	Coffee Maker	DPA	Digital Pre-Assembly
COLL	Collision	DPCT	Differential Protective Current Transformer

**DEFINITIONS**

**INTRODUCTION**

DPLY	Deploy	EXTD	Extend
DSP	Display Select Panel	F/D	Flight Director
E/E	Electrical/Electronics	F/E	Flight Engineer
EADI	Electronic Attitude Director Indicator	F/F	Fuel Flow
ECS	Environmental Control System	F/O	First Officer
EDIU	Engine Data Interface Unit	FADEC	Full Authority Digital Engine Control
EDP	Engine Driven Pump	FAFC	Full Authority Fuel Control
EEC	Electronic Engine Control (Unit)	FAR	Federal Aviation Regulations
EFIS	Electronic Flight Instrument System	FBW	Fly-by-Wire
EHSI	Electronic Horizontal Situation Indicator	FCC	Flight Control Computer
EICAS	Engine Indicating and Crew Alerting System	FCU	Flap Control Unit
EIU	EFIS/EICAS Interface Unit	FDAU	Flight Data Acquisition Unit
ELCCR*	Electrical Liaison Change Commitment Record	FLMTR	Flowmeter
ELCU	Electrical Load Control Unit	FMC	Flight Management Computer
ELMS	Electrical Load Management System	FMCS	Flight Management Computer System
EMC	Electromagnetic Compatibility	FMU	Fuel Metering Unit
EMP	Electric Motor Pump (See also ACMP)	FMV	Fuel Metering Valve
ENTMT	Entertainment	FOC	Fuel/Oil Cooler
ENWY	Entryway	FQIS	Fuel Quantity Indication System
EPR	Engine Pressure Ratio	FQPU	Fuel Quantity Processor Unit
EPRL	Engine Pressure Ratio Limit	FSEU	Flap/Slat Electronics Unit
ESCC	Electrical Supply and Control Center	GCB	Generator Circuit Breaker
ESNTL	Essential	GCR	Generator Control Relay
ESS	Essential	GCU	Generator Control Unit
ETC	Electronic Temperature Control	GPWS	Ground Proximity Warning System
ETOPS	Extended Twin (Engine) Operations	GS	Glide Slope
EXCHR	Exchanger	GSB	Ground Service Bus

**INTRODUCTION**

GSPR	Gasper	LO	Lock Out
H	Hot	LP	Lightning Protector
HLCU	High Lift Control Unit	LPT	Low Pressure Turbine
HMU	Hydromechanical Unit	LRRA	Low Range Radio Altimeter
HND	Hand	LRU	Line Replaceable Unit
HPC	High Pressure Compressor (N2 Rotor)	LSDA	Low Speed Digital To Analog
HPSOV	High Pressure Shutoff Valve	M	Mach
HPT	High Pressure Turbine	M MUX	Main Multiplexer
HYDIM	Hydraulic Interface Module	MAI	Multiplexer Action Item
HYQUIM	Hydraulic Quantity Interface Module	MAWEA	Modularized Avionics and Warning Electronics Assembly
HZ	Hertz (Cycles Per Second)	MC*	Master Change
IBIT	Initiated Built In Test	MCDP	Maintenance Control and Display Panel
IBVSU	Instrument Bus Voltage Sense Unit	MCDU	Multipurpose Control and Display Unit
IDG	Integrated Drive Generator	MCP	Mode Control Panel
IDS	Integrated Display System	MGSCU	Main Gear Steering Control Unit
ILES	Inboard Leading Edge Station	MHRS	Magnetic Heading Reference System
INS	Inertial Navigation System	MHZ	Megahertz
INTC	Interconnect	MIDU	Multipurpose Interactive Display Unit
IOEU	Inboard Overhead Electronics Unit	MKR BCN	Marker Beacon
IPC	Illustrated Parts Catalog	MLS	Microwave Landing System
IPL	Illustrated Parts List	MNFST	Manifest
IRS	Inertial Reference System	MOSFET	Metallic Oxide Semiconductor Field Effect Transistor
JPR	Jumper	MR*	Modification Revision
KHZ	Kilohertz	MTCHG	Matching
KVA	Kilovolt Ampere	MTG	Muting
LGHTNG	Lightning	NBR	Number
LMP	Lamp	ND	Navigation Display

**DEFINITIONS**

**INTRODUCTION**

NGT	Night	PRCLR	Precooler
OAP	Output Audio Processor	PROT	Protection
OFCR	Officer	PRR*	Production Revision Record
OFL	Outflow	PRSOV	Pressure Regulating Shut-Off Valve
OMS	Onboard Maintenance System	PSA	Power Supply Assembly
OOEU	Outboard Overhead Electronics Unit	PSEU	Proximity Switch Electronics Unit
OPAS	Overhead Panel ARINC 629 System	PSU	Passenger Service Unit
OPBC	Overhead Panel Bus Controller	PTT	Press To Talk/Push To Talk
OVDR	Overdoor	PVD	Paravision Display
OVFL	Overfill	PYL	Pylon
OVHT	Overheat	QAM	Quadrature Amplitude Modulation Unit
OVWG	Overwing	QAR	Quick Access Recorder
PA	Passenger Address	QDT	Quadrantal
PA/CI	Passenger Address/Cabin Interphone	RAT	Ram Air Turbine
PCH	Patch	RDMI	Radio Distance Magnetic Indicator
PCT	Percent	RDP	Roller Drive Power
PDU	Power Drive Unit	RDU	Remote Display Unit
PES	Passenger Entertainment System	REP	Repellent
PFC	Primary Flight Computer	RFLNG	Refueling
PFD	Primary Flight Display	RGLTN	Regulation
PFIDS	Passenger Flight Information Display System	RMCP	Radio Management Control Panel
PIS	Passenger Information Sign	RR*	Rapid Revision
PKG	Parking	RST	Reset
PMA	Permanent Magnet Alternator	RSV	Reserve
PMG	Permanent Magnet Generator	RTC	Rudder Trim Control
PMS	Performance Management System	RVSG	Reversing
POR	Point of Regulation	RVT	Rotational Variable Transformer

**DEFINITIONS**Page 5  
May 02/2008

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

**INTRODUCTION**

SAARU	Standby Attitude/Air Data Reference Unit	TBV	Turbine Bypass Valve
SAT	Static Air Temperature	TCA	Turbine Cooling Air
SATCOM	Satellite Communications	TCAS	Traffic Alert and Collision Avoidance System
SB*	Service Bulletin	TCC	Turbine Case Cooling
SCF	System Cardfile	TDL	Time Delay Logic
SCM	Spoiler Control Module	TDO	Time Delay on Operate
SCU	Seat Control Unit	TDX	Torque Differential Transmitter
SDI	Source Destination Identifier	TERM BLK	Terminal Block
SEB	Seat Electronics Box	TGT	Turbine Gas Temperature
SEB/ST	Seat Electronics Box With Self Test	THSHD, THRS	Threshold
SEI	Standby Engine Instruments	TL	Tilt
SEU	Seat Electronics Unit	TLA	Thrust Lever Angle
SHVR	Shaver	TMC	Thrust Management Computer
SL*	Service Letter	TMS	Thrust Management System
SN	Sign	TO	Turn-off
SO	Shut-off	TPIS	Tire Pressure Indication System
SO	Standard Option	TPMU	Tire Pressure Monitor Unit
SPL	Splice List	TR	Torque Receiver
SRM	Stabilizer Trim/Rudder Ratio Module	TR	Transformer Rectifier
SUP-NUM	Supernumerary	TRA	Thrust Resolver Angle
SVU	Seat Video Unit	TRC	Thermatic Rotor Control
SWDL	Software Data Loader	TRU	Transformer Rectifier Unit
SWL	Sidewall	TS	Terminal Strip
T/M	Torque Motor	TTG	Time To Go
T/R	Thrust Reverser	TURB	Turbulence
TAI	Thermal Anti-Ice	TX	Torque Transmitter
TAT	Total Air Temperature	UNLK	Unlock

**DEFINITIONS**

**INTRODUCTION**

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.

**DEFINITIONS**

Page 7  
Oct 05/2011

## INTRODUCTION

### 1. LEVELS OF SCHEMATICS

Three levels of schematics may be drawn to represent the system functions:

- |         |   |
|---------|---|
| Level 1 | <b>BLOCK DIAGRAM:</b> Provides a broad overview of the system, or part of a system, showing major functions and components, functional groupings and pertinent interfaces.  |
| Level 2 | <b>SIMPLIFIED SCHEMATIC:</b> Provides a simplified view of the functions, components and interfaces. Broader in scope, showing more detail than level 1 schematics. Functions are shown without regard to their location in the aircraft or to pin-to-pin circuits.   |
| Level 3 | <b>SCHEMATIC:</b> Shows the system in sufficient depth for fault isolation to the LRU level. Provides a detailed view of the functions, components, pin-to-pin connectivity and interfaces. Provides a link between the function and the physical implementation. Provides the location reference for the components in the airplane. |

### 2. CONTENT OF SCHEMATICS

The schematics show each system in a functionally integrated presentation that:

- Identifies and locates all LRU's and shows their functional internal circuitry in a simplified manner.
- Identifies connections between LRU's with cross reference to all interfacing system schematics.
- Provides signal flow for primary functions which require airplane wiring or observable indications.

The preferred schematic layout is power on the left and load on the right; signal source on the left, and signal destination/indication on the right. After satisfying proper left to right flow, the equipment is shown in relation to its position in the airplane, when possible. Left is forward, right is aft, top is right, bottom is left.

Unless otherwise noted, all schematics are shown with the airplane on the ground, after a normal flight, and with the post-flight checklist completed (power off). Instruments, indicators and monitors may reflect other conditions where clarity of presentation is improved.

Schematics may contain information relating to the nominal actuating pressure, temperature, or quantity values of certain devices, as well as dimensional relationships and operational notes. Such information is provided for reference only as an aid in systems understanding and is not intended for use to do rigging, calibration, adjustment, or functional testing. Refer to the Maintenance Manuals for this data.

#### A. Schematic Organization/Numbering System

ATA Specification 2200 assigns chapters to each major system (e.g., Hydraulics) of functional group of systems (e.g., Navigation). Each chapter is assigned a two-digit number (e.g., Hydraulics is Chapter 29 and Navigation is Chapter 34).

## SYSTEM SCHEMATICS

Page 1  
May 02/2008

D280A238

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



## INTRODUCTION

Additionally, ATA Specification 2200 divides each chapter into sections. The section number is the third and fourth digits in the ATA number. Boeing assigns each subsystem the fourth digit in the ATA number. These same four-digit ATA numbers are used throughout the System Schematic Manual, Wiring Diagram Manual, Fault Isolation Manual, Maintenance Manuals, and Maintenance Training documents. The schematic numbers in the SSM are assigned following this four-digit ATA number assignment and with a two-digit suffix to make each schematic of that subsystem unique using a six-digit number. The schematics are further defined in the following manner: Schematic number (six-digit ATA number), Page number, and as required SCHEM number and/or Sheet number.

Complex subsystems may require more than one schematic sheet. In general, the subsystem shows the related functions on one schematic. Multiple schematics may also be used to show the function of the subsystem. "SCHEM" numbers may also be assigned to schematics depicting subfunctions of primary function.

Additionally, each schematic may require multiple sheets. Odd-numbered sheets are printed on the left side of the binding and even-numbered sheets on the right. This allows the schematic to be read across the binding edge.

The Page numbers (Page 101, 102, 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 schematic page number has a suffix (e.g., 101A, 102A for Customer Originated Changes or 101.1, 102.1, 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.

The airplane effectivity code, Customer or Boeing assigned, of each schematic is noted in a box in the lower left corner of the schematic. All sheets of a multiple-sheet schematic must have the same effectivity.

### **B. Equipment Numbers**

Equipment numbers (reference designators) are assigned to each airplane component with wiring attached, all Line Replaceable Units (LRU), panels and racks. Not all components with equipment numbers are LRU's and not all LRU's are assigned an equipment number. The equipment number uniquely identifies a component. However, if a component is part of an assembly, the equipment number will be the same for each use of the assembly in the airplane.

### **C. Equipment Description**

The Equipment Description used in the SSM and WDM consists of the component name, followed by a location modifier (e.g., VHF Radio-Left).

### **D. Depiction of Equipment on Schematics**

The schematic identifies which equipment is a Line Replaceable Unit (LRU) by the width of the box representing the equipment. Equipment that is not an LRU is identified with a solid thin line. The LRU is identified with the solid wide line if it is shown in the home ATA system. It is identified by a wide cross-hatched line if the circuit functions are duplicated in another interfacing ATA system. Provisional equipment not installed on an airplane at the time of delivery is identified by dash equipment boxes; however, the wiring has been installed to allow installation of the equipment at a later date.

## SYSTEM SCHEMATICS

## INTRODUCTION

The schematic which shows the primary function of the LRU is the home for that LRU. If the LRU is not shown in its entirety on its home schematic, a continuation break (Z-break) is used to indicate that the LRU is shown incomplete. In this case, a reference to the "home schematic" is placed in the top center of the LRU box. LRU's with multiple primary functions shown in multiple systems are identified with Z-breaks. References are not included on the home schematic.

In the SSM, the following definition of a LRU has been used:

A Line Replaceable Unit is a unit which can be readily changed on an aircraft during Line Maintenance operations. Line Maintenance includes a routine check, inspection and malfunction correction performed en route and at base stations during transit, turnaround, or night stop.

Most LRU's do not contain line replaceable components. These "closed" LRU's generally do not show internal equipment item numbers, connectors and pin numbers. "Open" LRU's contain line replaceable components and components that are easily accessible. These line replaceable subcomponents are also depicted as LRU equipment items.

In selected instances, multiple equipment may share the same graphic box. Each equipment number, description and location are listed under the box. All connections go to identical interfaces on each box, except that the connector numbers will be unique for each box.

### E. Circuits and References

The lines between the equipment boxes on schematics show all pin-to-pin connections between the LRU's and do not show individual wire segments or indicate the complete wiring hookup. When possible, the complete circuit is shown on the home schematic. When the circuit can not be shown complete on the home schematic, a reference is made to indicate where the user will find the other portion(s). For all incomplete circuits, a branched wire off a common point is shown with an ATA reference to the schematic showing the other portions of the circuit. The referenced schematic will repeat at least one pin of the circuit and have a reference back to the home schematic to complete the circuit. Schematic references in wires/lines indicate the circuit may not be shown complete, but is shown on another system schematic and is duplicated on this schematic.

To improve clarity, some wires are grouped into a single wire with a brace at each end. The pins on each end correlate one for one at each end of the wire.

Circuits that cross the binding edge to an adjacent schematic sheet are drawn to line up at the edge of the schematic and are lettered. Mechanical lines that cross the binding edge are numbered.

To improve clarity, connections between points on a schematic which are remote from each other, may be shown with circles around them (bubbles). Bubbles may also be used to connect points from one schematic to another. Combining bubbles connects the circuit. The letters in the bubbles are unique for that schematic and all referenced schematics. Tubing and mechanical lines that are referenced using bubbles are numbered.

## SYSTEM SCHEMATICS

## INTRODUCTION

### F. Connectors

The connector equipment number is shown for connectors mating to each LRU. This equipment number is placed just above the pin numbers and usually begins with the letter "D". If multiple connectors mate with the equipment, a letter suffix is added to correlate the connector to the LRU receptacle (e.g., A = J1, B = J2). If this correlation is not followed, the receptacle number is added in parentheses next to the connector number. ARINC 600 connector equipment item numbers are shown on schematics without a suffix letter. In the WDM Equipment List an ARINC 600 connector equipment item number is shown without a suffix letter followed by the same equipment item number with suffix letters. The first suffix letter indicates the section of the connector, e.g. A, B, C. The second letter indicates the kind of contact(s) in that section. See the WDM Equipment List for a description of contacts.

Where the connector numbers differ on each half of a disconnect, both numbers are shown separated by a / (slash).

Pin and socket lower case letter identifiers are indicated by an upper case letter followed by a minus sign (-), (e.g. F- = f). If there is no terminal number marked on the part, the pin number is assigned by Boeing and is prefaced with an = (equal), (e.g., =P for power, =G for ground). Coaxial contacts are identified with the contact number followed by a T (for Tip) or TR (for Tip Ring).

Where the access to the connector pin is very limited and the LRU is easily replaceable (i.e., a Line Replaceable circuit card in a card cabinet), the connector number and the pin numbers for the card interface are not shown.

In-line disconnects and pin numbers are shown on system schematics only if required for fault isolation (i.e., component pigtails are removed at the disconnect).

### G. Locations

The location of each Equipment Item is shown through the use of illustrations and/or in parentheses following the Equipment Description. This location may be a panel or rack number, a general word location based on airplane zone or door location, or three-point coordinates based on one of the airplane reference planes. Word locations or three-point coordinates may not be shown when an illustration is used to show location.

### H. Data Buses

A parallel line data bus symbol, with an arrow to indicate the direction of the data flow, represents the data bus connection between the LRU's. To depict connectivity, the pin numbers on each bus termination are listed in the same order (i.e., the top pin shown on an LRU physically connects to the top pin shown on every other connected LRU). The pin(s) are arranged in a logical order (i.e., the signal "high" is on top, the ARINC 429 "A" connections are on top, or the most significant to the least significant bit). Note that this logical order may sometimes result in pin numbers being out of numerical sequence. To improve clarity, data buses that are internal to the equipment are shown as single lines with an arrow.

### I. Airplane Illustrations

General airplane dimensions and locations are included in the 00 section of the SSM. These are intended to provide a general overview of the airplane along with location information for common equipment. Examples of the items found in this section are:

- Flight deck panel locations, including illustrations of the front of the panels.
- Equipment rack locations, including the location of the equipment on the rack.

## SYSTEM SCHEMATICS

## INTRODUCTION

- Circuit breaker panel locations, including the location of the circuit breakers.

### J. Purpose of Illustrations on Schematics

Illustrations are included on many schematics to assist the user in locating and recognizing the component in the airplane. These illustrations are to be used in conjunction with the introductory illustrations. They are not intended to provide sufficient detail to allow component removal or installation information; these details are included in the Boeing Airplane Maintenance Manuals.

### K. Wire Diagram Reference Box

To assist the user in cross referencing to the appropriate wire diagram(s), a wire diagram reference box is placed in the upper-right corner on each schematic that depicts wiring connectivity. This box contains a listing of all of the wire diagrams that depict the circuits shown on that schematic. Circuits duplicated on this schematic are not listed in the reference box; they are listed on the home schematic for the circuit.

## 3. SYMBOLS

Symbols are used wherever possible to convey system function. The most commonly used symbols are shown on the Symbol pages in the General Chapter, 00-00-00.