

QualityWings^{SIMULATIONS}



Ultimate 787

Sim Builders Kit

Copyright © 2019
QualityWings Simulations
All Rights Reserved

Legal Stuff

This manual was developed for use only with the QualityWings Simulations Ultimate 787 Collection simulation for Microsoft Flight Simulator™ X and Prepar3D. This manual is not to be used for training or familiarity with any aircraft and is solely written for entertainment purposes.

It is a violation of the owner's copyright to redistribute this manual or any portion of this manual without the permission of QualityWings Simulations.

Please visit our website at:

<http://www.qualitywingssim.com>

Copyright © 2017 QualityWings Simulations



All images contained in this manual are either taken directly from the simulator or used with permission.

Produced under license. Boeing, Boeing 787 and Dreamliner, their distinctive logos, product markings and trade dress are trademarks of The Boeing Company

Table of Contents

Legal Stuff	2
Table of Contents	3
Introduction.....	4
Sim Builders Reference.....	5
Introduction.....	5
Flightdeck Panels	5
All Panels	6
Overhead Panel	7
Main Instrumental Panel	35
Control Wheels.....	39
Glareshield Panel.....	40
Forward Aisle Stand.....	57
Control Stand.....	64
Aft Aisle Stand	69
Electronic Flight Bag (EFB).....	80
Product Support	83
E-Commerce Support	83
Product Technical Support	83
About the QualityWings 787 Team	84

Introduction



Welcome to the QualityWings 787 Sim Builder Developer Kit. This manual provides the Sim Flight Simulator Event ID and Variable information necessary for those individuals who develop hardware cockpits for use with the Ultimate 787 Collection.

This guide only contains variables for items that allow for interaction within the Ultimate 787 Flightdeck Systems.

Sim Builders Reference

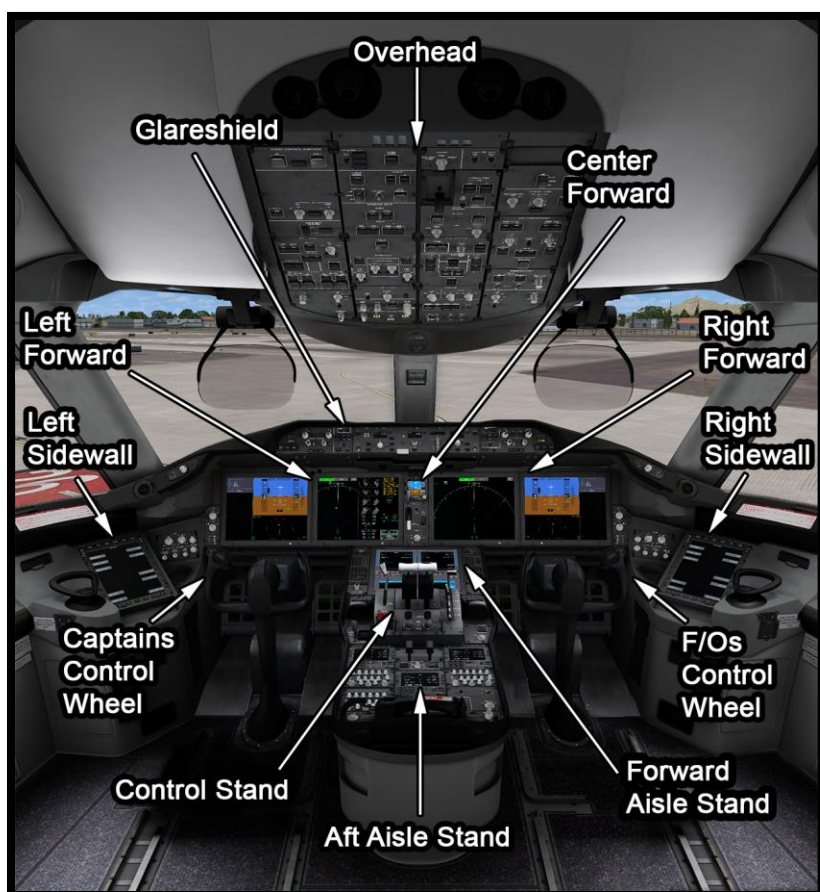
Introduction

In this section, you will be able to find the specific panel and switch for which you are looking for Event ID or Variable information.

Flightdeck Panels

The panels shown in this graphic are representative of panels that have some sort of switch, knob or button in the QualityWings 787.

[Click the relevant panel label for information about a particular panel.](#)



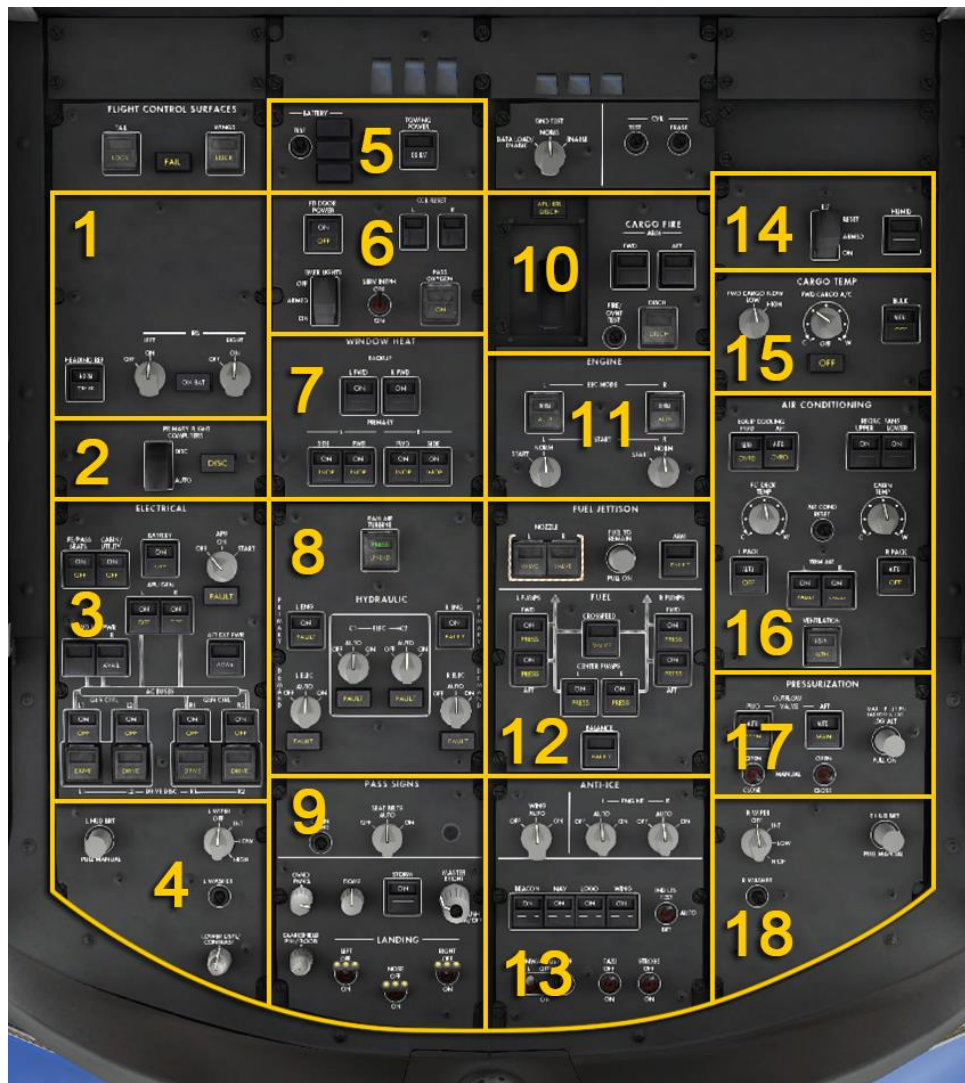
All Panels

[Click an area for more information](#)



Overhead Panel

Click an area for more information

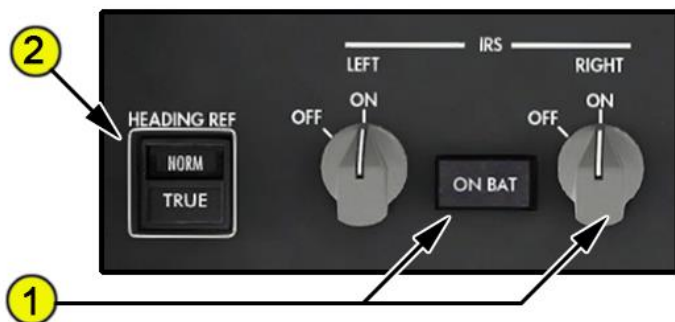


The overhead is sectioned into four columns, within each column are a different number of subpanels, grouping together the buttons, switches, knobs, and lights that represent the status and control of a particular system.

What system they represent is written at the top of each subpanel in big, white lettering. The various systems on the overhead panel are the following (compare to figure on the previous page).

1. [IRS subpanel](#)
2. [Primary Flight Computers subpanel](#)
3. [Electrical subpanel](#)
4. [Left Miscellaneous Controls subpanel](#)
5. [Towing subpanel](#)
6. [FD door, Emergency Lights, Passenger Oxygen & CCR Reset subpanel](#)
7. [Window Heat subpanel](#)
8. [Hydraulics subpanel](#)
9. [Passenger Signs & Flightdeck Lighting subpanel](#)
10. [APU & Cargo Fire Protection subpanel](#)
11. [Engine Control subpanel](#)
12. [Fuel Management subpanel](#)
13. [Anti-Ice & Exterior Lighting subpanel](#)
14. [ELT & Humidity Control subpanel](#)
15. [Cargo Temp Control subpanel](#)
16. [Air Conditioning subpanel](#)
17. [Pressurization subpanel](#)
18. [Right Miscellaneous Controls subpanel](#)

Inertial Reference System (IRS) Subpanel



Lvars and Events

Item Name	#	LVars and Events	Values/Range
IRS Left	1	QW_OH_IRS_LEFT_Switch	0=Off, 1=On
IRS Right	1	QW_OH_IRS_RIGHT_Switch	0=Off, 1=On
Heading Reference Switch	3	QW_OH_HDG_REF_Button	1=Pressed

Annunciators

Item Name	#	LVars and Events	Values/Range
TRUE	2	QW_OH_Annun_TRUE_IRS	0=On, 1=Off
ON BAT	1	QW_OH_Annun_ON_BATT	0=Off, 1=On

Primary Flight Computers (PFC) Subpanel



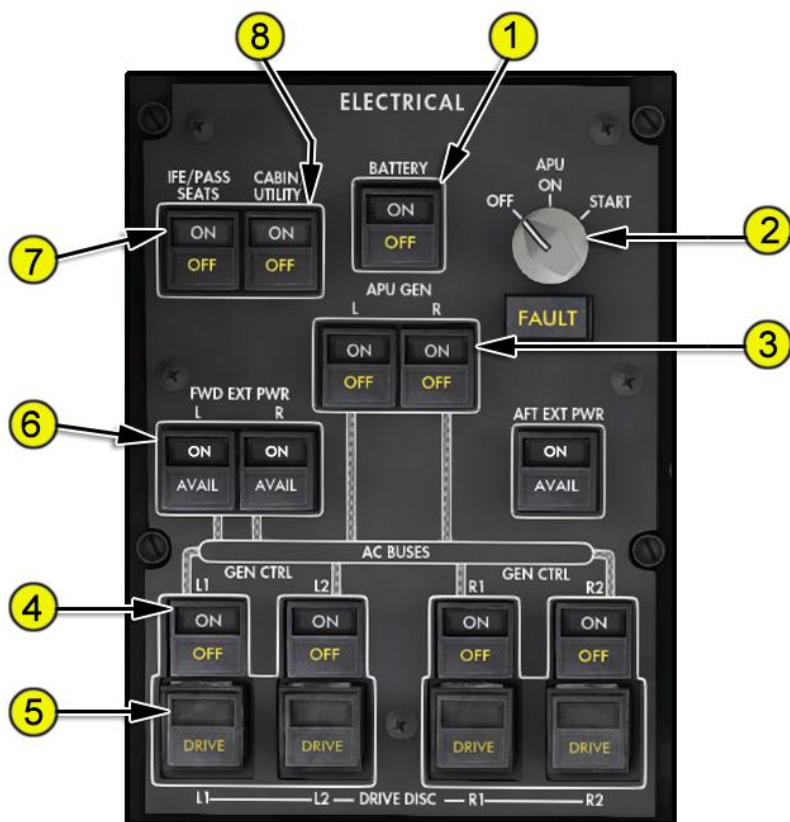
Lvars and Events

Item Name	#	LVars and Events	Values/Range
PFC Switch Guard	1	QW_OH_PFC_Safety_Switch	0=Closed, 1=Open
PFC Disconnect	1	QW_OH_PFC_G_Switch	1=Toggle

Annunciators

Item Name	#	LVars and Events	Values/Range
DISC	1	QW_OH_Annun_DISC_PFC	0=Off, 1=On

Electrical Power Subpanel

Lvars and Events

Item Name	#	LVars and Events	Values/Range
Battery Switch	1	QW_OH_ELE_BAT_Button	0=Off, 1=On
APU Start Switch	2	QW_OH_ELE_APU_Switch	0=Off, 1=On, 2=Start
APU Generator Switches (Linked)	3	QW_OH_APU_GEN_LEFT_Button QW_OH_APU_GEN_RIGHT_Button	0=Off, 1=On
Engine Generator Switch (L1)	4	QW_OH_GENCTL_L1_Button	0=Off, 1=On

Ultimate 787

Item Name	#	LVars and Events	Values/Range
Engine Generator Switch (L2)	4	QW_OH_GENCTL_L2_Button	0=Off, 1=On
Engine Generator Switch (R1)	4	QW_OH_GENCTL_R1_Button	0=Off, 1=On
Engine Generator Switch (R2)	4	QW_OH_GENCTL_R2_Button	0=Off, 1=On
Drive Disconnect Switch Guard (L1)	5	QW_OH_GEN_L1_Guard_Switch	0=Closed, 1=Open
Drive Disconnect Switch (L1)	5	QW_OH_DRVDISC_L1_Button	2=Disconnect
Drive Disconnect Switch Guard (L2)	5	QW_OH_GEN_L2_Guard_Switch	0=Closed, 1=Open
Drive Disconnect Switch (L2)	5	QW_OH_DRVDISC_L2_Button	2=Disconnect
Drive Disconnect Switch Guard (R1)	5	QW_OH_GEN_R1_Guard_Switch	0=Closed, 1=Open
Drive Disconnect Switch (R1)	5	QW_OH_DRVDISC_R1_Button	2=Disconnect
Drive Disconnect Switch Guard (R2)	5	QW_OH_GEN_R2_Guard_Switch	0=Closed, 1=Open
Drive Disconnect Switch (R2)	5	QW_OH_DRVDISC_R2_Button	2=Disconnect
Forward External Power Switches (Linked)	6	QW_OH_FWDEXTPOWER_LEFT_Button	1=Apply
Forward External Power Switches (Linked)	6	QW_OH_FWDEXTPOWER_RIGHT_Button	1=Apply
IFE/Pass Seats Switch	7	QW_OH_PASS_SEATS_Button	0=Off, 1=On
Cabin/Utility Switch	8	QW_OH_CAB_UTIL_Button	0=Off, 1=On

Annunciators

Item Name	#	LVars and Events	Values/Range
BATTERY OFF	1	QW_OH_Annun_OFF_BATT	0=Off, 1=On
APU FAULT	2	QW_OH_Annun_FAULT_APU	0=Off, 1=On
APU GEN OFF L	3	QW_OH_Annun_OFF_APUL	0=Off, 1=On
APU GEN OFF R	3	QW_OH_Annun_OFF_APUR	0=Off, 1=On
GEN OFF L1	4	QW_OH_Annun_OFF_GCL1	0=Off, 1=On
GEN OFF L2	4	QW_OH_Annun_OFF_GCL2	0=Off, 1=On
GEN OFF R1	4	QW_OH_Annun_OFF_GCR1	0=Off, 1=On
GEN OFF R2	4	QW_OH_Annun_OFF_GCR2	0=Off, 1=On
GEN DRIVE L1	5	QW_OH_Annun_DRIVE_DDL1	0=Off, 1=On
GEN DRIVE L2	5	QW_OH_Annun_DRIVE_DDL2	0=Off, 1=On
GEN DRIVE R1	5	QW_OH_Annun_DRIVE_DDR1	0=Off, 1=On
GEN DRIVE R2	5	QW_OH_Annun_DRIVE_DDR2	0=Off, 1=On
FWD EXT PWR ON L	6	QW_OH_Annun_ON_FXPL	0=Off, 1=On
FWD EXT PWR ON R	6	QW_OH_Annun_ON_FXPR	0=Off, 1=On
FWD EXT PWR AVAIL L	6	QW_OH_Annun_AVAIL_FXPL	0=Off, 1=On
FWD EXT PWR AVAIL R	6	QW_OH_Annun_AVAIL_FXPR	0=Off, 1=On
IFE/PASS SEATS OFF	7	QW_OH_Annun_OFF_IFE	0=Off, 1=On
CABIN/UTILITY OFF	8	QW_OH_Annun_OFF_CAB	0=Off, 1=On

Left Miscellaneous Controls Subpanel



Lvars and Events

Item Name	#	Item Type	LVars and Events	Values/Range
Left Wiper		Rotary Switch	QW_OH_L_WIPER_Switch	0=Off, 1=Int, 2=Low, 3=High

Towing Subpanel

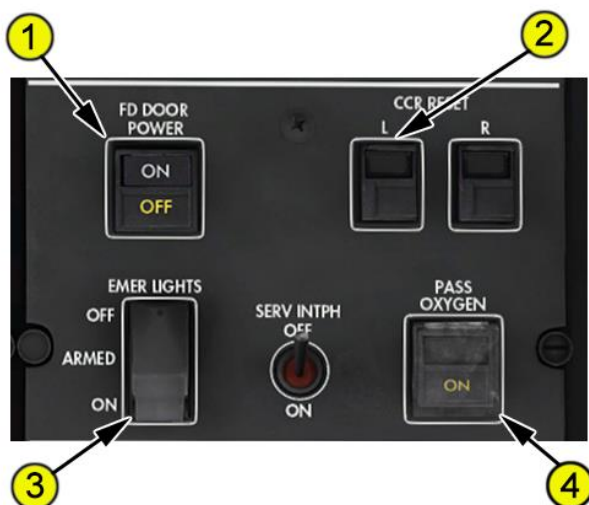
LVars and Events

Item Name	#	LVars and Events	Values/Range
Towing Power Test Switch	1	QW_annun_ovhd_testX	0=Off, 1=Pressed
Towing Power Switch	2	QW_OH_TOWER_PWR_Button	0=Off, 1=On

Annunciators

Item Name	#	LVars and Events	Values/Range
TOW POWER BAT HI	1	QW_OH_Annun_BAT_HI	0=Off, 1=On
TOW POWER BAT MED	1	QW_OH_Annun_BAT_MED	0=Off, 1=On
TOW POWER BAT LO	1	QW_OH_Annun_BAT_LO	0=Off, 1=On
TOWING POWER ON	2	QW_OH_Annun_TP_ONBAT	0=Off, 1=On

FD Power, Emergency Lights, Pass Oxygen & Service Interphone Subpanel



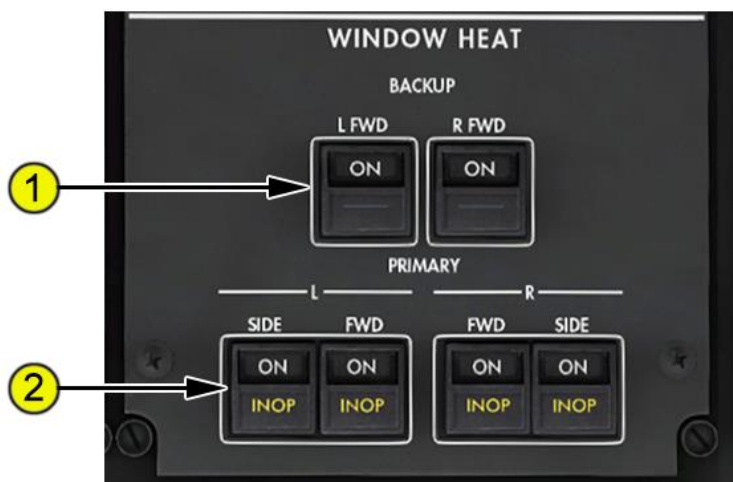
LVars and Events

Item Name	#	LVars and Events	Values/Range
Fltdeck Door Power	1	QW_OH_FD_DOOR_Button	0=Off, 1=On
L CCR Reset Switch	2	QW_OH_CCR_L_Button	1=Pressed
L CCR Reset Switch Guard	2	QW_OH_CCR_L_Guard_Switch	0=Closed, 1=Open
Emer Lights Switch Guard	3	QW_OH_EMER_LTS_Safety_Switch	0=Closed, 1=Open
Emer Lights Switch	3	QW_OH_EMER_LTS_Switch	-1=Off, 2=Armed, 1=On
Pass Oxygen Switch Guard	4	QW_OH_PASSOXY_Guard_Switch	0=Closed, 1=Open
Passenger Oxygen	4	QW_OH_PASS_OXY1_Button	0=Off, 1=On

Annunciators

Item Name	#	LVars and Events	Values/Range
FD DOOR POWER OFF	1	QW_OH_Annun_FDD_OFF	0=Off, 1=On
PASS OXYGEN ON	4	QW_OH_Annun_POXY_ON	0=Off, 1=On

Window Heat Subpanel



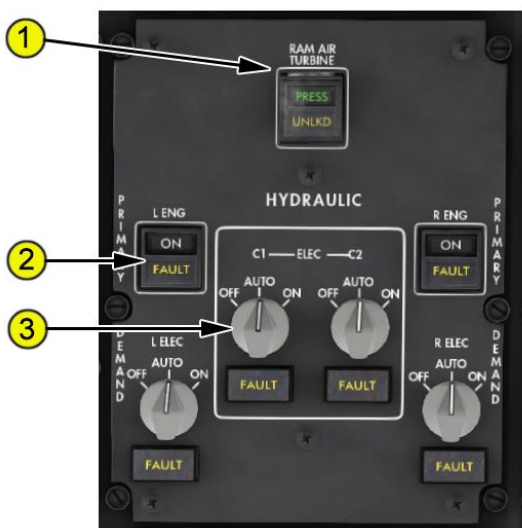
LVars and Events

Item Name	#	LVars and Events	Values/Range
Left Fwd Backup Window Heat Switch	1	QW_OH_WH_LFWD_Button	0=Off, 1=On
Right Fwd Backup Window Heat Switch	1	QW_OH_WH_RFWD_Button	0=Off, 1=On
Left Side Primary Window Heat Switch	2	QW_OH_PRMY_L_SIDE_Button	0=Off, 1=On
Left Fwd Primary Window Heat Switch	2	QW_OH_PRMY_L_FWD_Button	0=Off, 1=On
Right Side Primary Window Heat Switch	2	QW_OH_PRMY_R_SIDE_Button	0=Off, 1=On
Right Fwd Primary Window Heat Switch	2	QW_OH_PRMY_R_FWD_Button	0=Off, 1=On

Annunciators

Item Name	#	LVar	Values/Range
L SIDE INOP	2	QW_OH_Annun_PLS_INOP	0=Off, 1=On
L FWD INOP	2	QW_OH_Annun_PLF_INOP	0=Off, 1=On
R FWD INOP	2	QW_OH_Annun_PRF_INOP	0=Off, 1=On
R SIDE INOP	2	QW_OH_Annun_PRS_INOP	0=Off, 1=On

Hydraulics Subpanel



LVars and Events

Item Name	#	LVars and Events	Values/Range
RAT Switch Guard	1	QW_OH_RAT_Guard_Switch	0=Closed, 1=Open
RAT Switch	1	QW_OH_HYD_RAT_Button	1=Unlock
L Engine Driven Hydraulic Pump Switch	2	QW_OH_HYD_L_ENG_Button	0=Off, 1=On
R Engine Driven Hydraulic Pump Switch	2	QW_OH_HYD_R_ENG_Button	0=Off, 1=On
L ELEC Hydraulic Pump Switch	2	QW_OH_ELEC_L_Switch	0=Off, 1=Auto, 2=On
R ELEC Hydraulic Pump Switch	2	QW_OH_ELEC_R_Switch	0=Off, 1=Auto, 2=On
C1 ELEC Hydraulic Pump Switch	2	QW_OH_ELEC_C1_Switch	0=Off, 1=Auto, 2=On
C2 ELEC Hydraulic Pump Switch	2	QW_OH_ELEC_C2_Switch	0=Off, 1=Auto, 2=On

Annunciators

Item Name	#	LVars and Events	Values/Range
RAM AIR TURBINE UNLKD	1	QW_OH_Annun_RAT_UNLKD	0=Off, 1=On
RAM AIR TURBINE PRESS	1	QW_OH_Annun_RAT_PRESS	0=Off, 1=On
L ENG FAULT	2	QW_OH_Annun_LEH_FAULT	0=Off, 1=On
R ENG FAULT	2	QW_OH_Annun_REH_FAULT	0=Off, 1=On
L ELEC FAULT	2	QW_OH_Annun_LEH_FAULT2	0=Off, 1=On
C1 ELEC FAULT	2	QW_OH_Annun_LEH_FAULT1	0=Off, 1=On
C2 ELEC FAULT	2	QW_OH_Annun_REH_FAULT1	0=Off, 1=On
R ELEC FAULT	2	QW_OH_Annun_REH_FAULT2	0=Off, 1=On

Passenger Signs & Flightdeck Lighting Subpanel



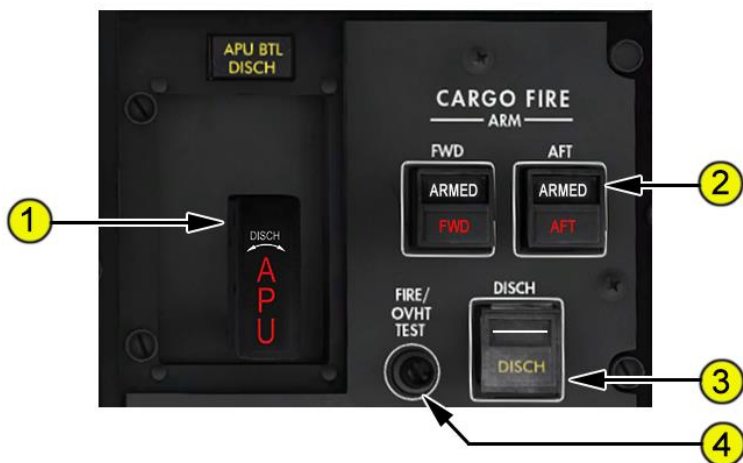
LVars and Events

Item Name	#	LVars and Events	Values/Range
Cabin Chime Switch	1	QW_OH_CAB_CHM_Button	1=Push
Seatbelt Signs Switch	2	QW_OH_SEATB_SIGN_Switch	0=Off, 1=Auto, 2=On
Storm Light Switch	3	QW_OH_STORM_Button	0=Off, 1=On
Overhead Panel Text Lighting		QW_OH_TEXT	0=Off, 1=On

Ultimate 787

Item Name	#	LVars and Events	Values/Range
Dome Light		QW_OH_DOME_Knob	0=Off, 1=On
Dome Light		KEY_PANEL_LIGHTS_TOGGLE KEY_PANEL_LIGHTS_ON KEY_PANEL_LIGHTS_OFF KEY_PANEL_LIGHTS_SET	Event
Master Bright ON/OFF (Pushbutton)		QW_OH_MSTR_BRGHT_Knob_TEST	0=Off, 1=On
Glareshield Text Lighting		QW_MCP_TEXT	0=Off, 1=On
Glareshield Flood Lighting		QW_MCPFlood	0 (Off) – 4 (Bright)
Landing Light Left		QW_OH_LDG_LEFT_Switch	0=Off, 1=On
Landing Light Nose		QW_OH_LDG_NSE_Switch	0=Off, 1=On
Landing Light Right		QW_OH_LDG_RIGHT_Switch	0=Off, 1=On
Landing Light (All)		KEY_LANDING_LIGHTS_TOGGLE KEY_LANDING_LIGHTS_ON KEY_LANDING_LIGHTS_OFF KEY_LANDING_LIGHTS_SET	Event

APU & Cargo Fire Protection Subpanel



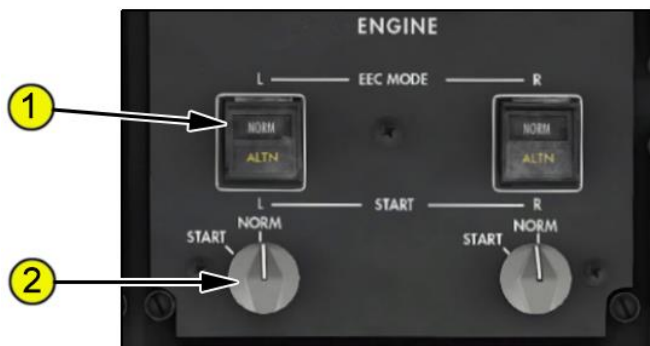
LVars and Events

Item Name	#	LVars and Events	Values/Range
APU Fire Handle	1	QW_OH_ELE_APU_Switch	0=Norm, 1=Pulled Pos, 2=Left Pos, 3=Right Pos
Cargo Fire Arm Switch (Fwd)	2	QW_OH_CFA_FWD_Button	0=Off, 1=On
Cargo Fire Arm Switch (Aft)	2	QW_OH_CFA_AFT_Button	0=Off, 1=On
Cargo Dire Discharge Switch	3	QW_OH_CFA_DISCH_Button	0=Off, 1=On
Fire/Ovht Test Sw	4	QW_OH_FIRE_OHTEST_Button	1=Push

Annunciators

Item Name	#	LVars and Events	Values/Range
FIRE APU		qw_apu_fire	0=Off, 1=On
APU BTL DISCH		qw_oh_annun_apubtl_disch	0=Off, 1=On
FWD		QW_OH_Annun_CFAA_FWD	0=Off, 1=On
AFT		QW_OH_Annun_CFAA_AFT	0=Off, 1=On
DISCH		QW_OH_Annun_CFAD_DISCH	0=Off, 1=On

Engine Control Subpanel

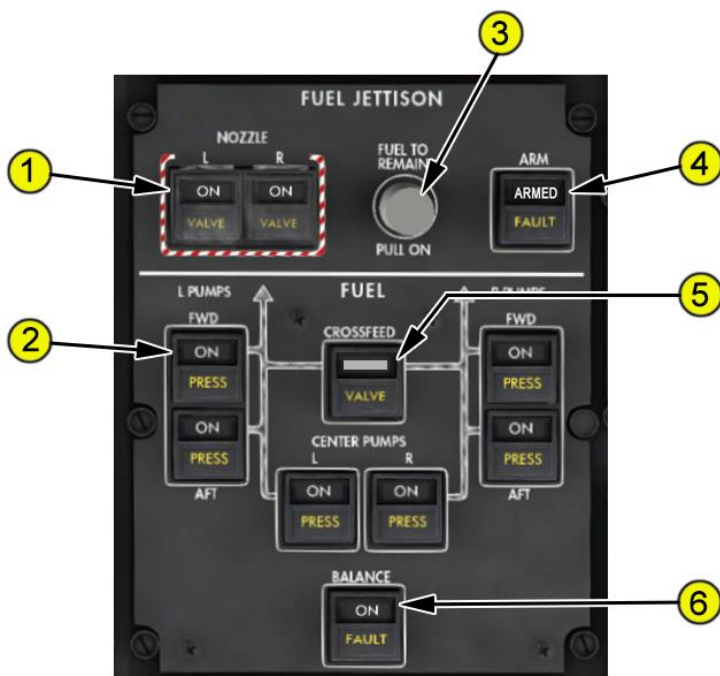
LVars and Events

Item Name	#	LVars and Events	Values/Range
Engine EEC Mode Switch Guard (L)	1	QW_OH_ECC_L_Guard_Switch	0=Closed, 1=Open
Engine EEC Mode Switch (L)	1	QW_OH_ECC_L_Button	0=Off, 1=On
Engine EEC Mode Switch (R)	1	QW_OH_ECC_R_Guard_Switch	0=Closed, 1=Open
Engine EEC Mode Switch (L)	1	QW_OH_ECC_R_Button	0=Off, 1=On
Engine Start Switch (L)	2	QW_OH_ENG_L_START_Switch	0=Start, 1=Norm
Engine Start Switch (R)	2	QW_OH_ENG_R_START_Switch	0=Start, 1=Norm

Annunciators

Item Name	#	LVars and Events	Values/Range
L EEC ALTN	1	QW_OH_Annun_ECCL_ALTN	0=Off, 1=On
R EEC ALTN	1	QW_OH_Annun_ECCR_ALTN	0=Off, 1=On

Fuel Management Subpanel



LVars and Events

Item Name	#	LVars and Events	Values/Range
Fuel Jettison Nozzle Switch Guard (L)	1	QW_OH_NZL_L_Guard_Switch	0=Closed, 1=Open
Fuel Jettison Nozzle Switch (L)	1	QW_OH_NZL_L_Button	0=Off, 1=On
Fuel Jettison Nozzle Switch Guard (R)	1	QW_OH_NZL_R_Guard_Switch	0=Closed, 1=Open
Fuel Jettison Nozzle Switch (R)	1	QW_OH_NZL_R_Button	0=Off, 1=On
Fuel Pump Switch L Fwd	2	QW_OH_LPUMP_FWD_Button	0=Off, 1=On

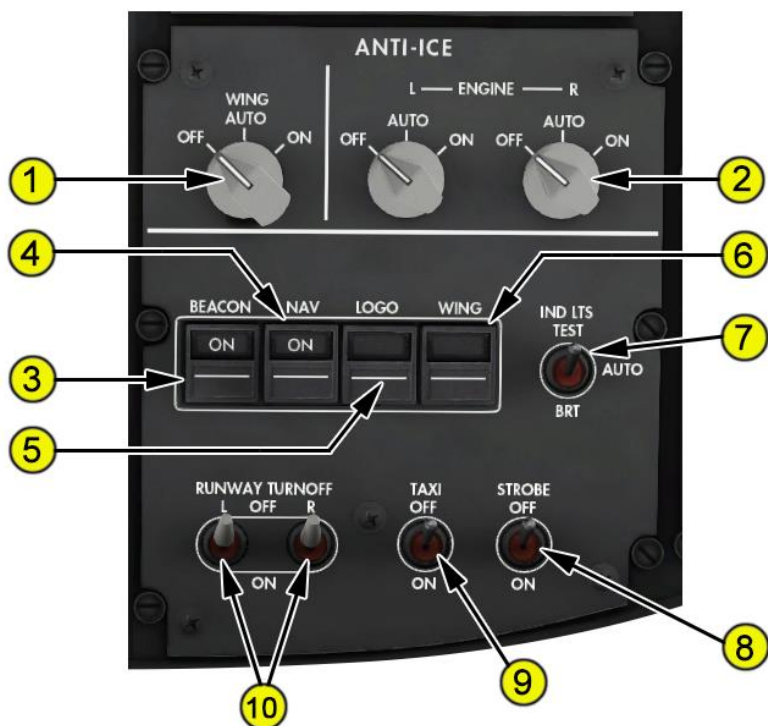
Ultimate 787

Fuel Pump Switch L Aft	2	QW_OH_LPUMP_AFT_Button	0=Off, 1=On
Fuel Pump Switch R Fwd	2	QW_OH_RPUMP_FWD_Button	0=Off, 1=On
Fuel Pump Switch R Aft	2	QW_OH_RPUMP_AFT_Button	0=Off, 1=On
Fuel Pump Switch Center L	2	QW_OH_CNTRPUMP_L_Button	0=Off, 1=On
Fuel Pump Switch Center R	2	QW_OH_CNTRPUMP_R_Button	0=Off, 1=On
Fuel Jettison Fuel to Remain Selector	3	QW_OH_FUEL_REMAIN_MODE	0=Push In, 1=Pull Out
Fuel Jettison Fuel to Remain Selector	3	QW_OH_FUEL_REMAIN_clicked	1=Decrease, 2=Increase
Fuel Jettison Arm Switch	4	QW_OH_FUEL_ARM_Button	0=Off, 1=On
Fuel Crossfeed Switch	5	QW_OH_FUEL_CROSSFEED_Button	0=Off, 1=On
Fuel Balance Switch	6	QW_OH_FUEL_BALANCE_Button	0=Off, 1=On

Annunciators

Item Name	#	LVars and Events	Values/Range
L NOZZLE VALVE	1	QW_OH_Annun_FJNL_VALVE	0=Off, 1=On
R NOZZLE VALVE	1	QW_OH_Annun_FJNR_VALVE	0=Off, 1=On
L FWD PRESS	2	QW_OH_Annun_FFPL_PRESS	0=Off, 1=On
L AFT PRESS	2	QW_OH_Annun_FAPL_PRESS	0=Off, 1=On
R FWD PRESS	2	QW_OH_Annun_FFPR_PRESS	0=Off, 1=On
R AFT PRESS	2	QW_OH_Annun_FAPR_PRESS	0=Off, 1=On
CENTER L PRESS	2	QW_OH_Annun_FCPL_PRESS	0=Off, 1=On
CENTER R PRESS	2	QW_OH_Annun_FCPR_PRESS	0=Off, 1=On
ARM FAULT	4	QW_OH_Annun_FJNA_FAULT	0=Off, 1=On
CROSSFEED VALVE	5	QW_OH_Annun_FCP_VALVE	0=Off, 1=On
BALANCE FAULT	6	QW_OH_Annun_FBB_FAULT	0=Off, 1=On

Anti-Ice & Exterior Lighting Subpanel

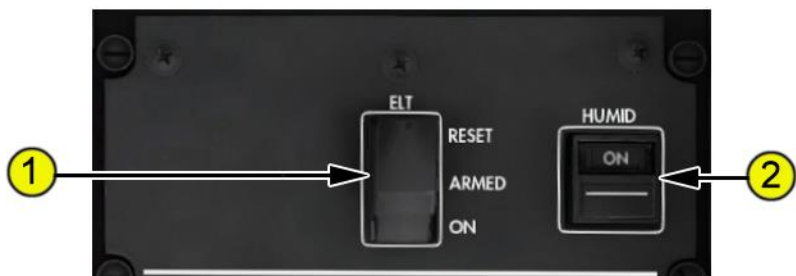
LVars and Events

Item Name	#	LVars and Events	Values/Range
Wing Anti-Ice Switch	1	QW_OH_WING_ANTICE_Switch	0=Off, 1=Auto, 2=On
L Engine Anti-Ice Switch	2	QW_OH_AI_L_ENG_Switch	0=Off, 1=Auto, 2=On
R Engine Anti-Ice Switch	2	QW_OH_AI_R_ENG_Switch	0=Off, 1=Auto, 2=On
Beacon Lights Switch	3	QW_OH_LT_BEACON_Button	0=Off, 1=On
Beacon Lights Switch	3	KEY_TOGGLE_BEACON_LIGHTS	Event
Nav Lights Switch	4	QW_OH_LT_NAV_Button	0=Off, 1=On

Ultimate 787

Item Name	#	LVars and Events	Values/Range
Nav Lights Switch	4	KEY_TOGGLE_NAV_LIGHTS	Event
Logo Lights Switch	5	QW_OH_LT_LOGO_Button	0=Off, 1=On
Logo Lights Switch	5	TOGGLE_LOGO_LIGHTS	Event
Wing Lights Switch	6	QW_OH_LT_WING_Button	0=Off, 1=On
Wing Lights Switch	6	KEY_TOGGLE_WING_LIGHTS	Event
Indicator Lights Test	7	QW_annun_ovhd_test	0=Off, 1=On (repeatable)
Strobe Lights	8	QW_OH_LT_STROBE_Switch	0=Off, 1=On
Strobe Lights	8	KEY_STROBES_TOGGLE	Event
Taxi Lights Switch	9	QW_OH_LT_TAXI_Switch	0=Off, 1=On
Taxi Lights Switch	9	KEY_TOGGLE_TAXI_LIGHTS	Event
Runway Turnoff Light Switch (L)	10	QW_OH_LT_L_RWYTF_Switch	0=Off, 1=On
Runway Turnoff Light Switch (L)	10	QW_OH_LT_R_RWYTF_Switch	0=Off, 1=On

ELT & Humidity Control Subpanel



LVars and Events

Item Name	#	LVars and Events	Values/Range
ELT Switch	1	QW_OH_ELT_Switch	-1=Reset, 0=Armed, 1= On
ELT Switch Guard	1	QW_OH_ELT_Safety_Switch	0=Closed, 1= Open
Humidity Switch	2	QW_OH_Humid_Button	0=Off, 1=On

Cargo Temp Control Subpanel

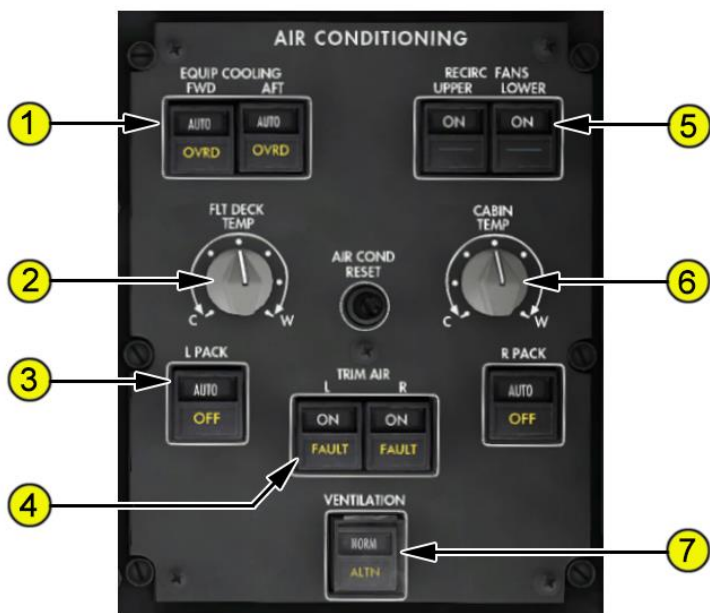
LVars and Events

Item Name	#	LVars and Events	Values/Range
FWD Cargo Temp Flow Switch	1	QW_OH_FWDCARGO_FLOW_Switch	0=Low, 1=High
FWD Cargo A/C Switch	2	QW_OH_FWDCARGO_AC_Button	0 - 8 (left to right)
Bulk Cargo Heat Switch	3	QW_OH_Bulk_Button	0=Off, 1=On

Annunciators

Item Name	#	LVars and Events	Values/Range
FWD CARGO A/C OFF	1	QW_OH_Annun_CARGOT_OFF	0=Off, 1=On
BULK OFF	2	QW_OH_Annun_BULK_OFF	0=Off, 1=On

Air Conditioning Subpanel

LVars and Events

Item Name	#	LVars and Events	Values/Range
Equip Cooling Fwd Switch	1	QW_OH_EQPCOOL_FWD_Button	0=Off, 1=On
Equip Cooling Aft Switch	1	QW_OH_EQPCOOL_AFT_Button	0=Off, 1=On
FlightDeck Temp Select Switch	2	QW_OH_FLTDK_Temp_Switch	0 – 6
L A/C Pack Switch	3	QW_OH_AC_LPACK_Button	0=Off, 1=On
R A/C Pack Switch	3	QW_OH_AC_RPACK_Button	0=Off, 1=On
L Trim Air Pack Button	4	QW_OH_TRIMAIR_L_Button	0=Off, 1=On

Ultimate 787



Sim Builders Kit

R Trim Air Pack Button	4	QW_OH_TRIMAIR_R_Button	0=Off, 1=On
Upper Recirc Fans Switch	5	QW_OH_RECIRC_UPP_Button	0=Off, 1=On
Lower Recirc Fans Switch	5	QW_OH_RECIRC_LOW_Button	0=Off, 1=On
Cabin Temp Select Switch	6	QW_OH_CABIN_Temp_Switch	0 – 6
A/C Ventilation Switch Guard	7	QW_OH_VENT_Guard_Switch	0=Closed, 1=Open
A/C Ventilation Switch	7	QW_OH_AC_VENT_Button	0=Off, 1=On

Annunciators

Item Name	#	LVars and Events	Values/Range
EQUIPMENT COOLING FWD OVRD	1	QW_OH_Annun_ECF_OVRD	0=Off, 1=On
EQUIPMENT COOLING FWD OVRD	1	QW_OH_Annun_ECA_OVRD	0=Off, 1=On
L PACK OFF	3	QW_OH_Annun_LPAC_OFF	0=Off, 1=On
R PACK OFF	3	QW_OH_Annun_RPAC_OFF	0=Off, 1=On
TRIM AIR L FAULT	4	QW_OH_Annun_TAL_FAULT	0=Off, 1=On
TRIM AIR R FAULT	4	QW_OH_Annun_TAR_FAULT	0=Off, 1=On
VENTILATION ALTN	7	QW_OH_Annun_ACVENT_ALTN	0=Off, 1=On

Pressurization Subpanel



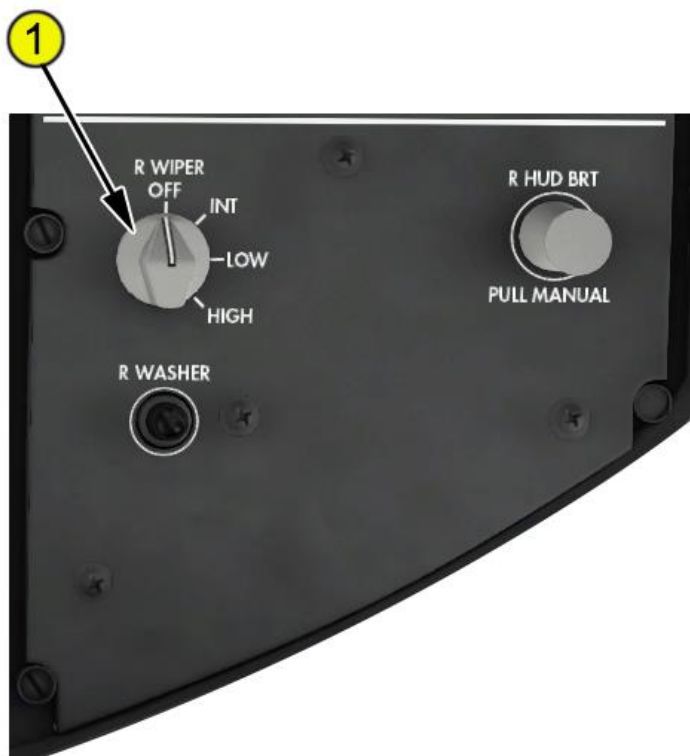
LVars and Events

Item Name	#	LVars and Events	Values/Range
Outflow Valve Fwd Button	1	QW_OH_OV_FWD_Button	0=Auto, 1=Man
Outflow Valve Aft Button	1	QW_OH_OV_AFT_Button	0=Auto, 1=Man
Outflow Valve Fwd Manual Toggle Switch	2	QW_OH_OV_FWD_Switch_CLICKED	1=Close, 2 = Open
Outflow Valve Aft Manual Toggle Switch	2	QW_OH_OV_AFT_Switch_CLICKED	1=Close, 2 = Open
Landing Altitude Selector	3	QW_OH_LDG_ALT_MODE	0=Pushed In, 1=Pulled Out
Landing Altitude Selector	3	QW_OH_LDG_ALT_Knob	0 – 16

Annunciators

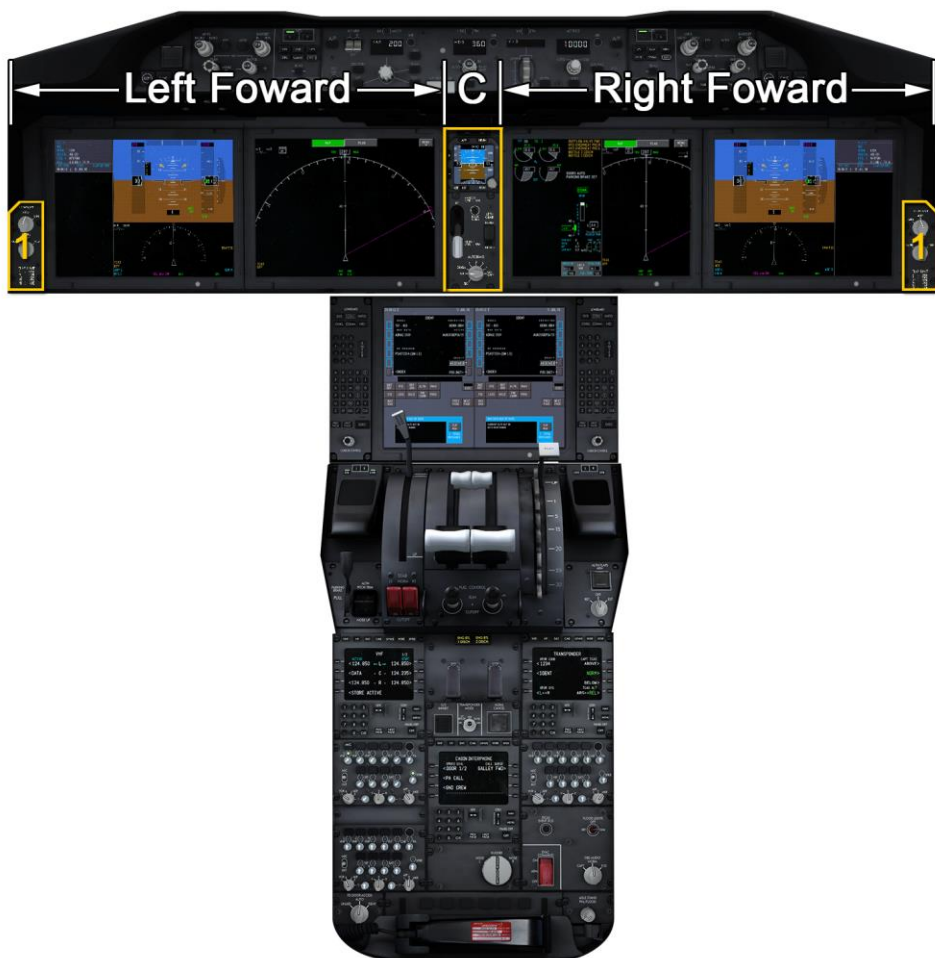
Item Name	#	LVars and Events	Values/Range
FWD MAN	1	QW_OH_Annun_OVFWD_MAN	0=Off, 1=On
AFT MAN	1	QW_OH_Annun_OVAFT_MAN	0=Off, 1=On

Right Miscellaneous Controls Subpanel

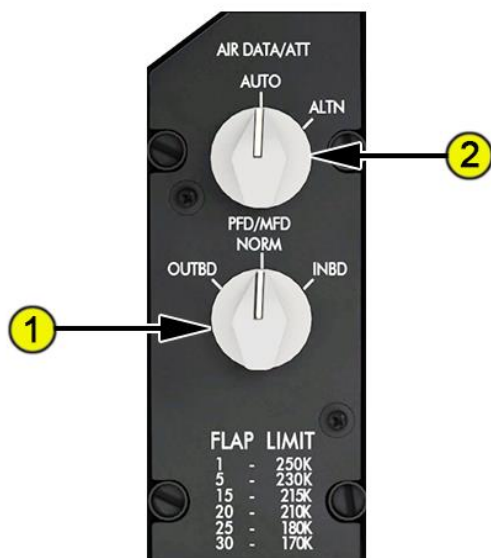
LVars and Events

Item Name	#	Item Type	LVar	Values/Range
Right Wiper		Rotary Switch	QW_OH_R_WIPER_Switch	0=Off, 1=Int, 2=Low, 3=High

Main Instrumental Panel



Instrument Source Select Panels



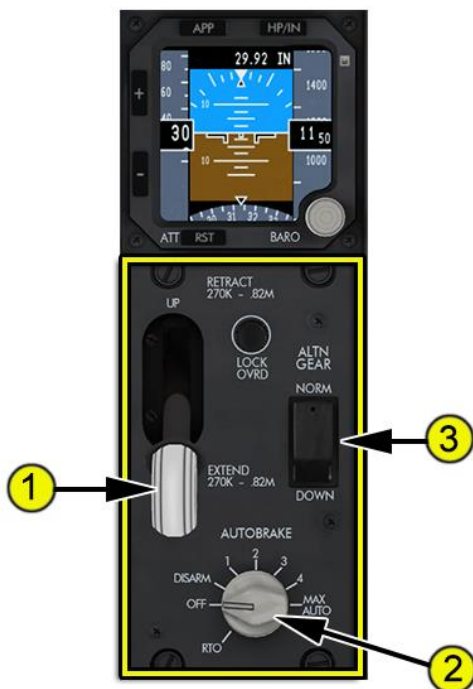
Item Name	#	LVars and Events	Values/Range
Captains Air Data/ATT Select	2	QW_MAIN_AIRDATA_ATT_L_Switch	0=Auto, 1=Altn
FO Air Data/ATT Select		QW_MAIN_AIRDATA_ATT_R_Switch	0=Auto, 1=Altn
Capt PFD/MFD Select	1	QW_MAIN_PFD_MFD_L_Switch	-1=Outbd, 0=Norm, 1=Inbd

Integrated Standby Flight Displays (ISFD)



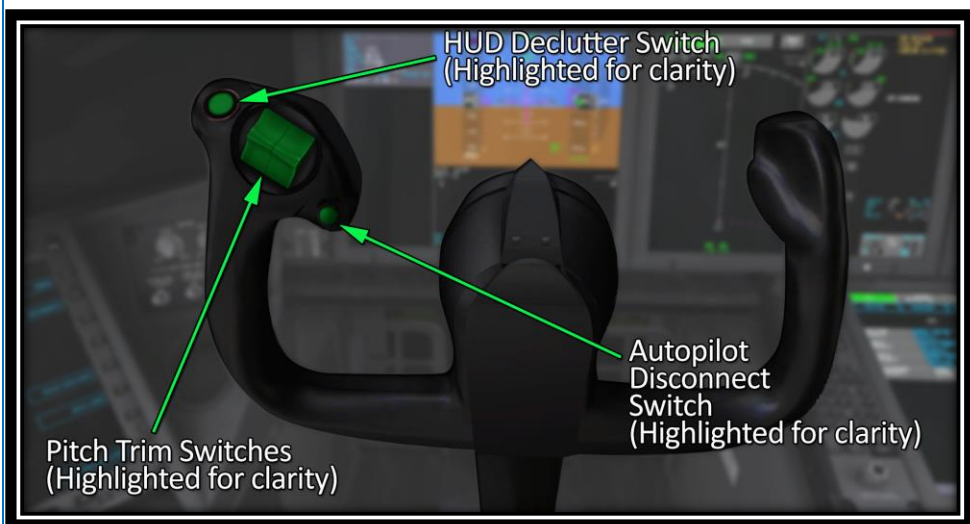
Item Name	#	LVars and Events	Values/Range
ISFD Approach Mode	1	QW_MAIN_SPFD_APP_Button	1=Pressed
ISFD Barometric Select	2	QW_MAIN_SPFD_HPIN_Button	1=Pressed
IFSD '+' Button		QW_MAIN_SPFD_POS_Button	1=Pressed
IFSD '-' Button		QW_MAIN_SPFD_NEG_Button	1=Pressed

Landing Gear Panel



Item Name	#	LVars and Events	Values/Range
Gear Handle	1	KEY_GEAR_TOGGLE KEY_GEAR_UP KEY_GEAR_DOWN	Event
Autobrakes Selector	2	auto_brake_switch	-1 – 6
Alternate Gear Switch	3	QW_altn_gear_extend	1=extend

Control Wheels



Item Name	LVars and Events	Values/Range
Captains HUD Declutter switch	QW_Wheel_L_HUD_Button	1=Push
Autopilot Disconnect Switch (Control Wheel)	ap_master_disconnect	1=Disconnect
Stabilizer Trim Nose Up	KEY_ELEV_TRIM_UP	Event
Stabilizer Trim Nose Down	KEY_ELEV_TRIM_DN	Event

Glareshield Panel



1. [Master Warning/Caution Accept/Cancel/Reject Switches](#)
2. [EFIS Control Panels](#)
3. [Display Select Panels](#)
4. [Mode Control Panel](#)
5. [Glareshield Misc Panel](#)

Master WARNING/CAUTION Reset Switches and Lights



Lvars and Events

Item Name	LVars and Events	Values/Range
Master Warning/Caution Switch (Captain)	QW_MCP_L_WARNING_Button	1=Pressed
Master Warning/Caution Switch (FO)	QW_MCP_R_WARNING_Button	1=Pressed

Annunciators

Item Name	LVars and Events	Values/Range
Master Warning Light (Captain)	QW_MCP_Annun_WARN	0=Off, 1=On
Master Warning Light (FO)	QW_MCP_AnnunR_WARN	0=Off, 1=On
Master Caution Light (Captain)	QW_MCP_Annun_CAUT	0=Off, 1=On
Master Caution Light (FO)	QW_MCP_AnnunR_CAUT	0=Off, 1=On

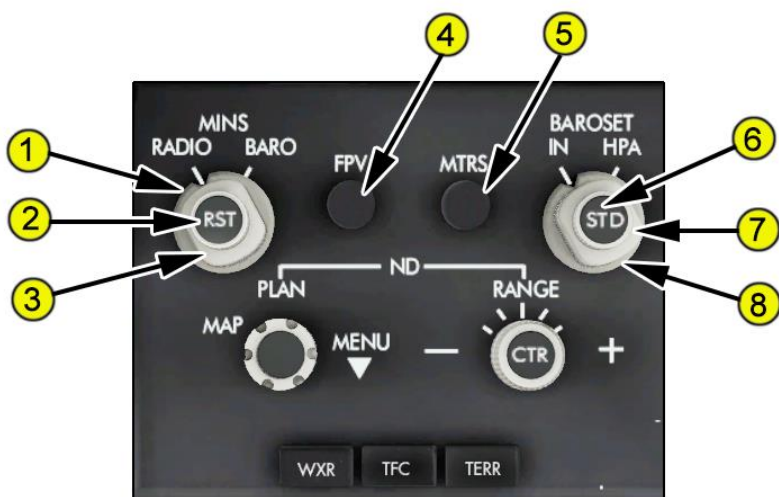
Datalink Accept/Cancel/Reject Switches (Typical)



Lvars and Events

Item Name	#	LVars and Events	Values/Range
Accept Switch L	1	QW_MCP_L_ACPT_Button	1=Pressed
Cancel Switch L	2	QW_MCP_L_CANC_Button	1=Pressed
Reject Switch L	3	QW_MCP_L_RJCT_Button	1=Pressed
Accept Switch R	1	QW_MCP_R_ACPT_Button	1=Pressed
Cancel Switch R	2	QW_MCP_R_CANC_Button	1=Pressed
Reject Switch R	3	QW_MCP_R_RJCT_Button	1=Pressed

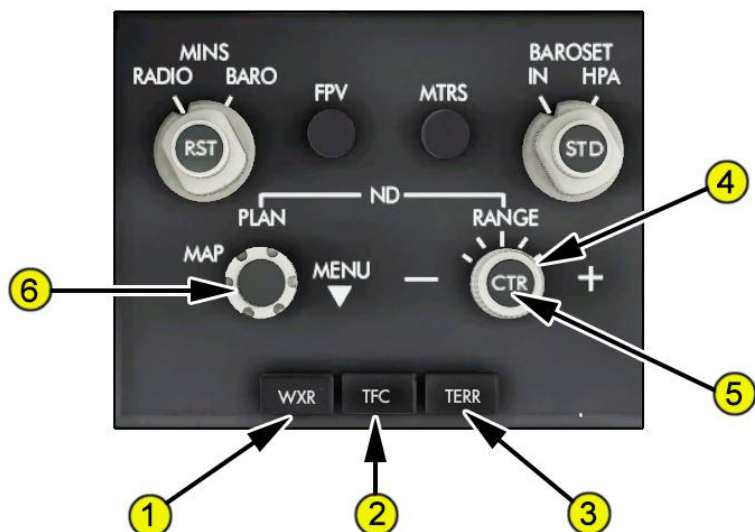
EFIS Control Panel—PFD Controls

Lvars and Events

Item Name	#	LVars and Events	Values/Range
L EFIS Mins Radio/Baro Select Knob	1	QW_MCP_L_RADIO_BARO_Knob	0=Radio, 1=Baro
R EFIS Mins Radio/Baro Select Knob	1	QW_MCP_R_RADIO_BARO_Knob	0=Radio, 1=Baro
L EFIS Mins Reset	2	QW_MCP_L_RB_RST_Button	1=Reset
R EFIS Mins Reset	2	QW_MCP_R_RB_RST_Button	1=Reset
Mins selector	3	qw_dh_clicked	1=Decrease, 2=Increase
L EFIS FPV Button	4	QW_MCP_L_FPV_Button	1=Pressed
R EFIS FPV Button	4	QW_MCP_R_FPV_Button	1=Pressed
L EFIS Meters Button	5	QW_MCP_L_MTRS_Button	1=Pressed
R EFIS Meters Button	5	QW_MCP_R_MTRS_Button	1=Pressed

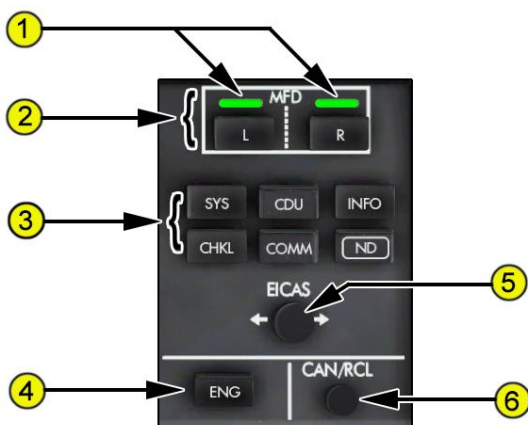
Item Name	#	LVars and Events	Values/Range
L EFIS Meters Button	5	QW_MCP_L_MTRS_Button	1=Pressed
R EFIS Meters Button	5	QW_MCP_R_MTRS_Button	1=Pressed
Capt Baroset STD Select (STD Only for CAPT)	6	QW_MCP_L_BRST_STD_Button	1=Pressed
Capt's Baroset Knob	7	QW_MCP_L_SEL_RB_Knob	1=Decrease, 2=Increase
FO Baroset Knob	7	QW_MCP_R_SEL_RB_Knob	1=Decrease, 2=Increase
Capt Baroset IN/HPA Knob	8	QW_MCP_L_BAROSET_Knob	0-Inches, 1=HPA
FO Baroset IN/HPA Knob	8	QW_MCP_R_BAROSET_Knob	0-Inches, 1=HPA

EFIS Control Panel—ND Controls

Lvars and Events

Item Name	#	LVars and Events	Values/Range
L EFIS WXR Switch	1	QW_MCP_L_WXR_Button	1=Toggle
R EFIS WXR Switch	1	QW_MCP_R_WXR_Button	1=Toggle
L EFIS TFC Switch	2	QW_MCP_L_TFC_Button	1=Toggle
R EFIS TFC Switch	2	QW_MCP_R_TFC_Button	1=Toggle
L EFIS TERR Switch	3	QW_MCP_L_TERR_Button	1=Toggle
R EFIS TERR Switch	3	QW_MCP_R_TERR_Button	1=Toggle
L EFIS Range Selector	4	QW_MCP_L_RANGE_Knob	0 – 12
R EFIS Range Selector	4	QW_MCP_R_RANGE_Knob	0 – 12
L EFIS ND Center	5	QW_MCP_L_RNG_CTR_Button	1=Pressed
R EFIS ND Center	5	QW_MCP_R_RNG_CTR_Button	1=Pressed
L EFIS ND Map/Plan/Menu Mode Selector Knob	6	qw_cpt_nd_knob_clicked	1=Left, 2=Right
L EFIS ND Map/Plan/Menu Mode Selector Button	6	QW_MCP_L_NDMAP_Knob_PUSH	1=Pressed

Display Select Panel



Item Name	#	LVars and Events	Values/Range
L DSP 'L' Button	2	QW_MCP_L_MFD_L_Button	1=Pressed
L DSP 'R' Button	2	QW_MCP_L_MFD_R_Button	1=Pressed
R DSP 'L' Button	2	QW_MCP_R_MFD_L_Button	1=Pressed
R DSP 'R' Button	2	QW_MCP_R_MFD_R_Button	1=Pressed
L DSP 'SYS' Button	3	QW_MCP_L_SYS_Button	1=Pressed
L DSP 'CDU' Button	3	QW_MCP_L_CDU_Button	1=Pressed
L DSP 'INFO' Button	3	QW_MCP_L_INFO_Button	1=Pressed
L DSP 'CHKL' Button	3	QW_MCP_L_CHKL_Button	1=Pressed
L DSP 'COMM' Button	3	QW_MCP_L_COMM_Button	1=Pressed
L DSP 'ND' Button	3	QW_MCP_L_ND_Button	1=Pressed

Ultimate 787

R DSP 'SYS' Button	3	QW_MCP_R_SYS_Button	1=Pressed
R DSP 'CDU' Button	3	QW_MCP_R_CDU_Button	1=Pressed
R DSP 'INFO' Button	3	QW_MCP_R_INFO_Button	1=Pressed
R DSP 'CHKL' Button	3	QW_MCP_R_CHKL_Button	1=Pressed
R DSP 'COMM' Button	3	QW_MCP_R_COMM_Button	1=Pressed
R DSP 'ND' Button	3	QW_MCP_R_ND_Button	1=Pressed
L DSP ENG Button	4	QW_MCP_L_ENG_Button	1=Pressed
R DSP ENG Button	4	QW_MCP_R_ENG_Button	1=Pressed
L DSP 'EICAS' Button	5	QW_MCP_L_EICAS_Button	1=Pressed
R DSP 'EICAS' Button	5	QW_MCP_R_EICAS_Button	1=Pressed
L DSP EICAS CAN/RCL Button	6	QW_MCP_L_CANRCL_Button	1=Pressed
R DSP EICAS CAN/RCL Button	6	QW_MCP_R_CANRCL_Button	1=Pressed

Annunciators

Item Name	#	LVars and Events	Values/Range
L DSP Left Green annunciator	1	QW_MCP_L_MFD_L_GREEN	0=Off, 1=On
L DSP Right Green annunciator	1	QW_MCP_L_MFD_R_GREEN	0=Off, 1=On
R DSP Left Green annunciator	1	QW_MCP_R_MFD_L_GREEN	0=Off, 1=On
R DSP Right Green annunciator	1	QW_MCP_R_MFD_R_GREEN	0=Off, 1=On

Mode Control Panel



Autopilot Flight Director System Controls



Lvars and Events

Item Name	#	LVars and Events	Values/Range
Autopilot Master	1	QW_MCP_L_AP_Button	1=Engage
Autopilot Master	1	KEY_AP_MASTER KEY_AUTOPILOT_OFF KEY_AUTOPILOT_ON	Event
Flight Director Left	3	QW_MCP_L_FD_Switch	0=Off, 1=On
Flight Director	3	KEY_TOGGLE_FLIGHT_DIRECTOR	Event

Annunciators

Item Name	#	LVars and Events	Values/Range
Autopilot Master Light	2	QW_ap_master_l	0=Off, 1=On

Autothrottle System Controls



Lvars and Events

Item Name	#	LVars and Events	Values/Range
Arm Left A/T Switch	1	at_armed_left	0=Off, 1=Arm
Arm Right A/T Switch	1	at_armed_right	0=Off, 1=Arm
Arm A/T Switches	1	KEY_AUTO_THROTTLE_ARM	Event
Climb/Con Button	2	QW_MCP_CLB_CON_Button	1=Pressed
Climb/Con Button	2	KEY_AP_N1_HOLD	Event
A/T Button	3	at_mode_clicked	1=Pressed
A/T Button	3	KEY_AP_AIRSPEED_HOLD	Event
A/T TOGA Mode	5	at_mode_clicked	5=Pressed
A/T TOGA Mode	5	KEY_AUTO_THROTTLE_TO_GA	Event

Annunciators

Item Name	#	LVars and Events	Values/Range
A/T Light	4	at_mode	0=Off, >0=On

Autopilot Flight Director IAS/Mach Controls



Lvars and Events

Item Name	#	LVars and Events	Values/Range
Toggle IAS/MACH	1	QW_MCP_IAS_MACH_Button	1=Pressed
Toggle IAS/MACH	1	KEY_AP_PANEL_HEADING_ON	Event
Adjust Speed	3	QW_MCP_Speed_knob_clicked	1=Decrease, 2=Increase
Adjust Speed	3	KEY_AP_SPD_VAR_INC KEY_AP_SPD_VAR_DEC	Event
Speed Intervention	3	SPD_INTV_knob	0=Off, 1=On
Speed Intervention	3	KEY_AP_PANEL_SPEED_ON	Event
Speed Transfer Button	4	QW_MCP_XFR_Speed_Button	1=Pressed

Autopilot Flight Director Roll and Pitch ControlsLvars and Events

Item Name	#	LVars and Events	Values/Range
LNAV Button	1	ap_lat_mode_clicked	6
LNAV Button	1	KEY_AP_NAV1_HOLD	Event
VNAV Button	3	ap_vert_mode_clicked	5
VNAV Button	3	KEY_AP_WING_LEVELER	Event
FLCH Button	5	ap_vert_mode_clicked	4
FLCH Button	5	KEY_AP_ATT_HOLD	Event

Annunciators

Item Name	#	LVars and Events	Values/Range
LNAV Button Light	2	ap_lat_mode ap_lat_mode_armed	0=Off, 6=On
VNAV Button Light	4	ap_vert_mode ap_vert_mode_armed	0=Off, 5=On, 6=On
FLCH Button Light	6	ap_vert_mode	0=Off, 4=On

Autopilot Flight Director Heading, Track, and Bank Angle ControlsLvars and Events

Item Name	#	LVars and Events	Values/Range
HDG/TRK Button	1	QW_MCP_HDG_TRK_Button	1=Pressed
HDG/TRK Button	1	KEY_AP_PANEL_HEADING_ON	Event
HDG Transfer Button	4	QW_MCP_XFR_HDG_Button	1=Pressed
Bank Limit Selector	5	QW_MCP_BNK_LIMIT_Knob	0 – 6
Bank Limit Selector	5	KEY_AP_MAX_BANK_DEC KEY_AP_MAX_BANK_INC	Event
Heading Selector	6	hdg_knob_clicked	1=Decrease, 2=Increase
Heading Selector	6	KEY_HEADING_BUG_DEC KEY_HEADING_BUG_INC	Event
HDG SEL Button	7	ap_lat_mode_clicked	3
HDG SEL Button	7	KEY_AP_PANEL_HEADING_HOLD	Event
HDG HOLD Button	8	ap_lat_mode_clicked	2
HDG HOLD Button	8	KEY_AP_HDG_HOLD	Event

Annunciators

Item Name	#	LVars and Events	Values/Range
HDG HOLD Button Light	2	ap_lat_mode	0=Off, 2=On, 4=On

Autopilot Flight Director Vertical Speed (V/S) and Flight Path Angle (FPA) Controls



Lvars and Events

Item Name	#	LVars and Events	Values/Range
VS/FPA Button	1	QW_MCP_VS_FPA_Button	1=Pressed
VS/FPA Button	1	KEY_AP_ATT_HOLD_ON	Event
Vertical Speed Wheel	3	QW_MCP_VS_TRIMWHEEL_clicked	1=Decrease, 2=Increase
Vertical Speed Wheel	3	KEY_AP_VS_VAR_DEC KEY_AP_VS_VAR_INC	Event
V/S Button	4	ap_vert_mode_clicked	2
V/S Button	4	KEY_AP_PANEL_ALTITUDE_HOLD	Event

Annunciators

Item Name	#	LVars and Events	Values/Range
V/S Button Light	5	ap_vert_mode	0=Off, 2=On, 3=On

Autopilot Flight Director Altitude Controls



LVars and Events

Item Name	#	LVars and Events	Values/Range
Alt Increment Selector	2	QW_MCP_ALT_AUTO_Knob	0=Auto, 1=1000
Altitude Selector	3	alt_knob_clicked	1=Decrease, 2=Increase
Altitude Selector	3	KEY_AP_ALT_VAR_DEC KEY_AP_ALT_VAR_INC	Event
Altitude Intervention	3	ALT_INTV_knob	0=Off, 1=On
Altitude Intervention	3	KEY_AP_ALT_HOLD_ON	Event
Altitude Hold Button	4	ap_vert_mode_clicked	1
Altitude Hold Button	4	KEY_AP_ALT_HOLD	Event
Altitude Trnsfer Button	6	QW_MCP_XFR_ALT_Button	1=Pressed

Annunciators

Item Name	#	LVars and Events	Values/Range
V/S Button Light	5	ap_vert_mode	0=Off, 2=On, 3=On

Autopilot Flight Director Approach Mode Controls



Lvars and Events

Item Name	#	LVars and Events	Values/Range
LOC/FAC Button	1	ap_lat_mode_clicked	7
LOC/FAC Button	1	KEY_AP_LOC_HOLD	Event
APP Button	3	ap_vert_mode_clicked	10
APP Button	3	KEY_AP_APR_HOLD	Event

Annunciators

Item Name	#	LVars and Events	Values/Range
LOC/FAC Button Light	5	ap_lat_mode	0=Off, 2=On, 3=On
APP Button Light		ap_vert_mode ap_vert_mode_armed	0=Off,

Glareshield Misc Panel

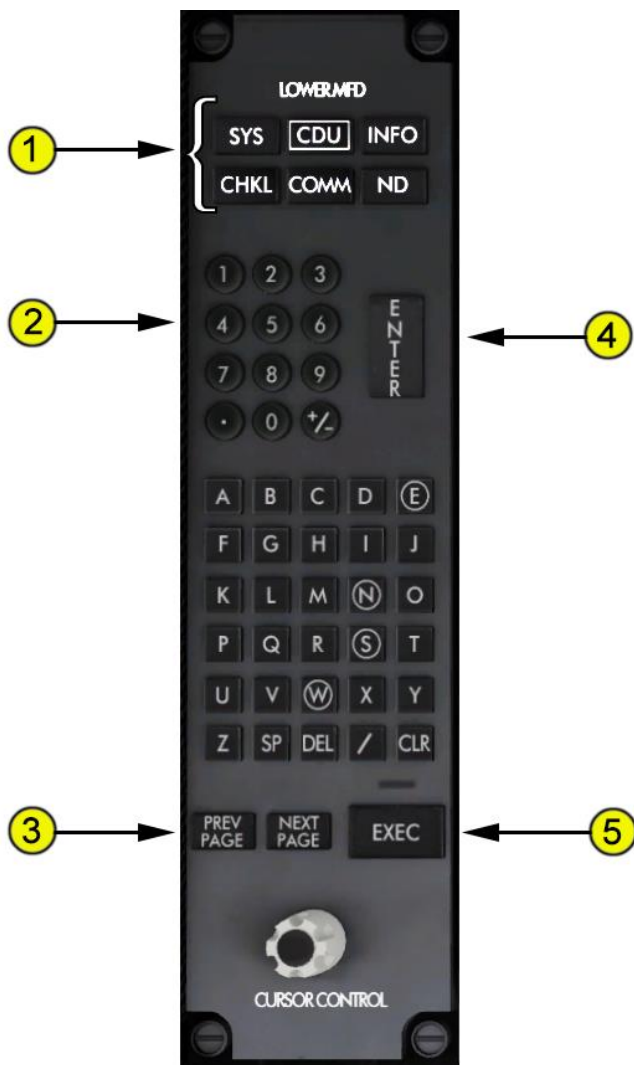
Lvars and Events

Item Name	#	LVars and Events	Values/Range
Capt Clock Switch	1	QW_MCP_Clock_L_Button	1=Pressed
FO Clock Switch	1	QW_MCP_Clock_R_Button	1=Pressed

Forward Aisle Stand



Multi-Function Keypad (MFK)



Ultimate 787

Item Name	#	LVars and Events	Values/Range
L MFK Lower MFD 'SYS' Button	1	QW_FMC_L_SYS_Button	1=Pressed
L MFK Lower MFD 'CDU' Button	1	QW_FMC_L_CDU_Button	1=Pressed
L MFK Lower MFD 'INFO' Button	1	QW_FMC_L_INFO_Button	1=Pressed
L MFK Lower MFD 'CHKL' Button	1	QW_FMC_L_CHKL_Button	1=Pressed
L MFK Lower MFD 'COMM' Button	1	QW_FMC_L_COMM_Button	1=Pressed
L MFK Lower MFD 'ND' Button	1	QW_FMC_L_ND_Button	1=Pressed
R MFK Lower MFD 'SYS' Button	1	QW_FMC_R_SYS_Button	1=Pressed
R MFK Lower MFD 'CDU' Button	1	QW_FMC_R_CDU_Button	1=Pressed
R MFK Lower MFD 'INFO' Button	1	QW_FMC_R_INFO_Button	1=Pressed
R MFK Lower MFD 'CHKL' Button	1	QW_FMC_R_CHKL_Button	1=Pressed
R MFK Lower MFD 'COMM' Button	1	QW_FMC_R_COMM_Button	1=Pressed
R MFK Lower MFD 'ND' Button	1	QW_FMC_R_ND_Button	1=Pressed
MFK Left '1' Button	2	QW_FMC_L_1_Button	1=Pressed
MFK Left '2' Button	2	QW_FMC_L_2_Button	1=Pressed
MFK Left '3' Button	2	QW_FMC_L_3_Button	1=Pressed
MFK Left '4' Button	2	QW_FMC_L_4_Button	1=Pressed
MFK Left '5' Button	2	QW_FMC_L_5_Button	1=Pressed
MFK Left '6' Button	2	QW_FMC_L_6_Button	1=Pressed
MFK Left '7' Button	2	QW_FMC_L_7_Button	1=Pressed
MFK Left '8' Button	2	QW_FMC_L_8_Button	1=Pressed
MFK Left '9' Button	2	QW_FMC_L_9_Button	1=Pressed
MFK Decimal/Period Button	2	QW_FMC_L_DEC_Button	1=Pressed

Ultimate 787



Sim Builders Kit

MFK Left 'O' Button	2	QW_FMC_L_O_Button	1=Pressed
MFK Left '-' Button	2	QW_FMC_L_NEGPOS_Button	1=Pressed
MFK Left 'A' Button	2	QW_FMC_L_A_Button	1=Pressed
MFK Left 'B' Button	2	QW_FMC_L_B_Button	1=Pressed
MFK Left 'C' Button	2	QW_FMC_L_C_Button	1=Pressed
MFK Left 'D' Button	2	QW_FMC_L_D_Button	1=Pressed
MFK Left 'E' Button	2	QW_FMC_L_E_Button	1=Pressed
MFK Left 'F' Button	2	QW_FMC_L_F_Button	1=Pressed
MFK Left 'G' Button	2	QW_FMC_L_G_Button	1=Pressed
MFK Left 'H' Button	2	QW_FMC_L_H_Button	1=Pressed
MFK Left 'I' Button	2	QW_FMC_L_I_Button	1=Pressed
MFK Left 'J' Button	2	QW_FMC_L_J_Button	1=Pressed
MFK Left 'K' Button	2	QW_FMC_L_K_Button	1=Pressed
MFK Left 'L' Button	2	QW_FMC_L_L_Button	1=Pressed
MFK Left 'M' Button	2	QW_FMC_L_M_Button	1=Pressed
MFK Left 'N' Button	2	QW_FMC_L_N_Button	1=Pressed
MFK Left 'O' Button	2	QW_FMC_L_O_Button	1=Pressed
MFK Left 'P' Button	2	QW_FMC_L_P_Button	1=Pressed
MFK Left 'Q' Button	2	QW_FMC_L_Q_Button	1=Pressed
MFK Left 'R' Button	2	QW_FMC_L_R_Button	1=Pressed
MFK Left 'S' Button	2	QW_FMC_L_S_Button	1=Pressed
MFK Left 'T' Button	2	QW_FMC_L_T_Button	1=Pressed
MFK Left 'U' Button	2	QW_FMC_L_U_Button	1=Pressed
MFK Left 'V' Button	2	QW_FMC_L_V_Button	1=Pressed
MFK Left 'W' Button	2	QW_FMC_L_W_Button	1=Pressed
MFK Left 'X' Button	2	QW_FMC_L_X_Button	1=Pressed
MFK Left 'Y' Button	2	QW_FMC_L_Y_Button	1=Pressed
MFK Left 'Z' Button	2	QW_FMC_L_Z_Button	1=Pressed
MFK Left 'SP' Button	2	QW_FMC_L_SP_Button	1=Pressed
MFK Left 'DEL' Button	2	QW_FMC_L_DEL_Button	1=Pressed
MFK Left 'CLR' Button	2	QW_FMC_L_CLR_Button	1=Pressed
MFK Left 'Next Page' Button		QW_FMC_L_NXTPG_Button	1=Pressed
MFK Left 'Prev Page' Button		QW_FMC_L_PRVPG_Button	1=Pressed
MFK Left 'Exec' Button		QW_FMC_L_EXEC_Button	1=Pressed

Ultimate 787



Sim Builders Kit

MFK Right '1' Button	2	QW_FMC_R_1_Button	1=Pressed
MFK Right '2' Button	2	QW_FMC_R_2_Button	1=Pressed
MFK Right '3' Button	2	QW_FMC_R_3_Button	1=Pressed
MFK Right '4' Button	2	QW_FMC_R_4_Button	1=Pressed
MFK Right '5' Button	2	QW_FMC_R_5_Button	1=Pressed
MFK Right '6' Button	2	QW_FMC_R_6_Button	1=Pressed
MFK Right '7' Button	2	QW_FMC_R_7_Button	1=Pressed
MFK Right '8' Button	2	QW_FMC_R_8_Button	1=Pressed
MFK Right '9' Button	2	QW_FMC_R_9_Button	1=Pressed
MFK Right Decimal/Period Button	2	QW_FMC_R_DEC_Button	1=Pressed
MFK Right '0' Button	2	QW_FMC_R_0_Button	1=Pressed
MFK Right '-' Button	2	QW_FMC_R_NEGPOS_Button	1=Pressed
MFK Right 'A' Button	2	QW_FMC_R_A_Button	1=Pressed
MFK Right 'B' Button	2	QW_FMC_R_B_Button	1=Pressed
MFK Right 'C' Button	2	QW_FMC_R_C_Button	1=Pressed
MFK Right 'D' Button	2	QW_FMC_R_D_Button	1=Pressed
MFK Right 'E' Button	2	QW_FMC_R_E_Button	1=Pressed
MFK Right 'F' Button	2	QW_FMC_R_F_Button	1=Pressed
MFK Right 'G' Button	2	QW_FMC_R_G_Button	1=Pressed
MFK Right 'H' Button	2	QW_FMC_R_H_Button	1=Pressed
MFK Right 'I' Button	2	QW_FMC_R_I_Button	1=Pressed
MFK Right 'J' Button	2	QW_FMC_R_J_Button	1=Pressed
MFK Right 'K' Button	2	QW_FMC_R_K_Button	1=Pressed
MFK Right 'L' Button	2	QW_FMC_R_L_Button	1=Pressed
MFK Right 'M' Button	2	QW_FMC_R_M_Button	1=Pressed
MFK Right 'N' Button	2	QW_FMC_R_N_Button	1=Pressed
MFK Right 'O' Button	2	QW_FMC_R_O_Button	1=Pressed
MFK Right 'P' Button	2	QW_FMC_R_P_Button	1=Pressed
MFK Right 'Q' Button	2	QW_FMC_R_Q_Button	1=Pressed
MFK Right 'R' Button	2	QW_FMC_R_R_Button	1=Pressed
MFK Right 'S' Button	2	QW_FMC_R_S_Button	1=Pressed
MFK Right 'T' Button	2	QW_FMC_R_T_Button	1=Pressed
MFK Right 'U' Button	2	QW_FMC_R_U_Button	1=Pressed
MFK Right 'V' Button	2	QW_FMC_R_V_Button	1=Pressed

Ultimate 787



Sim Builders Kit

MFK Right 'W' Button	2	QW_FMC_R_W_Button	1=Pressed
MFK Right 'X' Button	2	QW_FMC_R_X_Button	1=Pressed
MFK Right 'Y' Button	2	QW_FMC_R_Y_Button	1=Pressed
MFK Right 'Z' Button	2	QW_FMC_R_Z_Button	1=Pressed
MFK Right 'SP' Button	2	QW_FMC_R_SP_Button	1=Pressed
MFK Right 'DEL' Button	2	QW_FMC_R_DEL_Button	1=Pressed
MFK Right 'CLR' Button	2	QW_FMC_R_CLR_Button	1=Pressed
MFK Right 'Next Page' Button		QW_FMC_R_NXTPG_Button	1=Pressed
MFK Right 'Prev Page' Button		QW_FMC_R_PRVPG_Button	1=Pressed
MFK Right 'Exec' Button		QW_FMC_R_EXEC_Button	1=Pressed

Annunciators

Item Name	LVars and Events	Values/Range
MFK Left 'Green' EXEC Button Light	QW_FMC_EXEC_L_Annun	0=Off, 1=On
MFK Right 'Green' EXEC Button Light	QW_FMC_EXEC_R_Annun	0=Off, 1=On

Control Display Unit (CDU) - Soft Keys

Item Name	LVars and Events	Values
LSK 1L	QW_CAPT_CDU_KEYPRESS	1
LSK 2L	QW_CAPT_CDU_KEYPRESS	2
LSK 3L	QW_CAPT_CDU_KEYPRESS	3
LSK 4L	QW_CAPT_CDU_KEYPRESS	4
LSK 5L	QW_CAPT_CDU_KEYPRESS	5
LSK 6L	QW_CAPT_CDU_KEYPRESS	6
LSK 1R	QW_CAPT_CDU_KEYPRESS	9
LSK 2R	QW_CAPT_CDU_KEYPRESS	10
LSK 3R	QW_CAPT_CDU_KEYPRESS	11
LSK 4R	QW_CAPT_CDU_KEYPRESS	12
LSK 5R	QW_CAPT_CDU_KEYPRESS	13
LSK 6R	QW_CAPT_CDU_KEYPRESS	14
INIT REF	QW_CAPT_CDU_KEYPRESS	17
RTE	QW_CAPT_CDU_KEYPRESS	18
DEP ARR	QW_CAPT_CDU_KEYPRESS	19
ALTN	QW_CAPT_CDU_KEYPRESS	20
VNAV	QW_CAPT_CDU_KEYPRESS	21
EXEC	QW_CAPT_CDU_KEYPRESS	22
FIX	QW_CAPT_CDU_KEYPRESS	23
LEGS	QW_CAPT_CDU_KEYPRESS	24
HOLD	QW_CAPT_CDU_KEYPRESS	25
FMC COMM	QW_CAPT_CDU_KEYPRESS	26
PROG	QW_CAPT_CDU_KEYPRESS	27
NAV RAD	QW_CAPT_CDU_KEYPRESS	28
PREV PAGE	QW_CAPT_CDU_KEYPRESS	29
NEXT PAGE	QW_CAPT_CDU_KEYPRESS	30

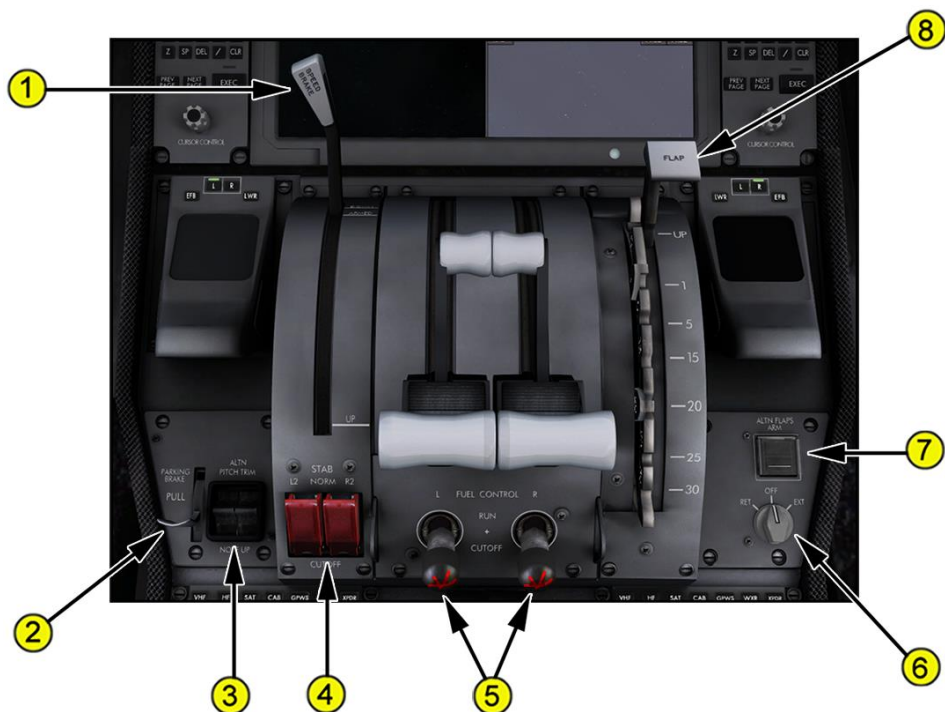
In order to control the First Officer's Soft Keys, use the following Lvar:

QW_FO_CDU_KEYPRESS

Control Stand



Throttle Quadrant

Lvars and Events

Item Name	#	LVars and Events	Values/Range
Spoiler Lever	1	KEY_SPOILERS_SET KEY_AXIS_SPOILER_SET	Event
Parking Brake	2	KEY_PARKING_BRAKES	Event
Alternate Stab Trim Switches	3	KEY_ELEV_TRIM_UP KEY_ELEV_TRIM_DN	Event
Stab Cutout Switch L2	4	QW_THQ_Stab_Norm_L2	1=Cutout, 0=Norm
Stab Cutout Switch R2	4	QW_THQ_Stab_Norm_R2	1=Cutout, 0=Norm

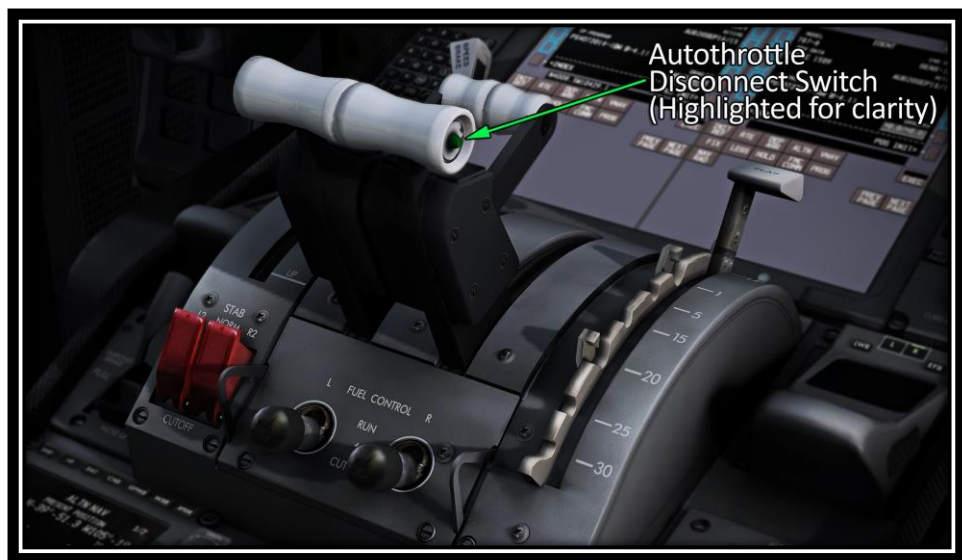
Ultimate 787



Sim Builders Kit

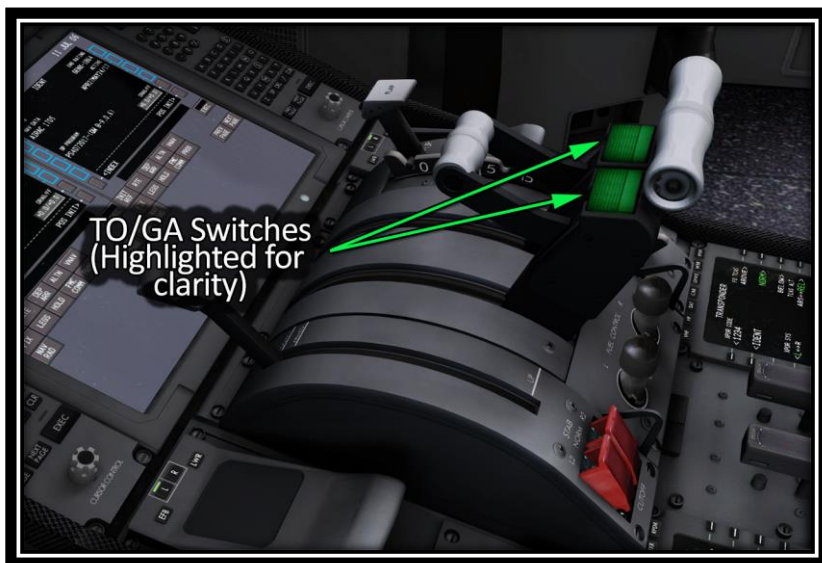
Left Engine Fuel Control Lever	5	KEY_MIXTURE1_LEAN KEY_MIXTURE1_RICH	Event
Right Engine Fuel Control Lever	5	KEY_MIXTURE2_LEAN KEY_MIXTURE2_RICH	Event
Alternate Flaps Selector	6	QW_THQ_Alt_n_flaps_Switch	0=Retract, 2=Extend
Alternate Flaps Arm Switch	7	QW_THQ_Alt_n_flaps_Button	0=Norm, 1=Arm
Flap Lever	8	QW_Flaps_Handle_Index	
Flap Lever	8	KEY_FLAPS_INCR KEY_FLAPS_DECR KEY_FLAPS_AXIS_SET	Event

Autothrottle Disconnect Switches

Lvars and Events

Item Name	LVars and Events	Values/Range
Autothrottle Disconnect Switch	KEY_AP_PANEL_SPEED_OFF	Event
Autothrottle Disconnect Switch	at_mode_clicked	10

TO/GA Switches



Lvars and Events

Item Name	LVars and Events	Values/Range
TO/GA Switches	KEY_AUTO_THROTTLE_TO_GA	Event
TO/GA Switches	at_mode_clicked	5

Ultimate 787

QualityWings^{SIMULATIONS}

Sim Builders Kit

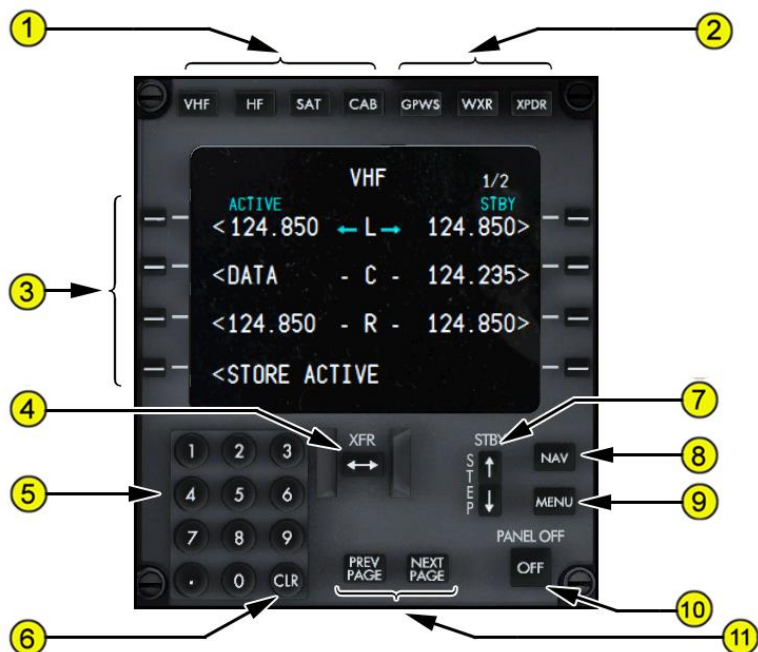
Aft Aisle Stand





1. [Tuning Control Panels](#)
2. [Engine Fire Control Panel](#)
3. [GPWS, ATC & Aural Cancel Switch Panel](#)
4. [Audio Control Panels](#)
5. [Rudder Trim Switch Panel](#)
6. [NOT USEABLE](#)
7. [Flightdeck Door Switch Panel](#)
8. [Aislestand Light Switch](#)

Tuning Control Panel



Item Name	#	LVars and Events	Values/Range
VHF Button	1	QW_AFT_NAV_L_VHF_Button	1=Left, 2=Ctr, 3=Right TCP
HF Button	1	QW_AFT_NAV_L_HF_Button	1=Left, 2=Ctr, 3=Right TCP
SAT Button	1	QW_AFT_NAV_L_SAT_Button	1=Left, 2=Ctr, 3=Right TCP
CAB Button	1	QW_AFT_NAV_L_CAB_Button	1=Left, 2=Ctr, 3=Right TCP
GPWS Button	2	QW_AFT_NAV_L_GPWS_Button	1=Left, 2=Ctr, 3=Right TCP
WXR Button	2	QW_AFT_NAV_L_WXR_Button	1=Left, 2=Ctr, 3=Right TCP

Ultimate 787

XPDR Button	2	QW_AFT_NAV_L_XPDR_Button	1=Left, 2=Ctr, 3=Right TCP
LSK 1L	3	QW_AFT_NAV_L_L1_Button	1=Left, 2=Ctr, 3=Right TCP
LSK 2L	3	QW_AFT_NAV_L_L2_Button	1=Left, 2=Ctr, 3=Right TCP
LSK 3L	3	QW_AFT_NAV_L_L3_Button	1=Left, 2=Ctr, 3=Right TCP
LSK 4L	3	QW_AFT_NAV_L_L4_Button	1=Left, 2=Ctr, 3=Right TCP
LSK 1R	3	QW_AFT_NAV_L_R1_Button	1=Left, 2=Ctr, 3=Right TCP
LSK 2R	3	QW_AFT_NAV_L_R2_Button	1=Left, 2=Ctr, 3=Right TCP
LSK 3R	3	QW_AFT_NAV_L_R3_Button	1=Left, 2=Ctr, 3=Right TCP
LSK 4R	3	QW_AFT_NAV_L_R4_Button	1=Left, 2=Ctr, 3=Right TCP
Transfer Button	4	QW_AFT_NAV_L_XFR_Button	1=Left, 2=Ctr, 3=Right TCP
0 Button	5	QW_AFT_NAV_L_0_Button	1=Left, 2=Ctr, 3=Right TCP
1 Button	5	QW_AFT_NAV_L_1_Button	1=Left, 2=Ctr, 3=Right TCP
2 Button	5	QW_AFT_NAV_L_2_Button	1=Left, 2=Ctr, 3=Right TCP
3 Button	5	QW_AFT_NAV_L_3_Button	1=Left, 2=Ctr, 3=Right TCP
4 Button	5	QW_AFT_NAV_L_4_Button	1=Left, 2=Ctr, 3=Right TCP
5 Button	5	QW_AFT_NAV_L_5_Button	1=Left, 2=Ctr, 3=Right TCP
6 Button	5	QW_AFT_NAV_L_6_Button	1=Left, 2=Ctr, 3=Right TCP
7 Button	5	QW_AFT_NAV_L_7_Button	1=Left, 2=Ctr, 3=Right TCP

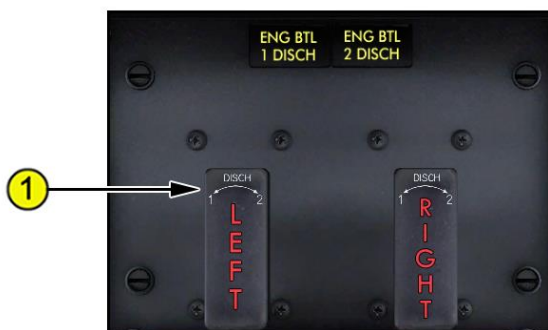
Ultimate 787



Sim Builders Kit

8 Button	5	QW_AFT_NAV_L_8_Button	1=Left, 2=Ctr, 3=Right TCP
9 Button	5	QW_AFT_NAV_L_9_Button	1=Left, 2=Ctr, 3=Right TCP
Period Button	5	QW_AFT_NAV_L_DEC_Button	1=Left, 2=Ctr, 3=Right TCP
Clear Button	6	QW_AFT_NAV_L_CLR_Button	1=Left, 2=Ctr, 3=Right TCP
Step Button	7	QW_AFT_NAV_L_STEP_Button	1=Previous, 2=Next
NAV Button	8	QW_AFT_NAV_L_NAV_Button	1=Left, 2=Ctr, 3=Right TCP
MENU Button	9	QW_AFT_NAV_L_MENU_Button	1=Left, 2=Ctr, 3=Right TCP
OFF Button	10	QW_AFT_NAV_L_OFF_Button	1=Left, 2=Ctr, 3=Right TCP
NEXT Page Button	11	QW_AFT_NAV_L_NXTPG_Button	1=Left, 2=Ctr, 3=Right TCP
PREV Page Button	11	QW_AFT_NAV_L_PRVPG_Button	1=Left, 2=Ctr, 3=Right TCP

Engine Fire Control Panel



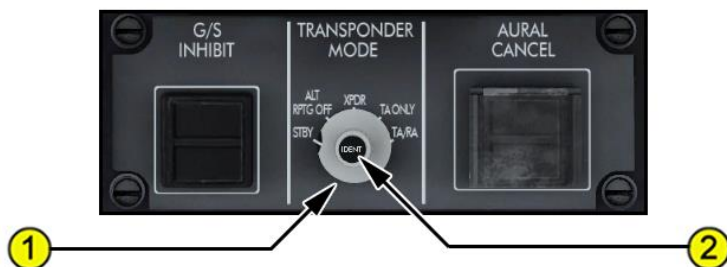
Lvars and Events

Item Name	LVars and Events	Values/Range
L Engine Fire Handle	QW_AFT_ENG1_FIRE_HNDL	0=Norm, 1=Pulled Pos, 2=Left Pos, 3=Right Pos
R Engine Fire Handle	QW_AFT_ENG2_FIRE_HNDL	0=Norm, 1=Pulled Pos, 2=Left Pos, 3=Right Pos

Annunciators

Item Name	LVars and Events	Values/Range
LEFT Fire Light	ENG ON FIRE:1 (Sim Variable)	0=Off, 1=On
RIGHT Fire Light	ENG ON FIRE:2 (Sim Variable)	0=Off, 1=On
Eng Btl 1 Disch Light	QW_OH_FIRE_BOTTLE_1_EMPTY	0=Off, 1=On
Eng Btl 2 Disch Light	QW_OH_FIRE_BOTTLE_2_EMPTY	0=Off, 1=On

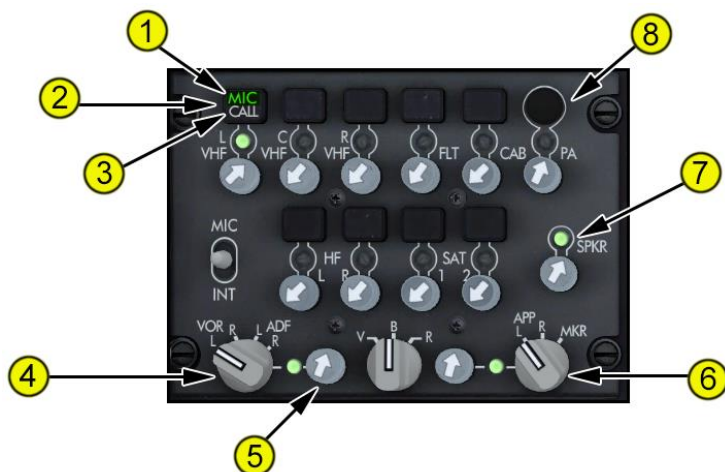
GPWS, ATC & Aural Cancel Switch Panel



Lvars and Events

Item Name	#	LVars and Events	Values/Range
Transponder Mode Selector Knob	1	QW_AFT_Transponder_Knob	0-4
Transponder Ident Button	2	QW_AFT_Transponder_Button	1=Pressed

Audio Control Panels (Captains Only Simulated)



Lvars and Events

Item Name	#	LVars and Events	Values/Range
APP Receiver	6	QW_AFT_L_AUDIO_APP_Knob	0 – 3
Receiver Volume		QW_AFT_L_AUDIO_APP_RECEIVE_Knob	0=Off, 1=On
VOR/ADF Receiver	4	QW_AFT_L_AUDIO_VOR_Knob	0 – 4
Receiver Volume	5	QW_AFT_L_AUDIO_VOR_RECEIVE_Knob	0=Off, 1=On
Active Mic	1	QW_ACP_ACTIVE_MIC	1 – 3
Active VHF	1	QW_ACP_AUDIO_1	0=Off, 1=On
Active VHF		QW_ACP_AUDIO_2	0=Off, 1=On
Active VHF		QW_ACP_AUDIO_3	0=Off, 1=On

These variables can also be used for annunciators.

Rudder Trim Switch Panel



Aft Aisle Stand

Lvars and Events

Item Name	LVars and Events	Values/Range
Rudder Trim	KEY_RUDDER_TRIM_LEFT KEY_RUDDER_TRIM_RIGHT	Event

Flightdeck Door Switch Panel

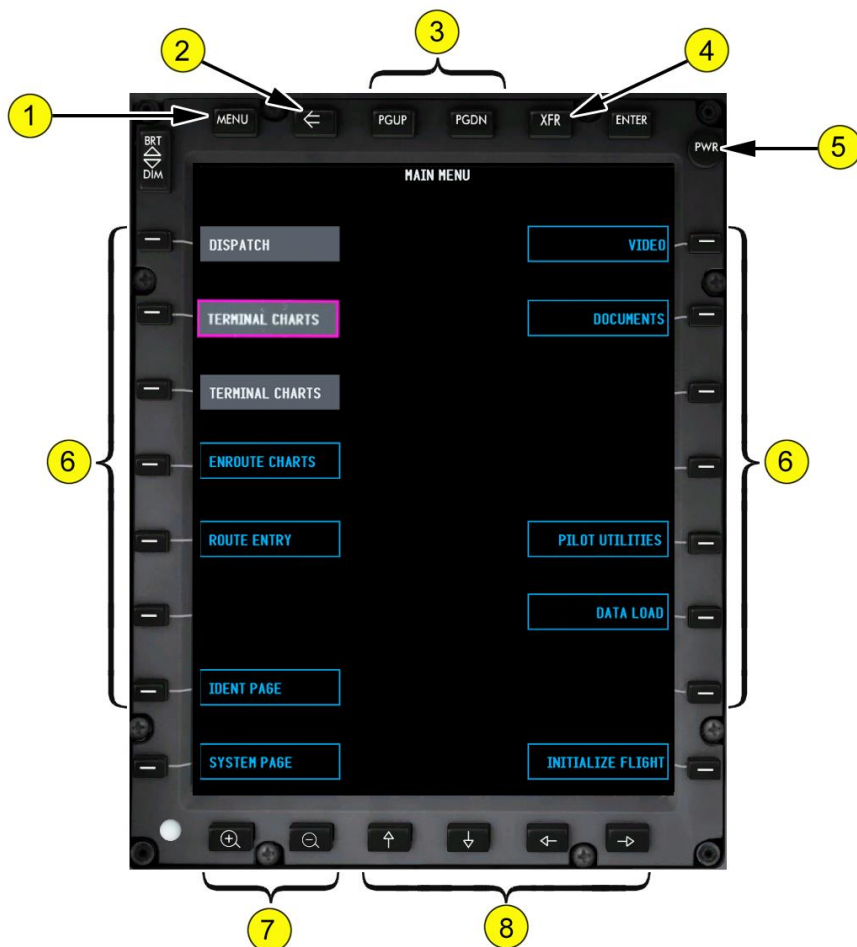
Lvars and Events

Item Name	LVars and Events	Values/Range
FD Door Access Switch	QW_AFT_FD_DOOR_Switch	0=UnLkd, 1=Auto, 2=Deny



Item Name	LVars and Events	Values/Range
Aislestand Panel Lighting (Text)	QW_AFT_TEXT	0=Off, 1=On
Aislestand Panel Lighting (Flood)	QW_AftFlood	0 – 4

Electronic Flight Bag (EFB)



Lvars and Events

Item Name	#	LVars and Events	Values/Range
Capt EFB Menu Button		QW_EFB_L_MENU_Button	1=Pressed
Capt EFB Redirect Button		QW_EFB_L_REDIRECT_Button	1=Pressed
Capt EFB PGUP Button		QW_EFB_L_PGUP_Button	1=Pressed
Capt EFB PGDN Button		QW_EFB_L_PGDN_Button	1=Pressed
Capt EFB XFR Button		QW_EFB_L_XFR_Button	1=Pressed

Ultimate 787



Sim Builders Kit

Capt EFB Pwr Button		QW_EFB_L_PWR_Button	1=Pressed
Capt EFB L1 Button		QW_EFB_L_L1_Button	1=Pressed
Capt EFB L2 Button		QW_EFB_L_L2_Button	1=Pressed
Capt EFB L3 Button		QW_EFB_L_L3_Button	1=Pressed
Capt EFB L4 Button		QW_EFB_L_L4_Button	1=Pressed
Capt EFB L5 Button		QW_EFB_L_L5_Button	1=Pressed
Capt EFB L6 Button		QW_EFB_L_L6_Button	1=Pressed
Capt EFB L7 Button		QW_EFB_L_L7_Button	1=Pressed
Capt EFB L8 Button		QW_EFB_L_L8_Button	1=Pressed
Capt EFB R1 Button		QW_EFB_L_R1_Button	1=Pressed
Capt EFB R2 Button		QW_EFB_L_R2_Button	1=Pressed
Capt EFB R3 Button		QW_EFB_L_R3_Button	1=Pressed
Capt EFB R4 Button		QW_EFB_L_R4_Button	1=Pressed
Capt EFB R5 Button		QW_EFB_L_R5_Button	1=Pressed
Capt EFB R6 Button		QW_EFB_L_R6_Button	1=Pressed
Capt EFB R7 Button		QW_EFB_L_R7_Button	1=Pressed
Capt EFB R8 Button		QW_EFB_L_R8_Button	1=Pressed
Capt EFB Zoom In (+) Button		QW_EFB_L_ZOOMIN_Button	1=Pressed
Capt EFB Zoom Out (+) Button		QW_EFB_L_ZOOMOUT_Button	1=Pressed
Capt EFB Move Up		QW_EFB_L_UP_Button	1=Pressed
Capt EFB Move Down		QW_EFB_L_DN_Button	1=Pressed
Capt EFB Move Left		QW_EFB_L_LFT_Button	1=Pressed
Capt EFB Move Right		QW_EFB_L_RGT_Button	1=Pressed
FO EFB Menu Button		QW_EFB_R_MENU_Button	1=Pressed
FO EFB Redirect Button		QW_EFB_R_REDIRECT_Button	1=Pressed
FO EFB PGUP Button		QW_EFB_R_PGUP_Button	1=Pressed
FO EFB PGDN Button		QW_EFB_R_PGDN_Button	1=Pressed
FO EFB XFR Button		QW_EFB_R_XFR_Button	1=Pressed
FO EFB Pwr Button		QW_EFB_R_PWR_Button	1=Pressed
FO EFB L1 Button		QW_EFB_R_L1_Button	1=Pressed
FO EFB L2 Button		QW_EFB_R_L2_Button	1=Pressed
FO EFB L3 Button		QW_EFB_R_L3_Button	1=Pressed
FO EFB L4 Button		QW_EFB_R_L4_Button	1=Pressed

Ultimate 787



Sim Builders Kit

FO EFB L5 Button		QW_EFB_R_L5_Button	1=Pressed
FO EFB L6 Button		QW_EFB_R_L6_Button	1=Pressed
FO EFB L7 Button		QW_EFB_R_L7_Button	1=Pressed
FO EFB L8 Button		QW_EFB_R_L8_Button	1=Pressed
FO EFB R1 Button		QW_EFB_R_R1_Button	1=Pressed
FO EFB R2 Button		QW_EFB_R_R2_Button	1=Pressed
FO EFB R3 Button		QW_EFB_R_R3_Button	1=Pressed
FO EFB R4 Button		QW_EFB_R_R4_Button	1=Pressed
FO EFB R5 Button		QW_EFB_R_R5_Button	1=Pressed
FO EFB R6 Button		QW_EFB_R_R6_Button	1=Pressed
FO EFB R7 Button		QW_EFB_R_R7_Button	1=Pressed
FO EFB R8 Button		QW_EFB_R_R8_Button	1=Pressed
FO EFB Zoom In (+) Button		QW_EFB_R_ZOOMIN_Button	1=Pressed
FO EFB Zoom Out (+) Button		QW_EFB_R_ZOOMOUT_Button	1=Pressed
FO EFB Move Up		QW_EFB_R_UP_Button	1=Pressed
FO EFB Move Down		QW_EFB_R_DN_Button	1=Pressed
FO EFB Move Left		QW_EFB_R_LFT_Button	1=Pressed
FO EFB Move Right		QW_EFB_R_RGT_Button	1=Pressed

Product Support

E-Commerce Support

Support related to your transaction or problems with the Flight1 Wrapper is handled via the Flight1 Support Site:

<http://www.flight1.com/view.asp?page=service>

Product Technical Support

All product technical support is handled via a web forum system. There is no telephone based support.

Please visit us on our forums at <http://qwsim.flight1.net/forums/forums.html>

QualityWings staff members do not have assigned hours of operation, but we periodically monitor these forums several times daily, excluding holidays. Our staff is not required to work weekends so any forum post or support ticket may not be answered during weekend or holiday hours. We ask that you remain patient when waiting for a response as we have members patrolling the forums at varying times due to our locations around the globe. When posting to the forum(s), please make sure you direct your post to the correct forum.

Misdirected posts may not get a staff reply.

About the QualityWings 787 Team



Corey Ford (President) (2007)

- Master Textures Development
- Advisor

Ernie Alston (2009)

- General Systems & FMS Programming

Kyle Schurb (2015)

- Virtual Cockpit Texture Development

Lars Roennig (Vice President) (2009)

- Exterior Modeling
- Autoflight & Flight Control Systems Programming

Nick Peterson (2009)

- Flight Dynamics Programming

Emil Serafino (2007)

- Sounds Development

Jacob Kubicki (2007)

- Virtual Cockpit Modeling