



Boeing 757-200

FSX Flight Deck Panel

Version 1.0

Documentation

27 October 2015

Author: G Munro

Boeing 757-200 Panel

Table of Contents

INSTALLATION.....	3	Gear Lever and Lights	23
Fonts	3	Ground Proximity Warning Buttons.....	24
Aircraft.cfg Changes	3	The Hydraulic Pressure Gauge	24
[Fuel]	3	The EFIS Control Panel.....	24
[General].....	3	Glareshield Panels.....	26
[Hydraulic]	3	The Master Caution and Warning	
[Autopilot].....	3	Lights	26
[Pneumatic_system]	4	The Radios	27
[Brakes]	4	The Autopilot.....	27
[Exits].....	4	Standby Compass Panel.....	30
Callouts.....	4	Overhead Panel	31
Mouse Controls	4	Overhead INS Mode Sel Panel	32
When all else fails read the Instructions.....	4	Overhead Yaw Damper and EEC	
INSTRUCTIONS	5	Panels	32
Introduction	5	Overhead Hydraulics Panel	33
Technical Issues	6	Overhead Annunciator Panel	33
Exits.....	6	Overhead Evacuation and HF radio	
Night Lights.....	6	Panels	34
Icons	6	Overhead Electrical Panel.....	34
Main Panel.....	7	Overhead Cockpit Voice Recorder	
The Sundry Left side Switches.....	7	Panel.....	35
The Airspeed Indicator.....	7	Overhead Taxi Lights Panel	35
The RDMI	8	Overhead Emergency lights,	
The ADI.....	8	Passenger Oxygen, and Engine Start	
The MFD	9	36
The TAWS Map	10	Overhead Fuel Panel.....	37
The Autoland Status Gauge.....	11	Overhead Anti-Ice Panel.....	38
The Altimeter	11	Overhead Landing Lights Panel	38
The Marker Beacon Lights.....	11	Overhead Window Heat Panel.....	39
The Vertical Speed Indicator.....	12	Overhead HF Radio (2).....	39
The Clock	12	Overhead VHF SELCAL Panel.....	39
The Reserve Brakes Switch.....	13	Overhead PASS SIGNS Panel.....	39
The Standby ADI	13	Overhead Cabin Altitude Control ..	40
The Standby Airspeed Indicator.....	13	Overhead Panel Lights Panel.....	41
The Standby Altimeter	14	Overhead Cabin Temperature Panel.....	42
The Annunciator Lights	14	Throttle Quadrant.....	43
The SEI.....	15	Throttle Operation.....	43
The Autobrake Switch.....	16	Speed Brake Operation	44
The EICAS Panels.....	16	Throttles and Reversers	45
EICAS Messages.....	17	Fire Panel	45
The EICAS Status Panel	20	Rudder and Aileron Trim.....	46
The Normal / True Heading Switch	22	Callout Sounds.....	47
The TMSP	22	Ground Handling Panel	47
The Flaps Indicator.....	23	Copyright	48
Alternative Flaps	23		

Boeing 757-200 Panel

INSTALLATION

If you are reading this you have already unzipped the ZIP file.

To use this panel just copy the B757.CAB file and the panel.cfg file to your FSX \panel sub-directory.

This panel has been tested with the Opensky Boeing 757 and should work on other models. The 757-200 and 757-300 series flight decks seem to be identical so this can be used on either model but the V-speeds are valid only for the 757-200. To make this work correctly some changes are needed to the aircraft.cfg.

Fonts

The Boeing standard font for panel labels is **Century New Gothic**. This panel uses this font as well as other fonts including **Arial**, **ArialNarrow**, **Calibri**, **LCD**, and **Quartz**. LCD and Quartz are not standard Windows® fonts. According to the official Microsoft website the Century New Gothic font is not included in standard Windows® but according to Wikipedia it is included.

The following fonts are included in this package and can be copied to \Windows\fonts if they are not already present:

LCD.TTF
Quartz.TTF
Gothic.TTF

Aircraft.cfg Changes

Corrections to the aircraft.cfg can be done with Notepad in the sections detailed below:

[Fuel]

For any aircraft it is essential for the **number_of_tank_selectors** under this section to equal 2 for the fuel system to work. Most aircraft only show 1.

[General]

V speeds are provided for both the Rolls-Royce 535E4 engine and the Pratt and Whitney PW4037 engine. The default is the 535E4 engine so no change is needed if you are using this engine or do not care about the type of engine. To use the PW4037 engine the ATC_ID= must be "757-200PW". If this is set then the V speeds will automatically be calculated for the PW4037 engine.

[Hydraulic]

Electric_pumps should be 2

[Autopilot]

It is recommended to set **default_vertical_speed=** to 1800 (if not already).

Boeing 757-200 Panel

[Pneumatic_system]

For Wing de-icing to work the parameter **structural_deice_type** should not be zero (2 is correct but 1 also works).

[Brakes]

There needs to be the following line added for the hydraulic system to work:

```
hydraulic_system_scalar = 1
```

[Exits]

On the Opensky model the Jetway attempts unsuccessfully to go to exit 2 instead of the main exit. To align with the main exit change the exit.0 line as follows:

```
exit.0 = 0.4, 60.3, -4.0, 9, 0
```

Scenery Complexity in FSX needs to be set to “Dense” or greater for Jetways to be visible.

Callouts

The panel has built-in altitude callout software which varies by aircraft model. Altitude Callouts for approach are built into the software and require only the sounds by Jimmy Foong which are available on Flightsim.com as **cmp777cl.zip**. A copy of the sounds is included with this package – just copy the CALLOUT directory to the FSX\Sounds folder and copy CALLOUT_SOUND.dll by Doug Dawson to the FSX\Gauges directory. No need if they are already present.

Mouse Controls

Mouse controls on this panel have been changed to use all the mouse buttons. For dial switches use the left and right mouse to move anti-clockwise or clockwise. Vertical dials like the Vertical Speed dial use the mouse wheel. Left click on switches or buttons for on / off. The Throttle Quadrant takes this system a step further – see the Throttle Quadrant section for details on how to operate the throttle quadrant.

When all else fails read the Instructions

If you carry out the above steps you should have the panel working easily. The only essential change is the [Fuel] change as without this the right engine will receive no fuel.

The instructions which follow may seem daunting however they make it possible to find out what every button and switch is for. It is not necessary to know all of the functions but it can be interesting to experiment with the various switches and learn more about the operation of this aircraft. Everything has been carefully done to follow the real aircraft as closely as possible – albeit in a simplified manner.

Boeing 757-200 Panel

INSTRUCTIONS

Introduction

The Boeing 757 flight deck marked a transitional phase between traditional flight instruments, as seen on the Boeing 737-200, 727, and earlier and automated “glass cockpit” instruments that are seen on the later Boeing 747-400, 777, and 787. So there are modern instruments such as the ADI (forerunner of the PFD), MFD, and EICAS and several transitional instruments not seen on later aircraft such as the Standby Engine Indicator and the Autoland Status indicator. Essential instruments such as the Altimeter and Airspeed Indicator are still traditional mechanical instruments.

The layout of the panel is somewhat haphazard compared to later aircraft. The EFIS control panel for example is mounted next to the Throttle Quadrant rather than on the Glareshield which has become the standard location. Instead radios are located on the Glareshield as with earlier aircraft.

This panel has been built as close as possible to the actual flight deck with the Boeing Operations Manual used as a reference for functionality. Some of the features of this panel are:

- A full set of scrolling EICAS messages
- Full function ADI and MFD
- V Speed display on the ADI
- Switching between True and Magnetic headings
- New Throttle Control system
- Fuel Management System following the Boeing system
- TAWS Map and enhanced terrain display maps

There were two basic variations on the Boeing 757 – the 757-200 and 757-300 with a choice of Rolls Royce or Pratt and Whitney engines. This panel is designed for the Boeing 757-200 although photographic evidence would indicate that both models had virtually identical flight decks. The default engine for this aircraft is the Rolls Royce 535E4 however V speeds are provided for the Pratt and Whitney engine accessible using the instructions in the installation section. V speeds are not correct for the Boeing 757-300.

This panel is meant for the average FSX user who is not a pilot. Much more sophisticated panels are available as payware.

This panel was developed on FSX Acceleration edition and designed around the default and the Opensky Boeing 747-400 specifically for **1920X1080** screens. It will probably not work on FS9.

Boeing 757-200 Panel

Technical Issues

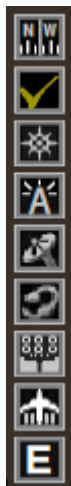
Exits

FSX allows for up to four exits to be defined in the aircraft.cfg. Internally a variable is provided to test if exits are open called “Exit Open:x” where x can be 1 to 4. This variable works only for Exit 1. The workaround has been to use “local” variables to determine if the door is open – this is how there can be four doors even if less are defined.

Night Lights



During night operations the white backlighting as on the real aircraft can be switched on. They can be switched on with the three lighting switches at the bottom left of the overhead panel: the CKT BKR OVHD PANEL Switch for the overhead lights, the GLARESHIELD PANEL/LOGO Switch for the Glareshield and the AISLE STAND PANEL/LOGO Switch for the main panel. The standard FSX night lights can be switched on with the LT OVRD switch.



Icons

The standard icons are at the bottom left of the main panel with two additional icons.

The “Compass” icon at the top will cause the upper screen and Compass to disappear giving greater visibility.

The **E** icon at the bottom is to call up the EFIS Control Panel to change the MFD settings. This is rather annoying in FSX as the EFIS Control panel is often used several times in flight however it was felt this was preferable to having to load the Throttle Quadrant each time. The EFIS control panel on the Throttle Quadrant is also functional.

Boeing 757-200 Panel

Main Panel



The Main Panel

The main features of the main panel are the four CRT screens: the first displaying the Attitude Direction Indicator (ADI); the second the MFD, the third displays the primary EICAS, and the fourth displays the secondary EICAS or the EICAS Status Display.

Below are descriptions of the various gauges moving from left to right across the main panel.

The Sundry Left side Switches

These switches are all dummy switches but match the real switches. The Clock button on the extreme left however does reset the stopwatch in the Clock. The other switches set the sources of data for various systems on the aircraft. They have no effect in FSX.

At the bottom left are switches for the heaters for the pilot.

The Airspeed Indicator



The primary Airspeed Indicator is a traditional electro-mechanical instrument. On the real aircraft the white bugs around the rim are set manually by the pilot to the various calculated speeds. On this simulation however the four white bugs automatically move to the following calculated speeds:

- Bug 1: V1
- Bug 2: VR
- Bug 3: Minimum Manoeuvring Speed at current Flap setting
- Bug 4: Minimum Flaps Up Speed

Boeing 757-200 Panel

At start up or when these variables are not available the bugs all stack up at the zero position. The same information is also displayed on the ADI.

Note that the Mach speed displays only when speed is over Mach 0.4 as per the Boeing Operations Manual.

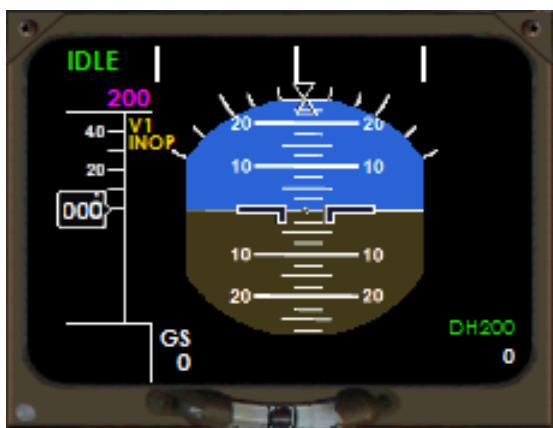
The RDMI



The Radio Distance Magnetic Indicator or RDMI is an electro-mechanical instrument showing the direction to the tuned VOR or ADF. In FSX only one ADF is available.

When APP mode is selected on the EFIS Control Panel the DME shows the distance to the ILS station with an "L" prefix when a valid ILS is tuned.

The ADI



**Full Option ADI
(from this panel)**



Basic ADI (not in this panel)

Boeing 757-200 Panel

The Boeing 757 had many different options for the Attitude Direction Indicator or ADI starting from a basic instrument with a circular display to a fully-optioned instrument with a lozenge shaped display. This panel has the fully-optioned instrument.

Its display is similar to the PFD seen on later aircraft but with much less functionality. In this full option instrument the airspeed ladder is on the left (other options do not have this ladder) but there is no altitude ladder nor does it show VOR and other information seen on a PFD.

The Mach speed shows at the bottom when it exceeds Mach 0.4.

Note that the Radio Altimeter measures altitude from its antenna to the ground but should display altitude with wheels down from its wheels to the ground. The panel automatically applies a correction factor of 10 feet (the altitude of the antenna from the ground when the aircraft is on the ground).

The Turn and Bank indicator at the bottom of the frame also works.


The MFD



Expanded MFD with Monochrome Map



Rose MFD

The Multi-Function Display (usually referred to as MFD) has the same layout as later MFDs but without many functions such as VOR displays. The range and display mode are controlled by the EFIS Control Panel on the Throttle Quadrant but also with a popup panel which is accessed through the  icon

Clicking on the centre of the MFD or Centre click on the CTR button on the EFIS panel will switch between Expanded and Rose displays.

TCAS is not switched on by default and is switched by centre clicking the TFC dial on the EFIS Control Panel. The symbols for the TCAS radar have been made aircraft symbols to clarify their meaning for a non-pilot.

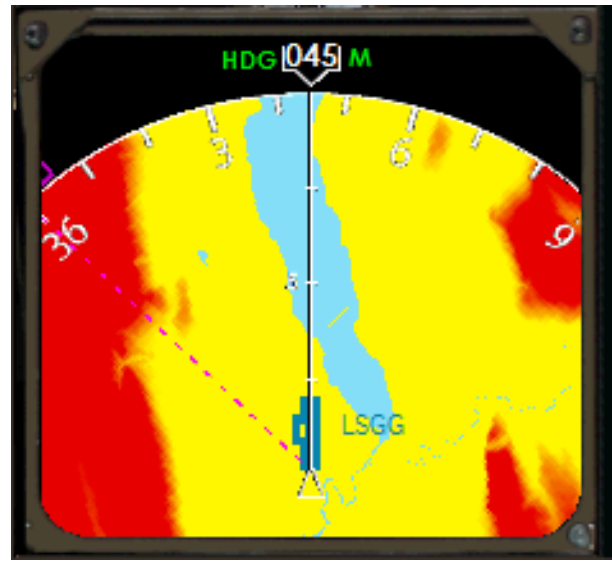
Boeing 757-200 Panel

The colouring for the Terrain is based on Garmin colouring and has Map shadowing (see below) to give it more contrast. On the real aircraft the terrain map is actually a TAWS map but this map is included as well as the TAWS map as it would be more familiar to the FSX user. It is also less temperamental than the TAWS map.

The TAWS Map



Expanded Terrain Map



Expanded TAWS Map

The Terrain Awareness (TAWS) Map is a map which measures terrain altitudes from the height of the aircraft rather than from sea level. The system used on this aircraft follows the colour scheme specified for a Boeing 737-800 however does not have the same accuracy as colours can only be defined in FSX per 1000 feet instead of 250 feet as needed by the specification.

This TAWS map shows terrain from 2000 feet below the aircraft to 1000 feet below the aircraft in Green, from 1000 feet below to 2000 above the aircraft as Yellow, and Terrain more than 2000 feet above the aircraft as Red. Other terrain is not shown. The map above is what you see if the aircraft is on the ground. The specification states that the Green should extend to 500 feet below the aircraft (or 250 feet if gear extended) and the Yellow above that.

The TAWS map is temperamental and often refuses to load. A fairly reliable way to get it to load is to press the TERR button to load the monochrome map, then press the WXR button, then the TERR button again. To close press the TERR button then WXR. The TAWS map refreshes at every 500 feet change in altitude. This can take several seconds.

Note that this TAWS map does not support look ahead terrain as this is not modelled in FSX.

Boeing 757-200 Panel

The Autoland Status Gauge



This is a transitional gauge not seen on later aircraft.

During landing it displays a Green light displays in the upper panel when below 1500 feet and there is a valid Glideslope.

If the Autopilot has been disengaged using the Disengage button on the Glareshield an Amber light displays in the lower panel.

Pressing the respective test button will display the light and pressing again will switch off the test.

The Altimeter



This is a standard traditional electro-mechanical Altimeter and is the primary Altimeter for the aircraft. The Barometric pressure can be altered using the dial at the bottom left. The Autopilot Altitude bug can be altered using the dial on the bottom right.

The Marker Beacon Lights



These three lights to the right of the Altimeter display when passing over the Outer, Middle and Inner markers on Approach.

This picture is contrived – they would never all come on together.

Boeing 757-200 Panel

The Vertical Speed Indicator



This is a standard electro-mechanical instrument displaying the Vertical Speed of the aircraft in 1000s of feet per minute.

In later aircraft this gauge was replaced by a display in the PFD.

The Clock



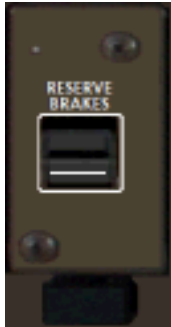
This looks similar to the default Boeing clock but in fact has been rewritten to be more useful. The clock and the sweep hand operate all the time including at start up. The bottom window shows elapsed time commencing from takeoff and stopping 30 seconds after landing. GMT (called “Zulu time”) is shown in the top window. Clicking the date button will display the date in DDMMYY format in the top window. Clicking again returns to GMT time.

Clicking on the CHR button will set the bottom window to zero then pressing the RUN button will start a timer in the bottom window. Pressing the RUN button again will stop the timer and pressing the CHR button while the timer is on will reset it to zero. Pressing the CHR button again after reset will return to displaying the elapsed time.

Clicking on the bottom right Time button will immediately increase the simulation rate to 16 times. Clicking it again will return to normal speed.

Boeing 757-200 Panel

The Reserve Brakes Switch



This switch is to switch on reserve brakes when the main brakes have failed. It does not perform any function in FSX. The annunciator light will light with the message “Brake Press” if there is less than 1100 psi of brake pressure.

The Standby ADI



A standard electro-mechanical Attitude display. The Glideslope and Localiser lines display when tuned to an ILS. The dials are non-functioning.

The Standby Airspeed Indicator



A simplified pneumatic Airspeed indicator without the speed bugs or the maximum speed indicator.

Boeing 757-200 Panel

The Standby Altimeter



The Standby Altimeter is identical to the main Altimeter however is pneumatic rather than electric.

The Annunciator Lights



Above the Annunciator lights are the CANCEL and RECALL buttons for the EICAS which cancel the display of EICAS messages or Recall them again.

Boeing 757-200 Panel

The Annunciator lights are a group of indicator lights which signal fault conditions. Only some of these lights work in FSX as not all the conditions are supported by FSX. The ones that function are as follows:

SPEED BRAKES	(Amber)	Speedbrakes are extended
ALT ALERT	(Amber)	Approaching selected Altitude
A/T DISC	(Amber)	Autothrottle is disconnected in flight
FIRE	(Red)	Engine or APU Fire
PULL UP	(Red)	Altitude above ground is less than 2500 feet and VS exceeds 2000 fpm downwards; OR Altitude above ground less than 500 feet and Flaps less than 15 degrees.
CABIN ALT	(Red)	Cabin Altitude is greater than 10000 feet
OVSPD	(Red)	Speed exceeds Maximum
A/P DISC	(Red)	Autopilot is disconnected in flight
CONFIG	(Red)	Aircraft is on the ground; AND Engines are at take off power; AND Airspeed is greater than 80 knots; AND An exit is open; OR Flaps not in take off position; OR Parking Brake is on; OR Spoilers are deployed.
GND PROX	(Amber)	Aircraft in flight under 1000 feet above ground; AND Flaps less than 5 degrees; OR Gear is Up; OR Aircraft in flight under 500 feet above ground.

The SEI



The Standby Engine Indicator or SEI provides engine indications when power is lost or the EICAS is inoperative. In normal conditions it is blank but may be switched on with the switch in the bottom right corner.

This is a transitional gauge which does not appear in later aircraft.

Boeing 757-200 Panel

The Autobrake Switch



The Autobrake dial sets Autobrakes for either landing or Takeoff and operates in the following way:

For Takeoff: Autobrake button should be set to RTO

When set to RTO on takeoff, if the Throttle levers are set to idle at over 85 knots the spoilers, reversers, and brakes will automatically fully deploy. After takeoff Autobrake automatically resets to off.

For Landing: Autobrake can be set to 1, 2, 3, 4, or Max

When Autobrake is set, on touching the ground the Autothrottle disengages, Spoilers fully deploy, and reversers and brakes engage to varying degrees up to maximum. Spoilers, reversers, and brakes automatically close when speed falls to 30 knots.

The Autobrake dial is operated using the left and right mouse buttons to rotate the dial.

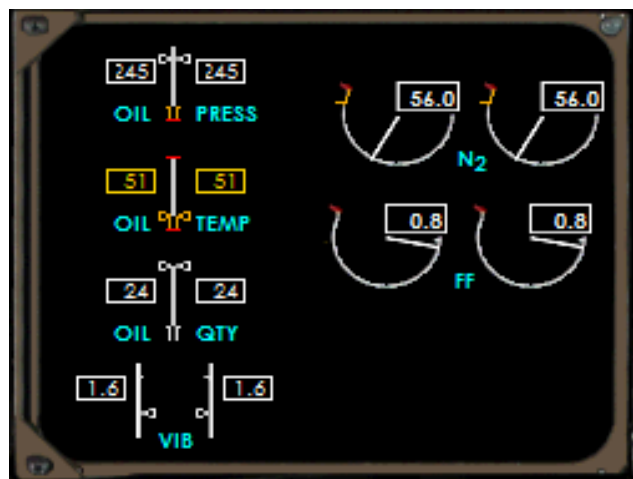
The above system is different to the standard FSX system which brings the aircraft to a complete stop before disengaging. Normally the pilot does not wish to completely stop the aircraft

The “Auto Brakes” message displays when the Autobrakes are disarmed.

The EICAS Panels



Primary EICAS



Secondary EICAS

Boeing 757-200 Panel

Both the Primary and secondary EICAS screens are displayed one above the other. The Primary EICAS screen contains the main engine indications as well as the EICAS messages which change according to conditions. These messages can be suppressed by clicking on the CANC button to the left of the screen and recalled again by pressing the RECALL button.

Unlike later aircraft this EICAS does NOT display Landing Gear and Flaps status. These indications are displayed in traditional instruments to the right of the EICAS.

The EICAS has been closely modelled on the layout of the Boeing EICAS except, as with other CRTs, the lettering is generally larger and brighter than on the real aircraft.

The secondary EICAS panel displays secondary engine indications. The format is as for the P&W engines as FSX does not support N3 which is a feature of the Rolls Royce engine. The Engine Status Panel also displays in this area and can be displayed by clicking anywhere on the Secondary EICAS display.

EICAS Messages

There is an extensive library of possible messages which can appear on the EICAS which are listed below. Most of the messages follow the specifications in the Boeing Operations Manual but only a subset of messages are available as many messages are for functions not supported in FSX. The STALL WARNING message has been added as many FSX users may not have a stick shaker which is the normal warning. Messages are prioritised as follows with the highest priority appearing first:

WARNING (Red):

The highest priority: reporting an abnormal condition which is a threat to the safety of the aircraft and requiring immediate attention. These messages can not be cancelled by the CANC button.

ALERT (Yellow):

- **Caution** Messages are the next highest priority after Warning messages. They can be cancelled or recalled by pressing the CANC and RCL buttons.
- **Advisory** Messages are the lowest priority alert messages and are indented one space to indicate their lower priority. They can be cancelled or recalled by pressing the CANC and RCL buttons.

Note that many messages are accompanied by aural warnings however these are beyond the scope of this panel.

The table following lists the messages that can be seen in this panel.

Boeing 757-200 Panel

EICAS MESSAGES		
Message	Level	Message Logic
ALERTS		
L,R ENGINE FIRE	Alert	Fire in Engine
APU FIRE	Alert	Fire in APU
FLAPS	Alert	Aircraft on ground; and Throttles at Takeoff Power; and Flaps not set to Takeoff Configuration
SPOILERS	Alert	Takeoff Power applied; and Spoilers Deployed
PARKING BRAKE	Alert	Aircraft on ground; and Throttles at Takeoff Power; and Parking brake is on
CABIN ALTITUDE	Alert	Cabin Altitude is greater than 10000 feet
GEAR NOT DOWN	Alert	Altitude above ground below 800 feet with throttles idle and gear not fully extended
AUTOPILOT DISC	Alert	The Autopilot is disconnected in the air
OVERSPEED	Alert	Airspeed is greater than VMO/MMO
STALL WARNING	Alert	Stall Warning is normally the stick shaker but since many FSX users do not have one this message is displayed instead. Not a Boeing message.
TOO LOW FLAPS	Alert	Altitude above ground less than 1000 feet; and Aircraft is descending; and Flaps not in Landing configuration
TOO LOW GEAR	Alert	Altitude above ground less than 1000 feet; and Aircraft is descending; and Landing Gear not down
TOO LOW TERRAIN	Alert	Altitude above ground less than 500 feet; and Aircraft is descending; and Aircraft not on approach

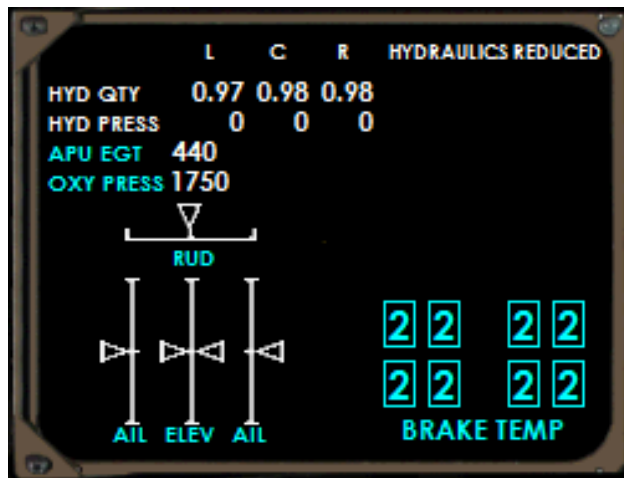
CAUTION		
L,R ENG SHUTDOWN	Caution	The engine is shut down
L,R HYD SYS PRESS	Caution	Hydraulic Pressure is less than 1000 psi
LOW FUEL	Caution	Fuel less than 10% in any main tank.
AUTOTHROT DISC	Caution	Autothrottle not connected
ALTITUDE ALERT	Caution	More than 300 feet from assigned altitude
SPEEDBRAKES EXT	Caution	Spoilers are deployed and: Aircraft less than 800 feet above ground; OR Flaps more than 15 degrees extended; OR Throttle levers are idle

Boeing 757-200 Panel

EICAS MESSAGES (continued)		
Message	Level	Message Logic
ADVISORY		
L,R GEN OFF	Advisory	The Electrical Generator is switched off
L,R HYD QTY	Advisory	Hydraulic Quantity is less than 10% full
AUTOBRAKES	Advisory	Autobrakes are Off
PARKING BRAKE	Advisory	Parking Brake is on
AUTOPILOT ON	Advisory	Autopilot is on
L,R FWD,AFT FUEL PUMP	Advisory	Fuel Pump is off
FUEL CONFIG	Advisory	Fuel Imbalance; OR Fuel in Centre tank and both centre pumps are off; OR Less than 2000 pounds of fuel in either main tank.
RAT UNLOCKED	Advisory	Ram air Turbine is unlocked
L ENTRY DOORS	Advisory	Both left side entry doors are open
L FWD ENTRY DOOR	Advisory	The main passenger entry door is open
L CTR ENTRY DOOR	Advisory	The 2 nd passenger entry door is open
CARGO DOORS	Advisory	Cargo doors are open
L,R PACK OFF	Advisory	The Air conditioning Pack is switched off
TRIM AIR OFF	Advisory	The Trim Air switch is off
L,R RECIRC FAN	Advisory	The Air recirculating fan is off
BATTERY OFF	Advisory	The master Battery is switched off
EMER LIGHTS	Advisory	Emergency Lights are not armed
PASS OXYGEN ON	Advisory	Passenger Oxygen Masks deployed
CAPT PITOT	Advisory	Pitot heat is off in flight
L,R AC BUS OFF	Advisory	AC bus is unpowered
L,R UTIL BUS OFF	Advisory	Utility Bus switch is off
L,R GEN DRIVE	Advisory	The Generator Drive disconnect switch has been pressed and IDG is disconnected.
L,R EEC OFF	Advisory	The Electronic Engine Control switch is off
L,R ENG LIMITER	Advisory	The Engine Limiter switch is off
L,R ENG OIL PRESS	Advisory	Engine oil pressure is less than 20 psi
ENG BTL 1,2	Advisory	The Engine Fire extinguisher has been discharged
APU BTL	Advisory	The APU fire extinguisher has been discharged
TERR OVRD	Advisory	The Terrain Override switch is on
TCAS OFF	Advisory	Aircraft is over 400 feet above ground; AND TCAS is off

Boeing 757-200 Panel

The EICAS Status Panel



This panel is accessed by clicking on the Secondary EICAS panel. It displays information on the Hydraulics, APU, and Oxygen systems. The APU and Oxygen system numbers are dummy as they are not supported in FSX.

Below the information panels are indicators of the positions of Rudder, Ailerons, and Elevators. These are fully functioning.

To the right are indications of Brake temperatures. These indications are pseudo-functioning: normal on the ground is 1 or 2 and normal when in operation are 3 and 4. On the real aircraft other abnormal indications can go up to 9

In the top right of this panel are status messages which on the real aircraft are a display of various, usually minor, faults requiring ground attention and used to decide if the aircraft complies with the minimum equipment list for despatch.

As most of these indications are not supported by FSX, in this simulation messages are displayed indicating the status of certain systems which can go on or off and also to display faults supported by FSX which remain displayed throughout the flight even if the fault is corrected – e.g. if an engine fire is extinguished the FIRE message will disappear from the EICAS but remain on the status panel.

An additional FSX message “UNLIMITED FUEL” has been added when FSX is set to unlimited fuel to indicate that fuel displays are meaningless.

A list of possible messages on this panel follows (not all are applicable for the Boeing 757).

Boeing 757-200 Panel

SYSTEM STATUS MESSAGES		
PARK BRAKE SET	Memo	Parking Brake is on
UNLIMITED FUEL	Memo	In FSX Unlimited Fuel has been set.
AUTOBRAKE RTO, DISARM, 1, 2, 3, 4, MAX	Memo	Autobrakes are at the displayed setting
SEATBELTS ON	Memo	Seatbelts signs are on
NO SMOKING ON	Memo	No Smoking signs are on
PASS SIGNS ON	Memo	Both No Smoking and Fasten Seatbelts signs are on
APU RUNNING	Memo	The APU is on
SPEEDBRAKE ARMED	Memo	Speedbrake is armed.

FAULT MESSAGES	
Message	Message Logic
FIRE ENGINE L,R	Fire in Engine
FIRE APU	Fire in APU
UNLIMITED FUEL	FSX is set to Unlimited Fuel
OIL LEAK ENGINE L,R	Oil leak in Engine
DAMAGE ENGINE L,R	Damaged Engine
FAILED ENGINE L,R	Engine Failure
FAILED ADF	ADF Failed
FAILED AIRSPEED	Airspeed measurement failed
FAILED ALTIMETER	Altitude measurement failed
FAILED ATTITUDE	Attitude measurement failed
FAILED COMM	Communications Radio Failed
FAILED COMPASS	Auto compass failed
FAILED ELECTRICAL	Electrical System failed
FAILED AVIONICS	Avionics systems failed
FAILED ENGINE GAUGE	EICAS failed
FAILED FUEL INDICATOR	Fuel measurement failed
FAILED HEADING	Heading measurement failed
FAILED VS INDICATOR	Vertical Speed measurement failed
FAILED TRANSPONDER	Transponder failed
FAILED NAV	NAV Radio failed
FAILED PITOT	Pitot measurement failed
FAILED TURN COORDINATOR	Turn Coordination failed
FAILED VACUUM	Failed Vacuum system
DAMAGE FLAPS	Flaps damaged by speed
DAMAGE GEAR	Landing Gear damaged by speed
HYDRAULICS REDUCED	Hydraulics pressure low

Boeing 757-200 Panel

The Normal / True Heading Switch



This switch switches the PFD and MFD displays to True heading from the normal Magnetic Heading. It does not however change the selected heading which is always Magnetic.

The TMSP



The Thrust Mode Select Panel or TMSP is to manually select the desired thrust mode. This panel does not exist in later aircraft as the selection is automatic. This simulation automatically selects the mode according to conditions but can be overridden with this panel. The possible selections are as follows:

- TO/GA:** Take off or Go Around Power (Can be selected when Autothrottle armed)
TO displays on EICAS or D-TO if selected with Temp Sel.
- CLB:** Switches off TO/GA power. Sets to Climb Power
(can have 1 or 2 pre-selected for degraded thrust)
CLB displays on EICAS with 1 or 2 as appropriate
- 1 or 2:** Only one of these keys can be pressed to indicate a reduced thrust takeoff.
- CON:** When pressed sets the engines to maintain the current N1
- CRZ:** Switches off TO/GA power.

The functions on this panel are not fully supported in this simulation. TO/GA power works correctly and pressing CON does maintain the current N1 although in the real aircraft it actually maintains maximum thrust. Degraded thrust takeoffs are not supported and the other buttons simply set the display in the EICAS.

Boeing 757-200 Panel

The Flaps Indicator



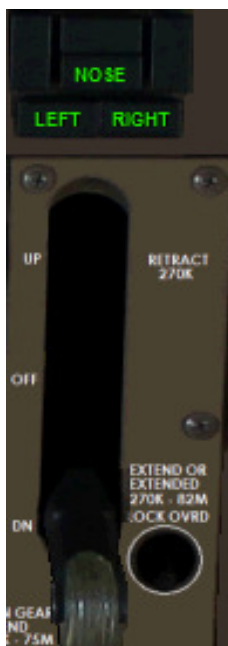
This is a pointer indicating the current flaps position. There are actually two pointers one on top of the other. The second pointer is never seen unless the flaps are asymmetrically deployed.

Alternative Flaps



The Alternative Flaps dial and buttons are non-functional as Alternative flaps deployment is not supported in FSX.

Gear Lever and Lights



The gear lights will show green for each portion of the landing gear that is lowered. They will go blank when the gear is raised. While in transit they will flash and the Amber message “Gear” will appear on the right.

Clicking anywhere on the Gear Lever will raise or lower the landing gear.

Boeing 757-200 Panel

Ground Proximity Warning Buttons



These buttons are used to override the following GPWS warning messages on EICAS:

- | | | |
|-----------------|---|--|
| TOO LOW FLAPS | - | Altitude above ground is less than 1000 feet; AND Flaps are less than 5 degrees. |
| TOO LOW GEAR | - | Altitude above ground is less than 1000 feet; AND Landing Gear is up. |
| TOO LOW TERRAIN | - | Altitude above ground is less than 500 feet. |

The Hydraulic Pressure Gauge



This gauge displays the Hydraulic pressure in the braking system.

The EFIS Control Panel




Popup



Throttle Quadrant

Boeing 757-200 Panel

The EFIS Control Panel is located adjacent to the Throttle Quadrant however an additional popup panel is provided on the main panel for greater convenience. Access to the popup panel is controlled by the  icon.

This panel controls the settings in the MFD display.

EFIS		
Switch	Function	Action
RST Button	Switches the Decision Height display On or Off	Click once to switch off and again to switch on.
DH Button	Increases or decreases the Decision Height for landing. This can be seen in the PFD and will be reflected in the Callouts during Approach.	Left click decrease or right click to increase the Decision Height. Limits are 0 and 360 feet.
TERR	Displays terrain in colour with colours depicting altitude of the terrain. The colours follow the Garmin colour coding system.	Press once to see a monochrome map then again for the coloured map. Press again to return to black background.
WXR	The WXR button is to switch on the weather radar in the real aircraft. As FSX does not support weather radar this button switches on the TAWS map.	Click TERR once then WXR then TERR again to get the TAWS map. Click TERR then WXR to cancel the TAWS map.
TFC Dial	Alters the range on the MFD from 10 to 320 nautical miles.	Left click to move anti-clockwise or right click for clockwise.
CTR Dial	Select between VOR, Approach, Map, or Plan for display on the MFD. Boeing recommends usually leaving on Map for best detail. Use the Centre click to switch the MFD between Expanded and Rose display.	Left click to move anti-clockwise or right click for clockwise. Centre click to select Rose display on the MFD.
NAV AID	Displays or suppresses NDBs and VORs on the MFD.	Click once to display and again to suppress the NDBs and VORs
ARPT	Display Airports on the MFD	On by default, Click once to suppress airports and again to display them.
DATA	Display additional information on the MFD – e.g. Airport names and IFR landing displays.	Press once for additional detail and again to suppress the detail.
WPT	Display Waypoints on the MFD	Click once to display Waypoints and again to suppress them.

Boeing 757-200 Panel

Glareshield Panels



The Glareshield contains the Master Caution and Warning lights, two radios, and the Autopilot. The Autopilot is a fairly standard Boeing autopilot almost identical to the Boeing 747.

The Master Caution and Warning Lights



The Master Caution and Warning lights have two lights to signal non-normal configuration or emergencies. As there can be a large number of causes for these lights to illuminate further investigation is needed from the EICAS messages.

These lights come on in the following cases:

- WARNING: - any Red ALERT message on the EICAS
- CAUTION: - any Yellow CAUTION message on the EICAS

Clicking on the Master Warning button stops them flashing.

See the EICAS section above for more information on EICAS messages.

Boeing 757-200 Panel

The Radios




NAV1 Radio



ADF and Transponder

In FSX terms the NAV1 radio appears on the left and the NAV2 radio appears on the right.

Pressing the  Radio Icon on the left of the Main Panel displays the ADF and Transponder tuner over the top of the NAV1 radio (on the real aircraft it is located on the Aft Aisle Stand and consists of two separate panels).

On the real aircraft there is another separate panel on the Aft Aisle Stand to tune to an ILS but on this simulation the ILS is tuned on the NAV1 radio.

Use either the dials or the display windows to tune the station using the left and right mouse buttons to rotate the numbers. They can only be rotated when the VOR/DME switch is set to Manual.

On the ADF and Transponder panel the numbers can be rotated only on the display screen – not the dials – as only individual digits can be rotated.

The Autopilot



This is a fairly standard Boeing Autopilot. Buttons and their functions from left to right are:

Boeing 757-200 Panel

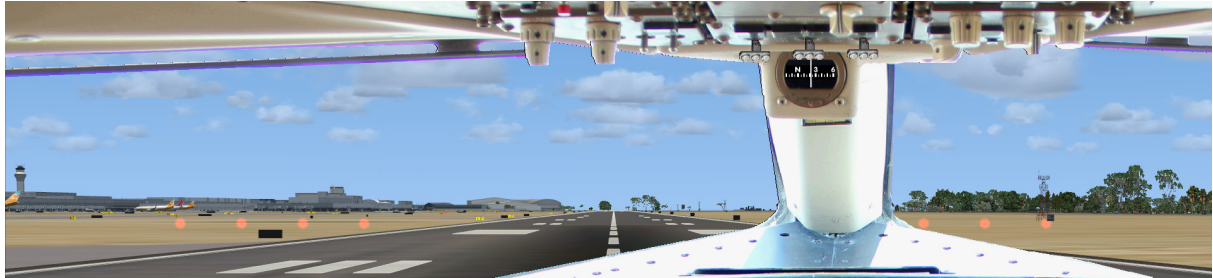
AUTOPILOT		
Switch	Function	Action
F/D ON	Switches the Flight Director on or Off	Click up for On and down for Off.
A/T ARM	Arms the Autothrottle before activating.	Click up for on and down for off.
THR	When the aircraft is more than 400 feet above ground this switch sets constant N1 to the current level.	Click for On or Off.
SPD	Engage or disengage Autothrottle to maintain speed shown in the IAS window.	Click once to engage and once to disengage. Note that if this is on it will hold the Speed or the Mach depending on the setting in the IAS/Mach Window
SEL Switch	Switches IAS window from Speed display to Mach number display.	Click once to switch from one to the other. Does not function if the speed is below Mach 0.4.
IAS / MACH WINDOW	Display the desired Indicated Air Speed (IAS) or the Mach Number depending on the setting of the SEL Switch.	Left click to decrease the desired speed or right click to decrease.
IAS Dial	Adjusts the speed shown in the IAS / MACH Window.	Left click to decrease the desired speed or right click to decrease.
LNAV Button	Engages or disengages navigation mode. When engaged the aircraft will fly along the flight path already entered in the flight plan. Note that this button also automatically connects or disconnects NAV1 to the GPS navigation.	Click once to engage and again to disengage.
VNAV Button	Engages Vertical Navigation mode which is essentially the same as Altitude hold. Engaging this button will also engage Altitude hold and vice versa.	Click once to engage and again to disengage.
FLCH Button	Engaging FLCH (Flight Level Change) will change the selected speed to the current speed if the current speed is greater than the currently selected speed.	Click once to change selected speed.
Heading Window	Displays the selected Heading in Degrees (1 to 360).	Right click to move the desired Heading to the right or left click to move left.

Boeing 757-200 Panel

AUTOPILOT (continued)		
Switch	Function	Action
Bank Limit Dial	Indicates the selected bank limit. The default maximum is defined in the aircraft.cfg and should be 25 degrees. FSX does not allow this to be altered.	Right click to move the desired Heading to the right or left click to move left.
Heading Hold Button	Activate or deactivate the Autopilot Heading Hold function which will turn the aircraft to the magnetic heading selected in the Heading window.	Click once to engage and again to disengage.
V/S Window	Displays the Vertical Speed of the aircraft in plus or minus feet per minute.	None
V/S Dial	Dial up or down to increase or decrease the Vertical speed.	Use the Mouse wheel to move the dial up or down.
V/S Button	Activates or deactivates the Autopilot Vertical speed hold function.	Automatically selected by Altitude Hold function.
Altitude Window	Displays the Autopilot selected altitude in feet.	Right click to increase the desired Altitude or left click to decrease.
Altitude Hold Button	Activates or deactivates the Autopilot Altitude hold function.	Click once to engage and again to disengage.
LOC Button	When activated the aircraft will fly to the Localiser selected by NAV1 radio but will NOT follow the glideslope.	Click once to engage and again to disengage.
APP Button	When activated the aircraft will fly to the Localiser selected by NAV1 radio then will follow the Approach glideslope.	Click once to engage and again to disengage.
CMD	Autopilot Master Switch. Yellow bar when on.	Click to turn on Autopilot. Click to turn off Autopilot. Does not turn Autothrottle on or off. Note that clicking on any of the 3 switches will turn on all. This is different to the real aircraft where only one is on however this is easier to understand for the FSX user.
A/P DISENGAGE	Clicking on this will disconnect both Autopilot and Autothrottle. They are then barred from being reconnected as long as the diagonal yellow lines are visible. This button must be clicked again to allow reconnection.	Click once to disconnect Autopilot and Autothrottle. Click again to allow reconnection.
F/D ON	Switches the Flight Director on or Off	Click up for On and down for Off. Duplicate of switch on the left.

Boeing 757-200 Panel


Standby Compass Panel



The Standby Compass panel includes the Standby compass in the centre plus other working light switches from the overhead panel. The working switches are:

- The Glareshield Panel Lights Switch
- The Main Panel Lights Switch
- The Turnoff Switches (not animated)
- The Landing Lights Switches
- The Overhead Panel Lights Switch

They function in the same way as described in the Overhead Panel section.

The entire Standby Compass panel can be made to disappear by clicking on the  Compass icon to improve visibility. Clicking again restores the panel.

Boeing 757-200 Panel

Overhead Panel



The Overhead panel is a semi-perspective view of most of the Boeing overhead panel with almost all switches working and most performing their assigned function.

The Overhead Panel is divided into several sub-panels. The following table details the switches and their functions from top to bottom, left to right:

Boeing 757-200 Panel

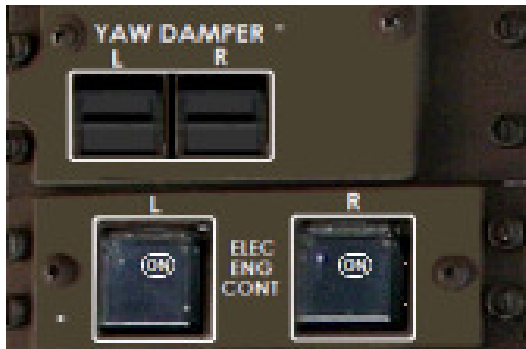
Overhead INS Mode Sel Panel



This panel is used for Inertial Navigation settings. The display screen displays the same information as on the real aircraft and the DSPL SEL knob can be used with the left and right mouse buttons to change to different displays. The default is to show the current latitude and longitude. On the real aircraft the display is in Quartz font but this was found to be unreadable so it has been changed for clarity.

Other switches on this panel and the panel below are for various INS settings and are not useful in FSX so they are all non-working switches.

Overhead Yaw Damper and EEC Panels



The Yaw damper switches set the Yaw dampers on or off.

Electronic Engine Control (EEC) sets the parameters to control the engines and on the Boeing 757 can be on or off. These are dummy switches which do not affect the simulation although switching them off creates an EICAS message.

Boeing 757-200 Panel

Overhead Hydraulics Panel



The Hydraulic Panel Buttons controls Hydraulic functions. The Hydraulic pumps are both engine driven and Electric. Normally all pumps are set on and there is no reason to switch them off. If they are switched off they do not affect the simulation.

Note that “Sys Press” appears above the dial if the hydraulic pressure is low – e.g. when the engine is shutdown.

Overhead Annunciator Panel



This panel contains 17 annunciator lights only some of which are working in this simulation. The working lights are:

ENTRY DOORS: A passenger deck entry door is open
CARGO DOORS: A cargo entry door is open

CAPT PITOT
L AUX PITOT
F O PITOT
R AUX PITOT
These lights come on when the Pitot Heat is off.
Click on Wing deice to switch on Pitot Heat.

L AOA
R AOA: On when both engines are off.

TAT: On when both engines are off.

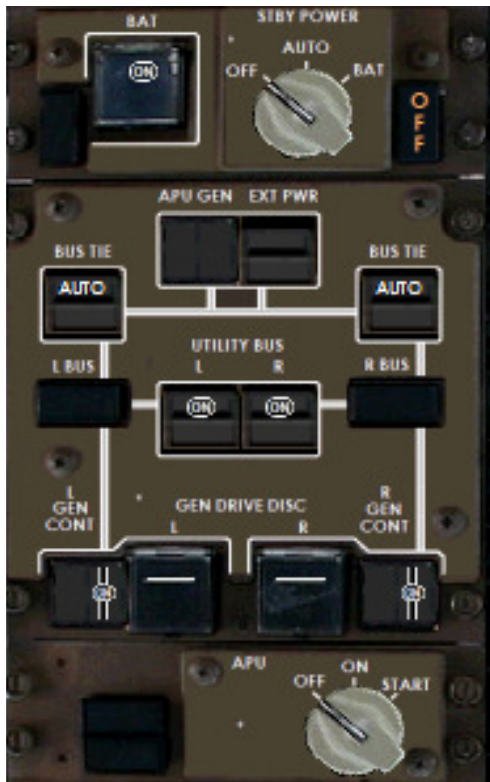
Boeing 757-200 Panel

Overhead Evacuation and HF radio Panels



These panels are non-working.

Overhead Electrical Panel



The Electrical Panel Buttons controls all electrical functions in the aircraft. Normally there should be no need to adjust the switches which are on by default.

Note that, to start the APU, right click on APU Start then click on APU GEN.

Clicking on the GEN DRIVE DISC buttons will permanently shut down the corresponding generator which can only be restarted by ground maintenance.

Boeing 757-200 Panel

Overhead Cockpit Voice Recorder Panel



This panel is non-functioning.

Overhead Taxi Lights Panel



Taxi Lights Panel		
Switch	Function	Action
GLARESHIELD	Switches on and off the Glareshield Panel white back lights.	Click once to switch on the Glareshield Panel lights and again to turn them off. Note that this switch has a slight delay before operating.
AISLE STAND	Switches on and off the Main Panel white back lights.	Click once to switch on and again to turn them off. Note that this switch has a slight delay before operating.
LT OVRD	Illuminates all FSX default panel lights.	Click once to switch on and again to turn them off.
TAXI	Illuminates the Taxi exterior lights	Click once to switch on and again to turn them off.
RUNWAY TURNOFF	Rotates the Landing Lights either left or right.	Click once to rotate and again to return.

Boeing 757-200 Panel

Overhead Emergency lights, Passenger Oxygen, and Engine Start

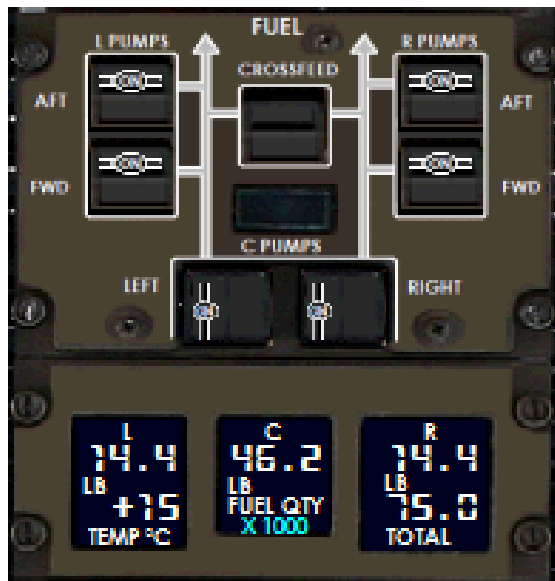


The APU Hours Gauge is non-functioning.

APU Hours, Emergency lights, and Passenger Oxygen Panel		
Switch	Function	Action
EMER LIGHTS	Arms the Emergency Lights System.	Off by default and the message “UNARMED” is displayed. Click once to arm and again to switch on.
PASS OXY	Deploys Passenger Oxygen Masks	Click once to deploy oxygen masks. Once deployed they can not be retracted.
RAM AIR TURB	Deploys the RAM Air Turbine in case of power failure	Click once to deploy and again to retract the RAM Air Turbine
ENG LIMITER	Trims fuel flow for N1 limiting	On by default. Click to switch off. Performs no function in FSX but generates an EICAS message if off.
BOTH DIAL	Igniter 1, 2, or both can be selected for engine start. Performs no function in FSX.	Left click to rotate left. Right click to rotate right.
AUTO DIAL	Set to GND to auto start the corresponding engine. Other settings have no effect in FSX.	Left click to rotate left. Right click to rotate right.

Boeing 757-200 Panel

Overhead Fuel Panel



The Fuel Panel Buttons control the flow of fuel to the engines. As on the real aircraft, if all the switches are switched off the engines will stop for lack of fuel.

This panel incorporates a passive Fuel Management system which follows the Boeing system. Under this system by default all pumps are set on but both engines will take fuel from the Centre tank until that tank is empty then switch to their respective main tanks.

The Fuel management system will not however switch the pumps on or off. If the centre tank switches are off the fuel management will take fuel from the main tanks.

Normally it is not necessary to alter the switches at all but if they are altered a Fuel Imbalance can potentially occur which will cause an EICAS message and, if not corrected, can be a danger to the aircraft.

The displays below the switches show the fuel quantity in each tank in thousands of pounds as well as the fuel temperature and total fuel. Fuel temperature is not supported in FSX so it is actually the TAT that is shown.

The Boeing 757 had no fuel jettison system.

Boeing 757-200 Panel

Overhead Anti-Ice Panel



There are two switches for engine anti-ice and one for Wing anti-ice. Switching on Wing anti-ice also switches on Pitot heat.

The windscreen wiper dial works but performs no function in FSX.

Overhead Landing Lights Panel



The effect of the Position (NAV), Anti-Collision (Beacon and Strobe), and Wing light switches on this panel will vary according to the FSX model used. They work as follows on the Opensky model:

All four switches switch the Logo light and the Passenger cabin interior lights plus:

- **Position:** Nothing else
- **Anti-Collision (Red):** red flashing lights at top and bottom of the fuselage.
- **Anti-Collision (White):** Flashing white lights at wingtips
- **Wing:** Nothing else

Clicking on any of the Landing Light Switches will turn the lights on and off. The Runway Turnoff Switches will rotate the Landing Lights to the left or right. Switching on one switch will switch off the other switch.

Boeing 757-200 Panel

Overhead Window Heat Panel



These switches operate but perform no function in FSX. They do appear on checklists however.

Overhead HF Radio (2)

Non-Functioning panel.

Overhead VHF SELCAL Panel



This panel is used to make radio calls and calls to the passenger cabin. It is non-functioning in this simulation.

Overhead PASS SIGNS Panel



The No Smoking and Fasten Seatbelts dials can be set to Auto or On. In Auto they automatically switch off at 10000 feet and on again when descending below 10000 feet. When set to On they remain permanently on.

Boeing 757-200 Panel

Overhead Cabin Altitude Control



Most of this panel is non-functioning however the Landing Altitude can be manually set. The Landing Altitude of the Destination airport in the flight plan is displayed by default in the window or zero if there is no flight plan. This altitude can be altered using the dial under the window and the left and right mouse keys.

The three dials at the bottom function and show the Duct pressure, Cabin pressure and rate of change.

The Landing Altitude can be set up to 5000 feet but if the HIGH ALT LDG switch is set on the Landing Altitude can be set up to 10000 feet.

The Equip Cooling switch works but performs no function in FSX.

The message “CABIN ALTITUDE” in red illuminates if the Cabin Altitude exceeds 10000 feet.

Boeing 757-200 Panel

Overhead Panel Lights Panel



Panel Lights Panel		
Switch	Function	Action
CKT BKR	Switches the Circuit Breaker Panel lights on or off	Performs no function in FSX
OVHD PANEL	Switches on the Overhead Panel Lights	Click once to switch on and again to turn them off. Note that this switch has a slight delay before operating.
DOME	Switches the Dome Lights on or off	Performs no function in FSX
Flight Deck Door	Locks and Unlocks the Flight deck door.	Performs no function in FSX
IND LTS	Tests the Panel Lights	Performs no function in FSX

Boeing 757-200 Panel



Overhead Cabin Temperature Panel

The three dials at the top of this panel are used to set the temperature on the flight deck and in the two sections of the passenger cabin. In a simulator this is fanciful and the temperature readings shown above are simply the settings on the dials. These dials do not function and “INOP” is shown in the annunciator lights above unless the Trim Air switch is set on.

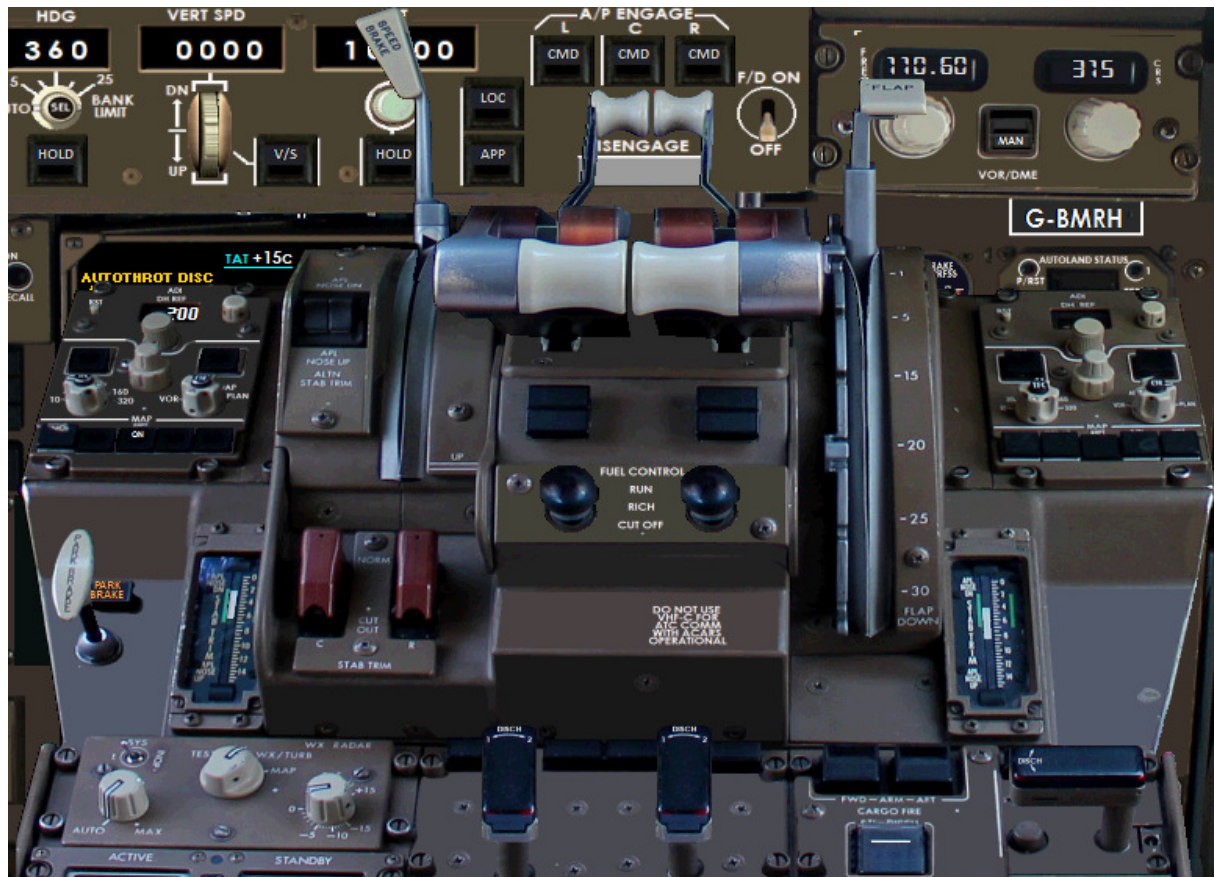
The Pack switches control the air conditioning units and will generate EICAS messages if switched off.

The lower panel switches control the air bleed from the engines.

The Recirc Fans switches operate but perform no function although they generate an EICAS message if switched off.

Boeing 757-200 Panel

Throttle Quadrant



The Throttle Quadrant is probably the most challenging panel to design fairly realistically. One approach is to make it completely 2D which is easiest but does not have a good appearance. This panel uses a three quarters semi-perspective view which is not too bad.

To the left of this Throttle Quadrant is the EFIS Control panel. This panel operates in the same way as the popup panel but the dials are not animated. See the EFIS Control Panel Popup to see the function of the different dials and buttons.

Throttle Operation

Using the mouse grip function to control the Throttle Quadrant has always been tricky. This panel uses a new simpler way of controlling the throttle quadrant with the mouse wheel and both mouse buttons.

All levers are operated with left and right mouse clicks: left click to pull the lever and right click to push the lever. This can be done anywhere in the single mouse area for each lever. The Throttle itself is operated with the mouse wheel in a similar way to the slider on a joystick. More details are given under throttles.

Boeing 757-200 Panel

THROTTLE QUADRANT		
Switch	Function	Action
Parking Brake	The Parking Brake for use on the Ground.	Click to set the brake and click again to release the brake. The Parking Brake can also be set using the “.” Key and also from the Ground Handling window.
ALTN Stabiliser Trim	These buttons on the real aircraft are used for alternate stabiliser control but in this panel are used for normal Stabiliser Trim.	Left click for Nose Down and right click for Nose Up. The Stabiliser Trim setting is shown in the gauges on left and right of the Throttle Quadrant.
Speed Brake	The Speed Brakes are deployed using left and right click.	See below for detail on how to operate the Speed Brakes.
Throttles	The main Throttle levers for the two engines.	See below for details of how to operate the throttles.
Fuel Control	When engines are running these will be in the RUN (Up) position. To shut down engines move to CUTOFF (Down).	Click on each switch once to shut down engines. To restart an engine the Engine Start button on the Overhead Panel must be used.
Flaps Lever	Moving this lever will deploy flaps to the degrees indicated on the Pedestal	Left click to incrementally deploy flaps and right click to incrementally retract them.
Popup Window	A popup window can be selected which has controls for Rudder and Aileron Trim.	Click anywhere on the narrow band bottom panel of the Throttle Quadrant for the popup panel to display.

Speed Brake Operation

Speed Brakes or Spoilers have two functions: when in the air they can be partially deployed to reduce speed and/or lift. On the ground they are used fully deployed during landing to dump lift and slow the aircraft.

In order to function they must first be armed and this is done by left clicking anywhere on the Speed Brake lever.

Once armed if the aircraft is on the ground another click will fully deploy the Speed Brakes.

If the aircraft is in the air, the Spoilers can be partially deployed by using the mouse wheel after arming them. Note that spoilers can only be deployed up to 50% when in the air.

Boeing 757-200 Panel

Throttles and Reversers

The Throttles have a simple up and down sliding action. The use of the mouse may take a little getting used to but is very simple in practice.

Moving the mouse wheel up while positioned on any Throttle mouse area will increase the throttles and moving the wheel down will decrease them. By default moving the mouse wheel will move all throttles together.

To move an individual engine throttle, right click anywhere on the Throttle for the engine to be selected. Following the right click moving the mouse wheel on that Throttle will move only that throttle. Moving the mouse wheel on any of the other throttle will also move only that throttle. Right clicking again on either throttle will link the two together again.

Left click will return engines to idle from any position either individually or together.

If you are reducing throttle with the mouse note that it will stop at idle but clicking on the centre mouse button will allow the deployment of the reversers from the mouse wheel.

The use of the mouse wheel is fairly smooth however note that each click of the wheel increases or decreases the throttle by 5%. For the reversers each click increases or decreases the reverse thrust by 20% of the maximum reverse thrust (25% of the forward thrust) so 5 clicks goes to the maximum reverse thrust).

Fire Panel

The Fire handles for the two engines and the APU as well as the Cargo compartments are located behind the throttle quadrant. The Boeing 757 had no Fire test switch so clicking in the screw in the bottom right of the Engine Fire handle panel will test the fire handles and switches.

In test mode all of the fire levers illuminate (there should be only one in a real fire). The fire bottles can then be discharged using the left mouse button to discharge the left bottle and the right button to discharge the right bottle. Note that the APU has only one bottle. Clicking on the Overhead test switch again returns the handles to normal and recharges the fire bottles.

Similarly the Cargo Forward or Aft compartment buttons can be pressed to arm the fire extinguishers then the discharge button below can be pressed to discharge them.

Clicking again on the fire test screw restores everything to their original state.

Boeing 757-200 Panel

Rudder and Aileron Trim



The Throttle Quadrant has an additional Popup panel below which can be seen by clicking anywhere on the panel at the back of the Throttle Quadrant which contains the words: “DO NOT USE VHF ... “

The Rudder and aileron trim can be adjusted by left and right clicks on the Aileron trim levers and the Rudder trim dial.

POPUP PANEL		
Switch	Function	Action
Aileron Trim	This adjusts the aileron trim to turn the airport on a fore and aft axis.	Left or right click on the arms to adjust the aileron trim.
Rudder Trim	The Rudder Trim can be altered by turning the dial.	Left click to turn the dial anti-clockwise and right click to turn clockwise.
No Smoking Dial	This can be set to Auto when it will automatically turn off at 10000 feet altitude. Modern flights usually have it always switched on.	Right click to turn clockwise or left click to turn anti-clockwise. N.B. The switch of the Model 570 is non-functional: the lights are permanently on.

Boeing 757-200 Panel

Callout Sounds

Altitude Callout sounds for approach are built into the software and require only the sounds by Jimmy Foong which are available on Flightsim.com as **cmp777cl.zip**.

For the Boeing 757 callouts are heard at at 500, 100, 50, 40, 30, 20, and 10 feet with a callout of “Minimums” at the Decision height.

Ground Handling Panel



Ground Handling

This is a small heads-up display that appears only when the left side engine is shut down. Parking Brakes must be applied before any of the other functions work: clicking on the Parking Brakes switch on the panel is one way to apply them.

Where there is a Jetway it can be connected by clicking on the “Press for Jetway” Switch. Note that Jetways will generally only be visible if Scenery Complexity is set to “Dense” or more.

The function of the Exits buttons may differ on different FSX models. For the Opensky model functions are:

- **M:** Opens left Passenger main exit but the door is not animated
- **2:** No function
- **B:** No function
- **C:** Opens front and rear right Cargo Doors

The door opening function should not be used when the simulator is Paused as it becomes confused about which doors are open. Due to the method used by FSX to operate doors they can be quite temperamental and the buttons need to be pressed with a pause between each one.

A Fuel Truck can be requested by clicking on the “Not Requested” button.

Finally pushback can be easily done first by selecting the direction required then clicking on “Pushback Off”.

Note that as this panel only becomes visible when the left side engines are off and, as FSX starts by default with engines running, it is necessary to shut down the engines before the panel can be seen. The panel will disappear when a left side engine is started which normally happens after pushback.

Boeing 757-200 Panel

Copyright

This software is provided free of charge and may be copied, modified, and/or redistributed provided that no charge is made for it. For any commercial use contact the author.

The author can be contacted for any issues about copyright or the software itself at:

Gmunro2014@outlook.com

Whilst I do try and reply to anybody there is no guarantee that any message will be replied to or that any requested action will be taken.