English-Version
BOEING 717-200

only for Flightsimulation in MSFS2020

Version 1.103

Ver.1.103 Date of creation April 2024

BOEING 717-200 for MSFS2020 Manual and Introduction

(This manual cannot guarantee accuracy or completeness)

currently for version 1.103

Some texts and explanations were partly taken from the original Delta Airlines manual. However, this does not necessarily mean that all systems work the same way in this simulation !!

Table of Contents

Procedures

Miscellaneous

Nice to know about the Boeing 717-200

Displays, Switches, Buttons and Controls in the Captain Sim CS717

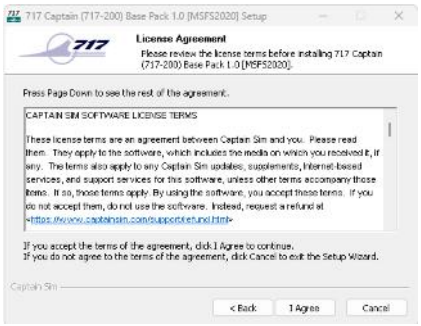
Helpful Weblinks

Captain Sim Forum Boeing 717-200 : https://www.captainsim.org/forum/csf.pl?board=m717
Captain Sim Homepage : https://www.captainsim.com/
Captain Sim Boeing CS717 Manual : https://www.captainsim.org/yabbfiles/cs/717/B717-200.pdf
List of aviation, avionics, aerospace and aeronautical abbreviations (Wikipedia) : https://en.wikipedia.org/wiki/List_of_aviation,_avionics,_aerospace_and_aeronautical_abbreviations#T
Simbrief for Flightplanning : https://www.simbrief.com/home/

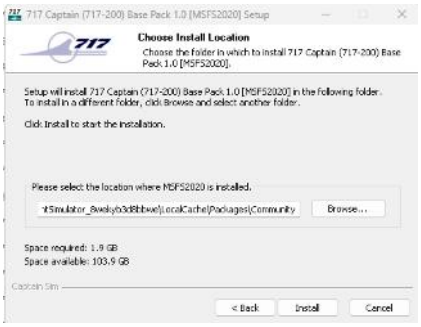
Installation

Doubleclick on your downloaded csm717_xxxx.exe File and follow the Instructions

click on Next



click on I Agree



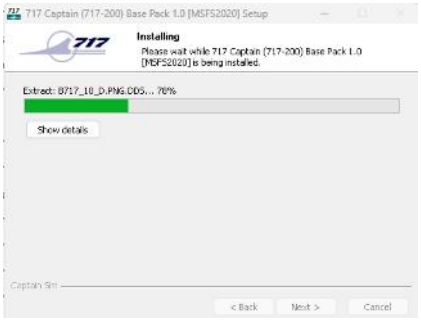
for Microsoft Store MSFS Installations

C:\Users\[ComputerName]\AppData\Local\Packages\Microsoft.FlightSimulator_8wekyb3d8bbwe\LocalCache\Packages\community

for Steam MSFS Installations

C:\Users\[Computer Name]\AppData\Local\Packages\Microsoft.FlightDashboard_8wekyb3d8bbwe\LocalCache\Packages\Community

click on Next



The Installation is finished

Update to newer Version

To update your Boeing CS717 to a newer version, please use the Captain Sim update program ACE.EXE

For Locating your ACE.EXE

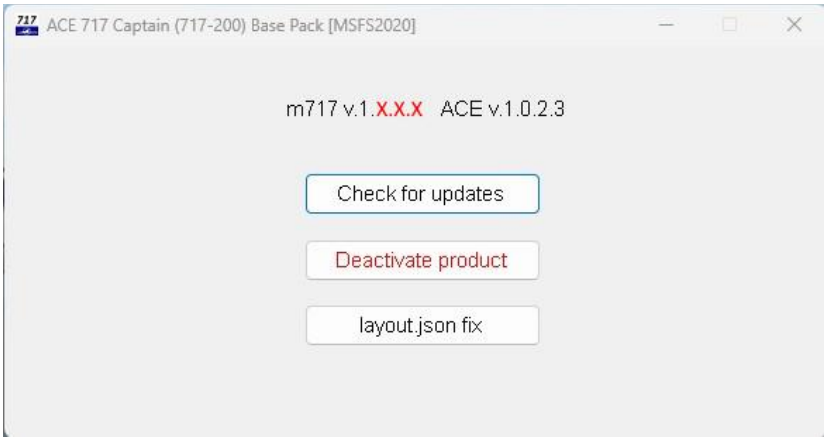
For Steam-Version you can find it here:

"C:\Users\USERNAME\AppData\Local\Packages\Microsoft.FlightDashboard_8wekyb3d8bbwe\LocalCache\Packages\Community\fsx360-aircraft-m717\Captain_Sim\ace\ace_717.exe"

For Microsoft-Store-Version you can find it here:

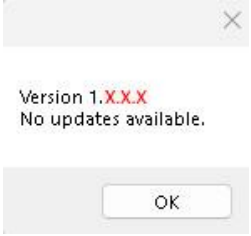
"C:\Users\USERNAME\AppData\Local\Packages\Microsoft.FlightSimulator_8wekyb3d8bbwe\LocalCache\Packages\Community\fsx360-aircraft-m717\Captain_Sim\ace\ace_717.exe"

When starting Ace.exe it pop up this Window:

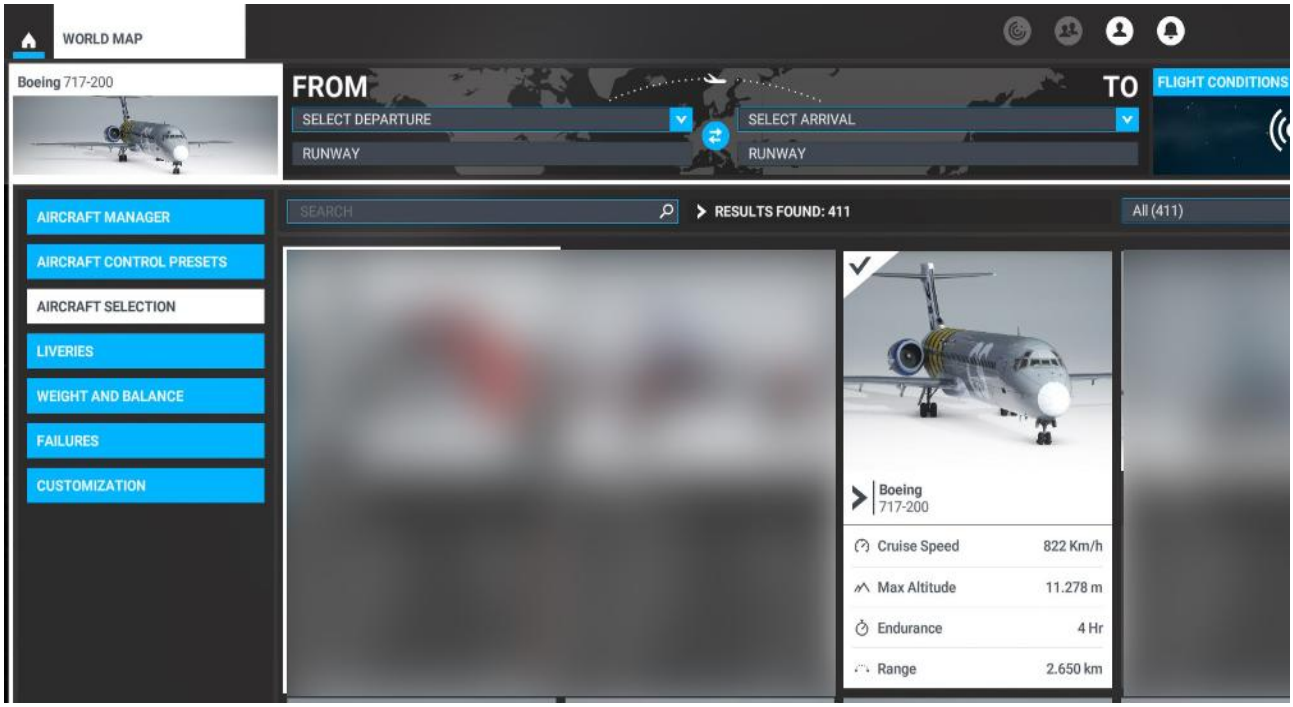


Click on Check for updates and follow the Instructions.

If no Update avalible it pop up this Window.

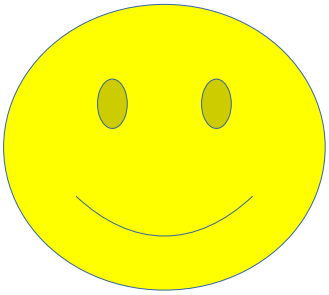


The Boeing 717-200 shown in MSFS2020:



Enjoy and have fun….

Always happy landings….



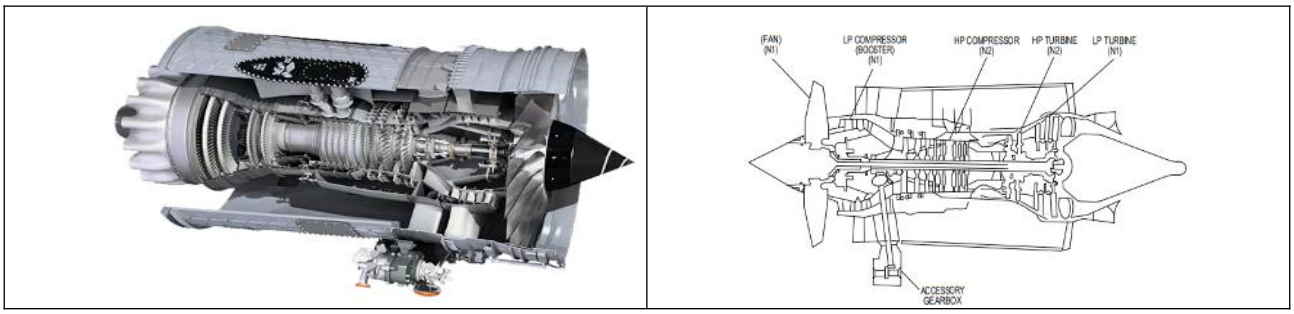
HISTORY

The Boeing 717- 200 was created from the proven MD80 series by McDonnell Douglas

After the questioning of the Boeing airliner series for decades asked why there is no 717, this gap was finally closed in 1997. By the way, noticed by the way, there was a Boeing B 717, but the KC-135 derived from the 707 cabin name was carrying this more internal type designation. Even if the Boeing 717 is actually not a Boeing, but an island solution in the Boeing aircraft family, which can perhaps also explain its later lower customer acceptance. As early as 1995, Mc Donnell Douglas was planning to develop a third generation of a medium-range commercial aircraft, which was to be called MD-95, originated in the DC-9 and was to start its maiden flight as early as July 1994.

McDonnell Douiglas MD-95

The project shifted backwards, since they did not find an initial orderer, only on the 19th century. In October 1995, Valu Jet (now AirTran Airlines) ordered 50 aircraft from Orlando and gave an option to another 50 units, which set the actual development in motion. In the course of the acquisition of Mc Donnell Douglas by Boeing in 1997, which was the world's largest aviation group, the MD-95 project was also joined by Boeing. They decided there quite quickly to continue the project as a Boeing 717, especially since the initial orders were available. The Boeing 717 was a all-metal low-door cutting unit with the typical mounting of the drives on the fuselage rear, the T-tail, and the slender, only slightly swept two-bar wings, completely taken from the DC-9-30, which had leading and double gap flaps, which had had leading and double gap flaps. The attachment of the engines to the rear resulted in a low landing gear height and a low-lying cabin floor, which is an advantage for getting in and out, as well as loading and unloading.
The Bugrad suspension was taken over by the MD 85 and consisted of a bow stay with twin wheels and the two main struts, each of which wore a pair of bikes. The engine was the BMW Rolls Royce BR 715 sheath engine engines from Dahlewitz near Berlin, which was considered the most efficient for aircraft of the 100 seat class.



BMW Rolls Royce BR 715 Engine

The first 717-200, a 717-100 there was no, started on 2. September 1998 in Long Beach for their first flight. With a share of almost 40 percent, European manufacturers are involved in the 717 with their products. In addition to the engines of BMW Rolls Royce, it is above all Fischer Advanced Composite Components GmbH from Austria that provided the interior and thus had a large share of the practicality and economic efficiency of the 717. The certification was granted on the 1st September 1999 simultaneously through the FAA and the European JAA. The first aircraft was delivered to AirTran Airlines in Orlando on 23 September 1999, which then on 12 September 1999. October 1999 regular flight operations with the Model 717 began. In the meantime, in June 1999 the 717-200 had been held on the 43rd. Paris Aviation Salon as the ?Jet of the 21st century? hailed. The new Boeing aircraft initially sold satisfactorily, TWA had ordered 50 aircraft to replace its old DC-9 versions, which was followed by the Bavaria International Aircraft Leasing Company (five units). Nevertheless, they were not quite satisfied with the sale, the large companies and good Boeing customers such as Lufthansa, Northwest Airlines or Air France showed no interest in the 717. This aircraft was not really a Boeing, it had another avionics, another cockpit setup, the flight behaviour was different, the spare parts were made more difficult by "foreign" parts and thus was 717-200 uninteresting, although the 717 was significantly cheaper with 31.5 million US dollars than an Airbus A 318, which costed 35.8 million US dollars. Air Canada, which first wanted to buy and then decided to go to Canadair CRJ and Embraer ERJ, who resigned from a 2.7 billion dollar contract with Boeing, prompted Boeing to reflect on the future of the 717, especially since the 737-600 in advanced development would be competing for short-haul. The tightening of production, there was also wanted to produce 737-600 and 717 in an assembly line, did not justify two models for the highly competitive market of 100 class, where several competitors had now appeared, such as Airbus with the A 318 or Embraer with the 170 and the 195. After the sales figures had fallen from 32 2002 to 8 in 2004, it was decided to suspend the sale from the beginning of 2005. The last two 717-200s were delivered in Long Beach on 23 May 2006. In total, 156 Boeing 717-200 had been built, of which 136 were still in active service with a total of nine airlines in May 2009. To date, there have been five accidents with the 717-200, all of which took place on the ground without any damage to people. Flight accidents or even crashes have not yet been reached. Planned developments, such as the 717-100X for 86 passengers with a fuselage shortened by 3.86 m or the 717-300X for 130 passengers with a hull extended by 3.86 m, projects remained and were not realised.

Boeing 717-200

Technical data: Boeing 717-200

Country: United States
Usage: Short range airliner
Engine: two two-circuit turbine light engines BMW Rolls Royce BR 715 C1-30
Starting power: 9525 kp each (93.4 kN)
Continuous power: each 8392 kp thrust in 9200 m (82.3 kN)
Crew: 2 men and up to three flight attendants
Passengers: 106 persons in the two-class and 117 class versions
First flight: 2. September 1998

Span:	28.45 m
Length:	37.81 m
largest height:	8.92 m
Hull diameter:	3.34 m
Gauge range:	6.37 m
Wheelbase:	15.67 m
Wing area:	92.90 m2
V-form:	2.5°
Arrowing of the front edge of the wing:	27°30
Stretching:	8.71
Empty mass:	32110 kg
Starting mass normal:	49845 kg
Starting weight maximum:	54885 kg
Landweight maximum:	43704 kg
Payload:	12200 kg
Tank capacity:	16654 litres
Area load:	590.79 kg/m2
Power load:	2.88 kg/kp thrust
Top speed at 1,500 m sea level:	886 km/h (not VMO)
Top speed in 7,160 m:	906 km/h
Travel speed in 7,620 m:	840 km/h
Economical cruising speed in 10,670 m:	811 km/h
Landing speed:	226 km/h
Summit height:	11280 m
Cruising altitude:	10670 m
Climbing performance:	16.3 m/s
Climbing time to 1,000 m:	1.05 min
Climbing time to 5,000 m:	5.8 min
Climbing time to 10,000 m:	15.0 min
Range normal:	2645 km
Range maximum:	3815 km
Maximum flight time:	6 h
Starting taxi route:	1913 m
Landroll route:	1451 m

Web-Source: https://fliegerweb.com/de/lexicon/Airliner/Boeing+717-475

The Flight Model

The 717-200 Base Pack for MSFS2020

The 717-200 Base Pack delivers a set of two highly detailed digital replicas of the Boeing 717-200 with Rolls-Royce BR715 engines.

EXTERIOR

• High resolution textures
• Cabin with 3D windows, interior, and animated pilots
• Realistic animations
• Captain Sim House livery

COCKPIT AND CABIN

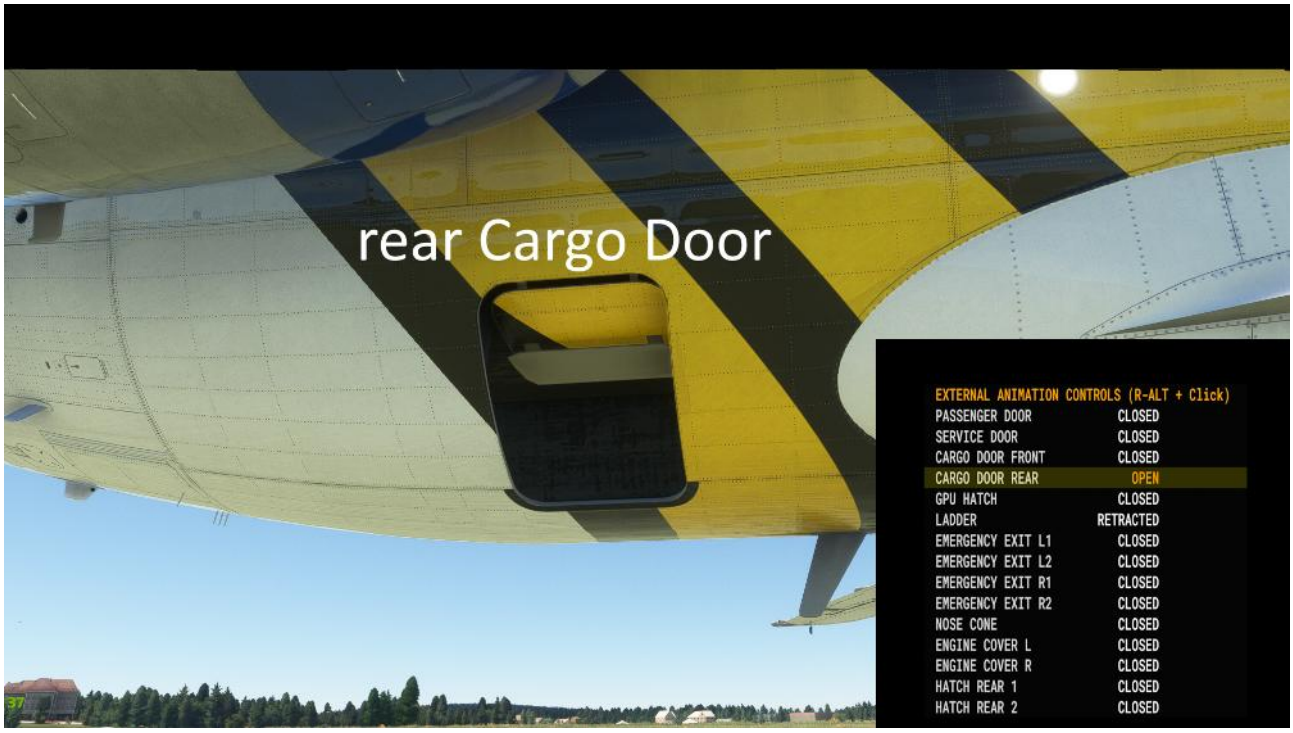
• Classic 717-200 flight deck, brand-new model built from scratch including high resolution textures
• Essential functionality simulated, as well as:
– Autopilot
– Electrical system
– Hydraulic system
– Fuel system
– Air system
– Flight-Control system
– Engine Start system
– Lighting
• Some systems linked to default systems
• Custom views

MISC FEATURES

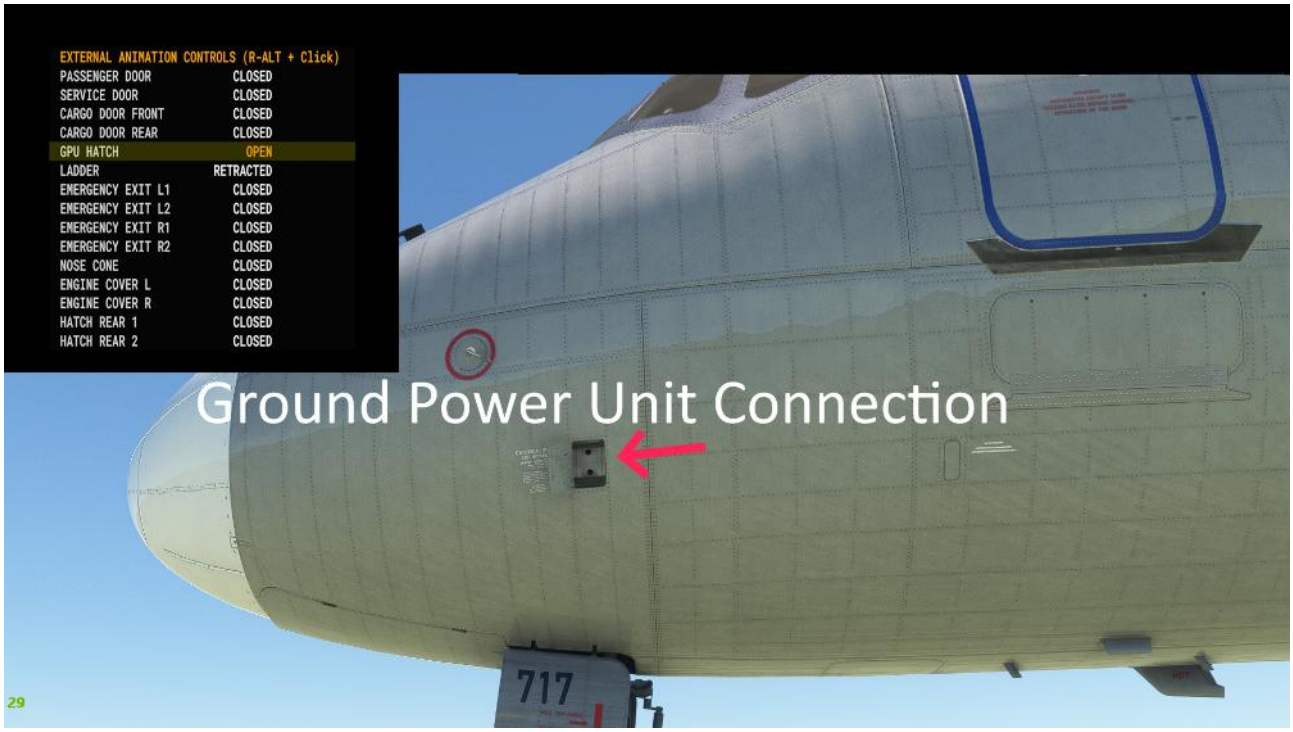
• Supports most features of MSFS 2020 (rain/icing effects, sound, flight model and more)

Front Cargo Door (can be open) / (ECAM-Menu)

Rear Cargo Door (can be open) / (ECAM-Menu)

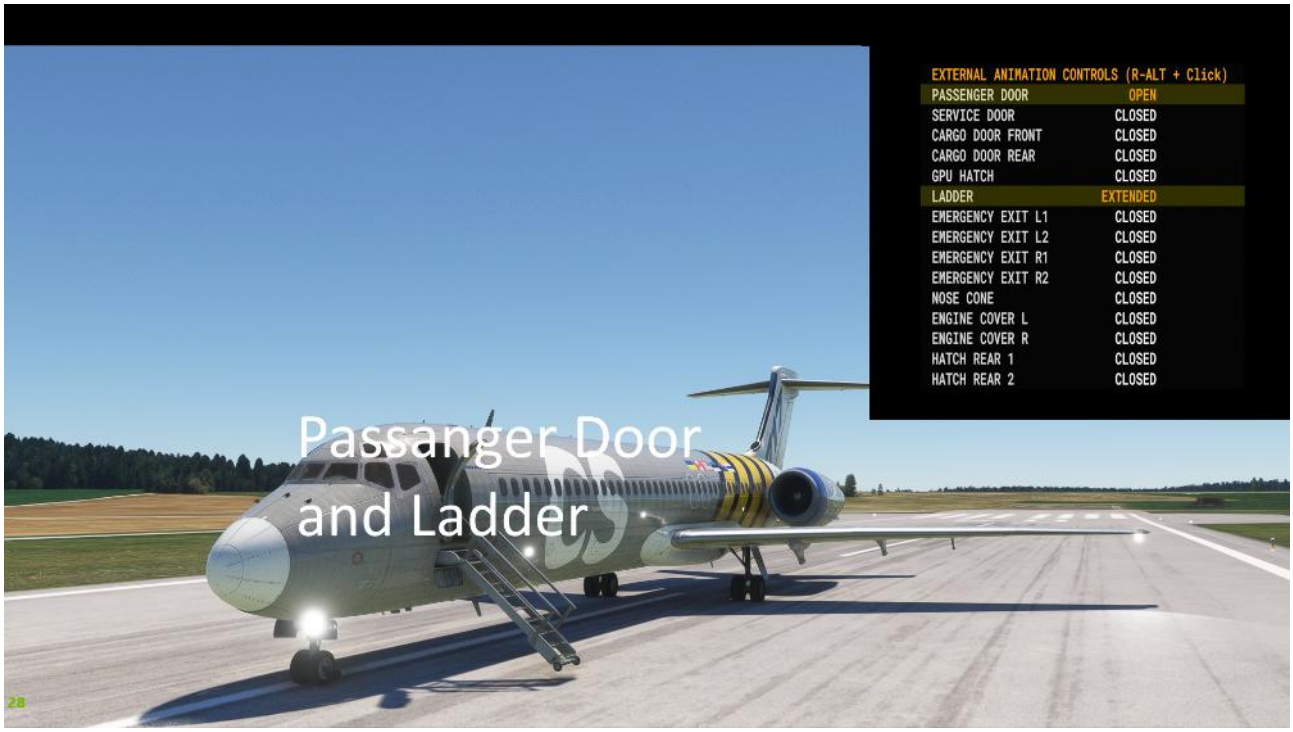


Ground Power Unit Connection (can be open) / (ECAM-Menu)



Service Door (can be open) / (ECAM-Menu)

Passanger Door with Ladder (can be open) / (ECAM-Menu)



Air intake APU (animated)

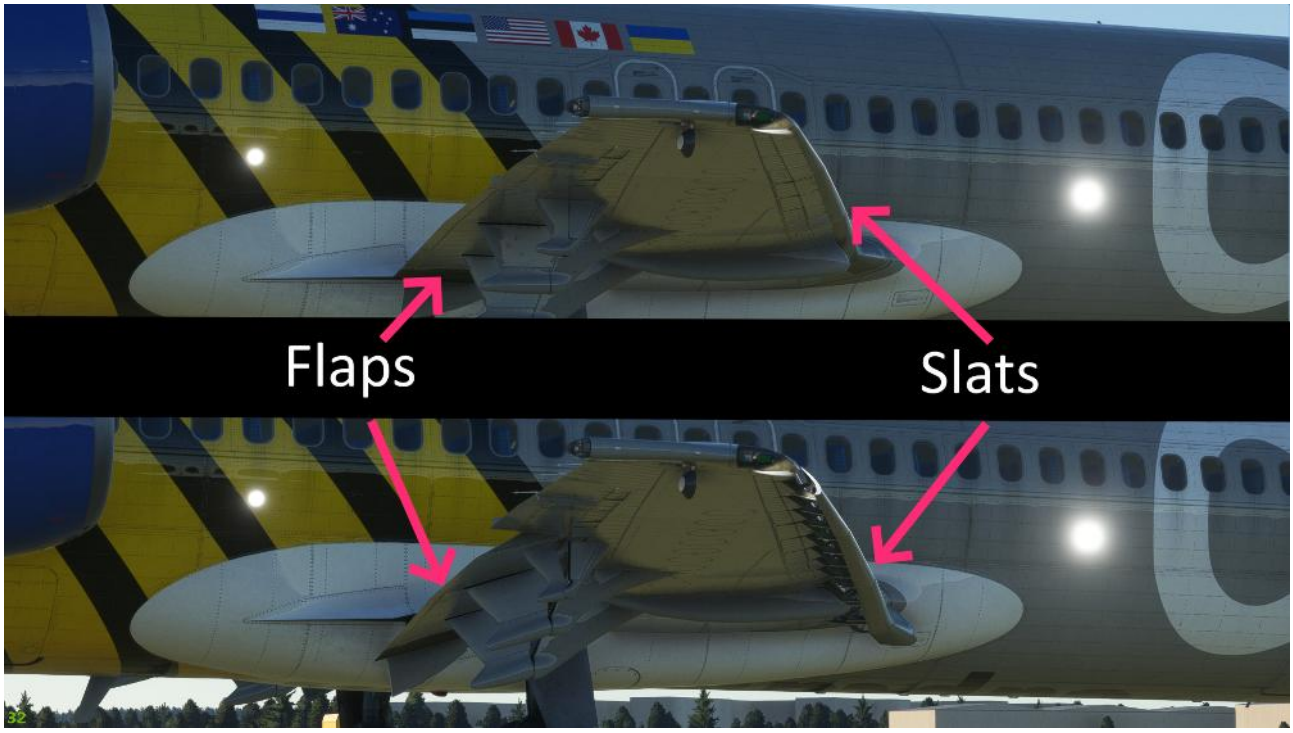
APU exhaust jet outlet (animated)

Rear Hatch 1+2 (can be open) / (ECAM-Menu)

Emergency Exits Left and Right Side (can be open) / (ECAM-Menu)

Nose with Radar (can be open) / (ECAM-Menu)

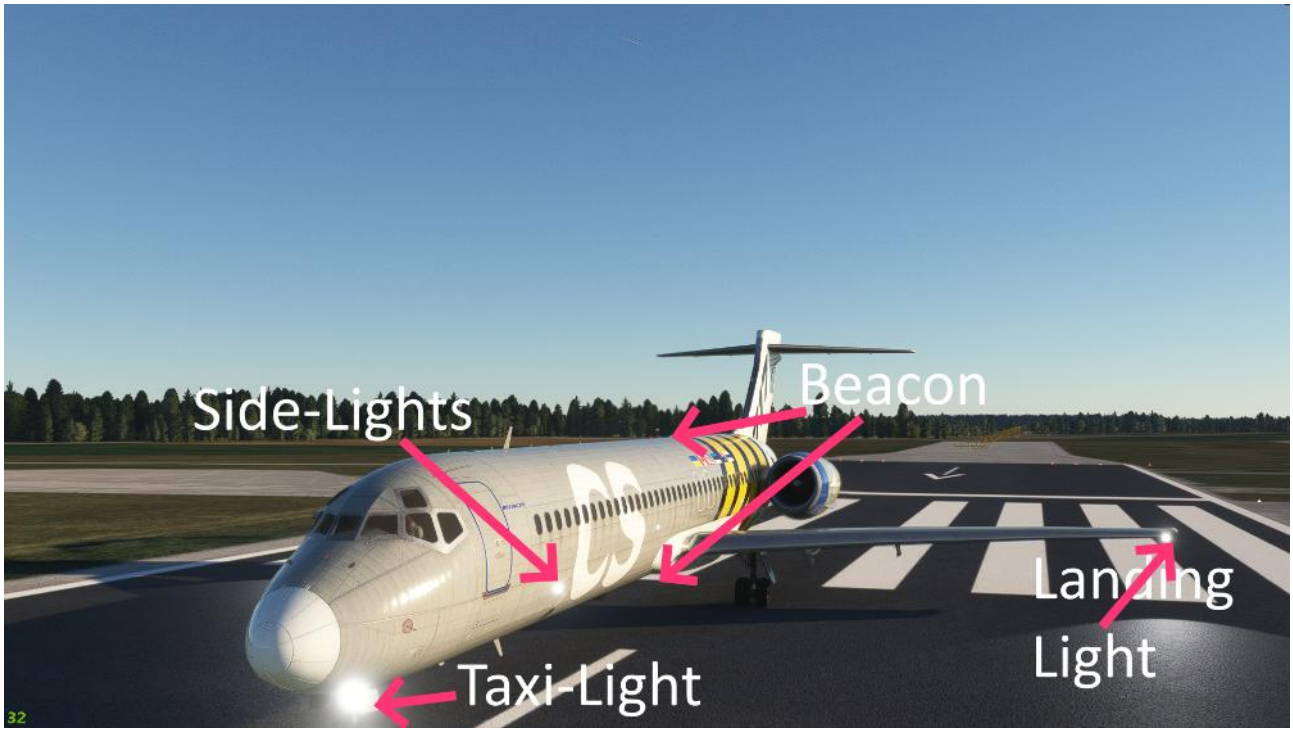
Slats and Flaps (animated)



Engine-Cover (can be open) / (ECAM-Menu)

Reverser (animated)

Exterior-Lights (animated)



The Cockpit-Overview

The cockpit areas and cockpit instruments are explained below.
99% of the Controls, Switches and Buttons are operable/animated. The circuit breakers are of course not animated, so they are not clickable. That would be asking a little too much.

1	PFD (Primary Flight Display)	9	Master-Caution and Master-Warninglights
2	ND (Navigation Display)	10	Push to inhibit below GS Warning
3	Left EICAS-Display (ECAM)	11	Part of the Automatic Flightsystem
4	Right EICAS-Display (ECAM)	12	Mechanical Flightnumber
5	FMC (Flight Managment Computer)	13	Engine Fire-Warning
6	Integrated Standby Flight Display (ISFD)	14	Gear Indicator
7	Flight-Director-Button and Light-Buttons	15	EFIS Control-Panel
8	Clickspot for Rudder	16	AutoPilot Panel

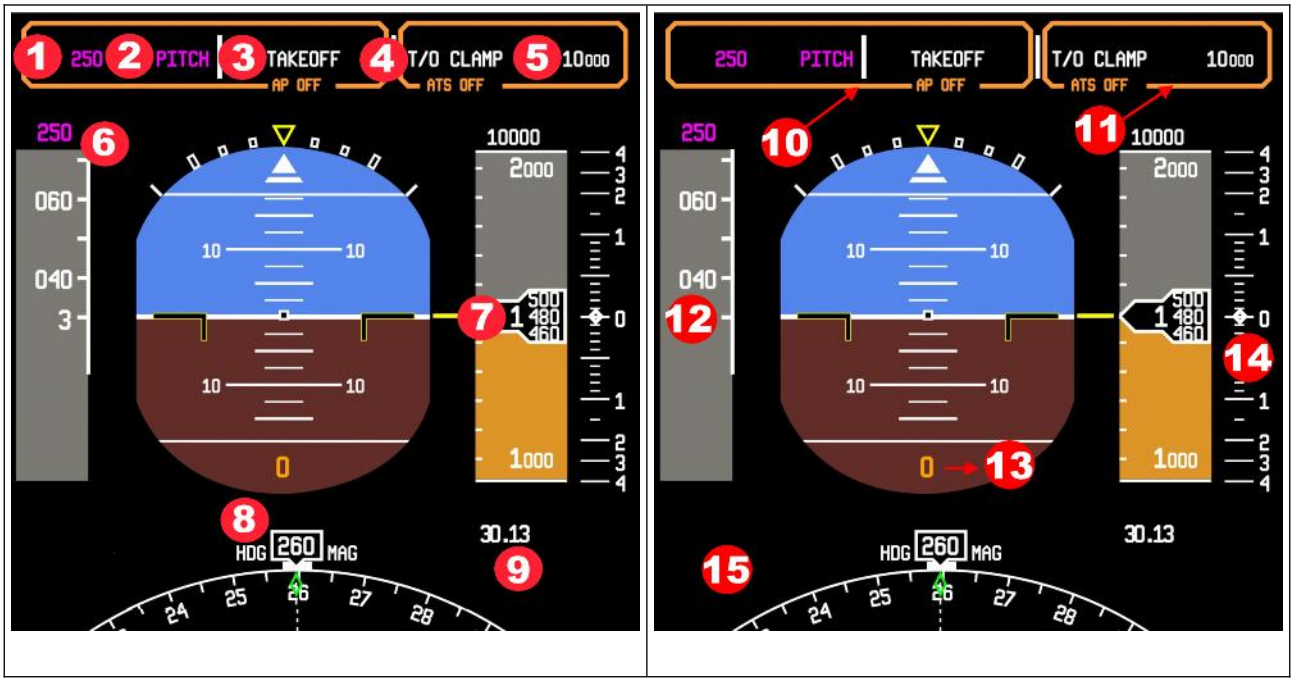
Not every system or display is explained in detail, but only the most important messages, displays and functions of this aircraft type. Switches, buttons or controls without a function behind them are not explained here, but are simply referred to as INOP (inoperable). However, this may change in the future with further updates. You should also regularly visit the Captain-Sim Forum (see the Link below) to see what's new. Updates etc.

https://www.captainsim.org/forum/csf.pl?catselect=fs20

So that you are always up to date with your Boeing 717-200

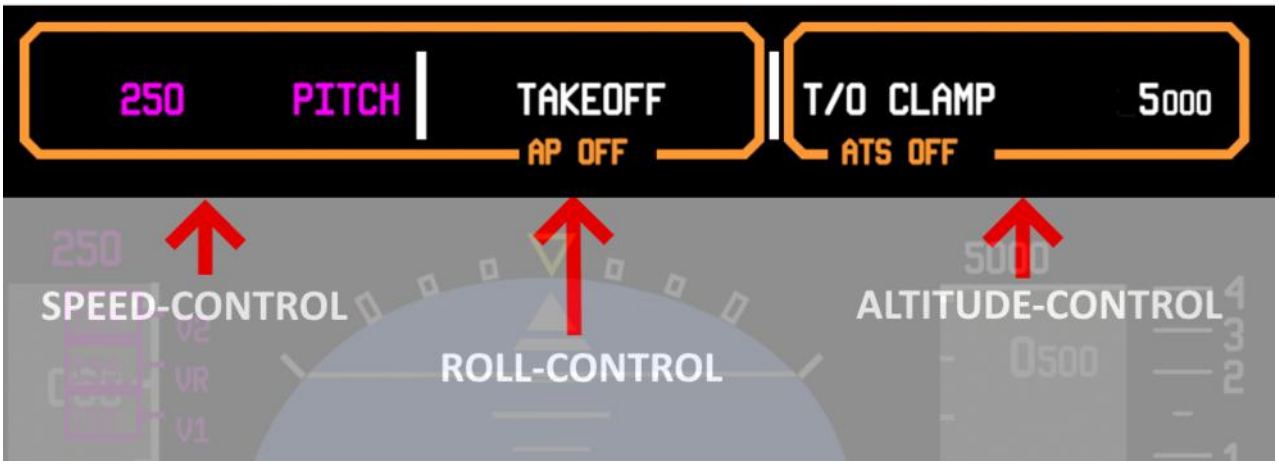
PFD (Primary Flight Display)

The PFD-Display on Pilot-Side and Co-Pilot-Side shows always the same.



1	Selected Speed (ktn) (Magenta = managed)	10	Orange Frame Indicator - Autopilot is OFF
2	Pitch-Mode (Magenta = managed)	11	Orange Frame Indicator - Autothrottle is OFF
3	Takeoff-Mode	12	Actualy Air-Speed
4	Altitude-Mode	13	High above Ground
5	Selected Altutude	14	Indicator-Scale for Climb-Rate
6	Selected Speed	15	
7	High above N.N	16	
8	Heading-Course	17	
9	QNH-Value	18	-

PFD - Upper Controls



SPEED-CONTROL	Shows FCP or FMS speed and mode. Mode is magenta when the FMS speed is engaged and the airplane is controlling to an FMS or pilot selected speed. The mode is white when an AFS speed mode is engaged and controlling to a pilot selected speed. When THRUST mode is on, ATS should be engaged. If it is not, the white ATS OFF box appears. If ATS is inoperative, the amber ATS OFF box appears. If a speed has been commanded that cannot be maintained due to vertical speed or FPA, the speed and mode will flash. Flashing continues until the airplane accelerates towards the target speed. If the mode changes due to an auto reversion, the new mode flashes 5 times. If speed protection engages, HI SPEED PROTECTION or LO SPEED PROTECTION will be displayed
ROLL-CONTROL	Shows roll mode. Digits are displayed in HDG or TRK mode. Engaged AP1 or AP2 is shown. FMS modes are magenta, pilot and AFS modes are white, and AUTOLAND mode is green. If the mode changes due to an auto reversion, the new mode flashes 5 times. Armed modes are in small characters above the engaged mode
ALTITUDE-CONTROL	Shows FMS or FCP target altitude and profile mode. FMS altitudes and modes are magenta. Pilot selected altitudes and modes are white. If the mode changes due to an auto reversion, the new mode flashes 5 times. Armed modes are shown above the engaged mode. The GROUND PROX warning is in red and flashes with the engaged mode.

Speed-Control Modes

Control-Mode	Color	Description
PITCH	White	Manual control mode indicates AP/FD speed on pitch during a climb. Entered by making a manual speed selection on the FCP during takeoff, climb and level change.
PITCH	Magenta	FMS control mode indicates speed on pitch during a climb.
THRUST	White	Manual control mode indicates speed controlled by the throttles. Entered by making a manual selection on the FCP (altitude hold, vertical speed, and flight path angle)
THRUST	Magenta	FMS control mode indicates throttles control the speed of the aircraft.
IDLE THRUST	Magenta	FMS control mode indicates the throttles control the speed of the aircraft during descent
RETARD	White	Autothrottle is in the retard mode during an autoland.
WINDSHEAR	White	Windshear speed control is in operation.
LO SPEED PROTECTION	White	Speed protection is engaged.
HI SPEED PROTECTION	White	Speed protection is engaged.

Roll-Control Modes

Control-Mode	Color	Description
TAKEOFF	White	Manual control mode for the AP/FD set to the takeoff mode while the aircraft is on the ground.
HEADING	White	Manual control mode for the AP/FD set to the takeoff mode after the aircraft is in flight, or to manually set heading select or heading hold.
TRACK	White	Manual control mode for the AP/FD set to the takeoff mode after the aircraft is in flight, to manually set track select or track hold.
NAV1 or NAV2	Magenta	NAV 1 displayed when autopilot 1 is in control. NAV 2 displayed when autopilot 2 is in control. FMS control mode for all the roll control steering commands. Entered by pushing the NAV button on the FCP.
LOC	Green	Autoland control mode indicates the localizer is locked on in an autoland configuration (glideslope also locked on).
LOC ONLY	White	Manual mode indicates localizer only is locked on (glideslope not available).
ALIGN	Green	Autoland mode indicates that the aircraft is in a Category IIIA runway alignment phase.
ROLLOUT	Green	Autoland mode indicates that the aircraft is in a Category IIIA rollout phase
LAND ARMED	White	Armed by selecting APPR/LAND button on the FCP. The FCCs arm for an autoland (localizer not locked on)
LOC ARMED	White	Armed by selecting LOC ONLY on NAV RAD page. FCC arms the set ILS to lock on the localizer beam.
NAV ARMED	Magenta	Armed by selecting NAV button on the FCP. FCC armed to locks on the FMS NAV mode.

Altitude-Control Modes (1)

Control-Mode	Color	Description
T/O THRUST	White	thrust is greater than 70% (1.2 EPR), and airspeed is less than 80 knots with aircraft on the ground.
T/O CLAMP	White	autothrottles are in operation / thrust is greater than 70% (1.2 EPR) / airspeed is more than 80 knots / climb thrust is not set (takeoff, climb).
T/O CLAMP	Magenta	PROF selected on FCP /autothrottles are in operation / thrust is greater than 70% (1.2 EPR) / airspeed is more than 80 knots / climb thrust is not set (takeoff, climb).
GO AROUND	White	go-around thrust is set / autothrottles are in operation. Push the TOGA palm switches.
GO AROUND	Magenta	go-around thrust is set / PROF selected on FCP / autothrottles are in operation // Push the TOGA palm switches.
IDLE CLAMP	White	Displayed during descent level changes with the autothrottles on.
IDLE	Magenta	Displayed during an FMS descent with the autothrottles on.
CLB THRUST	White	Displayed with autothrottles on and manual climb thrust set.
CLB THRUST	Magenta	Displayed with autothrottles on and FMS PROF climb thrust set.
MCT THRUST	White	Displays a manually set maximum continuous thrust.
MCT THRUST	Magenta	Displays an FMS PROF maximum continuous thrust.
G/A THRUST	White	Displays a manually set go around thrust set.
G/A THRUST	Magenta	Displays an FMS PROF go around thrust set.
GRZ THRUST	White	Displays manual cruise thrust set in a climb, cruise, or descent.

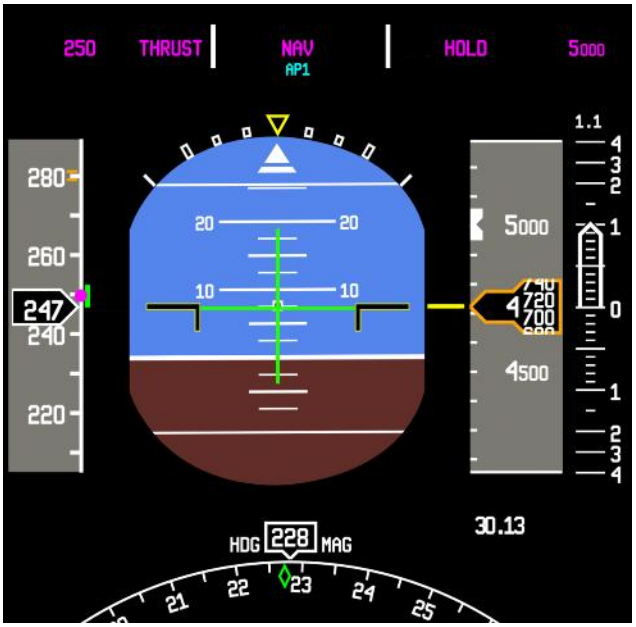
Altitude-Control Modes (2)

Control-Mode	Color	Description
GRZ THRUST	Magenta	Displays FMS PROF cruise thrust set in climb, cruise or descent.
HOLD	White	Displays an altitude hold in an AP/FD altitude capture. The altitude selection on the FCP (altitude hold, cruise) sets this mode.
HOLD	Magenta	Displays an altitude hold in an AP/FD altitude capture. FMS PROF (altitude constraints, cruise) sets this mode.
V/S	White	Displays vertical speed set for the AP/FD. The thumb wheel on the FCP sets this mode for a climb or descent.
V/S	Magenta	Displays a vertical speed set for the AP/FD while operating in FMS PROF
FPA	White	Displays a flight path angle set for the AP/FD. The thumb wheel on the FCP sets this mode for a climb or descent
PROF	Magenta	Displays the AP/FD in an altitude hold. An FMS calculated flight path altitude change sets this mode for climb or descent.
GS	Green	Displays AP/FD locked on the glideslope in an AUTO LAND approach.
GS	White	Displays during the approach only mode
AUTOLAND	Green	Displays for a Category IIIA approach with autoland set.
APPR ONLY	White	Displays with the localizer and glideslope locked on, and autoland is not available.
FLARE	Green	Displays in a Category IIIA approach with autoland set in the flare phase
ROLLOUT	Green	Displays in a Category IIIA approach with autoland set in the rollout phase
WINDSHEAR	White	Displays for AP/FD speed on pitch and windshear guidance available.
GROUND PROX	Red	Displays a ground proximity warning from the ground proximity warning computer.

When the aircraft begins to make an altitude change, FMA annunciations indicate armed pending actions. The selection is indicated above the altitude control window.

Altitude-Control Modes (3)

Control-Mode	Color	Description
PROF TO	Magenta	FMS PROF controls the altitude to an intermediate constraint.
VERT ALERT	Magenta	Displays temporarily and changes from VERT ALERT to PROF TO XXX to show a possible level change.
LAND ARMED	White	Displays autopilot auto land set and the localizer locked on but glideslope not locked on



Example 1

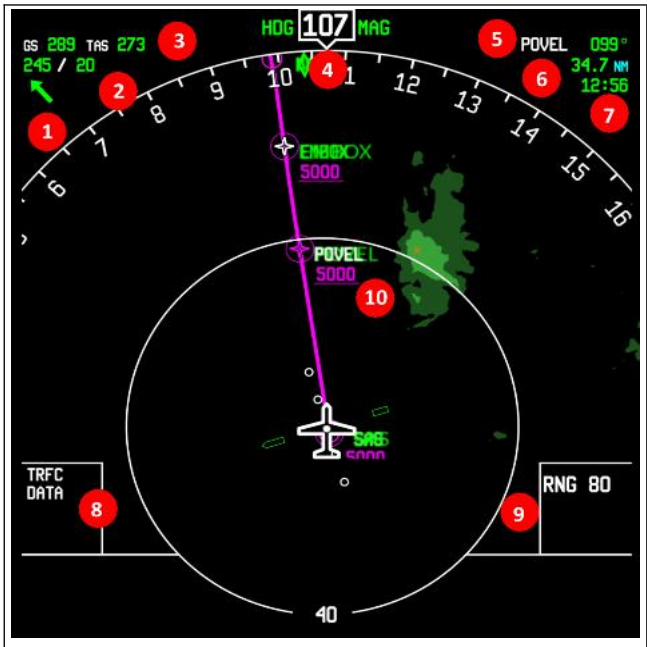
Example 2

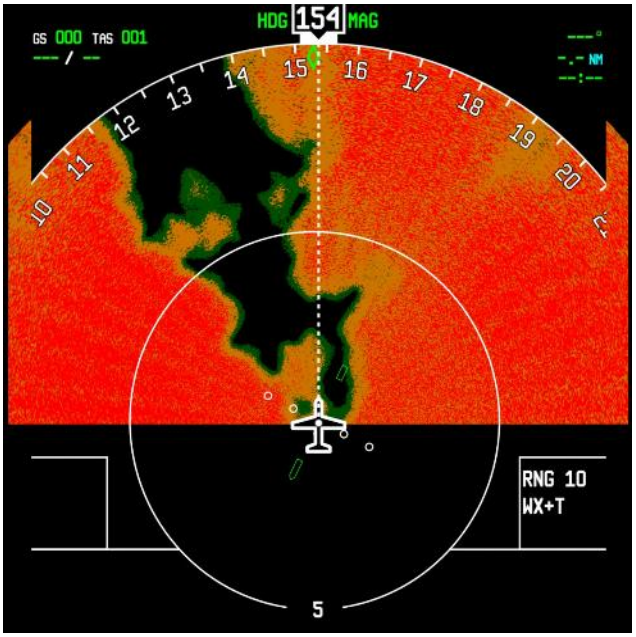
ND (Navigation Display)

The ND-Display on Pilot-Side and Co-Pilot-Side shows always the same.

The ND works in different modes. MAP-MODE , PLAN-MODE , VOR-MODE, APPR-MODE and TCAS-Mode see Picture below. The Mode can be changed by using this Buttons….

ND in MAP-MODE





ND Weather-Mode

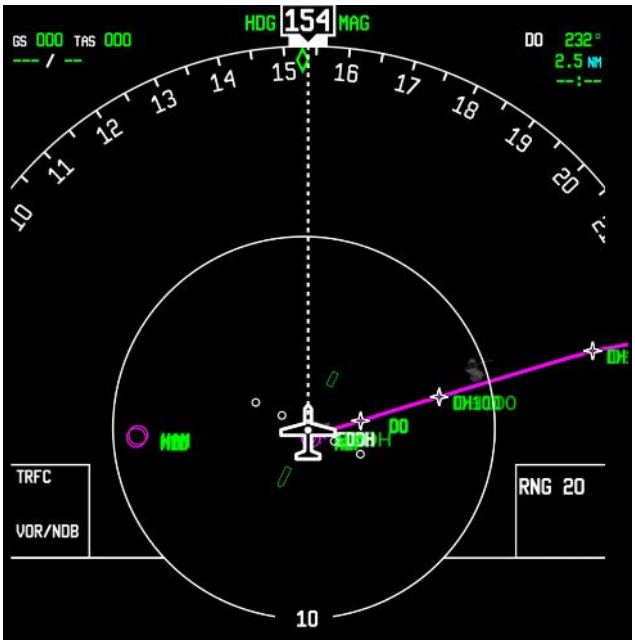
1	Groundspeed / Airspeed	7	Waypoint reached at Time
2	Winddirection Degree and Speed in kn	8	displays (TRFC-DATA-WPT-VOR-ARPT)
3	Wind Direction Indicator	9	Range
4	Current Course	10	(Left) Data / Constrains --- (Right) Terrain
5	Next Waypoint Direction Degree	11	
6	Distance to Waypoint	12	

ND (Different Display-Modes)

Terrain + Waypoints

Terrain + Data

Airports



Terrain + VOR / NDB

ND in Plan-Mode

ND in TCAS-Mode

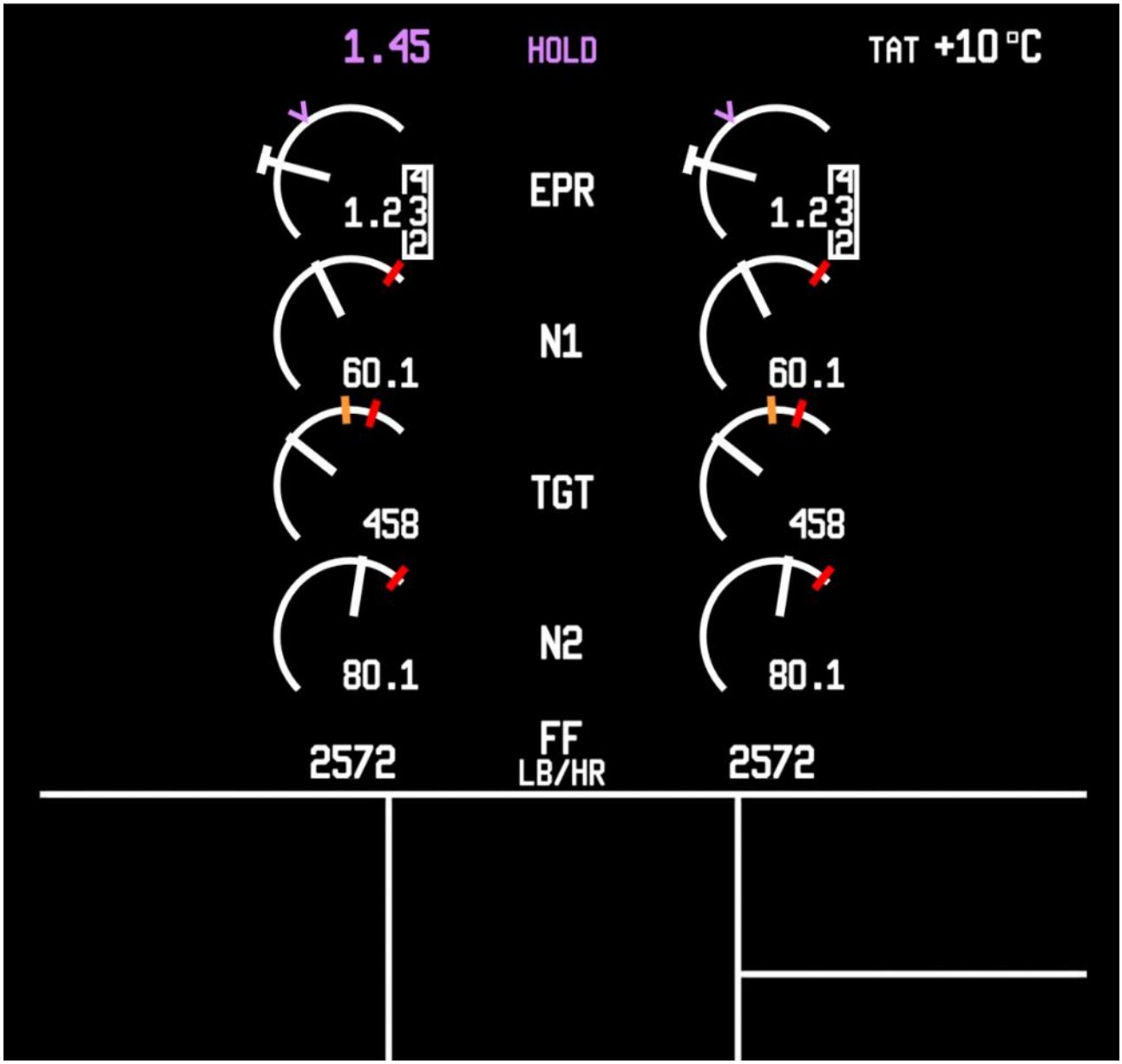
ND in VOR-Mode

ND in APPR-Mode

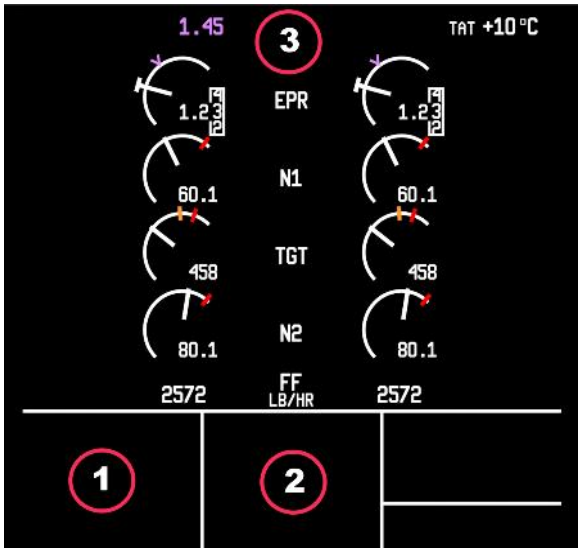
Feature in the ND :

When the navigation display window pop-up, you can use mouse click anywhere in that window to increase the radius, it will loop, and Shift + click to switch between map and plan modes.

Left EICAS-Display (ECAM) (Eicas Display)



The left EICAS display shows the status of the two Rolls-Royce BR715 engines. The EPR or pronounced Enigne Pressure Ratio. The inlet pressure at the engine inlet is set in relation to the outlet pressure at the exhaust nozzle. The value N1 (low pressure rotor) shows the current engine speed in percent. The TGT value is the engine temperature. The value N2 (high pressure rotor) also shows the speed in percent. The value FF shows the current fuel consumption in LB per hour.



Warning / Hint-Messages are displayed in Text-Blocks 1 + 2 + 3

The following messages may be displayed :

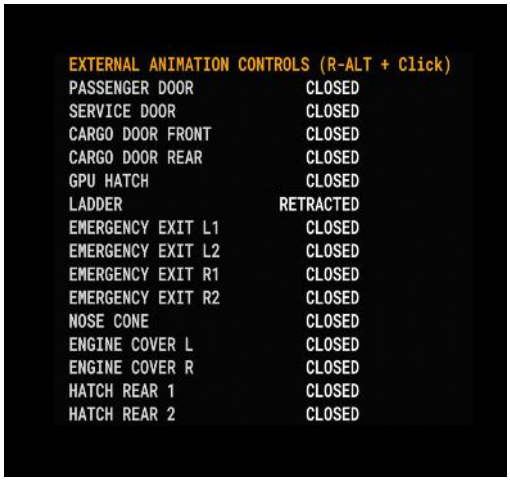
1 (ORANGE)	2 (CYAN)	3 (MAGENTA)
ACCESS COMPT DOOR	STAB TRIM	T/O THRUST
AFT BULKHEAD DOOR	RUDDER TRIM	T/O CLAMP
CABIN DOOR	FLAP	CLB THRUST
CARGO DOOR FWD	SLAT	HOLD
CARGO DOOR AFT	SPOILER	MCT THRUST
DOOR OPEN	BRAKE	V/S
ELEC COMPT DOOR		FPA
GALLEY DOOR		PROF
STAIRWAY DOOR FWD		GO AROUND
		G/S
		AUTOLAND
		APPR ONLY
		FLARE
		ROLLOUT
These are indications that the doors/flaps on the aircraft are still open and need to be closed before the taxi or takeoff.	These are warning messages that appear, for example, when starting. As a rule, acoustic warnings are also added here. As an example, if the Stabelizer trim is not set correctly, the message "Stabelizer" will appear and an acoustic warning will also appear.	The current flight status of the machine is shown / displayed here.

Right EICAS-Display (ECAM) (Eicas Display)

The right EICAS display is more or less a multifunction display. Several systems are shown on this display; the selection is made using the buttons on the pedestal.

There are a total of 12 buttons arranged in two rows.

1. ENG — Engine-System
2. INFO — not in use
3. MENU — Menue-Display
4. ND — ND-Display / not in use
5. CONSEQ — Consequences / not in use
6. STATUS — Status-Display / not in use
7. HYD — Hydraulic-System
8. ELEC — Electric-System
9. AIR — Air-System
10. FUEL — Fuel-System
11. CONFIG — not in use
12. MISC — not in use



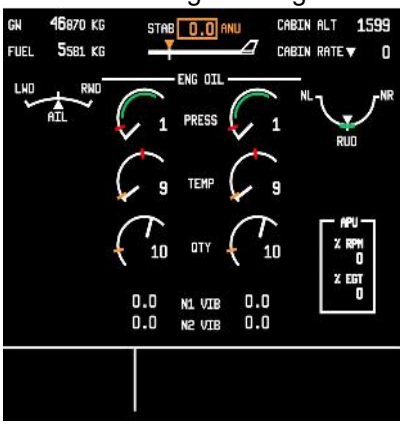
The menu selection page is shown as the start display. Here we can influence various things on the aircraft.

However, in order to open the doors, for example, it is not enough to click on the point on the display. This menu window must be brought to the foreground. This is done as follows. Move the mouse pointer into he area of this display, then press the right Alt key and click on the left mouse button. Now the window is brought to the foreground. Now you can open the engine covers in this window by clicking on the corresponding line.

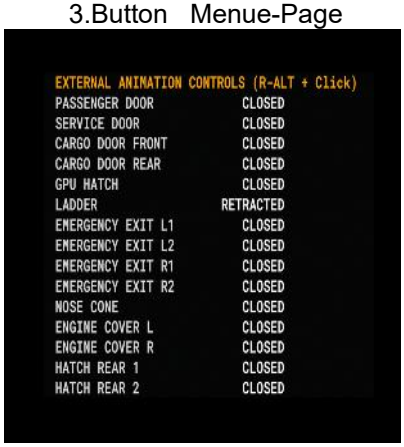
By the way, bringing it to the foreground applies to all displays, including the FMC display.

Right EICAS-Display (ECAM) (Eicas Display)

1.Button Engines-Page

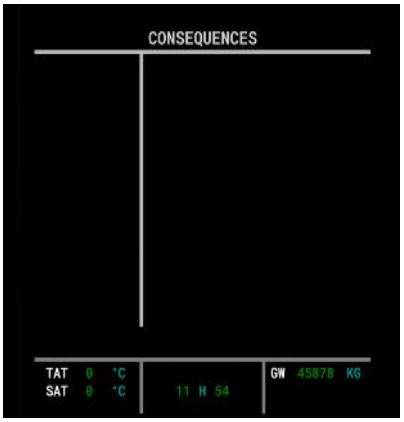


3.Button Menue-Page

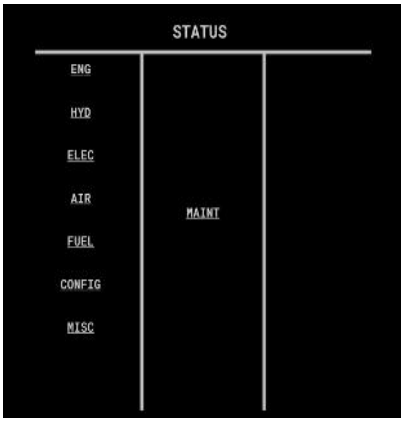


4.Button ND-Page

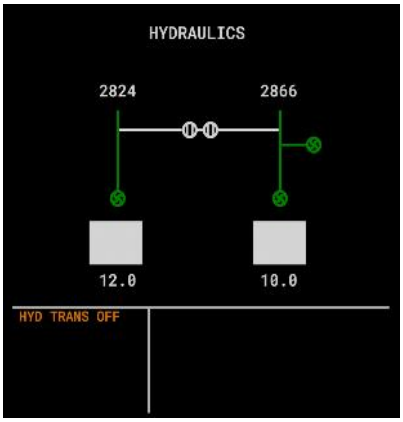
5.Button Conseq-Page



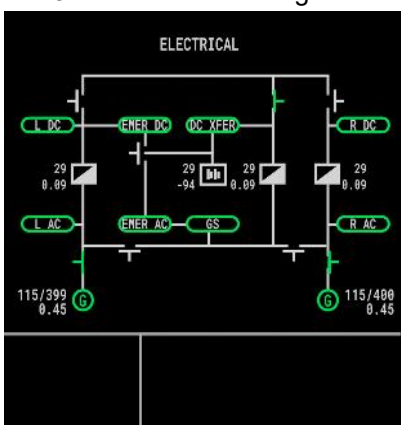
6.Button Status-Page



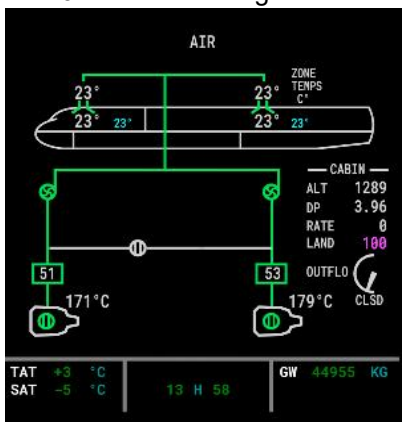
7.Button Hyd-Page



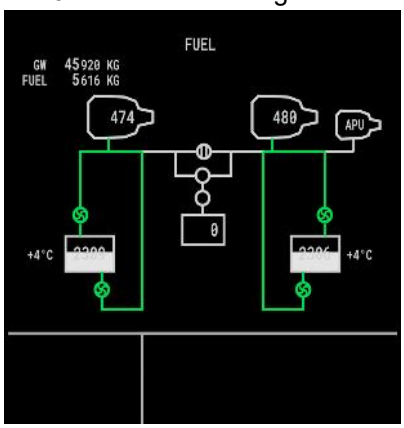
8.Button Electric-Page



9.Button Air-Page



10.Button Fuel-Page



The displays for buttons 2, 11 and 12 have no function and are not shown here.

FMC (Flight Management Computer)

A flight management system (FMS) is a fundamental component of a modern airliner's avionics. An FMS is a specialized computer system that automates a wide variety of in-flight tasks, reducing the workload on the flight crew to the point that modern civilian aircraft no longer carry flight engineers or navigators. A primary function is in-flight management of the flight plan. Using various sensors (such as GPS and INS often backed up by radio navigation) to determine the aircraft's position, the FMS can guide the aircraft along the flight plan. From the cockpit, the FMS is normally controlled through a Control Display Unit (CDU) which incorporates a small screen and keyboard or touchscreen. The FMS sends the flight plan for display to the Electronic Flight Instrument System (EFIS), Navigation Display (ND), or Multifunction Display (MFD). The FMS can be summarised as being a dual system consisting of the Flight Management Computer (FMC), CDU and a cross talk bus.

Source: https://en.wikipedia.org/wiki/Flight_management_system

The two buttons framed in red on the left and right have the following designation. Left side from top to bottom L1 - L6. Right side from top to bottom R1 – R6.

all FMC-Pages of the CS 717-200

			
Startpage / Status	INIT-Page 1	INIT-Page 2	INIT-Page 3
			
FMC Menu-Page	NAV-RADIO-Page	DIR-To-Page	Performance-Page 1
			
Performance-Page 2	Performance-Page 3	Performance-Page 4	Performance-Page 5

 GO-Around-Page	 REF-Index-Page	 Position-Monitor	 ECON-CRZ-Page
 FIX-Info-Page 1 + 2	 FUEL PRED-Page	 Flightplan-Page	

On the following pages the FMC pages are briefly presented and a simple flight plan is created.

Programming the FMC Part 1

Fig.1

Fig.2

Fig.3

Fig.4

Fig.5

Fig.6

Fig.7

Fig.8

Fig.1 shows the Startup-Screen on the FMC. Now we begin to program a little Flightplan. The first Step is to push the INIT-Button on the FMC. Now you see the INIT-Page (***Fig.2***). Next Step is input a Departure-Airport and an Arrival-Airport. In this case EDDM (Munich, Germany) to EDDN (Nürnberg, Germany). Input **EDDM/EDDN** on the FMC Keypanel (***Fig.3***) and press **R1** Button on the FMC (right side, first Button). This may takes a time. If finished you see Screen ***Fig.4***, now press the **RETURN**-Button on the FMC. Now you see the Screen ***Fig.5***, here we input the Flightnumber, the Costindex and the Flightlevel. First input the Flightnumber , then press **L3**-Button. Next input the Costindex and press **L5**-Button and at last input the Flightlevel and press **L6**-Button. Now it must show the Screen like ***Fig.6***. Next press the **F-PLN** Button on the FMC….it show Screen ***Fig.7***. Next press **L1** Button, you see Screen ***Fig.8.*** Next press **L1** Button again.

Programming the FMC Part 2

Fig.9

Fig.10

Fig.11

Fig.12

Fig.13

Fig.14

Fig.15

Fig.16

The runway can now be selected on this Screen (***Fig.9***), in this case 26L.To do this, press **L4** Button on the FMC, see ***Fig.10***. Now select the **SID** , in this case **AKIN1S**. Press **L3** Button and then **R6** button to Insert in Flightplan. (***Fig.11***). Press **L6** Button, this choose **EDDN**...now you see Screen ***Fig.12*** (Arrival). Press **L1** and choose the Landing-Runway (***Fig.13***), in this case **ILS 28.** Choose the **STAR** on ***Fig.14***, in this case **LETK1V**, to do this press **L5** Button and **R6** Button to insert in Flightplan (you see ***Fig.15***). At last choose the **APPROACH**, in this case **NUB**, to do this press **L4** Button and then **R6** Button to insert in Flightplan.
The Flightplan is Ready now…..only a few Step to finish at next side...

Programming the FMC Part 3

Fig.17

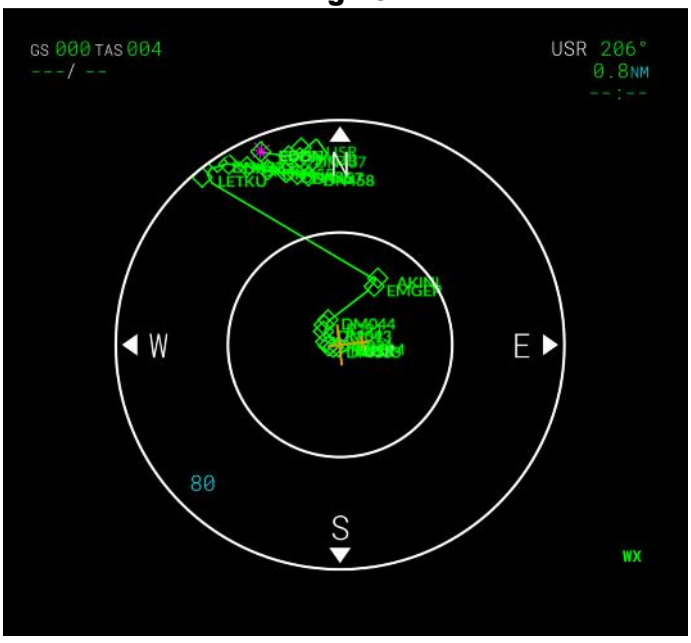
Fig.18

Fig.19

Press **PERF**-Button on the **FMC**, you see ***Fig.17***. Type in 18 on the Keypanel for the Flap-Position….then press **L6** Button. The Speeds **V1**, **VR** and **V2** are calculated (***Fig.18***)
When you see **CHECK/CONFIRM VSPDS**, you need to press the **L1,L2,L3** Button one after the other to confirm the values

Press **F-PLN** Button on the **FMC**……now its finished.
Now you can see the Flightplan on the ND-Display (***Fig.20***), maybe you must change the Range with **INCR / DECR** Buttons on **EFIS-Panel**

Fig.20

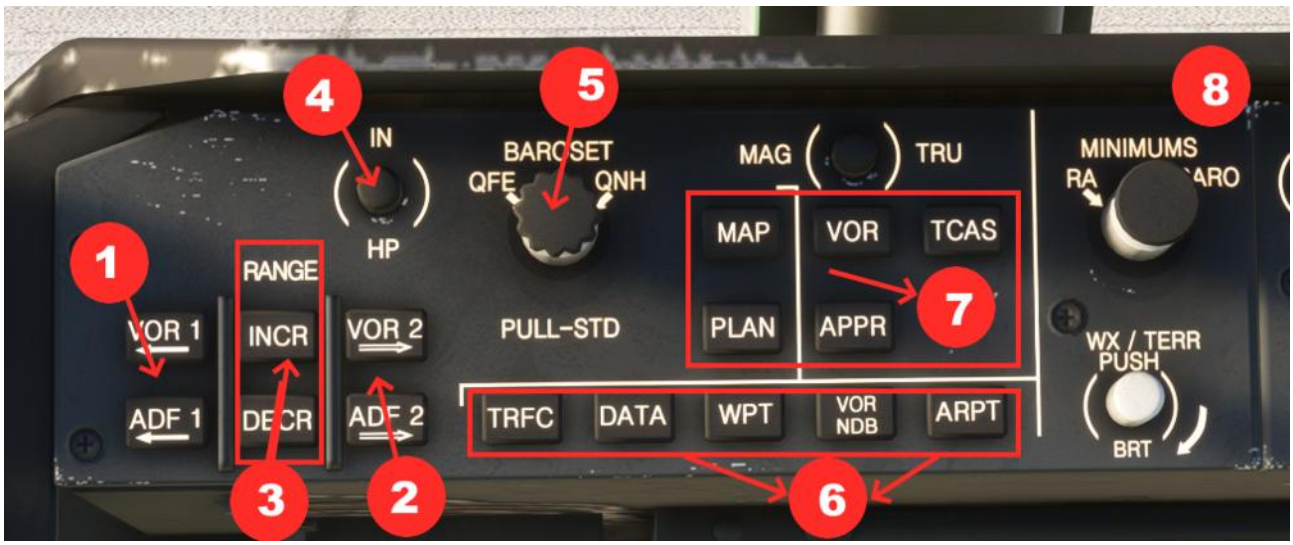


ISFD (Intergrated Standby Flight Display)

An integrated standby instrument system (ISIS) is an electronic aircraft instrument. It is intended to serve as backup in case of a failure of the standard glass cockpit instrumentation, allowing pilots to continue to receive key flight-related information. Prior to the use of ISIS, this was performed by individual redundant mechanical instrumentation instead. Such systems have become common to be installed in various types of aircraft, ranging from airliners to helicopters and smaller general aviation aircraft. While it is common for new-built aircraft to be outfitted with ISIS, numerous operators have opted to have their fleets retrofitted with such apparatus as well.

Source: https://en.wikipedia.org/wiki/Integrated_standby_instrument_system

EFIS (Electronic Flight Instrument System)



1	Show / Hide VOR 1 – ADF 1 in ND-Display	5	Set Baro-Value
2	Show / Hide VOR 2 – ADF 2 in ND-Display	6	Terrain-Data-Waypoints-VORs-Airports in ND
3	Increase / Decrease Range in ND-Display	7	ND-Display-Modus
4	Switch unit of measurement **hPa** to **inch Hg**	8	Set Minimums

FCU (Flight Control Unit)

1	Switch Unit of measurement IAS - MACH	8	APPR / LAND
2	Managed Speed activ	9	Switch unit of measurement Feet - Meter
3	Control manually Speed	10	Control manually Altitude
4	Managed Course / Flightplan	11	Profile-Mode activ
5	Control manually Heading	12	Vertical Speed f/min or sliding angle
6	Auto-Pilot cut of	13	Control manually Vertical Speed
7	Auto-Flight	14	

Altitude Control and Display

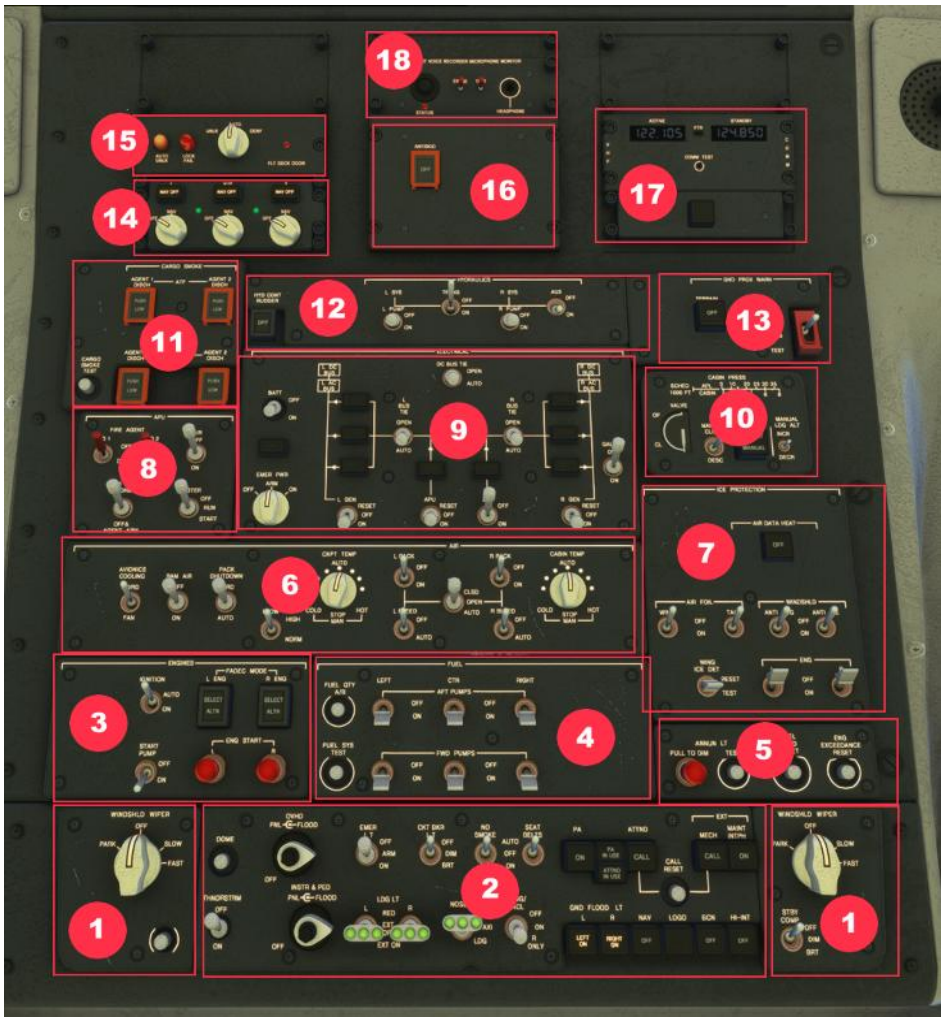
1 **FEET/METER** Changeover Button Push - Selects feet or meters on **FCP, FMA**, and lower right of **PFD**. 2 Altitude Display Window Displays altitude dialed in with the altitude select knob. Window is blank if air data computers fail. 3 Altitude Select Knob Rotate - Sets preselected altitude in altitude display window. If **PROF** is engaged, it sets **FMS** clearance ceiling (climb) or floor (descent). Pull - Airplane will climb or descend directly to selected altitude. **ATS** will go to climb thrust or idle descent as required. **FCP** altitude is displayed on **FMA**. Push - Airplane will hold current altitude. Altitude will display on **FCP**, **FMA**, and **PFD**

Vertical Control and Display

1 **V/S-FPA** Changeover Button Push - Selects alternately either vertical speed in fpm or **FPA** in tenths of degrees. 2 **V/S-FPA** Display Window Displays vertical speed or **FPA** selected with the pitch wheel. Display is blank if **V/S** or **FPA** are not engaged. When **FPA** is selected, the value is in degrees and tenths. When **V/S** is selected, the value is in fpm. 3 Pitch Wheel Rotate - Selects a vertical speed or **FPA** in the display window. The airplane then maintains that vertical speed or **FPA**. If the wheel is rotated again, the vertical speed or **FPA** will change again. 4 **PROF** Switch Push - Engages **FMS** vertical profile guidance.

 **Heading Control and Display**	1 **HDG/TRK** Changeover Button Push - Selects alternately either heading or track in the display window and on the **ND**. 2 **HDG/TRK** Display Window Displays **HDG** or **TRK** dialed in with the **HDG/TRK** selector. Window is blank when the **AFS** is controlling to the **FMS** flight plan. 3 **HDG/TRK** Selector (Inner Knob) Rotate - Preselects a heading or track in the display window. Pull - The airplane captures and follows the selected track or heading that is in the display window. Push - Airplane maintains current heading or track. The window will display this heading or track. 4 Bank Angle Limit Selector (Outer Knob) Rotate - Selects max bank angle in 5 degree increments. **AUTO** - Bank angle limits vary with speed. This selector cannot override **FMS** bank angle limits. Limits are displayed on the top of the **PFD** attitude sphere. 5 **NAV** Switch Push - Arms the **FMS NAV** capture mode or resumes **FMS** lateral control. **NAV ARM** can be cancelled by selecting **HDG/TRK** hold, **APPR/LAND** arm, capturing the localizer, or capturing **FMS NAV**
 **Speed Control and Display**	1 **IAS/MACH** Changeover Button Push - Selects alternately either **IAS** or Mach in the display window. 2 **IAS/MACH** Display WIndow Displays the **IAS** or Mach dialed in with the **IAS/MACH** select knob. The window shows dashes when the **AFS** is controlling to **FMS** flight plan speed. 3 **IAS/MACH** Select Knob Rotate - Preselects **IAS** or Mach in the display window. Pull - The airplane holds speed selected in the window. Push - The airplane maintains current speed and the window will display the speed. 4 **FMS SPD** Switch Push - Selects the armed **FMS** speed. The display window will show dashes and the **FMA** speed changes from white to magenta. FMS speed can be edited by preselecting an **FCP** speed with the **IAS/MACH** select knob and immediately pushing this switch. **FMS SPD** is disengaged by pushing or pulling the **IAS/MACH** select knob or by engaging go-around
 **APPR/LAND, AUTO FLIGHT and AFS OVRD OFF Switches**	1 **APPR/LAND** Switch Push - Arms the **APPR** and **LAND** modes. **LAND ARMED** appears in the **FMA** roll control window. A tuned **ILS** is required to arm **APPR/LAND**. 2 **AUTO FLIGHT** Switch Push - Engages **ATS** and one **AP** in the **FD** mode that has been selected. If no **FD** mode has been selected, the **AP** engages in **HDG/TRK HOLD** and either altitude hold (if level) or vertical speed hold (if climbing/descending). After **AP** engagement, each push alternates the **AP** between **AP1** and **AP2**. This is displayed on the **FMA**. 3 **AFS OVRD OFF** Switches (2) Push down - Allows emergency disconnect of respective autopilot, autothrottle, and yaw damper. In **OFF**, an amber and gray bar comes into view.

Overheadpanel (Overview)



1	Wiper-Panels	10	Cabin-Pressure-Panel
2	Light-Panel	11	Cargo-Smoke-Panel
3	Engine-Panel	12	Hydraulic-Panel
4	Fuel-Panel	13	Ground-Prox-Warn-Panel
5	Fuel-Panel 2	14	ADIRS-Panel
6	Air-Panel	15	Cockpit-Door-Panel
7	Ice-Protectio-Panel	16	AntiSkid-Panel
8	APU-Panel	17	Backup-Frequenz-Panel
9	Electric-Panel	18	Cockpit Voice Recorder Microfone Monitor

The Light-Button over the Ground-Power-Switch is an 'Easter Egg' - you can control electrical power truck.

Wiper-Panel

Wiper-Panels Left Pilot-Side
and Right the Copilot-Side.
The Wipers has two Speed Settings,
Slow and Fast. When the Wipers
stops, you can bring them down,
if you switch to Park.
The Push-Butonn on Pilot-Side ???

The Switch on Co-Pilot-Side

Light-Panel

1	Dome-Light	10	Taxi Light
2	Thunferstorm-Light	11	Wing Light
3	Lights for Overhead-Panel	12	Left Ground Light
4	Lights for Instruments and Pedestel	13	Right Ground Light
5	Emergency-Lights	14	Navigation Light
6	Light for Circuitbreakers	15	Logo Light
7	No Smoking Signs	16	Beacon Light
8	SeatBelt Signs	17	Strobe Light
9	Landing Lights	18	Calls Cabin Crew / Ext Mech (see next Side)

Cockpit Lighting

Cockpit dome lights provide area lighting and are controlled by the DOME switch (1) on the overhead panel. Floodlights illuminate the overhead, glareshield, pedestal, and instrumentpanels. The light intensity can be adjusted using the INSTR & PEDPNL-FLOOD (4) and OVHD PNL-FLOOD knobs (3) on the overhead panel. THUNDRSTRM switch (2) overrides the individual lighting controls andilluminates all floodlights to maximum intensity. Additional cockpit lighting consists of floor lights, map lights, briefcase lights, circuit breaker light (6), standby compass light, and chart holder lights.

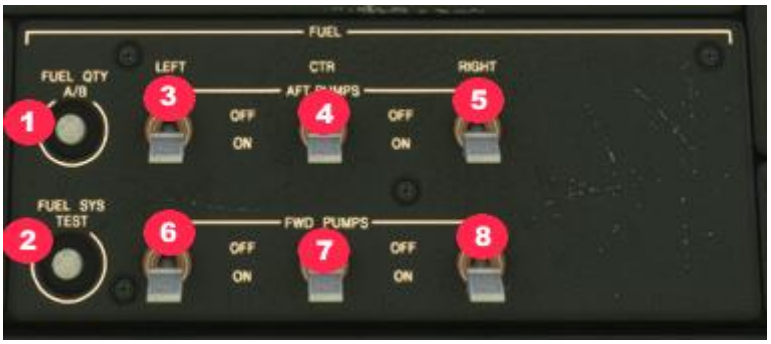
(18) PA, Call And INTPH Switches

1 **PA ON** Switchlight - blue **ON** - Push to connect the handset on the aft pedestal to the **PA** system when the handset is removed from its hanger. **ON** illuminates. Extinguished - Replacing the handset disconnects the handset from the PA system, extinguishes the switchlight, and reverts the handset to the service interphone function.
2 **PA IN USE** Light - blue **PA IN USE** - Light illuminates when a **PA** announcement is made from the flight deck microphone(s), the cabin handset(s), or when the Prerecorded Announcement Machine (PRAM)/Video is activated.
3 **ATTND CALL** Switchlight - blue **CALL** - Push switchlight to initiate a flight deck-to-flight attendant station call. Sounds a chime and illuminates the pink master call light at the flight attendant stations. Illuminates when a flight attendant calls the flight deck from a flight attendant station.
4 **MECH CALL** Switchlight - blue **CALL** - Push switchlight to sound the mechanic call horn. Illuminates when ground personnel push the pilot call switch at the ground power panel.
5 **MAINT INTPH** Switchlight - amber **ON** - Push switchlight to activate all service interphone jacks located throughout the airplane. **ON** illuminates.
6 **CALL RESET** Button Push - Extinguishes the **ATTND CALL** and the **MECH CALL** switchlights.

Engine-Panel

1	Ignition Switch	4	Starter Engine 2
2	Fuel Start Pump	5	
3	Starter Engine 1	6	

Fuel-Panel 1

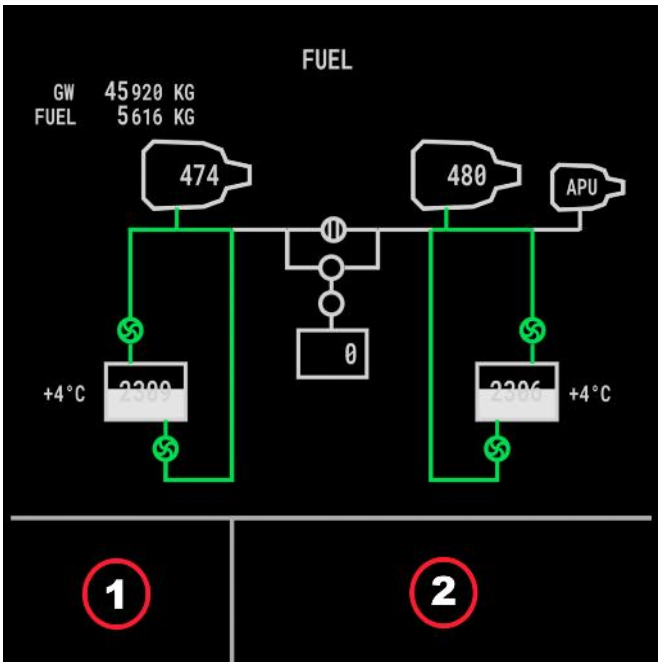


1	Push-Button Fuel Quantity	5	Right AFT Fuel-Pumpswitch
2	Push-Button Fuel System Tesrt	6	Left FWD Fuel-Pumpswitch
3	Left AFT Fuel-Pumpswitch	7	Center FWD Fuel-Pumpswitch
4	Center AFT Fuel-Pumpswitch	8	Right FWD Fuel-Pumpswitch

Fuel-Panel 2

1	X-Feed Fuel	3	Push-Button Reset used Fuel
2	Push-Button Test	4	Push-Button Reset ENG Exceedance

ECAM-Fuel-Page



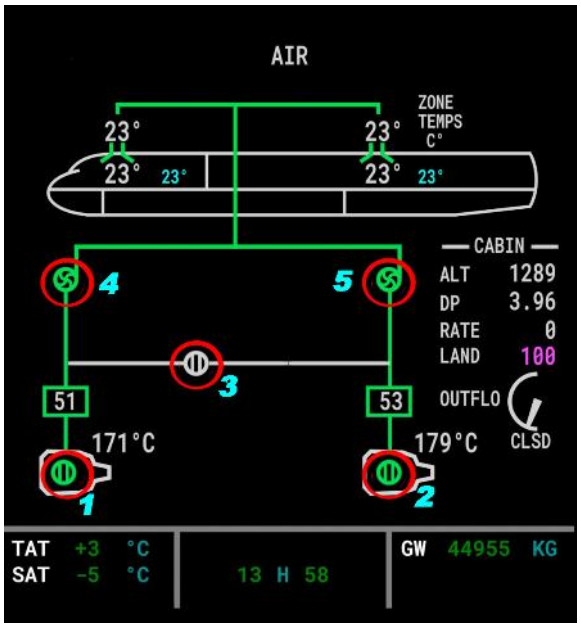
Warning and Hint-Messages are displayed in Text-Blocks 1 + 2

The following messages may be displayed :

BALST FUEL DISAG	CTR FWD PUMP LO	CTR AFT PUMP LO
FUEL OFF SCHEDULE	FUEL QTY FAULT	FUEL QTY SYS FAIL
CTR FWD PUMP OFF	CTR AFT PUMP OFF	ENG L FUEL PRES
ENG R FUEL PRES	FUEL LEVEL LO	LAT FUEL UNBAL
SEL CTR PUMPS OFF	SEL CTR PUMPS ON	TANK L PUMPS LO
TANK R PUMPS LO	TANK L PUMPS OFF	TANK R PUMPS OFF
TNK L FWD PMP LO	TNK R FWD PMP LO	TNK L FWD PMP OFF
TNK R FWD PMP OFF	TNK L AFT PMP LO	TNK R AFT PMP LO
TNK L AFT PMP OFF	TNK R AFT PMP OFF	
ENG START PUMP ON	FUEL SYS TEST	FUEL XFEED ON

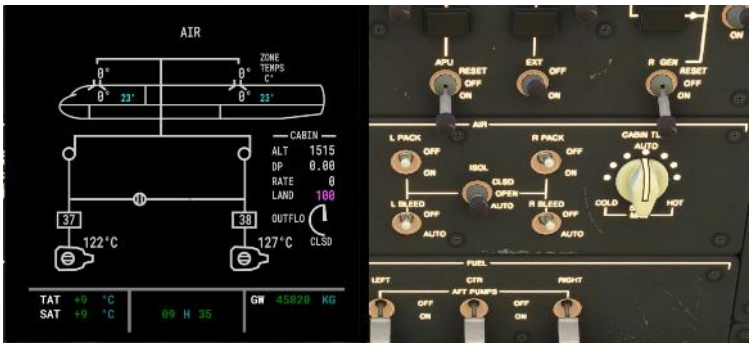
Air-Panel / Air-System

1	Left Pack Switch	7	Temperature Control Cabin
2	Right Pack Switch	8	Avionic Cooling
3	Isolation Switch	9	RAM AIR
4	Left Bleed Switch	10	Pack Shutdown
5	Right Blee Switch	11	Flow
6	Temperature Control Cockpit	12	



1	Left Bleed	4	Left Pack
2	Right Bleed	5	Right Pack
3	Isolation	6	

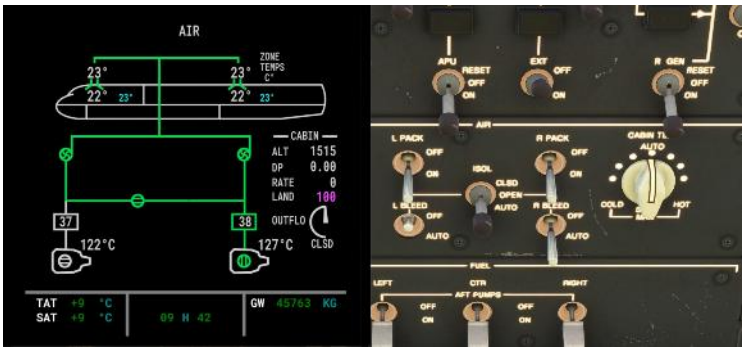
Examples for Air-Condition



Left Pack = OFF
Right Pack = OFF
Left Bleed = OFF
Right Bleed = OFF
Isolation = CLOSED
No Air-Condition in Cabin

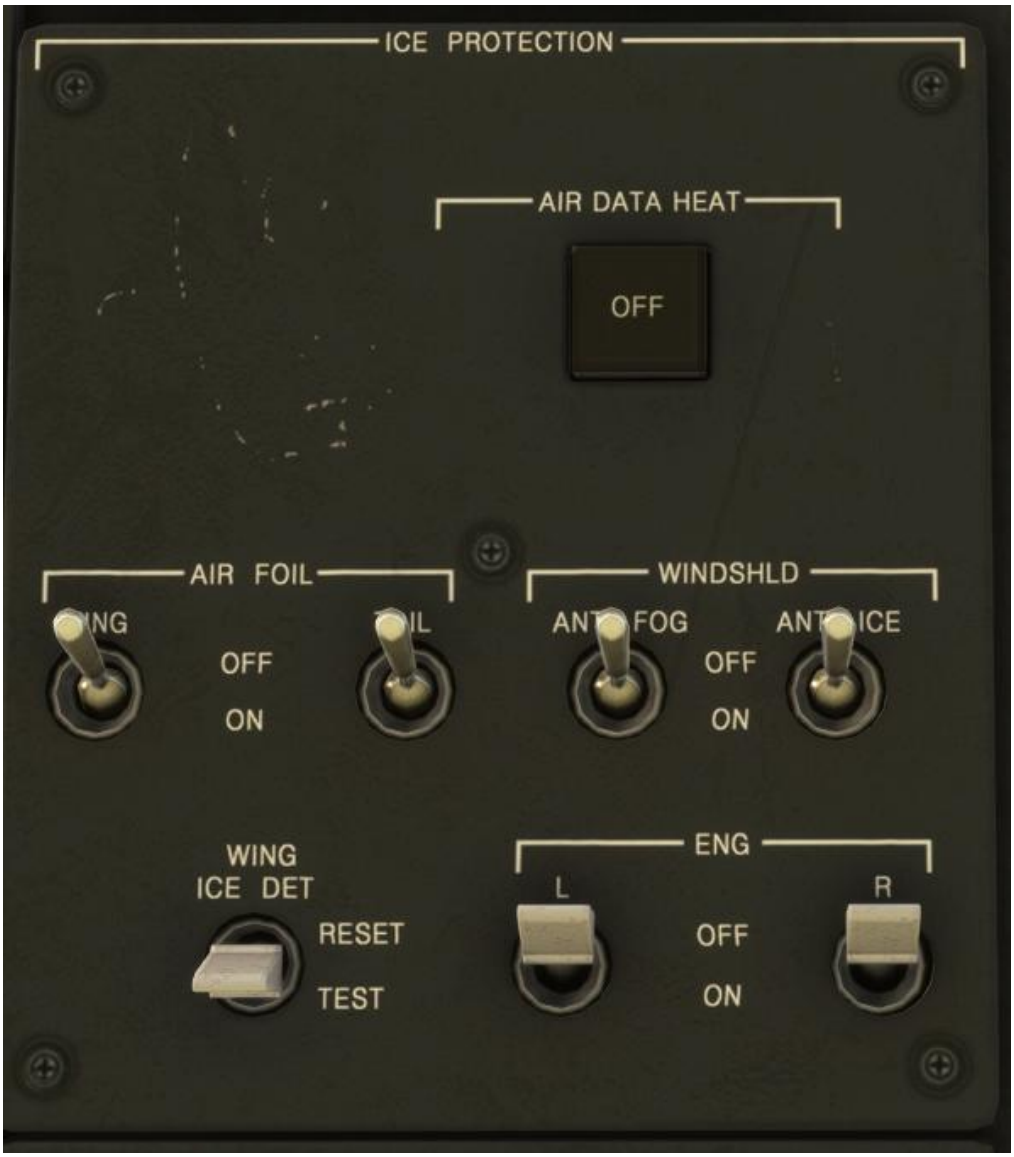
Left Pack = ON
Right Pack = ON
Left Bleed = AUTO
Right Bleed = OFF
Isolation = CLOSED
Air-Condition in Cabin established

Left Pack = OFF
Right Pack = OFF
Left Bleed = AUTO
Right Bleed = AUTO
Isolation = CLOSED
Air-Condition in Cabin established



Left Pack = ON
Right Pack = ON
Left Bleed = OFF
Right Bleed = AUTO
Isolation = OPEN
Air-Condition in Cabin established

Ice-Protection-Panel



Turn on all Switches if you are in Icing-Range

APU-Panel

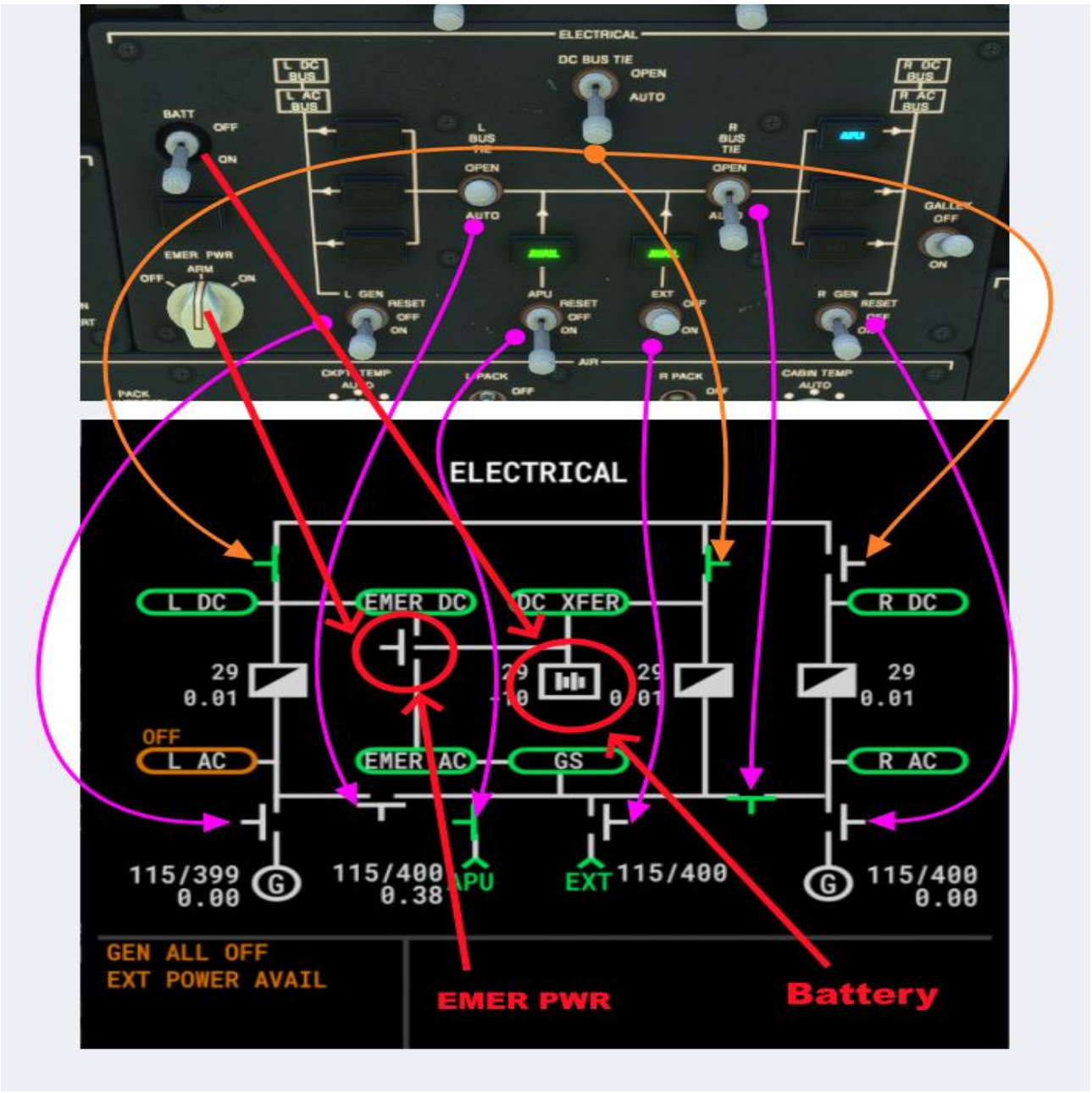
Fire Agent and Fire Cont are INOP

APU-Air you need for Aircondition and Engine-Start

Before you starting the **APU** Start-Pump-Switch must set to **ON**

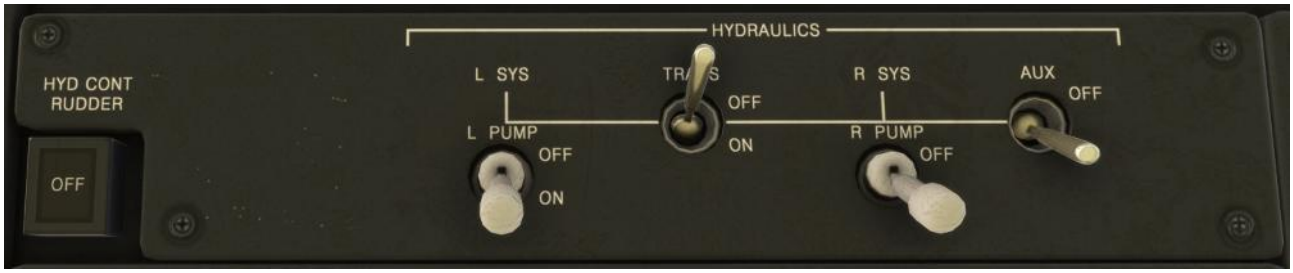
APU-Master: to starting **APU** push Switch to Start-Position and hold for 2 sec. before release.

Electrical System

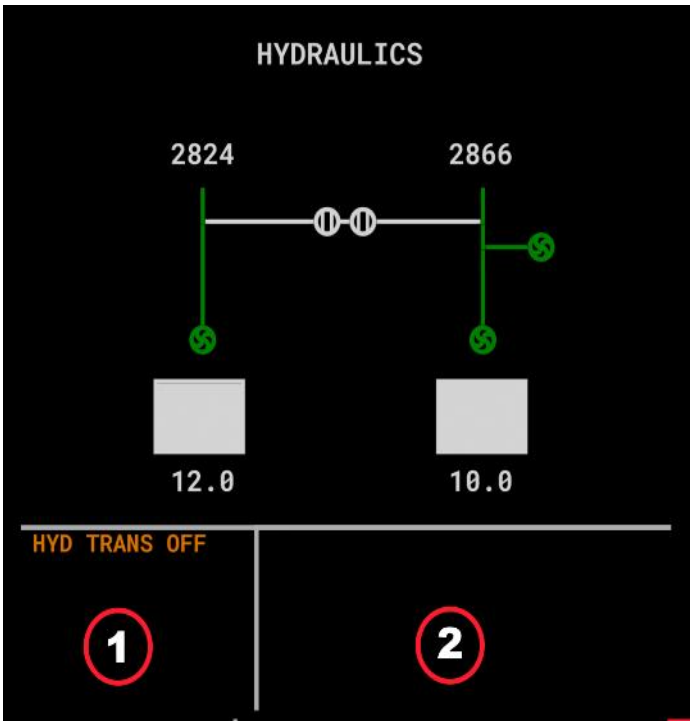


If Battery-Symbol green : ***Battery is not charging***
If Battery-Symbol white : ***Battery is being charged***

Hydraulic-Panel



ECAM-Hydraulic-Page



Warning and Hint-Messages are displayed in Text-Blocks 1 + 2

The following messages may be displayed :

HYD PUMP L OFF	HYD PUMP R OFF	HYD AUX PUMP OFF
HYD TRANS OFF	HYD L OFF	HYD R OFF

Nav / ADIRS-Panel

Door-Panel

Audio-Control-Panel

VHF 1 VHF 2 VHF 3 HF 1 HF 2 INT	**MIC SELECTOR/CALL Switch** Push - Selects desired transmitter. Integral (**C)** light illuminates when applicable **SELCAL** channel is called by a ground station, for an interphone call (on **INT** button), or for an **ACARS** message (on **VHF3** button).	CAB	**CAB MIC SELECTOR/CALL Switch** Push to communicate with the cabin. Integral light illuminates to indicate selection. Set and adjust the **CAB** volume control; operate a **PTT** (push-to-talk) switch or the **RADIO/INT** switch
PA	**PA Button and PA Volume-Control** Push - When the **PA** button is held, **PA** transmissions can be made with either the boom or oxygen mask microphone. The overhead speaker is muted when the **PA** button is held	INT RADIO	**RADIO/INT Switch** **RADIO**-Position - Keys selected radio transmitter by pushing microphone switch, for mask or boom microphone operation. **INT**-Position - Keys flight interphone for mask or boom microphone operation, regardless of MIC selection.
Grey Volume -Knobs	**On/Off/Volume Control Knob(s)** Rotates to adjust volume. All receivers can be monitored at the same time	IDENT	**IDENT Switch - white** Push - Selects voice and coded identification tones of the **NAV1/2** receivers. **ON** illuminates to indicate selection. Push again for reception without ID tones.

There are 3 audio control panels in the cockpit. one on the pilot side, one on the co-pilot side and one above the overhead panel.
All these Audio-Control-Panels are animated but not simulated !

Cabin-Pressure-Control-Panel

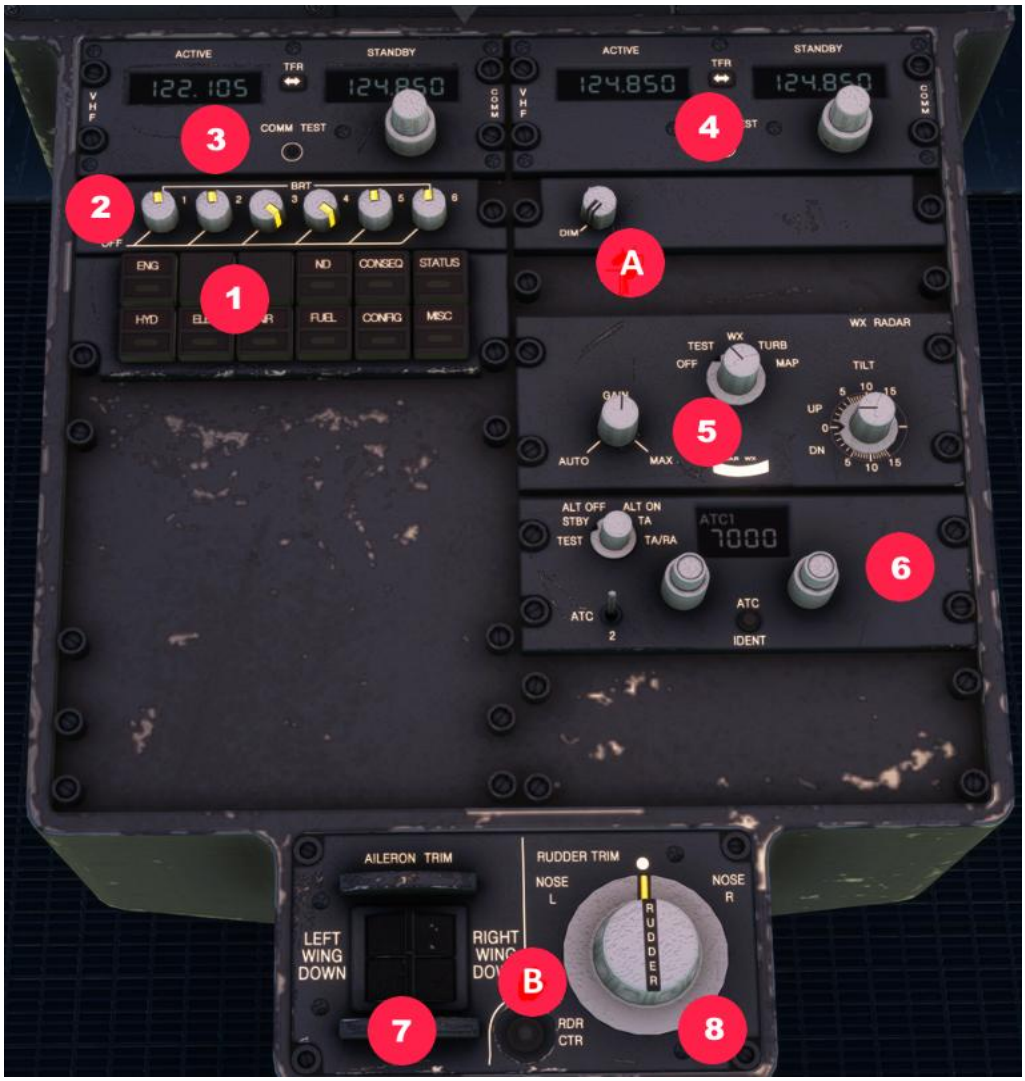
1	**Outflow VALVE Position Indicator** **OP** - Valve position towards open indicates decreased cabin pressure. **CL** - Valve position towards closed indicates increased cabin pressure.	2	**MANUAL Switch** **CLIMB** - When the switch is moved towards CLIMB, the outflow valve moves in the open direction, and cabin altitude increases. **DESC** - When the switch is moved towards DESC, the outflow valve moves in the closed direction, and cabin altitude decreases
3	**CABIN PRESS Schedule** **APL** - Depicts a scale in thousands of feet to represent an airplane altitude. **CABIN** - Depicts a scale in thousands of feet to represent a cabin altitude. The normal relationship between airplane altitude (APL) and cabin pressurization (CABIN) is depicted on this scale.	4	**SYSTEM SELECT/MANUAL Switchlight** **MANUAL** - When switchlight is pushed, MANUAL illuminates and the cabin pressurization system operates in manual mode. Also used to alternate control between cabin pressure controllers (auto 1 and auto 2). **SELECT** - Illuminates to indicate failure of both cabin pressure controllers. **SELECT/MANUAL** - Extinguished when the pressurization system is operating in automatic mode
5	**MANUAL LDG ALT Switch** **INCR** - Increases landing altitude; displayed on the AIR page of the SD. **DECR** - Decreases landing altitude; displayed on the AIR page of the SD.	6	

Switches and Buttons are animated but not simulated !

Throttle-Quadrant

1	Stabelizer Trim ON / OFF	7	Thrust-Lever Engine 2
2	Speedbrake	8	Gear-Horn ON / OFF
3	ALT Long Trim (Nose Up / Nose down)	9	Fuel X-Feed
4	Fuel-Cutoff Engine 1	10	Flap-Lever
5	Fuel-Cutoff Engine 2	11	Dial-A-Flap Control (INOP)
6	Thrust-Lever Engine 1	12	Auto-Thrust OFF
		13	TOGA-Button / Auto-Thrust ON

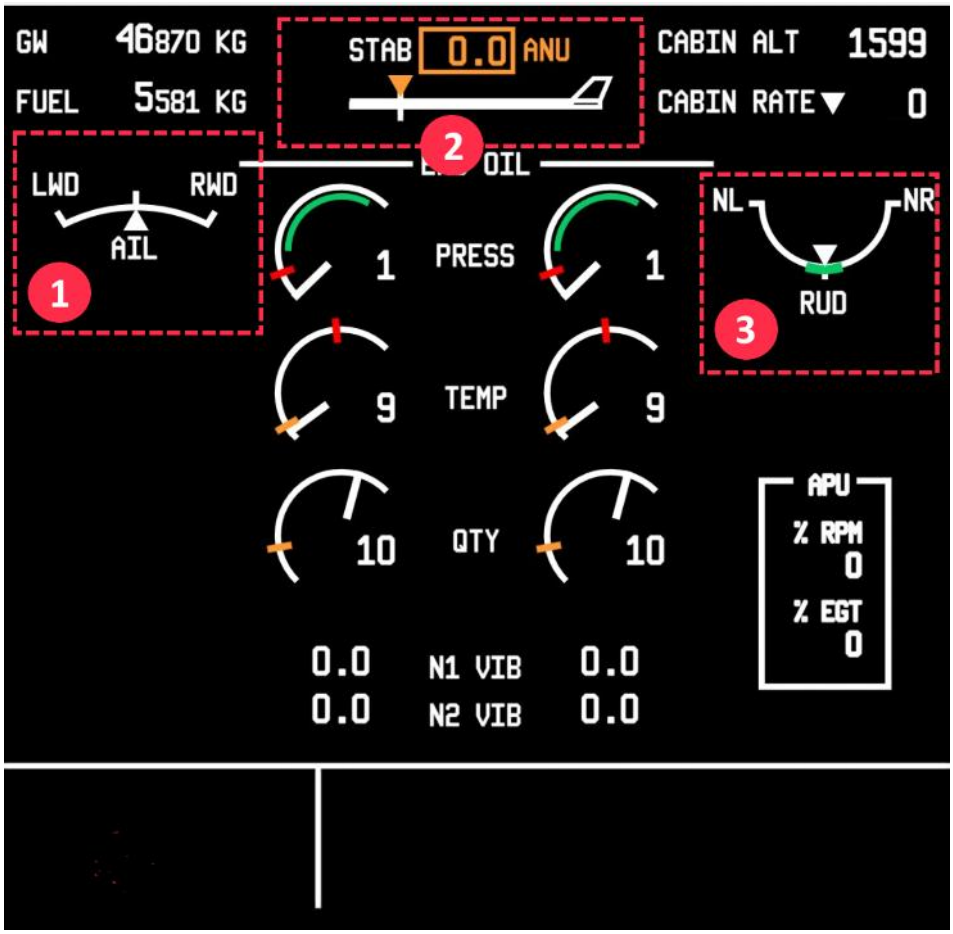
Pedestel (Overview)



1	Buttons for Right EICAS-Mode (ECAM)	5	Weather-Radar-Panel
2	Lightcontrol for Displays	6	Squak-Code-Panel
3	Freq. Radio Pilot-Side	7	Aileron-Trim
4	Freq. Radio CoPilot-Side	8	Rudder-Trim
A	Light-Control for ISIS-Instrument	B	Button to Center Rudder (Trim-Reset)

Trimming the Boeing 717-200

Trim Indicator in ECAM-Display



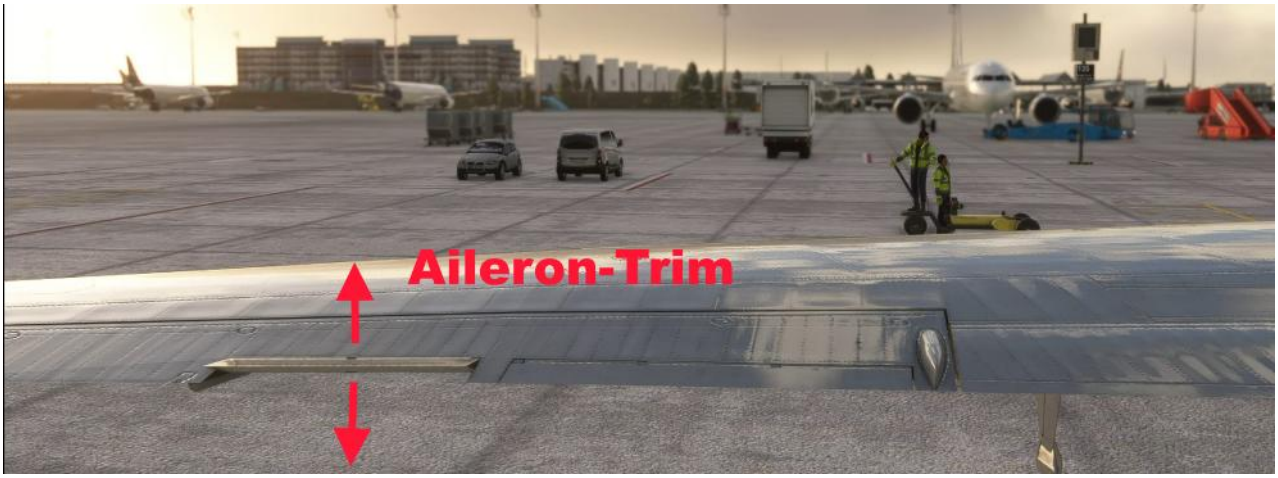
1. Indicator for Aileron-Trim	2. Indicator for Stabelizer / Nose-Up or Nose-Down Trim. The shown Value 0.0 has to set betwenn 4.0 and 5.0 for ideal Trim. If Value ok, it changes from orange to green.
3. Indicator for Rudder-Trim	

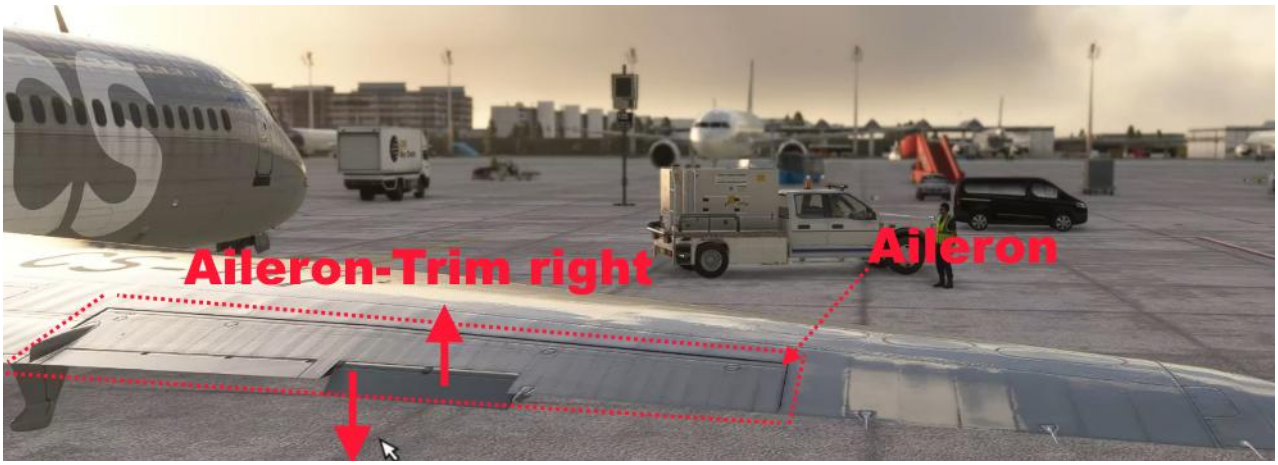
Rudder-Trim left and right

Aileron-Trim left and right

Aileron-Trim left and right

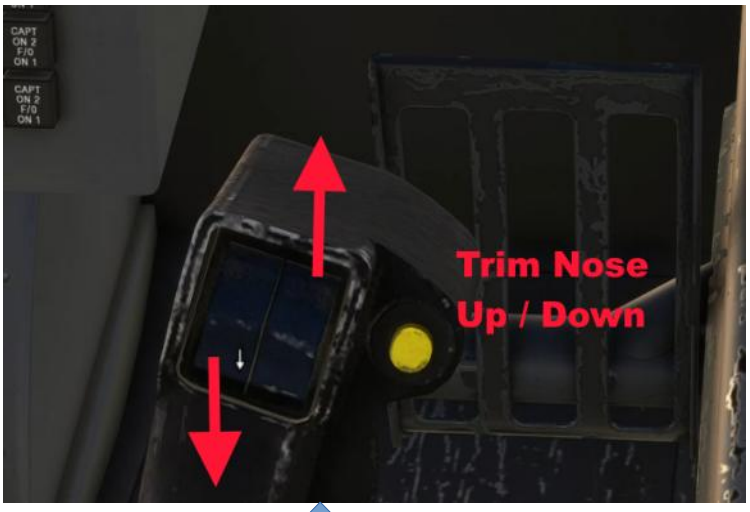
Trim-Display in ECAM-Display



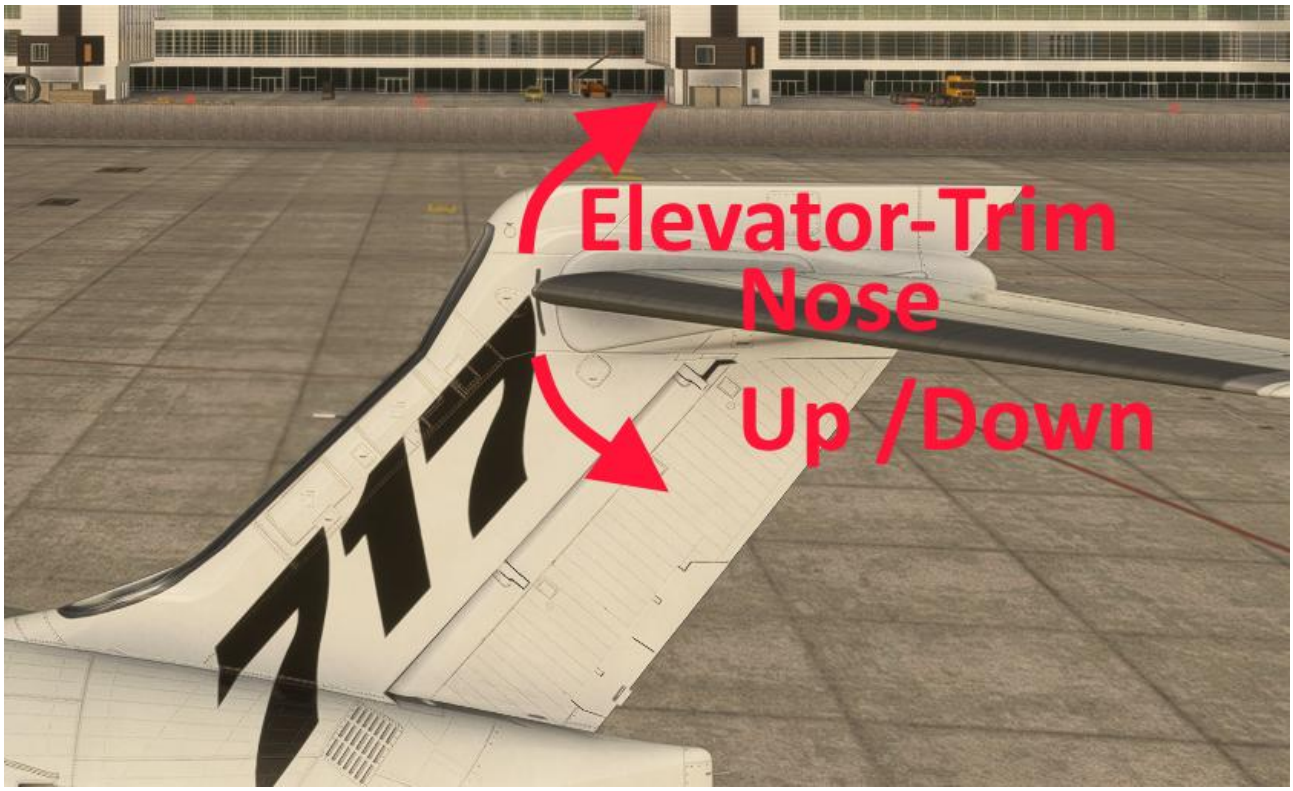


Trim Nose Up /Down

Pedestel

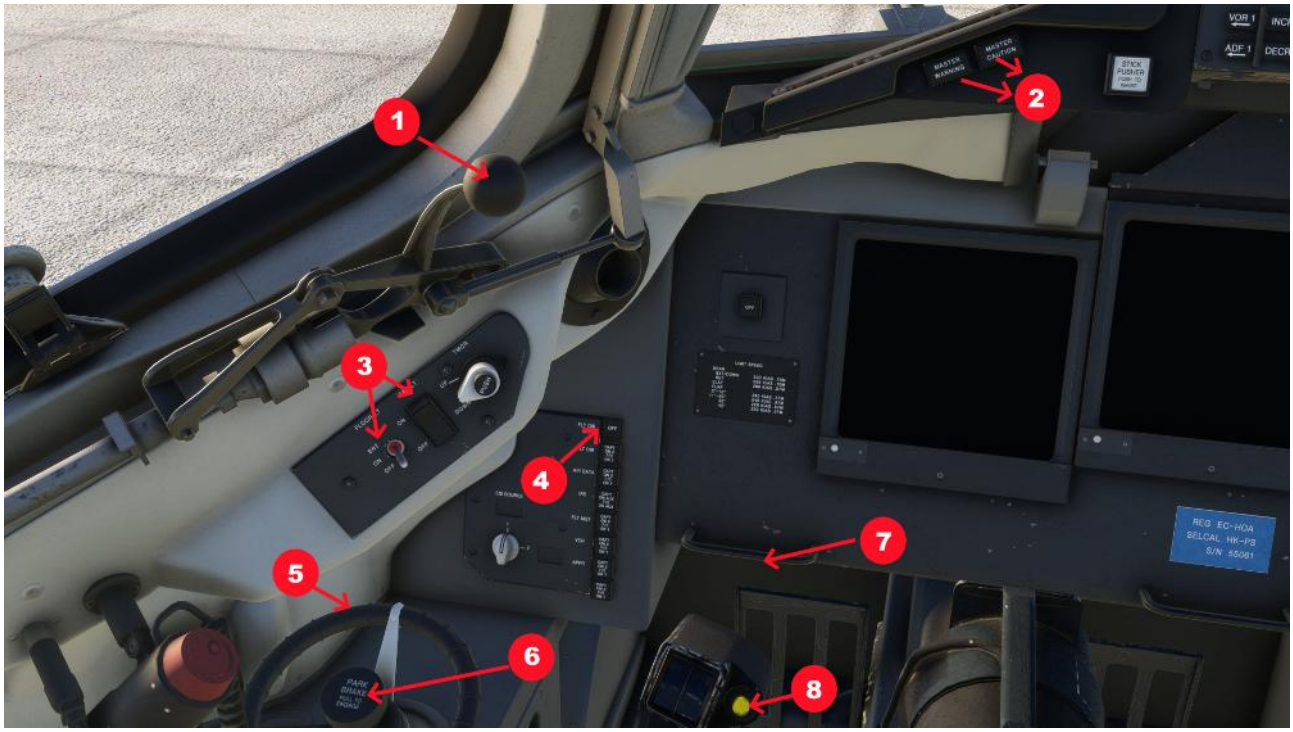


Yoke



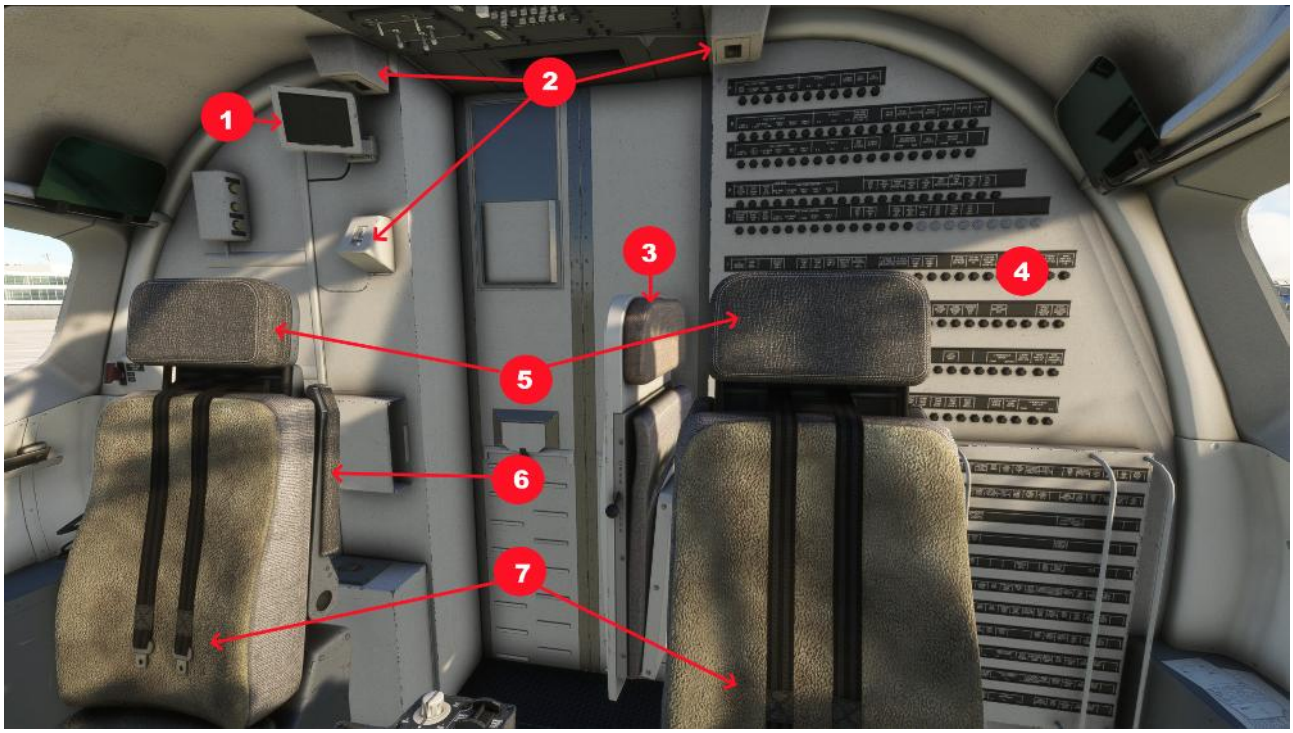
Pilot-Side (Overview)

The same is mirrored on the Co-Pilot-Side



1	Window can be open	5	Tiller
2	Master Caution / Master Warning INOP	6	Parking Brake
3	Lights Side and Floor	7	Clickspot Show / Hide Rudder
4	Button for Fightdirector all other Buttons INOP	8	Auto-Pilot Disconnect-Button

Cockpit Backside (Overview)



1	Monitor (can move a little)	5	Headrests (can moved Up and down)
2	Cockpit-Lights	6	Armrests (can be moved)
3	Seat animated	7	Pilot and Co-Pilotseat (can be moved)
4	Circuitbreakers	8	

Warning Voices and Hints

IN FLIGHT:

- altitude
- autopilot disengage
- cabin altitude
- landing gear
- overspeed
- pull up
- slat overspeed
- speed break
- stabilizer motion
- stall warning

AT TAKEOFF:

- break
- slats
- spoilers
- stabilizer
- rudder trim

Functions of the Cockpit lighting

In the Cockpit of the Captain Sim Boeing 717-200 there are various lighting systems that can be individually switched and controlled.

The Dome-Lightbutton

Dome-Light **OFF**

Dome-Light **ON**

Turn the grey Rotary Control

Backlight Overheadpanel **OFF**

Backlight Overheadpanel **ON**
continuously dimmable

Turn the grey Rotary Control

Backlight Glareshield **OFF**

Backlight Glareshield **ON**

Functions of the Cockpit lighting

 Turn the black Rotary Control	 Light for Overhead Panel **OFF**	 Light for Overhead Panel **ON** dimmable
 Turn the black Rotary Control	 Display Panel Light **OFF**	 Display Panel Light **ON** dimmable / the Light is locatet on the ceiling of the cabin
 Thunderstorm-Lightswitch	 Normal Cockpit-Light // Thunderstorm-Switch **OFF**	 Cockpit-Light is much brighter // Thunderstorm-Switch **ON**

Functions of the Cockpit lighting

<table>
<tr>
<td> 
Two Light-Switches, the same Switches are on the Copilotside too</td>
<td> 
Left Light-Switch (Floorlight)</td>
<td> 
Right Light-Switch (Maplight)</td>
</tr>
<tr>
<td>The Floor-Light for the Left-Switch is locatet under the Disply-Console

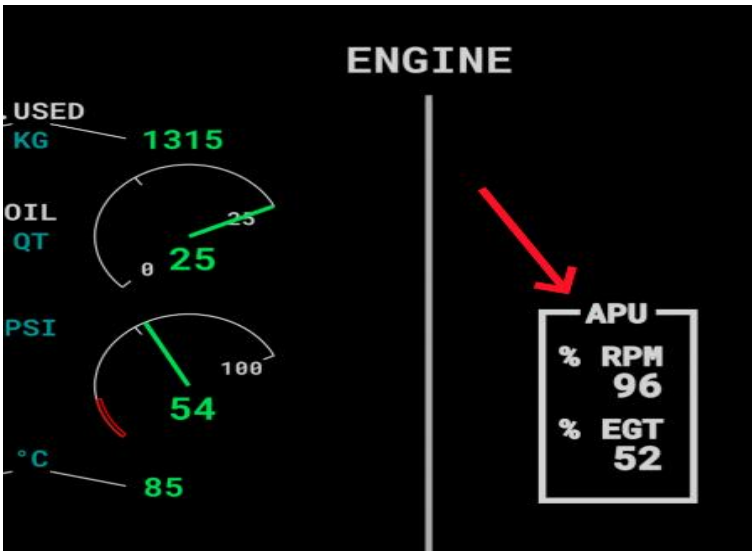
The Map-Light for the Right-Switch is locatet upper left and right beside the Overhead-Panel</td>
<td> 
Floorlight under the Console</td>
<td> 
Maplight is locatet on the ceiling of the cabin</td>
</tr>
</table>

Starting the 717-200

from Cold & Dark

Starting the APU

- 1. Turn **Battery-Switch** to **ON**
- 2. Be sure that **Start-Pump Switch** is set to **ON**
- 3. Turn **APU-Master Switch** to **START**-Position and hold it for 2 sec. before release.
- 4. have look to the **Right EICAS-Display** (APU is running up)
- 5. If APU-RPM at 100% turn **AIR-APU** to **ON**
- 6. Turn **APU-Generator-Switch** to **ON**
- 7. Turn **External Power-Switch** (if External-Power available) to **ON**



Starting the Engines

- 1. Turn Fuel-Pump Switches to **ON** (see Fig.1)
- 2. Turn Isolation-Switch to **AUTO** (see Fig.2)
- 3. **Start Pump** must be set to **ON**
- 4. Click **ENG 2 START** (see Fig. 3) must be lightning now
- 5. wait until the Right **N2**-Value on ENG-ECAM is up to **>24** (see Fig.4)
- 6. Push Engine 2 **Fuel-Cut-OFF** Lever to **ON** (see Fig.5)
- 7. **Engine 2** ist now running up
- 8. wait until the Right **N1**-Value is up to **>20**
- 9. Click **ENG 1 START** must be lightning now
- 10. wait until the Left **N2**-Value on ENG-ECAM is up to **>24**
- 11. Push Engine 1 **Fuel-Cut-OFF** Lever to **ON**
- 12. **Engine 1** ist now running up
- 13. wait until the Left **N1**-Value is up to **>20**

Fig.1

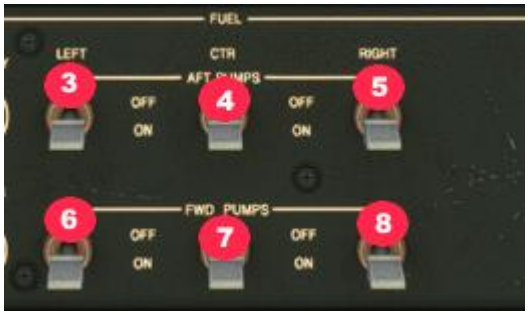


Fig.2

Fig.3

Fig.4

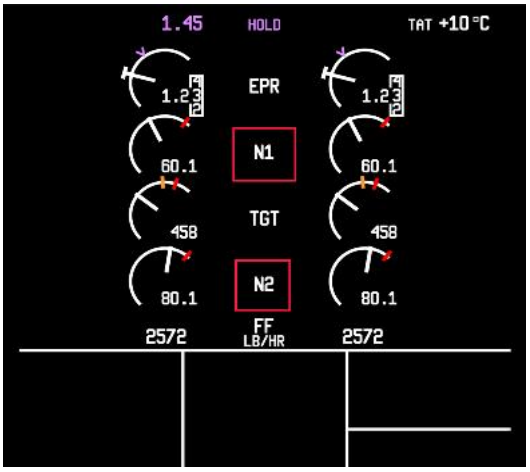
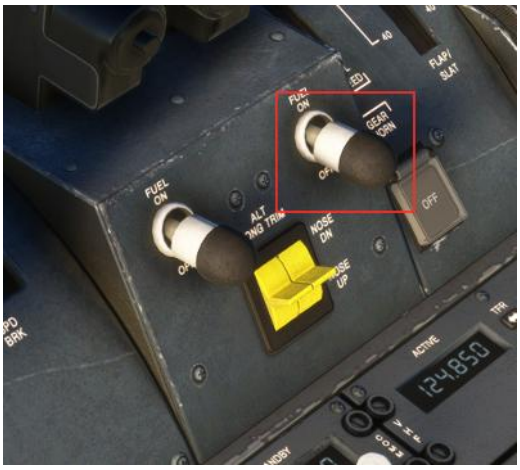


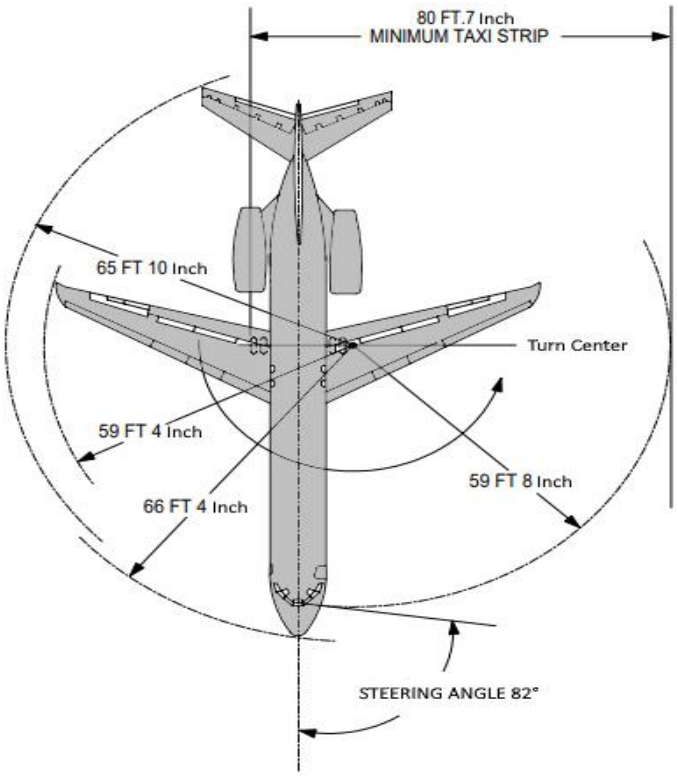
Fig.5



Performance Table

Initial climb (to 5000ft)	IAS 165 kts	ROC 3000 ft/min
Climb (to FL 150)	IAS 270 kts	ROC 3000 ft/min
Climb (to FL 240)	IAS 270 kts	ROC 3000 ft/min
MACH climb / MACH 0.72 / ROC 1500 ft/min / Cruise / TAS 435 kt / MACH 0.76 Ceiling FL 370 / Range 2060 NM		
Initial Descent (to FL 240)	MACH 0.72	ROD 0800 ft/min
Descent (to FL 100)	IAS 290 kt	ROD 3500 ft/min
Approach	IAS 210 kt	ROD 1500 ft/min

Turning Radius



CAPTAIN SIM – BOEING 717-200 SOP's (WORKFLOW) Pilot / copilot work steps

PF=> Pilot flying ---- PM=>Pilot monitoring / Co-Pilot

PRE FLIGHT Download Charts & NOTAMS Check Weather & Forecasts

COCKPIT PREPARATION

PF	PARK BRAKE
PM	WX MODE SELECTOR OFF
PM	ENG MASTER 1+2 OFF
PM	LANDING GEAR DOWN
PM	WIPERS OFF
PM	BATTERY ON
PM	EXTERNAL POWER ON
PM	START-PUMP ON
PM	APU PUSH TO START (HOLD FOR 2 SECONDS)
PM	ADIRS ON
PM	STROBE LIGHT ON
PM	NAV & LOGO LIGHTS ON
PM	ALL OTHER EXT LIGHTS OFF
PM	SEATBELT SIGNS ON
PM	NO SMOKING SIGNS AUTO
PM	EMERGENCY LIGHTS ARMED
PF	ENG & WING ANTI ICE AS RQRD
PM	FUEL PUMPS OFF
PF + PM	FD ON
PM	VOR AS RQRD
PM	FLAPS ZERO
PM	TRANSPONDER STANDBY
PM	ANTISKID ON
PM	APU GENERATOR ON
PM	APU BLEED ON
PM	PACKS ON
PM	COCKPIT DOOR CLOSE
PF + PM	FUEL – BAGGAGE – PASSENGERS LOAD

WALKAROUND (checking Plane outside)

COCKPIT PREPARATION CHECKLIST

---

prepairing FMC / MCDU (DIFSRIPP)

DATA – INIT(A) – FP – SECFP – RADNAV – INIT(B) – PERF – PROG

ATC CLEARANCE

PF + PM	INITIAL ALTITUDE SET
PM	SQUAK SET
PF + PM	BARO QNH SET BEFORE START
PM	FUELING DISCONNECTED
PF + PM	WINDOWS / DOORS CLOSED
PM	JETWAY / STAIRS REMOVED
PM	FUEL PUMPS AUTO
PM	EXT POWER OFF
PF	BEACON ON

PRESTART CHECKLIST

ENGINE START

PF	THRUST LEVERS IDLE
PM	ECAM MONITORING
PF	ENG MASTER 2 ON
PF	PUSH FUEL-CUTOFF ENG 2
PF	ENGINE 2 CONFIRM STABILIZED
PF	ENG MASTER 1 ON
PF	PUSH FUEL-CUTOFF ENG 1
PF	ENGINE 1 CONFIRM STABILIZED

AFTER ENGINE START

PF	APU BLEED OFF
PF	APU MASTER OFF
PF	APU GENERATOR OFF
PM	SPOILERS ARMED
PM	RUD TRIM NEUTRAL
PM	FLAPS TAKE OFF POSITION
PM	PITCH TRIM SET
PM	ECAM STATUS CHECKED

STARTUP CHECKLIST

BEFORE TAXI

PM	TAXI CLEARANCE OBTAIN CPT CABIN CALL PRESS
PM	IRS CONFIRM ALIGNED
PF + PM	FLIGHT CONTROLS CHECK
PM	ECAM STATUS CHECKED
PM	TAXI LIGHT ON
PF + PM	LEFT / RIGHT CLEAR TAXI
PF + PM	BRAKE CHECK
PM	SET WX RADAR KNOB TO WX-T

TAXI CHECKLIST (DURING TAXI)

LINE UP

PM	ENG & WING ANTI ICE AS RQRD
PF + PM	ND MODE/RANGE SET
PF + PM	VOR/ADF SELECT
PM	SET TCAS TO TA/RA
PM	PACKS OFF / AS RQRD
PM	TAKE OFF CLEARANCE OBTAIN
PF + PM	CABIN CREW ADVICE
PF	EXT LIGHTS ON

BEFORE TAKEOFF CHECKLIST

TAKEOFF CHECKLIST

AFTER TAKEOFF

PM	SPOILER DISARM
PM	PACK 1+2 ON
PM	TAXI LIGHT OFF
PM	ENG & WING ANTI ICE AS RQRD

10.000FT ACTION CLIMB

PM	EXT LIGHTS OFF
PM	SEAT BELT SIGN AS RQRD

CLIMBOUT CHECKLIST

CRUISE CHECKLIST

PRE DESCENT

PM	NAV ACCURACY CHECK
PM	SEAT BELT SIGN ON
PF	ANTI ICE AS RQRD

10.000FT ACTION DESCENT

PM	EXT LIGHTS ON
PF + PM	ECAM STATUS CHECK

DESCENT

PM	TRANSITION LEVEL BARO SET
PF + PM	TERRAIN ON ND SET

APPROACH CHECKLIST

LANDING

PM	MISSED APPROACH ALTITUDE SET
PM	TAXI LIGHT SET TAKEOFF
PM	SPOILERS ARMED
PM	CABIN CREW ADVICE

LANDING CHECKLIST

AFTER LANDING

PF	SPOILERS DISARM
PM	FLAPS ZERO
PM	TAXI LIGHT SET TAXI
PM	LANDING LIGHTS OFF
PM	RUNWAY TURNOFF LIGHTS AS RQRD
PM	APU MASTER ON
PM	ENGINE & WING ANTI ICE AS RQRD
PM	WX RADAR OFF
PM	TRANSPONDER STBY
PM	APU START PRESS
PM	APU GENERATOR ON

AFTER LANDING CHECKLIST

TAXI TO RAMP CHECKLIST

PARKING

PF	PARK BRAKE SET
PM	ENGINE & WING ANTI ICE OFF
PM	EXT POWER / APU BLEED ON
PF	ENG FUEL-CUTOFF 1+2 OFF
PM	BEACON OFF
PM	FUEL PUMPS OFF
PF	SEAT BELT SIGN OFF
PF	DEBOARDING START

SHUTDOWN CHECKLIST

SECURING AIRCRAFT

PF	ADIRS OFF
PM	APU BLEED OFF
PM	EMERGENCY LIGHTS OFF
PM	CABIN SIGNS OFF
PM	EXT POWER / APU MASTER OFF
PM	BAT OFF

SECURING CHECKLIST

Checklists

PRESTART CHECKLIST

Parking Brake	SET
Throttle	IDLE
Fuel Flow	CUTOFF
BATT Master Switch	ON
APU	ON
Landing Gear Lever	CHECK DOWN
Flaps	UP
Spoiler	RETRACTED
Fuel Quantity	CHECK
De-Ice	OFF
Aircraft Lighting	OFF
Flight Controls	FREE AND CORRECT
Fasten Seat Belts	ON
No Smoking	ON
Check Weather	(ATIS)
De-Ice	TEST/CHECK
Request Clearance	
Transponder	STANDBY
Beacon	ON

STARTUP CHECKLIST

Engine/Throttle Panel	ACTIVATE
Thrust Levers	IDLE
Engine Area	CLEAR
Eng 1 Start Switch	START
At N2>20% fuel flow eng1	ON
N1 Increasing as N2 incr.	CHECK
Oil Pressure	CHECK
Repeat for Eng 2	
Engine Generators L+R	ON
Air-conditioning Fan	ON

BEFORE TAXI CHECKLIST

Nav Lights ON	
Taxi Lights / Runway Turnoff Lights	ON
Heading Indicator/Altimeters	SET
Standby Instruments	SET
Radios and Avionics	SET FOR DEPARTURE
Autopilot	SET, don’t activate
F/D Flight Director	ON
Elevator Trim	SET for takeoff
Request Taxi Clearance	

TAXI CHECKLIST

Parking Brake	RELEASE
Taxi to assigned runway	SPEED Max. 15 knots
Brakes/Gyro/Turn Coordinator	CHECK during taxi/turns

BEFORE TAKEOFF CHECKLIST

Parking Brake	SET
Throttle	IDLE
Elevator Trim	SET for takeoff
Flap Position Lever	FLAPS 18
Spoilers	RETRACTED
Flight Instruments	CHECK
Engine Instruments	CHECK
Takeoff Data (V1, Vr, V2)	CHECK
Nav Equipment	CHECK
Landing Lights	ON
Taxi Lights / Runway Turnoff Lights	OFF
Strobe Lights	ON
De-ice	AS REQUIRED
Transponder	ON
Request Takeoff Clearance	

TAKEOFF CHECKLIST

Smoothly increase thrust to 40% N1 let spool up	
Takeoff Thrust	FULL or TO/GA
Brakes	RELEASE
V1= 140 KIAS (decision)	
Vr= 150 KIAS (rotate)	
Pitch 10-deg. nose up	
V2= 160 KIAS (safety speed)	
Positive Climb Rate	
Landing Gear	RETRACT
At 1000’ AGL	RETRACT flaps to 0 deg.
At 210 KIAS	RETRACT slats up

CLIMBOUT CHECKLIST

Throttle	AS REQUIRED
Trim for 250 KIAS / 1800 fpm	
Autopilot/Autothrottle	CHECK and ACTIVATE
Below 10,000’ max. speed	250KIAS
ATC	AS REQUIRED
Fasten Seatbelts	OFF
No Smoking	OFF
Landing Lights	OFF

CRUISE CHECKLIST

Engine+ Instruments	CHECK
Fuel Quantity	CHECK
Radios	TUNED and SET
Autopilot	CHECK and SET
Lights	AS REQUIRED

DESCENT CHECKLIST

ATIS /Airport Information	CHECK
Altimeter	CHECK
Radios	CHECK
De-ice	AS REQUIRED
Descent Speed to FL240	0.75 mach
Below 10,000’	250 KIAS
Fuel Quantities and Balance	CHECK
Flaps /Landing Gear	CHECK UP
Check Weather	(ATIS)

APPROACH CHECKLIST

On Localizer Level flight:	
Fasten Seat Belts	ON
No Smoking	ON
Avionics + Radios	SET
Speed: Establish	210 KIAS
Landing Lights	ON
Auto Spoilers	ARM
Flap Lever Position	5#10 deg.
Speed: Establish	180KIAS
Flap Lever Position	15#20 deg.
Speed: Establish	160KIAS
Landing Gear	DOWN
Set Flap Lever Position	30 deg or FULL
Final glide Slope Descent:	
Speed Establish	145 KIAS
Elevator Trim	AS DESIRED
Parking Brake	VERIFY OFF
De-ice	AS REQUIRED

LANDING CHECKLIST

Landing Gear	CHECK DOWN
Autopilot	OFF
Landing Speed	140 KIAS
After Touchdown	Apply Reverse Thrust
60KIAS:	Cancel Reverse
Spoilers	VERIFY EXTENDED
Brakes	AS REQUIRED

TAXI TO RAMP CHECKLIST

Strobe Light	OFF
Flaps	UP
Spoilers	RETRACTED
Taxi Lights /Runway Turnoff Lights	ON
Landing Lights	OFF
Speed Max.	15 knots
Transponder	OFF
Elevator Trim	TAKEOFF SETTING

SHUTDOWN CHECKLIST

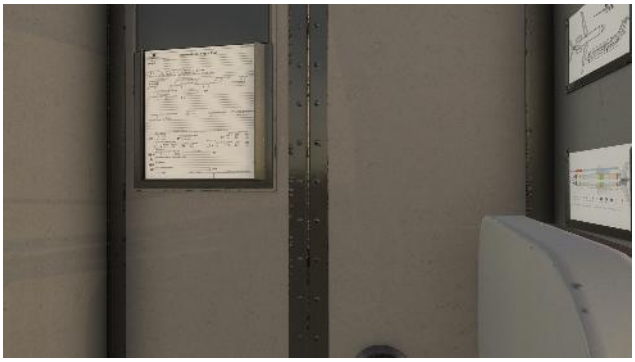
Parking Brake	SET
Throttles	IDLE
Passenger Signs	OFF
Air-conditioning Fan	OFF
De-ice	OFF
Taxi Lights / Runway turnoff Lights	OFF
Nav Lights	OFF
F/D	OFF
Fuel flow	OFF
Alt/Generators 1 – 2	OFF
Engine Start Switches 1 - 2	VERIFY OFF
Beacon	OFF
Passenger Door	OPEN
BATT Master Switch	OFF

SECURING AIRCRAFT

Parking Brake	VERIFY SET
Throttles	VERIFY IDLE
All Switches	VERIFY OFF
Passenger Door	CLOSED

Cockpit-Cameraviews 1

Standard-View



STRG-0

STRG-1

STRG-2

STRG-3

STRG-4

Cockpit-Cameraviews 2

STRG-5

STRG-6

STRG-7

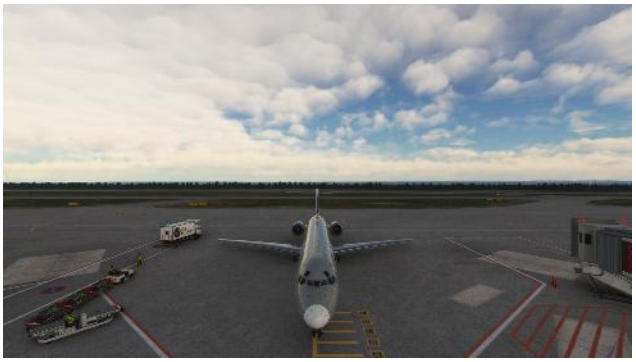
STRG-8

STRG-9

Exterior-Cameraviews 1

Stanard-View

Quickview 1
Camera-Menue



Quickview 2
Camera-Menue

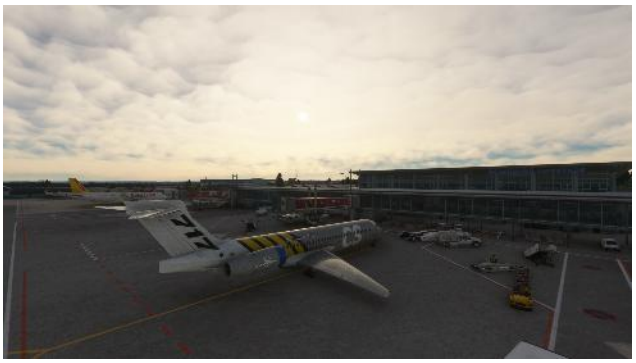
Quickview 3
Camera-Menue

Quickview 4
Camera-Menue

Quickview 5
Camera-Menue

Exterior-Cameraviews 2

Quickview 6
Camera-Menue



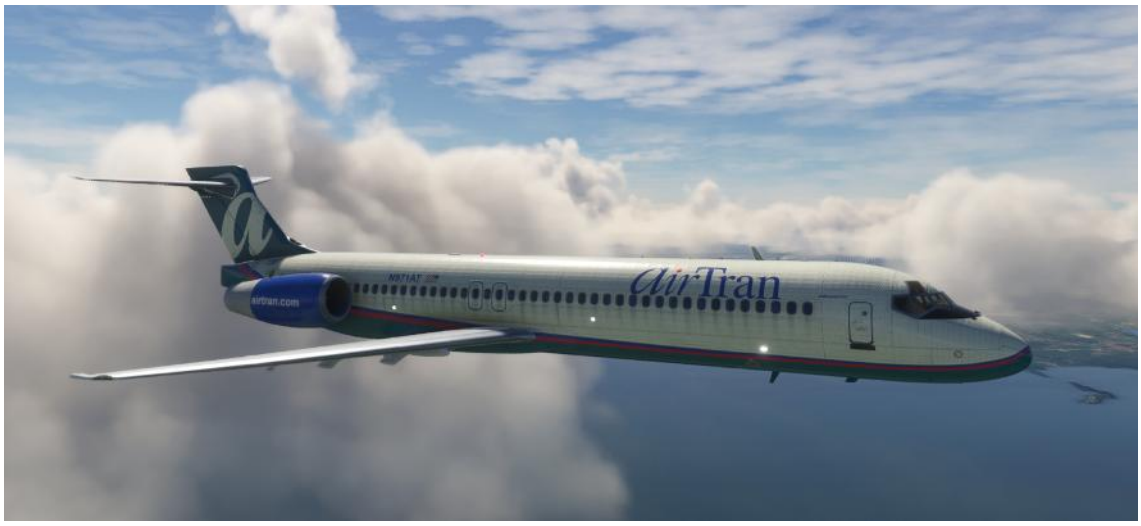
Quickview 7
Camera-Menue

Quickview 8
Camera-Menue

Screenshots

ICE on Cockpit-Windows


Cockpit-Backside


AirTran


DELTA


QANTASLINK


VOLOTEA


AirTranica

Change Logs

1.103 2024-MAR-23
– Engine/Alerts display (EAD) completely redesigned
– Flight characteristics match SimBrief flight plan data
– Flightplan import from SimBrief fixed and improved (use FS2020 SimBrief export)
– Flightplan fuel calculation fixed and improved
– Flight dynamics improved
– Engine start ignition fixed
– Flaps/takeoff speed calculation fixed
– Gross weight and fuel indication fixed
– Menu/Animation screen fixed and improved
– Autopilot's Flare Mode improved
– System Control Panel (SCP) button power fixed
– ND: Click left/right side changing RANGE
– ND: Shift+Click changing MAP/PLAN Mode
– Brakes fixed
– Airspeed Indicator stall speed tape fixed
– A/T AUTOPILOT DISENGAGE blinking added
– MAG/TRU, TRFC at F/O side fixed
– FMA and Altimeter Indicator improved
– FMC CLR Long click fixed
– FMC Ident Page improved
– Audible warnings and notifications in the cockpit added:
altitude, autopilot disengage, cabin altitude landing gear, overspeed, slat overspeed, speed break, stabilizer motion, stall warning, break, slats, spoilers, stabilizer, rudder trim

1.101 2024-FEB-20
brakes fixed - now you can use differential brakes also;
Minor fixes of PFD+ND, magenta color reduced more close to real;
The main feature of the 1.101 – sound // Warniing and Hints Voices
IN FLIGHT:
- altitude
- autopilot disengage
- cabin altitude
- landing gear
- overspeed
- pull up
- slat overspeed
- speed break
- stabilizer motion
- stall warning
AT TAKEOFF:
- break
- slats
- spoilers
- stabilizer
- rudder trim
Also sound clicks added to some knobs and buttons.

1.100 2024-JAN-27
– Autopilot improved
– Autopilot fixed and improved
– Flight dynamics improved
– FMA made from scratch
– PDF improved
– MFD improved
– MFD route appearance improved
– MFD TRFC, DATA, WPT, VOR/NDB fixed
– HDG/TRK improved
– Flaps and slats indication fixed
– APU start when engines running fixed
– CDU: acceleration and thrust reduction altitude fixed
– Throttle Max Thrust fixed
– Doors opened in flight fixed
– Fuel consumption improved
– Flight deck textures minor fixes
– SIM RATE indication on ANIMATION screen added

1.006 2023-DEC-21
– flight dynamics improved
– fuel consumption improved

1.005 2023-NOV-25
– FMC CHECK/CONFIRM VSPDS improved
– FMC Route altitude constraint fixed
– FMC Destination change fixed
– Throttle animation fixed
– Fuel On Board indication fixed

1.004 2023-NOV-23
– Fuel flow fixed
– Flight model characteristics improved
– Speed calculation improved
– CDU button backlighting added
– APU start fixed
– APU indication on engine screen added
– APU exhaust jet added
– APU “Generator Off” message fixed
– Switching to engine screen when APU is started added
– PFD ILS indicator, altimeter indicator and baro pressure fixed
– Flaps indication fixed
– Hydraulic system indication fixed
– Electrical system “EXTERNAL IN-USE” lights fixed

1.003 2023-OCT-23
– Electrical power of the panel light fixed
– Rudder fixed when Cold and Dark
– IRS-Lights “NAV OFF” fixed
– Light orbs near the tail removed
– Capt and F/O source input select panels fixed
– Tooltips fixed
– ACE – “layout.json fix” button added

1.002 2023-OCT-20
– Transponder, Mode C
– Wing textures missing
– Exits, engine hoods and ladder in flight

1.001 2023-OCT-12
– Jetway has been aligned
– ND power fixed
– Stabilizer movement fixed
– The stabilizer trim disconnect switch fixed
– Crosswind takeoff and landing fixed
– Service door opening fixed
– Animation panel improved
– External cameras adjusted
– Rear cargo door opens separate
– Battery hotkey synchronized with animation
– Yoke shown by default
– Interactive points adjusted (Catering, Baggage, Power and Fuel Supply Services)

Nice to know about the Boeing 717-200

Airlines where the Boeing 717 was or is still in use today...

AeBal	2000 - 2008
AirTran	1999 - 2014
American Airlines (TWA Airlines)	2001 - 2002
Bangkok Air	2000 - 2009
Blue1	2010 - 2015
Delta Airlines	2013 -
germanwings	2004 -2005
Hawaiian Airlines	2000 -
Impulse Airlines	2000 - 2001
Jetstar Airways	2004 - 2006
MexicanaClick	2010
Midwest Airlines	2003 - 2009
Olympic Airlines	2003 - 2007
Olympic Aviation	2000 - 2003
QantasLink	2001 -
Spanair	2007 - 2010
Spanair Link	2001 - 2008
Turkmenistan Airlines	2001 -
TWA Trans World Airlines	2000 - 2001
Volotea Airlines	2012 -

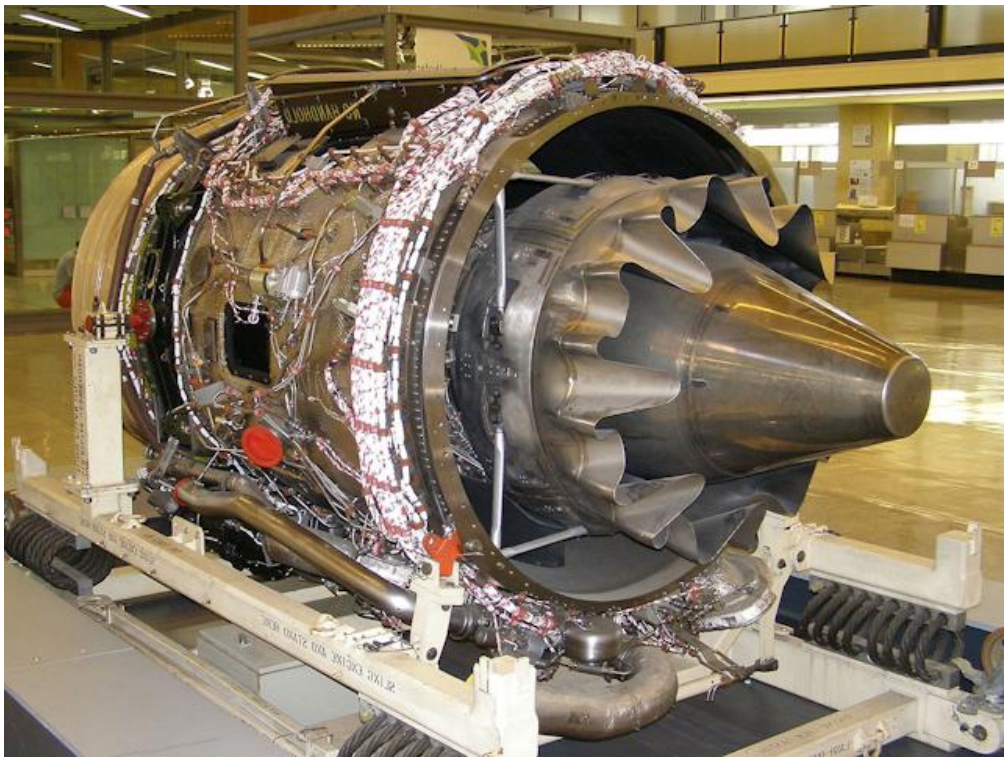
Websource: https://www.md-80.com/mcdonnell-douglas-md-95-boeing-717/technik-der-boeing-717/charakteristik-der-boeing-717/

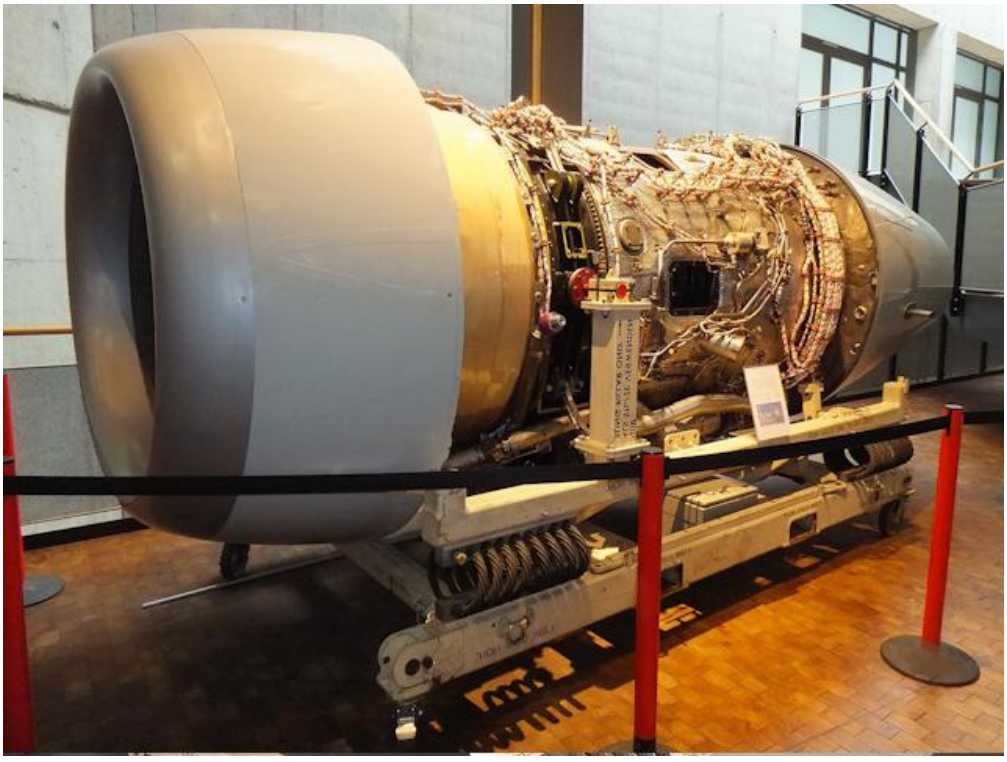
Characteristics of the Boeing 717

Topic area	Notes
Flexibility in use with the Boeing 717	*The Boeing 717 has shown extremely high operational flexibility in use.*
Customisation of the Boeing 717	*The Boeing 717 can be handled very efficiently by two flights.*
"Hot and high-conditions" and the Boeing 717	*The Boeing 717 was and is also used under "hot and high conditions".*
Cabin comfort of the Boeing 717	*The Boeing 717 offers an above-average on-board comfort.*
Short ground time of the Boeing 717	*The Boeing 717 can be handled within 20 minutes between two flights, such as Hawaiian Airlines.*
Noise level of the Boeing 717	*The Boeing 717 meets even the strictest chapter 4 requirements.*
Range of Boeing 717	*The Boeing 717 is a classic short-haul aircraft, but was and is also used on longer flights.*
The cruising altitude of the Boeing 717	*The Boeing 717 does not offer the ability to operate more than 37,000 walks even more modern aircraft.*
Travel speed of the Boeing 717	*The cruising speed of the Boeing 717 is usually given as "812 km/h".*
Robustness of the Boeing 717	*The Boeing 717 adopted the structural robustness of the DC-9/MD-80 and MD-90.*
Take-off and landing line of the Boeing 717	*The Boeing 717 can also cope quite well with relatively short runways.*
Concept of a Boeing 717 for use from short runways	*There were concepts for the use of the Boeing 717 from London City etc.*
Steigrate of the Boeing 717	*The Boeing 717 impresses with a quite high Steigrate.*
Winter operation with the Boeing 717	*The Boeing 717 is approved for use in all weather conditions.*
Pets on board the Boeing 717	*At the Boeing 717, the front cargo hold offers the possibility of travelling away from dogs.*

Websource: https://www.md-80.com/mcdonnell-douglas-md-95-boeing-717/technik-der-boeing-717/charakteristik-der-boeing-717/

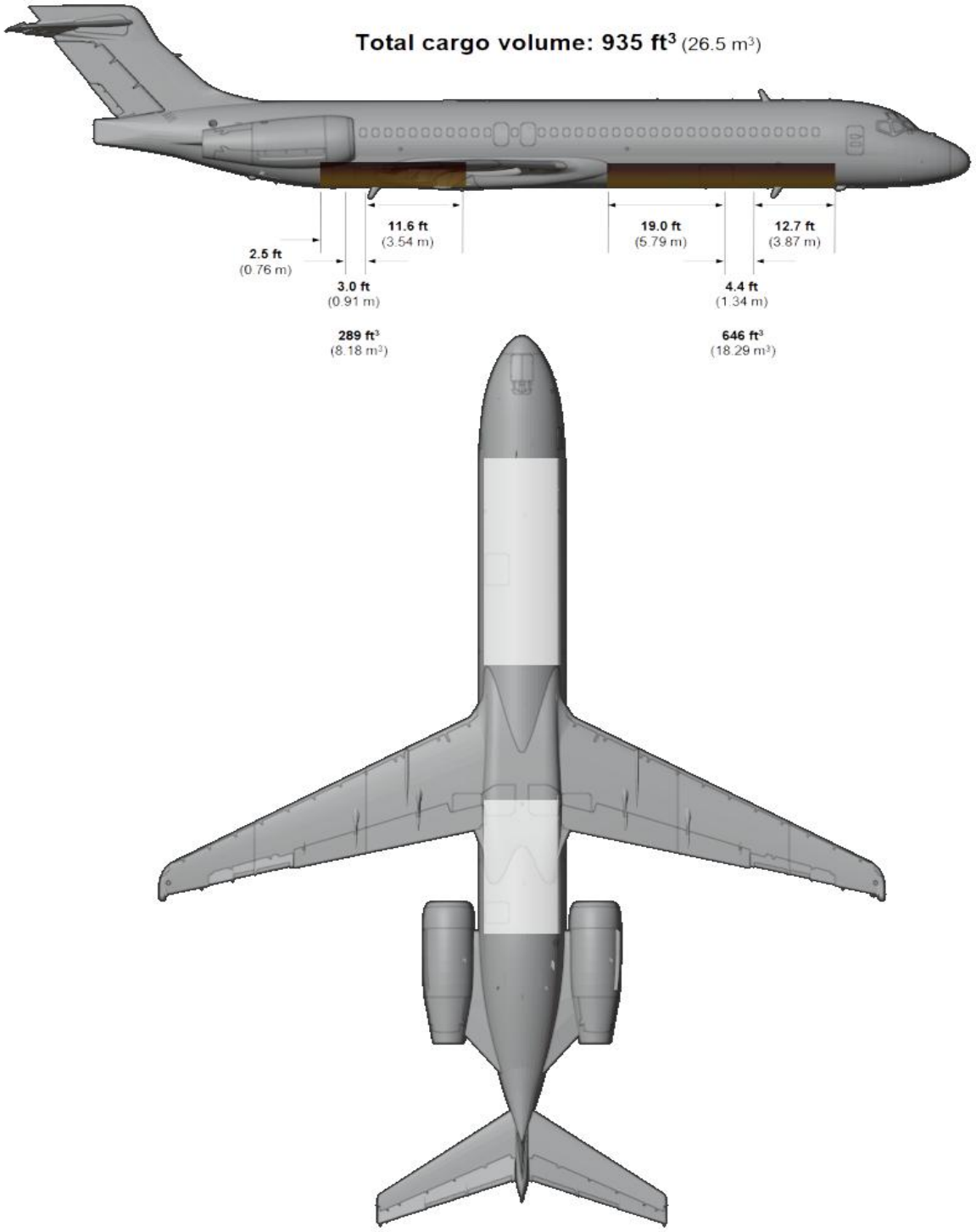
Engine BR715 of the Boeing 717



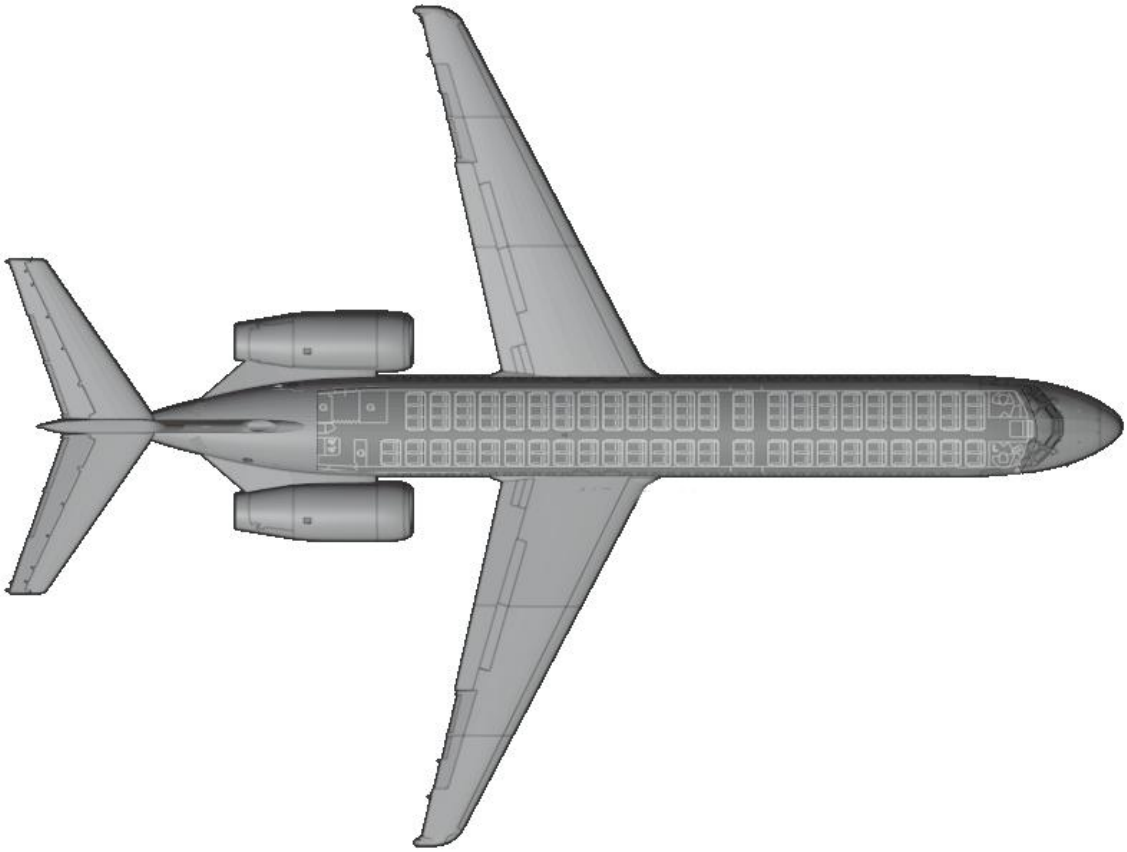


Websource: https://de.wikipedia.org/wiki/Rolls-Royce_BR700

Cargo-Rooms of the 717-200



Seatplan of the 717-200



In principle there are three variants of seating distribution.

"Two Classes"

8 first class seats and 98 economy class seats.

“Expanded business class”

55 economy seats and 55 business seats.

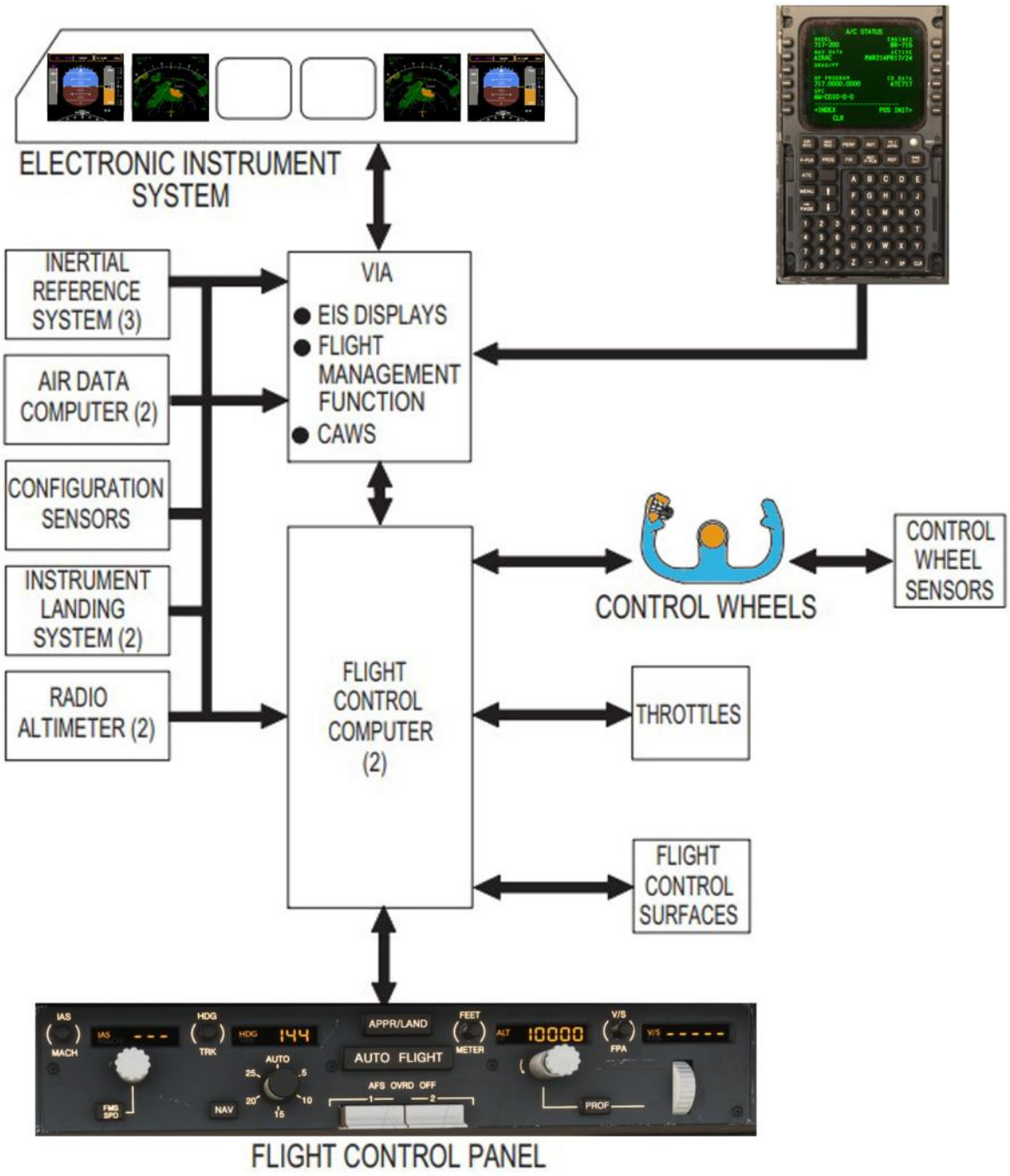
“One-Class”

117 seats

This MSFS2020-Version of the Boeing 717-200 is more like the “One Class-Version”

FCC - Flight Control Computer

Control scheme with the different systems



List of all Displays, Switches, Buttons and Controls on the panels

Over 500 animated Displays Switches, Controls and Buttons. Buttons and Switches with sound effects.

A => AFT OVERHEAD
A01 => GROUND SERVICE PANEL
- GROUND SERVICE SWITCH
- GROUND SERVICE LIGHT

A02 => AUDIO CONTROL PANEL OVERHEAD
- VHF1 MICROPHONE SWITCH
- VHF1 MICROPHONE LIGHT
- VHF2 MICROPHONE SWITCH
- VHF2 MICROPHONE LIGHT
- VHF3 MICROPHONE SWITCH
- VHF3 MICROPHONE LIGHT
- HF1 MICROPHONE SWITCH
- HF1 MICROPHONE LIGHT
- HF2 MICROPHONE SWITCH
- HF2 MICROPHONE LIGHT
- INT MICROPHONE SWITCH
- INT MICROPHONE LIGHT
- CAB MICROPHONE SWITCH
- CAB MICROPHONE LIGHT
- VHF1 AUDIO SELECT BUTTON
- VHF1 VOLUME CONTROL KNOB
- VHF2 AUDIO SELECT BUTTON
- VHF2 VOLUME CONTROL KNOB
- VHF3 AUDIO SELECT BUTTON
- VHF3 VOLUME CONTROL KNOB
- HF1 AUDIO SELECT BUTTON
- HF1 VOLUME CONTROL KNOB
- HF2 AUDIO SELECT BUTTON
- HF2 VOLUME CONTROL KNOB
- INT AUDIO SELECT BUTTON
- INT VOLUME CONTROL KNOB
- CAB AUDIO SELECT BUTTON
- CAB VOLUME CONTROL KNOB
- VOR/DME 1 NAV RADIO AUDIO SELECT BUTTON
- VOR/DME 1 NAV RADIO VOLUME CONTROL KNOB
- VOR/DME 2 NAV RADIO AUDIO SELECT BUTTON
- VOR/DME 2 NAV RADIO VOLUME CONTROL KNOB
- ILS 1 NAV RADIO AUDIO SELECT BUTTON
- ILS 1 NAV RADIO VOLUME CONTROL KNOB
- ILS 2 NAV RADIO AUDIO SELECT BUTTON
- ILS 2 NAV RADIO VOLUME CONTROL KNOB
- ADF 1 NAV RADIO AUDIO SELECT BUTTON
- ADF 1 NAV RADIO VOLUME CONTROL KNOB
- ADF 2 NAV RADIO AUDIO SELECT BUTTON
- ADF 2 NAV RADIO VOLUME CONTROL KNOB
- MARKER BEACONS AUDIO SELECT BUTTON
- MARKER BEACONS VOLUME CONTROL KNOB
- PA AUDIO SELECT BUTTON
- PA VOLUME CONTROL KNOB
- RADIO/INT SWITCH
- IDENT FILTER BUTTON
- IDENT FILTER LIGHT
- PA SWITCH

A03 => OXY LINE PANEL
- OXY LINE SCALE
- OXY LINE NEEDLE

A04 => FLIGHT RECORDER
- EVENT PUSHBUTTON

A05 => FIRE DETECTOR PANEL
- APU LOOPS SWITCH
- L ENG LOOPS SWITCH
- R ENG LOOPS SWITCH

C => CENTER
C01 => FIRE PANEL, GEAR HANDLE, FLIGHT NUM
- FLIGHT NUMBER UNITS
- FLIGHT NUMBER TENS
- FLIGHT NUMBER HUNDREDS
- FLIGHT NUMBER THOUSANDS
- L ENGINE FIRE HANDLE
- FIRE TEST SWITCH
- FIRE AGENT 1 LOW LIGHT
- FIRE AGENT 2 LOW LIGHT
- FAULT TEST SWITCH
- R ENGINE FIRE HANDLE
- LEFT GEAR LIGHT UPPER
- NOSE GEAR LIGHT UPPER
- RIGHT GEAR LIGHT UPPER
- LEFT GEAR LIGHT LOWER
- NOSE GEAR LIGHT LOWER
- RIGHT GEAR LIGHT LOWER
- GEAR HANDLE

D => DISPLAYS
D01 => PRIMARY FLIGHT DISPLAY
- CAPT PRIMARY FLIGHT DISPLAY

D02 => NAVIGATION DISPLAY
- CAPT NAVIGATION DISPLAY

D03 => ENGINE/ALERT DISPLAY
- ENGINE/ALERT DISPLAY

D04 => SYSTEM DISPLAY
- SYSTEM DISPLAY

D05 => NAVIGATION DISPLAY
- F/O NAVIGATION DISPLAY

D06 => PRIMARY FLIGHT DISPLAY
- F/O PRIMARY FLIGHT DISPLAY

D07 => STANDBY INSTRUMENTS
- STANDBY INSTRUMENTS DISPLAY
- ALIGN BUTTON
- BARO SET BUTTON
- BARO SET KNOB

E => ELECTRONIC PEDESTAL
E01 => VHF COMM PANEL
- ACTIVE TUNED FREQUENCY DISPLAY
- TRANSFER BUTTON
- STBY TUNED FREQUENCY DISPLAY
- COMMUNICATION TEST BUTTON
- INNER KNOB
- OUTER KNOB

E02 => VHF COMM PANEL
- ACTIVE TUNED FREQUENCY DISPLAY
- TRANSFER BUTTON
- STBY TUNED FREQUENCY DISPLAY
- COMMUNICATION TEST BUTTON
- INNER KNOB
- OUTER KNOB

E03 => SYSTEM CONTROL PANEL
- PFD L BRIGHTNESS
- MFD L BRIGHTNESS
- EICAS L BRIGHTNESS
- EICAS R BRIGHTNESS
- MFD R BRIGHTNESS
- PFD R BRIGHTNESS
- ENG
- INFO
- MENU
- ND
- CONSEQ
- STATUS
- HYD
- ELEC
- AIR
- FUEL
- CONFIG
- MISC

E04 => WEATHER RADAR CONTROL PANEL
- WEATHER RADAR SYSTEM CONTROL SWITCH
- WEATHER RADAR MODE CONTROL
- WEATHER RADAR GAIN CONTROL
- WEATHER RADAR ANTENNA TILT CONTROL

E05 => ATC CONTROL PANEL
- TCAS/TRANSPONDER FUNCTION SELECTOR
- CODE INDICATOR DISPLAY
- TRANSPONDER SELECTOR SWITCH
- FIRST DIGIT CODE SELECTOR KNOB
- SECOND DIGIT CODE SELECTOR KNOB
- ATC/IDENT BUTTON
- THIRD DIGIT CODE SELECTOR KNOB
- FOURTH DIGIT CODE SELECTOR KNOB

E06 => TRIM PANEL
- AILERON TRIM CONTROL SWITCH
- RUDDER TRIM CENTERING BUTTON
- RUDDER TRIM CONTROL KNOB

F => MCDU

F01 => MCDU

F02 => MCDU

G => GLARESHIELD

G01 => OUTBOARD GLARESHIELD LEFT
- MASTER WARNING LIGHT
- MASTER WARNING BUTTON
- MASTER CAUTION LIGHT
- MASTER CAUTION BUTTON
- STICK PUSHER LIGHT
- STICK PUSHER BUTTON

G02 => CAPT EIS CONTROL PANEL
- VOR1 BUTTON
- INCR RANGE BUTTON
- VOR2 BUTTON
- ADF1 BUTTON
- DECR RANGE BUTTON
- ADF2 BUTTON
- IN HP PUSH BUTTON
- MAG TRUE PUSH BUTTON
- QFE/QNH SELECTOR
- BAROMETRIC STD MODE
- BAROMETRIC PRESSURE KNOB
- PLAN MODE BUTTON
- MAP MODE BUTTON
- VOR MODE BUTTON
- TCAS MODE BUTTON
- APPR MODE BUTTON
- TRFC DECLUTTER BUTTON
- DATA DECLUTTER BUTTON
- WPT DECLUTTER BUTTON
- VOR NDB DECLUTTER BUTTON
- ARPT DECLUTTER BUTTON
- MINIMUMS RESET BUTTON
- MINIMUMS REFERENCE SOURCE SELECTOR
- MINIMUMS ALTITUDE KNOB
- WEATHER RADAR DISPLAY SWITCH
- WEATHER RADAR DISPLAY BRIGHTNESS CONTROL

G03 => FO EIS CONTROL PANEL
- VOR1 BUTTON
- INCR RANGE BUTTON
- VOR2 BUTTON
- ADF1 BUTTON
- DECR RANGE BUTTON
- ADF2 BUTTON
- IN HP PUSH BUTTON
- MAG TRUE PUSH BUTTON
- QFE/QNH SELECTOR
- BAROMETRIC STD MODE
- BAROMETRIC PRESSURE KNOB
- PLAN MODE BUTTON
- MAP MODE BUTTON
- VOR MODE BUTTON
- TCAS MODE BUTTON
- APPR MODE BUTTON
- TRFC DECLUTTER BUTTON
- DATA DECLUTTER BUTTON
- WPT DECLUTTER BUTTON
- VOR NDB DECLUTTER BUTTON
- ARPT DECLUTTER BUTTON
- MINIMUMS RESET BUTTON
- MINIMUMS REFERENCE SOURCE SELECTOR
- MINIMUMS ALTITUDE KNOB
- WEATHER RADAR DISPLAY SWITCH
- WEATHER RADAR DISPLAY BRIGHTNESS CONTROL

G04 => FLIGHT CONTROL PANEL
- IAS/MACH CHANGE OVER BUTTON
- IAS/MACH DISPLAY
- FMS SPD SWITCH
- IAS/MACH
- HDG/TRK CHANGE OVER BUTTON
- HDG/TRK DISPLAY
- NAV SWITCH
- HDG/TRK SELECT KNOB
- HDG/TRK SELECT KNOB
- APPR/LAND ARM SWITCH
- AUTO PILOT SWITCH
- AHS OVRD OFF SWITCH 1
- AHS OVRD OFF SWITCH 2
- FEET/METER CHANGE OVER BUTTON
- FEET/METER DISPLAY
- VS/FPA CHANGE OVER BUTTON
- VS/FPA DISPLAY
- FEET/METER SELECT KNOB
- PROF SWITCH
- VS/FPA SELECT WHEEL

G05 => OUTBOARD GLARESHIELD RIGHT
- MASTER WARNING LIGHT
- MASTER WARNING BUTTON
- MASTER CAUTION LIGHT
- MASTER CAUTION BUTTON
- STICK PUSHER LIGHT
- STICK PUSHER BUTTON

L => LEFT

L01 => CAPT SOURCE INPUT SELECT PANEL
- EIS SOURCE SELECTOR
- BELOW GS BUTTON
- FLT DIR OFF SWITCH
- FLT DIR DATA SOURCE SWITCH
- AIR DATA SOURCE SWITCH
- IRS DATA SOURCE SWITCH
- FMS DATA SOURCE SWITCH
- VOR DATA SOURCE SWITCH
- APPR DATA SOURCE SWITCH
- VOID SWITCH
- EIS SOURCE DISPLAY
- BELOW GS LIGHT
- FLT DIR OFF LIGHT
- FLT DIR DATA CAPT ON2
- FLT DIR DATA F/O ON1
- AIR DATA CAPT ON2
- AIR DATA F/O ON1
- IRS DATA CAPT ON AUX
- IRS DATA F/O ON AUX
- FMS DATA CAPT ON2
- FMS DATA F/O ON1
- VOR DATA CAPT ON2
- VOR DATA F/O ON1
- APPR DATA CAPT ON2
- APPR DATA F/O ON1

L02 => LEFT OUTBOARD CONSOLE
- FLOOR LIGHTS SWITCH
- MAP LIGHTS SWITCH
- CHRONOGRAPH TIMER START, STOP, RESET BUTTON
- CHRONOGRAPH TIMER SWITCH

L03 => AUDIO CONTROL PANEL LEFT
- VHF1 MICROPHONE SWITCH
- VHF1 MICROPHONE LIGHT
- VHF2 MICROPHONE SWITCH
- VHF2 MICROPHONE LIGHT
- VHF3 MICROPHONE SWITCH
- VHF3 MICROPHONE LIGHT
- HF1 MICROPHONE SWITCH
- HF1 MICROPHONE LIGHT
- HF2 MICROPHONE SWITCH
- HF2 MICROPHONE LIGHT
- INT MICROPHONE SWITCH
- INT MICROPHONE LIGHT
- CAB MICROPHONE SWITCH
- CAB MICROPHONE LIGHT
- VHF1 AUDIO SELECT BUTTON
- VHF1 VOLUME CONTROL KNOB
- VHF2 AUDIO SELECT BUTTON
- VHF2 VOLUME CONTROL KNOB
- VHF3 AUDIO SELECT BUTTON
- VHF3 VOLUME CONTROL KNOB
- HF1 AUDIO SELECT BUTTON
- HF1 VOLUME CONTROL KNOB
- HF2 AUDIO SELECT BUTTON
- HF2 VOLUME CONTROL KNOB
- INT AUDIO SELECT BUTTON
- INT VOLUME CONTROL KNOB
- CAB AUDIO SELECT BUTTON
- CAB VOLUME CONTROL KNOB
- VOR/DME 1 NAV RADIO AUDIO SELECT BUTTON
- VOR/DME 1 NAV RADIO VOLUME CONTROL KNOB
- VOR/DME 2 NAV RADIO AUDIO SELECT BUTTON
- VOR/DME 2 NAV RADIO VOLUME CONTROL KNOB
- ILS 1 NAV RADIO AUDIO SELECT BUTTON
- ILS 1 NAV RADIO VOLUME CONTROL KNOB
- ILS 2 NAV RADIO AUDIO SELECT BUTTON
- ILS 2 NAV RADIO VOLUME CONTROL KNOB
- ADF 1 NAV RADIO AUDIO SELECT BUTTON
- ADF 1 NAV RADIO VOLUME CONTROL KNOB
- ADF 2 NAV RADIO AUDIO SELECT BUTTON
- ADF 2 NAV RADIO VOLUME CONTROL KNOB
- MARKER BEACONS AUDIO SELECT BUTTON
- MARKER BEACONS VOLUME CONTROL KNOB
- PA AUDIO SELECT BUTTON
- PA VOLUME CONTROL KNOB
- RADIO/INT SWITCH
- IDENT FILTER BUTTON
- IDENT FILTER LIGHT
- PA SWITCH

O => OVERHEAD
O01 => IRS MODE SELECTOR
- IRU 1 MODE LIGHT
- IRU AUX MODE LIGHT
- IRU 2 MODE LIGHT
- IRU 1 MODE SELECTOR
- IRU AUX MODE SELECTOR
- IRU 2 MODE SELECTOR

O02 => COCKPIT VOICE RECOEDER
- COCKPIT VOICE RECORDER STATUS LIGHT
- COCKPIT VOICE RECORDER ERASE SWITCH
- COCKPIT VOICE RECORDER TEST SWITCH

O03 => ANTI-SKID PANEL
- ANTI-SKID SWITCH
- ANTI-SKID SWITCH CAP
- ANTI-SKID SWITCH LIGHT
- ANTI-SKID MODE SELECTOR

O04 => HYDRAULIC PANEL
- HYD CONT RUDDER SWITCH
- HYD CONT RUDDER CAP
- HYD CONT RUDDER LIGHT
- L ENG HYD PUMP SWITCH
- TRANS HYD PUMP SWITCH
- R ENG HYD PUMP SWITCH
- AUX HYD PUMP SWITCH

O05 => GROUND PROX WARN PANEL
- GROUND PROX WARN TERR SWITCH
- GROUND PROX WARN TERR LIGHT
- GROUND PROX WARN CAP
- GROUND PROX WARN SWITCH

O06 => APU PANEL
- APU FIRE AGENT NO 1 SWITCH
- APU FIRE AGENT NO 2 SWITCH
- APU AIR SWITCH
- APU FIRE CONTROL SWITCH
- APU MASTER SWITCH

O07 => ELECT PWR PANEL
- BATTERY SWITCH
- R ENG GEN IN USE LIGHT
- APU POWER IN USE LIGHT L
- EXT PWR IN USE LIGHT L
- L BUS CROSS TIE SWITCH
- DC BUS TIE SWITCH
- R BUS CROSS TIE SWITCH
- EXT PWR IN USE LIGHT R
- APU POWER IN USE LIGHT R
- L ENG GEN IN USE LIGHT
- EMER POWER SWITCH
- EMER POWER LIGHT
- L GENERATOR CONTROL SWITCH
- APU PWR AVAIL LIGHT
- APU POWER SWITCH
- EXT POWER SWITCH
- EXT PWR AVAIL LIGHT
- R GENERATOR CONTROL SWITCH
- GALLEY POWER SWITCH

O08 => PRESSURIZATION PANEL
- OUTFLOW VALVE POSITION INDICATOR BACKGROUND
- OUTFLOW VALVE POSITION INDICATOR NEEDLE
- MANUAL CABIN ALTITUDE CONTROL SWITCH
- PRESSURIZATION SYSTEM SELECTOR SWITCH
- PRESSURIZATION SYSTEM SELECT LIGHT
- PRESSURIZATION SYSTEM MANUAL LIGHT
- LAND ALT SWITCH

O09 => AIR CONDITIONING PANEL
- AVIONICS RACK FAN SWITCH
- RAM AIR SWITCH
- AIR COND AUTO SHUTOFF SWITCH
- AIR FLOW CONTROL SWITCH
- CKPT TEMP SELECTOR
- L AIR CONDITIONING PACK SUPPLY SWITCH
- L BLEED AIR SUPPLY SWITCH
- ISOLATION VALVE SWITCH
- R AIR CONDITIONING PACK SUPPLY SWITCH
- R BLEED AIR SUPPLY SWITCH
- CABIN TEMP SELECTOR

O10 => ICE PROTECT PANEL
- AIR DATA HEAT SWITCH
- AIR DATA HEAT LIGHT
- AIR FOIL ANTI-ICE SWITCH
- TAIL ANTI-ICE SWITCH
- WINDSHIELD ANTI-FOG SWITCH
- WINDSHIELD ANTI-ICE SWITCH
- WING ICE DETECT SWITCH
- L ENG ANTI-ICE SWITCH
- R ENG ANTI-ICE SWITCH

O11 => ENGINE START PANEL
- IGNITION SWITCH
- L ENG FADEC MODE SWITCH
- L ENG FADEC MODE CAP
- L ENG FADEC MODE SELECT LIGHT
- L ENG FADEC MODE ALTN LIGHT
- R ENG FADEC MODE SWITCH
- R ENG FADEC MODE CAP
- R ENG FADEC MODE SELECT LIGHT
- R ENG FADEC MODE ALTN LIGHT
- START PUMP SWITCH
- L ENGINE START SWITCH
- R ENGINE START SWITCH

O12 => FUEL PANEL
- A/B QUANTITY CHANNEL BUTTON
- LEFT AFT BOOST PUMP SWITCH
- CTR AFT BOOST PUMP SWITCH
- RIGHT AFT BOOST PUMP SWITCH
- FUEL SYSTEM TEST BUTTON
- LEFT FWD BOOST PUMP SWITCH
- CTR FWD BOOST PUMP SWITCH
- RIGHT FWD BOOST PUMP SWITCH

O13 => ANNUN LT TEST AND RESET PANEL
- PULL TO DIM SWITCH
- ANNUN LIGHTS TEST BUTTON
- FUEL USED RESET BUTTON
- ENG EXCEEDANCE RESET BUTTON

O14 => CAPT WINDSHIELD WIPER PANEL
- CAPT WINDSHIELD WIPER SWITCH
- COCKPIT DOOR SWITCH

O15 => FO WINDSHIELD WIPER PANEL
- FO WINDSHIELD WIPER SWITCH
- STBY COMPASS LIGHT SWITCH

O16 => LIGHT CONTROL PANEL
- DOME LIGHT BUTTON
- OVHD PANEL LIGHTS CONTROL
- OVHD FLOODLIGHTS CONTROL
- EMERGENCY LIGHTS SWITCH
- CIRCUIT BREAKER PANEL FLOODLIGHTS SWITCH
- NO SMOKE SWITCH
- SEAT BELTS SWITCH
- PA BUTTON
- PA ON LIGHT
- PA IN USE LIGHT
- VIDEO IN USE LIGHT
- CALL ATTENDANT BUTTON
- CALL FROM ATTENDANT LIGHT
- ATTENDANT CALLING ANNUNCIATOR RESET
- EXT MECH CALL
- EXT MAINT INTPH CALL BUTTON
- EXT MAINT INTPH CALL ON LIGHT
- THNDRSTRM LIGHT SWITCH
- INSTRUMENT PANEL LIGHTS CONTROL
- PEDESTAL FLOODLIGHTS CONTROL
- L LANDING GEAR LIGHTS SWITCH
- R LANDING GEAR LIGHTS SWITCH
- NOSE GEAR LIGHTS SWITCH
- WING NACELLE LIGHTS SWITCH
- L GND FLOODLIGHT SWITCH
- L GND FLOODLIGHT SWITCH ON LIGHT
- R GND FLOODLIGHT SWITCH
- R GND FLOODLIGHT SWITCH ON LIGHT
- POSITION LIGHTS SWITCH
- POSITION LIGHTS SWITCH OFF LIGHT
- ANTI-COLLISION LTS SWITCH
- ANTI-COLLISION LTS SWITCH OFF LIGHT
- STROBE LIGHTS SWITCH
- STROBE LIGHTS SWITCH OFF LIGHT

P => PEDESTAL

P01 => CENTER PEDESTAL
- L THRUST REVERS CONTROL LEVER
- R THRUST REVERS CONTROL LEVER
- L THROTTLE CONTROL LEVER
- R THROTTLE CONTROL LEVER
- SPEED BREAK LEVER
- FUEL CROSS FEED HANDLE
- L AUTOTHROTTLE DISCONNECT BUTTON
- R AUTOTHROTTLE DISCONNECT BUTTON
- L GO AROUND BUTTON
- R GO AROUND BUTTON
- FLAP/SLAT HANDLE
- FLAP TAKEOFF DIAL
- FLAP TAKEOFF SELECTOR
- STABILIZER TRIM SWITCH
- STABILIZER TRIM SWITCH CAP
- STABILIZER TRIM OFF LIGHT
- GEAR HORN OFF BUTTON
- GEAR HORN OFF BUTTON CAP
- GEAR HORN OFF LIGHT
- L FUEL SWITCH FIRE LIGHT
- L FUEL SWITCH
- R FUEL SWITCH FIRE LIGHT
- R FUEL SWITCH
- L ALT LONG TRIM SWITCH
- R ALT LONG TRIM SWITCH

R => RIGHT

R01 => F/O SOURCE INPUT SELECT PANEL
- EIS SOURCE SELECTOR
- BELOW GS BUTTON
- FLT DIR OFF SWITCH
- FLT DIR DATA SOURCE SWITCH
- AIR DATA SOURCE SWITCH
- IRS DATA SOURCE SWITCH
- FMS DATA SOURCE SWITCH
- VOR DATA SOURCE SWITCH
- APPR DATA SOURCE SWITCH
- VOID SWITCH
- EIS SOURCE DISPLAY
- EIS SOURCE DISPLAY
- BELOW GS LIGHT
- FLT DIR OFF LIGHT
- FLT DIR DATA CAPT ON2
- FLT DIR DATA F/O ON1
- AIR DATA CAPT ON2
- AIR DATA F/O ON1
- IRS DATA CAPT ON AUX
- IRS DATA F/O ON AUX
- FMS DATA CAPT ON2
- FMS DATA F/O ON1
- VOR DATA CAPT ON2
- VOR DATA F/O ON1
- APPR DATA CAPT ON2
- APPR DATA F/O ON1

R02 => RIGHT OUTBOARD CONSOLE
- FLOOR LIGHTS SWITCH
- MAP LIGHTS SWITCH
- CHRONOGRAPH TIMER START, STOP, RESET BUTTON
- CHRONOGRAPH TIMER SWITCH

R03 => AUDIO CONTROL PANEL RIGHT

Graphical overview of the assignments