Air France

AIRBUS

AFS-design

Andreas Meyer

Air France is based in Paris, France's biggest airline.
They is, together with the Dutch KLM, the company Air France-KLM.

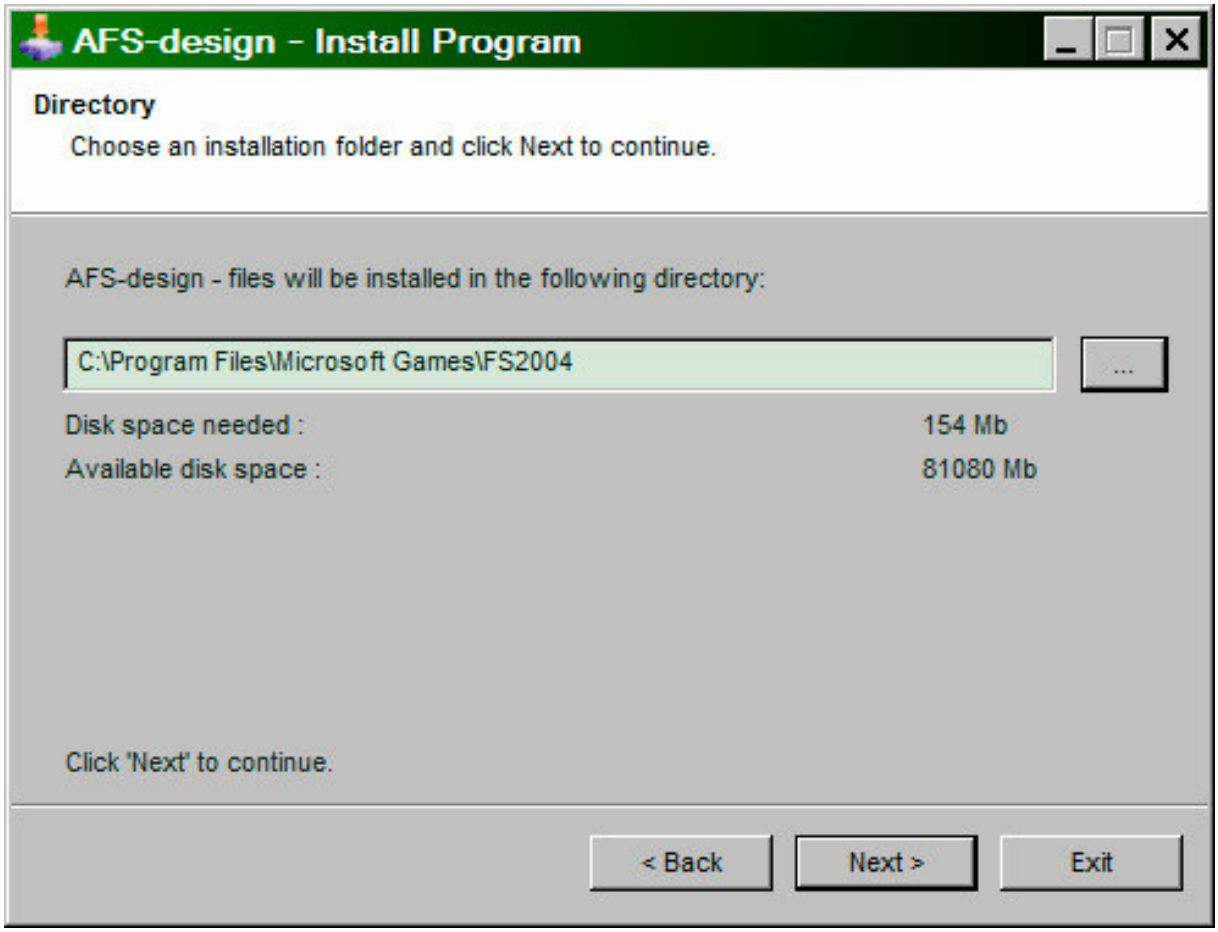
Contents

System

System:	Windows XP, Vista / Win 7 / Win 8 (32 or 64)
FS VERSION:	FSX assisted SP1, SP2, Acceleration Pack with DX9 and FS2004
Filesize:	48 MB
Filesize hard drive:	2,7 GB
INSTALLATION:	EXE. file
PUBLISHER:	AFS-design
HOMEPAGE:	http://www.afs-design.de
SUPPORT mailto:	info@afs-design.de

Installation for FS2004

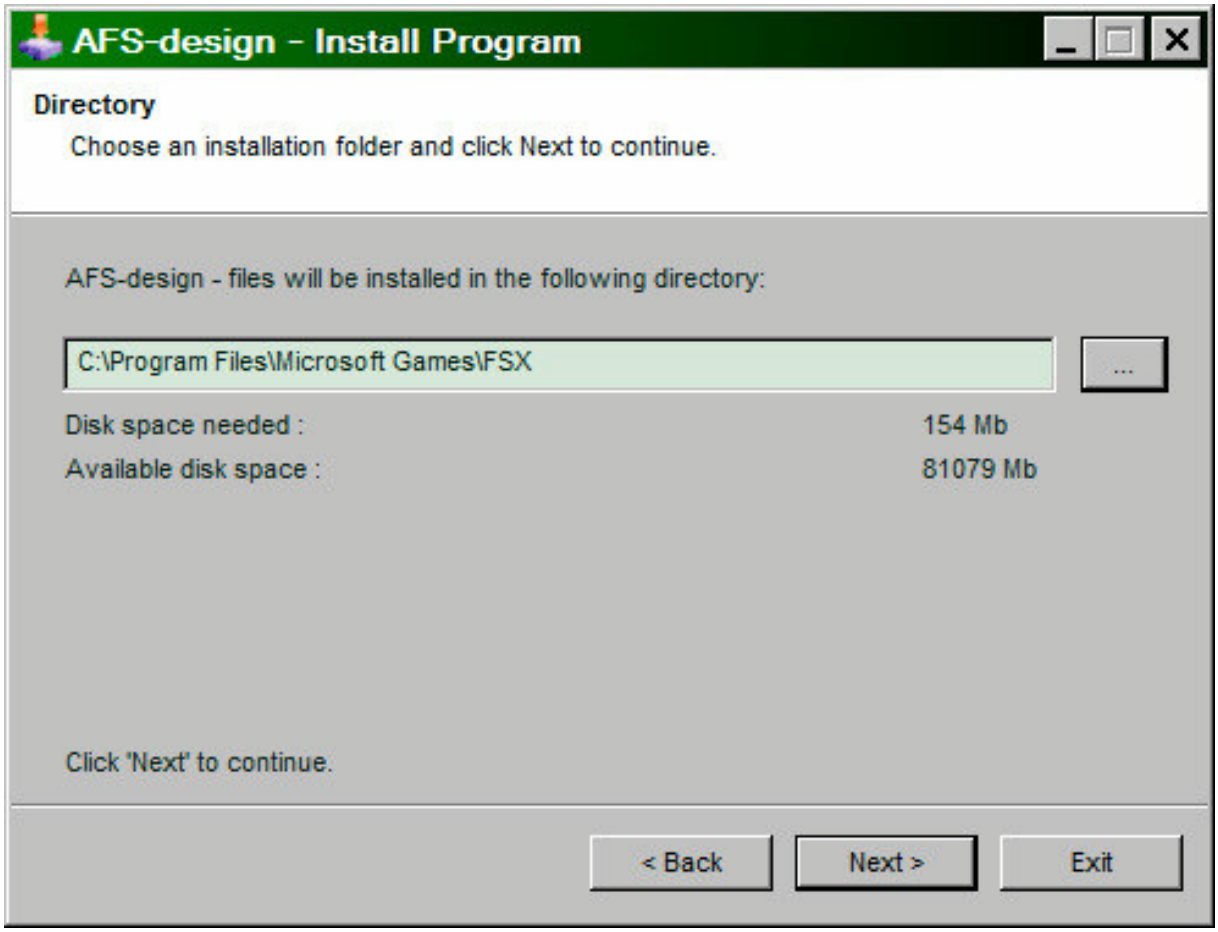
1. For FS2004 download the „AFS-____-FS9.exe“ to a temporary directory of your choice.
2. Please start the „AFS-____-FS9.exe“ and install.



3. Set in ... the main directory from FS2004, when not automatic choice.
4. Than start the Flight Simulator with the new sceneries.

Installation for FSX

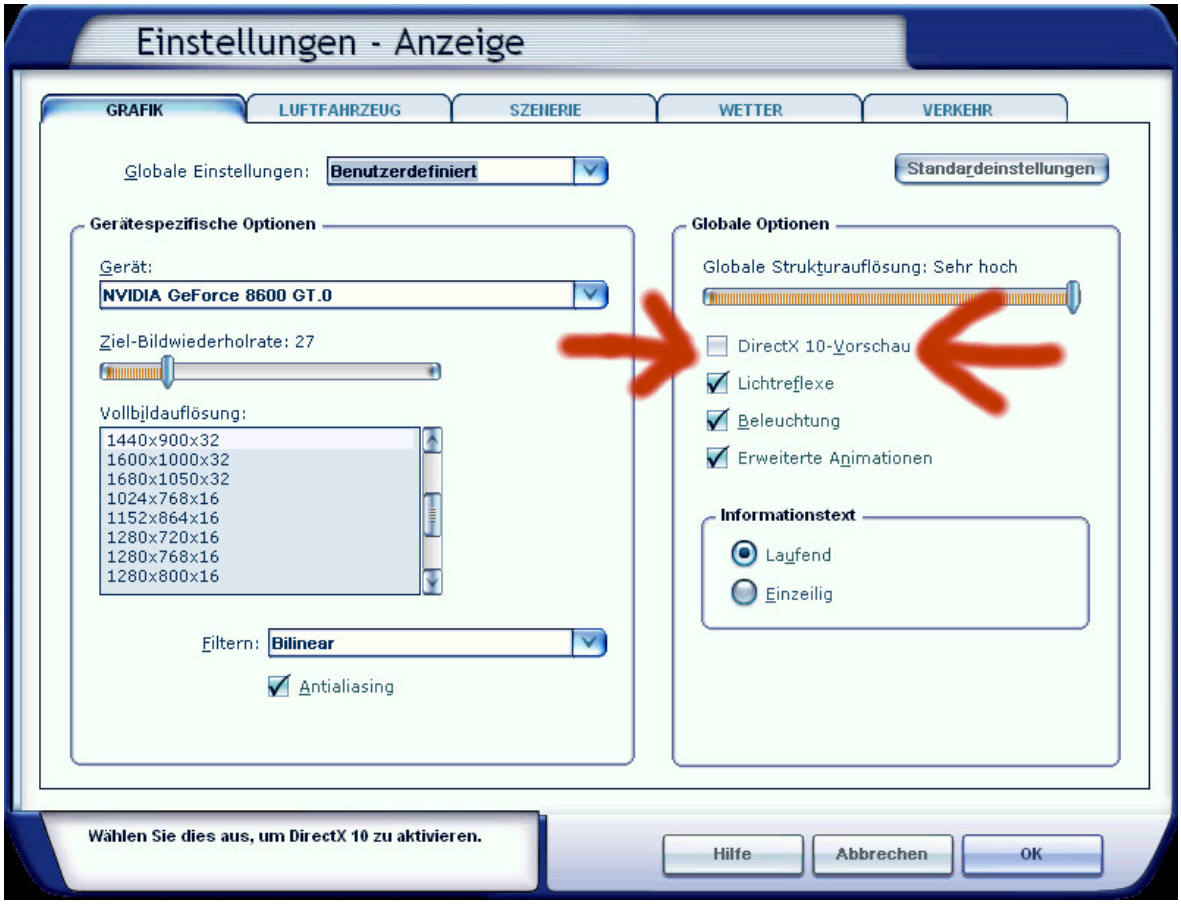
1. For FSX download the „AFS-____-FSX.exe“ to a temporary directory of your choice.
2. Please start the „AFS-____-FSX.exe“ and install.



3. Set in ... the main directory from FSX, when not automatic choice.
4. Than start the Flight Simulator

Problem with DirectX

This programm use DirectX9 only. Please switch out DirectX 10 trailer !
1. Install this add-on
2. Start the Microsoft FSX
3. Choose a plane your choice
4. Start the simualotion (click start)
5. In the simulation switch button "ALT"
6. Choose options / adjustment / display (graphic settings)
7. In the graphic settings windows choose graphic
8. deactivate "DirectX 10 trailer" in small box (without camisole)
9. Exit the FSX, and start the FSX new !



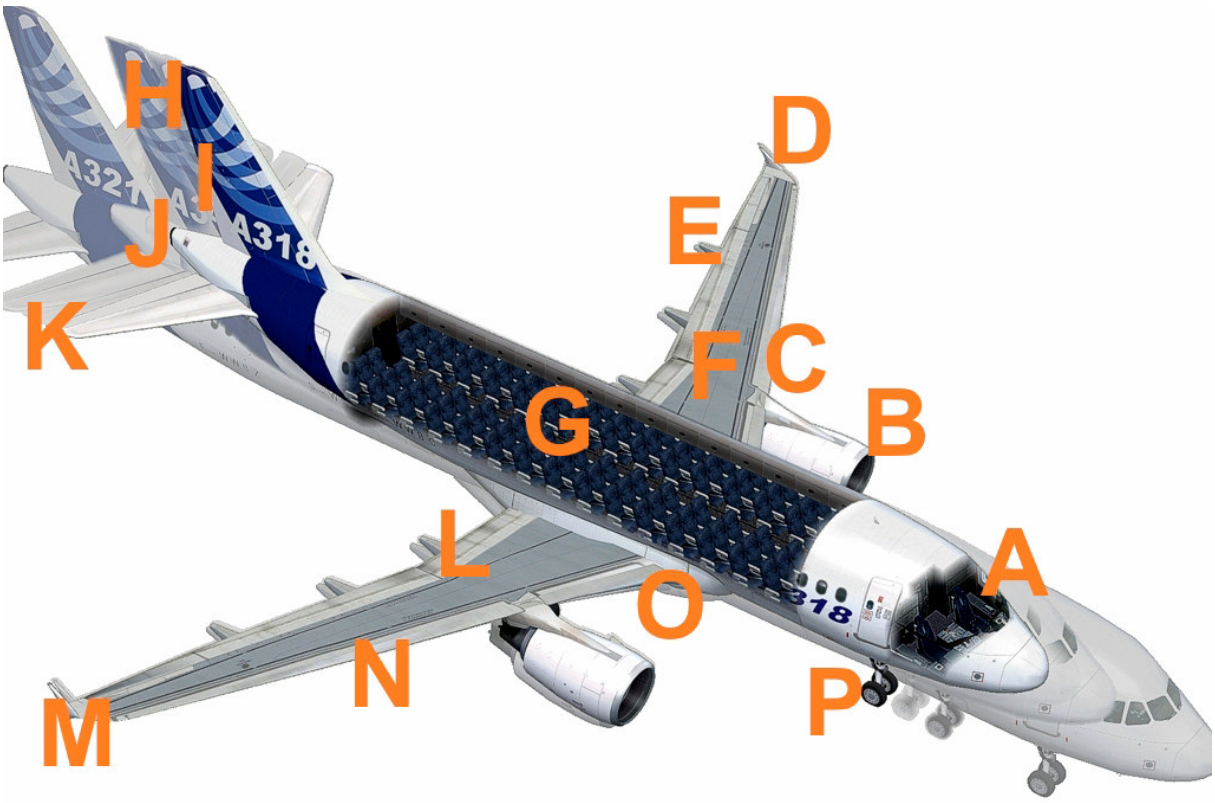
Aircraft selection

After you have started the Microsoft Flight Simulator, you can in Selectname

- AIRBUS A319neo
- AIRBUS A320neo Cabin interior model
- AIRBUS A321neo
- AIRBUS A330 – 200
- AIRBUS A330 – 300
- AIRBUS A340 – 200
- AIRBUS A340 – 300
- AIRBUS A340 – 500
- AIRBUS A340 – 600
- AIRBUS A330 Cabin interior model
- AIRBUS A350
- AIRBUS A380
- AIRBUS A380F
- AIRBUS A380 Cabin interior model

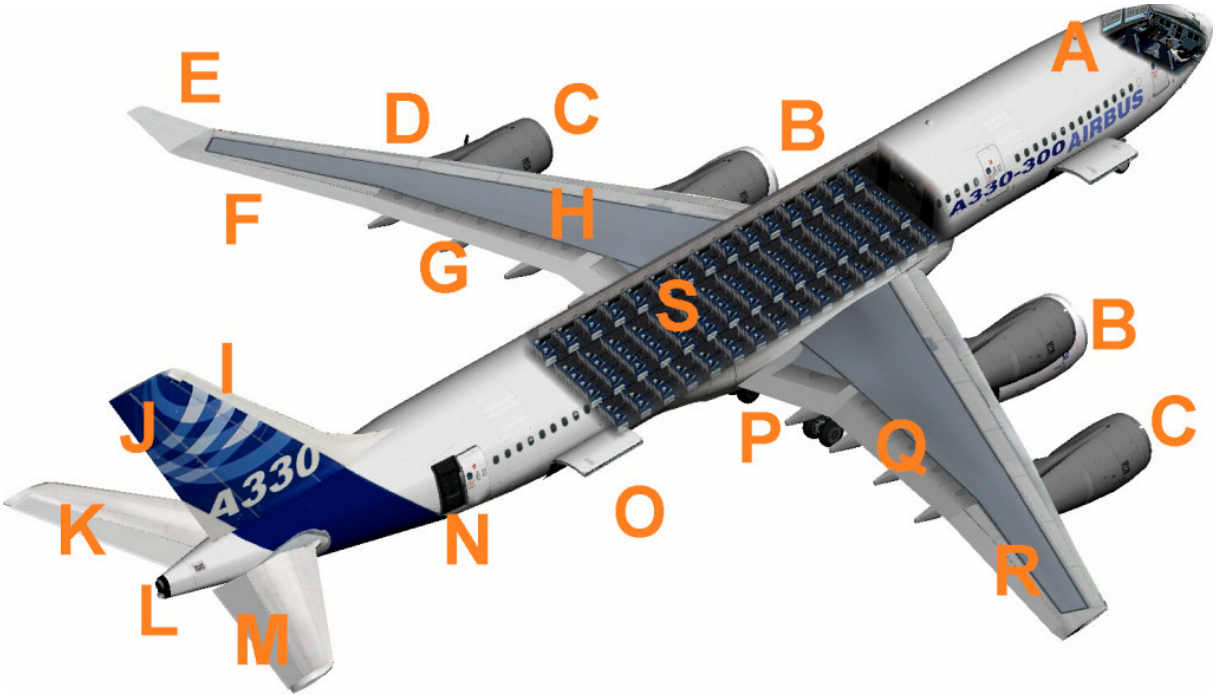
To use the Flight Management Computer (FMC), it is important to create a flight plan. Please use the Flight Planner in the Microsoft Flight Simulator.

The models of the Airbus A320neo



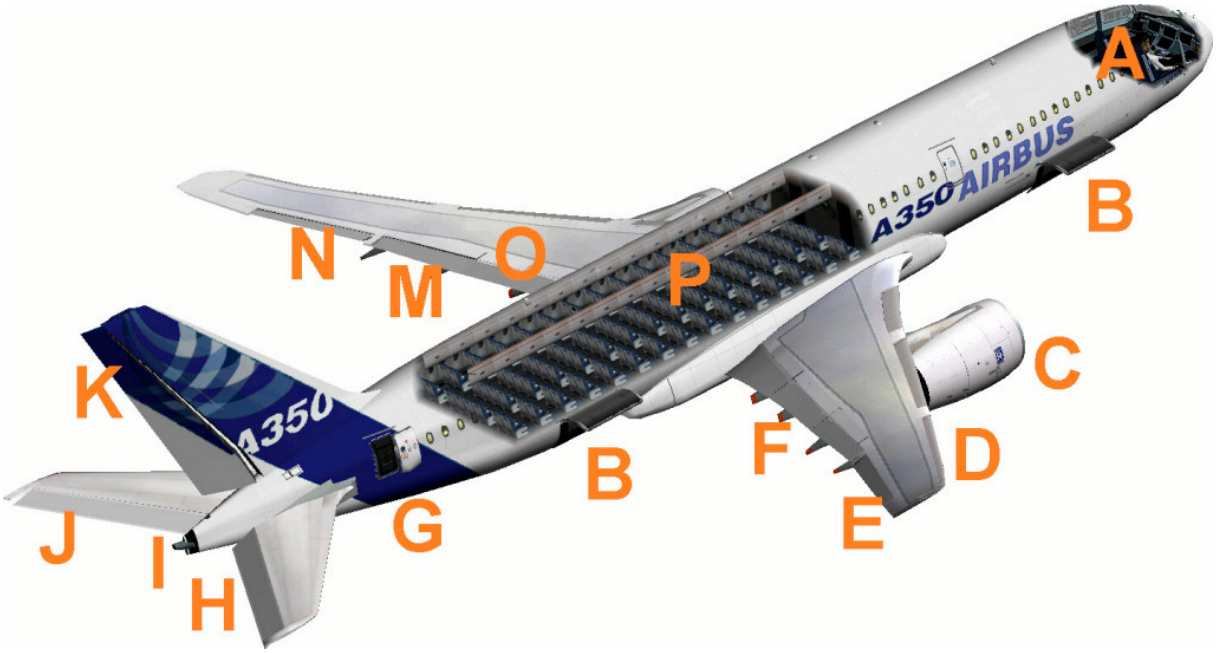
A - Cockpit (view change interior exterior model "S")
B - Engines with reverse thrust (thrust "F3" and reverse thrust "F2")
C - Slat left
D - Red position light on the left with strobes
E - Outer flaps left
F - Air brakes left
G - Cabin Interior - the model A320neo
H - Various lengths of the A320neo (A319, A320, A321)
I - Rudder
J - White on back position lights with strobes
K - Elevator
L - Internal flaps right
M - Green position light on the left with strobes
N - Slats right
O - Landing lights under the fuselage
P - Chassis ("G")

The models of the Airbus A330/A340 family



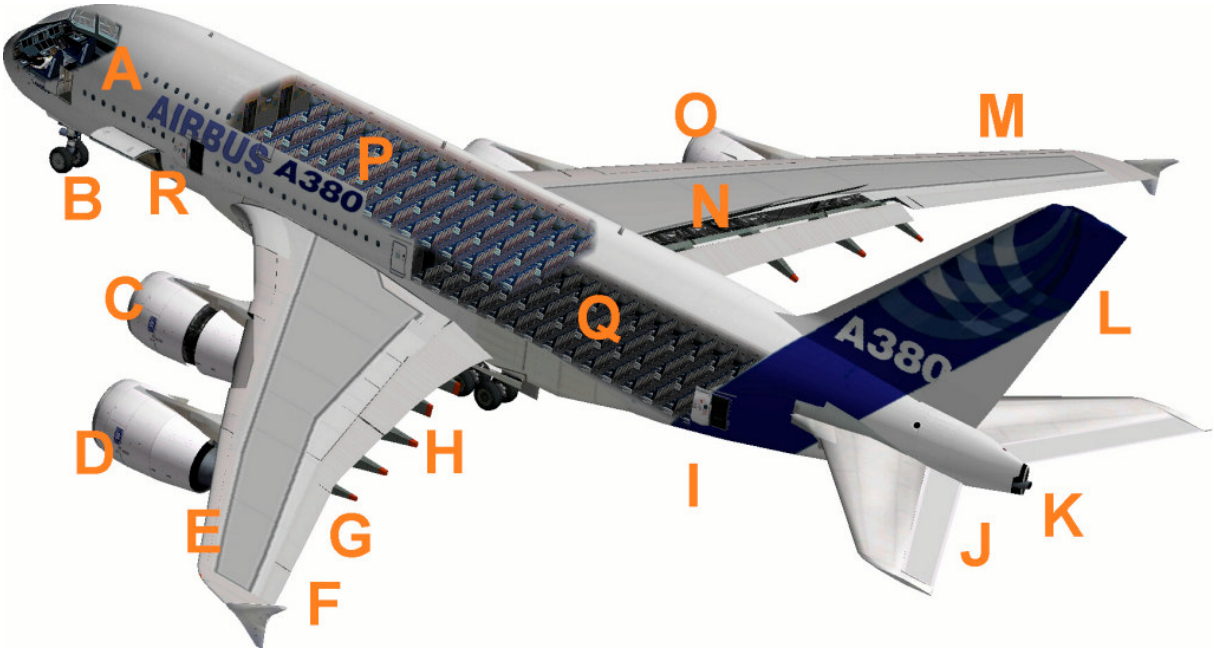
A - Cockpit (view change inside-outside model "S")
Please use a joystick
B - Engines with thrust reversers (push F3 and reverse thrust "F2")
C - 4 Engines of the Airbus A340
D - Red position lights left with strobes
E - Winglets
F - Aileron left
G - Flaps left
H - Air Brake (spoiler) left
I - Fin
J - Rudder
K - Elevator next
L - White rear in, rear position lights with strobes
M - Elevator right
N - Rear entrance, open panel switches see in Upper bracket
O - Rear cargo space open, panel switches see in Upper bracket
P - Suspension ("G")
Q - Flaps right
R – Aileron right
S - Cabin interior - model the Airbus A330

The models of the Airbus A350 family



A - Cockpit (view change inside-outside model "S")
B - Hold open, panel switches see in Upper bracket
C - Engines with thrust reversers (push F3 and reverse thrust "F2")
D - Slats left
E - Aileron right
F - Flaps right
G - Rear entrance open, panel switches see in Upper bracket
H - Elevator
I - White rear in, rear position lights with strobes
J - Elevator
K - Rudder
M - Flaps left
N - Aileron left
O - Air Brake (spoiler) left
P - Passenger deck with 253 seats in a 3 class configuration

The models of the Airbus A380 family



A - Cockpit (view change inside-outside model "S")
B - Nose landing gear (moving in and out with "G")
C - Engines with thrust reversers (push F3 and reverse thrust "F2")
Info: reverse thrust on the A380 only the two inner engines
D - 1 without outer engine thrust reversers, as in the real A380
E - Slats left
F - Winglets
G - Left aileron
H - Flaps left
I - Open cargo space, panel switches see in Upper bracket
J - Elevator
K - White rear in, rear position lights with strobes
L - Rudder
M - Slats right
N - Air Brake (spoiler) the right extended
O-4 Right outside without engine thrust reversers, as in the real A380
P - Upper Deck
Q - Medium Deck

The virtual cockpit

Zoom in virtual cockpit by pressing the "+" or "-"

A - Seat co-pilot
B - Right stick to vertical and Aileron control
C - Pedall for rudder control
D - Primärflightdisplay and multifunction display - pilot
E - Autopilot control unit
F - Center console
G - Lower console
H - Upper console
I - Primärflightdisplay and multifunction display

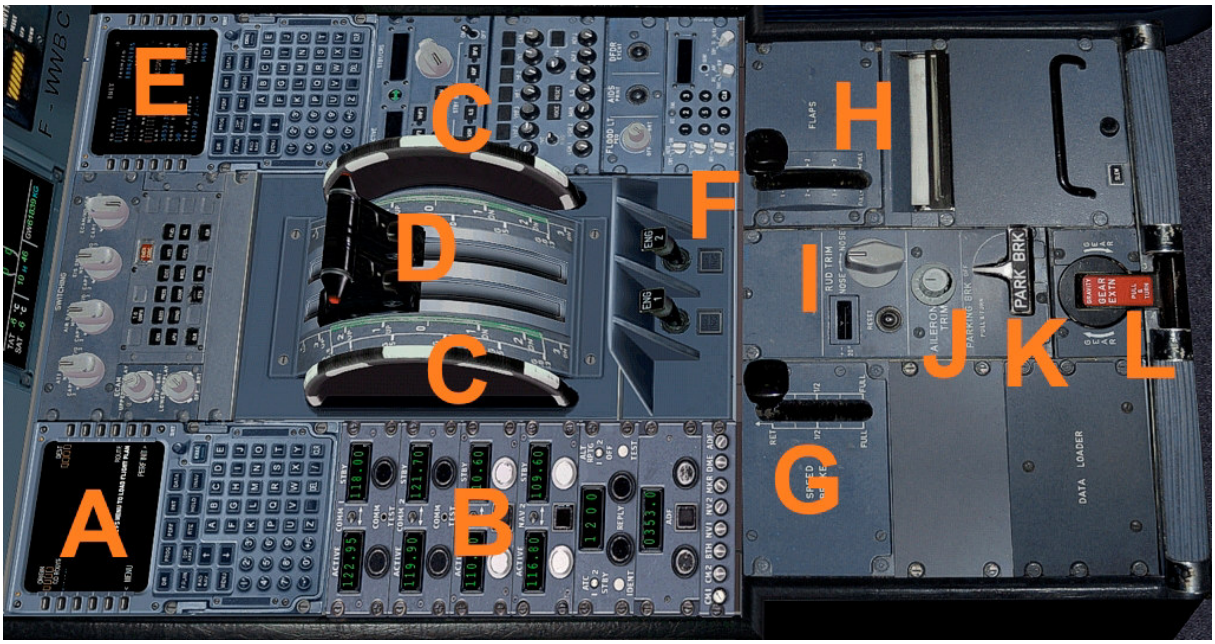
Autopilot

A - ATC and GPS call in extra window
B - Kneeboard with detailed checklists of the A320 family
C - QNH input to the altimeter calibration
D - Flight Director On / Off and ILS On / Off
E - NAV and Mach switch
F - Activation speed and vertical speed
G - Speed in knots and heading date
H - Required height and vertical speed
I - Autopilot master switch
J - Required height and vertical speed

Center console

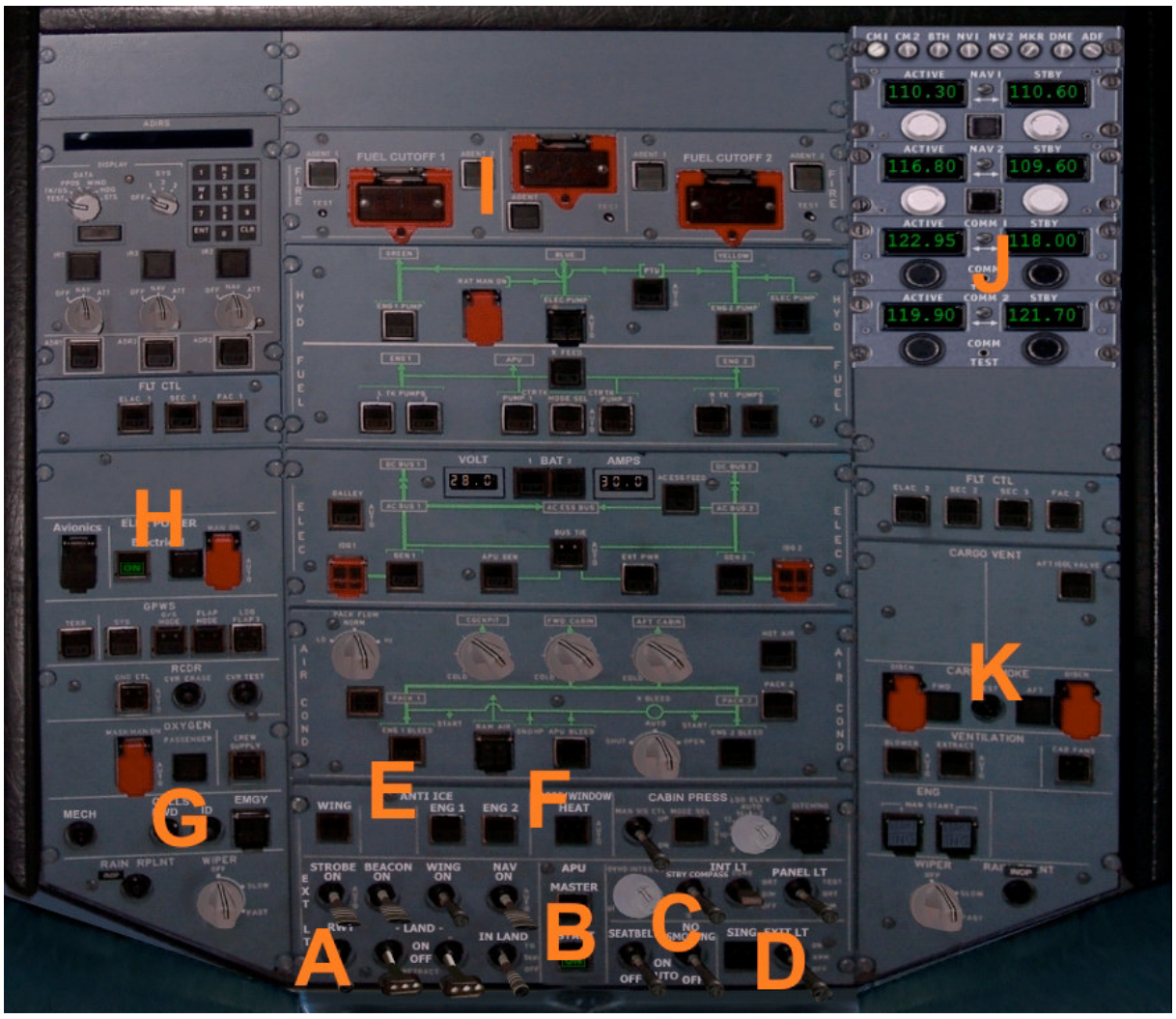
A - Primärflightdisplay 2
B - Mode switches for multi-function display
C - Navigation button Nav / GPS
D - ECAM display a change
E - ECAM display two alternate
F - Radio compass with two needles (RMI half and DME 1 / 2)
G - Clock UTC / Local Time / Stopwatch
H - ECAM display a
I - ECAM display 2
J - Status Display of the main landing gear
K - Auto Brake Switch
L - Main gear lever
M - Brake force display
N – Emergency gear down
O - ATC - ID code (also to see on the exterior model)

Lower console



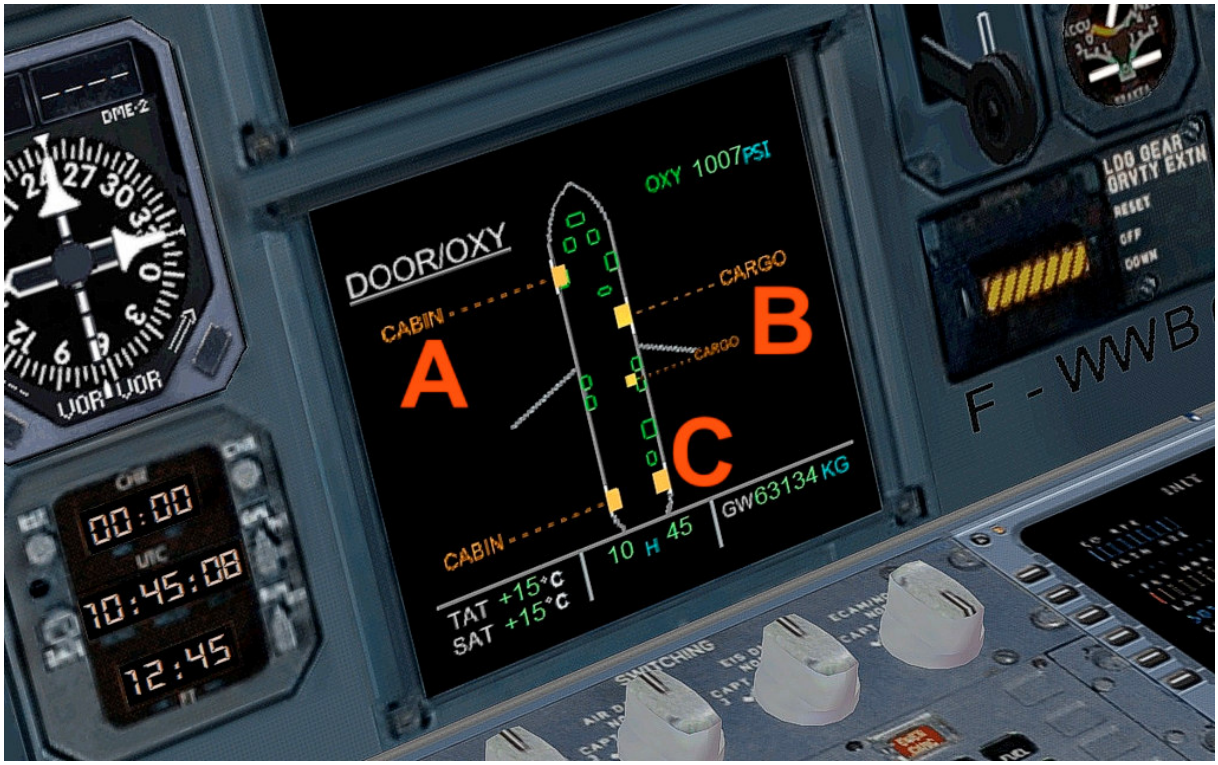
A - Flight Management Computer (FMC) Pilot
B - Navsettings (RAD 1 / 2, VOR 1 / 2, DME, Transponder, Identifies
C - Trimwheel elevator
D - Thrust levers left / right to use (please right joystick)
E - Flight Management Computer (FMC) Co-pilot
F - Starter switch left / right engine
G - Spoiler retract /
H - Retract flaps from Sufenweise /
I - Aileron trim
J - Rudder
K - Parking Brake
L - Manual gear down

Upper console



A - Switch for Beacon-, Strobes-, Nav-, Landing- and Taxi- lights
B - Master master switch with indicator light
C - Higher: Switch for internal illumination, Panel lights
C - Below: "Seatbelt" and "No Smoking" switch
D - Exit switch
E – Anti ice switch
F – Pitotheat switch
G - Call signs like transponder ID and emergency code
H - Electrik - main switch
I - Cut Off the engines
J - Upper Navsetting
K - Open cargo doors / close

The Door-display gauge



Please click on the MFD or use the switches in the "upper console (K)".

A – Front entry door open / close
B – Cargo doors open / close
C – Rear entry doors open / close

and

C – Gangway stairs on / off

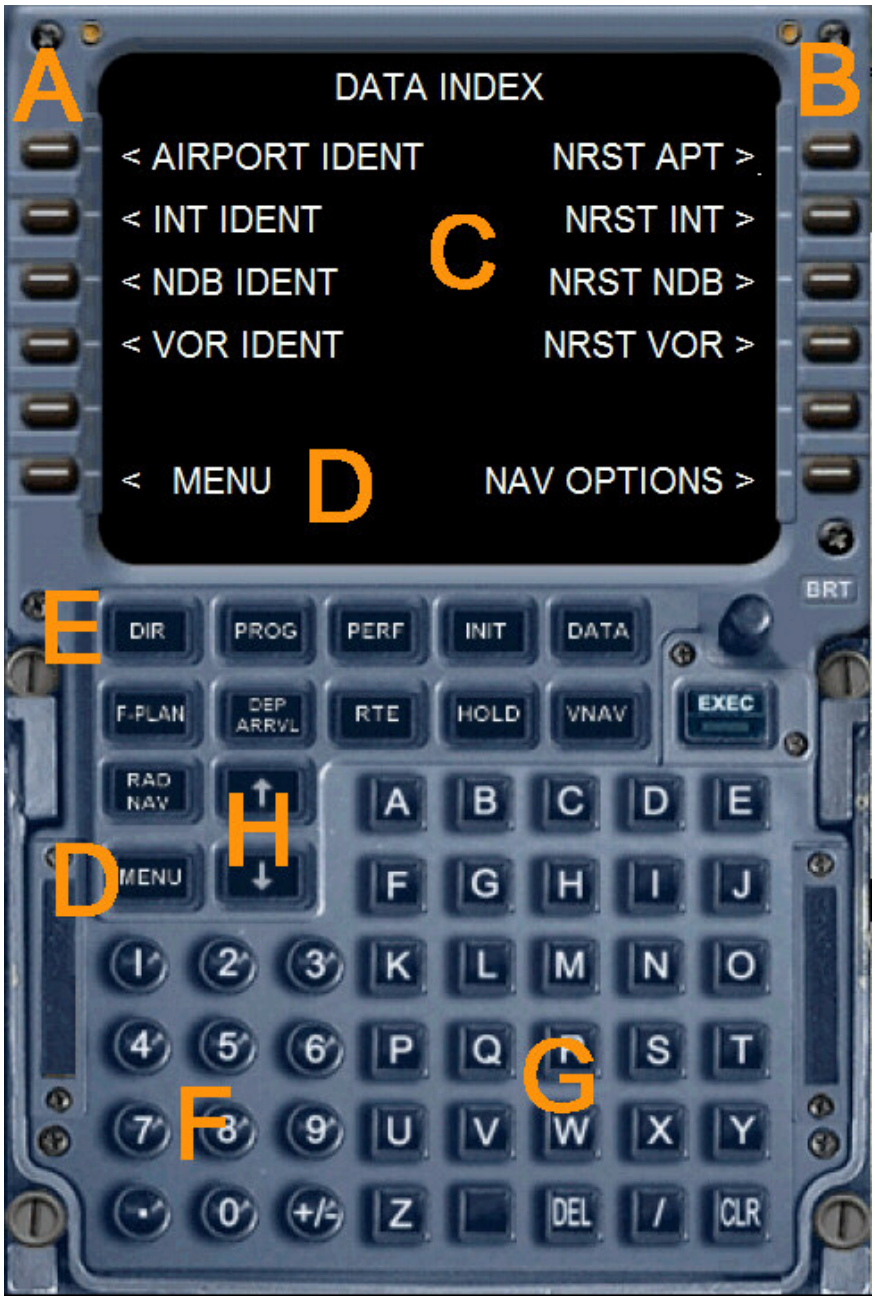
The Airbus A350 HUD display

The head-up display, or HUD display (in spirit translated: Front-view display - display in the viewing direction) is a cockpit display to be projected in the flight-relevant data in the field of view of the pilot. This requires the pilot not look more to lower the cockpit, but can view outside all important data as ie height or artificial horizon. Introduced the HUD was for target acquisition in a fighter aircraft, but this practical system has increasingly become part of civil aviation. It is also in the Airbus A350 are standard equipment.

A - Ladder of the vertical gyro with velocity (direction flag)
B - G - Force Gauge
C - Mach number
D - True Speed
E - Displaying speed
F - Compass
G - QNH in hPa
H - Height
I - Pitch in degrees
J - Alpha pitch in degrees

Flight Management Computer (FMC)

A Flight Management Computer (FMC) is a fundamental part of a modern aircraft's avionics. A FMC 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 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) to determine the aircraft's position, the FMC can guide the aircraft's autopilot along the flight plan. From the cockpit, the FMC is normally controlled through a Control Display Unit (CDU) which incorporates a small screen and keyboard. The FMC sends the flight plan for display on the ECAM, autopilot or Multi Function Display.



A - Left selection keys L1 to L6
B - Right selection keys R1 to R6
C - Data output display of the Flight Management Computers
D - Menu button or menu L6
E - Direct various function pages
F - Number pad (Alternatively, use the keyboard)
G - Keypad (Alternatively, use the keyboard)
H - Arrow keys to scroll function within a page

The following feature pages can either be selected through the direct selection (E) or be accessed through the menu.

INIT REF *INIT REF-key*	You can change the ALT CRZ (cruise altitude) to tender to carry out an automatic radio navigation VNAV calculation. Use the keypad to enter data and R1. To calculate VNAV press R6 (CALC VNAV), and then EXEC. You get a precise VNAV calculation to arrive at your destination airport. Also here is a perfect cruising altitude is displayed, and suggested a better altitude. Also displays information about weight and balance of the aircraft.
FMC – ROUTE *Flight Planner* *RTE -Key* *Arrow keys*	To create a flight plan, please use the Microsoft Flight Simulator. Press "ALT". This appears above the menu bar. Click on "Flights" and choose the "flight planner" and create a flight plan. When you press the RTE button then in the FMC, your main route, as specified in the flight plan are displayed. You can use the arrow keys up / down access to other information sites.
DEPARTURE / ARRIVAL *DEP/ARR -Key*	Here you have options for the destination airport. Click on R2, then you can select the desired number. Confirm with L4 or L5 and the press EXEC button to complete the selection. The aircraft will fly with the autopilot the desired WPT.
ATC *ATC- Key*	It displays the current frequency in COM1, 2, Nav 1 and 2, and the current transponder code.
Vnav *VNAV - Key*	Press the VNAV button to go to this site. Use the number keys to IAS and altitude data for any Wegpoint (WPT) Enter. IAS and ALT can also be automatically calculated by the FMC. When you press the EXEC button or R6, VNAV is activated. The data is then transmitted to the autopilot and adjusted the flight path to schedule, including the vertical navigation with the desired heights and speeds. With R6 VNAV can be deactivated again. The data in VNAV can change at any time easily.
FIX *Fix Key*	If you click on Fix button, you can select all waypoints and fly it directly.
LEGS *LEGS - Key*	Here, all waypoints (WPTS be), courses, distances and IAS / height of your flight plan or displayed on the VNAV page
Hold	To circumvent individual waypoints from the flight plan
Comm *COMM- Key*	Here are screen idents, frequencies, and radials, and indicated distances for the two closest VORs and identified, and determines the nearest NDB. By the L1 - L5 and R1 - R5, you can send radio frequencies to NAV1, NAV2 and ADF.

Progress *PROG- Key*	Here are the waypoints WPT value name, height, Time and fuel charge. It is further estimated the fuel to the next WPT WPT based on wind data, length and height variances true airspeed, SAT, and the remaining fuel.
IDENT	It shows some data about the aircraft
POSITION *MENU, L1* *Arrow keys*	Use the arrow keys to scroll through the page. The POS INIT page shows different positions. If you load a flight plan, the reference airport and the nearest airport in width, length, and GPS-POS is displayed. POS REF page displays your current position and speed over ground.
APPROACH *MENU L5*	Weight, wind data, Flapsposition and speeds are considered for the approach
N**AV DATA** *MENU, R1*	From this page, airports and Navaids, data and access to airports, intersections, and NDBs VORs are displayed.
AIRPORT IDENT *MENU L1* *Arrow keys*	To scroll through the Airport ID page, please use the arrow keys. Use the alphanumeric buttons to enter the ICAO airport and press L1. Now you can select with the arrow keys to various parameters. You can select the appropriate frequency, with appropriate radio equipment R1 - R6. The procedures are similar for INT, or VORs NDBs. On another page, you can set the navigation aid.
NEAREST	Display the next five airports, intersections, VORs or NDBs

The Airbus A319neo

In a typical 2-2 seating in business class and 3-3 seating in Economy Class summarizes the A319 cabin 124 passengers. In densest seating 142 passengers can travel with. Since a large order of the airline Easyjet, which demanded a higher number of seats, the A319 will also be built with four emergency exits over the wing, so that is possible in a single-class configuration up to 156 seats. The A319 program was launched in 1993, the first flight took place on 25 August 1995 from Hamburg-Finkenwerder instead. A new Airbus A319-100 will cost approximately officially 52.4 million U.S. dollars, to raise about 275 million U.S. dollars had to Airbus for development.

Technical data Airbus A319 –100

Length	33,84 m
Span	34,1 m
Cabin width	3,96 m
Height	11,76 m
Wing area	122,6 m²
Maximum take-off weight MTOW	75.500 kg
Take off run at MTOW	1.950 m
Cruising speed	840 km/h
Passengers	124 bis 159
Maximum range	3.350 until 6.800 km
Fuel capacity	23.860 l
Doors	4
Emergency exits	normal 2, optional 4
Service ceiling	12.130 m
Fuel consumption	2.600 l
Engines	2 CFM56-5A each 104,5 kN

The Airbus A320neo

In the base model A320 can accommodate 180 maximum passengers. In a typical two-class configuration (2-2 seating in business class and 3-3 seating in Economy Class) will fit 150 passengers in the cabin. The A320 program was launched in 1982, the first flight took place on 22 February 1987 instead. The following year, the aircraft and its approval in March 1988, the first A320 delivered to the French airline Air France.

Technical data Airbus A320 –200

Length	37,57 m
Span	34,1 m
Cabin width	3,96 m
Height	11,76 m
Wing area	122,6 m²
Maximum take-off weight MTOW	77.000 kg
Take off run at MTOW	2.090 m
Cruising speed	840 km/h
Passengers	150 bis 180
Maximum range	5.700 km
Fuel capacity	29.840 l
Doors	4
Emergency exits	4
Service ceiling	12.130 m
Fuel consumption	2. 700 l
Engines	2 CFM56-5A each 118 kN

Der Airbus A321neo

In a typical two-class configuration (2-2 seating in business and 3-3 seating in Economy Class) cabin offers the 186 passengers. Using a narrower single-class seating (continuous 3-3 seating) the aircraft for up to 220 passengers is suitable. So that the A321 is in competition with the larger models of the Boeing-737 airplane family. End of February 2009 Airbus delivered the 500th Machine to Air France. The A321 program was launched in 1989 and the first flight took place in March 1993. In December of that year, the aircraft's registration in Europe.

Technical data Airbus A321 –200:

Length	44,51 m
Span	34,1 m
Cabin width	3,96 m
Height	11,76 m
Wing area	122,6 m²
Maximum take-off weight MTOW	93.500 kg
Take off run at MTOW	2.180 m
Cruising speed	840 km/h
Passengers	185 bis 220
Maximum range	5.700 km
Fuel capacity	29.680 l
Doors	4
Emergency exits	4
Service ceiling	12.130 m
Fuel consumption	2. 900 l
Engines	2 CFM56-5A each 118 kN

The Airbus A330-200

The A330-200 was developed to compete with the Boeing 767-300. The A330-200 is similar to the A340-200 and a shortened version of the A330-300. With the poor sales of the (built of which only 28) A340-200, Airbus decided the fuselage for the A340-200 to use its wings and engines for the A330-300.

Technical data Airbus A330 - 200:

Length	58,37 m
Span	60,30 m
Fuselage width	5,64 m
Tail height	17,8 m
Maximum takeoff weight	238 t
Empty weight	120 t
Cruising speed	880 km/h
Passengers	253 until 404
Flight range	13.350 km
Fuel capacity	139.090 litre or 109.185 kg
Service ceiling	12.500 m
Engine	2 Rolls-Royce Trent 772

The Airbus A330-300

The Airbus A330-300, since 1993 the service was developed as a replacement for the A300. It is based on a stretched A300-600 fuselage but with new wings, stabilizers and fly-by-wire systems. First flight was on 2 November 1992. The A330-300 carries 295 passengers in a three-class configuration (335 in 2 class and 440 in a single class layout) over a range of 10,500 km (5650 nautical miles). It has a large cargo capacity, comparable with the earlier Boeing 747
It is powered by two General Electric CF6-80E, Pratt & Whitney PW4000 or Rolls-Royce Trent 700 engines, all of which are ETOPS-180 min interpreted. The French domestic airline Air Inter was the first customer for the aircraft.

Technical data Airbus A330 - 300:

Length	63,66 m
Span	60,30 m
Fuselage width	5,64 m
Tail height	17,8 m
Maximum takeoff weight	233 t
Empty weight	122 t
Cruising speed	880 km/h
Passengers	253 bis 404
Flight range	10.500 km
Fuel capacity	97.286 litre or 76.370 kg
Service ceiling	12.500 m
Engine	2 Rolls-Royce Trent 768/772

The Airbus A340 -200

The Airbus A340-200 with 261 passengers in a three-class cabin with a range of 7450 nautical miles (13,800 km), or with 239 passengers in a three-class cabin has a range of 8,000 nautical miles (14800 km). The plane was to fly long, thin routes, especially on water. The nearest competitor for this aircraft is the Boeing 767-400. Due to the large wingspan, four engines, low capacity and the improvement in the more advanced A340-300, the -200 was found to be too difficult and unpopular for the airlines. Therefore, only 28 were also produced A340-200.

Technical data Airbus A340 –200

Length	59,40 m
Span	60,30 m
Fuselage width	5,64 m
Tail height	16,80 m
Maximum takeoff weight	257 t
Empty weight	129 t
Cruising speed	880 km/h
Passengers	261 bis 300
Flight range	14.800 km
Service ceiling	12.500 m
Engine	4 CFMI CFM56-5C2

The Airbus A340-300

The Airbus A340-300 flies 295 passengers in a typical three-class layout over 6,700 nautical miles (12,400 km). It is powered by four CFMI CFM56-5C engines, similar to the -200. His closest competitor is the Boeing 777-200.

The Airbus A340-300 is manufactured with 218 machines now in production anymore. The last delivery took place in July 2008. 2008th The Airbus A340-300 would be replaced by the A350.

Technical data Airbus A340 - 300:

Length	63,66 m
Span	60,30 m
Fuselage width	5,64 m
Tail height	16,80 m
Maximum takeoff weight	271 t
Empty weight	129 t
Cruising speed	880 km/h
Passengers	295 bis 335
Flight range	13.350 km
Service ceiling	12.500 m
Engine	4 CFMI CFM56-5C2

The Airbus A340-500

The Airbus A340-500 made its maiden flight on 11 February 2002 and the first delivery was 3 December 2002, Emirates Airline. The A340-500 was up to the introduction of the Boeing 777-200LR passenger aircraft in February 2006 with the widest global reach. The A340-500 can fly 313 passengers in a three-class configuration over 8650 nautical miles (16,020 km), eg is able to travel non-stop from London to Perth. Thai Airways International flies this model to non-stop flights from Bangkok to Los Angeles and New York / JFK.
Compared with the Airbus A340-300, the Airbus A340-500, a 4.3 m fuselage stretch, an enlarged wing area, a huge increase in the fuel tanks (approximately 50% of the A340-300) and it has a slightly higher cruising speed. The A340-500 has a taxi cameras to help the pilots during ground maneuvers. This camera was also installed in the superjumbo A380.

Technical data Airbus A340 - 500:

Length	67,90 m
Span	63,45 m
Fuselage width	5,64 m
Tail height	17,80 m
Maximum takeoff weight	368 t
Empty weight	171 t
Cruising speed	905 km/h
Passengers	313 bis 359
Flight range	16.050 km
Service ceiling	12.500 m
Engine	4 Rolls-Royce Trent 553

The Airbus A340-600

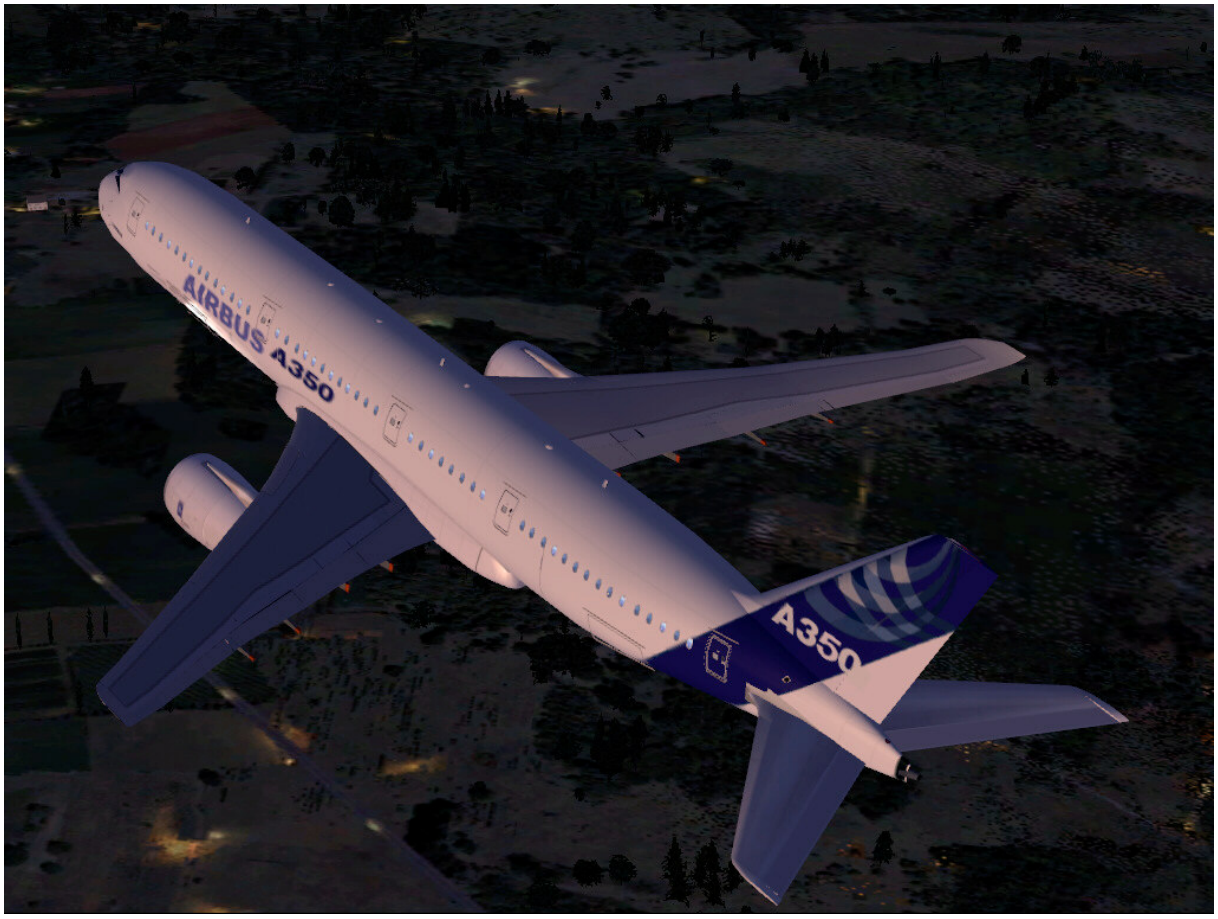
The conception of the Airbus A340-600 as a replacement for the Boeing 747th The four-engine transport plane flies 380 passengers in a three-class configuration (419 in 2 class) over 7,500 nautical miles (13,900 km). It offers similar capacity for the passenger transport such as a Boeing 747, but 25% more cargo volume and at lower trip and seat costs. First flight was on 23 April 2001 and the putting was on Virgin Atlantic in August 2002. The A340-600 more than 10 m longer than the A340 - 300, more than four meters longer than the Boeing 747-400 and 2.3 m longer than the A380. It holds the record for the longest commercial aircraft in the world until February 2010 with the first flight of the Boeing 747-8. The A340-600 is powered by four 56,000 lbf (249 kN) thrust Rolls-Royce Trent 556 turbofans. It has to cope with an additional four-wheel landing gear on the fuselage center line to the increased MTOW.

Technical data Airbus A340 - 600:

Length	75,30 m
Span	63,45 m
Fuselage width	5,64 m
Tail height	17,80 m
Maximum takeoff weight	368 t
Empty weight	178 t
Cruising speed	905 km/h
Passengers	313 bis 359
Flight range	13.900 km
Service ceiling	12.500 m
Engine	4 Rolls-Royce Trent 553

Technical Data Airbus A350

The Airbus A350 has a 3-class seating for 270 passengers and a range of 15,400 km. It competes with the Boeing 787 and will replace the Airbus A330-200.



Length	58,8 m
Span	61,1 m
Fuselage width	5,64 m
Tail height	17,4 m
Wing area	362 m²
Maximum takeoff weight	245.000 kg
Empty weight	124.100 kg
Cruising speed	890 km/h
Passengers	253 (3 class)
Flight range	16.300 km
Engine	2 Rolls-Royce Trent

The Airbus A380

The A380 is the basic version of its first flight on 27 Took place in April 2005. The aircraft is approved for up to 853 passengers and has a maximum takeoff weight of 560 tons with a range of 15,000 kilometers and a service ceiling 13,100 meters. The launch customer of the A380 were Qantas, Emirates, Singapore Airlines, Air France and Lufthansa. The aircraft is added electronic protective measures against the overturning of runways, which for the size and weight of enormous importance. It is also equipped with a modern collision avoidance equipment in the air.

Technical data Airbus A380:

Length	72,30 m
Span	79,80 m
Fuselage width	7,14 m x 8,40 m
Tail height	24,10 m
Wing area	846 m²
Maximum takeoff weight	560 t
Empty weight	275 t
Cruising speed	920 km/h
Passengers	525
Flight range	15.200 km
Fuel capacity	320.000 l
Service ceiling	13.100 m
Engine	4 Rolls-Royce Trent 970

The Airbus A380F

The A380F is the freighter version of Airbus A380 family. The first delivery will take place before 2015, since further development is frozen until at least 2010. Objective of developing it, with a cargo of 158 tons and reach to twelve crew members a range of 10,400 kilometers. The cargo carrier variant were ordered, among others, Emirates, FedEx and UPS Airlines.

Technical data Airbus A380F

Length	72,30 m
Span	79,80 m
Fuselage width	7,14 m x 8,40 m
Tail height	24,10 m
Wing area	846 m²
Maximum takeoff weight	590 t
Empty weight	286 t
Cruising speed	920 km/h
Payload	157,4 t
Passengers	12
Flight range	15.200 km
Fuel capacity	320.000 l
Service ceiling	13.100 m
Engine	4 Rolls-Royce Trent 970

Troubleshooting

Trouble	Suggested solution
The "Airbus" can not show in the menu of FSX or FS2004	Usually there are no problems during installation. Sometimes, however, is of the FSX or FS2004 is not in the Windows registry. Then you must enter the correct directory from the Microsoft Flight Simulator in the installation manual. Enter only the root directory of FSX or FS2004 on. Never in the subfolders, e.g. the "Aircraft" folder. See also chapter: „**Installation FS2004 / FSX**“
The " Airbus" can not still show.	The downloads are there as FSX and FS2004 version as. Never use the FS2004 version in the FSX install or vice versa. Have you downloaded the correct version?
Black model in FSX	Please turn off the DX10 preview and lighting in FSX. See the previous page!
Black mirror	Please see "ALT" key => options => settings => display => aircraft to check for "Reflections" set
The FSX jerky	Please with this free tool to improve your FSX. Then the FSX will never jerky again. http://www.venetubo.com/fsx.html
ATC ID is black	Please check the ATC - ID code was entered correctly
Cockpit set to close	Zoom in the virtual cockpit and external model with key "+" and "-" (no numeric keypad, but in block letters) Virtual cockpit, zoom size recommendation: Factor 0,40.

Right