

Airbus

A330/A340

Family



AFS-design
Andreas Meyer

With the Airbus A330/A340 – family are the six large-capacity aircrafts:

- AIRBUS A330 - 200
- AIRBUS A330 - 300
- AIRBUS A340 - 200
- AIRBUS A340 - 300
- AIRBUS A340 - 500
- AIRBUS A340 - 600

from the European aircraft manufacturer Airbus called.

The Airbus A330-X00 is a twin-engined wide-bodied Airbus A340-X00 and is a four-engined wide-body aircraft produced by Airbus Industries. Both models have many features and components, and differ essentially only by the number of engines. They are designed as long-haul aircraft. Both aircraft have modern turbofan engines with high bypass ratio and are the first aircraft with a modern fly-by-wire controls in a two-man cockpit. The first flight of the four-engine A340-300 version took place on 25 October 1991 and the twin-engine A330-300 version took place on 2 November 1992. Final assembly of the Airbus A330 and A340 being held in Toulouse on an assembly line. As of July 2010 were from the Airbus A330-X00 total of 710 of 1092 aircraft ordered and delivered from the Airbus A340-X00 delivered a total of 374 of 380 of the aircraft ordered, 369 of which are still in service are.



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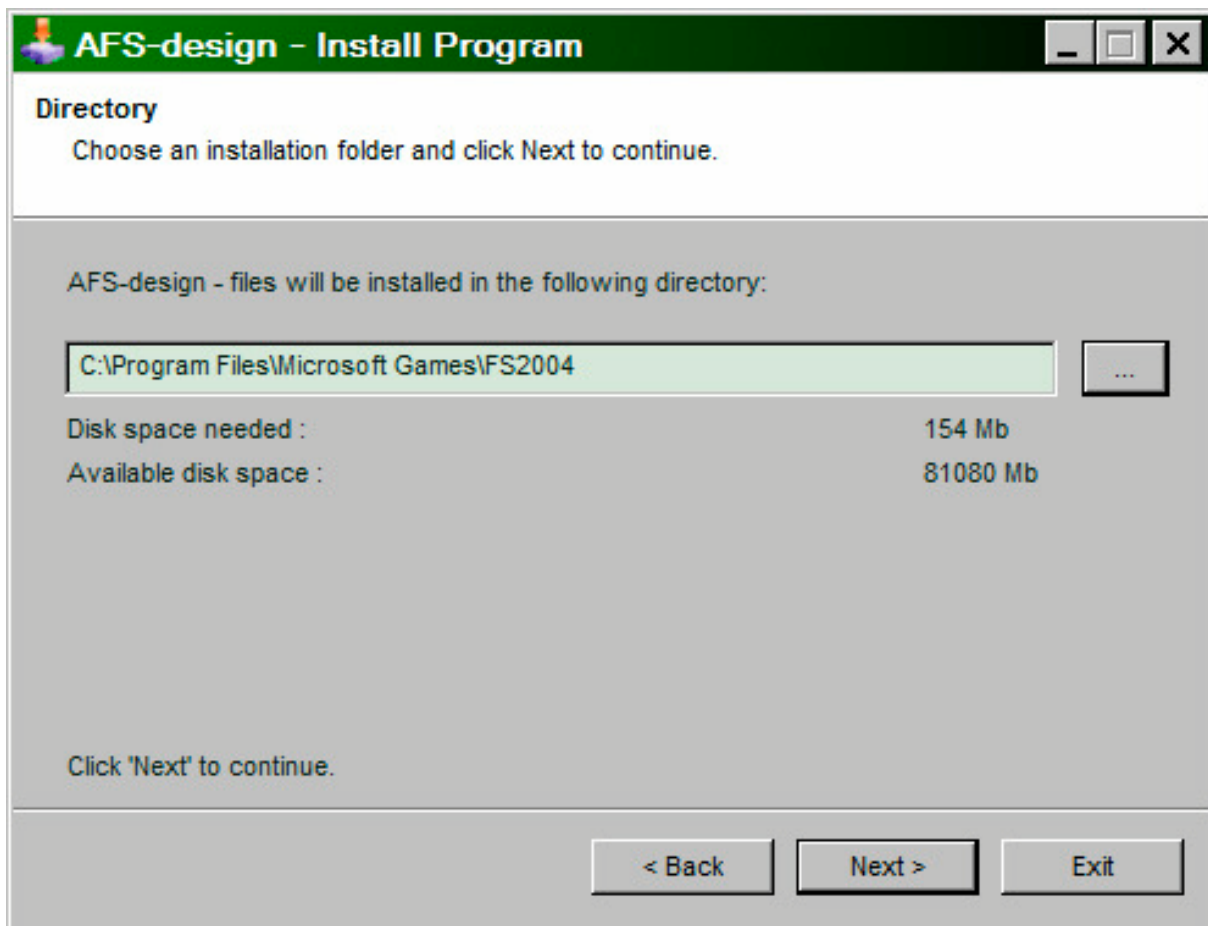
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System

System:	Windows 98 SE / Me / 2000 / XP or Vista
FS VERSION:	FSX (assisted SP1, SP2, Acceleration Pack) and FS2004
Filesize:	51 MB
Filesize hard drive:	4,8 GB
INSTALLATION:	EXE. file
PUBLISHER:	AFS-design
HOMEPAGE:	http://www.afs-design.de
SUPPORT mailto:	info@afs-design.de

Installation for FS2004

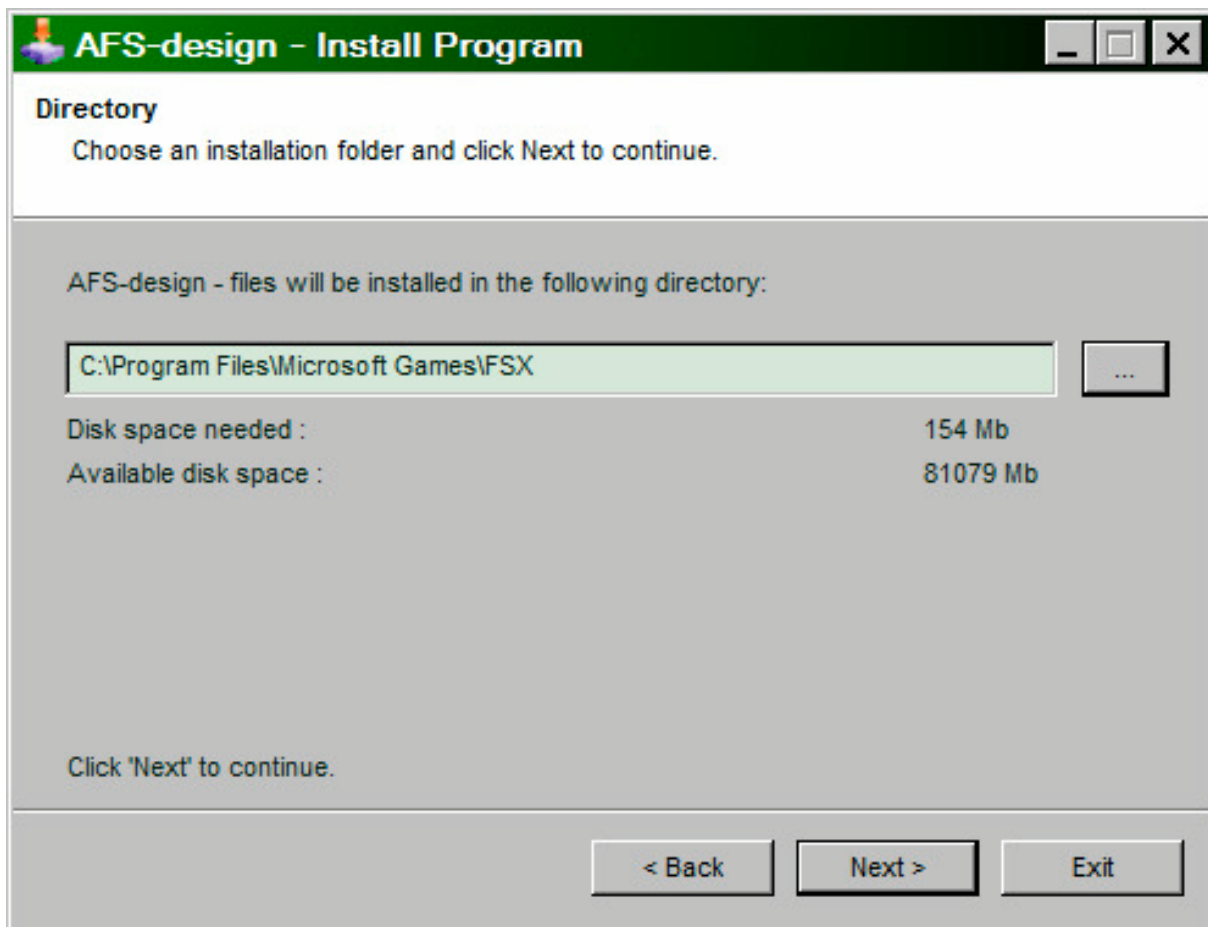
1. For FS2004 download the „AFS-____-FS9.exe“ to a temporary directory of your choice.
2. Please start the „AFS-____-FS9.exe“ and install.



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.

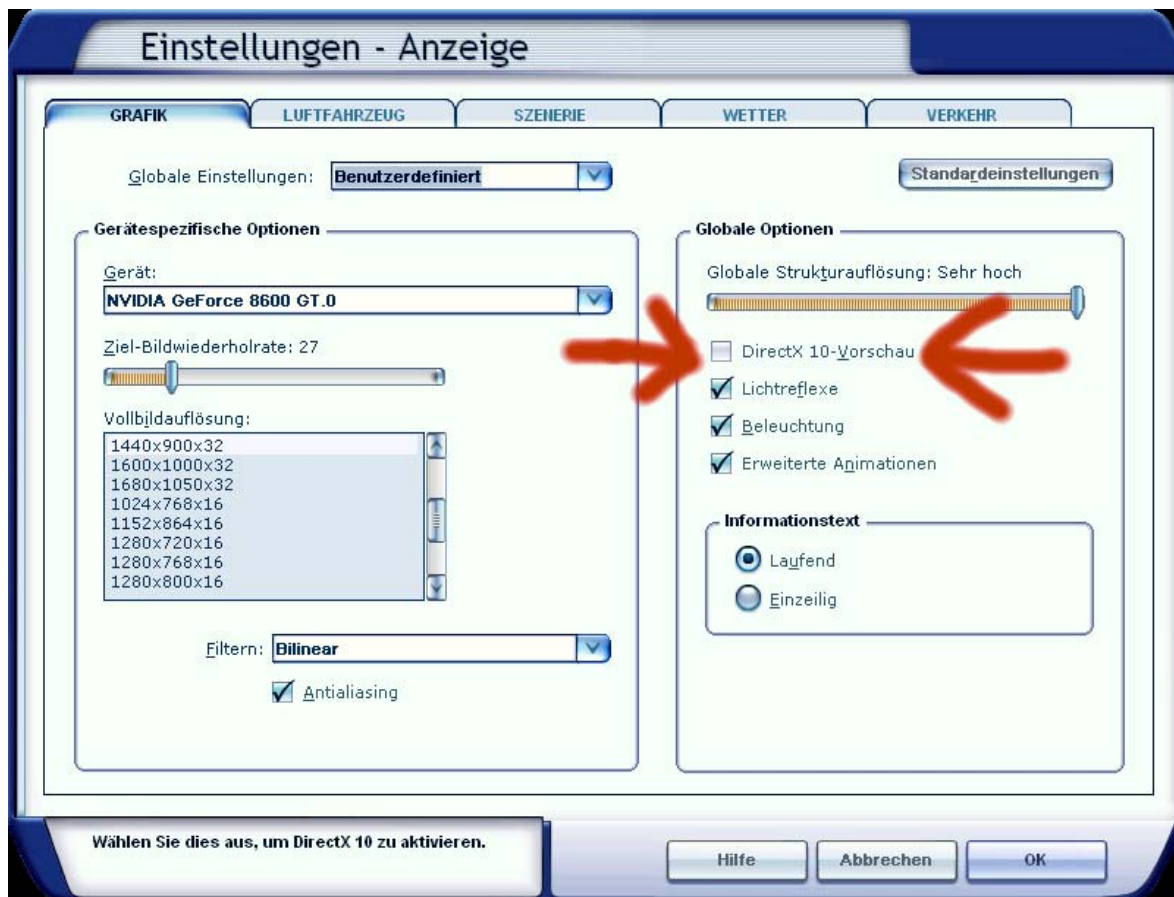


3. Set in ... the main directory from FSX, when not automatic choice.
4. Than start the Flight Simulator

Problem with DirectX

This program 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“ select a Airbus A320 Family model.

The following models are available:

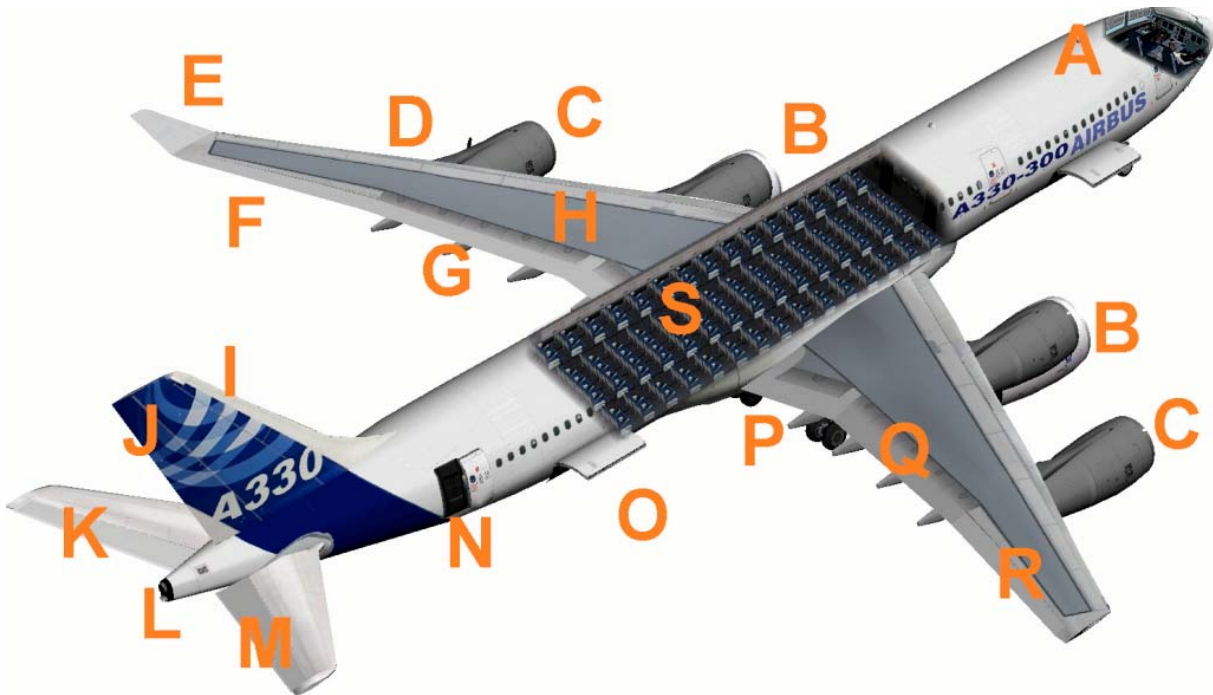
- AIRBUS A330 - 200
- AIRBUS A330 - 300
- AIRBUS A330 with Cabin interior model
- AIRBUS A340 - 200
- AIRBUS A340 - 300
- AIRBUS A340 - 500
- AIRBUS A340 - 600

These are equipped with a variety of liveries:

Industrie House	A330 - 200	- 300	A340 - 200	- 300	- 500	- 600
AIR BERLIN	A330	- 300	A340	- 300		
Lufthansa	A330	- 300	A340	- 300	- 500	- 600
SWISS	A330	- 300	A340 - 200	- 300	- 500	- 600
Air France	A330 - 200		A340 - 200		- 500	- 600
Grundlack	A330 - 200		A340 - 200			
LAN Airlines	A330	- 300	A340	- 300		
United Airlines	A330 - 200		A340 - 200			
US Airways	A330	- 300	A340	- 300		
China Airlines	A330	- 300	A340	- 300		
British Airways	A330 - 200		A340 - 200		- 500	- 600
Qantas	A330	- 300	A340	- 300	- 500	- 600
Emirates Airline	A330	- 300	A340	- 300	- 500	- 600
Virgin Atlantic	A330	- 300	A340	- 300	- 500	- 600
Korean Air	A330 - 200		A340 - 200			
Malaysia	A330 - 200		A340 - 200			
Quatar Airways	A330 - 200		A340 - 200			
Thai - Thailand	A330 - 200	- 300	A340 - 200	- 300	- 500	- 600
Singapore	A330 - 200		A340 - 200			
Air Canada	A330 - 200		A340 - 200		- 500	- 600
Repaint Texture	A330 - 200	- 300	A340 - 200	- 300	- 500	- 600

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 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 virtual cockpit with the friendly co - pilot



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

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

Autopilot



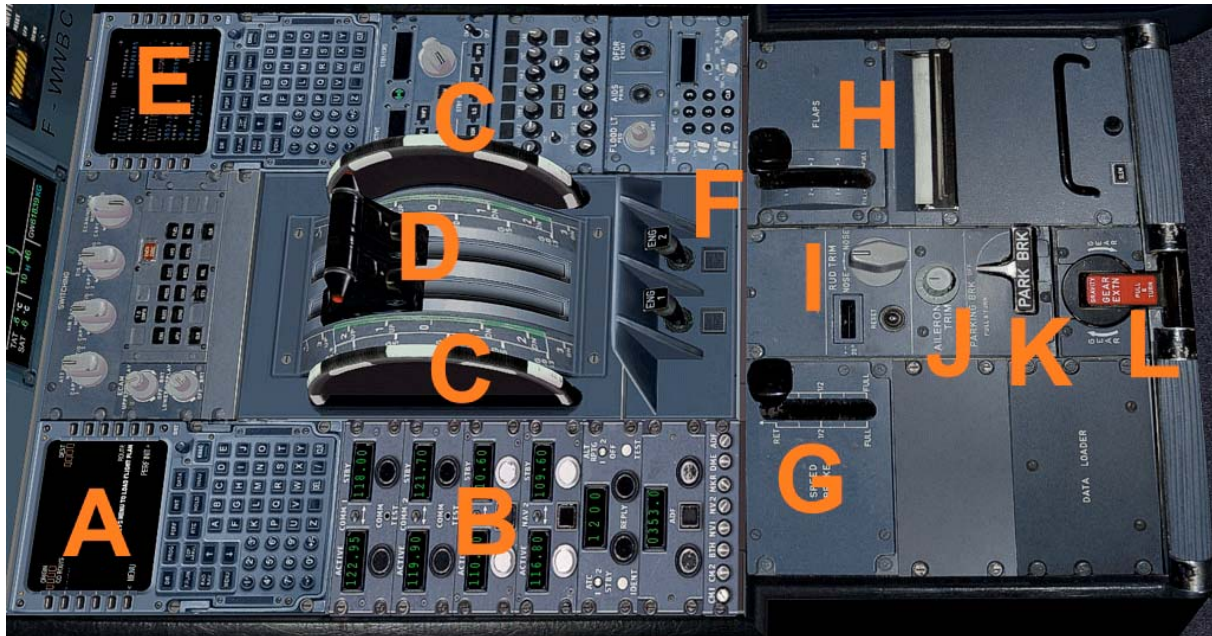
- A - ATC and GPS call in extra window
- B - Kneeboard with detailed checklists of the A320 family
- C - QNH input to the altimeter calibration
- D - Flight Director On / Off and ILS On / Off
- E - NAV and Mach switch
- F - Activation speed and vertical speed
- G - Speed in knots and heading data
- H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

Center console



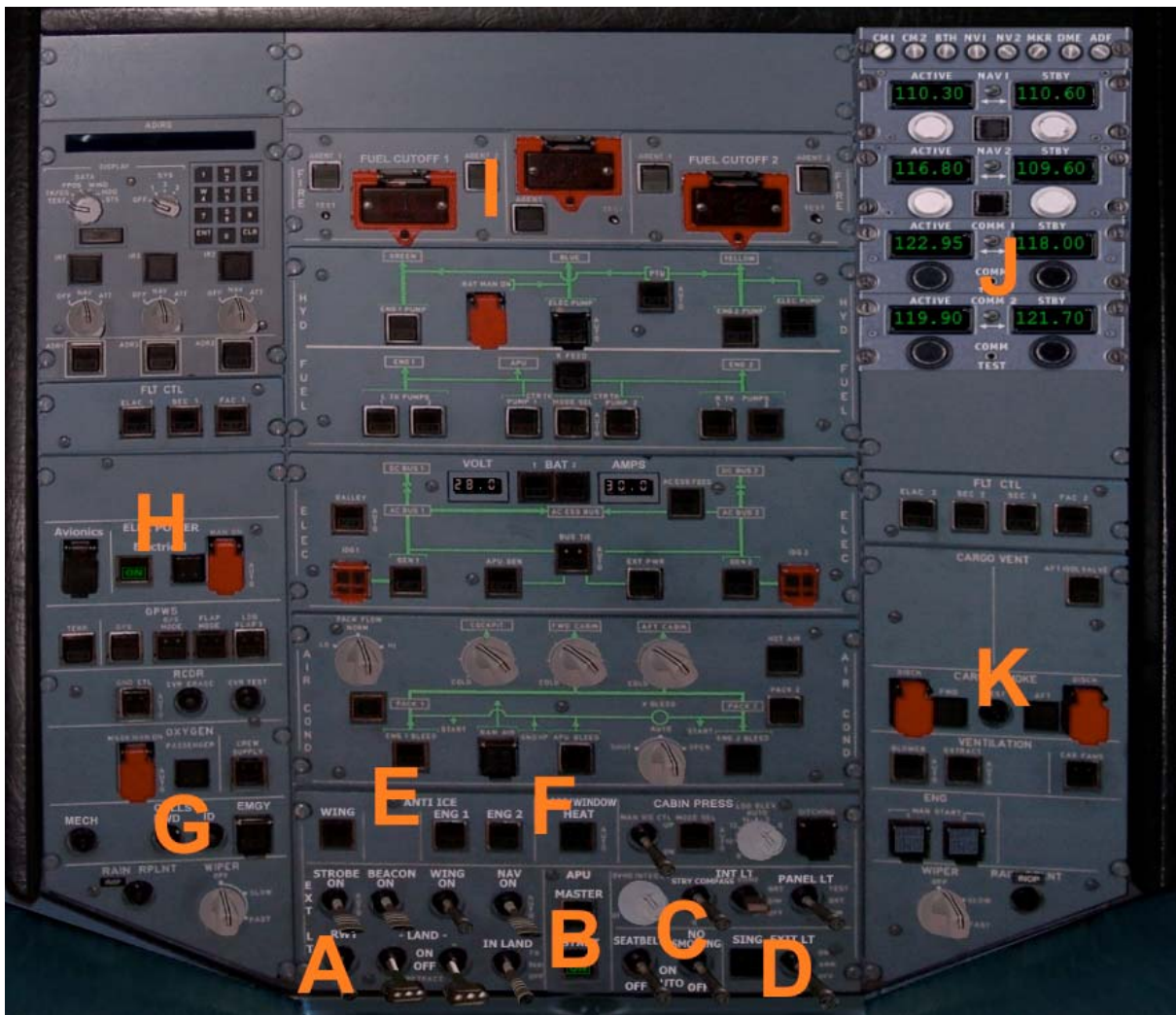
- A - Primärflighdisplay 2
- B - Mode switches for multi-function display
- C - Navigation button Nav / GPS
- D - ECAM display a change
- E - ECAM display two alternate
- F - Radio compass with two needles (RMI half and DME 1 / 2)
- G - Clock UTC / Local Time / Stopwatch
- H - ECAM display a
- I - ECAM 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

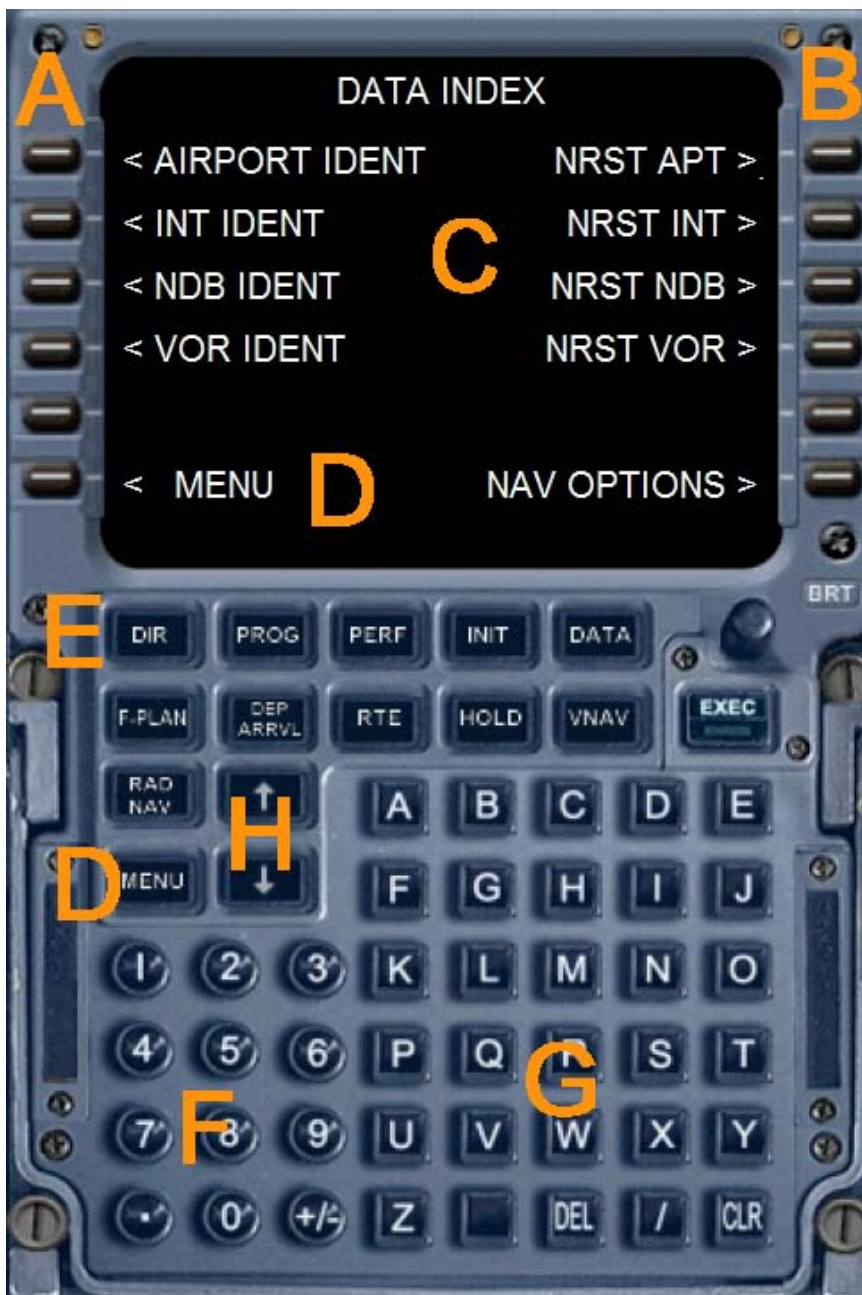


- A - Switch for Beacon-, Strobes-, Nav-, Landing- and Taxi- lights
- B - Master master switch with indicator light
- C - Higher: Switch for internal illumination, Panel lights
- C - Below: "Seatbelt" and "No Smoking" switch
- D - Exit switch
- E – Anti ice switch
- F – Pitoheat switch
- G - Call signs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

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 <i>INIT REF-key</i>	<p>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.</p>
FMC – ROUTE <i>Flight Planner</i> <i>RTE -Key</i> <i>Arrow keys</i>	<p>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.</p>
DEPARTURE / ARRIVAL <i>DEP/ARR -Key</i>	<p>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.</p>
ATC <i>ATC- Key</i>	<p>It displays the current frequency in COM1, 2, Nav 1 and 2, and the current transponder code.</p>
Vnav <i>VNAV - Key</i>	<p>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.</p>
FIX <i>Fix Key</i>	<p>If you click on Fix button, you can select all waypoints and fly it directly.</p>
LEGS <i>LEGS - Key</i>	<p>Here, all waypoints (WPTS be), courses, distances and IAS / height of your flight plan or displayed on the VNAV page</p>
Hold	<p>To circumvent individual waypoints from the flight plan</p>
Comm <i>COMM- Key</i>	<p>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.</p>

Progress <i>PROG- Key</i>	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 <i>MENU, L1</i> <i>Arrow keys</i>	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 <i>MENU L5</i>	Weight, wind data, Flapsposition and speeds are considered for the approach
NAV DATA <i>MENU, R1</i>	From this page, airports and Nav aids, data and access to airports, intersections, and NDBs VORs are displayed.
AIRPORT IDENT <i>MENU L1</i> <i>Arrow keys</i>	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 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

Right

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This product is a Add-On for the Microsoft Flight Simulator. It is build with FSDesign Studio 3, PHP and XML. Please use a licenceversion of the Flight Simulator only.

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