The Luxury Aircraft Collection

AVANTI II

Fly different !

Dream car included !

Flight Simulator X & 2004 add-on

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Wilco Publishing

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Manual
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THANK YOU.

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WELCOME ABOARD

1. WELCOME ABOARD

A. INSTALLATION

Installation is automatic. Insert the CD (or double-click on the downloaded file) and Autorun will take you to the start-up screen. If Autorun is disabled on your system, open Windows Explorer or My Computer, browse to your CD Rom drive and double click “Avanti_FSx_vx.exe” (where x are your versions).

Once setup is running, follow the on-screen prompts and ensure that the installation points directly to the Microsoft Flight Simulator folder (usually C:\Program Files\Microsoft Games\FlightSimulator...).

MICROSOFT FLIGHT SIMULATOR X SERVICE PACKS 1 AND 2 ARE REQUIRED (freely available from www.fsinsider.com - Downloads)

CHECK OUT WILCO PUBLISHING WEBSITE :

http://www.wilcopub.com

YOU WILL FIND INFORMATION, NEWS, AND FREQUENTLY ASKED QUESTIONS.

B. EXTRA (for CD-Rom version only)

We have included a full set of files and videos on your CD-Rom. Use your Windows Explorer to locate them into the EXTRA WILCO directory.

To fully enjoy the 3D Virtual Cockpit, tracking movement systems let you control your field of view in flight simulators by simply looking around by few degrees.

We recommend the following systems :
Hat Track (VRinsight)
Track IR (Natural Point)

Both are available from Wilco Publishing http://www.wilcopub.com.

C. QUICK START

1. To Pilot the aircraft

1. Start Flight Simulator
2. From the menus, select AIRCRAFT
3. Choose manufacturer : Piaggio
4. Select the Aircraft and its livery

2. Engines Start Up

Use CTRL+E to start the engines.

To start up engines from a 'Cold & Dark Cockpit', please refer to the next pages for complete procedures.

1. To Pilot the Dream Car

1. Start Flight Simulator
2. From the menus, select AIRCRAFT
3. Choose manufacturer : Ferrari
4. Select the Aircraft and its livery

D. 2D & 3D COCKPITS

2D Panel Views

The following 2D panels are available using the following key combinations :

SHIFT+1 = Pilot Panel
SHIFT+2 = FMC
SHIFT+3 = Throttle Panel
SHIFT+4 = Switch Panel
SHIFT+5 = PFD Popup
SHIFT+6 = MFD Popup
SHIFT+7 = Landing Panel

3D Virtual Cockpit Views

Display the different Cockpit views using the normal Flight Simulator keystroke, “S” under FS 2004 and “A” under FS X. All controls found on the main 2D panels are functional within the virtual cockpit.

Mouse clicking on some specific screens open a 2D window : FMS, EADI...

WELCOME ABOARD

E. CABIN & DOORS

The Cabin

Under Flight Simulator 2004, to move and walk inside the cabin, we have included a utility on the CD-Rom (directory : EXTRA / F1View), also available from our website. This utility is kindly offered by Flight 1.
This module requires a wheel-mouse (a center wheel that also acts as a center mouse button).

Virtual Cockpit (FS 2004)

- Wheel forward moves you forward and wheel backward moves you back.
- CTRL+forward moves right and CTRL + backward moves left.
- SHIFT+forward moves up and SHIFT + backward moves down.
- CTRL+SHIFT+forward zooms out and CTRL+SHIFT+backward zooms in.

While in **Pan Mode** (mouse wheel pressed and held down) inside the Virtual Cockpit :

- Mouse to the left rotates view to the left.
- Mouse to the right rotates iew to the right.
- Moving the mouse forward, away from the user, rotates the view up.
- Moving the mouse backward, towards the user, rotates the view down.

Under Flight Simulator X, this utility is not needed as you can access the cabin view through a right-click sub-menu option.
Under Virtual Cockpit mode, press SPACE to switch. Your mouse serves as zoom in/out while in pan mode.

The Aircraft Doors

To open the external doors :
SHIFT + E for the passengers door.
SHIFT + E + 2 for the cargo doors.
SHIFT + E + 3 for the engine doors.
SHIFT + E + 4 to operate the sunshades from the exterior view.

The Car Doors

To open the doors :
SHIFT + E for the driver's door.
SHIFT + E + 2 for the passenger door.
SHIFT + E + 3 for the engine door.
SHIFT + E + 4 to open/close the windows.

F. SECURITY

To toggle the pre-flight security flags and chocks in the exterior view, please use the "security" switch on the centre console, aft of the FMC. We recommend to do that engines OFF, Parking Brakes ON.

How to setup Flight Simulator X under Windows VISTA ?

* Go into program files\microsoft games\
* Highlight Flight Simulator X folder and right-click on it
* Select the SECURITY tab
* Click on your username (not on Administrator 1)
* Click on the 'edit' option (it should have a pic of a shield on the button with edit next to it)
* Then you should be prompted by Vista security module, click on 'ALLOW'
* Then tick the 'Full Control' box and press 'OK'
* Installation of the add-on can now start.

Make sure to run the installation of the add-on and of Flight Simulator with full Administrator rights by right-clicking on the application file and selecting the "As Administrator" feature.
At the first add-on installation, make sure to accept the DLL Warning after the aircraft selection.

INTRODUCTION

2. INTRODUCTION

A) INTRODUCTION

The original P180 design was a collaboration with Learjet to develop a high speed turboprop executive aircraft that would be fast yet economical to operate, given the problems associated with fuel availability and cost.

The partnership lasted three years but ended in 1986 in with Piaggio continuing development on its own.

The prototype Piaggio P180 flew on 23 September 1986 and U.S. and Italian certification was obtained on 7 March 1990. It was not until an injection of capital from investors headed up by Ferrari in 1998 that real progress was made on the road to production.

The 100th. P180 was delivered to its customer in October 2005 and a further 50 airframes were produced over the following three years.

In November 2005 an improved version named Avanti II, obtained European and U.S. certification and six months later, 70 planes were already ordered, including 36 by Avantair.

The Avanti II improvements included uprated Pratt & Whitney Canada PT6 turboprop engines giving performance improvements, an all-new "Glass cockpit installation provides advanced avionics, real time weather radar and graphic depiction and collision avoidance systems.

The Avanti's turboprop engines are positioned well aft and are housed in nacelles mounted in a high-aspect ratio wing located behind the cabin. This design provides for uninterrupted room in the cabin and distinct sound deadening advantages. Compact, multi-blade "pusher" props are more efficient than standard propellers.

The advanced wing design although very short in cord, combines with forward winglets in a "canard" style configuration, with automatic "flaps" on the trailing edges that operate with the main flaps to produce maximum lift. Laminar flow reduces drag by up to 50% with the advanced airfoil shapes. As a result of advanced design techniques, the wing is 34% smaller than that of a conventional aircraft of similar dimensions and performance.

A "t" tail configuration counteracts the nose-down tendencies exhibited by a centre of gravity that is well forward of the centre of lift..

The design of the cabin is in itself a from of airfoil section and according to Piaggio, actually contributes to the lift qualities of the airframe by as much as 20%.

B) SPECIFICATIONS

Crew: one or two pilots
Capacity: up to nine passengers
Cabin dimensions: 1.75 m (5 ft 9 in) high, 1.85 m (6 ft 1 in) wide, 4.45 m (14 ft 7 in) long
Payload : 907 kg (2,000 lb)
Length: 14.41 m (47 ft 3½ in)
Wingspan: 14.03 m (46 ft 0½ in)
Height: 3.97 m (13 ft 0¾ in)
Wing area: 16 m^2 (172.2 ft^2)
Empty weight: 7,800 lb
Useful load: 1 4,350 lb
Maximum takeoff weight: 12,150 lb
Powerplants : 2×P26A-66B Turboprops, 634 kW (850 shp) each
Propellers: 2×Hartzell 5-blade 85" dia.

PERFORMANCES

Maximum speed : 732 km/h (395 kn, 455 mph)
Max. Cruise speed: 357 kn at 39,000 ft.
Range: 2,592 km (1,400 nmi, 1,612 mi) at

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INTRODUCTION

11,900 m (39,000 ft) with reserves
Service ceiling: 12,500 m (41,000 ft)
Rate of climb: 14.98 m/s (2,950 ft/min)
Wing loading: 327 kg/m² (67.1 lb/ft²)

C) WALKAROUND

Approaching the AvantII from the front, the first items to notice are the forward "winglets" Not strictly "canards" they have no control surface but do have integrated "flaps" on the trailing edges which operate in tandem with the main wing flaps. You will notice that they also have reverse dihedral to counteract stall characteristics of such a system.

The nose wheel is fully steerable and retracts into its well and is completely covered by the gear doors which, like all moveable parts of the fuselage, are a flush fit.

Immediately forward of the nose gear is a retractable housing that carries the landing lamp arrays. This is operated from the cockpit when the landing lamps are selected down.

Several pitot probes populate the nose and feed the vast array of high tech instrumentation to be found in the cockpit.

Moving down the left or port side of the fuselage, the main entrance door is split into to sections. The upper segment opens outward as per a "normal" door while the base segment drops downward to form a boarding step arrangement. This obviates the need for any kind of separate boarding ladder or steps.

Again, the doors fold to a flush fit in the aerodynamically shaped fuselage. Even the handle is recessed into a special housing.
The windows allow for maximum uninterrupted viewing and the wing mounted well-aft means that nothing gets in the way!
The shape of the fuselage is apparent as one moves further aft. Its subtle airfoil section blending perfectly into the pointed tail, where one finds "Learjet" style fins to counter stall.

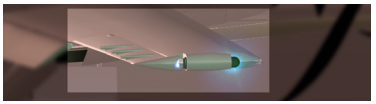
The wings are extremely advanced pieces of engineering and apart from being very thin are also narrow resulting in an elegant shape. The leading edges of the wings contain heated sections for de-icing. Such is the technology of the paint systems in this remarkable aeroplane that no further de-icing boot is required. The paint handles any heat generated.

Fowler style flaps extend outward and

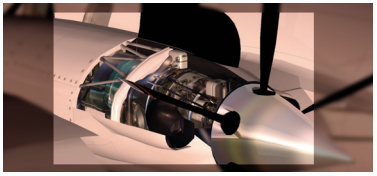
INTRODUCTION

downward using screw jacks (look closely and you will see these operating) housed in streamlined “pods” at the rear of each wing. Lowered to full extension these flaps allow the AvantiII to take full advantage of small airfields with short strips. So, in real terms, there is no need for operators to build in larger airports and fields into their flight planning. Smaller, conventional inner flaps operate in tandem to maximize the lift of the wings.

The advanced ailerons have distinctive balance horns at the ends which house navigation lamps.



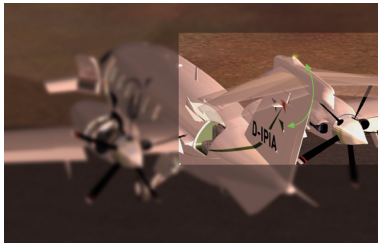
Each nacelle houses a powerful Pratt and Whitney PT6 Turboprop engine. Uniquely, the engine is mounted in “pusher-prop” configuration. The leading edges of the intake mouths are fitted with de-icing boots which automatically inflate to disperse the ice quickly. Props require no de-icing equipment as they live constantly in the hot exhaust gasses produced by the engines. Access panels fitted to the nacelles allow for instant and easy-access servicing of the engines and equipment. The port nacelle hatch on this simulation can be lifted to reveal a detailed engine beneath!



Moving back to the fuselage, the main gear doors are split. The forward door remains open when the gear is lowered but the aft door retracts once the gear is clear, to retain aerodynamic efficiency and reduce buffeting. The gear itself is quite complex and rotates up and down in a distinctive manner, finishing up inside the airframe at a 90 degree angle. This system is often seen on high performance jet fighters. And is designed to conserve space.

As a result, two large luggage lockers are available behind lockable hatches which incorporate the trailing edges of the wingroots. This gives the Avanti II a cargo capacity of 44 cubic feet. A lot more than an executive overnight bag!

The big tail section is of “T” configuration with a large elevator carried on a movable horizontal. The horizontal can rotate up and down by degrees, to provide trim to the airframe when in flight.



The rudder is conventional and carries a trim tab.

Moving inside the aeroplane we now head for that technically advanced cockpit!

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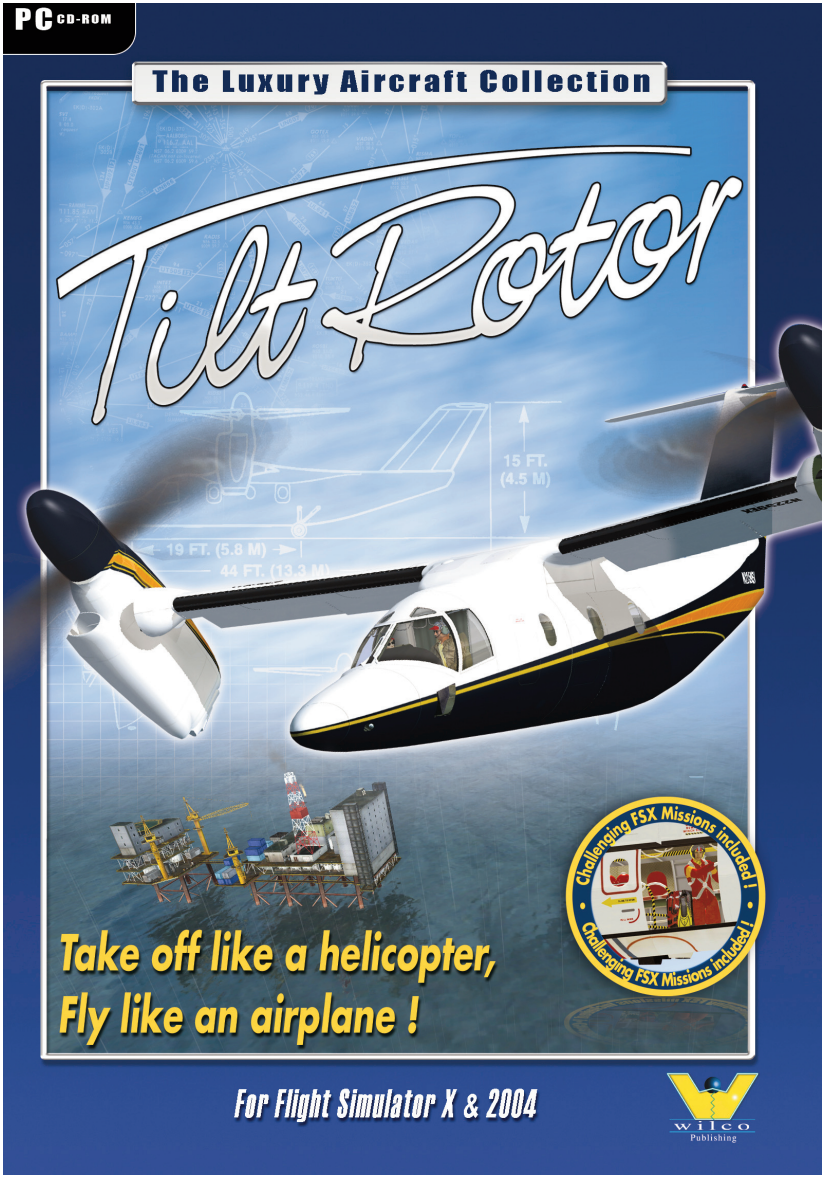
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COCKPIT GUIDE

3) COCKPIT GUIDE

Seated in the pilot's seat, immediately ahead is the main panel. When the Avanti was updated to II configuration a full suite of Collins Pro Line 21 Glass cockpit avionics was incorporated as an option. We have simulated such an array for you flying pleasure! (Turn to the end of this chapter for a short guide on operating the displays) All switches, knobs and buttons in here are clickable, many have realistic function. Go right ahead and explore!

1) Digital chronometer
2) PFD with all flying display instruments available in one eay to use screen.
3) Pilot's Control bank for arrays
4) Centrally mounted MFD with displays for maps, engine management, real-time weather radar and much more. (a separate guide is available for the "glass-cockpit" arrays, elsewhere in this manual)
5) Multiple annunciator panel
6) Coms and Nav radio station
7) Co-pilot's control bank for arrays
8) Co-pilot's PFD
9) Digital chronometer.

Immediately above these instruments are ranged from left:
10) Master warning lights
11) Central control panel for map display and radars
12) Back-up AHI gauge
13) Co-pilot's master warning lights

Above the main panel and centrally mounted is the main Autopilot panel 14)

Above and centrally mounted on the windscreen pillar is the Gyro compass. 15)
Immediately below the main panel, from left to right are :

16) Audio control panel
17) Cabin heating/cooling panel
18) Central switch panel for Hydraulics, Gear operation, De-icing equipment and systems test.
19) Cabin Pressurization control panel
20) Co-pilot's Heating and cooling panel
21) Co=pilot's Audio control panel

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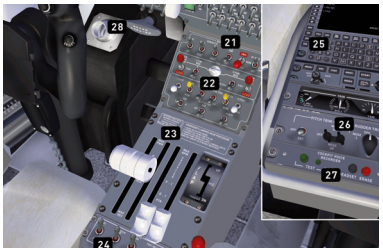

A centrally mounted console contains:
21) Master Battery Switch, Generator, Avionics switches
22) Switches for fuel management and starting.
23) Engine management pedestal, containing throttles, condition levers and controls for flap operation.
24) Nav and recognition lighting control panel
25) Fully featured FMS
26) Flight trim indicator panel and controls
27) Cockpit voice recorder control panel.

Immediately to the left of the centre console and below the main panel is the ParkBrake lever. 28)

Each pilots' yoke is fitted with intercom and microphone controls, nose steering "joystick hat" (pilot station only) and various sync buttons.

Two sunscreens are fitted with controls for positioning.

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COCKPIT GUIDE

‘Glass Cockpit’ ARRAYS

There are basically three main displays to understand here:

1) Pilot and co-pilot’s PFD (Primary Flight Display)
2) Central EICAS (Engine Instrument and Crew Alert System)
3) FMC (Flight Management Computer)

PFD

This screen displays the most important information for flying, which is why it is called the Primary Flight Display. The top part shows the AHI (Artificial Horizon Indicator) 1, with the Flight Mode annunciator (FMA) on the top 2, which displays the autopilot modes, the AIRSPEED is on the left 3 and the ALTITUDE on the right 4.
The bottom part shows the HIS (horizontal situation indicator) with the current heading 5, and the VOR1/VOR2/ADF needles 6. On the left and right you can see the selected VOR1/VOR2/ADF station with its name and distance when available7. On the bottom part, you can read the Ground Speed (GS) 8, the UTC time 9 and the True Airspeed (TAS) 10.

By clicking the centre of this screen (and the centre of the MFD screen) you can bring up a separate zoomed version to position in your screen for reference.

MFD

This screen has 2 main functions: Navigation Display (ND) and Engine Information Display. In ND mode, the current flight plan is shown in arc or rose mode, with the heading, distance and ETA (estimated time of arrival) to the next waypoint 1. On the top part, you can also read the current heading and course for the VOR1/ILS 2. On the bottom part, you can read the GS and TAS like on the PFD 3, and also the SAT (Satured Air Temperature) 4. and TAT (Total Air Temperature) 5.

You can click on the FORMAT button (top right button) 6. to change the format of the ND: arc, rose or plan.

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The arc mode displays what is in front of the aircraft while the rose mode displays all around the aircraft.
The plan mode is different because it is always north-oriented and centered on the waypoint that is first displayed on the FMC flight plan page. The plan mode is useful to scroll around your flight plan and see how it looks.
The ND range can be adjusted with the RANGE knob, on the left of the MFD 7. The weather radar image can also be shown on the ND view by pressing the RADAR button (on the control panel): press once to turn it on in "test" mode, press it again to make it active 8.

Pressing the ENG button (below the FORMAT button) 9. displays the engine information screen which displays the engine information: TQ is torque, ITT is inter-turbine temperature. You also have information about oil (temperature and quantity), fuel flow, Hydraulics fluid (pressure and quantity) and fuel quantity.

FMC

The CDU (Control Display Unit) is the display unit of the FMC (Flight Management Computer). The CDU has several pages:

1) MENU page: direct access to other pages + ability to import a Flight Simulator flight plan. The FS flight plan must be created or loaded into the flight planner first, then it can be imported in the FMC using this option.

2) STATUS page: shows the status of the navigation database (AIRAC) with its activity period, and the current date and time.

3) POS INIT: Useful to set the initial position of the FMC positioning system. You can use the stored FMS position or the current GPS position. Click on one of them to fill the scratchpad and press the the RSK5 (5th right button) labelled SET POS to enter the position.
You can also enter an airport ICAO code on LSK3 to take this airport position as a reference.

4) FPLN page: First enter the departure and arrival airport ICAO codes. When this is done, the total flight plan distance appears. You can enter a flight number on LSK4 if you wish. Then you can press RSK6 to access the LEGS page.

5) LEGS page: It shows the legs of your route. It initially shows only the departure and arrival airports. You can insert as many waypoints as you wish by entering their name in the scratchpad and click on the LSK that corresponds to the waypoint before which you want to insert the waypoint.
If several waypoints correspond to the name you have chosen, the DUPLICATES page appears to let you select the one you want.
Each time you insert a waypoint, the flight plan is recomputed and the heading and distance between waypoints is displayed on the FPLN page.

If the flight plan is to be displayed on several pages, use the PREV and NEXT buttons to scroll up and down.

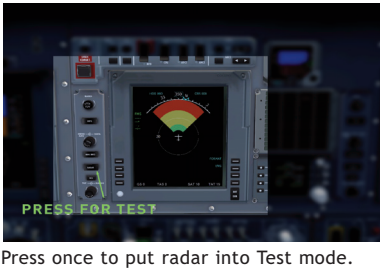
6) DEP APP page: You can press the DEP ARR button to access this page. It lets you select the departure and arrival runways and procedures (SID/STAR).

SETTING THE CURRENT POSITION ON THE FMS

To set the current position on the POS INIT page, you can get the GPS position by clicking LSK2. The GPS position comes in the scratchpad, and pressing RSK5 lets you set it as the current position. You can also enter it manually using the format: XX XX.XXA/YY YY.YYB where XX XX.XX is the latitude (A is N or S) and YY YY.YY is the longitude (B is E or W).
For example, to enter 43°25.10N/01°22.15W, enter 43 25.10N/01 22.15W in the scratchpad and press RSK5.

WEATHER RADAR

To activate the radar display, use the button on the Pilot's control panel marked "Radar".



Press once to put radar into Test mode.

Press again to activate the radar screen and press a third time to close the radar screen.
The Weather Radar covers a range from 20 to 80 NM. Therefore, the ND mode must be set higher than 10 NM.

NAV/GPS FLIGHT PLAN

After loading a flight plan, the NAV/GPS button is inoperative and the aircraft can not fly the flight plan.
Indeed, there is a function that blocks the GPS guidance mode, otherwise it would conflict the FMS guidance mode.

In order to fly a GPS flight plan, load the flight plan in FSX and activate the "IMPORT FPLN" function on the MENU page.

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FLYING THE AVANTI

4) FLYING THE AVANTI

A. OVERVIEW

Some points worth mentioning before we get going.

First thing to remember is that you are flying a turboprop, not a jet. It is easy to forget when the engines and props are way out of sight! Unlike many conventional turboprops the AvantiII uses just two levers per engine to control major functions. The "throttles" control engine power settings and lift and pull aft for reverse thrust on the props. A second lever controls fuel shutoff for engine start and stop, selects the idle speed and controls propeller RPM.

The fuel pumps, ignition and start switches are mounted in a panel on the console, ahead of the engine controls.

As mentioned earlier, nosewheel steering is available via the pedals but controlled by a hat switch on the pilot's yoke, for taxi or runway operation. Pressing the hatswitch will activate (or-de-activate) the nose-steering, much like locking and unlocking a tailwheel in a conventional "tail-dragger".

All engine management, navigation and situational awareness is recorded and displayed on the screens in fron of you. Thoroughly familiarize yourself with the operation of these displays before you attempt to fly!

The Avanti II is a fast , thoroughly modern aeroplane that is easy to fly once the systems are mastered. Runway speeds are high for a turboprop and well in excess of 100 knots indicated will be seen before the nose will begin to lift. Although very efficient, that thin wing needs a lot of thrust to generate lift!
No yaw damper is necessary thanks to the tail fins and the Avanti II is a sweet tempered flying machine in all axis and stall is benign. The front wing goes first resulting in a gentle nose-down attitude in stall.

OK let's get started!

For the purposes of this guide we will assume a "cold, dark cockpit" that is all systems including batteries shut down.

B. OPERATING PROCEDURES

Follow the checklists below, carefully, making sure all the commands are followed:

PRE-FLIGHT

Cabin Door: SECURED
Parking Brake: CHECK SET
Flight Controls: CHECK FREE MOTION
Electrical Switches: CHECK OFF
Condition Levers: CUTOFF
Fuel Valves: CUTOFF
Pitot Heat: OFF
Battery Master: ON
Avionics Master: ON
WXR Radar: OFF (The control is the "radar" button on the vertical display control unit to the right of the pilot's MFD display)
Landing Gear: DOWN 3 GREEN
Annunciators: ON
Nav Light: ON
Window Heat: ON

PREPARATION AND ENGINE START

Transponder: STBY and SET
ATIS: CHECKED
Contact ATIS for the information about current weather and which runway is currently chosen for operations.
Altimeter: SET CHECK
NAV1/2: SET (as required) CHECK
OBS1/2: SET (as required)CHECK
Pressurization: SET CRZ ALT
Flightplan: LOADED (use and check the FMC display)
Autopilot: VS-HDG-ALT (check that you

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have entered correct settings, ready for immediate activation if required)
Fuel Quantity: CHECK
Trim: RESET toZERO
Engines Power: CHECK IDLE
Bleed Air: OFF
Beacon: ON

ENGINE 1 START
At this stage, switch your centre panel to show the engine readouts.

Parking Brake: CHECK SET
Fuel Cutoff 1: CHECK OPEN
Fuel Pump: MAIN
Fuel Pressure: CHECK NORM
Igniter 1: CONT ON (auto)
Starter 1: HOLD TILL NG 13%
ITT 1: CHECK INCREASING
Oil Pressure 1: CHECK INCREASING
RPM 1: CHECK INCREASING
Engine 1 Power: CHECK IDLE
Condition Lever 1: FLIGHT IDLE
ITT 1: CHECK BELOW 750 C
Fuel Flow: CHECK 200-300
Generator 1: ON

REPEAT PROCEDURE FOR ENGINE 2.

TAXYING AND TAKEOFF

PRE-TAXI
Condition Levers: GROUND IDLE
Fuel Flow: CHECK NORM
ITT 2: CHECK BELOW 750 C
Generators: BOTH ON
Hyd. Pressure: CHECK NORM
Fuel Pumps: CHECK MAIN (auto)
Bleed Air: CHECK L/R/BOTH
Pressurization: CHECK CRZ ALT
Bus Tie: ON

TAXI
Parking Brake: OFF
Flaps: TAKEOFF
Ice Detect: ON
Brakes: CHECK
Prop Feathering: CHECK
Prop Reverse: CHECK (Condition levers to idle, throttles fully back to reverse)
Nav and Instr.: CHECK AND SET
Groundspeed DO NOT EXCEED 20-25 knots
WXR Radar: ON
Yaw Damper: ON

ENGINE RUN-UP
Brakes: ON HOLD
Power Levers: IDLE
Condition Levers: MAX RPM
Prop Sync: OFF AND ON (auto)
Prop Governing: CHECK MIN RPM
Autofeather: CHECK ON

TAKE OFF
Flaps: CHECK TAKEOFF
Elevator Trim: TAKEOFF (adjust to give up elevator trim for take-off).
Condition Levers: MAX
Power Levers: MAX
Airspeed at 115>: ROTATE

CLIMB
Taxi Lights: OFF
Landing Lights: OFF
Autofeather: OFF
Gear: UP
Flaps: UP
Window Heat: CHECK ON
Bleed Air: CHECK L/R/BOTH
Pressurization: CHECK CRZ ALT
Airspeed: OK
Ignition: OFF
Altimeter: SET
Beacon: OFF
Prop Setting: AS NEEDED

CRUISE

Adjust controls to suit desired cruise speed for range available.
Monitor all engine readouts regularly
Check radar
Set and turn on autopilot
Monitor and input FMC as required

FLYING THE AVANTI

Anti-Ice as required

APPROACH AND LAND

Ignition: CONT ON
Inlet heat: ON
Beacon: ON
Window Heat: CHECK ON
Fuel Tanks Trim: CHECK
ATIS: CHECKED
Instruments: CHECKED
Anti Ice: AS NEEDED
Nav. Displays: SET APP
Airspeed: OK
Fuel Pumps: CHECK
Fuel Crossfeed: CHECK OFF
Decision Height: SET
Airspeed: Below 180 knts indicated
Gear: DOWN 3 GREEN
Flaps: MID BELOW 170 knts indicated

LANDING
Flaps: DOWN BELOW 150 kts indicated
Gear: CHECK 3 GREEN
Condition Levers: CHECK MAX RPM
Autopilot: DISENGAGE

TOUCHDOWN!

Flaps: UP (auto)
Throttles: REVERSE THRUST Until 50kts indicated
Brakes: AS REQUIRED

TAXI AND PARK

Engines Power: IDLE
WXR Radar: OFF
Transponder: STBY
Pitot Heat: OFF
Beacon: CHECK ON
Nav Lights: GROUND
Landing Lights: OFF
Taxi Lights: ON (auto)
Condition Levers: GROUND IDLE
Flight Director: OFF

PARKING
Parking Brake: SET

Anti Ice: OFF
Igniters: OFF
Avionics master: OFF
Inverters: OFF
Engines Power: CHECK IDLE
Bleed Air: OFF
Fuel Pumps: OFF
Generators: OFF
Condition Levers: CUTOFF

For Microsoft Flight Simulator use only. Not for use in real aviation.

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PIAGGIO P180 AVANTI II CHECKLISTS

PRE-FLIGHT
Cabin Door: SECURED
Parking Brake: CHECK SET
Flight Controls: CHECK FREE MOTION
Electrical Switches: CHECK OFF
Condition Levers: CUTOFF
Fuel Valves: CUTOFF
Pitot Heat: OFF
Battery Master: ON
Avionics Master: ON
WXR Radar: OFF
Landing Gear: DOWN 3 GREEN
Annunciators: ON
Nav Light: ON
Window Heat: ON

PREPARATION & ENGINE START
Transponder: STBY and SET
ATIS: CHECKED
Contact ATIS
Altimeter: SET CHECK
NAV1/2: SET (as required) CHECK
OBS1/2: SET (as required)CHECK
Pressurization: SET CRZ ALT
Flightplan: LOADED
Autopilot: VS-HDG-ALT
Fuel Quantity: CHECK
Trim: RESET toZERO
Engines Power: CHECK IDLE
Bleed Air: OFF
Beacon: ON

ENGINE 1 START

Parking Brake: CHECK SET
Fuel Cutoff 1: CHECK OPEN
Fuel Pump: MAIN
Fuel Pressure: CHECK NORM
Igniter 1: CONT ON (auto)
Starter 1: HOLD TILL NG 13%
ITT 1: CHECK INCREASING
Oil Pressure 1: CHECK INCREASING
RPM 1: CHECK INCREASING
Engine 1 Power: CHECK IDLE
Condition Lever 1: FLIGHT IDLE
ITT 1: CHECK BELOW 750 C
Fuel Flow: CHECK 200-300
Generator 1: ON

REPEAT PROCEDURE FOR ENGINE 2.

TAXYING & TAKEOFF
PRE-TAXI
Condition Levers: GROUND IDLE
Fuel Flow: CHECK NORM
ITT 2: CHECK BELOW 750 C
Generators: BOTH ON
Hyd. Pressure: CHECK NORM
Fuel Pumps: CHECK MAIN (auto)
Bleed Air: CHECK L/R/BOTH
Pressurization: CHECK CRZ ALT
Bus Tie: ON

TAXI
Parking Brake: OFF
Flaps: TAKEOFF
Ice Detect: ON
Brakes: CHECK
Prop Feathering: CHECK
Prop Reverse: CHECK
Nav and Instr.: CHECK AND SET
Groundspeed DO NOT EXCEED 20-25 knots
WXR Radar: ON
Yaw Damper: ON

ENGINE RUN-UP
Brakes: ON HOLD
Power Levers: IDLE
Condition Levers: MAX RPM
Prop Sync: OFF AND ON (auto)
Prop Governing: CHECK MIN RPM
Autofeather: CHECK ON

TAKE OFF
Flaps: CHECK TAKEOFF
Elevator Trim: TAKEOFF (adjust to give up elevator trim for take-off).
Condition Levers: MAX
Power Levers: MAX
Airspeed at 115>: ROTATE

CLIMB
Taxi Lights: OFF
Landing Lights: OFF
Autofeather: OFF
Gear: UP
Flaps: UP
Window Heat: CHECK ON
Bleed Air: CHECK L/R/BOTH
Pressurization: CHECK CRZ ALT
Airspeed: OK
Ignition: OFF
Altimeter: SET
Beacon: OFF
Prop Setting: AS NEEDED

CRUISE
Adjust controls to suit desired cruise speed for range available.
Monitor all engine readouts regularly
Check radar
Set and turn on autopilot
Monitor and input FMC as required
Anti-Ice as required

APPROACH & LAND
Ignition: CONT ON
Inlet heat: ON
Beacon: ON
Window Heat: CHECK ON
Fuel Tanks Trim: CHECK
ATIS: CHECKED
Instruments: CHECKED
Anti Ice: AS NEEDED
Nav. Displays: SET APP
Airspeed: OK
Fuel Pumps: CHECK
Fuel Crossfeed: CHECK OFF
Decision Height: SET
Airspeed: Below 180 knts indicated
Gear: DOWN 3 GREEN
Flaps: MID BELOW 170 knts indicated

LANDING
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Brakes: AS REQUIRED

TAXI & PARK
Engines Power: IDLE
WXR Radar: OFF
Transponder: STBY
Pitot Heat: OFF
Beacon: CHECK ON
Nav Lights: GROUND
Landing Lights: OFF
Taxi Lights: ON (auto)
Condition Levers: GROUND IDLE
Flight Director: OFF

PARKING
Parking Brake: SET
Anti Ice: OFF
Igniters: OFF
Avionics master: OFF
Inverters: OFF
Engines Power: CHECK IDLE
Bleed Air: OFF
Fuel Pumps: OFF
Generators: OFF
Condition Levers: CUTOFF