FriendlyPanels

Bombardier CRJ700 2D Panel

User's manual

FMC manual is in a separate document

Add-on for Microsoft® FSX
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1. Introduction

Thank you for purchasing this add-on. Here you will find the description and user instructions of the FriendlyPanels gauges for Bombardier CRJ 700 Aircraft.

Main features of this panel are:

- FMC that can manage flight plans created with Microsoft Flight Simulator FSX, or any add-on which can export flight plans in the FS format. We have eliminated the complex way in what you have to plan your flight in current commercial FMCs implemented in some of the commercial airliners existing for Microsoft Flight Simulator but keeping the feeling of a real FMC-CDU. **See separate manual for details**.
- New MCP, much more realistic, allows see different navigation screens in PFD and MFD.
- New AP functions, including VNAV button.
- Vertical navigation implemented via FMC.
- New EICAS gauge, with nine different screens.
- New radio with stand by ADF frequency.
- ALL GAUGES, except for FMC, visible and clearly readable in main window, saving you the task of being opening and closing windows during critical phases of flight.
- Zoomed windows available for new CRT screens and radios.
- ALL NEW GAUGES of this panel, except FMC, **have been perfectly adapted to CRJ 700 FSX virtual cockpit** and they are fully functional as they are in the 2D Panel.

Please, read this document entirely.

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2. Requirements

This panel requires Windows XP with at least SP2 or Vista, .Net Framework 1.1 and FSX SP1. A screen resolution of 1024 x 768 or higher (1240 x 1024 recommended). Default CRJ 700 FSX aircraft must be installed.

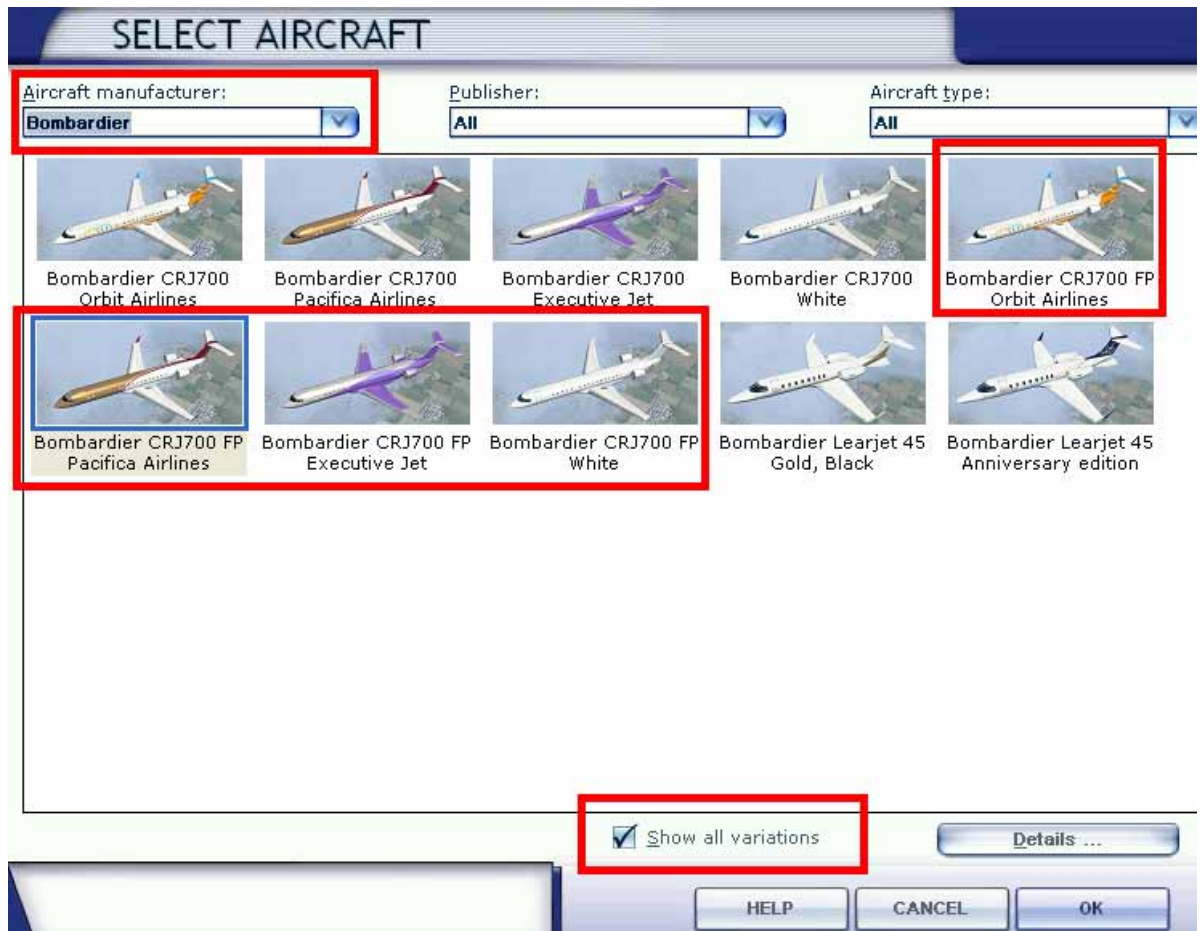---oOo---

3. Installing the panel

1.- Run the installation program and follow the indicated steps.

2.- The panel will be installed in:

"Your FSX\SimObjects\Airplanes\ Bombardier_CRJ_700_FP

3. When finish installation, please, read this manual for instructions.

5. Run FSX (FSX Version). Go to **Aircraft menu**, **Select Aircraft**, **Aircraft manufacturer**: Bombardier, **Aircraft model**: Bombardier CRJ700, **Variation**: the ones which the livery name is preceded by FP. Don't forget to check "Show all variations" checkbox.

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4. CRJ 700 Gauges

This section shows, explains and describe (when necessary) the new FP gauges features included in this panel.
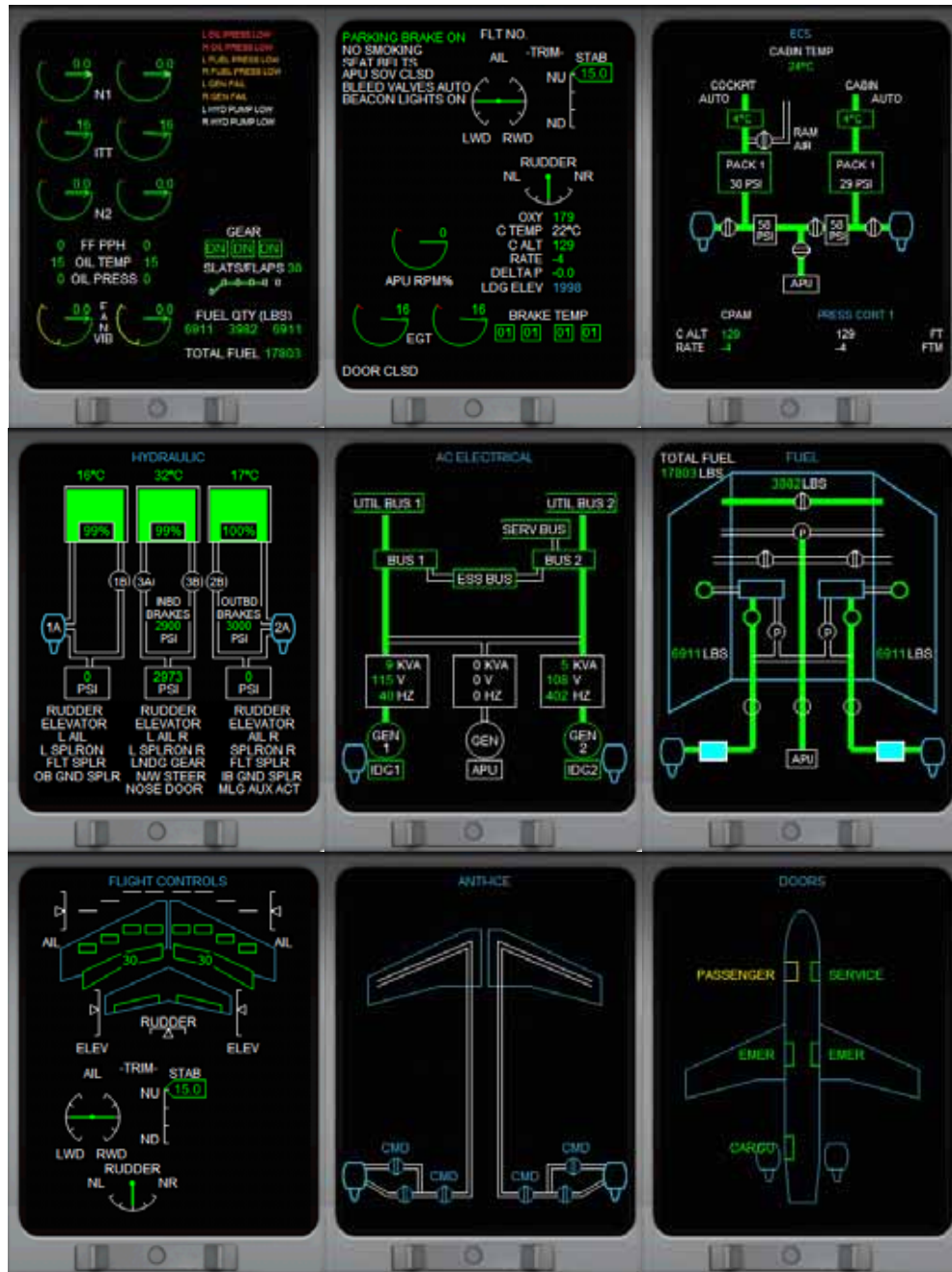
4.1. PFD

PFD

1. MACH speed (shown over 0.45).
2. AP announciator.
3. Decision height.
4. Altitude selected with Autopilot.
5. Bug altitude selected.
6. Altitude tape.
7. Heading.
8. Radio height.
9. Baro pressure.
10. Vertical speed.
11. CDI needle (white:FMS driven, green:VOR1 driven).
12. VOR2 data name and distance.
13. VOR1 data name and distance, or next flight plan WPT data DTK, name and distance.
14. IAS/MACH selected with Autopilot.
15. IAS tape.
16. Bug IAS selected.
17. IAS trend.
18. Approximated V speed calculated depending on airport altitude and flaps position.

Clicking on the center of the gauge will pop-up a zoomed window of it.

4.2. EICAS and EICAS panel

The EICAS has nine display modes selected with the EICAS panel. It can display engines data, control surfaces position, hydraulic and electric data and other information.

Clicking on the center of the gauge will pop-up a zoomed window of it.

EICAS select display panel

Here you can select what to display in EICAS screen. Available buttons are remarked in red.

4.3. MFD

The MFD has four display modes selectable with MCP (see ahead).

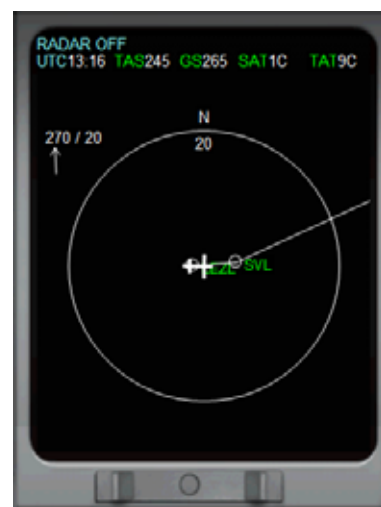Clicking on the center of the gauge will pop-up a zoomed window of it.

HSI MODE   **ARC MODE**

1.- Wind data, direction and velocity.
2.- UTC time, TAS and GS speeds, temperatures, VOR1 and VOR2 data.
3.- Needle 1.
4.- Needle 2.
5.- Heading selected in AP, visible a few seconds when you're using HDG knob in AP.

FLIGHT PLAN MODE   **MAP MODE**

1,2,3,and 4.- Previous, next, after next and destination waypoints.
5.- Distances.
6.- Estimated times enroute.
7.- Estimated times of arrival.
8.- Remaining fuel at destination.
9.- Altitude.
10.- Route.
11.- Estimated distance to reach altitude selected in autopilot.
12.- Range.

4.4. MCP

The clicking areas are shown below.

1.- Cicles MFD display modes.
2.- Select NAV source FMC (GPS) or VOR1.
3.- Select range in Flight Plan or Map Modes.
4.- Shows baro pres in HPA or HG inches.
5.- Sets baro press.
6.- Sets decision height
7.- Selects what drives MFD needle two: VOR2, ADF or GPS.
8.- Selects what drives MFD needle one: VOR1, ADF or GPS

4.5. AUTOPILOT

The clicking areas are shown below, buttons are self explained.

Please, note that the VNAV button only works if FMC-CDU has been properly activated.

1. Clicking on the centre of the CRS1 knob will center the CDI.
2. Clicking on the centre of the HDG knob will set the heading bug in the current heading

4.6. RADIOS

Clicking on the center of the gauge will pop-up a zoomed window of it.

- Buttons 1, 4 and 6 swap COM, NAV and ADF frequencies.
- Buttons 2, 3, 5 and 7 select what frequency can be tuned by white knob.
- Button ½ swaps between COM1 – NAV1 and COM2 – NAV2.
- The clicking areas are indicated in picture above.

4.7. FMC – CDU

The FMC is in a separate document you can find in FriendlyPanels folder in the main FS installation folder.

5. Following a flight plan

Once you have configured FMC as explained in separate FMC manual, activated it and once you're airborne:

-Set autopilot ON.
-Set MCP NAV SOURCE knob in FMC position.

-Click on NAV to follow lateral navigation.
-Click on VNAV to follow vertical navigation settled in FMC.

-You'll see indications in PFD as below:

Note.- In this first version, if you activate an approach in FMC (see FMC manual), MFD keep on showing the normal flight plan route. You can follow the approach route in the map screen of the FMC.

6. Aliasing the panel

Of course, you can use this panel with any aircraft.

To do this, go to

[your FSX install folder]\SimObjects\Airplanes\[name of your aircraft]\panel

Make a backup of the panel.cfg file located there, open windows notepad and write:

[fltsim]
alias=Bombardier_CRJ_700_FP\panel

save this file as plain text as panel.cfg. When you load the plane it will load the FriendlyPanels CRJ 700 panel.

7. Virtual cockpit remarks

All new gauges of this panel, except for FMC, have been perfectly adapted to default CRJ 700 FSX virtual cockpit and they are fully functional as they are in the 2D Panel.

8. Technical support

If you have any question, please contact FrienlyPanels at:

fpanels@friendlypanels.net

Web page:

www.friendlypanels.net