



USER MANUAL

<http://harrierpanels.avsim.ru>

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1. Introduction:

This panel uses a new mechanism of XML gauges by Rob Barendregt that does not require ADF for playing sounds. This makes it possible to include Brakes sound FX in this version. For Brakes sound FX to become available all you have to do is just once open and close the panel (even without starting a pushback session) and you will hear your brakes creaking everytime you hit them on the ground. The panel is intended for Pushback operations.

2. Installation and Removal:

Installation

2.1 To install a package of gauges and sounds start the program Setup.exe. Follow the instructions of the installation program. The program will install the following files:

```
-----  
\Gauges\  
Harrier_pushback2.cab  
Harrier_Sound.gau  
-----  
\Sound\HarrierPushback2\ENG\  
PB01_Conversation1.wav  
PB02_Conversation2.wav  
PB03_Conversation3.wav  
PB04_Conversation4.wav  
PB05_Conversation5.wav  
PB06_SoftClick.wav  
PB08_PushbackRoll.wav  
PB11_Brakes.wav  
Sound.ini  
-----
```

2.2 Choose the aircraft this panel will be used with.

2.3 Configure the panel.cfg of your aircraft as follows:

a. In the section [Window Titles] add the line

Window=Pushback Panel 2**

** - a sequence number of the Pushback Panel in the Instrumental Panel menu

b. Add the following string to [Window00] section:

gauge=Harrier_pushback2!HarrierIcon_pb, aaa, bbb, 12,12**

** - a sequence number of the gauge, aaa & bbb - are the coordinates for the Announcement Icon on your aircraft's main panel and 12,12 is the size in pixels. For the default MS2004/MS2002 Boeing 737-400 the string is as follows:

gauge41=Harrier_pushback!HarrierIcon_pb, 167,10,12,12

c. Add a new window section (see a.) after the last default [WindowXX] section of your aircraft:

```
//-----  
[Window**]  
Background_color=16,16,16  
size_mm=82,103  
window_size_ratio=1.000
```

visible=0
ident=7777777
window_size= 0.082, 0.125
window_pos= 0.462, 0.280

gauge00=Harrier_pushback2!Harrier_pb, 0,0
gauge01=Harrier_pushback2!Harrier_pb_Switch, 50,5,28,32
gauge02=Harrier_pushback2!PushbackDisplay, 4,39,74,61
gauge03=Harrier_pushback2!PushbackStates, 0,0
gauge04=Harrier_pushback2!BrakeSound, 0,0
gauge05=Harrier_Sound!dsd_xml_sound3, 0,0,,, ./sound/HarrierPushback2/ENG/Sound.ini

** - a sequence number of the Pushback Panel

d. Save your panel.cfg file.

2.4 See [4. Instructions of Usage](#).

REMOVAL

2.6 Run UninstallPB2.exe from within the main FS9 folder or from the Programs Menu.

2.7 Open in the notepad the panel.cfg file of the aircraft you used the Pushback Panel v2.0 with.

2.8 Follow the steps in the 2.3 section of this manual to delete the entries you added during the installation.

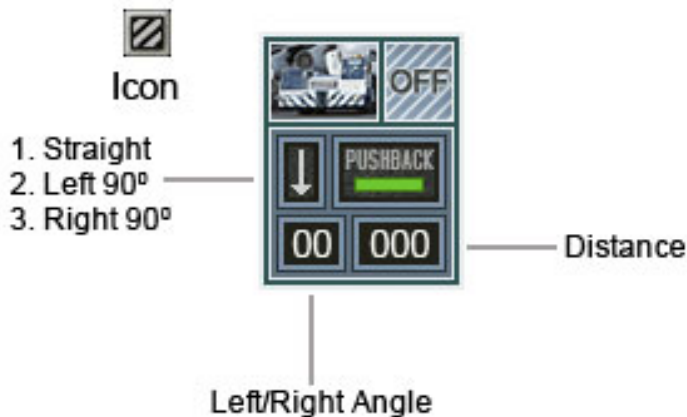
3. Technical Information:

Pushback Gauges by Rob Barendregt:

- a. Include a preliminary setup of the timer counting time (in seconds), for pushing straight back, and a desirable angle of turn (in degrees).
 - b. It uses the standard FS2004 Pushback mechanism, so you can hear the engine/environment sounds during Pushback.
 - c. During Pushback, you can change the views or even PAUSE the system without disturbing the Pushback.
 - d. Control dialogs between the cockpit and the ground. You can use Pushback either with Engines off, or with engines running. You can also start your engines during Pushback operation.
 - e. Brake Sound FX gauge will trigger a brakes sound when the aircraft is on the ground, the brake pressure is > 30% and groundspeed is > 5 knots.
-

4. Instructions of Usage:

a. Before starting Pushback operations make sure, that parking Brakes are set.



b. To display/hide the Pushback Panel window click on the icon installed on your aircraft's main panel

c. Set the desired Distance (in meters)

The counter (0 - 999 meters, the right 3 digits) is started when you release the Parking Brakes and determines how long the aircraft is pushed straight back before the turn sequence (if selected) starts. Click to increment or decrement the value.

IMPORTANT: When Pushback is active (**GREEN** light), you cannot change the Timer/Counter values anymore BUT you can abort it any time.

After the StraightBack COUNTER becomes 0 (so before it makes the actual turn), the aircraft goes straight back another full length. This "full length" period depends on the aircraft:

- For a Cessna 172: 4 seconds.
- For a Boeing 747-400: 19 seconds.

d. Set the Angle of Turn

- A Turn selector.

Toggles between pushing straight back, or left/right turn (after the set straight back distance). When Left or Right turn is selected, the Turn counter is set to 90 degrees.

- A Turn Counter.

This counter (0 - 90 degrees, the left two digits) determines the angle of the Turn that you want the aircraft to make. Click to increment or decrement the value.

IMPORTANT: "Turning Left" means: the aircraft turns clockwise in TopView c.q. the heading increases while turning. As the standard FS pushback does.

e. Activate the Pushback procedure by clicking the Pushback button. The **GREEN** light starts flashing.

Cockpit: "Ground from cockpit"

Ground: "Go ahead"

Cockpit: "Ready for pushback"

Ground: "OK. Steering pin inserted, release brakes"

- The gauge now waits until you release the Parking Brakes; a ticker sound is played in the mean time, to indicate that the gauge awaits a Parking Brakes operation.

Cockpit: "Brakes are released"

Ground (if engine1 is running): "OK. Pushing back"

Ground (if engine1 NOT running: "OK. Pushing back. All engines cleared for startup"

The following Pushback sequence is performed:

- The light goes solid **GREEN**.
- If the StraightBack Counter was set, it counts down to 0 while the aircraft is pushed straight back.
- If the LeftTurn or RightTurn Counter was set, the aircraft is pushed straight back ANOTHER FULL LENGTH, and then turns the angle dialed into the Counter. During the turn the Counter indicates the remaining turn angle, and therefore counts down to 0.
- After the turn is completed, the aircraft is pushed straight back again for 2 seconds. While a Pushback is active, an aircraft "rolling" sound is played; this sound is especially noticeable when the engines are off during the pushback.

Ground: "Set parking brakes"

- The **YELLOW** light start flashing.

The gauge waits until you set the Parking Brakes; the ticker sound is played again.

- The light goes solid **YELLOW**.

Cockpit: "Parking brakes are set. Prepare aircraft for taxi and give handsignal on left side"

Ground: "OK. Towing system removed. Wait for handsignal on left-hand side"

- Now the pushback is terminated, and the light goes off.

f. To switch the Pushback Panel off press the OFF button on the panel or click on the Pushback Icon on your aircraft's main panel.

Have a nice flight!

Harrier

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