

Bendix King KT70 Pilot's Guide

Transponder.

Filename: **BendixKingXPDR!KT70_JD**



Hotspots:

Flight Level

Transponder Code



1. IDT (Ident) button
2. Transponder Code 1000's
3. Transponder Code 100's
4. Transponder Code 10's
5. Transponder Code 1's
6. Transponder Mode switch
7. VFR button

A comprehensive simulation of the real Bendix King KT70 transponder.

Advanced features found on this transponder have been accurately simulated, with far greater functionality than is found on the default Flight Simulator transponder. The real Bendix King Silver Crown Plus Pilot's Guide (available on the web for download) may be used instead of the description found here.

Operation of this transponder has been made as close as possible to their real-life counterpart.

To this end the simulation uses right and left mouse clicks for knobs (right-click for increment, left-click for decrement). This is considered superior the standard Flight Simulator method of left clicks only, and more closely simulates real-life operation. Alternatively, the mouse wheel can also be used on all knobs to increment or decrement values. All standard Flight Simulator shortcut key assignments operate normally

This transponder defaults to the Standby state, as the majority of aircraft are fitted with an Avionics Master switch, in which case all individual radios are (and should be) normally left in the Standby state for convenience and consistency.

Transponder Mode

Click the Mode switch (6) to change the transponder mode

Use right-click to increment, left-click to decrement (or use mouse wheel).

The OFF position removes power from the transponder.



Standby Mode

The SBY (Standby) mode applies power to the unit. The **SBY** indicator will be displayed.

The Transponder Code may be entered by clicking the switches (2 to 5).

Use right-click to increment, left-click to decrement (or use the mouse wheel).

In Standby mode the real unit disables all responses to radar interrogation.

This is simulated here by not sending any code change to Flight Simulator in Standby mode. The new code will be sent when the Mode switch is set to the ON or ALT position.



Test Mode

The TST (Test) mode tests the transponder, illuminating all display segments, but disables all transponder responses.



Ground Mode

The **GND** and **FL** indicators will be displayed.

The Transponder Code may be entered by clicking the switches (2 to 5).

In the real unit Ground mode disables all Mode-A and Mode-C responses, but enables Mode-S (squitter) responses.

This is simulated here by not sending any code change to Flight Simulator in Ground mode. The new code will be sent when the Mode switch is set to the ON or ALT position.



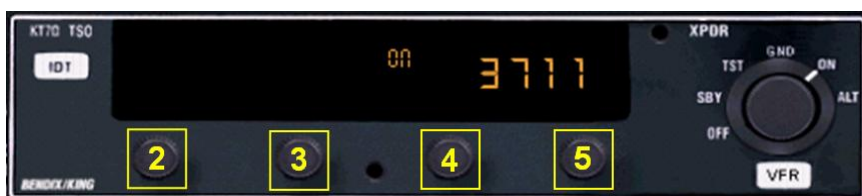
On Mode

The ON mode enables Mode-A transponder responses, but does not allow altitude reporting. The **ON** indicator will be displayed.

The **R** indicator flashes to show that the transponder has responded to an interrogating secondary radar.

While the aircraft is on the ground the transponder does not respond to interrogation, and the **R** indicator will not be shown.

The Transponder Code may be entered by clicking the switches (2 to 5).



Alt Mode

The ALT mode enables transponder responses and enables altitude reporting (Mode-C). The current Flight Level is shown in the left side of the display.

The **ALT** and **FL** (Flight Level) indicators will be displayed.

The Transponder Code may be entered by clicking the switches (2 to 5).



VFR Function

Click the VFR button (7) to enter the VFR Transponder code.

(The VFR function can operate in Default Mode, or Programmable Mode. See below.)



Default VFR Transponder code

The VFR code will depend on flight simulator's "International Settings".

If set to "US System", the default VFR code will be 1200 (for USA).

If set to "Metric", the default VFR code will be 7000 (for Europe etc.).

Programmable VFR Transponder code (option)

(For Programmable VFR code, Logger must be installed – see Note 2.)

The VFR Transponder code can be programmed as follows:

1. Set the mode switch to SBY (Standby).
2. Enter the required VFR code. The code must be 7000 (for Europe) or 1200 (for the USA).
3. Right-click the VFR button (7). Two beeps are heard, indicating the code has been programmed.

(Note: for sounds to be heard, the gauge dsd_fsx_xml_sound.gau must be installed – see Note 1.)

The non-volatile code is saved in a file, and is restored next time Flight Simulator is run.

The code is saved in the following file: `..\\DataJD\\KT70_VFR.cfg` (This file is generated automatically.)



Ident Function

Click the IDT (Ident) button (1) to force the transponder to transmit continuously for 18 seconds – the **R** indicator will remain on for 18 seconds.



Note 1. Sounds

For custom sounds to be heard, the gauge `dsd_fsx_xml_sound.gau` must be installed. This is a freeware gauge from Doug Dawson. See Credit for Sound Gauge below.

Installation

Download the file: `dsd_fsx_xml_sound.zip` available from FlightSim.com.

Unzip the zip file.

Step 1.

Install the file: `dsd_fsx_xml_sound.gau` into the flight simulator **Gauges** sub-folder. (Normally ...\\fsx\\Gauges or ...\\Flight Simulator 9\\Gauges)

Step 2.

Install the file: `SoundJD.ini` into the flight simulator **Gauges** sub-folder. (The file `SoundJD.ini`, and the folder: `SoundJD` are included in the KX155A package.)

Step 3.

Install the folder `SoundJD` into the flight simulator **Sound** sub-folder. (Normally ...\\fsx\\Sound or ...\\Flight Simulator 9\\Sound)

Step 4.

Copy and paste the line:

`gaugenn=dsd_fsx_xml_sound!Sound, 2,2,2,2, ./gauges/SoundJD.ini` into the [Window00] section in the `Panel.cfg` file for every aircraft that has the KX155A installed. (Where `nn` is the next available gauge number). Note the dot before `/gauges` !

Credit for Sound Gauge

Many thanks to Doug Dawson, for his excellent freeware sound gauge.

It is available from various flightsim websites (e.g. Flightsim.Com and Avsim.)

This is a very sophisticated and versatile application - the above installation only used a fraction of the capability available.

Note 2. Logger

In order to save and recall the VFR code, an application called Logger must be installed.

Logger is a FS9 and FSX module that provides file read and write capability for XML gauges.

Installation

Download the file: `Logger Modules v1.1.zip` available from:

<https://robbiemcelrath.com/fs/logger/about>

This is a freeware application from Robbie McElrath. See Credit for Logger below.

Unzip the zip file.

Step 1:

For FS9 copy the file `Logger9.dll` into the flight simulator **Modules** sub-folder.

For FSX copy the file `LoggerX.dll` into the flight simulator **Modules** sub-folder and follow the instructions provided on the above website in the Help section.

Step 2:

Create a folder in the flight simulator root folder called `DataJD`.

(The flight simulator root folder is normally ...\\fsx or ...\\Flight Simulator 9)

Credit for Logger

Many thanks to Robbie McElrath, for his excellent freeware `logger9.dll` and `loggerX.dll` modules. This is an incredibly useful application – it can do much more than just save and recall files.

Please read the documentation provided on the website.

Logger is available from Robbie McElrath at <https://robbiemcelrath.com/fs/logger/about> .

Note 3. The standard Flight Simulator shortcut key assignment T, TT, TTT, TTTT works normally, but only when the Transponder Mode switch is set to ON or ALT.