



1/16/09  
Rev. 1/22/09

## **PEP950**

**This procedure is used to update Main CPU V0105 and EDSP V11.39 the flash programming for the FT-950 Transceivers.**

We recommend installing the Flash Programming Software on a PC computer with Windows 2000, XP or Vista Operating System; and use the serial cable RS-232C, DB9F to DB9F straight cable.

**NOTE:** There are many USB adapters available; however some may not function with this software. We recommend using the latest USB adapter driver software when available.

### **Install the data file to PC**

\*Before you install this software make sure that you delete all of the old update files AH031 and EDSP3K that are saved on your computer. Do not keep any of the old files or folders on your computer.

1. Down load the FT-950 data file [**FT-950\_PEP950\_1-16-09.zip**] from the following website:

<http://www.yaesu.com/indexVS.cfm?cmd=DisplayProducts&ProdCatID=102&encProdID=292E02F4E4D00EC99887A63E7B8ECD1B&DivisionID=65&isArchived=0>

2. Save the FT-950 data file [**FT-950\_PEP950\_1-16-09.zip**] to the desktop on your computer.
3. Unzip and Extract the contents of [**FT-950\_PEP950\_1-16-09.zip**] to the desktop of your computer.
4. You will find the **PEP950\_EDSP3** and **PEP950\_MAIN** folders on your desktop.

The programmer and software are now stored on your computer on the desktop. The files designated in the last step above are ready to update your FT-950 Transceiver.

*The software updates will work with all versions (AF, AS, EU, NA, OC, SA or all Countries) of the FT-950.*

**Ver. 0105 MAIN CPU implements improvements:**

- ATT, FLT, IPO, RFIL, AGC, BAR statuses are now displayed during transmit in SPLIT TX mode.
- The AGC, DNR etc information is transferred A ⇒ B, when quick SPLIT is enabled from SPLIT off.
- When uTUNE button is pressed, the "THRU"&"μTUNE" indicator will light (without the uTUNE kit). Also it is possible to connect an external BPF between the uTUNE connectors.
- The SPEED/PITCH values are now indicated on the VFD display.
- The CW carrier is moved slightly outside of the filter on RX mode.
- The response speed of the S meter is reduced, to provide an average reading.
- The AD conversion errors of the rotator direction indication are improved.
- A long press of the CONT button In CW mode will activate the contour APF function.
- The characteristic of the NB LEVEL gain is changed.
- The fixed value of the AGC hold time is set to 20 msec to improve the AGC-related pulse noise.
- Improved the ACS operation.
- TX microphone equalizer default values are changed.
- The APF ON/OFF can now be controlled by a CAT command.

\* The FT-950 "PEP950" Operation Manual (1/22/09) is located on the web site. Click on the Files tab in the FT-950 section

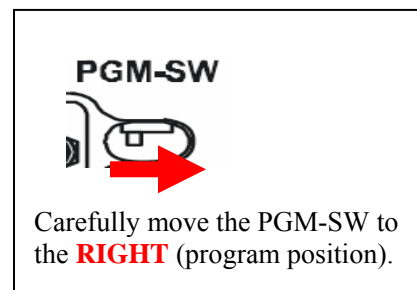
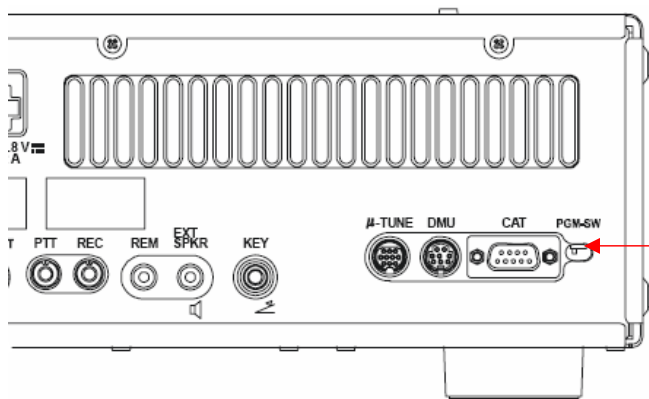
**Ver. 11.39 EDSP implements improvements:**

- Implements the FTdx9000 (PEP9000) EDSP technology.
- Improved the DNR and DNF.
- Improved the AGC.
- SSB speech processor audio augmented.
- Includes APF function on CW mode.

**MAIN CPU**

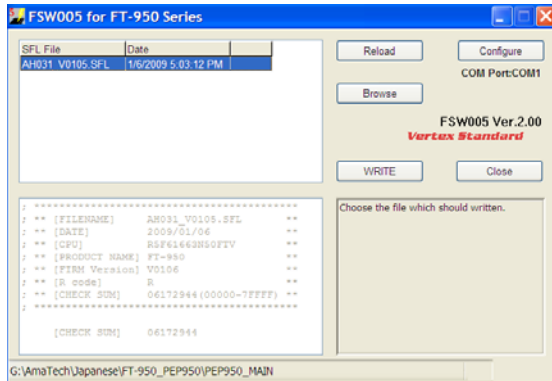
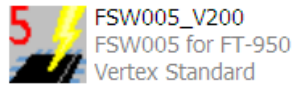
\*Don't forget to write down (or save to a CF Card) any personal menu settings you have changed from the default before you start. Please see the DMU-2000 Data Management Operation Manual for the procedure to save your settings to a CF card.

1. Turn the FT-950 OFF and disconnect the DC power cable (or turn OFF the power supply for FT-950 and wait until the capacitors discharge).
2. Locate the program switch thru the access hole on the back at the rear right corner of the radio. Carefully move the PGM-SW to the **RIGHT** (program position).



3. Connect the serial straight through programming cable, DB9F to DB9F, connector to the serial port COM1 in the back of your computer. Plug the DB9F connector to the CAT connector on the FT-950. If you use a USB to serial adapter, you might need to change the COM Port number.

4. Leave the FT-950 turned OFF and connect the DC power cable (or turn ON the power supply for FT-950).
5. Now go to the desktop open PEP950\_MAIN folder find the **FSW005** icon as shown below. Double-click the **FSW005** icon, displayed on the Program Screen.



**NOTE:** If you receive a “communications error” message on your screen, click on the **Configure** box and choose a different COM port from the drop down menu. Then click the **WRITE** button again.

6. When the program opens, confirm that the file **AH031\_V0105.SFL** is highlighted; if not, click on it to highlight it.
7. Click "Configure" if necessary, to change the COM Port.
8. Click **WRITE**. The onscreen progress bar will indicate programming activity.
9. When programming has completed, “Confirm” will be displayed.
10. Disconnect the DC power cable (or turn OFF the power supply for FT-950 and wait until the capacitors discharge) and then remove the DB9 serial programming cable.
11. Thru the access hole on the back of the radio, move the PGM-SW to the **LEFT**, (operate position).
12. Reconnect the DC power cable (or turn ON the power supply for FT-950).
13. Press and hold in the [FAST] and [LOCK] keys while turning the radio back on. This resets the radio and locks in the new software.
14. Turn the radio off. The main CPU updating process is now complete. Follow the instructions below to update the EDSP.

## EDSP

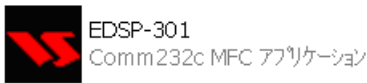
\*This procedure is used for uploading new EDSP Software into the FT-950 Amateur Transceivers, from your personal computer, using the RS-232C, DB9F to DB9F straight cable.

1. Turn the FT-950 OFF and disconnect the DC power cable (or turn OFF the power supply for FT-950 and wait until the capacitors discharge).
2. Connect a serial RS-232C, DB9F to DB9F straight cable to the COM1 connector of your computer and the 9-pin CAT connector on the rear of the transceiver. If you use a USB to serial adapter, you might need to change the COM Port number.
3. Reconnect the DC power cable (or turn ON the power supply for FT-950).

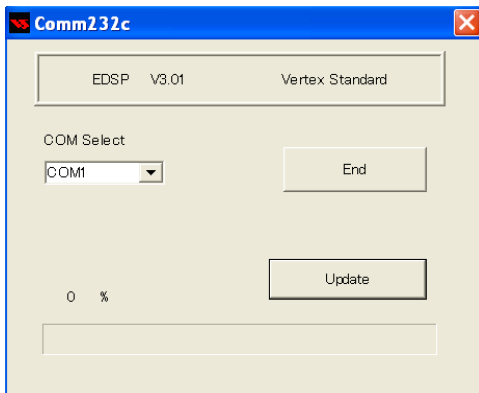
4. While holding the [SHIFT] + [WIDTH] + [CONT] buttons, press the front main power switch to turn the radio on. You will see [DSP PRG] on the radio display.



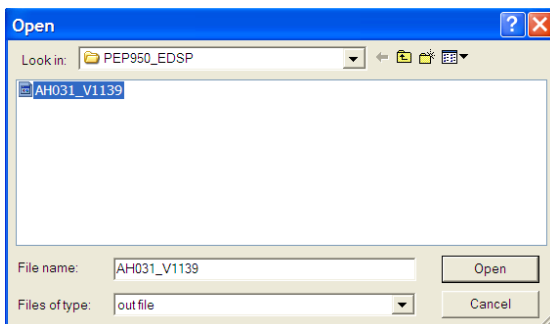
5. On your computer desk top folder where you stored the PEP950\_EDSP3, open the file [EDSP-301]. (see the below icon)



6. You will see the screen shown below open on your computer.



7. Click the Update button. You will see AH031\_V1139 out file displayed. If you do not see AH031\_V1139 (as in the screen below), then open the “Look in:” window and go to the desktop and find PEP950\_EDSP. Open the folder and AH031\_V1139 will be displayed in the window. Click AH031\_V1139 out file to **highlight** it. Then click the Open button and wait until the program is loaded, and 100% is indicated on the bar graph, [completion!!] will be displayed.




**NOTE:** If you receive a “communications error” message on your screen, click on the **COM Select** box arrow and choose a different COM port from the drop down menu. Then click the Update button and Open button again.

- Turn OFF the front Power Switch and disconnect the DC power cable (or turn OFF the power supply for FT-950 and wait until the capacitors discharge). This resets the radio and locks in the new software. Remove the **DB9F to DB9F** cable. The updating process is now complete.

**After the update, it is important to reset the FT-950. Plug the radio back in. Press and hold in the [FAST] and [LOCK] keys; while holding them in, turn the radio back on (this resets the radio and locks in the new software).**

**NOTE:** We recommend trying the new factory default settings rather than transferring your old ones, because of the changes in the EDSP and the Main CPU, you may wish to make new settings.

### **The software version can be displayed on the radio**

While holding the three buttons [GEN]+[50]+[ENT]  turn the radio on. The software version will be displayed in the VFO-A window for 5 seconds **11.39 1.05** and then the radio will start up in normal operation.



We hope this new software will increase your enjoyment of your FT-950. Thank you for choosing Yaesu radios. If you have any problems or questions please contact Vertex Standard, Amateur Tech Support. [amateurtech@vxstdusa.com](mailto:amateurtech@vxstdusa.com)

Best regards,

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