



1/01/09

## PEP2000

**This procedure is used to update Main CPU and EDSP the flash programming for the FT-2000/D Transceivers.**

We recommend installing the Flash Programming Software on a PC computer with Windows 2000, XP or Vista Operating System; and use the CT-119 programming cable and serial cable RS-232C, DB9F to DB9F straight cable

The update software is available from our website at <http://www.yaesu.com>. The CT-119 programming cable is available from your authorized Vertex Standard dealer. You may also order by email to Vertex Standard parts department, [yaesuparts@vxstdusa.com](mailto:yaesuparts@vxstdusa.com).

**When using the CT-119 cable it is not required to operate the internal switch S3004 or to remove the cover. If the CT-119 programming cable is not available you will need a serial cable RS-232C, DB9F to DB9F straight cable. Please follow these instructions (ADDENDUM: Page 6 and 8).**

### Install the data file to PC

\*Before you install this software make sure that you delete all of the old update files AH025 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-2000 data file [**FT-2000\_PEP2000\_1-01-09.zip**] from the following website:

<http://www.yaesu.com/indexVS.cfm?cmd=DisplayProducts&ProdCatID=102&encProdID=66EA91711DFB68C03DED4AD35153E12C&DivisionID=65&isArchived=0>

2. Save the FT-2000 data file [**FT-2000\_PEP2000\_1-01-09.zip**] to the desktop on your computer.
3. Unzip and Extract the contents of [**FT-2000\_PEP2000\_1-01-09.zip**] to the desktop of your computer.
4. You will find the **PEP2000\_EDSP3** and **PEP2000\_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-2000/D Transceiver.

*The software updates will work with all versions (AF, AS, EU, NA, OC, SA or all Countries) of the FT-2000 and FT-2000D.*

### Ver. 0142 Main CPU implements improvements:

- Added MENU #031 CAT IND. CAT data activity Indicator ENABLE/DISABLE (C/S button LED)
- Add MENU #015 LVL IND. Values are now indicated on the VFD display for PITCH•SPEED•CONTOUR•NOTCH•DNR•CW DELAY•VOX DELAY (Press the [ENT] key to set the command to “ON” or “OFF”)
- The AGC HOLD TIME default values are changed.
- Corrected a bug during TX; now the MIC-EQ is updated by PCC-2000 commands.
- Changed MENU PRMTRC EQ LEVEL range of values to -20 ~ 0 ~ +10.
- Changed the default values of MENU PRMTRC (LVL)
- Added the CAT Command (CO) for APF, ON
- Improve the ACS operation.
- Changed the VOX DELAY time settings to approximate the “CW Semi-break-in” DELAY setting on the front panel knob.

\* After installation of Ver. 0142, you may find that computer operation with PCC-2000 may not be possible for setting proper MENU items. We will release the updated PCC-2000 software when it becomes available.

\* The updated Menu Mode List is available on our web site. Click on the Files tab in the FT-2000 section and the FT-2000/D “PEP2000” Menu Mode List (1/01/09) is located under Software.

\* The updated FT-2000/D Operating Manual will be posted on the website around mid January.

### Ver. 11.29 DSP implements improvements:

- Implements the FTdx9000 (PEP9000) DSP technology
- DNR... superior SSB mode noise reduction
- DNF...greater reduction of beat tones
- AGC... attack time fine-tuned
- SSB speech processor audio augmented
- Activate RTTY monitor while transmitting
- DELAY characteristic of AGC close to analog AGC

## MAIN CPU

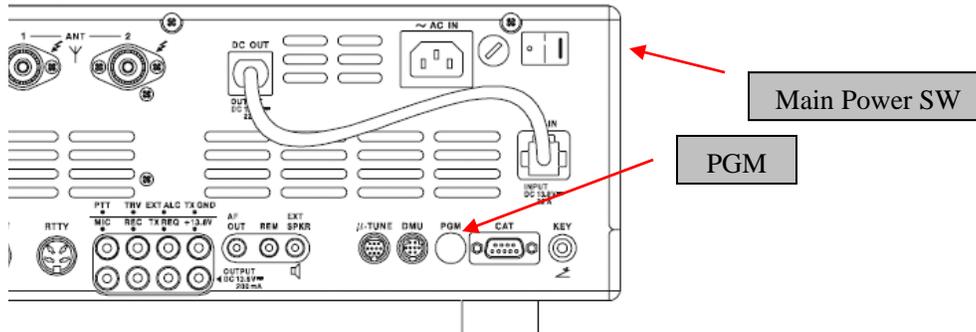
\*This procedure is used for uploading new Software into the FT-2000 and FT-2000D Amateur Transceivers using the CT-119 program cable.

\*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 off the main power switch located on the back of the FT-2000 (or turn off the power supply for FT-2000D) and remove the AC power cord.
- (2) Connect the CT-119 Cable's DB9F connector to the serial port COM1 in the back of your computer. You may also use a USB to serial adaptor if the DB-9 (RS-232C) serial port is not available on your computer.
- (3) Now go to the desktop open PEP2000\_MAIN folder find the **FSW003** icon as shown below. Double-click the **FSW003** icon, displayed on the Program Screen.



- (4) When the program opens, confirm that the file [AH025\\_V0142.SFL](#) is highlighted; if not, click on it to highlight it.
- (5) Remove the black cover from the PGM jack (bottom left on the rear panel). Plug the mini-DIN connector of the CT-119 into the PGM jack. Be sure that the **arrow** indicator on the mini-DIN plug is **down**. Plug the AC cable into the radio and turn the main power switch on the back of the radio to the ON position. [NOTE: The radio will not show a display now.]

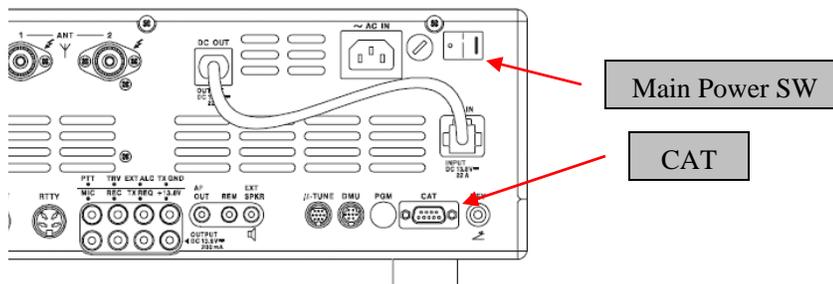


- (6) Click on [WRITE] in the program window. A status bar with green bars should appear below the [WRITE] button. *Note disregard the on screen instruction to [3. Turn "S3004" on].*
- (7) When the loading process is complete an [OK?] box will appear. Click [OK?].
- (8) Turn off the main power switch, and unplug the AC cable for ten seconds.
- (9) Unplug the CT-119 from the radio.
- (10) Plug the AC cable into the radio and turn the main power switch on the back of the radio to the ON position (or on the power supply for FT-2000D).
- (11) 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 firmware).
- (12) 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-2000 and FT-2000D Amateur Transceivers, from your personal computer, using the RS-232C, DB9F to DB9F straight cable.

1. Turn off the main power switch located on the back of the FT-2000 (or turn off the power supply for FT-2000D) and remove the AC power cord.
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.)



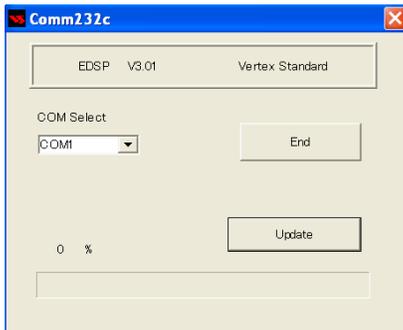
3. Reconnect the power cable and turn ON the main power switch located on the back of the FT-2000 (or turn ON the power supply for FT-2000D).
4. While holding the [DNR]+[CONT]+[DNF] buttons, press the front main power switch to turn the radio on. You will see [dSP Prg NO 1] on the radio display.



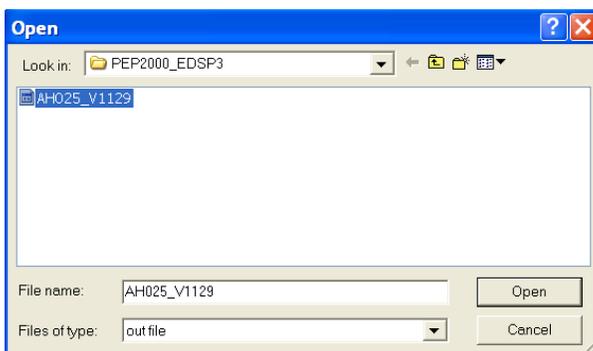
5. On your computer desk top folder where you stored the PEP9000\_EDSP3 and open the file [EDSP-301]. (see the below icon)



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



7. Click the Update button. You will see AH025\_V1129 out file displayed. (If you do not see AH025\_V1129 (as in the screen below), then open the "Look in:" window and go to the desktop and find PEP2000\_EDSP). Open the folder and AH025\_V1129 will be displayed in the window. Click AH010N\_V1129 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.



- Turn the front Power Switch and the Main Power Switch in the back OFF (This resets the radio and locks in the new software). Remove the **DB9F to DB9F** cable. The updating process is now complete. You may need to enter your custom menu settings now.

### 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 **11.29 1.42** and then the radio will start up in normal operation. **Example:** 11.29 1.40 •••EDSP v11-29, Main v0142.



We hope this new software will increase your enjoyment of your FT-2000/D. 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,

Mikio Maruya, WA6F  
Executive Vice President  
Amateur Radio, Engineering & Customer Service  
Vertex Standard USA, Inc.

## ADDENDUM

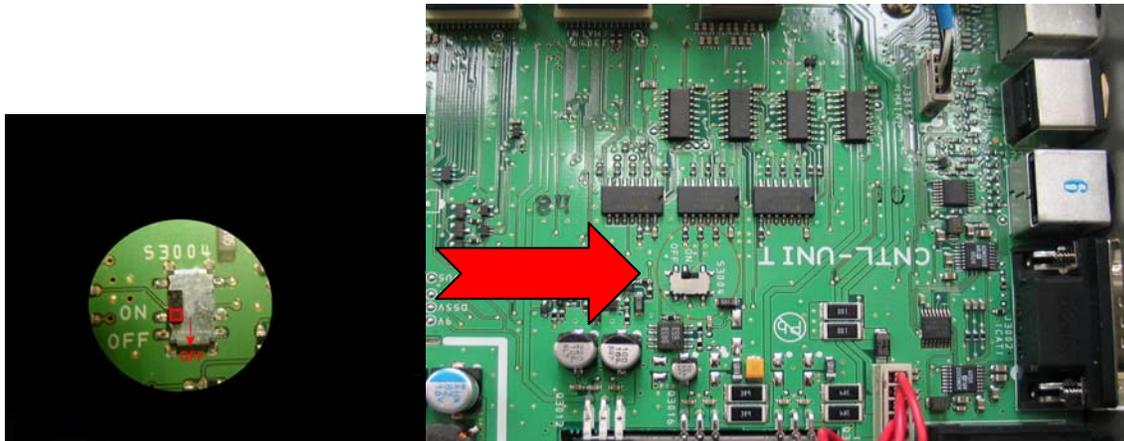
**If the CT-119 programming cable is not available you will need a serial cable RS-232C, DB9F to DB9F straight cable. Please follow these instructions.**

\*This procedure is used for uploading new Software into the FT-2000 and FT-2000D Amateur Transceivers using the RS-232C, DB9F to DB9F straight cable.

\*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.

We recommend you follow this process, steps (1) thru (18), the first time you program your radio. After you are familiar with the location of the switch S3004 you may wish to bypass Steps (2) and (15), and operate the switch through the hole under the left rear foot (near the CAT connector). See the illustration below Figure A. You must be **extremely careful** to avoid damage to the PC components (which may not be covered by the Limited Warranty). Use a flashlight and insulated tool to operate the switch.

- (1) Turn off the main power switch located on the back of the FT-2000 (or turn off the power supply for FT-2000D) and remove the AC power cord.
- (2) You must access the programming switch S3004. It is located on the control PC board on the bottom of the FT-2000/D. To find and operate the switch, remove the top cover (9 black screws). Remove the bottom cover (seven black screws). Remove the bottom shield (15 silver screws). Carefully Place the Transceiver bottom side up on a sturdy cleared worktable. Find the micro-switch on the pc board near the rear right hand corner when looking down at the bottom of the FT-2000. (See the attached photo.)



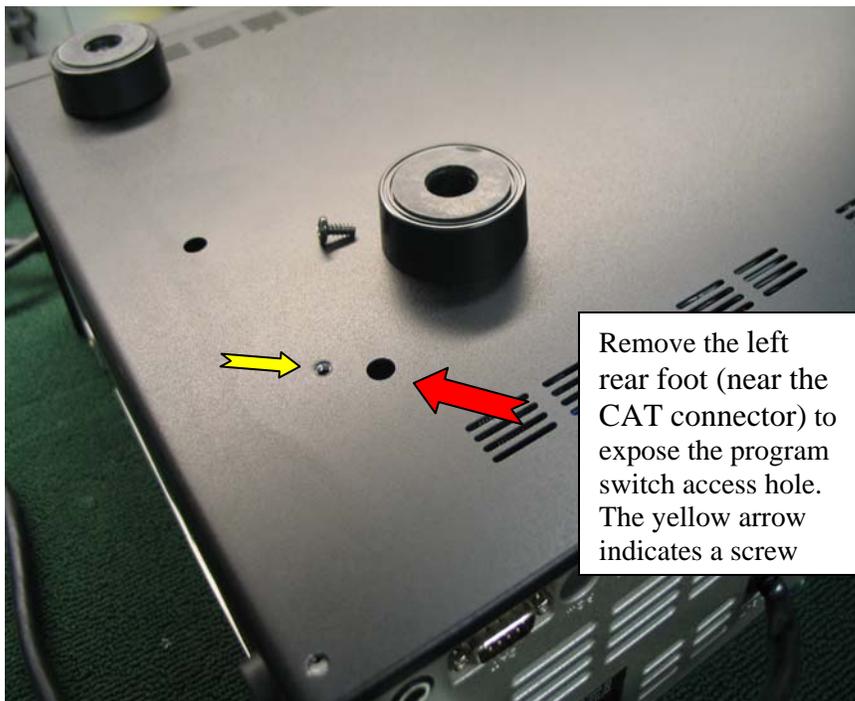
- (3) Connect a serial cable RS-232C, DB9F to DB9F straight cable to the **COM1 connector** of your computer and the **9-pin CAT connector** on the rear of the transceiver. If you use a USB to serial adaptor you might need to change the COM Port number.
- (4) Switch the programming micro **switch S3004 to on.**
- (5) Connect the AC power cable. (In the case of the FT-2000D connect the power supply cables.)
- (6) Turn on the main power switch. (Located on the rear panel of the FT-2000 or on the front of the power supply for the FT-2000D.)

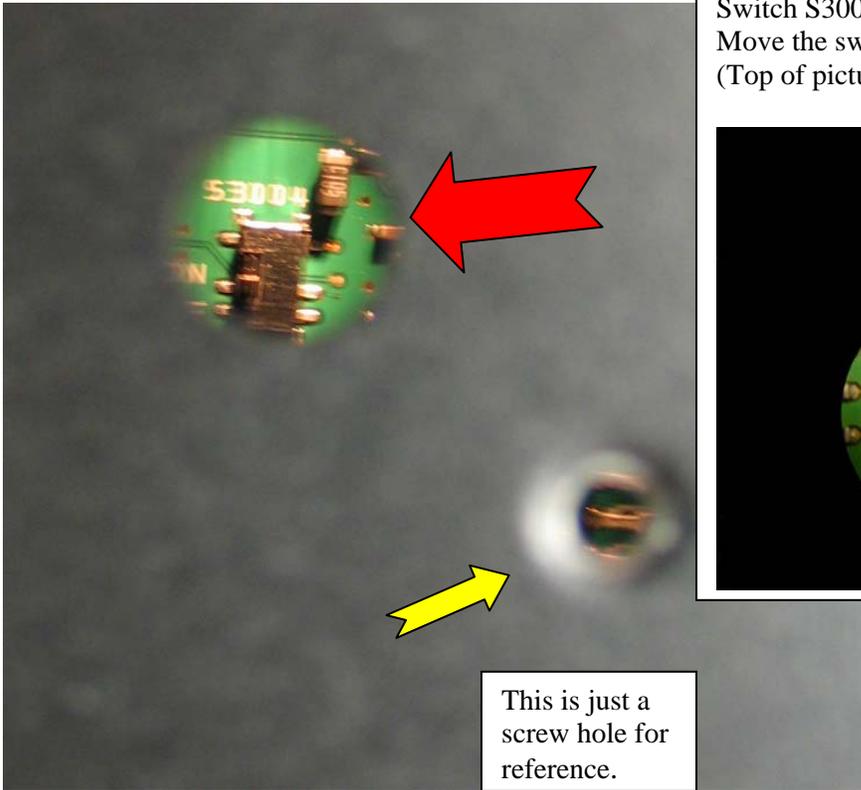
- (7) Now go to the desktop open Main folder and find the **FSW003** icon as shown below. Double-click on **the FSW003** icon.



- (8) When the program opens, confirm that the file [AH025\\_V0142.SFL](#) is highlighted; if not, click on it to highlight it
- (9) Click on [WRITE] in the program window. A green status bar should appear below the [WRITE] button to show the progress of the download. Do not interrupt the process until it completes.
- (10) When the loading process is complete, an [OK?] box will appear. Click [OK?].
- (11) Turn off the main power switch. (Located on the rear panel of the FT-2000 or on the front of the power supply for the FT-2000D.)
- (12) Disconnect the AC power cable. (In the case of the FT-2000D also disconnect the power supply cables.)
- (13) Switch the programming micro **switch S3004 to the off position.**
- (14) Remove DB9F straight cable from the CAT connector on the rear of the transceiver.
- (15) Replace the bottom shield panel (15 screws). Replace the bottom case (7 black screws). Replace the top case (9 black screws)
- (16) Reconnect the power cord, (or power supply and connectors for FT-2000D)
- (17) Turn the main power switch located on the back of the FT-2000 to the ON position (or on the power supply for FT-2000D).
- (18) 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.) The updating process is now complete. You may need to enter your custom menu settings now.

Figure A





Switch S3004 is visible through the hole. Move the switch to the on (rear) position. (Top of picture)

