6/20/16

FTDX5000 Firmware Update and Version Identification

There are four different Firmware installations. Each one must be followed carefully. Installing the wrong type firmware may cause difficulties. Check your radio before installing firmware to be sure which updates are needed.
If multiple firmware installations are required the **MAIN** firmware should be installed first, as it is the only one that requires a press and hold in the [FAST] and [LOCK] keys while turning the radio back on. This resets the radio and locks in the new firmware.

The latest versions are listed below with the release dates.

- MAIN Firmware Version **0127** (9/04/14)
- EDSP Firmware Version **0554** (6/20/16)
- OEL (OLED) Foftware Version **0110** (3/23/10)
- SM-5000 Firmware Version **0107** (3/23/10)
- DMU-2000 Firmware Version (Option): Please refer to the DMU-2000 update information on our website.
- EDSP-5000 Programming Writer Version **1.07** (7/09/10)
- PCC-5000 Personal Computer Controller Window Version **0103** (9/06/13)

<u>Implements improvements</u>

EDSP Ver. 0554 (6/20/16)

- Improved and optimized.

The zip file contains all of the current firmware versions. Please verify which version firmware is already on your radio before updating. If you have each of the listed versions, you do not need to update the radio again.

The firmware versions can be displayed on the radio

While holding the three buttons [GEN]＋[50]＋[ENT] turn the radio on. The firmware version will be displayed See Fig. 1 and 2.

Fig. 1

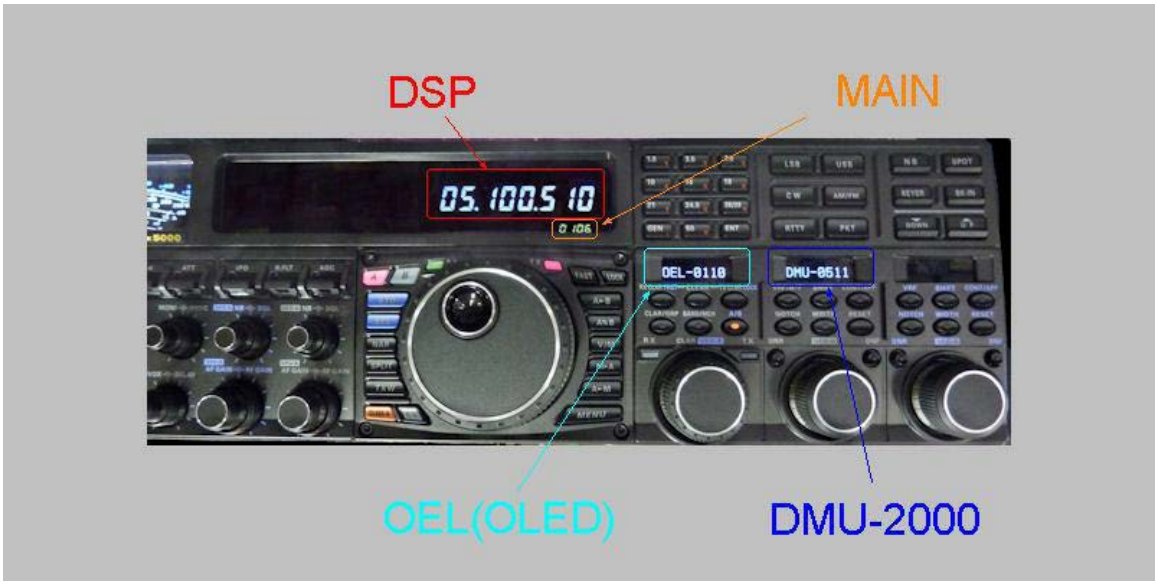


Fig. 2

- **MAIN Firmware Version**

The version number will be shown on the VFD CLAR (Clarifier) display. See Fig. 2 and 3 (example MAIN firmware version V0106).

- **EDSP Firmware Version**

The version number will be shown on the VFD MAIN Frequency display.
See Fig. 2 and 3 (example EDSP firmware version MAIN: V0510 and SUB V0510).

Fig. 3

- **OEL (OLED) Firmware Version**

The version number will be shown on the CLAR/VFO-B DIAL display (Left side). See Fig. 2 and 4 (example OEL firmware version V0110).

- **DMU-2000 Firmware Version**

The version number will be shown on the VFO-A SELECT DIAL display (Center). See Fig. 2 and 4 (example DMU firmware version V0511). This will not be displayed unless the DMU-2000 is attached and turned on.

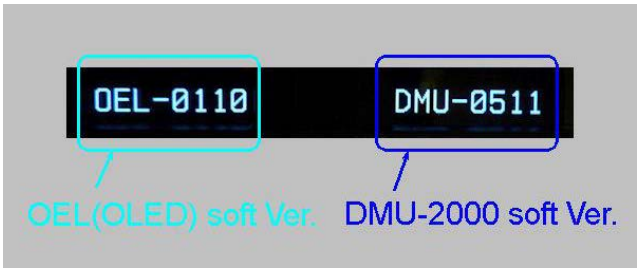


Fig. 4

- **SM-5000 Firmware Version**

The version number will be shown on the SM-5000 LCD display, right side lower corner. See Fig. 5 (example LCD firmware version V0107)

Fig. 5

Install the data file to PC

[The following procedures are provided to update the data file from the Yaesu website]

1. Download the FTDX5000 data file [**FTdx5000_6-20-16.zip**] from the following website: ://www.yaesu.com/indexVS.cfm?cmd=DisplayProducts&ProdCatID=102&encProdID=12FF98B9C73C8988F2398C979793E2E1&DivisionID=65&isArchived=

2. Save the FTDX5000 data file [**FTdx5000_6-20-16.zip**] to the desktop on your computer.
3. Unzip and Extract the contents of [**FTdx5000_6-20-16.zip**] to the desktop of your computer.
4. You will find the FTdx5000 MAIN, EDSP, OLED and SM-5000 LCD folders on your desktop.

The programmers and firmware are now stored on your computer on the desktop. The files designated in the last step above are ready to update your FTDX5000 Transceiver.

IMPORTANT NOTE:
While using any update firmware, if you receive a "Communications Error !!!" message on your computer screen, follow the below procedure.

When a **Communication Error !!!** occurs, the Main Power must be turned off or the power cable removed, and the programming firmware closed to reset the procedure. If the reset is not done the communication will never be successful. Make sure the cable is connected correctly, the COM port selection is correct, and the Bits per second default is set to 9600, (it is not necessary to change to another Bits rate) before trying again. If you continue to receive **Communication Error !!!**, you may need to try another USB adapter cable or another computer.

1. Turn the FTDX5000 rear panel Main Power switch OFF, or disconnect the power cable.
2. Make sure the USB to DB9 adapter cable, or DB9 to DB9 straight cable is connected correctly between the computer and the FTDX5000.
3. Open "System" in the computer Control Panel.
4. Go to: System -> Hardware -> Device Manager -> Make sure the Communication Port (COM#) or the USB to Serial Bridge shows Ports (COM &LPT) in the hardware listing (on you current computer) and note the COM port number in use.
5. Close the system properties or control panel.
6. Open the EDSP Programming Folder and File. Select Com Port # to match your Device Manager listed Communication Port (COM #) or the USB to Serial Bridge shows Ports (COM &LPT).
7. Turn the rear Main Power on, or connect the power cable.
8. For example for EDSP, Hold the DNR and DNF (VFO-A) buttons while turning the front power switch on. Confirm dSP Prg is shown on the Radio main display. (Follow the instructions for MAIN, OLED or LCD).
9. Click update on the program EDSP writer. Highlight the AH036H_V05xx file and then click OPEN. The progress bar should immediately begin to indicate the update is working. (Follow the instructions for MAIN, OLED or LCD).
10. Close the programming file when complete.
11. Turn the Power Switch Off (Front). Press GEN+50+ENT while turning the radio on to verify the programming level.
12. Turn the rear Main Power off and disconnect the Programming cable.

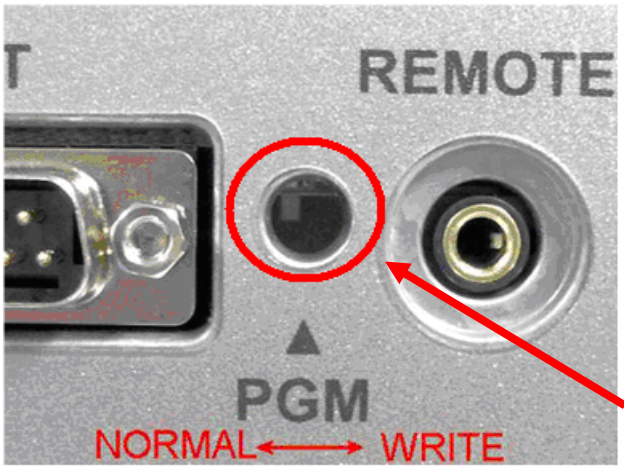
If you do multiple firmware updates Main, EDSP, OLED and LCD, the **MAIN** should always be installed first.

MAIN Firmware Update

- MAIN CPU Firmware Version

*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 FTDX5000 OFF and disconnect the power cable (or turn OFF the MAIN power switch rear panel).
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 **WRITE** (program position). See Fig. 6.
   NOTE: always move the program switch before connecting the AC cable or turning the rear panel Power switch on, or the programming will not start.

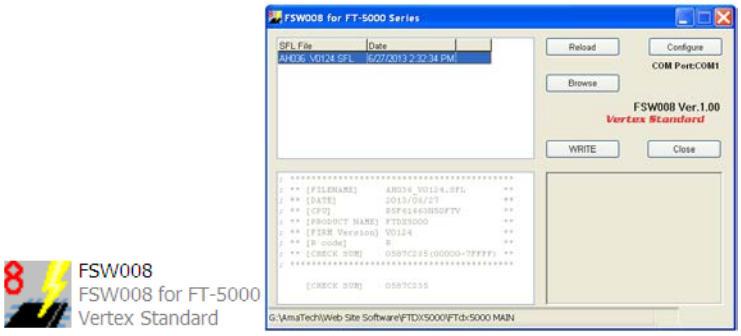


Carefully move the PGM-SW to the **WRITE** (program position).

Fig. 6

3. Connect the serial straight through programming cable (DB9F to DB9F) to the serial port COM1 in the back of your computer. Plug the DB9F connector to the CAT connector on the FTDX5000. If you use a USB to serial adapter, you might need to change the COM Port number.

4. Leave the FTDX5000 Front On/Off switch turned OFF and connect the power cable (or turn ON the rear panel MAIN power switch).
5. Now go to the desktop open FTdx5000 MAIN folder and find the **FSW008** icon as shown below. Double-click the FSW008 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. Please refer to page 4 for additional details.

6. When the program opens, confirm that the file **AH036_V0127.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, an [OK?] box will appear. Click [OK?].
10. Disconnect the AC power cable (or turn OFF the rear MAIN power switch for FTDX5000 and wait a minute, until the capacitors discharge) and then remove the DB9 serial programming cable. Thru the access hole on the back of the radio, move the **PGM-SW** to the **NORMAL** position. See Fig. 6.
11. Reconnect the AC power cable (or turn ON the rear MAIN power switch for FTDX5000).
12. Press and hold in the [FAST] and [LOCK] keys while turning the radio back on. This resets the radio and locks in the new firmware.
13. Turn the radio off. The main CPU updating process is now complete.
14. Confirm the new update firmware by holding the three buttons [GEN]+[50]+[ENT] and turn the radio on. The new firmware version will be displayed See Fig. 2.

EDSP, OLED and SM-5000 Firmware Update

See below, how to access the programming mode for each different EDSP, OLED and SM-5000 firmware. It is very important to install the correct firmware. The incorrect installation may make the radio inoperable and the version number will not be displayed.

Fig. 7

NOTE: The below instructions are for installing each firmware individually. If you are sequentially installing more than one firmware EDSP, OLED and SM-5000 LCD type, it is not necessary to turn off the rear panel Main power switch or disconnect the AC and programming cables until all of the firmware is installed. However, turn the front power switch off after each program is installed.

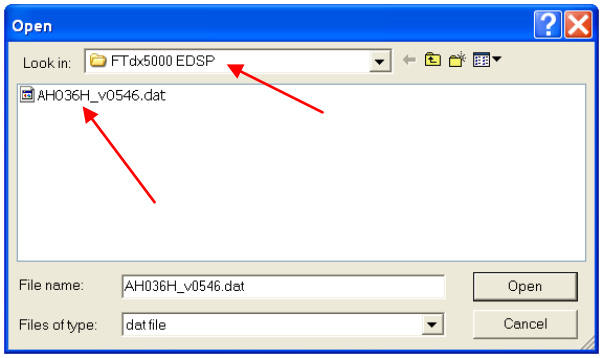
- **EDSP Firmware Version**

This procedure is used for uploading new EDSP Firmware to the FTDX5000 Amateur Transceiver from your personal computer, using the RS-232C (DB9F to DB9F) straight cable.

1. Turn the FTDX5000 OFF and disconnect the power cable (or turn OFF the MAIN power switch rear panel).
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 setting.
3. Reconnect the AC power cable (or turn ON the rear panel MAIN power switch).
4. While holding the [DNR]+[DNF] buttons at VFO-A (center), press the front power switch to turn the radio on. See Fig. 7. You will see [dSP Prg] on the radio display.

5. On your computer desk top open FTdx5000 EDSP folder and find the **EDSP-5000 V1.07** icon as shown below. Double-click the EDSP-5000 V1.07 icon, displayed on the Program Screen.

6. Click the Update button. You will see **AH036H_V0554** out file displayed. If you do not see AH036H_V0554 (as in the screen below), then open the "Look in:" window and go to the desktop and find **FTdx5000 EDSP**. Open the folder and AH036H_V0554 will be displayed in the window. Click AH036H_V0554 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 you should check the COM port number and speed under Device Manager. The writing speed **38.4kbps** is fixed in the download algorithm of the EDSP board so you may need to set the port speed close to 38.4kbps. Click on the **COM Select** box arrow and choose a different COM port from the drop down menu in the EDSP-5000 writer. Please refer to page 4 for additional details.

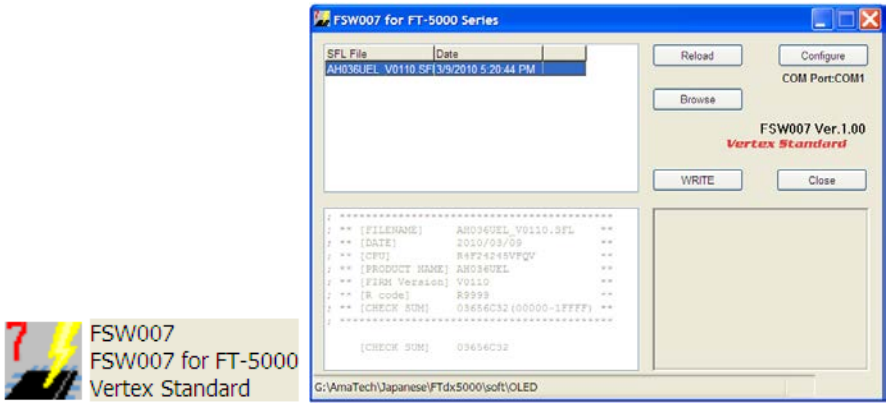
7. Turn OFF the front Power Switch and disconnect the AC power cable (or turn OFF the rear panel MAIN power switch for FTDX5000 and wait a minute, until the capacitors discharge). This resets the radio and locks in the new firmware. Remove the DB9F to DB9F cable. The updating process is now complete.
8. Confirm the new update firmware by holding the three buttons [GEN]+[50]+[ENT] and turn the radio on. The new firmware version will be displayed See Fig. 2. **If you do not receive the complete 05.540.554 indication after installing V0554, please repeat the EDSP installation one more time. Follow the above instructions 1 thru 8.**

- **OEL (OLED) Firmware Version**

This procedure is used for uploading new OEL (OLED) Firmware into the FTDX5000 Amateur Transceivers, from your personal computer, using the RS-232C, DB9F to DB9F straight cable.

1. Turn the FTDX5000 OFF and disconnect the power cable (or turn OFF the rear panel MAIN power switch).
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 AC power cable (or turn ON the rear panel MAIN power switch).
4. While holding the [DNR] + [DNF] buttons at VFO-B (right side), press the front power switch to turn the radio on. See Fig. 7. You will see [OLEd Prg] on the radio display.

5. On your computer desk top open FTdx5000 OLED folder and find the **FSW007** icon as shown below. Double-click the FSW007 icon, displayed on the Program Screen.



6. When the program opens, confirm that the file **AH036UEL_V0110.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, an [OK?] box will appear. Click [OK?].
10. Disconnect the AC power cable (or turn OFF the rear panel MAIN power switch for FTDX5000 and wait a minute, until the capacitors discharge) and then remove the DB9 serial programming cable.
11. Reconnect the AC power cable (or turn ON the rear panel MAIN power switch). The OEL (OLED) updating process is now complete.
12. Confirm the new update firmware by holding the three buttons [GEN]+[50]+[ENT] and turn the radio on. The new firmware version will be displayed See Fig. 2.

• SM-5000 Firmware Version

1. Turn the FTDX5000 OFF and disconnect the power cable (or turn OFF the rear panel MAIN power switch).
2. Locate the program switch thru the access hole on the back at the rear center of the SM-5000. Carefully move the **PGM-SW** to the **WRITE** (program position). See Fig 10.

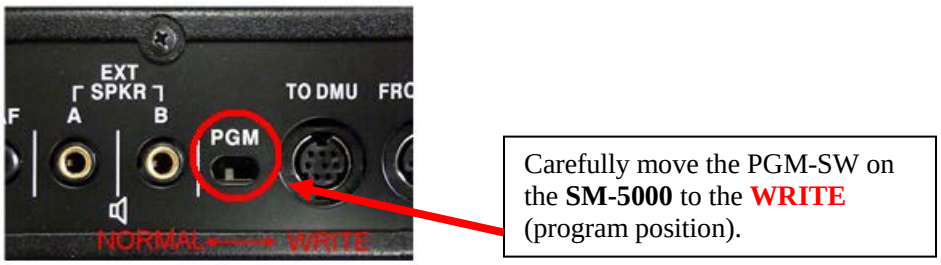
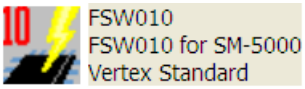
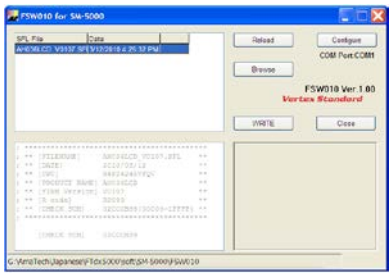


Fig 10

3. Connect the serial straight through programming cable (DB9F to DB9F) to the serial port COM1 in the back of your computer. Plug the DB9F connector to the CAT connector on the FTDX5000. If you use a USB to serial adapter, you might need to change the COM Port setting.
4. Reconnect the AC power cable (or turn ON the rear panel MAIN power switch).
5. While holding the [NOTCH] + [RESET] buttons at VFO-B (right side), press the front main power switch to turn the radio on. See Fig. 7. You will see [LCd Prg] on the radio display.

6. On your computer desk top open SM-5000 LCD folder and find the **FSW010** icon as shown below. Double-click the FSW010 icon, displayed on the Program Screen.





7. When the program opens, confirm that the file **AH036LCD_V0107.SFL** is highlighted; if not, click on it to highlight it.
8. Click "Configure" if necessary, to change the COM Port.
9. Click **WRITE.** The onscreen progress bar will indicate programming activity.
10. When programming has completed, an [OK?] box will appear. Click [OK?].
11. Disconnect the AC power cable (or turn OFF the rear panel MAIN power switch for FTDX5000 and wait a minute, until the capacitors discharge) and then remove the DB9 serial programming cable.
    Thru the access hole on the back of the **SM-5000**, move the **PGM-SW** to the **NORMAL** position. See Fig 10
12. Reconnect the AC power cable (or turn ON the rear panel MAIN power switch for FTDX5000).
13. Turn the radio off. The SM-5000 updating process is now complete.
14. Confirm the new update firmware by holding the three buttons [GEN]+[50]+[ENT] and turn the radio on. The new firmware version will be displayed See Fig. 2.

We hope this new firmware will increase your enjoyment of your **FTDX5000**. Thank you for choosing Yaesu radios. If you have any problems or questions, please contact Yaesu, Amateur Tech Support @yaesu..

Best regards,

Mikio Maruya, WA6F
Executive Vice President
Engineering & Customer Service
Yaesu USA