

This software is personal computer software, used to update the firmware of a FT-991 transceiver after connecting it to a personal computer.

## **Important**

Before downloading this software, please read the "Important Notes" carefully.

Downloading or installing this software will be taken as indicating your agreement with the contents of the "Important Notes".

"Transceiver" is used hereafter to refer to FT-991 transceiver.

## **Important Notes**

- All responsibility for the usage of this software lies with the customer. We cannot be held responsible in any way for any damages or losses which may be incurred by the customer as a result of using this software.
- Copyrights and all other intellectual property rights for the software, as well as the software manual, are the property of YAESU MUSEN CO., LTD.
- The revision, modification, reverse engineering, and decompiling of this software is prohibited. Redistribution, transfer, and resale of downloaded files are also prohibited.
- Downloaded files may only be used for personal use.
- If you cannot perform firmware upgrading yourself, please consult with one of our sales sites or service centers.

## **System Requirements (Operating Environment)**

### **Supported Operating Systems**

- Microsoft® Windows® 8.1
- Microsoft® Windows® 8
- Microsoft® Windows® 7
- Microsoft® Windows Vista™ (Service Pack 1 or later)

※ To upgrade the TFT Firmware on your FT-991, you must first install "Microsoft .NET Framework 3.5" onto the personal computer before beginning the firmware upgrade process.

### **CPU**

CPU which satisfies OS (operating system) requirements

### **RAM (System Memory)**

Amount of RAM (system memory) meeting or exceeding OS (operating system) requirements

### **HDD (Hard Disk)**

HDD (hard disk) with capacity meeting or exceeding OS (operating system) requirements

In addition to having sufficient free space for the OS to operate, the program requires 20 Mbyte or more of free space.

### **Ports**

USB port (USB1.1/USB2.0)

Do not connect the USB cable to your personal computer and FT-991 until after the "virtual COM port driver" installation is completed, because the wrong driver may be installed.

### **USB Driver (for Performing Version Upgrade via the USB Port)**

Install the FT-991 virtual COM port driver in the personal computer before beginning the firmware upgrade process.

Please see the FT-991 USB Driver (Virtual COM Port Driver) on the Yaesu Website for details (<http://www.yaesu.com/>).

### **Cables**

USB cable (AB type)

Please have a commercially available cable ready.

## Regarding this Firmware

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MAIN, DSP, TFT and C4FM DSP firmware are available for FT-991 transceiver. Check your firmware version, and perform firmware upgrading when needed.

### How to Confirm the Firmware Version (see below)

#### How to Update the MAIN Firmware (see p3)

Downloading the MAIN Firmware

[Transfer Software: YFSW021](#)

[Firmware: AH057\\_V\\*\\*\\*\\*.SFL](#)

#### How to Update the DSP Firmware (see p5)

Downloading the DSP Firmware

[Transfer Software: FW-DSP](#)

[Firmware: AH057\\_V\\*\\*\\*\\*.dat](#)

#### How to Update the TFT Firmware (see p7)

Downloading the TFT Firmware

[Transfer Software: TFW](#)

[Firmware: AH057\\_V\\*\\*-\\*\\*.bin](#)

#### How to Update the C4FM DSP Firmware (see p9)

Downloading the TFT Firmware

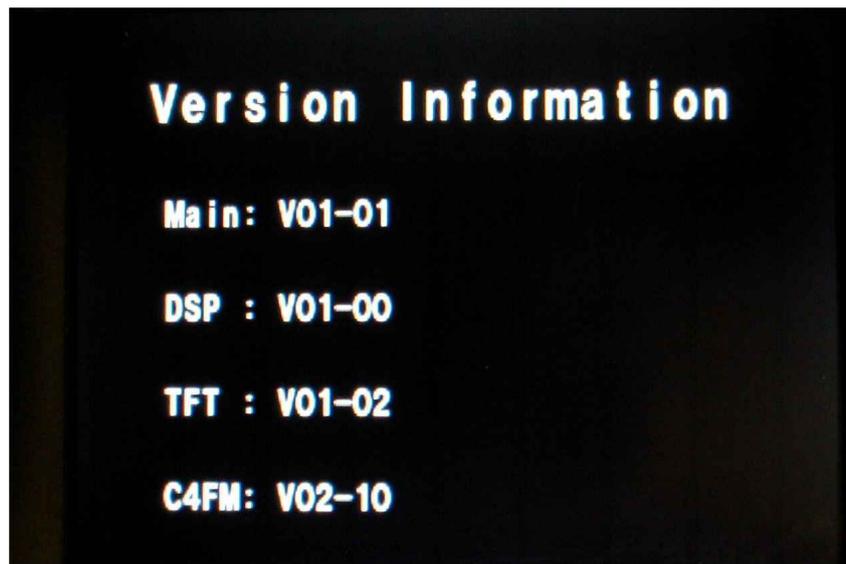
[Update Software: PCTOOLe\\_v\\*\\*\\*\\*.exe](#)

## How to Confirm the Firmware Version

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Press and hold the [POWER] key to turn on the transceiver, while pressing and holding the [A=B] key, and [A/B] key on the transceiver's main panel.

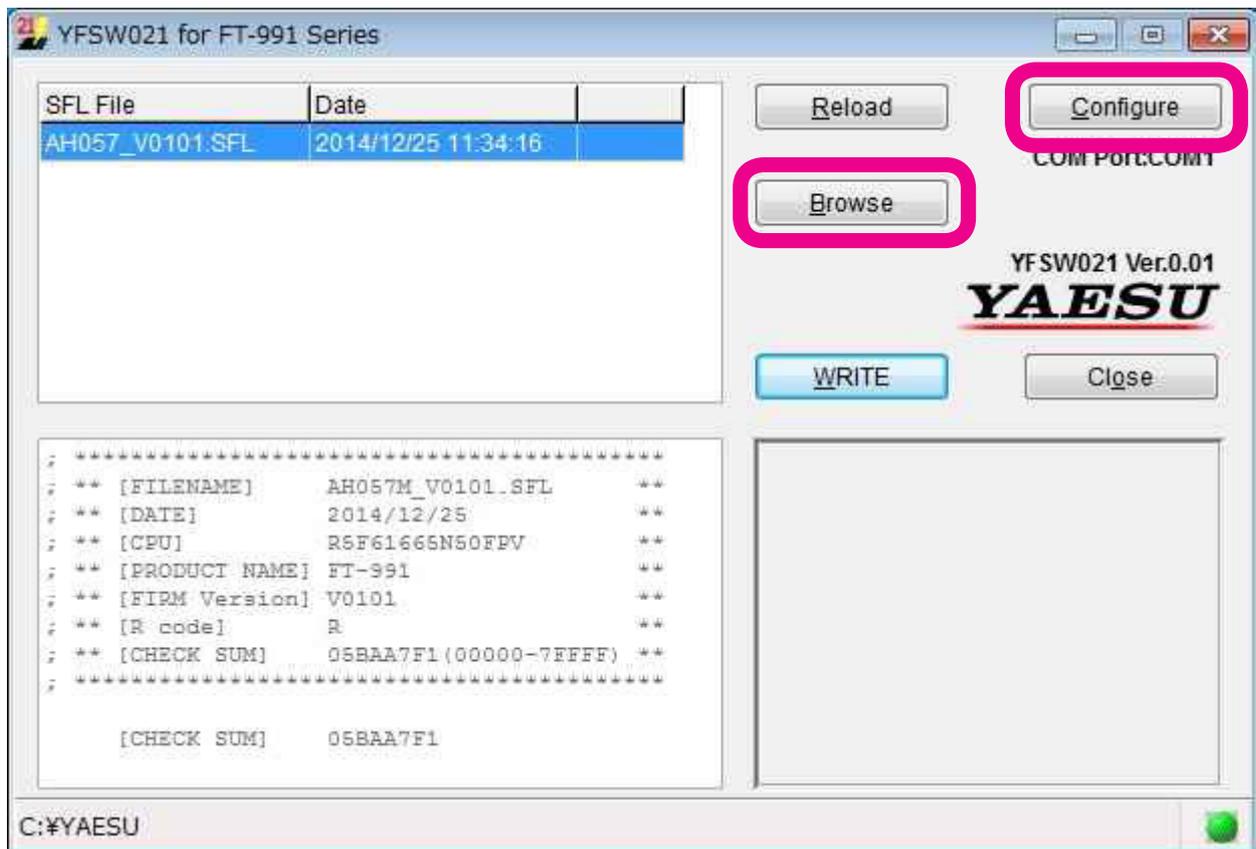
The versions of each firmware will be displayed on the TFT screen.



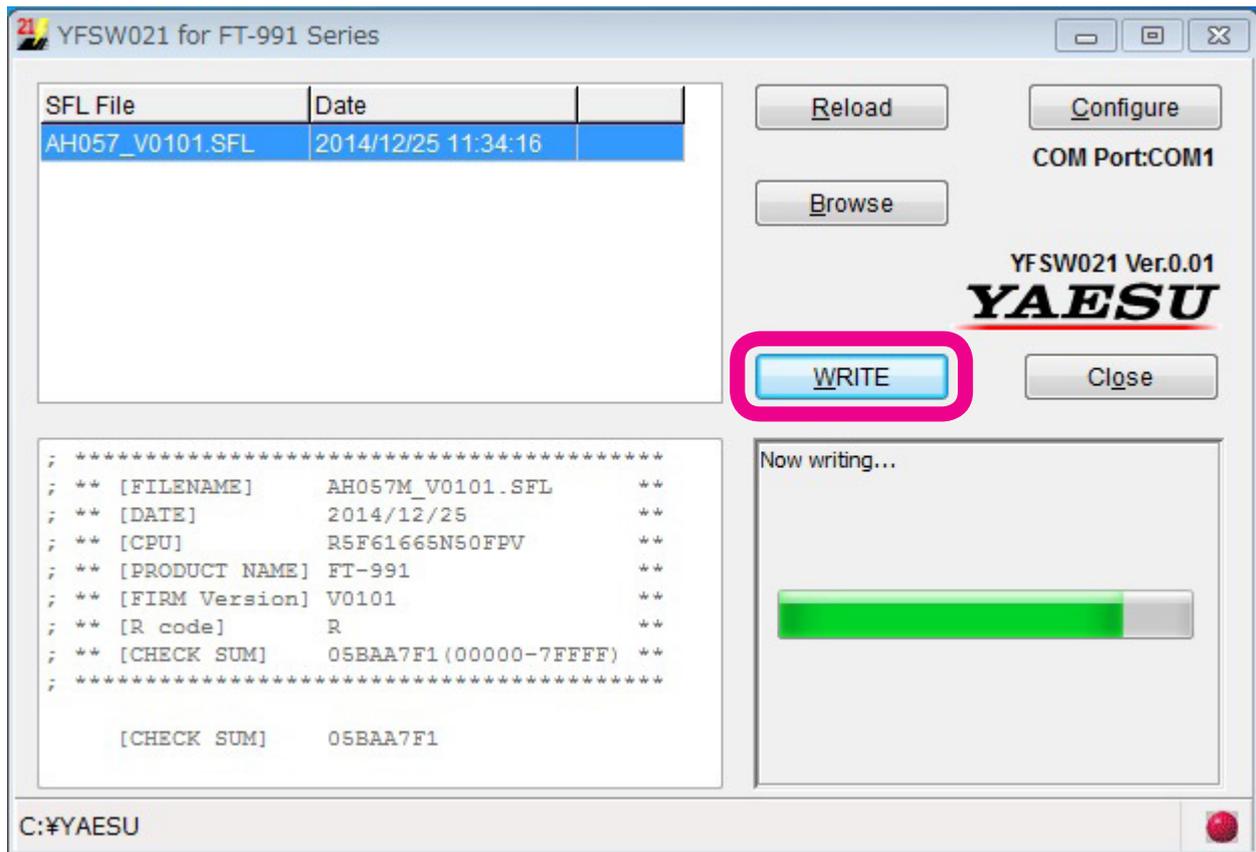
## How to Update the MAIN Firmware

**Preparation:** Download the **YFSW021** transfer software and **AH057\_V\*\*\*\*.SFL** firmware to the same folder, and Unzip the downloaded zip file.

1. Confirm that the radio is turned off then disconnect DC cable and all other cables from the transceiver unit.
2. Connect the transceiver unit USB terminal and personal computer USB port via a standard, commercially available cable.  
(The FT-991 virtual COM port driver must be installed before connecting the USB cable.)
3. Confirm that the external power supply's power is turned off, and connect the DC cable to the transceiver. While pressing and holding the [TXW] and [SPLIT] keys on the transceiver unit panel, turn on the external power supply. (Do not touch the transceiver's POWER switch.)  
**NOTE:** This puts the radio into program mode and the display will be blank.
4. Execute the YFSW021.exe transfer software.  
Click the "Configure" button and set the COM port number.  
(Use an Enhanced COM port when using a USB cable. Please see the FT-991 Virtual COM Port Driver on the Yaesu Website for details (<http://www.yaesu.com/>).)
5. Click the "Browse" button on the YFSW021 transfer software screen, and select the firmware to be transferred (SFL file).



6. Click the "WRITE" button on the YFSW021 transfer software screen. The firmware transfer process will begin.



Please wait until the process has been completed.  
When "OK?" is displayed on-screen, the update has been completed.



7. Click the "OK" button.
8. Turn off the external power supply unit's power.
9. Disconnect the USB cable connecting the transceiver to the personal computer.
10. Turn on the external power supply unit's power.
11. Press and hold the [POWER] key while pressing the [F(M-LIST)] key on the transceiver's main panel, turning on the transceiver's power (Reset procedure).
12. Confirm that the unit's power has turned on, and press and hold the [POWER] to turn it OFF.  
This completes the firmware upgrading process.

If there is a problem during the upgrading process, disconnect the DC cable from the transceiver, and turn off the external power supply, then close the YFSW021 transfer software, and try again.

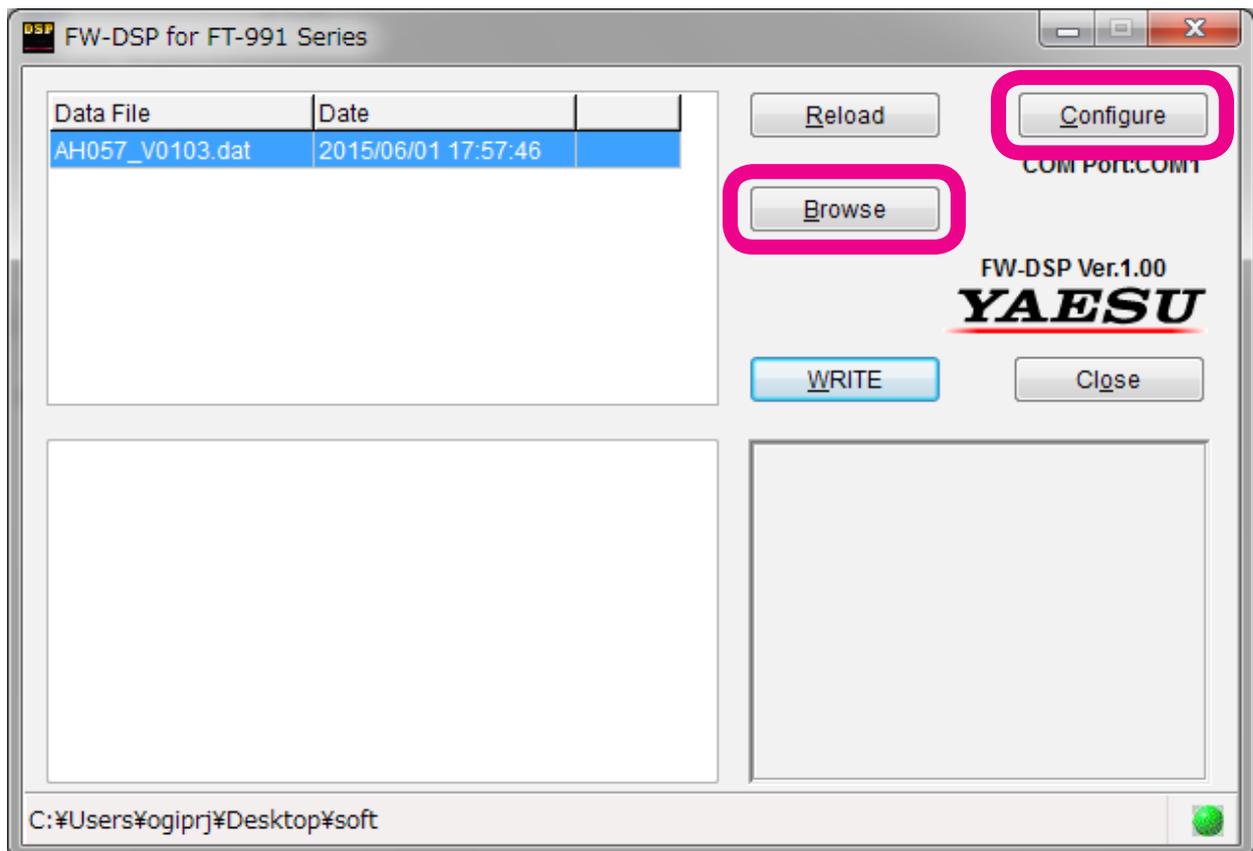
## How to Update the DSP Firmware

**Preparation:** Download the **FW-DSP** transfer software and **AH057\_V\*\*\*\*.dat** firmware to the same folder, and Unzip the downloaded zip file.

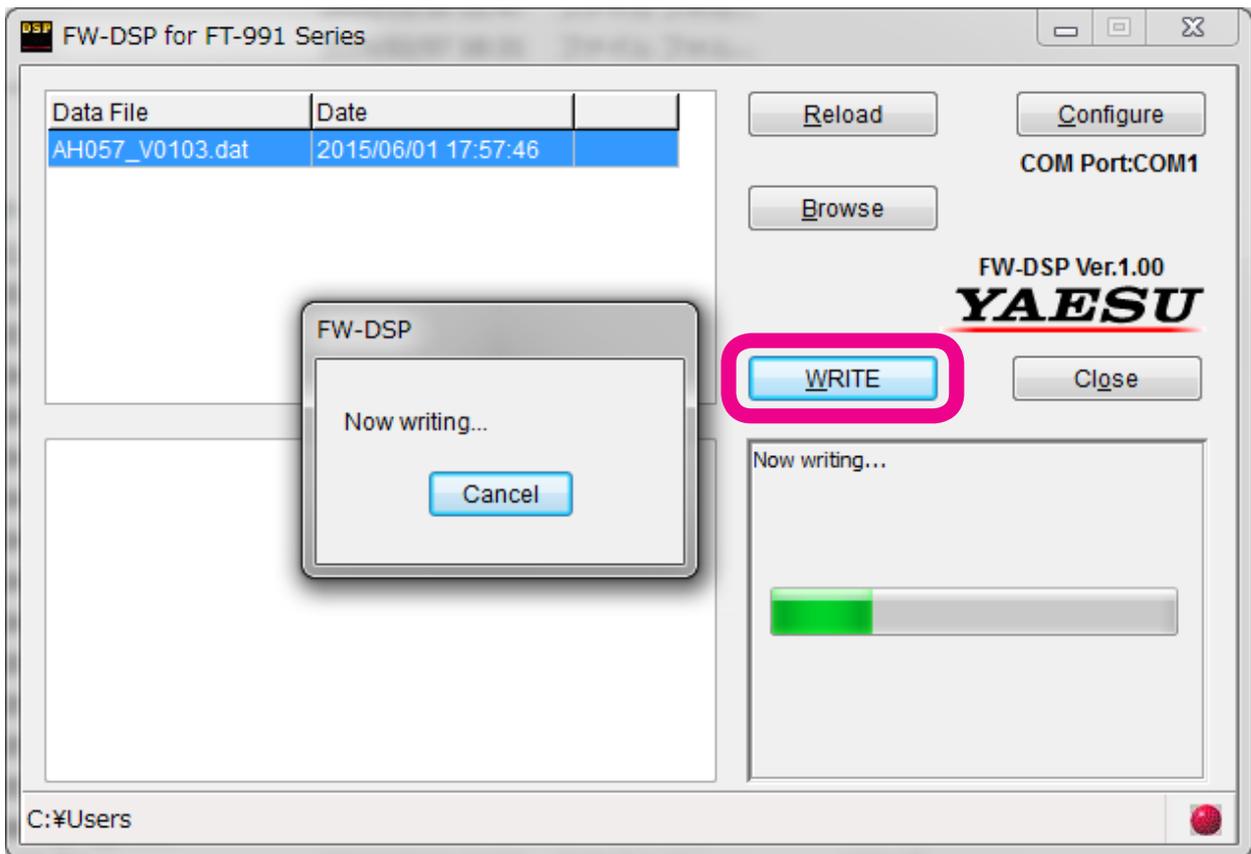
1. Confirm that the radio is turned off then disconnect DC cable and all other cables from the transceiver unit.
2. Connect the transceiver unit USB terminal and personal computer USB port via a standard, commercially available cable.  
(The FT-991 virtual COM port driver must be installed before connecting the USB cable.)
3. Connect the DC cable to the transceiver, and turn the external power supply unit power ON.  
Press and hold the [POWER] key while pressing the [F(M-LIST)] + [MENU(SETUP)] + [BAND] keys on the transceiver's main panel, turning on the transceiver's power.  
The transceiver LED indicator will appear as below, and the unit will switch to DSP write mode.



4. Execute the FW-DSP.exe transfer software.  
Click the "Configure" button and set the COM port number.  
(Use an Enhanced COM port when using a USB cable. Please see the FT-991 Virtual COM Port Driver for details on the Yaesu Website (<http://www.yaesu.com/>.)
5. Click the "Browse" button on-screen, select the firmware to be transferred (dat file).



- Click the "WRITE" button on-screen. The firmware transfer process will begin. Please wait until the process has been completed.



- When "OK?" is displayed on-screen, the update has been completed.
- Click the "OK" button.



- Press and hold the [POWER] key on the transceiver's main panel, turning off the transceiver's power.
- Click the "End" button on the transfer software screen.
- Disconnect the USB cable connecting the transceiver to the personal computer. This completes the firmware upgrading process.

If there is a problem during the upgrading process, disconnect the DC cable from the transceiver, and turn off the external power supply; then close the FW-DSP transfer software, and try again.

## How to Update the TFT Firmware

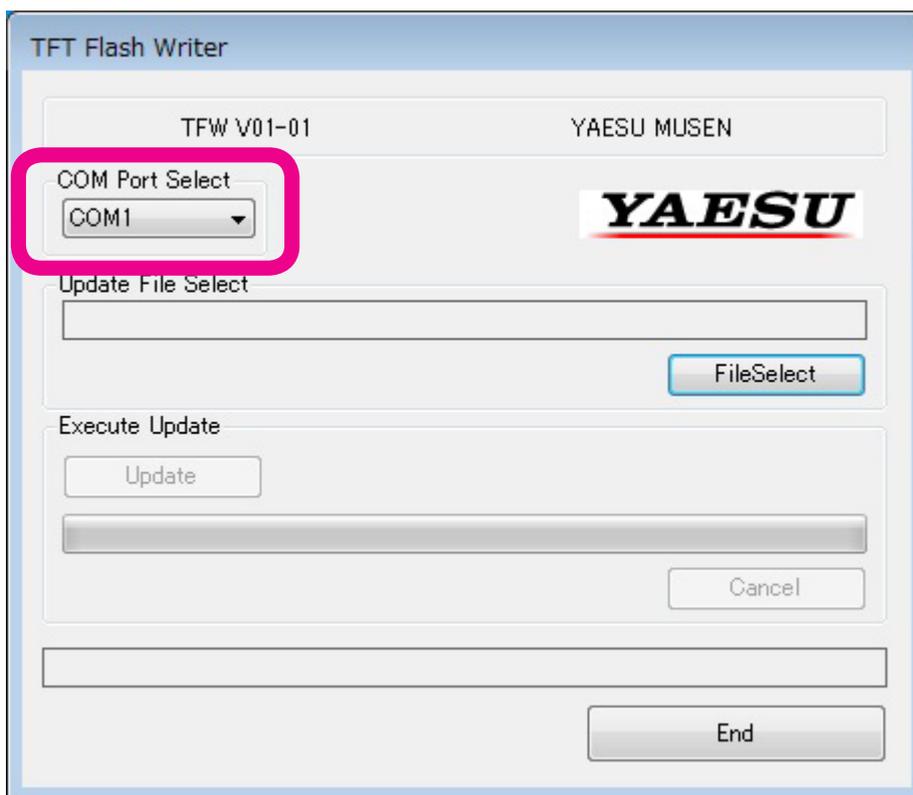
**Preparation:** Download the **TFW** transfer software and **AH057\_V\*\*-\*\*.bin** firmware to the same folder, and Unzip the downloaded zip file.

※ To upgrade the TFT Firmware on your FT-991, you must first install "Microsoft .NET Framework 3.5" onto the personal computer before beginning the firmware upgrade process.

1. Confirm that the radio is turned off then disconnect DC cable and all other cables from the transceiver unit.
2. Connect the transceiver unit USB terminal and personal computer USB port via a standard, commercially available cable.  
(The FT-991 virtual COM port driver must be installed before connecting the USB cable.)
3. While pressing and holding the [F(M-LIST)] + [BAND] + [MODE] keys, on the transceiver main panel, press and hold the [POWER] key, to turn the power ON. The transceiver frequency display will appear as below.

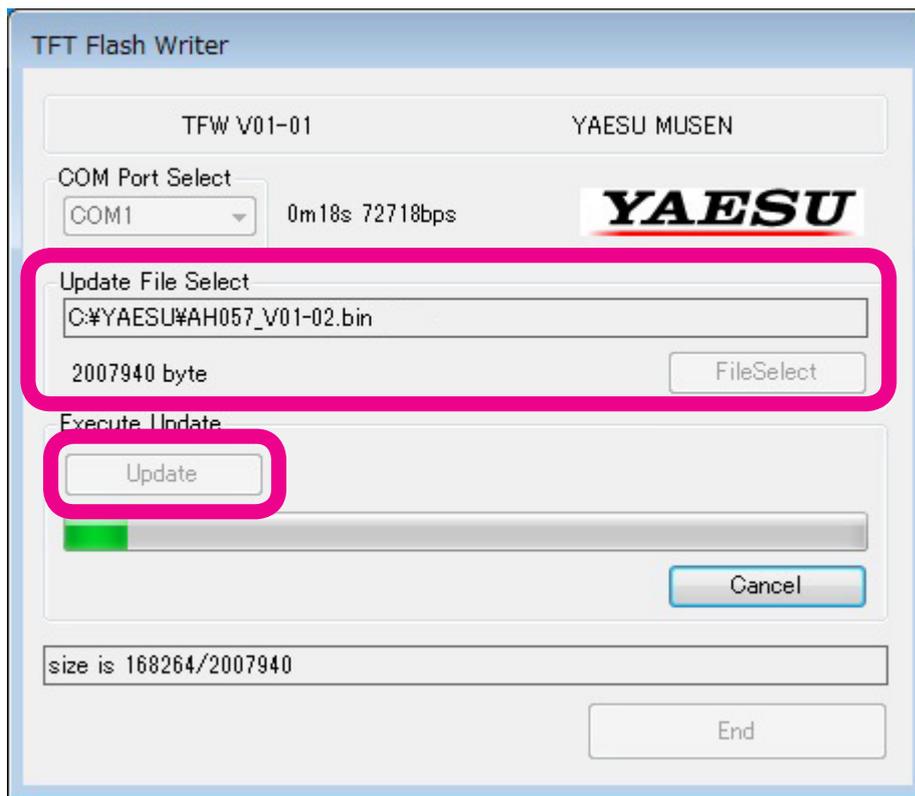


4. Execute the TFW.exe transfer software.



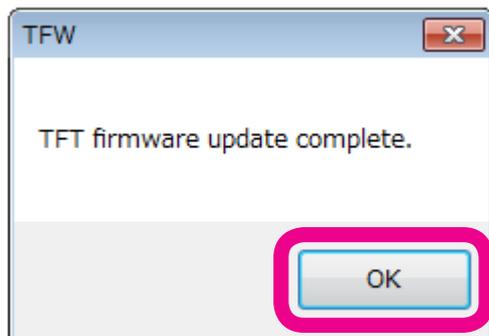
On the TFW COM Port Select screen, set the COM port number.  
The COM port number may vary from computer to computer.  
(Use an Enhanced COM port when using a USB cable. Please see the FT-991 Virtual COM Port Driver for details on the Yaesu Website (<http://www.yaesu.com/>.)

Click the “File Select” button, select the firmware to be transferred (bin file), and click the “Open” button. Click the “Update” button. The firmware transfer process will begin.



Please wait until the process has been completed.

“TFT firmware complete” will be displayed on-screen, as shown below.



Click the “OK” button.

6. Press and hold the [POWER] key on the transceiver's main panel, turning off the transceiver's power.
7. Click the “End” button on the transfer software screen.
8. Disconnect the USB cable connecting the transceiver to the personal computer.  
This completes the firmware upgrading process.

If there is a problem during the upgrading process, disconnect the DC cable from the transceiver, and turn off the external power supply; then close the TFW transfer software, and try again.

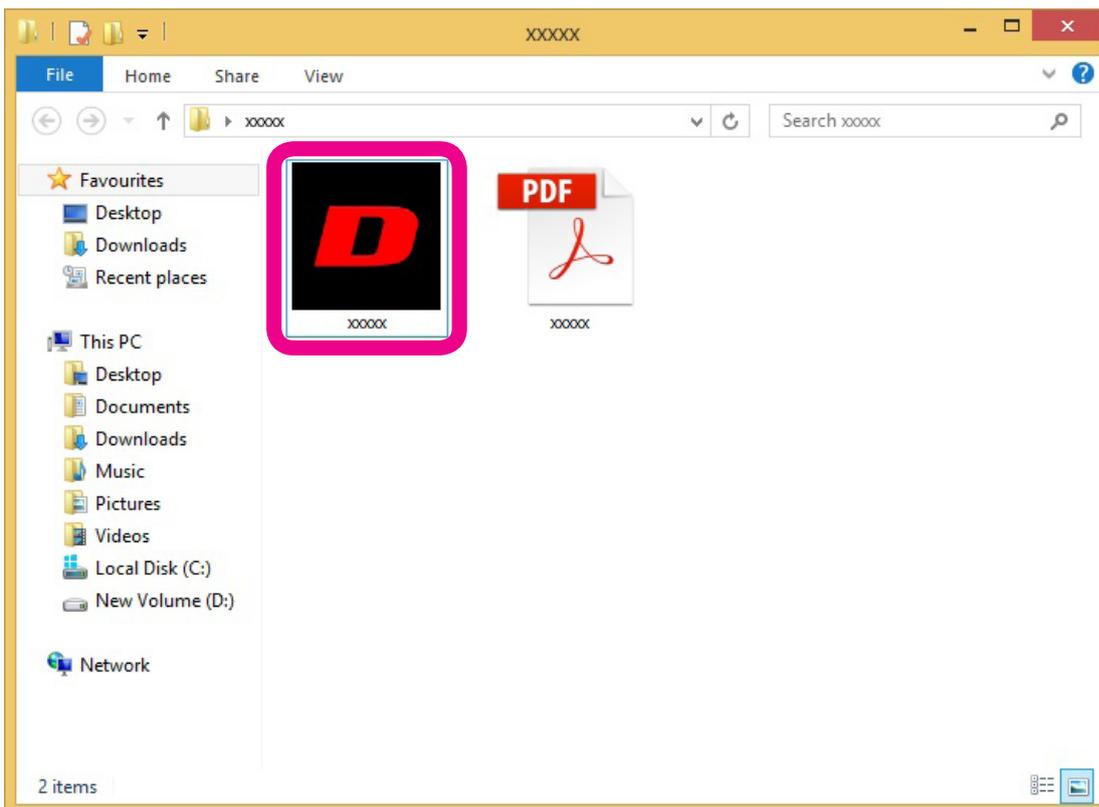
## How to Update the C4FM-DSP Firmware

**Preparation:** Download the update software **PCTOOLe\_vXXXX.zip**, and Unzip the downloaded zip file.

1. Confirm that the radio is turned off then disconnect DC cable and all other cables from the transceiver unit.
2. Connect the transceiver unit USB terminal and personal computer USB port via a standard, commercially available cable.  
(The FT-991 virtual COM port driver must be installed before connecting the USB cable.)
3. Connect the DC cable to the transceiver, and turn the external power supply unit power ON.  
While pressing and holding the [F(M-LIST)] + [MENU(SETUP)] + [MODE] keys, on the transceiver main panel, press and hold the [POWER] key, to turn the power ON. The transceiver frequency display will appear as below.

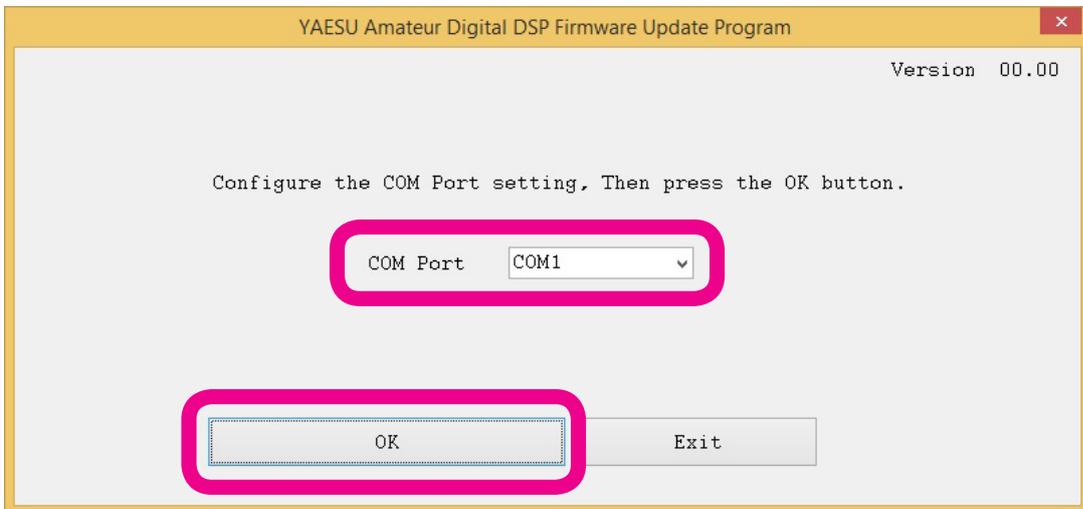


4. When decompressed, the folder will automatically open. Click on the "PCTOOLe\_vXXXX.exe" (D icon)" icon in the folder to execute the update program.  
\* "XXXX" refers to a version number.

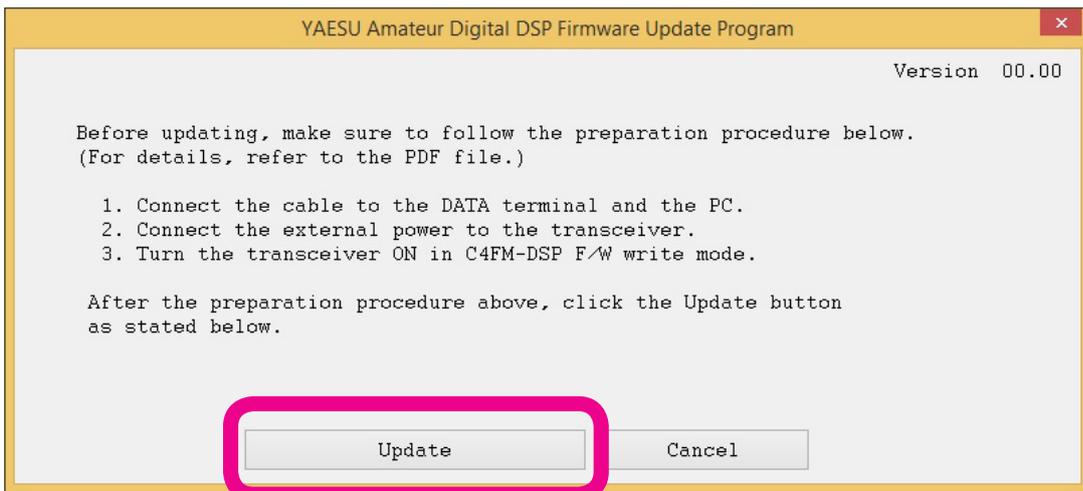


5. If the "Security Alert" screen appears, click the [Run] button.  
The "YAESU Amateur Digital DSP Firmware Update Program" will open.

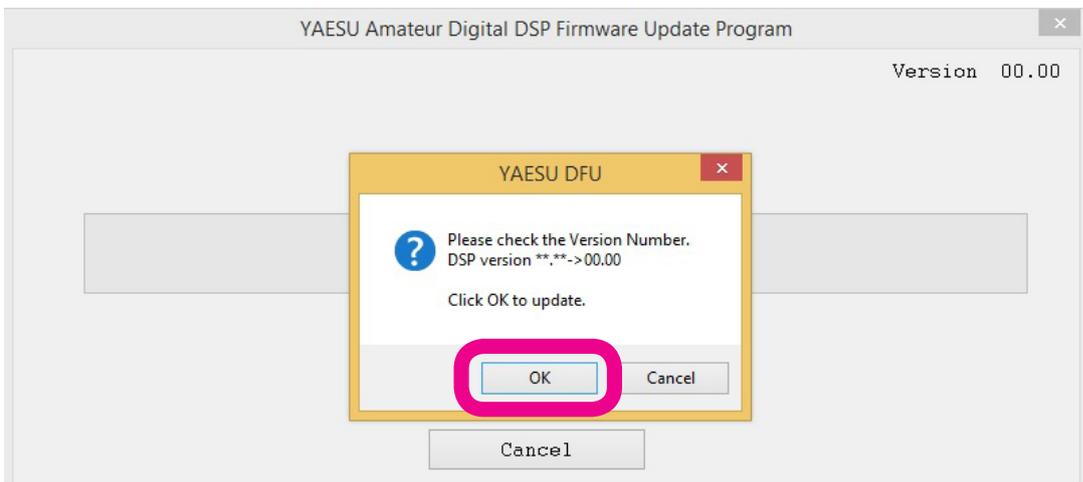
6. Set the COM Port number to the Port used in connecting the PC and FT-991.  
The port number can be verified by accessing the Windows PC device manager.  
When "Set the COM Port " is completed, press the "OK" button to advance to the next screen (preparations prior to transferring the software).



7. Click the [Update] button.



8. When the following pop-up screen is displayed, check the Version number.  
And then press the "OK" button.



The update progress indicator is displayed when the firmware transfer begins.

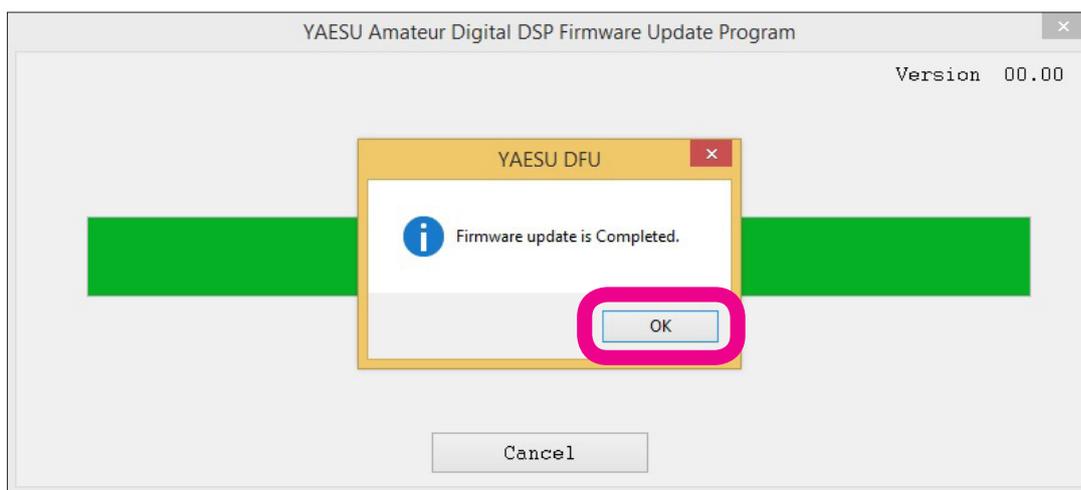
Wait for the updating to end. (The process takes about two minutes.)

**CAUTION!**

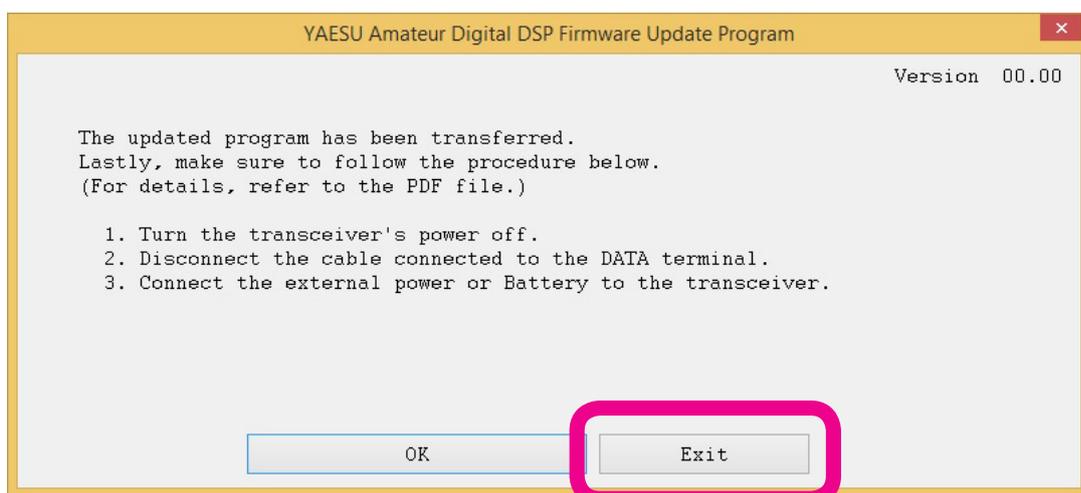
**Do not switch OFF the power supply to the PC or transceiver during the update. The transceiver may not function normally if the firmware transfer is interrupted during the upgrade.**

**When the following pop-up screen is displayed, upon completion of the update, press the "OK " button.**

9. When the following pop-up screen is displayed, upon completion of the update, press the "OK" button.



10. Press and hold the [POWER] key on the transceiver's main panel, turning off the transceiver's power.



11. Click the "Exit" button on the update software screen.

12. Disconnect the USB cable connecting the transceiver to the personal computer.

This completes the firmware upgrading process.

If there is a problem during the upgrading process, disconnect the DC cable from the transceiver, and turn off the external power supply; then close the update transfer software, and try again.

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***YAESU***  
***The radio***