YAESU
The radio

FT2DR/DE

DSP Firmware
Update Instruction Manual

YAESU MUSEN CO., LTD.

Introduction

This application is a software tool for updating the firmware of transceivers manufactured by Yaesu Musen Co., Ltd.

CAUTION!

Be sure to confirm the model and the version of your transceiver before starting the update. Writing incorrect firmware to the transceiver may cause abnormal operation or failure.

Important Notes

• All responsibility for the use of this software lies with the customer. Yaesu 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.
• 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 the firmware upgrade yourself, please consult with one of our sales sites or service centers.

Trademarks

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System Requirements (Operating Environment)

In order to use this program, a personal computer (PC) with one of the following Windows operating systems, and a USB data connection cable are required

Supported Operating Systems

One of the following operating system environments:
• Microsoft® Windows® 10 (32 bit / 64 bit)
• Microsoft® Windows® 8.1 (32 bit / 64 bit)
• Microsoft® Windows® 8 (32 bit / 64 bit)
• Microsoft® Windows® 7 (32 bit / 64 bit, Service Pack 1 or later)

CPU

The performance of the CPU must satisfy the operating system requirements.

RAM (System Memory)

The capacity of the RAM (system memory) must be more than sufficient to satisfy the operating system requirements.

HDD (Hard Disk Drive)

The capacity of the HDD must be more than sufficient to satisfy the operating system requirements.
In addition to the memory space required to run the operating system, about 50 MB or more of additional memory space is required to run the program.

Necessary PC peripheral interfaces

USB interface (USB Port)

Overview of the DSP Firmware Update

Update the firmware by following the procedures below:
1. Download the YAESU Amateur Digital DSP Firmware Update Program (page 4)
2. Install a Device Driver (page 4)
3. Update the DSP Firmware (page 11)

Downloading the YAESU Amateur Digital DSP Firmware Update Program

Download the "YAESU Amateur Digital DSP Firmware Update Program"; with this software, you can update the FT2DR/DE DSP firmware.

1. Download the update program from the Yaesu web site.
2. Extract the downloaded zip file, and save the data contained inside the zip file to any desired location.

Installing a Device Driver

Before updating the FT2DR/DE DSP firmware, install the device driver. Follow the appropriate procedure below for your version of Windows.

For Windows 10, Windows 8.1, and Windows 8

* The following procedure must be performed only when using the software for the first time. When the device driver is already installed on your computer, skip the following procedure.

* The procedure to install the driver on a Windows 10 computer is shown below for the purpose of explanation.

1. Open the folder in which you saved the data in step 2 of "Downloading the YAESU Amateur Digital DSP Firmware Update Program" instructions on page 4.

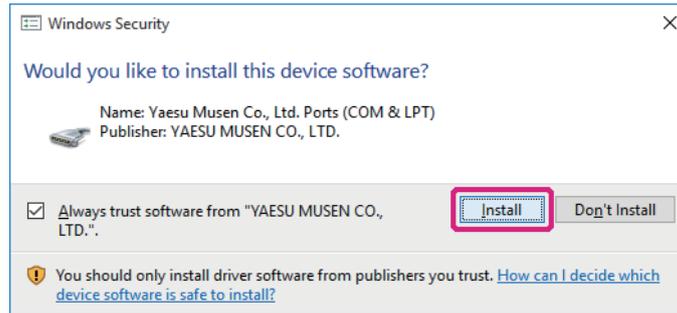2. Right-click the "FT2D_Com.inf" file, and then select [Install] from the menu displayed.
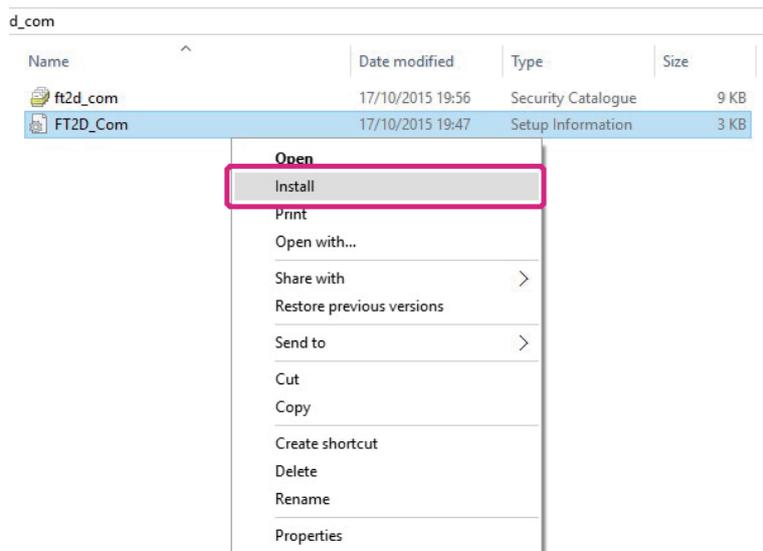
The "User Account Control" screen appears.
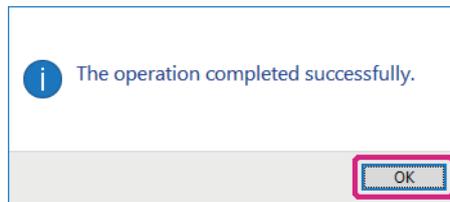
3. Click the [Yes] button.
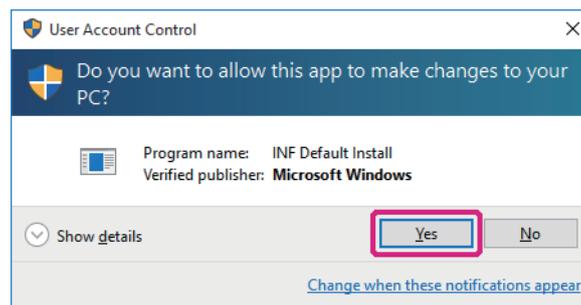
The "Windows Security" screen appears.

4. Click the [Install] button.

The device driver installation begins. When the installation completes, the message "The operation completed successfully." appears.
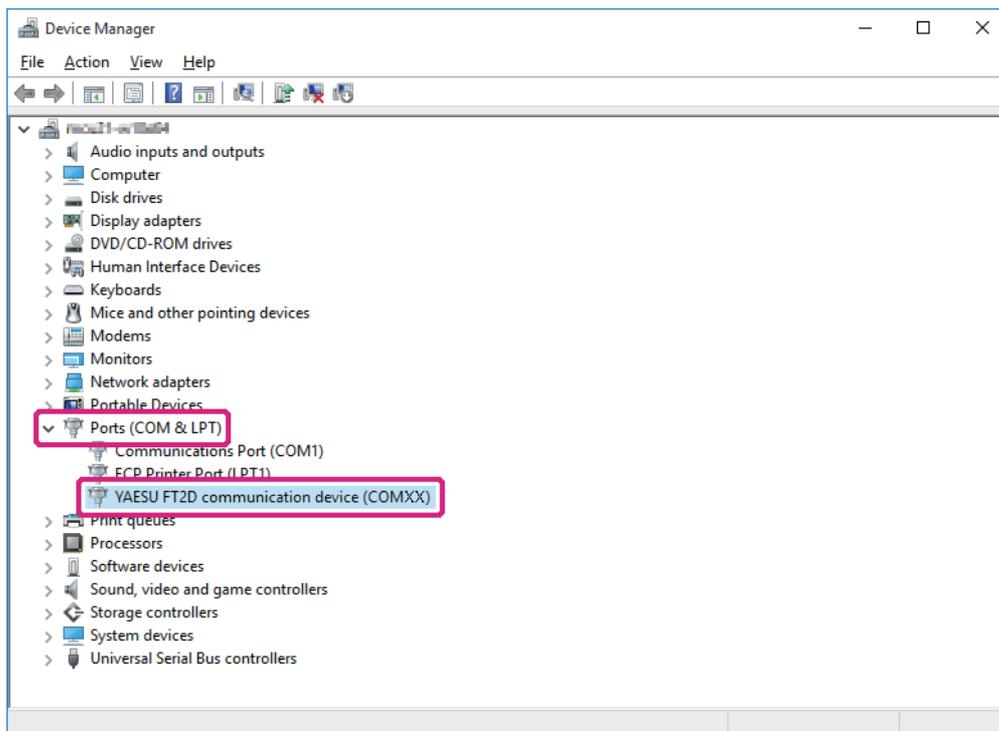
5. Click the [OK] button.

6. Perform steps 1 to 7 in "Updating the DSP Firmware" on page 11.
   Installs the device driver installation.

7. [Click [Start] > [Control Panel].
   "Control Panel" appears.

8. Click [Device Manager].
   "Device Manager" appears.

9. Check that "YAESU FT2D communication device (COMXX)" appears under "Ports (COM & LPT)", and then close "Device Manager".
   * "XX" refers to a port number. Since "COMXX" is required when updating the DSP firmware, write down the port number.

For Windows 7

* The following procedure must be performed only when using this software for the first time. When the device driver is already installed on your computer, skip the following procedure.

1. Perform steps 1 to 7 in "Updating the DSP Firmware" on page 11.
   * At this time, FT2DR/DE is recognized as an unknown device and the "Driver Software Installation" screen appears on the computer. Follow the procedure below to install the device driver onto your Windows 7 computer.

2. On the "Driver Software Installation" screen, click the [Close] button.
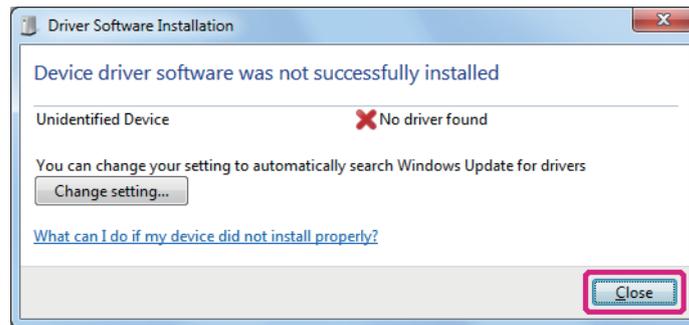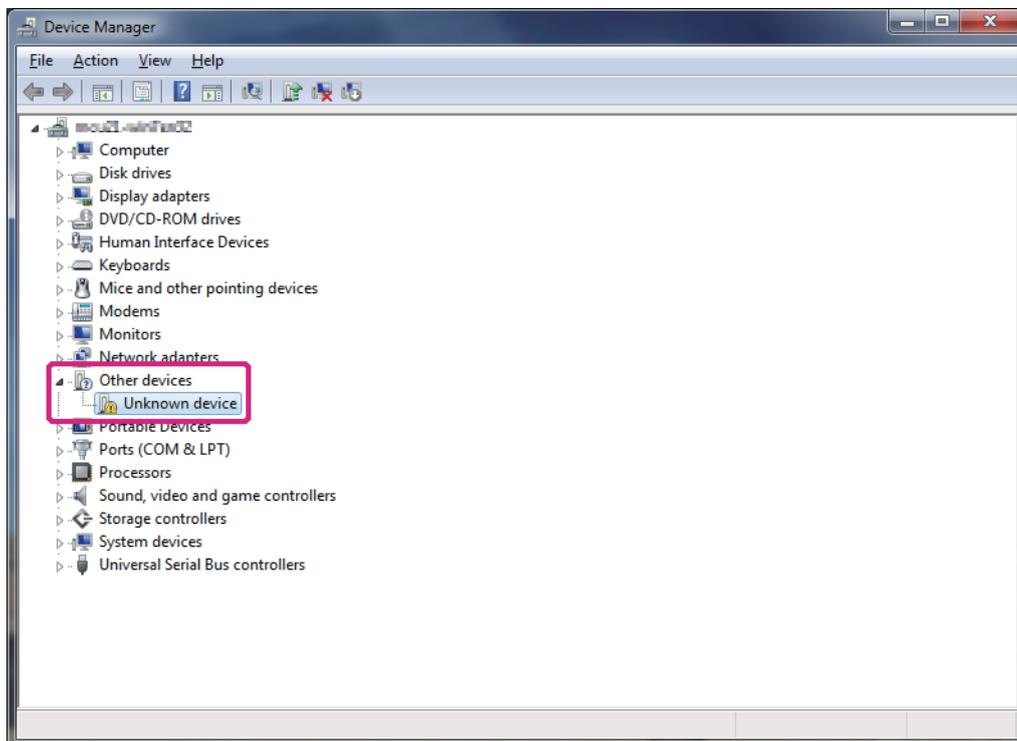

3. [Click [Start] > [Control Panel].
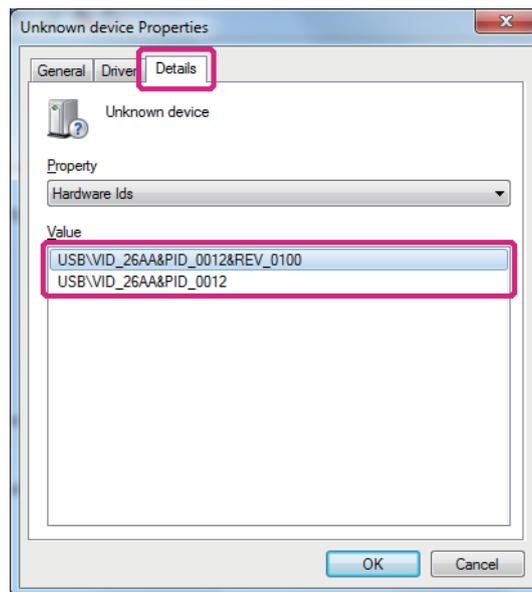   "Control Panel" appears.

4. Click [Device Manager].
   "Device Manager" appears.

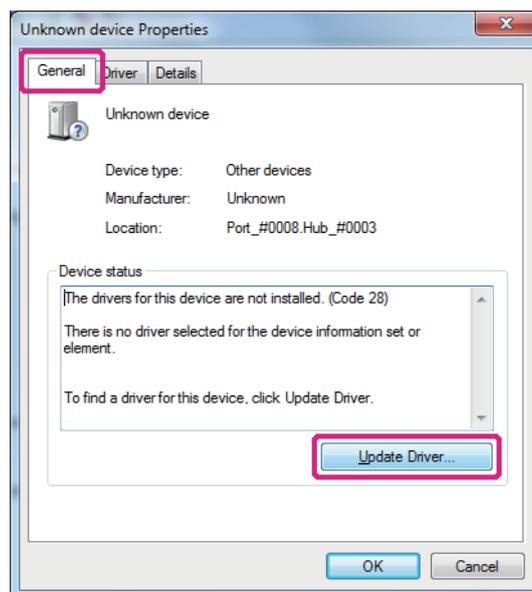5. Under "Other devices" double-click [Unknown device].

The "Unknown Device Properties" screen appears.

6. Click the [Details] tab and check that the information (value) shown on the screen below appears.
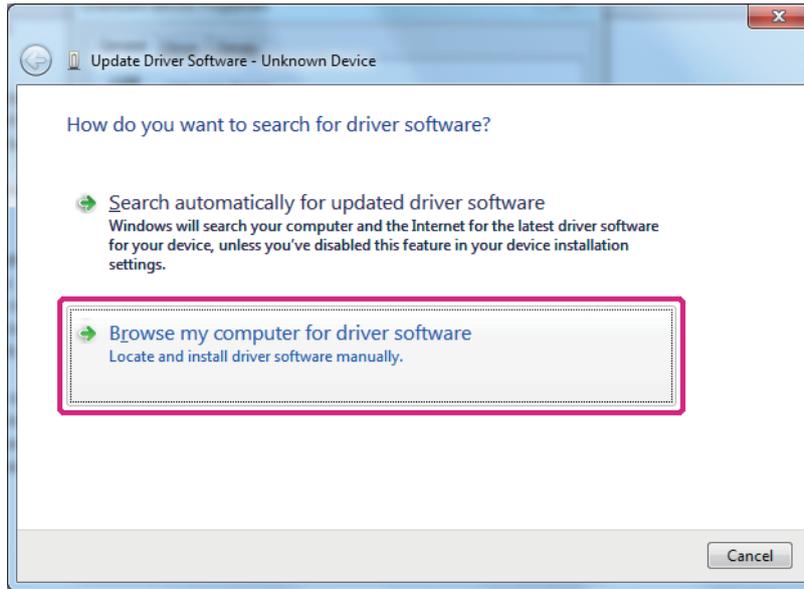

7. Click the [General] tab and then click the [Update Driver] button.
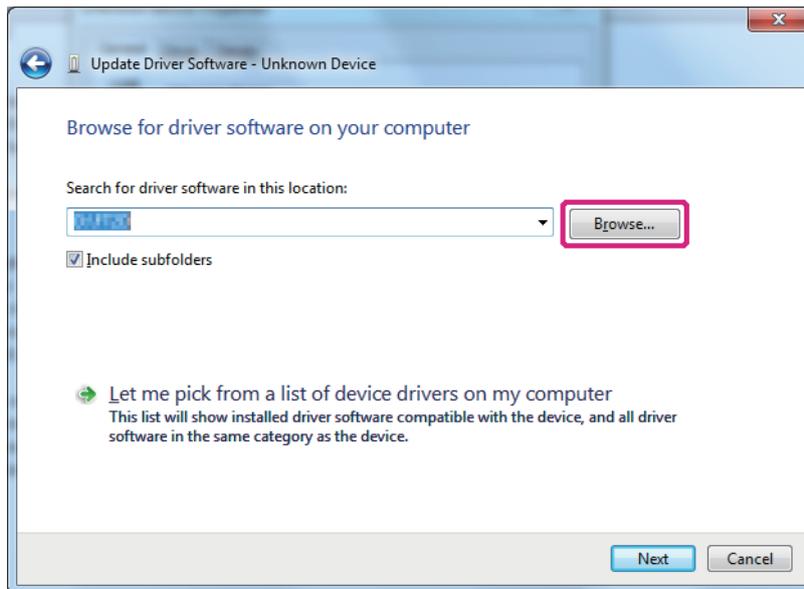

The "Update Driver Software - Unknown Device" screen appears.

8. Click [Browse my computer for driver software].

On the screen displayed, you can search for driver software.
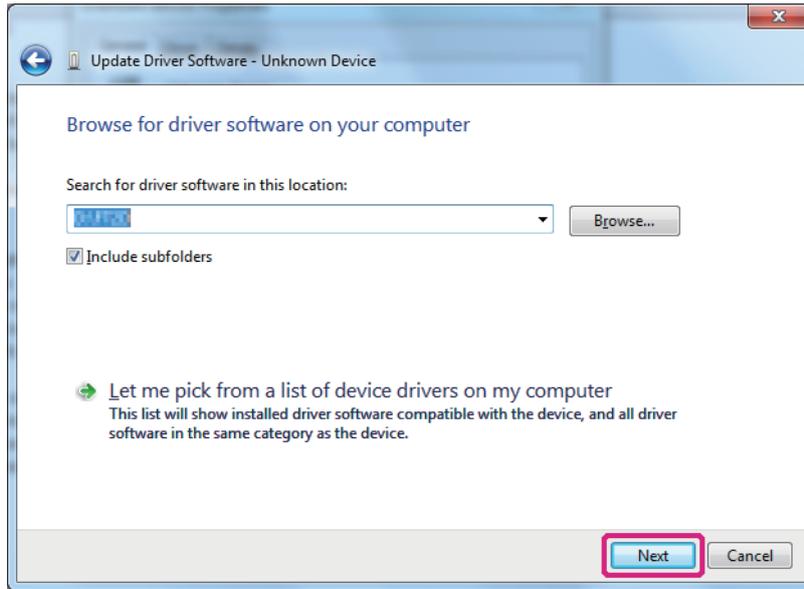
9. Click the [Browse] button.

The "Browse Folders" screen appears.

10. Select the folder in which you saved the data in step 2 of "Downloading the YAESU Amateur Digital DSP Firmware Update Program" instructions on page 4, and then click the [OK] button.
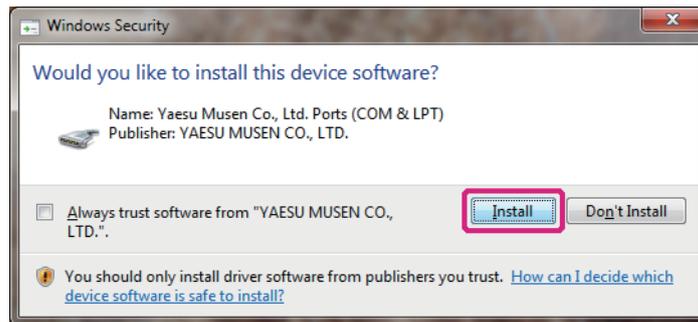The "Browse Folders" screen closes and returns to the "Update Driver Software - Unknown Device" screen.
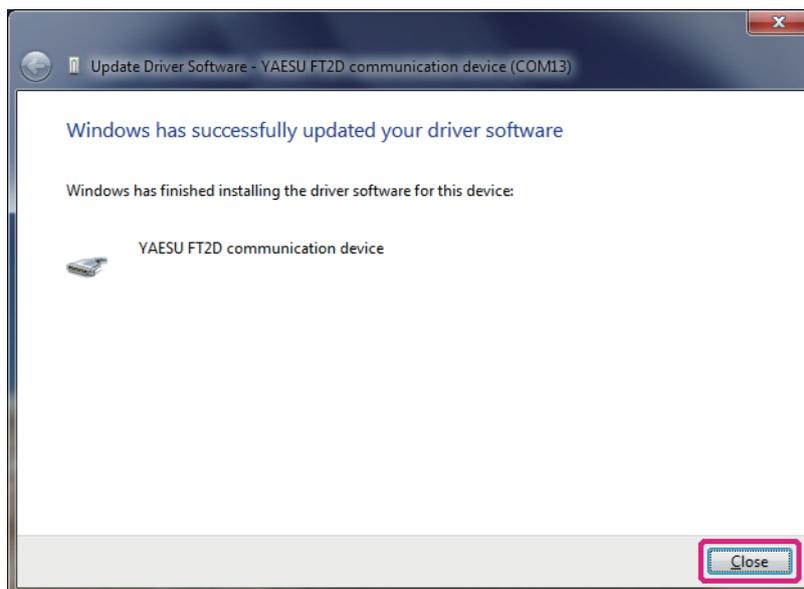
11. Click the [Next] button.

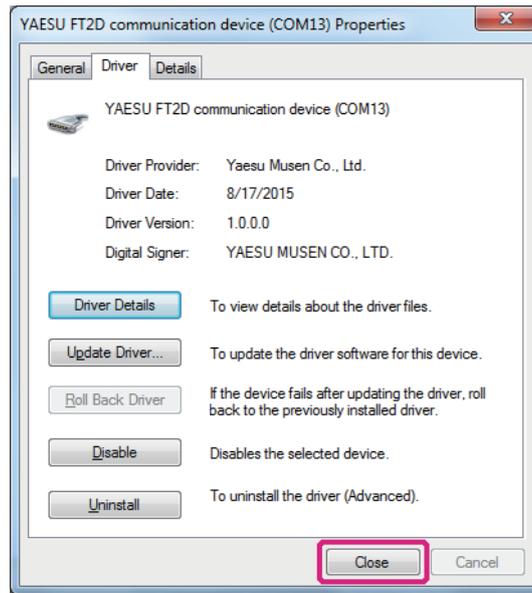The "Windows Security" screen appears.

12. Click the [Install] button.

The device driver installation begins. When the installation completes, the message "Windows has successfully updated your driver software" will appear.

13. Click the [Close] button.

The "YAESU FT2D communication device (COMXX) Properties" screen will appear.
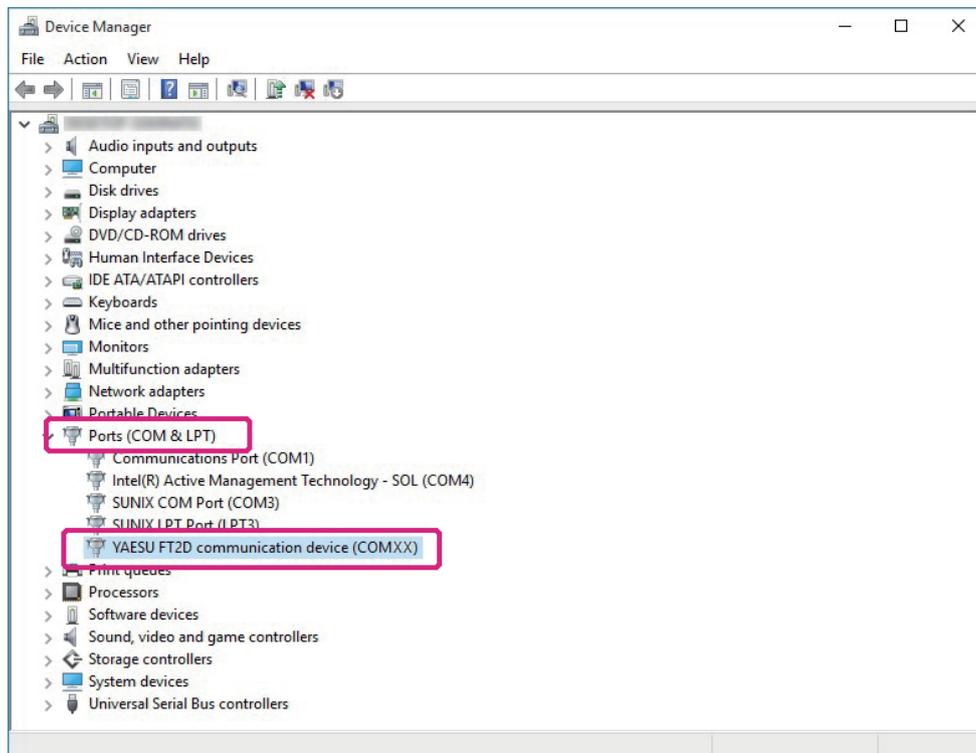
14. Click the [Close] button.

Returns to "Device Manager".

15. Check that "YAESU FT2DR/DE communication device (COMXX)" appears under "Ports (COM & LPT)" and then close "Device Manager".
   * "XX" refers to a port number. Since "COMXX" will be required when updating the DSP firmware, write down the port number.

Updating the DSP Firmware

Execute the FT2DR/DE DSP firmware update.

* * If you have just completed the device driver installation, proceed to step 8.

1. Remove the battery pack from the transceiver.
2. Connect the AC adaptor to a wall outlet and then insert the DC connector to the FT2DR/DE EXT DC IN terminal.

3. Press and hold 🔘 for over one second to turn the power ON.
4. While the power is ON, disconnect the AC adaptor from the transceiver.

5. Use the supplied cable to connect the FT2DR/DE DATA terminal to the computer.

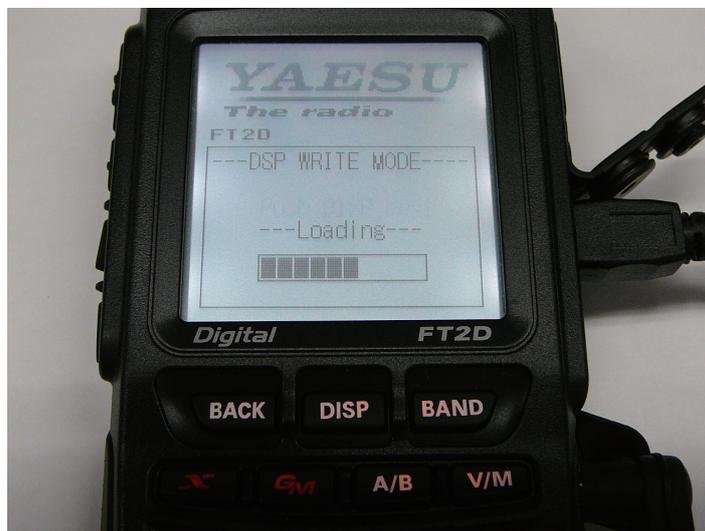6. While pressing down A/B, connect the AC adaptor connector to the FT2DR/DE EXT DC IN terminal.

The power turns ON and you will hear a "beep-boop-bop" sound. On the FT2DR/DE display, "---DSP WRITE MODE----" and "Push DISP Key!" will appear.
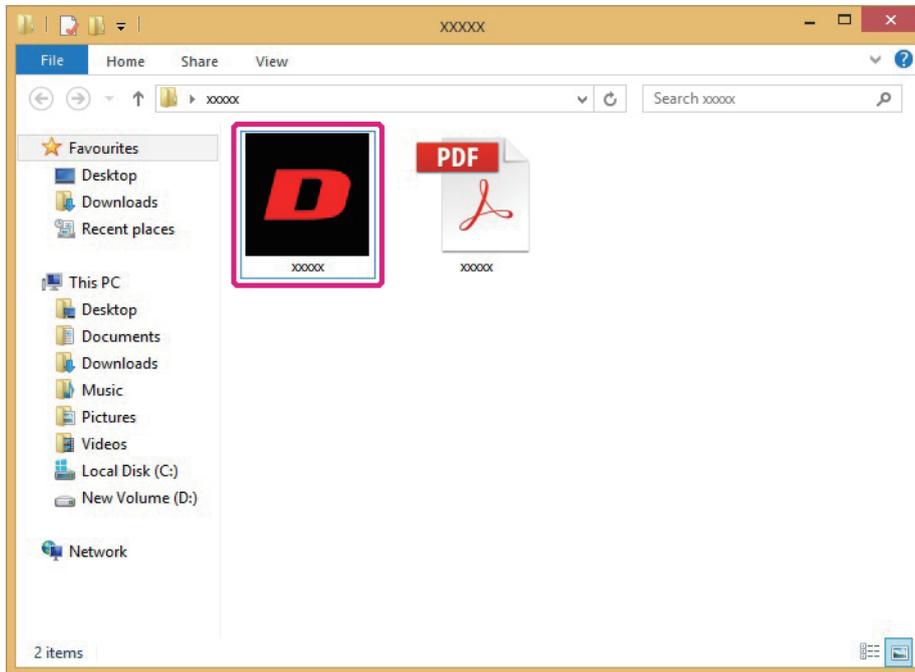
7. Press ⌷DISP⌷.

"---Loading---" will appear on the display.

8. Open the folder in which you saved the data in step 2 of "Downloading the YAESU Amateur Digital DSP Firmware Update Program", as instructed on page 4; and then double-click "PCTOOL_vXXXX.exe" (D icon).

    *   "XXXX" refers to a version number.
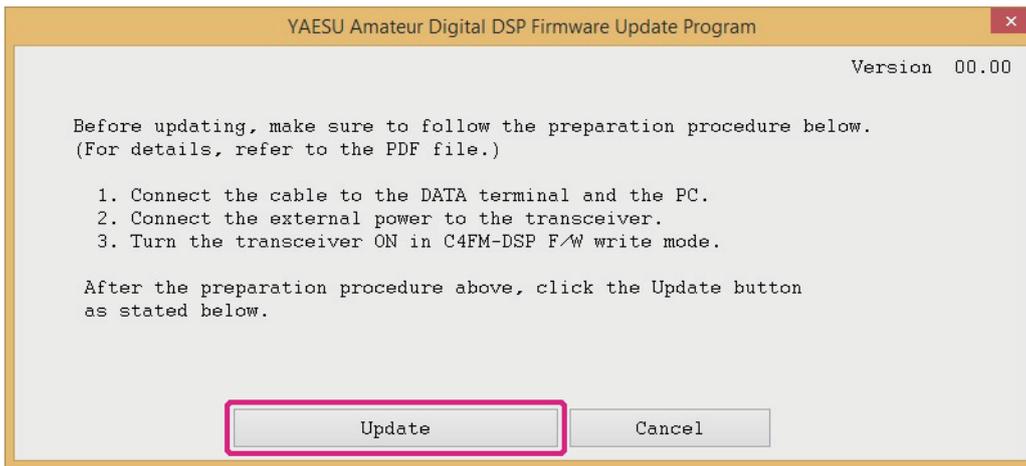

9. If the "Security Alert" screen appears, click the [Run] button.
    The "YAESU Amateur Digital DSP Firmware Update Program" will open.

10. From the [COM Port] drop-down list, select the COM port, which you have checked in the "Device Manager" when you installed the device driver, and then click the [OK] button.
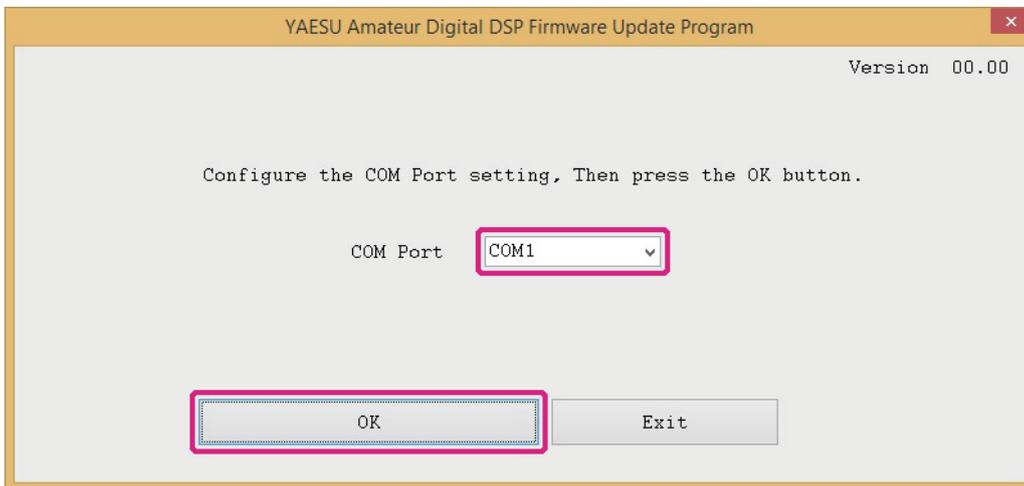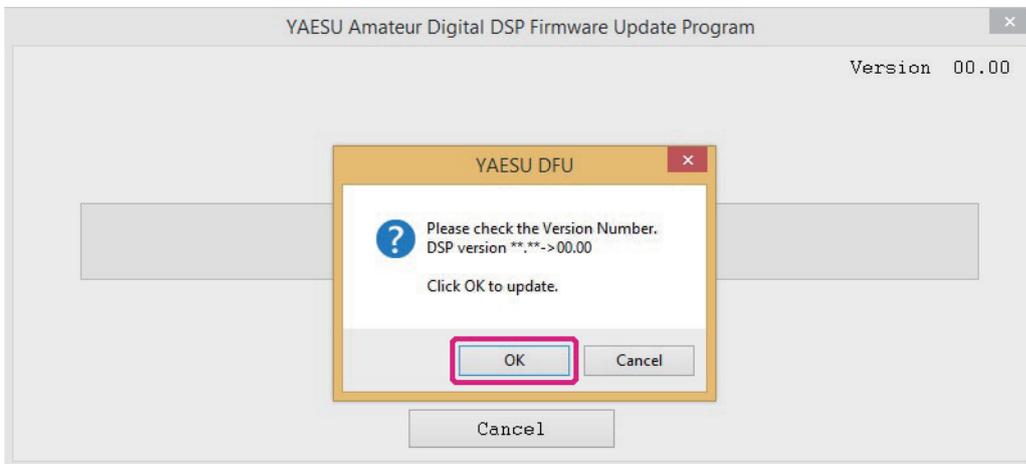

The update preparation procedure for the transceiver will appear.

11. Click the [Update] button.

YAESU Amateur Digital DSP Firmware Update Program   ✕
Version 00.00

Before updating, make sure to follow the preparation procedure below.
(For details, refer to the PDF file.)

  1. Connect the cable to the DATA terminal and the PC.
  2. Connect the external power to the transceiver.
  3. Turn the transceiver ON in C4FM-DSP F/W write mode.

After the preparation procedure above, click the Update button
as stated below.

Update   Cancel

A confirmation message appears.

12. Read the message to check the version and then click the [OK] button.

YAESU Amateur Digital DSP Firmware Update Program   ✕
Version 00.00

YAESU DFU   ✕

? Please check the Version Number.
DSP version **.**->00.00

Click OK to update.

OK   Cancel

Cancel

The DSP firmware transfer will begin, and the FT2DR/DE DSP firmware update executes. When the DSP firmware update completes, a message appears.
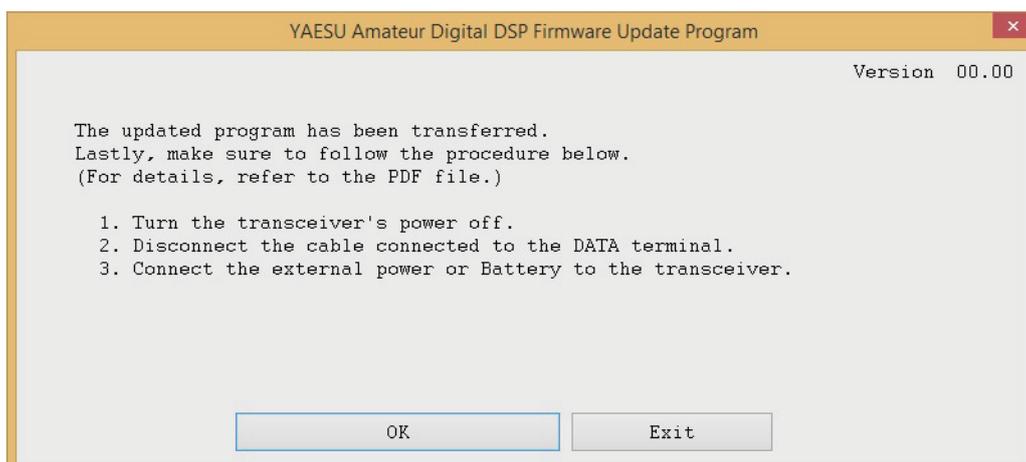

YAESU Amateur Digital DSP Firmware Update Program   ✕
Version 00.00

YAESU DFU   ✕

ⓘ Firmware update is Completed.

OK

Cancel
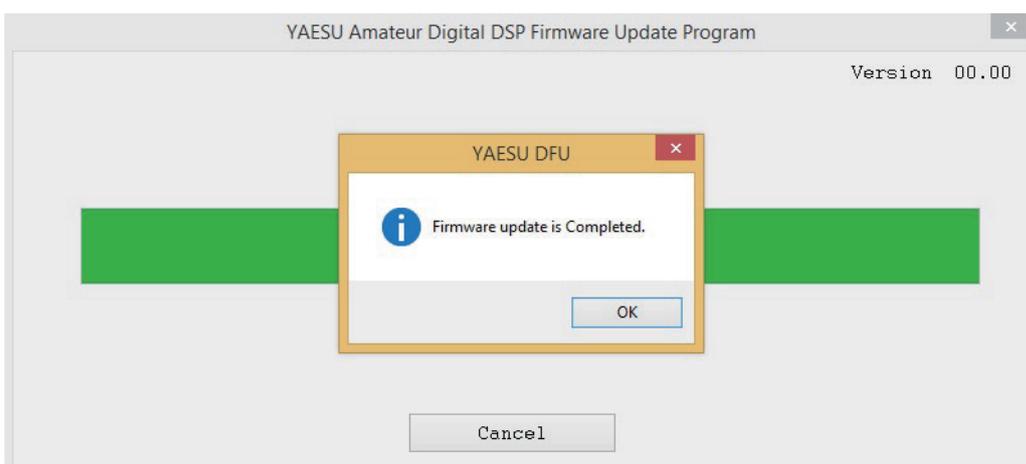
You will hear a "beep-boop-bop" sound from the FT2DR/DE and "-- complete --" appears on the display.

13. In the confirmation dialog box displayed on the computer screen, click the [OK] button.
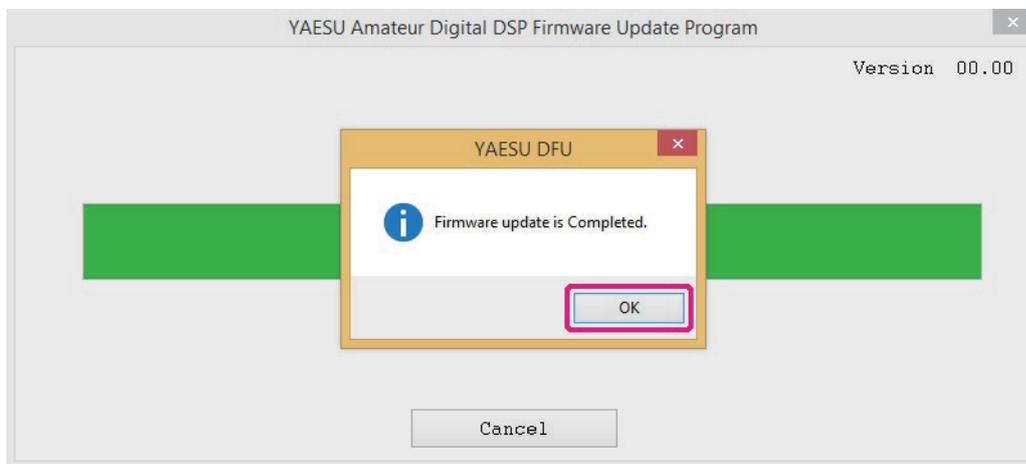

The DSP firmware post-update procedure appears.

14. Press and hold 🔌 for over one second to turn the power OFF.

15. Disconnect the supplied cable.

16. Attach the battery pack.

17. Press and hold 🔌 for over one second to turn the power ON.

18. Check the firmware version. Touch [MODE] to select the digital mode.

19. Press and hold the [DISP] key for over one second.
The transceiver mode switches to set mode.

20. Touch [DISPLAY].
Setting items appear.

21. Rotate the DIAL and touch [11 SOFTWARE VERSION].
The software versions of "Main", "Sub", and "DSP" appear.

22. Check the firmware version and click the [Exit] button on the "YAESU Amateur Digital DSP Firmware Update Program" screen.
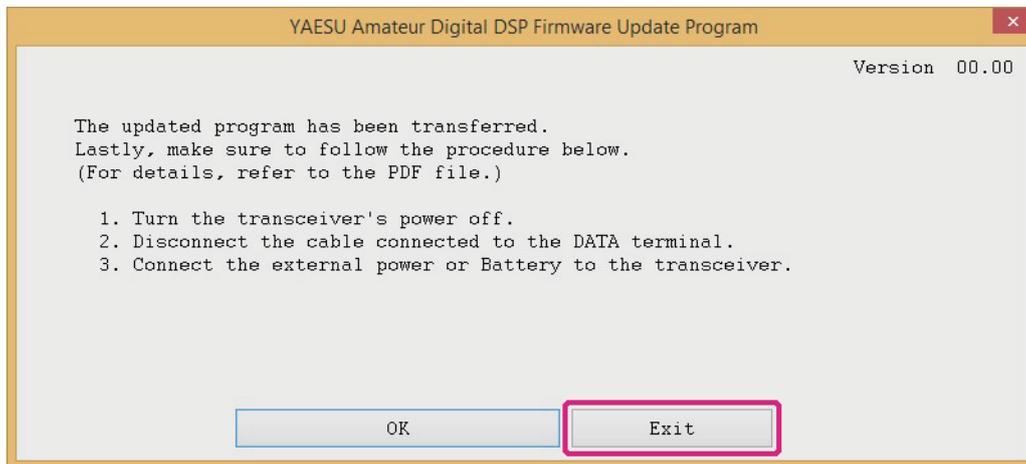
The YAESU Amateur Digital DSP Firmware Update Program finishes.

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