

YAESU
The radio

FTM-400DR/DE

FTM-400XDR/XDE

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 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)

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® 7 (Service Pack 1 or later)

CPU

The performance of the CPU must be able to 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) or Serial Port (RS-232C)

Cables

PC connection cable SCU-20 or Data cable CT-163 or CT-165

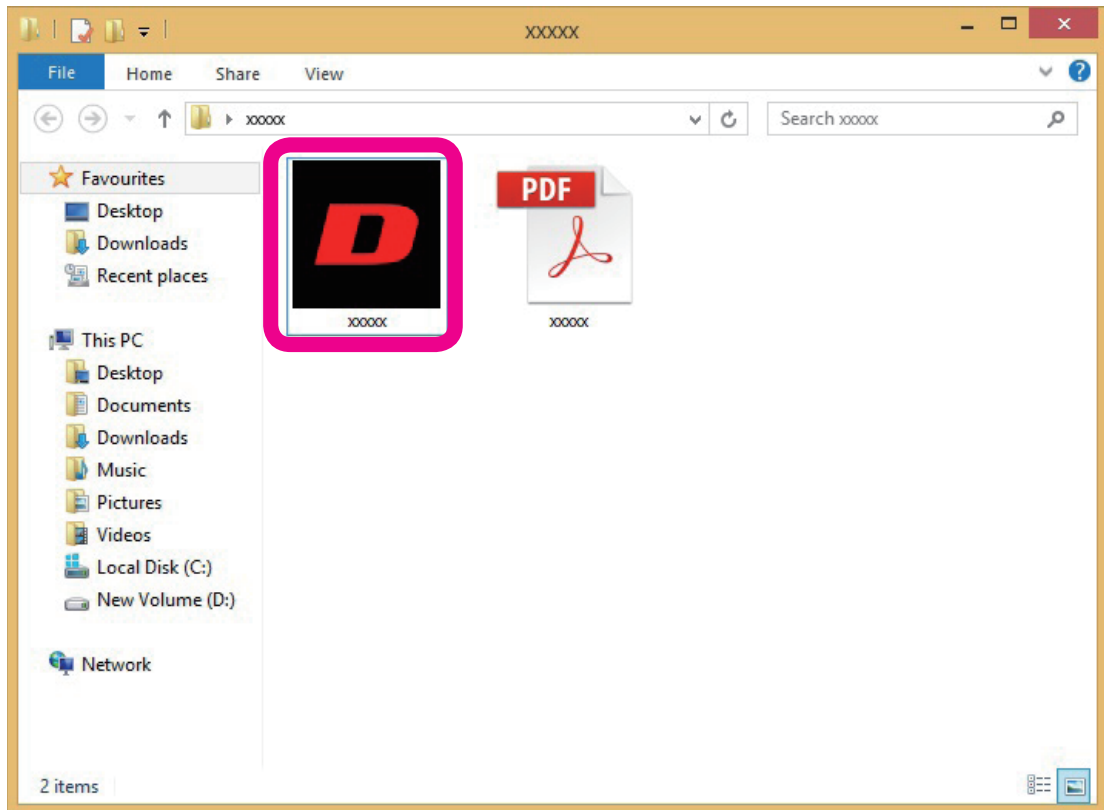
CAUTION!

When using the SCU-20 data cable, install the SCU-20 driver software before attempting to update the firmware. Go to the following website to download and install the driver software for the SCU-20 (<http://www.yaesu.com/>).

Install / Uninstall Procedure

Installation procedure

1. Download and unzip (extract) the update program.
2. When decompressed, the folder will automatically open. Click on the “D” icon in the folder to execute the update program.



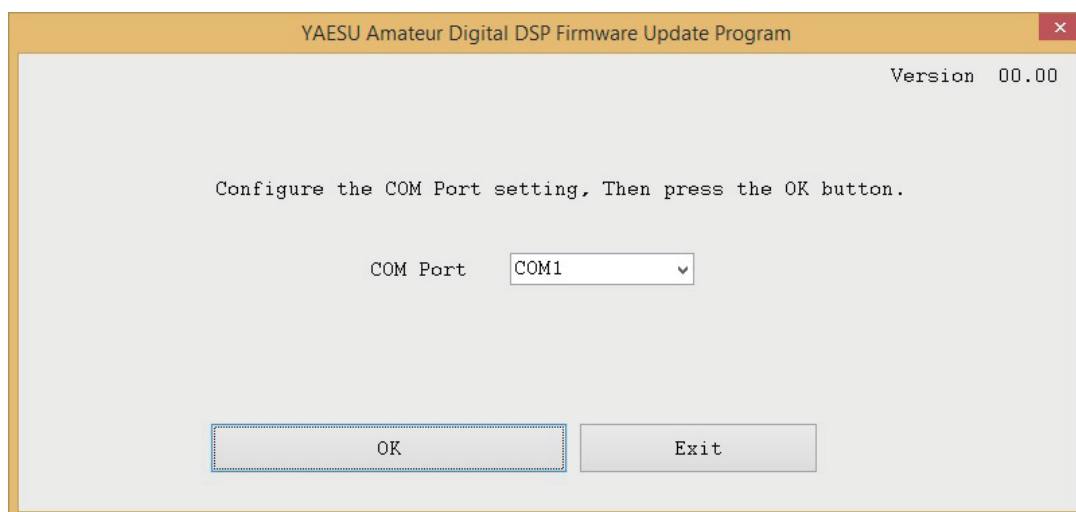
Uninstall procedure

Delete the folder opened by the update program.

The operation will end if the opened folder is deleted since no data will be written to the registry and system folder.

Using the Programmer

Start-up Screen



When the update program is opened, the above screen will appear to permit setting the Com Port number.

CAUTION!

Writing incorrect firmware to the transceiver may cause abnormal operation or failure.

Set the COM Port

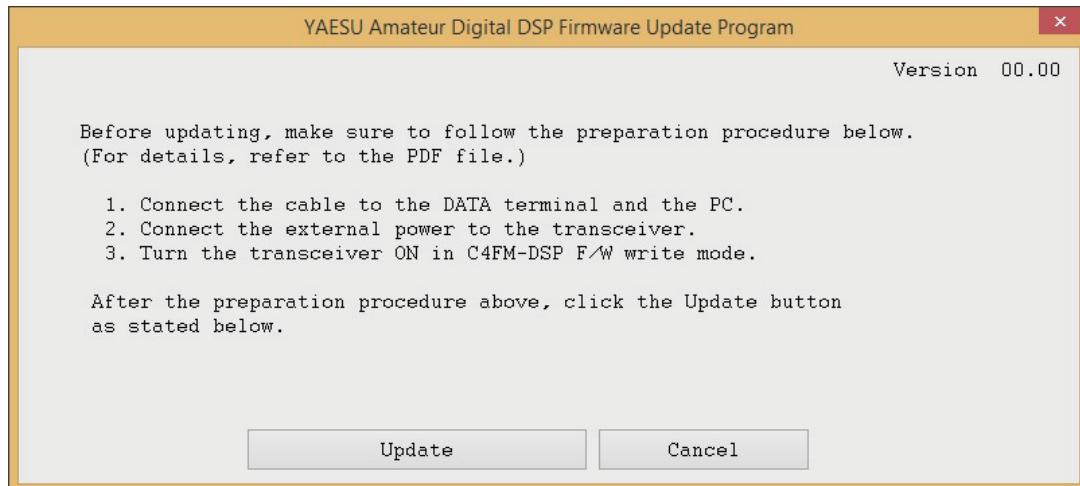
Set the COM Port number to the Port used in connecting the PC and FTM-400DR/DE (FTM-400XDR/XDE). The port number can be verified by accessing the Windows PC device manager.

Commence Update

When the COM Port setting is complete, press the "OK" button to advance to the next screen (preparing for the update transfer).

Pressing the "EXIT" button will end the program without updating the firmware.

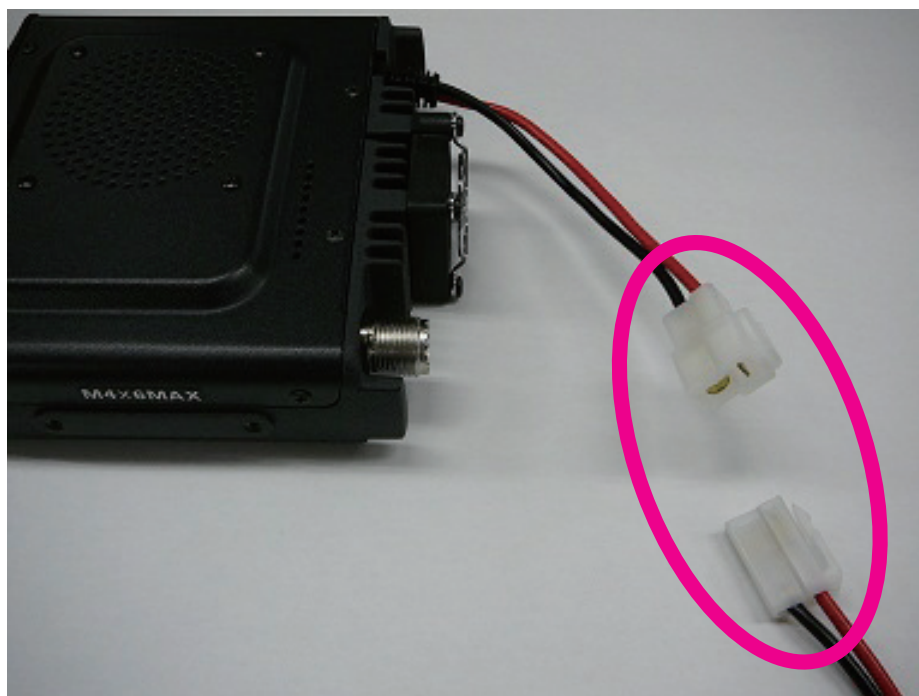
Preparing for the Update Transfer



The procedures required to prepare the transceiver to receive the firmware update are listed, carry out the respective tasks as follows:

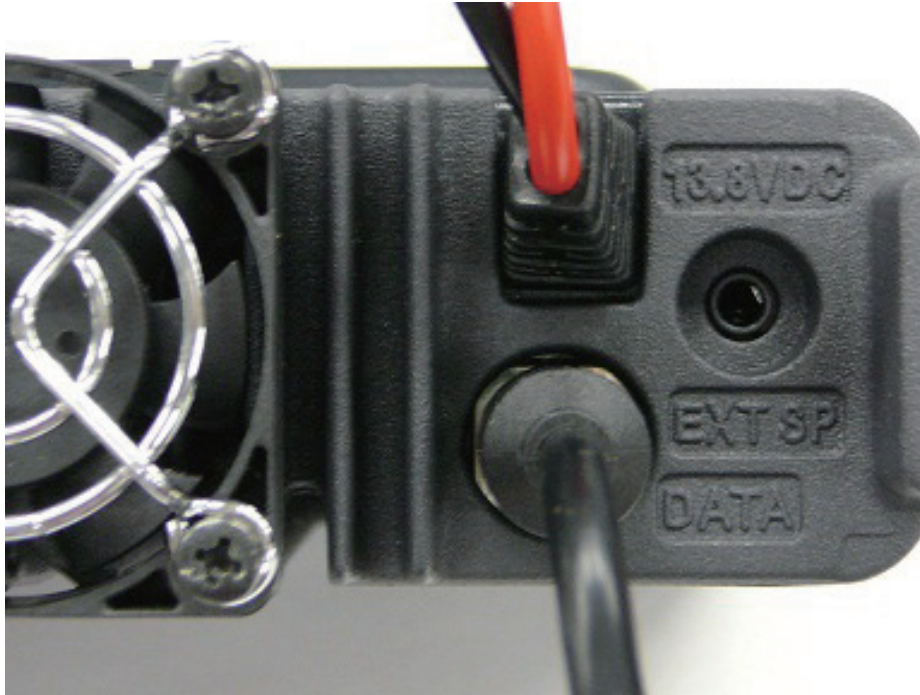
Disconnect the power cable

Turn OFF the power supply, and then disconnect the FTM-400DR/DE (FTM-400XDR/XDE) power cable from the 13.8 Volt DC cable.



Connect the data cable to the FTM-400DR/DE (FTM-400XDR/XDE).

Connect the serial data cable to the data jack at the rear of the FTM-400DR/DE (FTM-400XDR/XDE).

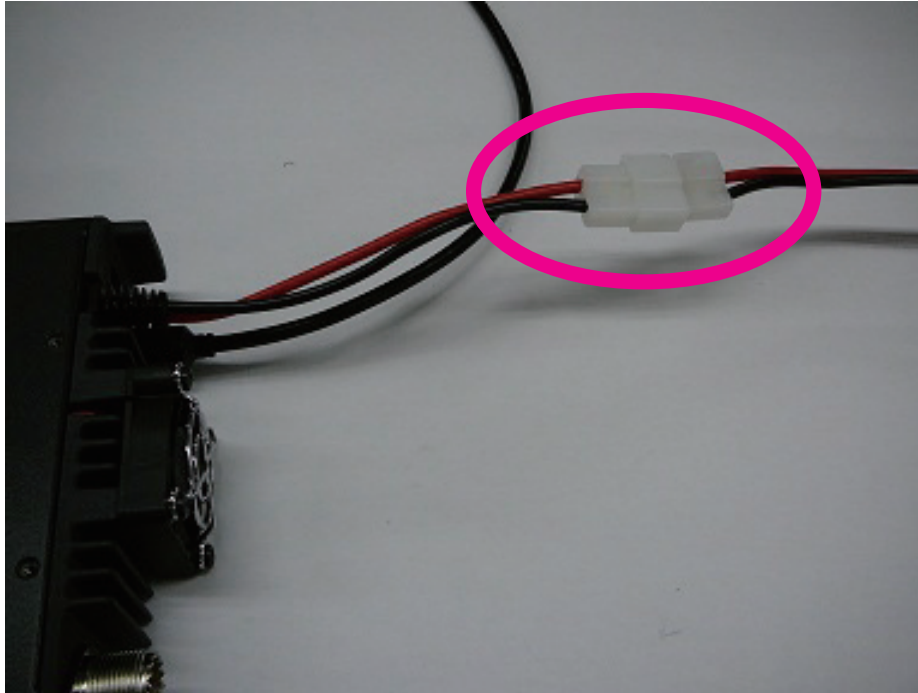


Connect the opposite end of the data cable to the USB port or the COM port of the PC. (Photo shows the SCU-20)



Power supply connection

Connect the power cable to the FTM-400DR/DE (FTM-400XDR/XDE) main body and apply 13.8 V.

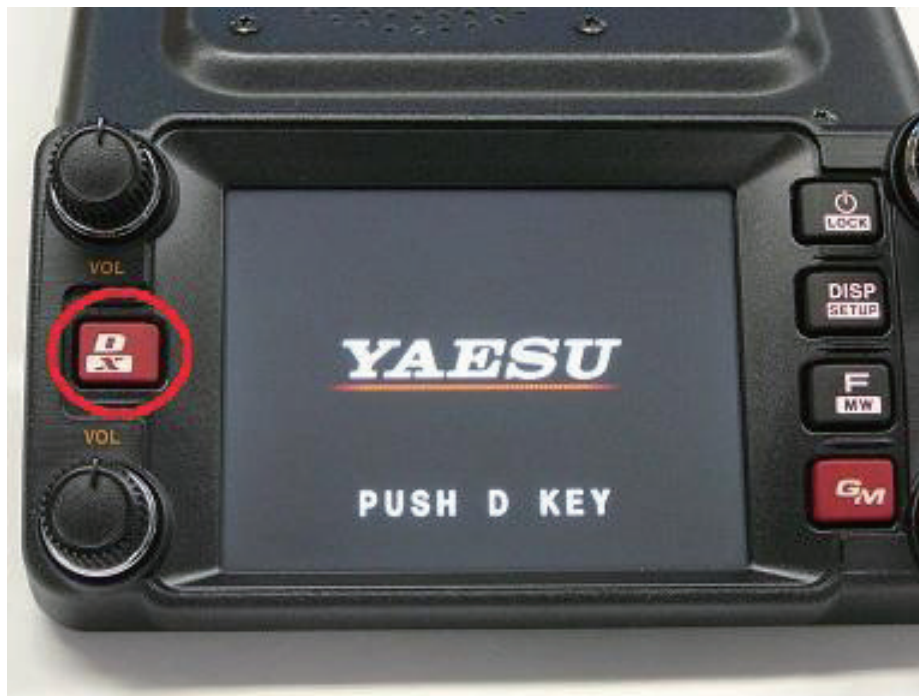


Switching to the DSP write mode

Turn ON the power supply while pressing the [F/MW] and [D/X] keys.



After “PUSH D KEY” appears on the screen, press the [D/X] key.



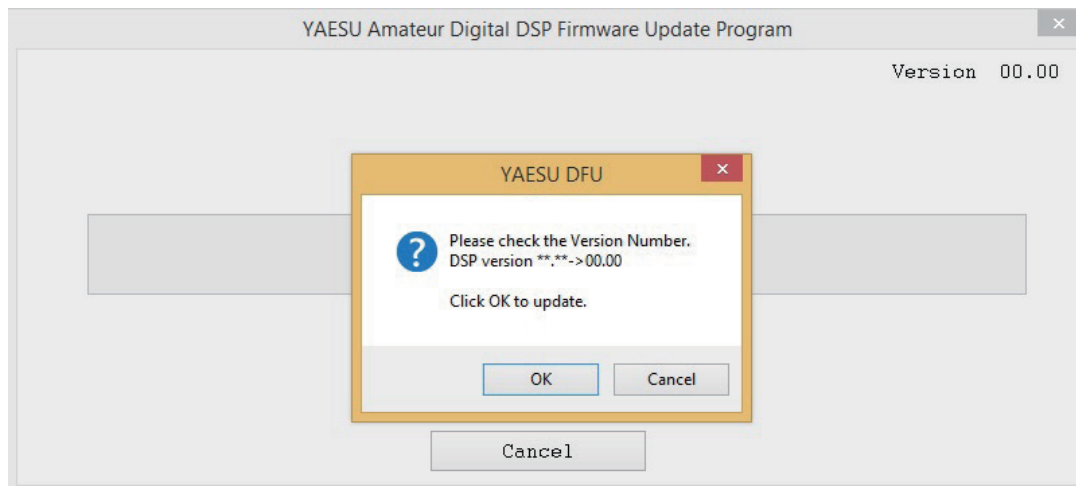
“DSP ↔ COM” appears on the screen.



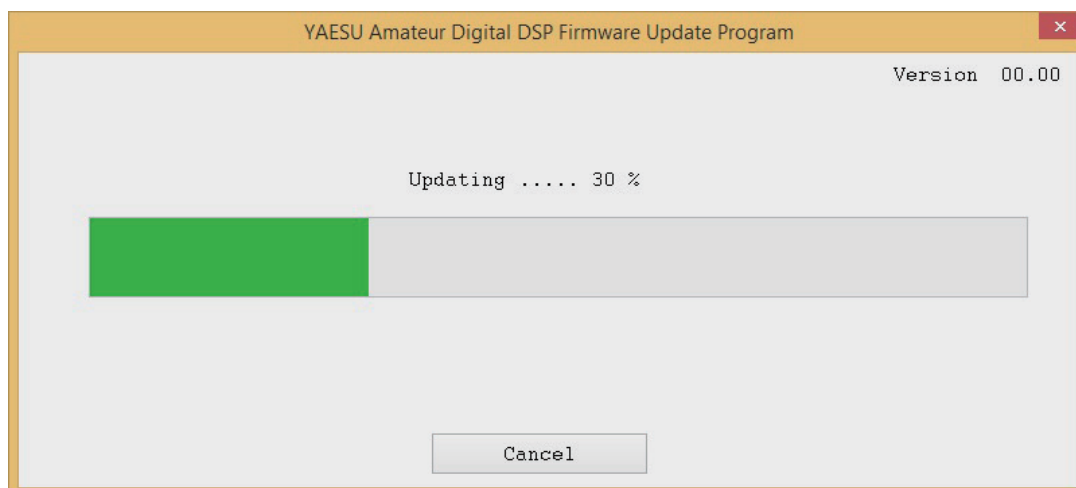
When the above preparations are completed, click the “Update” button in the PC update programmer display screen.

Firmware Update Screen

When the following pop-up screen is displayed, 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.)

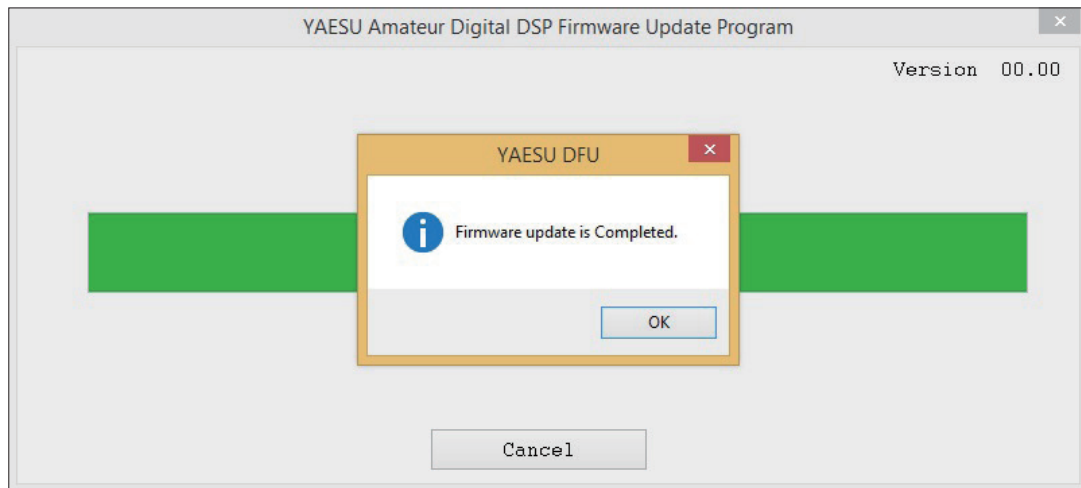


CAUTION!

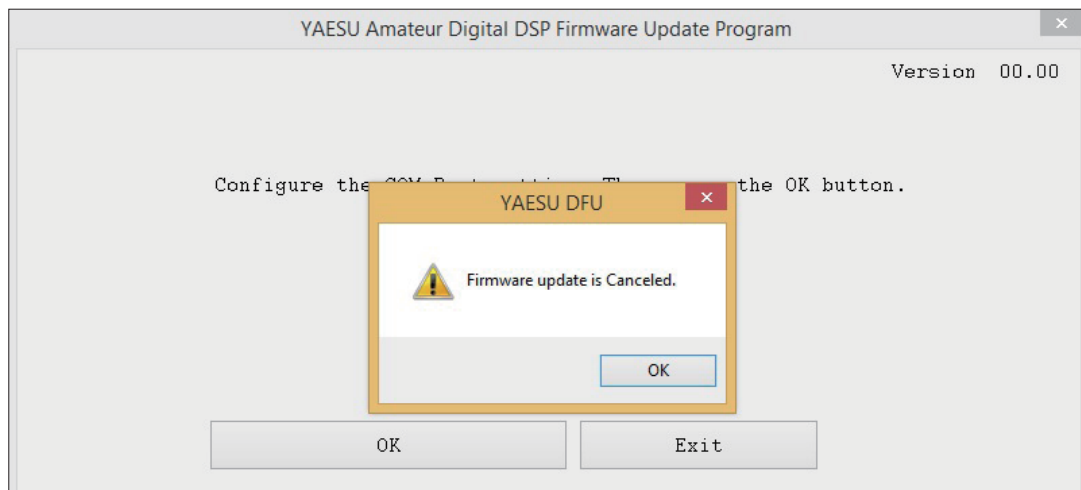
Do not switch off the power supply to the PC or transceiver during the update. The transceiver may not function normally if the firmware transfer is interrupted during the upgrade.

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

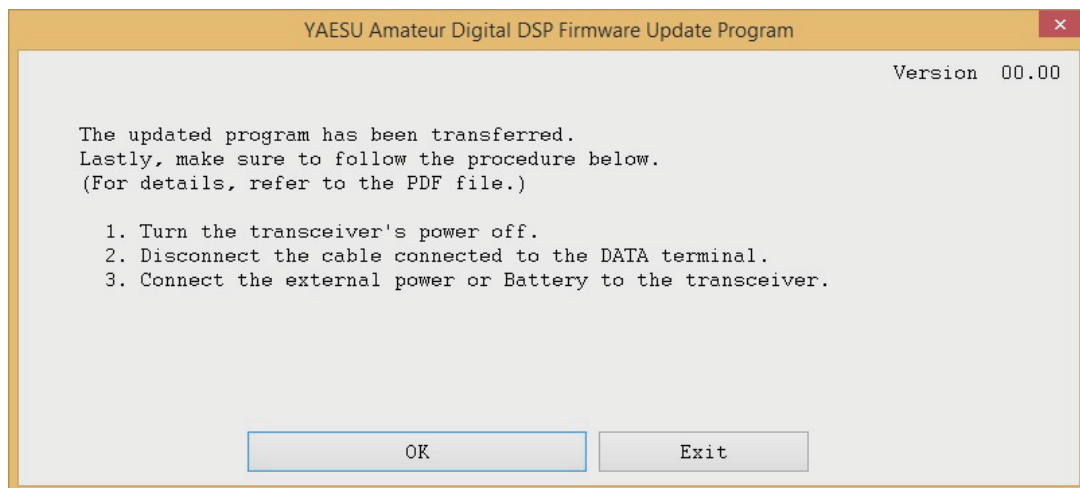
When the following pop-up screen is displayed, upon completion of the update, press the “OK” button.



The following pop-up screen will be displayed when the updating is cancelled or when the update cannot be carried out for some reason.



Reassemble the FTM-400DR/DE (FTM-400XDR/XDE) for Normal Operations



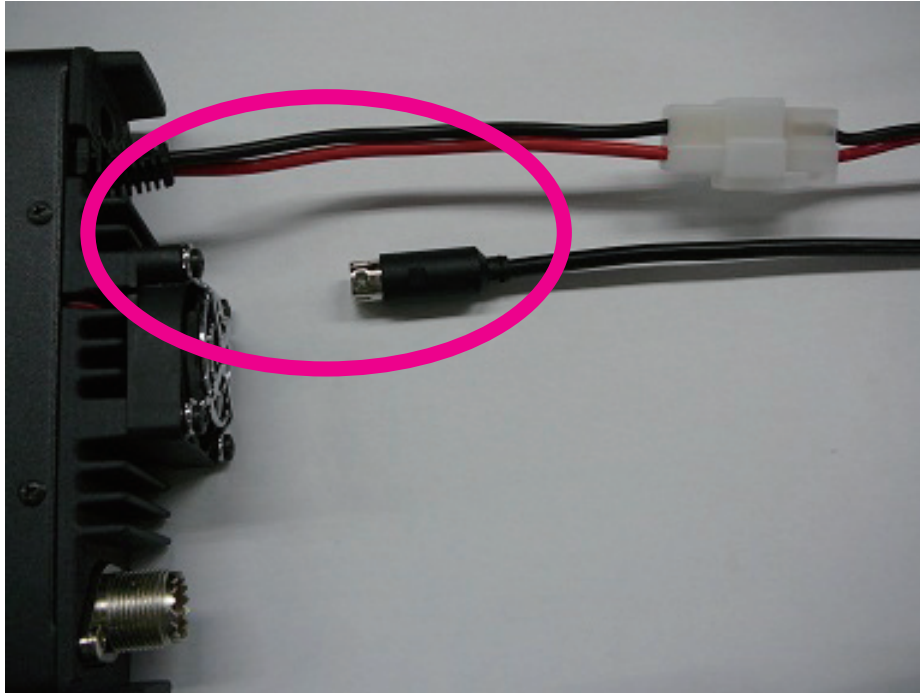
The procedures required to complete the transceiver firmware update are listed, carry out the respective tasks as follows:

Disconnect the data cable

Switch off the power supply to the FTM-400DR/DE (FTM-400XDR/XDE) main body.



Disconnect the serial data cable from the data terminal at the back.



Check the Version No.

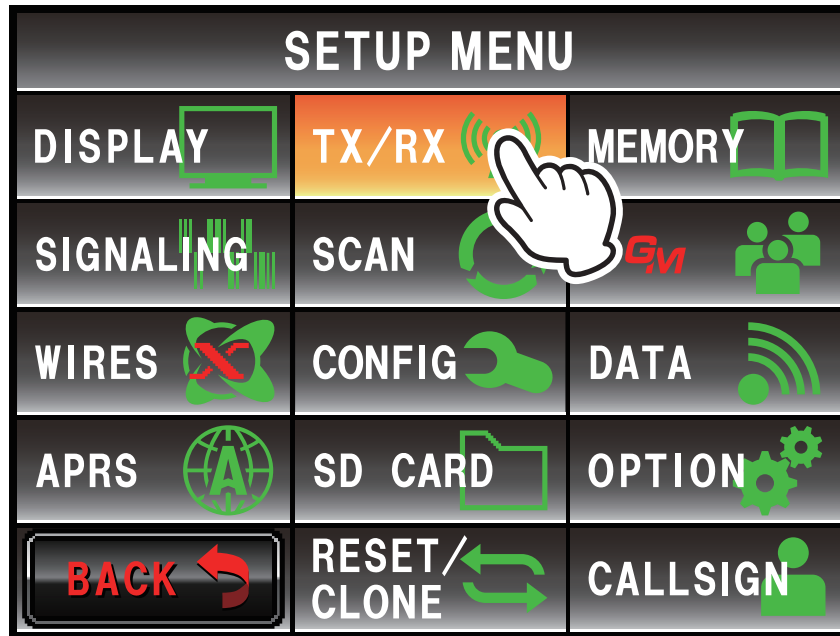
1. Press and hold [POWER] key for over 2 seconds to turn the transceiver ON.



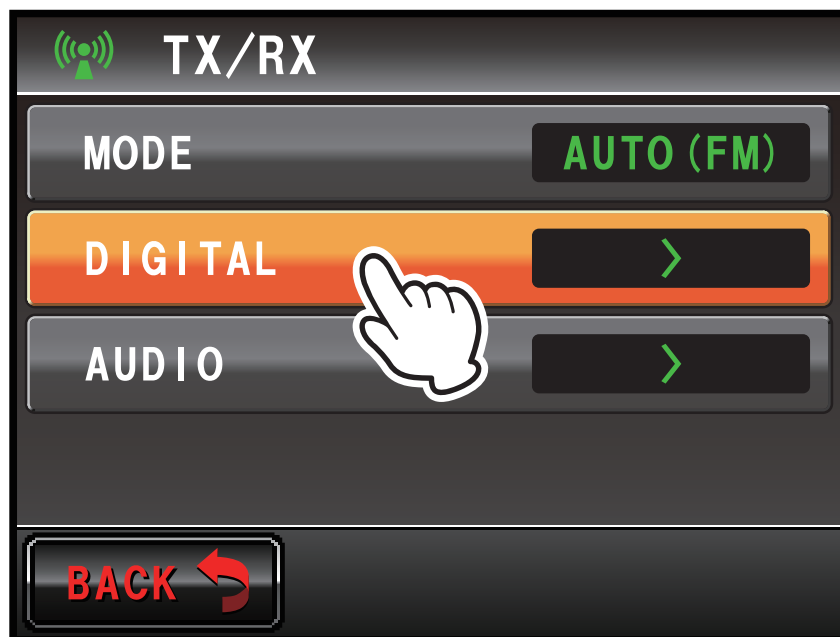
2. Press and hold [DISP/SETUP] key for over 1 second.
The set-up menu will be displayed.



3. Touch [TX/RX]

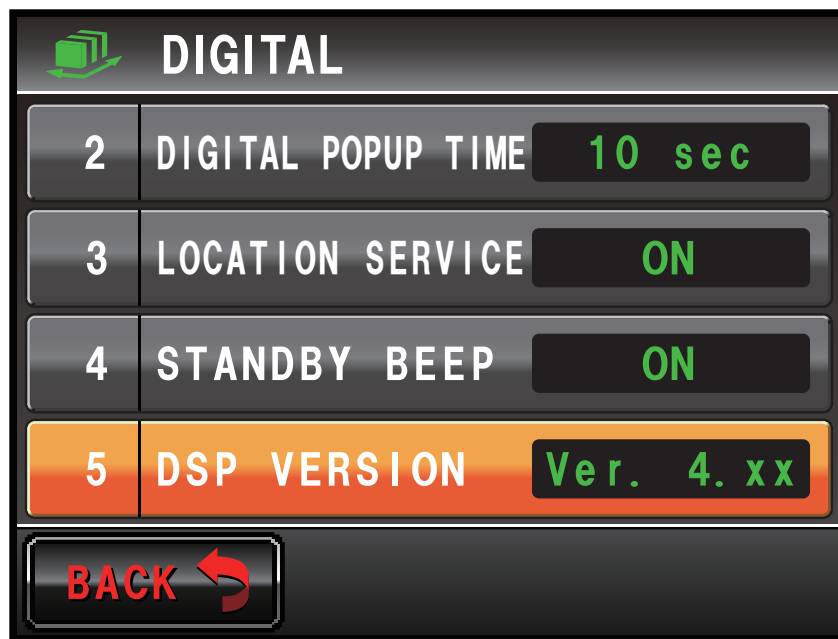


4. Select [DIGITAL]



5. Check the Version No. displayed in “5 DSP VERSION”.

If the DSP Version No. has been updated, the firmware update was successfully completed.



With this, all the tasks are completed.

Press the “Exit” button on the program screen of the PC to end the program.

Or, press the “OK” button to return to the start-up screen. to update the firmware of another transceiver.

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