

# 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)

#### <u>CPU</u>

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.

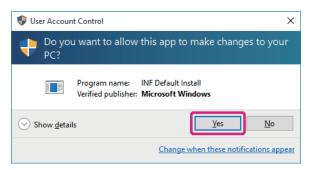
#### For Windows 10, Windows 8.1, and Windows 8

- \* 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.

d_com			
Name	Date mo	dified Type	Size
ft2d_com	17/10/20	15 19:56 Security Catalog	ue 9 KB
FT2D_Com	17/10/20	15 19:47 Setup Informatio	on 3 KB
	Open		
	Install		
	Print		
	Open with		
	Share with	>	
	Restore previous versi	ons	
	Send to	>	
	Cut		
	Сору		
	Create shortcut		
	Delete		
	Rename		
	Properties		

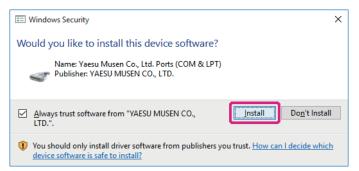
The "User Account Control" screen appears.

3. Click the [Yes] button.



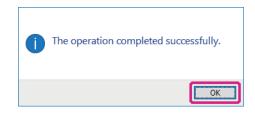
The "Windows Security" screen appears.

4. Click the [Install] button.

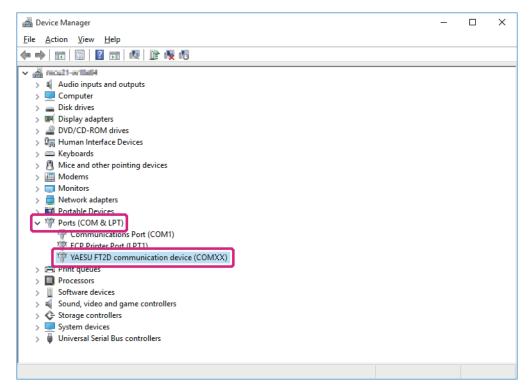


The device driver installation begins. When the installation completes, the message "The operation completed successfully." appears.

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.

Driver Software Installation	x
Device driver software was not successfully installed	
Unidentified Device XNo driver found	
You can change your setting to automatically search Windows Update for drivers Change setting	
What can I do if my device did not install properly?	

- 3. [Click [Start] > [Control Panel]. "Control Panel" appears.
- 4. Click [Device Manager]. "Device Manager" appears.
- 5. Under "Other devices" double-click [Unknown device].

🚔 Device Manager	_ <b>D</b> X
<u>File Action View Help</u>	
Starfine Example 4	
b 📲 Computer	
Disk drives	
Display adapters	
DVD/CD-ROM drives	
▷-∰ Human Interface Devices ▷-──── Keyboards	
P - W white and other pointing devices	
Monitors	
Network adapters	
-  D Other devices Inknown device	
Portable Devices	
▷	
Processors	
Sound, video and game controllers	
Storage controllers	
> 📲 System devices	
🔈 - 🟺 Universal Serial Bus controllers	

The "Unknown Device Properties" screen appears.

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

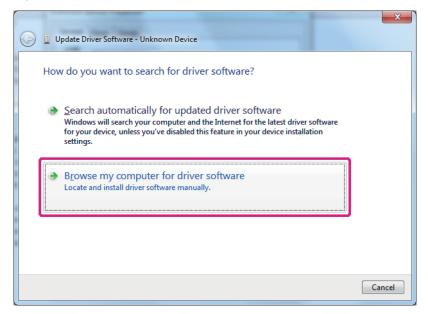
Unknown device Properties
General Driver Details
Unknown device
Property
Hardware Ids 🔹
Value
USB\VID_26AA&PID_0012&REV_0100 USB\VID_26AA&PID_0012
OK Cancel

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

Unknown o	device Properties	X		
General	Driver Details			
Unknown device				
	Device type:	Other devices		
	Manufacturer:	Unknown		
	Location:	Port_#0008.Hub_#0003		
Device status The drivers for this device are not installed. (Code 28) There is no driver selected for the device information set or element. To find a driver for this device, click Update Driver.				
Update Driver				
OK Cancel				

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.

🚱 🛽 Update Driver Software - Unknown Device	X
Browse for driver software on your computer	
Search for driver software in this location:       Image: Search for driver software in this location:	
Let me pick from a list of device drivers on my computer This list will show installed driver software compatible with the device, and all driver software in the same category as the device.	
Next	Cancel

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.

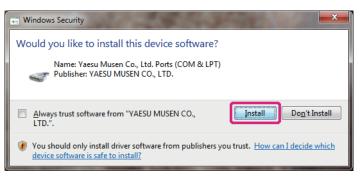
The "Browse Folders" screen closes and returns to the "Update Driver Software - Unknown Device" screen.

11. Click the [Next] button.

0	Update Driver Software - Unknown Device
	Browse for driver software on your computer
	Search for driver software in this location:
	Browse
	☑ Include subfolders
	Let me pick from a list of device drivers on my computer This list will show installed driver software compatible with the device, and all driver software in the same category as the device.
	Next Cancel

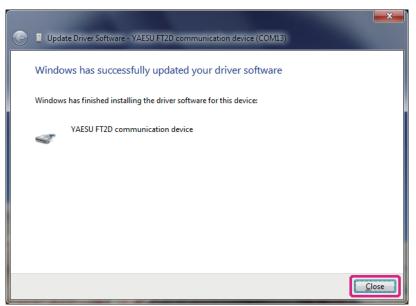
The "Windows Security" screen appears.

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.

Y	AESU FT2D communication device (COM13) Properties				
	General Driver Details				
	YAESU FT2D communication device (COM13)				
	Driver Provider: Yaesu Musen Co., Ltd.				
	Driver Date: 8/17/2015				
	Driver Version: 1.0.0.0				
	Digital Signer: YAESU MUSEN CO., LTD.				
	Driver Details To view details about the driver files.				
	Update Driver To update the driver software for this device.				
	Roll Back Driver If the device fails after updating the driver, roll back to the previously installed driver.				
	Disable Disables the selected device.				
	Uninstall To uninstall the driver (Advanced).				
	Close				

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.

Device Manager	_	×
le Action View Help		
👄 📰 🔄 🔢 🕺 🙀 🙀 🚳		
> 4 Audio inputs and outputs		
> 💻 Computer		
> 🛖 Disk drives		
> 🐖 Display adapters		
> 🔐 DVD/CD-ROM drives		
> 🕅 Human Interface Devices		
> 📾 IDE ATA/ATAPI controllers		
> 👝 Keyboards		
> 🖁 Mice and other pointing devices		
> 🛄 Monitors		
> 🛄 Multifunction adapters		
> 🚍 Network adapters		
Portable Devices		
Ports (COM & LPT)		
Communications Port (COM1)		
🐨 Intel(R) Active Management Technology - SOL (COM4)		
SUNIX COM Port (COM3)		
SUNIX LPT Port (LPT3)		
YAESU FT2D communication device (COMXX)		
> Euronic queues		
> Processors		
> Software devices		
> 🚽 Sound, video and game controllers		
> C Storage controllers		
> System devices		
> 🖥 Universal Serial Bus controllers		

# 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 AB, 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.

Push DISP Key!	
Push DISP Key!	
Digital FT2D	
Digital FT2D	
BACK DISP BAND	
A/B V/M	

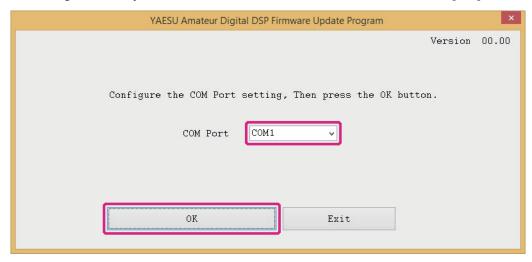
"---Loading---" will appear on the display.



- 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.

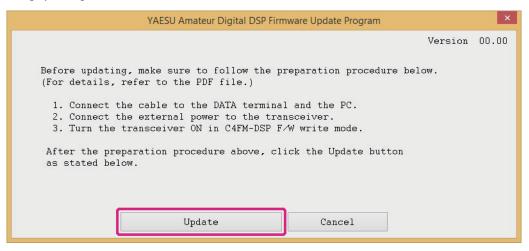
11.1 🕞 🚯 ≠ 1	xx	xxx		• ×
File Home Share	View			~ <b>(</b> )
(e) ⇒ ↑ ↓ ×××××××××××××××××××××××××××××××××		~ 0	Search xxxxx	Q
☆ Favourites	PI	DE		
Desktop		0		
Downloads		A		
🖳 Recent places				
🛒 This PC	300000	X0000X		
📔 Desktop				
Documents				
ᠾ Downloads				
🚺 Music				
📔 Pictures				
📴 Videos				
🏭 Local Disk (C:)				
💼 New Volume (D:)				
👊 Network				
2 items				:==

- 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.



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		×
YAESU DFU ×	Version	00.00
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.	
ОК	
Cancel	

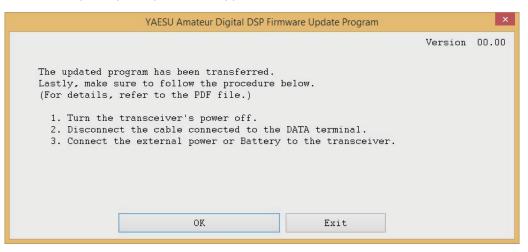
You will hear a "beep-boop-bop" sound from the FT2DR/DE and "-- complete --" appears on the display.



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

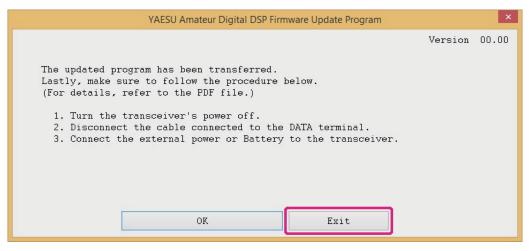
YAESU Amateur Digital DSP Firmware Update Program	×
Versio	n 00.00
YAESU DFU ×	
<b>i</b> Firmware update is Completed.	
ОК	
Cancel	
Cancel	

The DSP firmware post-update procedure appears.



- 14. Press and hold (6) for over one second to turn the power OFF.
- 15. Disconnect the supplied cable.
- 16. Attach the battery pack.
- 17. Press and hold (6) 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 DBP 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.

