



MTX/MRX system Firmware Update Guide

Thank you for choosing a Yamaha product.

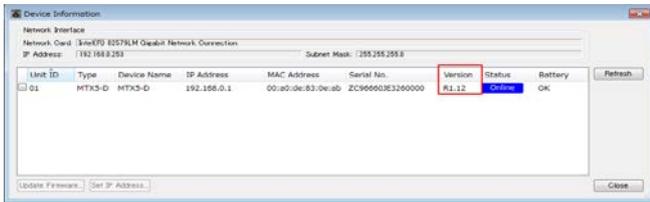
This guide explains how to update the MTX series, MRX7-D, XMV series, and EXi8/EXo8 units (henceforth “device”) main firmware and its built-in Dante module firmware.

Precautions (Please be sure to read this section first!)

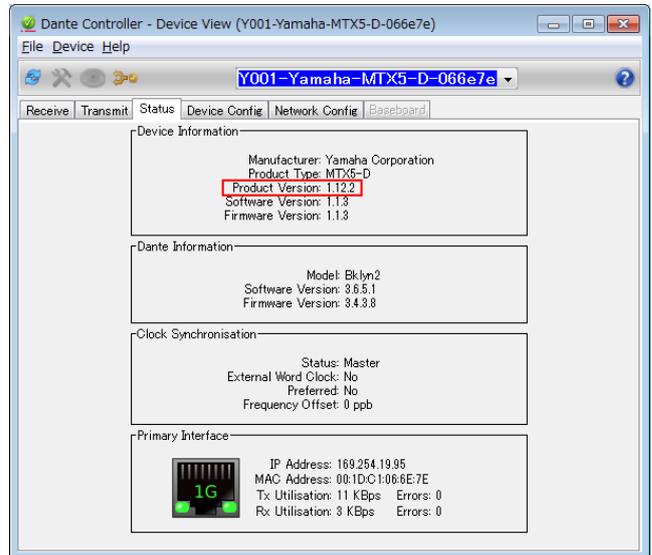
- The user assumes full responsibility for the update.
- Please note that the device may be damaged if you fail to follow these instructions properly, or turn off the device or disconnect the cable while the update is in progress.
- If the update fails, and the device still does not operate correctly even after you execute the update once again, please contact your Yamaha dealer.
- Yamaha Corporation owns exclusive copyrights for the device firmware, its update program, and the update guide.
- Audinate owns exclusive copyrights for the Dante firmware and its update program.
- It is prohibited to duplicate or modify the firmware, software or guides, in part or in their entirety, without permission from the copyright owner.
- The screen shots in this guide are for use with this update procedure only and may be different from the actual screen shots.
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Checking the version number

- You may check the firmware version of the device itself from the "Device Information" dialog box of MTX-MRX Editor, or by using the Dante Controller software from Audinate Corporation.

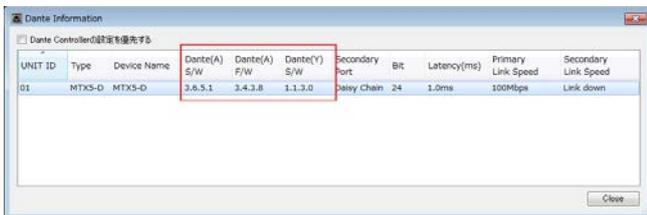


"Device Information" dialog box

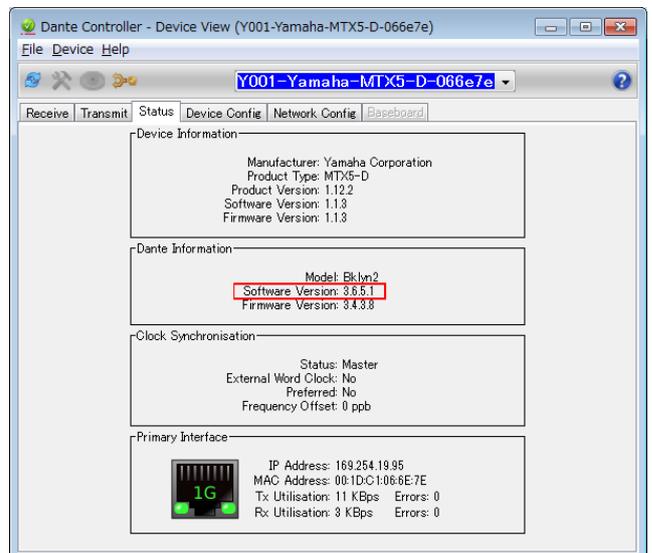


Dante Controller (Device View)

- You may check the Dante firmware version from the "Dante Information" dialog box of MTX-MRX Editor, or by using the Dante Controller software from Audinate Corporation.



"Dante Information" dialog box



Dante Controller (Device View)

Preparing for the update

You will need the following items ready to execute the update procedure.

A Windows computer equipped with the following conditions:

OS	Windows 7 (32bit / 64bit)	Ultimate / Professional / Home Premium
	Windows 8.1 (32bit / 64bit)	standard / Pro
	Windows 10 (32bit / 64bit)	Home / Pro
CPU	Core i3/i5 or higher	
Memory	4GB or more	
HDD	250MB or more free	
Connector	An Ethernet connector that supports a data transfer rate of 1Gbps or higher	

An Ethernet cable (CAT5e or higher recommended. Straight or cross.)

MTX-MRX Editor, device main firmware, Dante Firmware Update Manager, and Dante firmware

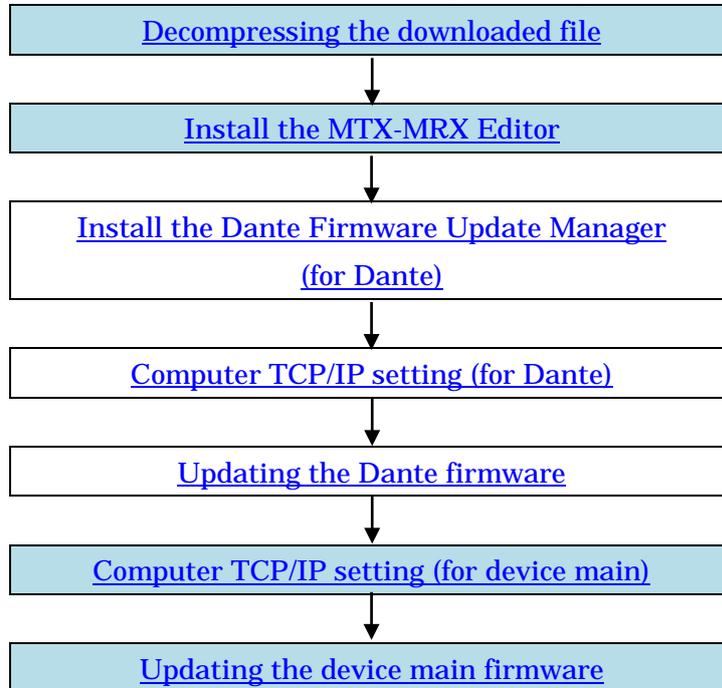
Download the latest firmware from the following URL.

Install the MTX-MRX Editor to the main firmware of the device and copy to a computer.

<http://www.yamahaproaudio.com/downloads/>

Update procedure sequence

Update each firmware component in the following sequence. If you're using a YDIF model, execute the colored steps. If you're using a Dante model, execute all of the steps. However if there's no need to update the Dante firmware, execute only the colored steps even if you're using a Dante model.



If there are 2 computers, you may use one for device firmware update and the other for Dante firmware update so that you can perform the work without switching the TCP/IP settings.

Decompressing the downloaded file

Decompress the downloaded "mtx_editorxxx_firmxxx.zip" (xxx is the version number). The installer and firmware are in the following folder structure.

mtx_mrx_editorxxx_firmxxx

Dante

DanteFirmware : Dante firmware

DanteFirmwareUpdateManager : Dante Firmware Update Manager installer

editorxxx_firmxxx : MTX-MRX Editor installer and device main firmware

firmware : Device main firmware

The Dante firmware does not operate normally if its path contains any multi-byte character (including Japanese characters). If you use a directory name containing any multi-byte character in your computer, store the firmware update files in a directory that consists only of ASCII characters (e.g. C:\temp).

When you install MTX-MRX Editor, the device main firmware will be decompressed and stored under C:\Program Files or C:\Program Files(x86).

NOTE

• To correctly decompress and store the device main firmware, make sure that the setup.exe file and the Firmware folder are located in the same folder, then install MTX-MRX Editor.

Install the MTX-MRX Editor

Before you update the device main firmware, you must install the MTX-MRX Editor.

Follow the steps below to install MTX-MRX Editor.

1. Double-click "setup.exe" in the "editorxxx_firmxxx" folder.

The MTX-MRX Editor setup wizard will appear.

2. Proceed with the installation as directed by the instructions in the screen.

NOTE

• If the computer you're using does not have Bonjour installed, a screen asking you to install Bonjour will appear during the installation.

If you are asked to install Bonjour, download Bonjour from the Yamaha Pro Audio website, and install it. Then install MTX-MRX Editor again.

<http://www.yamahaproaudio.com/downloads/>

Install the Dante Firmware Update Manager (for Dante)

Before you update the Dante firmware, you must install the Dante Firmware Update Manager.

Double-click the Dante Firmware Update Manager installer downloaded in “Preparing for the update” (DanteFirmwareUpdateManager-x.x.x.exe) and follow the on-screen instructions to install the firmware.

x.x.x represents the version number of the Dante Firmware Update Manager.

When the Dante Firmware Update Manager is already installed, uninstall regardless of whether the version is old or new. Install the decompressed Dante Firmware Update Manager after uninstallation.

NOTE

- The “Windows Security” dialog box may appear. In such case, click [Install this driver software anyway].
- You may be prompted to restart the computer after the installation is complete. Before proceeding to update, restart the computer.
- When installing the Dante Firmware Update Manager, temporarily disable any running anti-virus software.

Computer TCP/IP setting (for Dante)

To update Dante firmware, configure computer TCP/IP settings.

1. Start up MTX-MRX Editor.

NOTE

- The “User Account Control” dialog box may appear. Click [Continue] or [Yes].

2. The “Network Setup” dialog box appears, click [Open Network Connection].

“Network Connections” will appear. You can also access the “Network Setup” dialog box by choosing [System] menu -> [Network Setup].

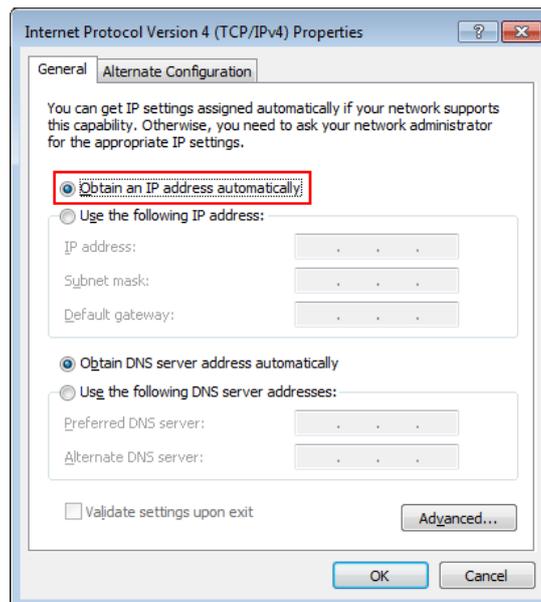
3. Right-click the adapter to which the device(s) are connected, and choose [Properties].

The “Local Area Connection Properties” dialog box will appear.

4. Choose [Internet Protocol Version 4 (TCP/IPv4)], and then click [Properties].

The “Internet Protocol Version 4 (TCP/IPv4) Properties” dialog box will appear.

5. Click [Obtain an IP address automatically].



6. Click [OK].

NOTE

- In some cases, Windows firewall may block MTX-MRX Editor when you make this setting. Select the [Private Network] check box, and click [Allow Access].

Updating the Dante firmware

Described below are the procedures to update the Dante module firmware integrated in the device. Use an Ethernet cable to connect your computer to the device. If the Dante device is connected via a redundant connection, connect your computer to the network switch that is connected to the [PRIMARY] connector.

NOTE

- For details on Dante Firmware Update Manager, refer to "User Guide Dante Firmware Update Manager" in the Dante folder of the compressed file.
- If your computer enters Sleep or Energy Save mode, data transfer to the device may stop. Therefore, you should disable these functions to prevent this from happening. We also recommend that you do not use any screen saver or similar background programs.

1. Turn on the power to the device.

2. Run the Dante Firmware Update Manager with administrator privileges.

If you're using Windows 7, click [Start]->[All Programs]->[Audinate]->[Dante Firmware Update Manager], then right-click [Dante Firmware Update Manager] and choose [Run as administrator].

If you're using Windows 8/8.1, go to the "Start" screen -> ([All apps]), then right-click [Dante Firmware Update Manager], and choose [Run as administrator] from the choices that appear at the bottom of the screen. Check that the version number is 1.4.5 or higher from the title bar.

NOTE

- The "User Account Control" dialog box may appear. Click [Continue] or [Yes].

3. If you see the interface selection screen, select the interface card to connect the Dante device.

4. Click [Update Dante Firmware].

5. Click [Browse] and select "FWUpdate_MRX7-D_vyyy_swzzz.dnt" in case of MRX7-D, "FWUpdate_MTX5-D_vyyy_swzzz.dnt" in case of MTX5-D, or "FWUpdate_XMVxxxx-D_vyyy_swzzz.dnt" in case of XMV of Dante model. Then click [Open]. yyy and zzz represent the firmware version number.

NOTE

- The Dante firmware does not operate normally if its path contains any multi-byte character (including Japanese characters). If you use a directory name containing any multi-byte character in your computer, store the firmware update files in a directory that consists only of ASCII characters (e.g. C:\temp).

CAUTION

Be sure to ensure compatibility of the update files with device. If update files other than device are applied, the device will become inoperable. In general, do not check the [Override Device Matching] option. If this option is left unchecked, only devices that support the file can be selected, ensuring that updating the device with invalid or wrong files is prevented.

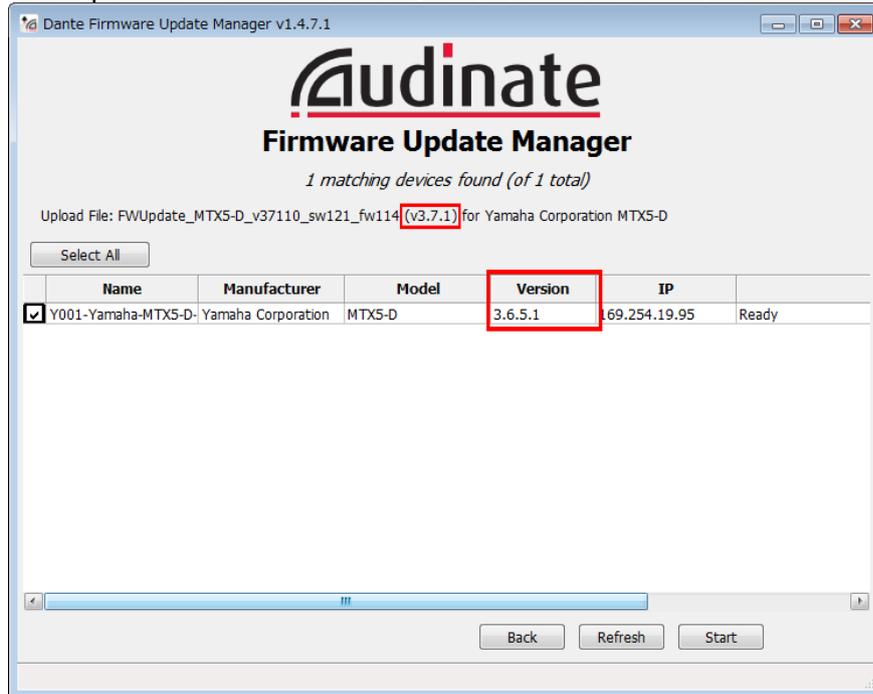
6. Click [Next].

NOTE

- In some cases, Windows firewall may block MTX-MRX Editor when you make this setting. Select the [Private Network] check box, and click [Allow Access].

7. Check the device to update.

Check the version of the update files and the version number indicated in the device line.



NOTE

• If the device is not indicated, click [Refresh]. If it is still not indicated after that, the computer and the device are not connected properly. Check that the cable is not loose or disconnected, TCP/IP is properly configured. We recommend that you also verify that the device is shown in Dante Controller.

8. Click [Start].

The update operation will begin.

“ Updating(n/m)” appears in the Status field during updating. “Done” is displayed once update is completed.

CAUTION

Update takes 2 to 4 minutes. During the update operation, do not turn off the power to the device or disconnect the cable. If update fails due to disconnection of the power cable during the update, or due to other reasons, the device may become inoperative.

NOTE

• If update is not completed after 5 minutes, or update failure indication appears, click X at the upper right corner of Dante Firmware Update Manager to exit the program **without turning the device power off**, and restart the procedure from the step 4. If update still fails, follow the instructions stated in “About Failsafe Mode” to perform the recovery process.

Then proceed to execute the main firmware update for the device.

Computer TCP/IP setting (for device main)

To update device main firmware, configure computer TCP/IP settings.

If only a YDIF model is being updated, and the computer is already connected to the unit itself, there is no need to change the TCP/IP settings. Proceed to the next section "Updating the device main firmware."

1. Start up MTX-MRX Editor.

NOTE

- The "User Account Control" dialog box may appear. Click [Continue] or [Yes].

2. The "Network Setup" dialog box appears, click [Open Network Connection].

"Network Connections" will appear. You can also access the "Network Setup" dialog box by choosing [System] menu -> [Network Setup].

3. Right-click the adapter to which the device(s) are connected, and choose [Properties].

The "Local Area Connection Properties" dialog box will appear.

4. Choose [Internet Protocol Version 4 (TCP/IPv4)], and then click [Properties].

The "Internet Protocol Version 4 (TCP/IPv4) Properties" dialog box will appear.

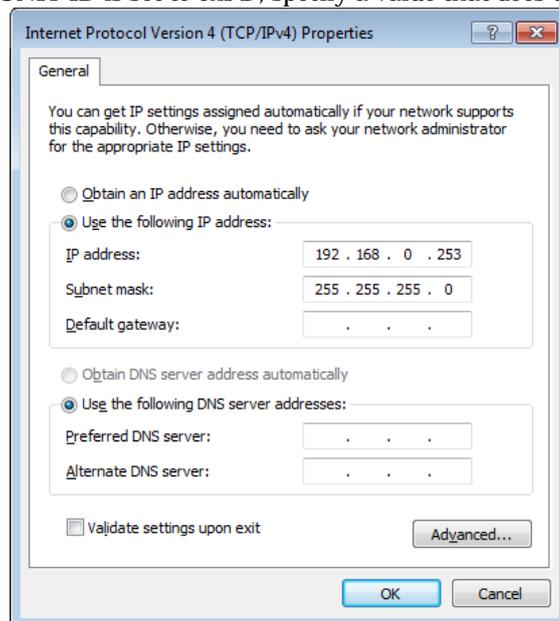
5. Click [Use the following IP address].

For a system in which a router or DHCP assigns the IP address, click [Obtain an IP address automatically] and proceed to step 7.

6. Enter your computer's IP address "192.168.0.253" into [IP address], and "255.255.255.0" into [Subnet mask].

NOTE

- If there is a device whose UNIT ID is set to 0xFD, specify a value that does not create a UNIT ID conflict.



7. Click [OK].

NOTE

- In some cases, Windows firewall may block MTX-MRX Editor when you make this setting. Select the [Private Network] check box, and click [Allow Access].

Updating the device main firmware

This section explains how to update the device main firmware.

Use an Ethernet cable to connect your computer to the device. If the Dante device is connected via a redundant connection, connect your computer to the network switch that is connected to the [PRIMARY] connector.

When the firmware of the device will update without compatibility version of editor, ensure that the MTX/MRX system is synchronized and saved to MTX-MRX Editor as a project file before performing the firmware update in order to ensure that your project data is not lost, and then perform the firmware upgrade using the latest version of MTX-MRX Editor. Ensure that the device is initialized after the update, and then open the previously saved project file using the latest MTX-MRX Editor and re-synchronize to the updated devices.

NOTE

- If your computer enters Sleep or Energy Save mode, data transfer to the device may stop. Therefore, you should disable these functions to prevent this from happening. We also recommend that you do not use any screen saver or similar background programs.
- 1. Turn off the power to the device.**
 - 2. Set DIP switches 7 and 8 (on the XMV, Device setup DIP switch) to the upward (OFF) position, and then turn on the power.**
 - 3. If the device main firmware for a device connected to MTX-MRX Editor is not compatible, an "Alert" dialog box will appear. Click [Update Now] or [OK].**
If you click [Update Now], skip to step 5.
If you click [OK], proceed to step 4.
 - 4. In MTX-MRX Editor, choose [System] menu -> [Device Information].**
The "Device Information" dialog box will appear.
 - 5. Click [Update Firmware].**
The "Update Firmware" dialog box will appear.
If the "Select File" dialog box opens, select a folder that contains the update file (fup), then click [OK].
 - 6. Specify the folder that contains the version of firmware.**
To specify a different file, click [...].
 - 7. Click [Update] to execute the update.**
During the update, the indicators of the devices will flash. When the update is completed, the indicators will light, and the devices will restart automatically.
NOTE
 - Do not turn off the power of the devices while the indicators of the devices are flashing.
 - If the [ALERT] indicator of an applicable device is flashing, an error has occurred and the update has failed. The front panel [PRESET] display indicates the alert number; refer to the alert list in the MTX-MRX Editor User's Manual and take the appropriate action.
 - 8. When the update has completed and all devices have restarted automatically, close the "Device Information" dialog box.**
When the update has completed successfully, and the devices have restarted, the devices will reappear in MTX-MRX Editor's Project screen.

9. If "Requires Initialization" appears in the Status field, initialize the specified device.

To start initialization, set DIP switch 7 to the down position and DIP switch 8 to the up position (on the XMV, Device setup DIP switches 7 and 8), then restart the device. For more information, refer to the User's Manual for the corresponding device.

NOTE

When initializing Dante devices (MTX5-D, MRX7-D and Dante model of XMV), ensure that all other Dante devices on the network are disconnected or powered off. Otherwise initialization could take longer than necessary.

The firmware update is now complete.

About Failsafe Mode

During normal operation, software must be loaded from a flash memory drive during operations to use the Dante module integrated in the device. However, data in a flash memory drive may occasionally become corrupted, as with any other storage device.

In many cases, such data corruption is caused by turning the device power off during firmware upgrading.

The Dante module has a specially protected flash drive section in order to recover from such a condition. When the main section is damaged, the program stored in the protected area is activated and the Dante module goes into "failsafe mode."

To restore a Dante module in failsafe mode, a recovery image needs to be sent from the Firmware Update Manager.

To check if the Dante module is in failsafe mode, use Dante Controller: the respective device is displayed in red in the network grid view of the Dante Controller (version 3.1.x or higher).

Additionally, alert number 08 or 008. is shown on the unit itself.

Described below are the procedures to recover the Dante module integrated in the device.

1. Turn off the power to the computer and the device.
2. Separate the device from the Dante network.
3. Connect the Dante [PRIMARY] connector on the rear panel of the device to the Ethernet connector on the computer using an Ethernet cable.
4. Turn the computer power on and login to Windows with administrative privileges.
5. Turn on the power to the device.
6. Disable all but one of the network interfaces on your computer.
7. Run the Dante Firmware Update Manager with administrator privileges.
If you're using Windows 7, click [Start]->[All Programs]->[Audinate]->[Dante Firmware Update Manager], then right-click [Dante Firmware Update Manager] and choose [Run as administrator].
If you're using Windows 8/8.1, go to the "Start" screen -> ([All apps]), then right-click [Dante Firmware Update Manager], and choose [Run as administrator] from the choices that appear at the bottom of the screen.
NOTE
 - The "User Account Control" dialog box may appear. Click [Continue] or [Yes].
8. If you see the interface selection screen, select the interface card to connect the Dante device.
9. Click [Failsafe Recovery].

10. Check the detected device.

11. Click [Start].

A pop-up is displayed confirming that you wish to proceed.

12. Click [OK] to start the recovery.

Firmware Update Manager will display "Processing Safe Recovery", and then "Safe recovery Done" when the device(s) are recovered.

13. Exit the Dante Firmware Update Manager, and wait for two minutes before turning off the power to the device.

14. The correct Dante firmware now needs to be loaded.

Follow steps 2 through 11 described in "[Updating the Dante firmware.](#)"

Now recovery and firmware update are completed.