



FR64-MD Firmware Update Guide

Thank you for choosing a Yamaha product.

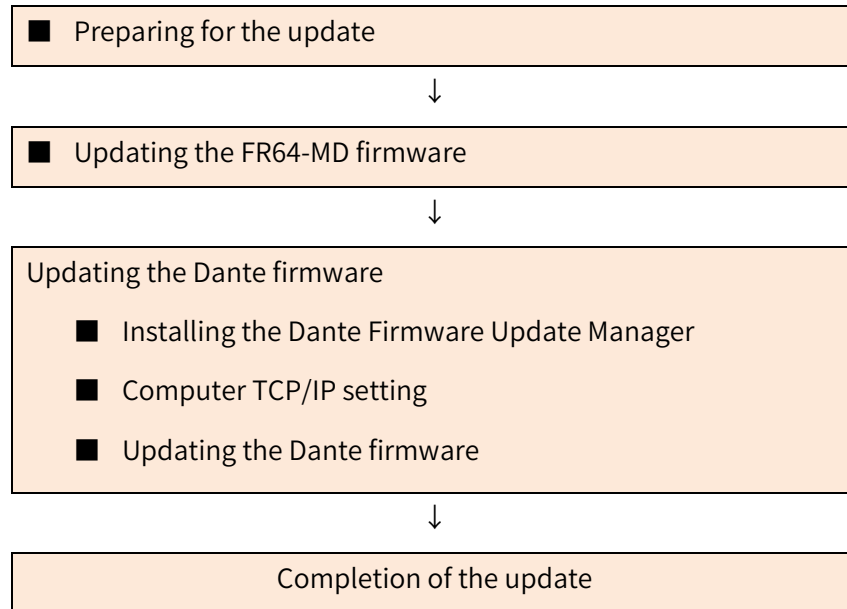
This guide explains how to update the FR64-MD firmware and its built-in Dante module firmware.

■ 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.
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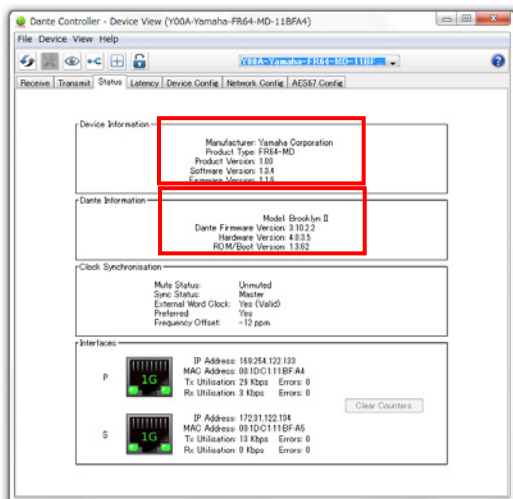
■ Update procedure sequence

Update each firmware component in the following sequence.



■ Checking the version number

The FR64-MD firmware and the Dante firmware version number can be confirmed on the Device View window in Dante Controller.



■ Preparing for the update

1. Download the latest firmware from the following URL.

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

2. Decompress the downloaded file.

● Computer requirements for firmware updates

Windows

OS	Windows 7 SP1 (32-bit/64-bit) Windows 8.1 (32-bit/64-bit) Windows 10 (32-bit/64-bit)
CPU	Intel or AMD dual core processor
Memory	2 GB or more
Interface	Equipped with an Ethernet connector
HDD	Free disk space of 100 MB or more; high-speed hard disk

Mac

OS	OS X 10.11.x, macOS 10.12.x, macOS 10.13.x, macOS 10.14.x
CPU	Intel dual core processor
Memory	2 GB or more
Interface	Equipped with an Ethernet connector
HDD	Free disk space of 130 MB or more; high-speed hard disk

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

■ Updating the FR64-MD firmware

This section explains how to update the FR64-MD firmware.

NOTE

- Before you start updating the firmware, decompress the downloaded compressed file.
- Place the following files in the same folder.

Windows: “FR64-MD_firmXXX.fr64f” and “FR64-MD Update Program.exe”

Mac: “FR64-MD_firmXXX.fr64f” and “FR64-MD Update Program”

The characters “XXX” represent the firmware version number which will be updated.

1. Connect the computer to the network, to which FR64-MD is connected.
2. Turn on the power of the frame in which all FR64-MDs that need updating are inserted.
3. Double-click “FR64-MD Update Program.”

The FR64-MD Update Program will start up.

NOTE

- The “User Account Control” dialog box may appear. Click [Continue] or [Yes].
- The FR64-MD Update Program may be blocked by the Windows Firewall. Check the all check boxes, and click [Allow access].
- In Mac, the confirmation dialog box which accepts incoming network connections from an application may appear. Click [Allow].

4. Make sure that the fields in the “File” section are indicated as follows;

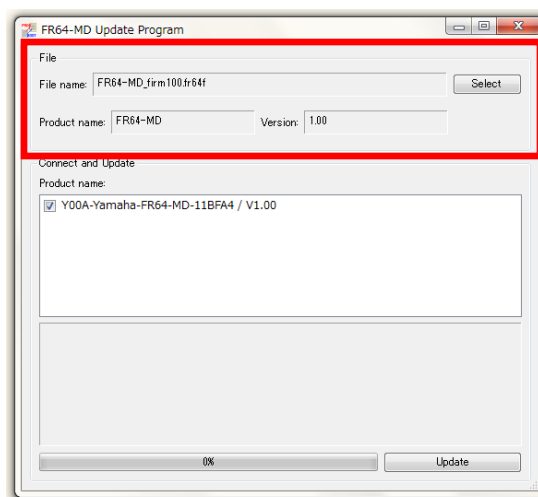
File name: FR64-MD_firmXXX.fr64f

Product name: FR64-MD

Version: X.XX

NOTE

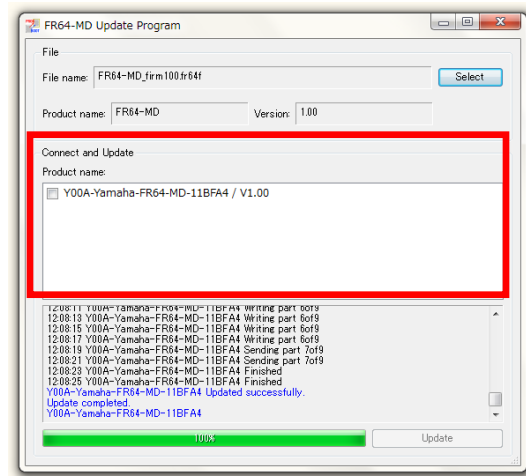
- The characters “XXX” and “X.XX” represent the firmware version number which will be updated.
- If these fields are empty, click [Select], and select the “FR64-MD_firmXXX.fr64f.”



5. Select the target FR64-MD for updating in “Product name” in the “Connect and Update” field.

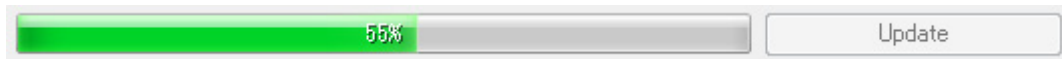
NOTE

- FR64-MD to be updated is automatically checked.
- If this field is empty, your computer may not be properly connected to the FR64-MD. Please check the following points.
 - Make sure that the cable is not disconnected or damaged.
 - Make sure that the program is not blocked by a firewall.
 - Make sure that IPv6 is enabled.



6. Click [Update].

The progress log and progress bar are displayed on the lower area in “Connect and Update.”



An “Updated successfully” message will be displayed once update is completed. If updated correctly, an “Update completed” message will be displayed, and the updated cards will be displayed. If the message “Update failed” is displayed, execute the update procedure again.

7. Restart the frame in which the FR64-MD is installed.

After all the FR64-MD updates are completed, check that the firmware version has been updated. ([→ page 2](#))

■ Installing the Dante Firmware Update Manager

The Dante Firmware Update Manager is software for updating the Dante firmware. The Dante Firmware Update Manager installer is stored in the same compressed file as FR64-MD firmware.

Windows: DanteFirmwareUpdateManager-x.x.x.exe

Mac: DanteFirmwareUpdateManager_x-x-x.dmg

The characters “x.x.x” and “x-x-x” represent the Dante Firmware Update Manager version number.

Double-click the Dante Firmware Update Manager installer, and follow the on-screen instructions to install the firmware.

NOTE

- The “Windows Security” dialog box may appear. In such case, follow the on-screen instruction to continue.
- 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 installing the Dante Firmware Update Manager, temporarily disable any running anti-virus software.
- You may be prompted to restart the computer after the installation is complete. Before proceeding to update, restart the computer.

■ Computer TCP/IP setting

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

After the firmware update procedure is complete, return the TCP/IP settings to their original settings.

Windows

1. Open the Network and Sharing Center as described below.

Windows 7

Select [Start] → [Control Panel], then click or double-click [Network and Sharing Center] or [View network status and tasks].

Windows 8.1 or Windows 10

[Windows]+[X] → [Control Panel], then click or double-click [Network and Sharing Center] or [View network status and tasks].

2. Click [Manage network connection] or [Change Adapter settings] from the “Tasks” list located in the left side of “Network and Sharing Center” window, then double-click [Local Area Connection].

The "Local Area Connection Status" dialog box will be displayed.

NOTE

- The “User Account Control” dialog box may appear. Click [Continue] or [Yes].
- If the “Local Area Connection properties” dialog box appears, skip ahead to step 4.

3. Click [Properties].

The "Local Area Connection properties" dialog box will be displayed.

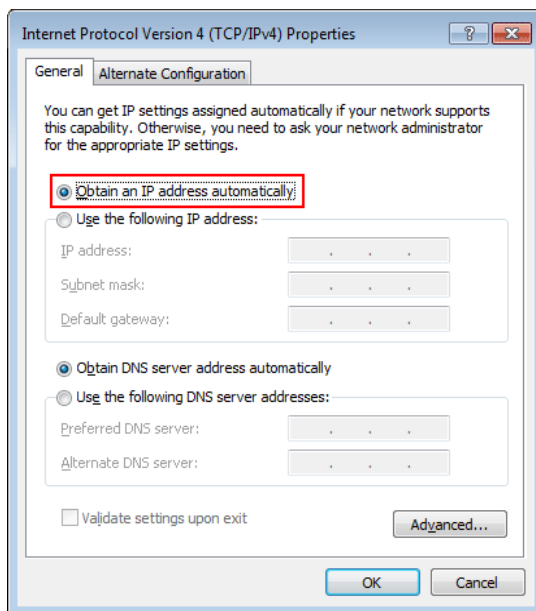
NOTE

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

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

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

5. Click [Obtain an IP address automatically].



6. Click [OK].

Mac

1. Click the “System Preferences” icon on Dock.

The “System Preferences” window appears.

2. Click the [Network] icon.

The “Network” window appears.

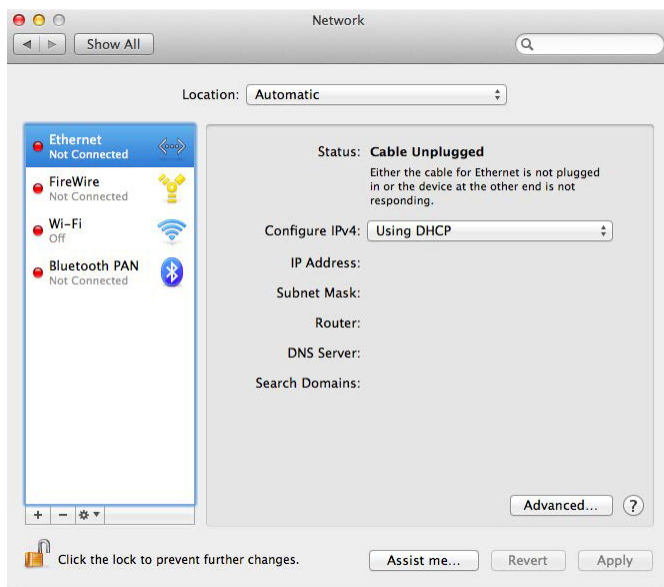
3. Click [Ethernet].

The Ethernet settings window appears.

NOTE

If there are multiple Ethernet choices, select the one that is connected to the device.

4. Confirm that “Using DHCP” is selected in “Configure IPv4” or “Configuration.”



5. Click “Apply” if you have changed the setting, then close the window.

If you haven’t changed the setting, close the window.

■ Updating the Dante firmware

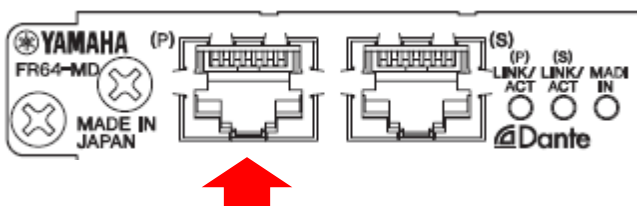
Described below are the procedures to update the Dante module firmware integrated in the FR64-MD card.

NOTE

- To update the Dante firmware, you need to connect an FR64-MD to the computer one at a time, and repeat the update procedure for each device.
- For details of the Dante Firmware Update Manager, refer to “AUD-MAN-Firmware Update Manager” stored in the compressed file folder.

1. **Connect the Dante [PRIMARY] (P) connector of the FR64-MD card to the Ethernet connector on the computer using an Ethernet cable.**

Be sure to directly connect the computer and the FR64-MD card, and do not connect any other Dante device to the computer.



2. Turn on the power to the frame in which the FR64-MD card is inserted.
3. Run the Dante Firmware Update Manager as described below.

Windows

Select [All programs] or [All apps] → [Audinate] → [Dante Firmware Update Manager] → [Dante Firmware Update Manager], then right-click and select “Run as Administrator.”

Mac

Double-click “Applications” → “Dante Firmware Update Manager.”

NOTE

- Confirm in the title bar that the version number is 3.10.5.1 or higher.
- The “User Account Control” dialog box may appear. Click [Continue] or [Yes].

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

5. Click [Update Dante Firmware].

6. Click [Browse] and select “FWUpdate_FR64MD-vxxx-swyyy.dnt,” then click [Open].

The characters “xxx” and “yyy” 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).

Notice:

If update files other than FR64-MD are applied, the device will become inoperable. Be sure to ensure compatibility of the update files with FR64-MD. To ensure that updating the device with invalid or wrong files is prevented, do not check the [Override Device Matching] option. If this option is left unchecked, you can select only supported devices with the update file.

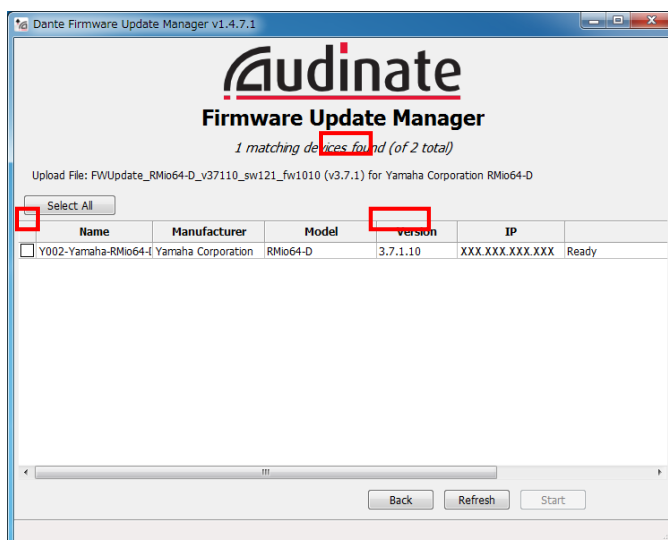
7. Click [Next].

NOTE

- Dante Firmware Update Manager may be blocked by the Windows Firewall. Check the all check boxes, and click [Allow access].
- In Mac, the confirmation dialog box which accepts incoming network connections from an application may appear. Click [Allow].

8. Check the FR64-MD to update.

Check the version of the update files and the version number indicated in the FR64-MD line.



NOTE

If the FR64-MD is not indicated, click [Refresh]. If this field is empty, your computer may not be properly connected to the FR64-MD. Check that the cable is not loose or disconnected, that TCP/IP is properly configured, and that the FR64-MD is turned on.

9. Click [Start].

The update operation will begin.

“Updating” appears in the Status field during updating. “Done” is displayed once the update is completed.

Notice:

The update takes two to four minutes. During the update operation, do not turn off the power to the unit 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 the update is not completed after five minutes, or update failure indication appears, click X at the upper right corner of Dante Firmware Update Manager to exit the program without turning off the power to the frame in which the FR64-MD is installed, and restart the procedure from the step 3. If the update still fails, follow the instructions stated in “About Failsafe Mode” to perform the recovery process.

10. Restart the the frame in which the FR64-MD is installed.

The firmware update is now complete.

Check that the firmware version has been updated. ([→ page 2](#))

■ 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 FR64-MD. 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 FR64-MD 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.”

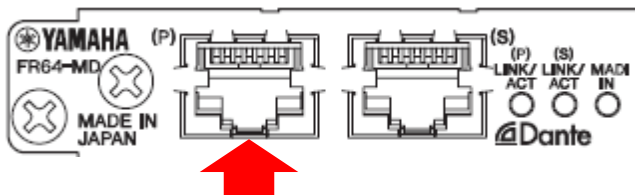
To restore a Dante module in failsafe mode, a recovery image needs to be sent from the Dante Firmware Update Manager.

To check if the Dante module is in failsafe mode, use Dante Controller; the respective device is displayed in red in the Network View of the Dante Controller (version 3.1.x or higher).

Furthermore, the error code 12100090 is displayed in the display of the frame that the FR64-MD is installed in.

Described below are the procedures to recover the Dante module integrated in the FR64-MD unit.

1. Turn off the power to the computer and the frame in which the FR64-MD is installed.
2. Separate the FR64-MD from the Dante network.
3. Connect the Dante [PRIMARY] (P) connector on the rear panel of the FR64-MD unit to the Ethernet connector on the computer using an Ethernet cable.



4. Turn on the power to the computer and log on to Windows with administrative privileges.
5. Turn on the power to the frame in which the FR64-MD is inserted.
6. Disable all but one of the network interfaces on your computer.
7. Run the Dante Firmware Update Manager as described below.

Windows

Select [All programs] or [All apps] → [Audinate] → [Dante Firmware Update Manager] → [Dante Firmware Update Manager], then right-click and select “Run as Administrator.”

NOTE

- The “User Account Control” dialog box or the “Windows Security” dialog box may appear. In such case, follow the on-screen instruction to continue.

Mac

Double-click “Applications” → “Dante Firmware Update Manager.”

NOTE

- In Mac, the confirmation dialog box which accepts incoming network connections from an application may appear. Click [Allow].

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 FR64-MD.

11. Click [Start].

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

12. Click [OK] to start the recovery.

Dante 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 frame in which the FR64-MD is inserted.

14. Update the Dante firmware.

Follow steps 2 through 10 described in “Updating the Dante firmware.”

Now recovery and firmware update are completed.

■ Error message list (FR64-MD update program)

Error messages for the FR64-MD update program may be displayed on the computer.

This section explains the error messages, and the appropriate action to take.

NOTE

If the same error message appears each time you try to update, the device may need repairing, in which case you should contact your Yamaha dealer.

Message	Possible Solution
Invalid file.	The update file has broken. Download the file again.
Update failed.	Make sure that the computer is connected to the FR64-MD correctly, then update the firmware again.

Manual Development Group
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