



QL5/QL1 Firmware Update Guide

Thank you for choosing a Yamaha product.

This guide explains how to update the QL series (QL5 and QL1) firmware and its built-in Dante module firmware.

■ Important Notice

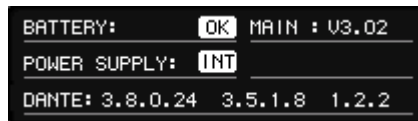
- From V3.10, it was made possible to use a USB memory to also update the Dante module firmware.
- Although the QL series firmware (main/sub) can be updated together at the same time by using the USB memory to update the Dante module firmware, updating the Dante firmware will take approximately 10 minutes.
- Although using a computer (Dante Firmware Update Manager) to update the Dante firmware in the conventional manner reduces the amount of time required for the Dante firmware update, it is necessary to update the QL series firmware by using a USB memory separately.

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

- The user assumes full responsibility for the update.
- Update the firmware components one unit at a time.
- 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 QL series 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.
- Dante is a registered trademark of Audinate.
- Windows is a registered trademark of Microsoft ® Corporation in the United States and other countries.
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■ Checking the version number

You may check the QL main firmware version number and the Dante firmware version number from the version field in the SETUP screen.



MAIN	Main firmware version on the QL series unit
DANTE	3 versions of the firmware in the Dante module

NOTE

- The following dialog box is displayed after startup if the version of the NAME SUB CPU is old. As it is necessary to update the NAME SUB CPU, copy the necessary file to the USB memory and perform the update procedures.



■ Preparing for the update

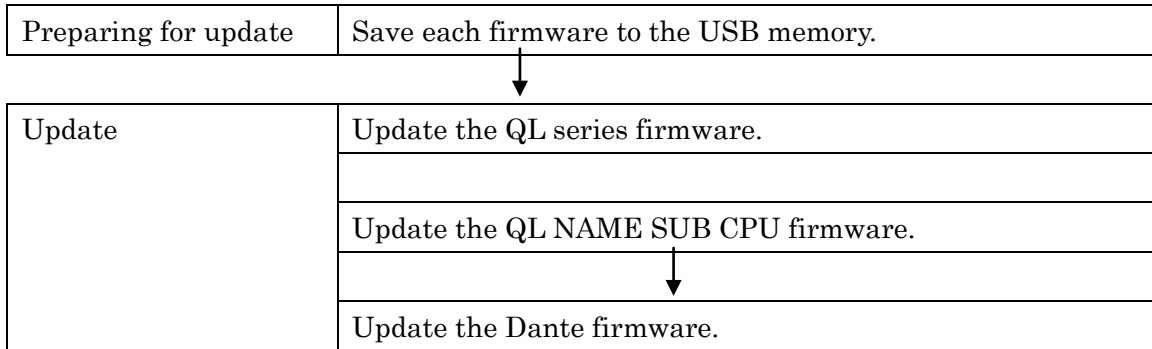
You will need the following items ready to execute the update procedure.

- Formatted (FAT12/FAT16/FAT32) USB memory
In the QL series unit, memory of 4GB or larger will be formatted in FAT32, and memory of 2GB or smaller in FAT16. For the formatting procedure, refer to “QL5/ QL1 Reference Manual.”
For formatting in a computer, refer to documentations supplied with the computer or its OS.
- QL Series Firmware/Dante Firmware
Provided as a single package in the form of a zip file.
Download the latest program from the following URL.
<http://www.yamahaproaudio.com/downloads/>

■ Update procedure sequence

Update each firmware component in the following sequence.

If you plan to update multiple QL series units, repeat the procedure described in “Update” for each unit in sequence.



■ Updating the QL series firmware

Described below are the procedures to update the QL series unit firmware.

Uncompress the compressed file you downloaded in advance.

1. **Save the QL internal data to the USB memory or QL Editor (compatible with the current firmware version) as backup.**

If you are saving the data to the USB memory, open the SAVE/LOAD popup window from the SETUP screen.

2. **Turn off the power to the QL series.**

3. **Remove the cable connected to the Dante connector.**

After initialization, the Dante setup may change from REDUNDANT to DAISY CHAIN. Please check this setting in the DANTE SETUP popup screen, and change it if necessary, after the update is complete and before reconnecting the cables. Otherwise the Dante network may not function correctly.

4. **Connect the USB memory (formatted in FAT12/FAT16/FAT32) to the USB connector of your computer.**

Delete all files when the files extensions.PGM and.BIN exists in the root directory of the USB memory.

5. **Copy the all files (extensions .PGM and .BIN) in the "QL_firm***_USB" (*** indicates the version number) folder extracted from the downloaded file to the root directory of the USB memory.**

If you have mistakenly updated using C-MD1.BIN used for updating from CL V1.61 or earlier:

It is necessary to restore NAME SUB CPU because the [TOUCH AND TURN] knob stops functioning. Copy QL-MD***.BIN (*** indicates the version number) in the NAME SUB folder to the root directory of the USB memory.

If you have never updated to V3.00 or later:

As it is necessary to update the Dante firmware, copy FWUpdate_QL?_v*****_sw***.dnt (? indicates the product name and *** the version number) in the Dante\DanteFirmware folder to the root directory of the USB memory. You can also update the specific firmware by copying the corresponding file into the root directory.

6. **Remove the USB memory when the files have been copied.**

For more information on removing the USB memory, refer to the owner's manual for your computer and USB memory.

7. **Connect the USB memory to the QL USB connector, then turn on the power to the QL series.**

A "Start Loading ?" message will be displayed.

8. **Click the OK button to start loading the firmware.**

CAUTION : A "Loading..." message will appear during loading the firmware. Progress from 0 to 100% is repeated 1 or 2 times. Do not disconnect the USB memory or power-off the QL series while accessing the USB memory.

9. **When the firmware has been loaded, the QL series automatically restarts and a "Starting System..."**

message flashes for approximately one minute.

While this message is flashing, do not turn off the power. If you have accidentally turned off the power, turn on the power again to resume the initialization.

NOTE

- If QL-MD***.BIN (*** indicates the version number) has already been copied into the root directory of the USB memory at this time, it will be transferred to the NAME SUB CPU firmware update. Refer to "[Updating the QL NAME SUB CPU Firmware](#)".
- Similarly, if FWUpdate_QL?_v*****_sw***.dnt (? indicates the product name and *** the version number) has already been copied into the root directory of the USB memory, it will be transferred to the Dante firmware update. Refer to "[Updating the Dante Firmware](#)".

10. When a "Console initialized due to memory mismatch." popup window (or similar message) appears, press the CLOSE button to close it.

NOTE

- Since it is a message about initialization even if displayed as an error, please continue update.

11. When an "Initialize All Memories ?" message appears, press the INITIALIZE button.

12. When an "Are you sure ?" message appears, press the OK button.

Initializing the internal memory will be started.

13. When the initialization is complete, press the EXIT button.

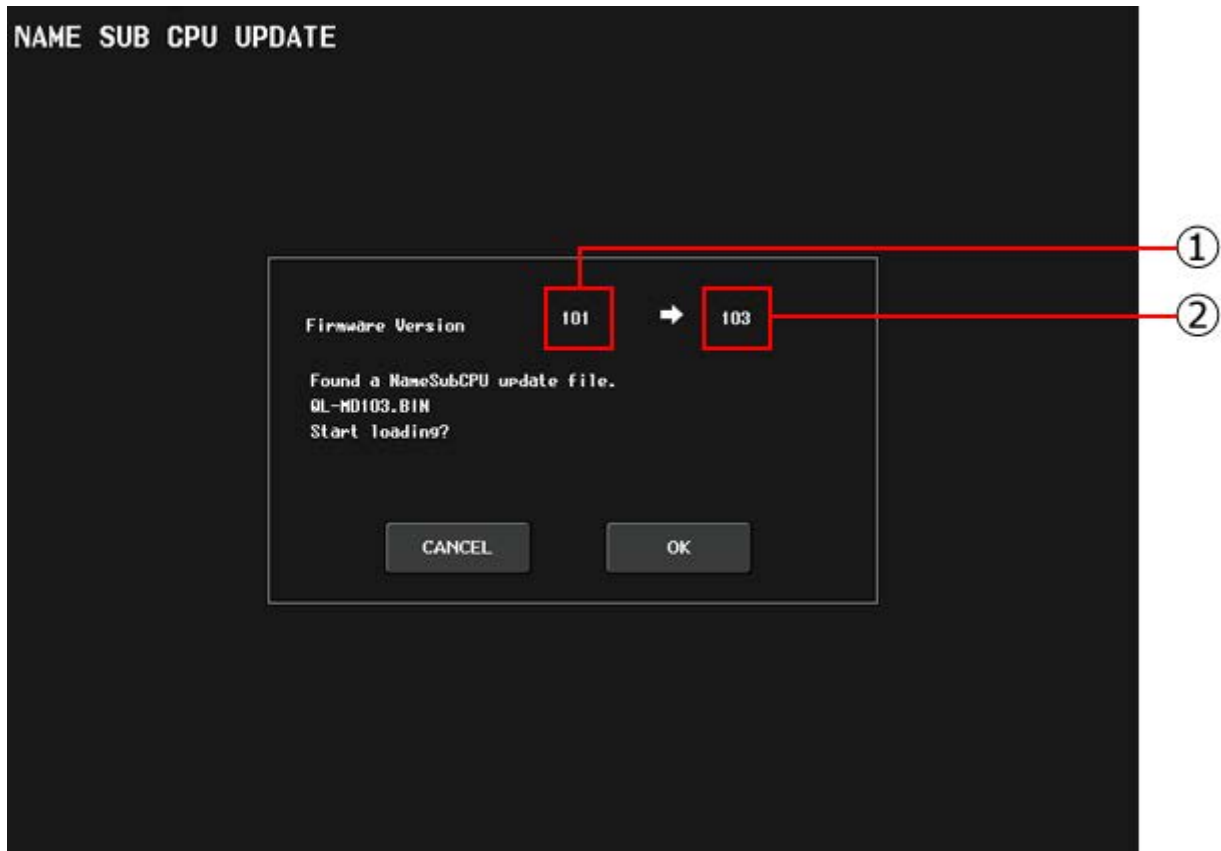
14. Remove the USB memory after confirming the ACCESS indicator has disappeared in the function access area.

15. If necessary, confirm the firmware was correctly updated in the version field in the SETUP screen.

■ Updating the QL NAME SUB CPU Firmware

Described below are the procedures to update the NAME SUB CPU of the QL series.

1. If the following screen is displayed, the console has entered the mode for updating the NAME SUB CPU firmware.



NOTE

- Updating is not necessary if the number displayed in ① is larger than or equal to the number displayed in ②.

2. Click the [OK] button to start loading the firmware.

CAUTION: The following message is displayed, alternating between red and yellow, while loading the firmware.

Please do not shut down!
Update in progress!

During this time, NAME SUB CPU is being overwritten. Do not turn off the power of the QL series. Turning the power off will cause the NAME SUB CPU to stop functioning and make it necessary to take the QL series to a service center for repairs.

3. When firmware loading is completed, the message "Name Sub CPU Update Successful" is displayed. Click the [CLOSE] button.

NOTE

- If FWUpdate_QL?v*****_sw***.dnt (? indicates the product name and *** the version number) has already been copied into the root directory of the USB memory at this time, it will be transferred to the Dante firmware update. Refer to "[Updating the Dante Firmware](#)".

4. If the message "Please re-start the system" is displayed, remove the USB memory and restart the QL series.

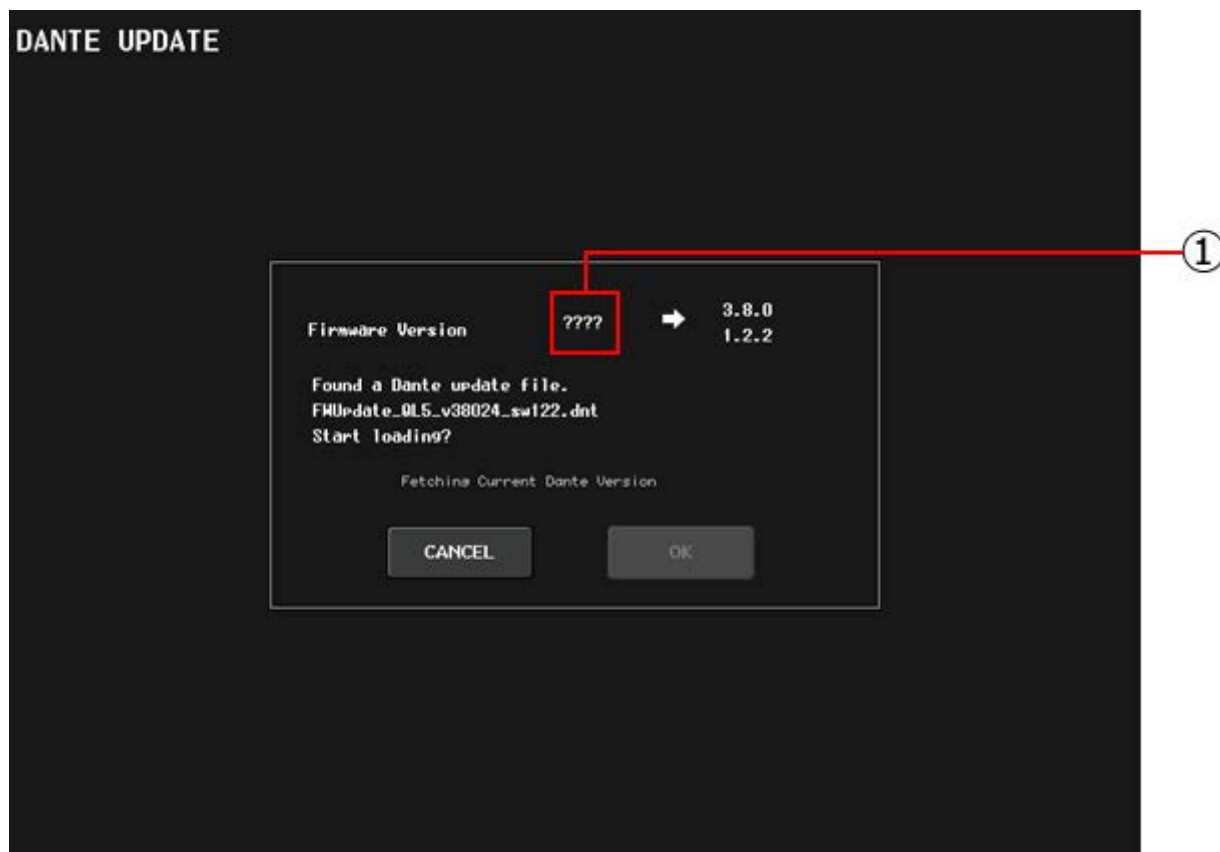
The update has failed if the message "Name Sub CPU Update Failed! Please contact Yamaha

Service" is displayed. Please contact your Yamaha dealer.

■ Updating the Dante Firmware

Described below are the procedures to update the firmware of the Dante module built into the QL series.

1. If the following screen is displayed, the console has entered the mode for updating the Dante module firmware.



NOTE

- While the firmware version information is being checked, "???" is displayed in ① and the [OK] button is disabled. The message "Fetching Current Dante Version" is displayed in the center of the screen.
- When the firmware version information has been acquired, the version number is displayed in ①. At the same time, the [OK] button becomes enabled and the message "Fetching Current Dante Version" disappears.
- If the firmware version information cannot be acquired, the message "Please re-start the system and re-write firmware using Failsafe Recovery in Dante Firmware Update Manager" is displayed. Perform the Dante module recovery procedures if this occurs.

2. Click the [OK] button to start loading the firmware.

CAUTION: While loading the firmware, the message "Update in progress" is displayed for a while. Subsequently, the following message is displayed, alternating between red and yellow.

Please do not shut down!
Update in progress!

These messages are displayed for approximately 10 minutes. Click the [CANCEL] button to forcibly exit this mode.

During this time, do not turn off the power of the QL series.

3. When firmware loading is completed, the message "Dante Update Successful" is displayed. Click the

[CLOSE] button.

4. If the message "Please re-start the system" is displayed, remove the USB memory and restart the QL series.

The Dante module will enter "Failsafe mode" if any of the following messages is displayed.

Dante Update Failed!
Error occurred during Dante firmware update.
Please re-start the system and re-write firmware using Failsafe Recovery in Dante Firmware Update Manager.

In such cases, refer to "[About Failsafe Mode](#)" and perform the Dante module recovery procedures.

This completes the updating procedures.

■ Updating the Dante firmware by using PC application.

Described below are the procedures to update the Dante firmware by using PC application.

■ Preparing for the update

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

- A Windows computer equipped with the following conditions:

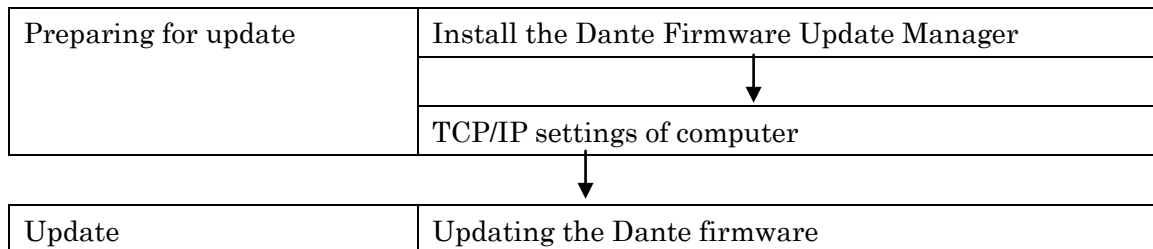
OS	Windows 8/8.1	/Pro
	Windows 7	Ultimate / Professional / Home Premium
CPU	Intel Pentium 1.2GHz or Intel Celeron 1.7GHz or higher	
HDD	250MB or more	
Connector	An Ethernet connector that supports a data transfer rate of 100Mbps or higher A USB connector	

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

■ Update procedure sequence

Update in the following sequence.

If you plan to update multiple QL series units, repeat the procedure described in “Update” for each unit in sequence.



■ Install the Dante Firmware Update Manager

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.

In addition, extract the Dante firmware (extension: .dnt) from the compressed file.

The Dante firmware will not work correctly if the path contains any characters other than single-byte alphanumeric characters, "-" (hyphen), or "_" (underscore). You must save the firmware update file in a directory whose name contains only single-byte alphanumeric characters, "-" (hyphen), or "_" (underscore). (E.g., C:\temp)

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.

■ TCP/IP settings of computer

Before you update the Dante firmware, you must modify your computer’s TCP/IP settings.

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

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 and Windows 8.1

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

The “Network and Sharing Center” is displayed.

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.

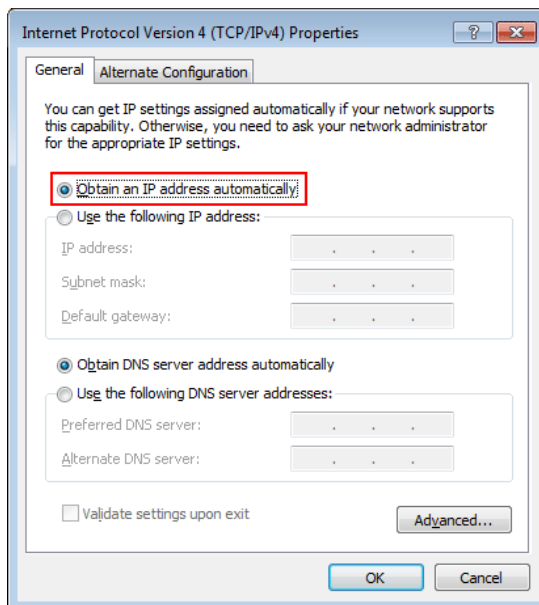
NOTE

- 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) Protocol" dialog box will be displayed.

5. Click [Obtain an IP address automatically].



6. Click [OK].

■ Updating the Dante firmware

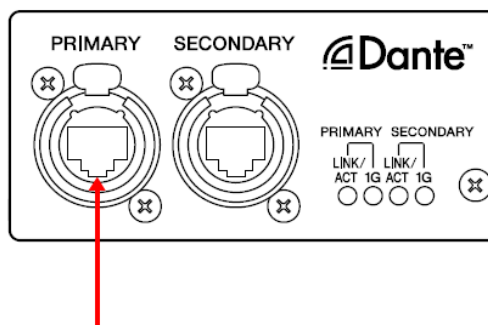
Described below are the procedures to update the Dante module firmware integrated in the QL series unit.

NOTE

- 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] connector on the rear panel of the QL series unit to the Ethernet connector on the computer using an Ethernet cable.

Be sure to directly connect the computer and the QL series unit, and do not connect any other Dante device to the computer.



2. Select [Start]→[All programs]→[Audinate]→[Dante Firmware Update Manager]→[Dante Firmware Update Manager], then right-click and select "Run as Administrator."

The Dante Firmware Update Manager will start up.

Check that the version number is 1.3.2 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_QL5_vxxx_swyyy.dnt" if it is QL5, or "FWUpdate_QL1_vxxx_swyyy.dnt" if QL1. Then click [Open].
xxx and yyy represent the firmware version number.

NOTE

- The Dante firmware will not work correctly if the path contains any characters other than single-byte alphanumeric characters, "-" (hyphen), or "_" (underscore). You must save the firmware update file in a directory whose name contains only single-byte alphanumeric characters, "-" (hyphen), or "_" (underscore). (E.g., C:\temp)

CAUTION

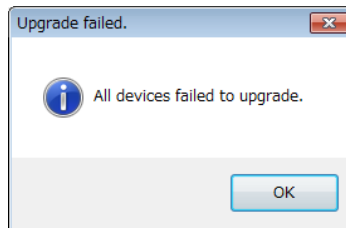
Be sure to ensure compatibility of the update files with QL. If update files other than QL are applied, the device will become inoperable. In general, do not check the [Override Device Matching] option. If this option is left unchecked, only devices that support the file can be selected, ensuring that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

6. Click [Next].

NOTE

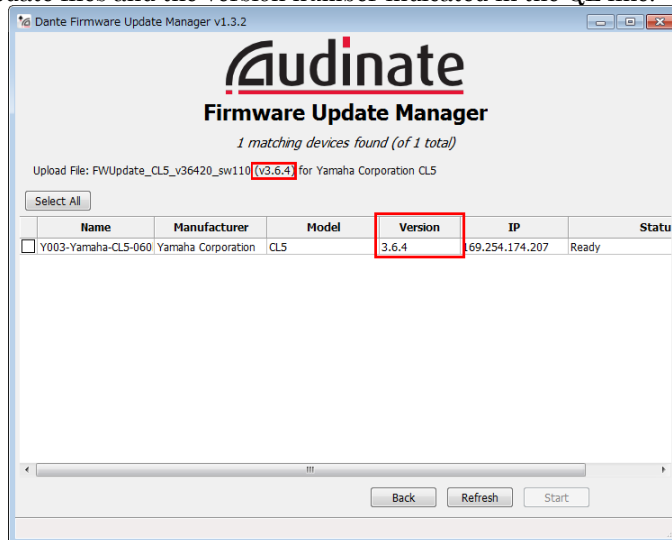
In some cases the Windows firewall may be blocking the Dante Firmware Update Manager. Select the [Private network] check box, and click [Allow access]. Alternatively, in the Windows firewall, click "Allow programs or functions through the Windows firewall," and if the "fum" checkbox is unselected, select this check box to allow access.

If the update manager is blocked by the Windows firewall, the "Upgrade Failed" dialog box appears.



7. Check the QL to update.

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



NOTE

- If the QL is not indicated, click [Refresh]. If it is still not indicated, use Dante Controller to check whether the cable might be disconnected or broken, whether the TCP/IP settings are correct, and whether the QL is

running.

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 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 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 QL 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 processing.

9. Restart the QL series.

The firmware update is now complete.

■ About Failsafe Mode

The Dante module integrated in the QL may become unusable due to data corruption if the Dante device is powered-off during a firmware update.

To recover from such a state, the Dante module will enter "failsafe mode."

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

After the power is turned on, if the screen of the QL indicates "NETWORK AUDIO MODULE FAILED AND WAS RESTARTED." and the Dante version is not displayed, it may be that the Dante module is in failsafe mode.

Use Dante Controller to check whether the Dante module is in failsafe mode.

A Dante module that is in failsafe mode is shown as a red device name in the network grid view of Dante Controller (version 3.1.x or later).



■ Preparing for recovery

You will need the following items ready to execute the procedure for recover.

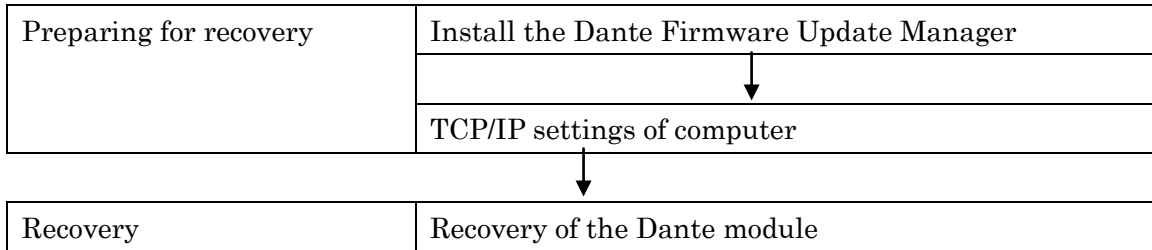
- A Windows computer equipped with the following conditions:

OS	Windows 8/8.1	/Pro
	Windows 7	Ultimate / Professional / Home Premium
CPU	Intel Pentium 1.2GHz or Intel Celeron 1.7GHz or higher	
HDD	250MB or more	
Connector	An Ethernet connector that supports a data transfer rate of 100Mbps or higher A USB connector	

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

■ Recovery procedure sequence

Recover in the following sequence.



■ Install the Dante Firmware Update Manager

Refer to “[Install the Dante Firmware Update Manager.](#)”

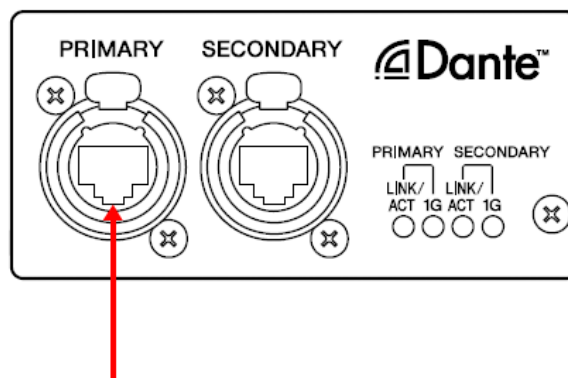
■ TCP/IP settings of computer

Refer to “[TCP/IP settings of computer.](#)”

■ Recovery of the Dante module

Described below are the procedures to recover the Dante module integrated in the QL series unit.

1. Turn off the power to the QL series.
2. Separate the QL from the Dante network.
3. Connect the Dante [PRIMARY] connector on the rear panel of the QL series unit to the Ethernet connector on the computer using an Ethernet cable.
In some cases, an error may occur during recovery if you are going through a network switch. Connect the computer with the QL in a one-to-one connection.



4. Turn on the power to the QL series.

5. Disable all but one of the network interfaces on your computer.

You should also disable the wireless LAN.

6. Select [Start]→[All programs]→[Audinate]→[Dante Firmware Update Manager]→[Dante Firmware Update Manager] , then right-click and select "Run as Administrator."

The Dante Firmware Update Manager will start up.

NOTE

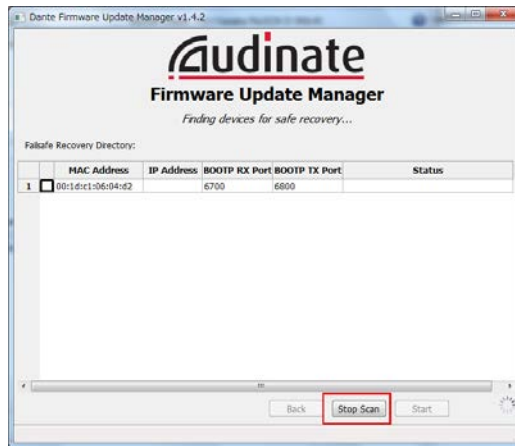
- The "User Account Control" dialog box may appear. Click [Continue] or [Yes].

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

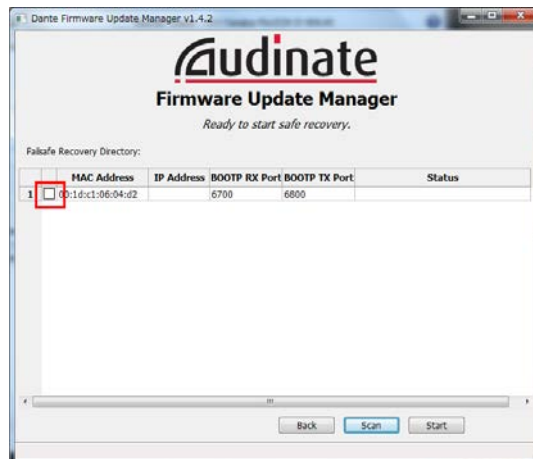
8. Click [Failsafe Recovery].

9. When the QL is detected, click the [Stop Scan] button.

If several minutes have passed without detection, use Dante Controller to check whether the cable might be disconnected or broken, whether the TCP/IP settings are correct, and whether the QL is running.



10. Select the check box of the detected QL.

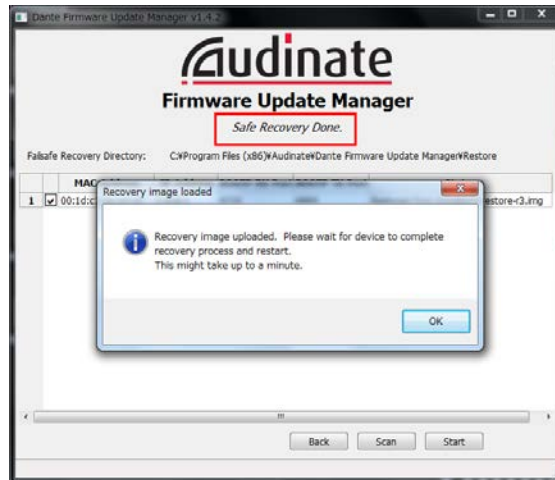


11. Click [Start].

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

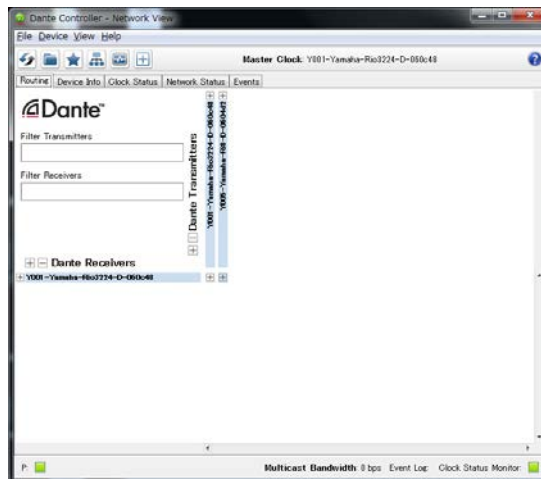
12. Click [OK] to start the recovery.

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 QL main unit.

After recovery, restart the Dante module. If you power-off the QL before restart is completed, the data of the Dante module will be corrupted, and you will have to perform the recovery once again. Start Dante Controller, and if the device name is shown in black, it is safe to turn off the power.



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

After recovery, the Dante firmware will not be the latest version. To update to the latest firmware, perform steps 2 through 9 of "[Updating the Dante firmware.](#)"

Now recovery and firmware update are completed.