YAMAHA

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.

■ 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.
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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.

```
BATTERY:        OK  MAIN : V1.01
POWER SUPPLY:  INT
DANTE: 3.7.1.10  3.4.9.3  1.2.1
```

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

■ Preparing for the update

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

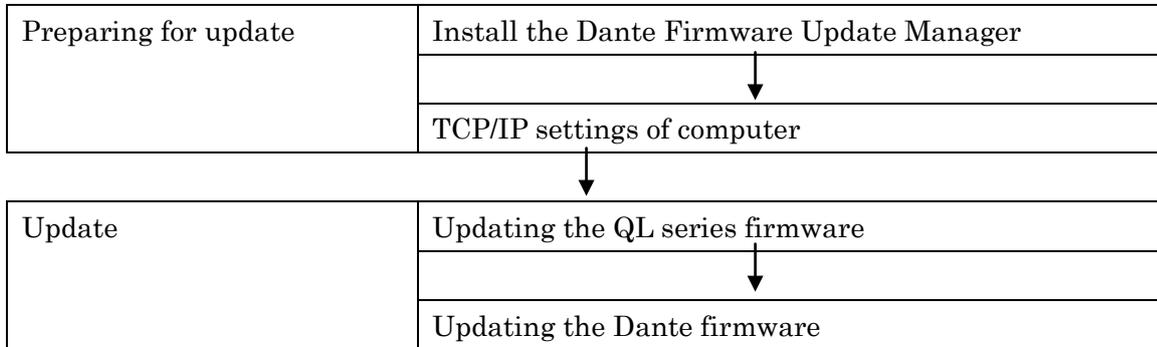● A Windows computer equipped with the following conditions:

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.)

● 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.

● The QL series firmware

Download the latest firmware from the following URL.

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

● The Dante firmware update program

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.

Preparing for update	Install the Dante Firmware Update Manager
	↓
	TCP/IP settings of computer

Update	Updating the QL series firmware
	↓
	Updating the Dante firmware

■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 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).

<u>NOTE</u>
- 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].**
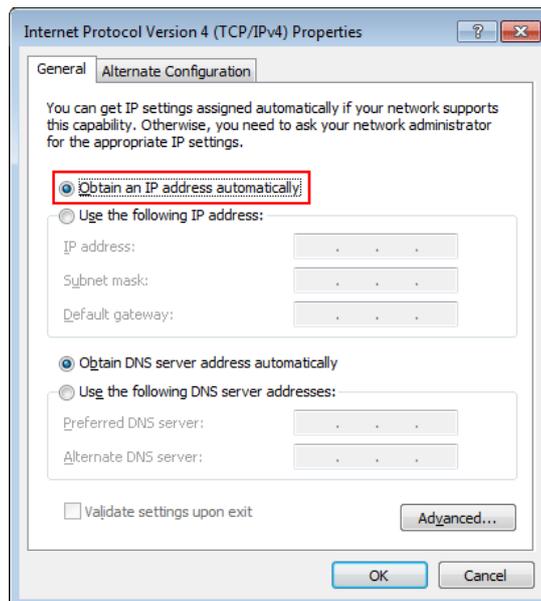   The "Local Area Connection properties" dialog box will be displayed.

   > **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 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.**
   The folder may not contain the BIN file.

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.

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.**
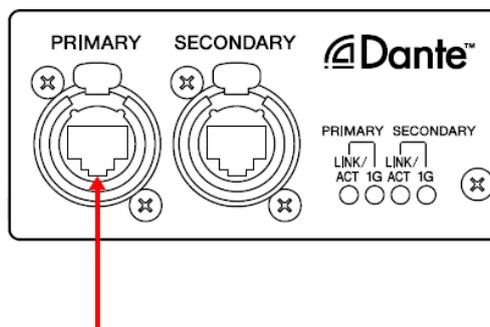
■ Updating the Dante firmware

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 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 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.
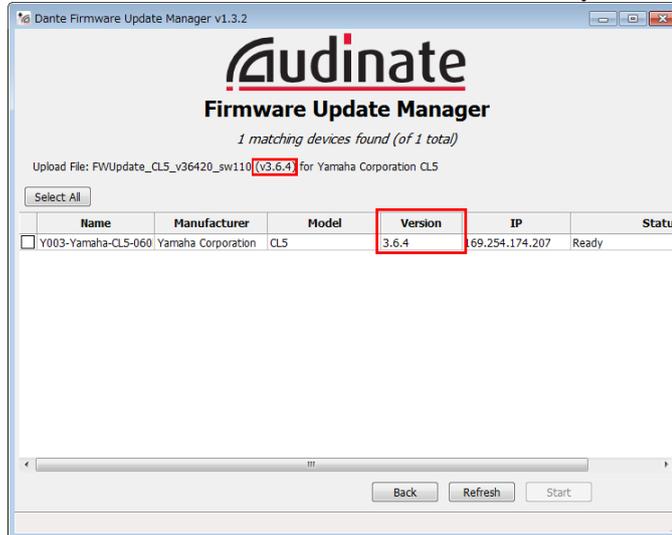
6. **Click [Next].**

> *NOTE*
> • Dante Firmware Update Manager may be blocked by the Windows Firewall. Select the [Private Network] checkbox and click [Allow access].

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 after that, the computer and the QL are not connected properly. Check that the cable is not loose or disconnected, TCP/IP is properly configured, and the QL is powered on.

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

During normal operation, software must be loaded from a flash memory drive during operations to use the Dante module integrated in the QL. 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 QL 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."
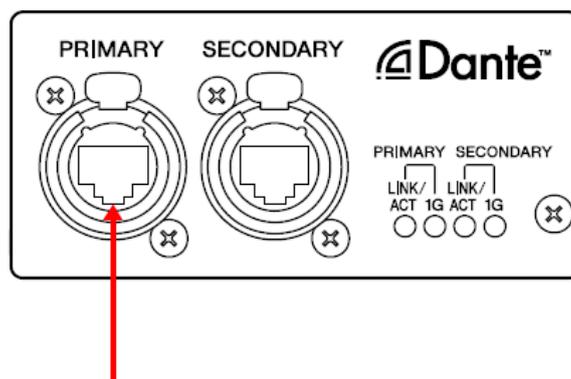
To restore the Dante module in failsafe mode, a recovery image needs to be sent from the Firmware Update Manager.

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).

Further, a message "NETWORK AUDIO MODULE FAILED AND WAS RESTARTED." appears also in the QL screen, so you may check that the DANTE version information is not displayed in the version field of the QL series unit.

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

1. Turn off the power to the computer and 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.

4. Turn the computer power on and logon to Windows with administrative privileges.

5. Turn on the power to the QL series.

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

7. 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].

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 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.

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

    Follow steps 2 through 9 described in "Updating the Dante firmware."

Now recovery and firmware update are completed.