



HY144-D-SRC Firmware Update Guide

Thank you for choosing a Yamaha product. This guide explains how to update the HY144-D-SRC firmware. The SRC modes can be changed by updating to the card’s firmware corresponding to each SRC mode (page 7).

■ Precautions

- The user assumes full responsibility for the update.
- Update the firmware components one device 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.
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Preparing for the update

In order to update, you will need to prepare the following items.

- **A Windows or a Mac computer**
For the system requirements, refer to the Yamaha Pro Audio website.
<https://www.yamaha.com/proaudio/>
- **An Ethernet cable**
CAT5e or higher recommended. Straight or cross.
- **The HY144-D-SRC firmware update program**
Download the latest program from the following URL.
<https://www.yamaha.com/proaudio/>

Update procedure sequence

Update each firmware component in the following sequence.

To update more than one HY144-D-SRC, configure “Computer TCP/IP setting” and perform “Updating the firmware” one by one.

Install the Dante Firmware Update Manager



Computer TCP/IP setting



Updating the firmware

NOTE

For details of the Dante Firmware Update Manager, refer to “AUD-MAN-Firmware_Update_Manager-vx.x.pdf” (x.x represents the version number) stored in the compressed file folder.

Install the Dante Firmware Update Manager

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

Double-click the Dante Firmware Update Manager installer downloaded in “Preparing for the update” ([Windows](#): DanteFirmwareUpdateManager-**x.x.x**.exe, [Mac](#): DanteFirmwareUpdateManager-**x.x.x**.dmg) 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. Only alphanumeric characters, “-” (hyphen), and “_”(underscore) can be used in the path to save the Dante firmware. If the path contains other characters, Dante Firmware Update Manager will not work properly. You must save the Dante firmware in a directory whose name contains only 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.

Computer TCP/IP setting

To update Dante firmware, configure computer TCP/IP 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 and Windows 10

Right-click [Start] → [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.

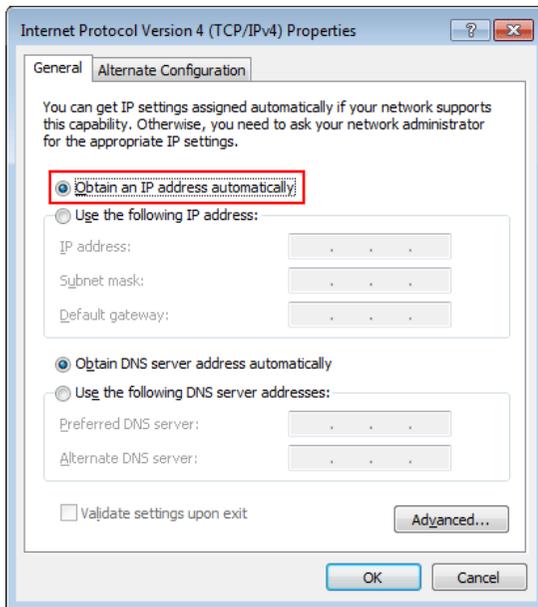
NOTE

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) Properties” dialog box will be displayed.

5. Click [Obtain an IP address automatically].



6. Click [OK].

Mac

1. Click [System Preferences] → [Network].

The “Network” dialog box will be displayed.

2. Click the service that you want to connect to the device.

If you're using the Ethernet port that's built into the Mac, click [Ethernet].

3. In “Configure IPv4,” choose [Using DHCP].

4. Click [Apply] button, then close “Network” dialog box.

Updating the firmware

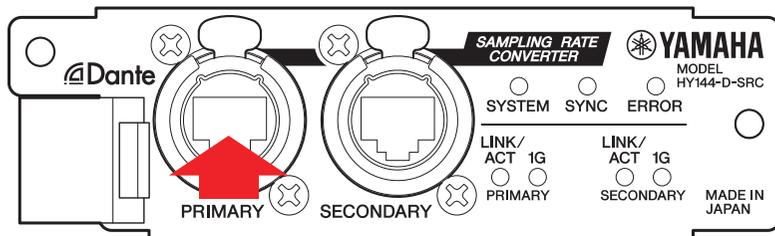
Described below are the procedures to update the Dante module firmware integrated in the HY144-D-SRC.

NOTE

Perform the update with the HY144-D-SRC installed in the slot of a compatible device.

1. **Connect the Dante [PRIMARY] connector of the HY144-D-SRC to the Ethernet connector on the computer using an Ethernet cable.**

Be sure to directly connect the computer and the HY144-D-SRC, and do not connect any other Dante device to the computer.



2. **Turn on the power to the device to which the HY144-D-SRC is installed.**
3. **Windows:** Select [Start]→[All programs] or [All apps]→[Audinate]→[Dante Firmware Update Manager]→[Dante Firmware Update Manager] , then right-click and select [Run as Administrator].
Mac: [Application]→[Dante Firmware Update Manager], then double-click “Dante Firmware Update Manager.”

The Dante Firmware Update Manager will start up. Check that the version number is **3.10.4.6** or higher from the title bar.

NOTE

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_HY144-D-SRC_**mode**_v**xxx**_sw**yyy**.dnt,” then click [Open].

mode represents the SRC mode name, **xxx** and **yyy** represent the firmware version number.

NOTE

Only alphanumeric characters, “-” (hyphen), and “_”(underscore) can be used in the path to save the Dante firmware. If the path contains other characters, Dante Firmware Update Manager will not work properly. You must save the Dante firmware in a directory whose name contains only alphanumeric characters, “-” (hyphen), or “_” (underscore) (e.g., C:\temp).

NOTE

The SRC modes can be changed by updating to the card’s firmware corresponding to each SRC mode.

■ 144io mode

FWUpdate_HY144-D-SRC_144io_vxxx_swyyy.dnt

■ 144io Sync SRC mode

FWUpdate_HY144-D-SRC_144ioSyncSRC_vxxx_swyyy.dnt

■ 72io Async SRC mode

FWUpdate_HY144-D-SRC_72ioAsyncSRC_vxxx_swyyy.dnt

■ 144i Async SRC mode

FWUpdate_HY144-D-SRC_144iAsyncSRC_vxxx_swyyy.dnt

■ 144o Async SRC mode

FWUpdate_HY144-D-SRC_144oAsyncSRC_vxxx_swyyy.dnt

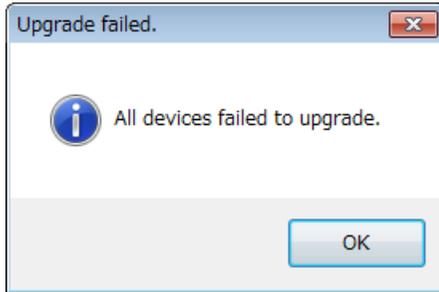
For details on each of the SRC modes, refer to the “SRC mode.”

7. Click [Next].

NOTE

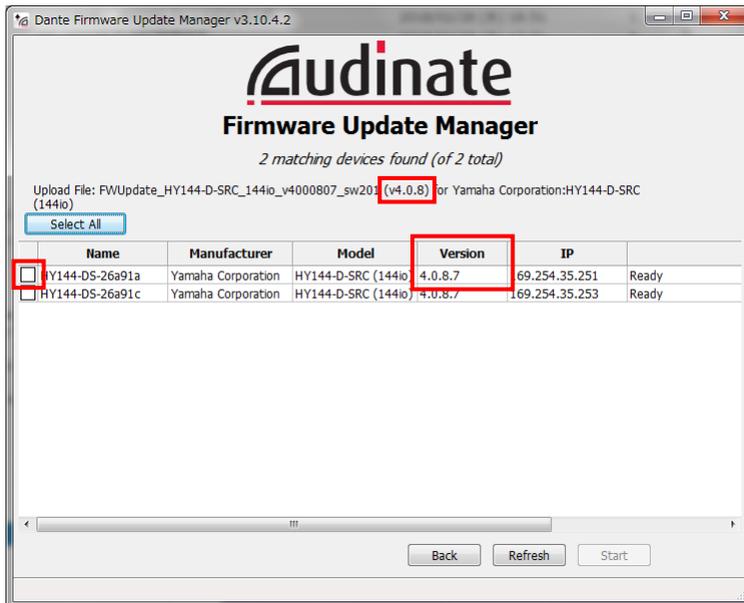
In some cases the Windows firewall may be blocking the Dante Firmware Update Manager. Select the [Private network] check box, and click [Allow access]. Alternatively, in the Windows firewall, click [Allow programs or functions through the Windows firewall], and if the “fum” checkbox is

unselected, select this check box to allow access. If the update manager is blocked by the Windows firewall, the “Upgrade failed.” dialog box appears.



8. Check the HY144-D-SRC to update.

Check the version of the update files and the version number indicated in the HY144-D-SRC line.



NOTE

If the HY144-D-SRC is not indicated, click [Refresh]. If it is still not indicated, check whether the cable might be disconnected or broken, whether the TCP/IP settings are correct or not, whether the device to which the HY144-D-SRC is installed is running or not, and whether the HY144-D-SRC is recognized by the Dante Controller.

9. Click [Start].

The update operation will begin.

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

NOTICE

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 the update is not completed after 5 minutes, or an 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 of the device to which the

HY144-D-SRC is installed, and restart the procedure from the step 3. If update still fails, follow the instructions stated in “About Failsafe Mode” to perform the recovery process.

10. Turn off the power to the device to which the HY144-D-SRC is installed, and then on again.

NOTE

Rapidly turning the unit on and off in succession can cause it to malfunction. After turning the unit off, wait for at least few seconds before turning it on again. Refer to the owner’s manual supplied with each device for how much time should elapse between turning the power off and on again.

11. **Windows:** Select [Start]→[All programs] or [All apps]→[Audinate]→[Dante Controller]→[Dante Controller] , then right-click and select [Run as Administrator].

Mac: [Application]→[Dante Controller], then double-click “Dante Controller.”

The Dante Controller will start up.

NOTE

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

12. Perform the “Clear Config” operation to initialize the HY144-D-SRC.

NOTE

When you change the SRC mode, the settings before the mode change may still be present and the device may not work properly. To prevent this problem, take a note of the Dante settings in advance, initialize all the Dante settings using “Clear Config,” and then set them again manually.

For details on instruction, refer to the Dante Controller User Guide available on the following website:

<https://www.yamaha.com/proaudio/>

The firmware update is now complete.

About Failsafe Mode

The Dante module integrated in the HY144-D-SRC 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 Dante Firmware Update Manager.

If the red ERROR indicator of the HY144-D-SRC is lit, it may be that the Dante module is in failsafe mode.

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

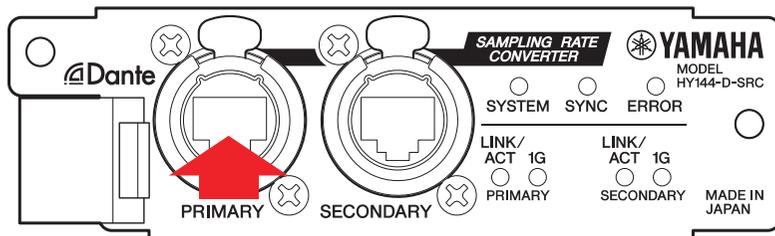
A Dante module that is in failsafe mode is shown as a red device name in the network grid view of Dante Controller (version 3.1.x or later).



Described below are the procedures to recover the Dante module integrated in the HY144-D-SRC.

1. **Turn off the power to the device to which the HY144-D-SRC is installed.**
2. **Separate the HY144-D-SRC from the Dante network.**
3. **Connect the Dante [PRIMARY] connector of the HY144-D-SRC 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 HY144-D-SRC in a one-to-one connection.



4. **Turn on the power to the device to which the HY144-D-SRC is installed.**
5. **Disable all but one of the network interfaces on your computer.**
You should also disable the wireless LAN.
6. **Windows:** Select [Start]→[All programs] or [All apps]→[Audinate]→[Dante Firmware Update Manager]→[Dante Firmware Update Manager], then right-click and select [Run as Administrator].
Mac: [Application]→[Dante Firmware Update Manager], then double-click “Dante Firmware Update Manager.”

The Dante Firmware Update Manager will start up.

NOTE

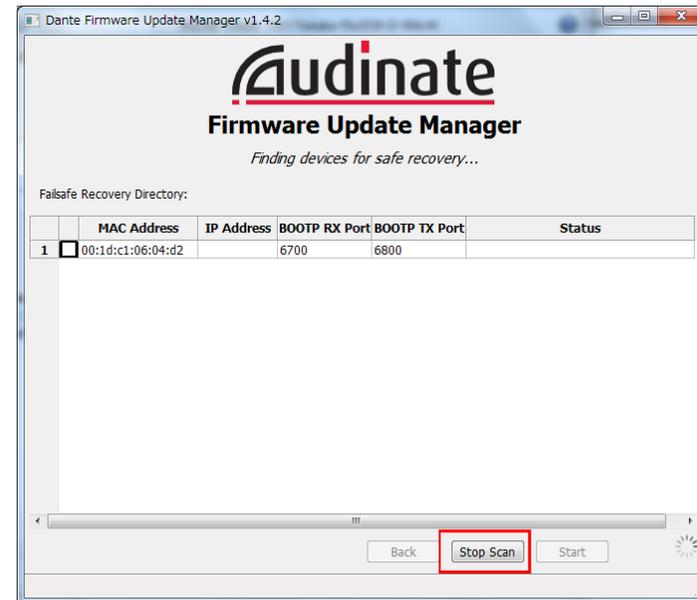
The “User Account Control” dialog box may appear. Click [Continue] or [Yes].

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

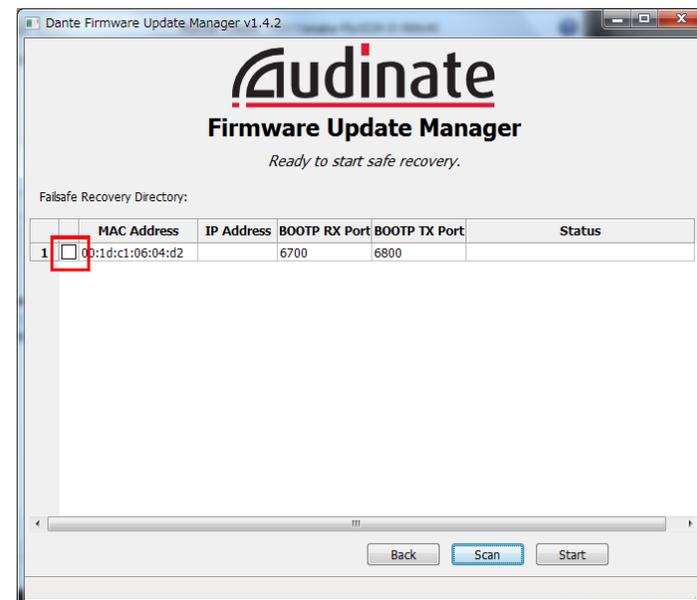
8. Click [Failsafe Recovery].

9. When the HY144-D-SRC is detected, click the [Stop Scan] button.

If several minutes have passed without detection, check whether the cable might be disconnected or broken, whether the TCP/IP settings are correct or not, whether the device to which the HY144-D-SRC is installed is running or not, and whether the HY144-D-SRC is recognized by the Dante Controller.



10. Select the check box of the detected HY144-D-SRC.

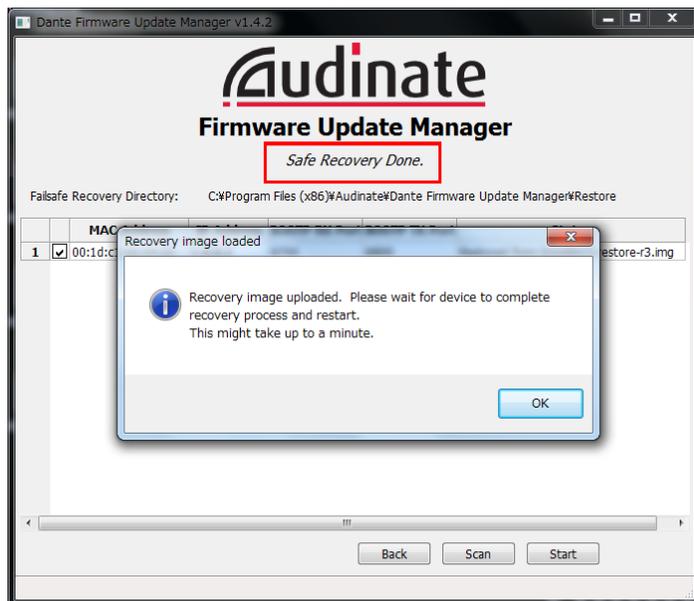


11. Click [Start].

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 device to which the HY144-D-SRC is installed.

After recovery, the Dante module will be restarted. If you power-off the device to which the HY144-D-SRC is installed 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 10 of “Updating the firmware.”

The recovery and the firmware update are now complete.

Trouble shooting

- **Is the Ethernet cable broken?**
Replace with an Ethernet cable which can communicate properly.
- **Are the network settings configured correctly?**
Check your computer settings (page 4).
- **Is there any resident security software installed?**
If the firewall function of anti-virus or security software is enabled, the communication may not be established properly.
- **Is the HY144-D-SRC to be updated is locked by Dante Device Lock?**
Unlock the Dante Device Lock function of the HY144-D-SRC using Dante Controller.

SRC mode

The HY144-D-SRC has five SRC modes and they can be changed according to your sound system. Data length and number of inputs/outputs are limited by the selected SRC mode. You can confirm the SRC mode in use from Dante Controller “Device Information” or SLOT settings on the touch screen of the control surface.

SRC Mode name	SRC	Number of channels		Sampling frequency [kHz]		Pullup/down	Data length
		Input	Output	Dante	Host device*		
144io	N/A	144	144	44.1 ⇔ 44.1 48 ⇔ 48 88.2 ⇔ 88.2 96 ⇔ 96		Not supported	24/32
144io Sync SRC	Synchronized	144	144	44.1 ⇔ 88.2 48 ⇔ 96		Not supported	24
72io Async SRC	Asynchronous	72	72	44.1/48/88.2/96 ⇔ 44.1/48/88.2/96		Supported	24
144i Async SRC	Asynchronous	144	0	44.1/48/88.2/96 ⇔ 44.1/48/88.2/96		Supported	24
144o Async SRC	Asynchronous	0	144	44.1/48/88.2/96 ⇔ 44.1/48/88.2/96		Supported	24

* The device to which the HY144-D-SRC is installed.

Synchronous SRC: When the word clock ratio of the Dante network to the host device is synchronized at 1:2 (48 kHz:96 kHz or 44.1 kHz:88.2 kHz), data with different sampling frequencies can be transmitted without reducing the number of input and output channels.

When the Dante network sampling frequency is 44.1 kHz, frequency characteristics above 18 kHz slightly deteriorate to eliminate aliasing noise.

Asynchronous SRC: Dante network and host device do not need to be synchronized, and separate sampling frequencies can be set.

Manual Development Group
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