



Grass Valley

T3 Series

Intelligent Dynamic Digital Recorder

H.264 Codec Board Installation Manual

(KTR5-HW-H264-S2)

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Grass Valley Web Site

This public Web site contains all the latest manuals and documentation, and additional support information. Use the following URL.
<http://www.grassvalley.com>.

Manual Explanation

- If there are any variations between the explanation in this manual and the actual application method, priority is given to the actual application method.
- In this manual, the T3 Series is referred to as “T3”.
- Screenshots and illustrations in this manual may vary from those of the actual product.
- The screenshots used as examples in this manual are those of the development stage, so they may vary from those in the final product.
- This manual is written for users who have a basic knowledge of how to use a computer. If there are no special instructions, perform the same operation as a normal computer operation.
- The contents of this product may modify without prior notice.

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Safety Summaries

General Safety Summary

Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it.

While using this product, you may need to access other parts of the system. Read the *General Safety Summary* in other system manuals for warnings and cautions related to operating the system.

Injury Precautions

Use Proper Power Cord

To avoid fire hazard, use only the power cord specified for this product.

Ground the Product

This product is grounded through the grounding conductor of the power cord. To avoid electric shock, the grounding conductor must be connected to earth ground. Before making connections to the input or output terminals of the product, ensure that the product is properly grounded.

Do Not Operate Without Covers

To avoid electric shock or fire hazard, do not operate this product with covers or panels removed.

Do Not Operate in Wet/Damp Conditions

To avoid electric shock, do not operate this product in wet or damp conditions.

Do Not Operate in an Explosive Atmosphere

To avoid injury or fire hazard, do not operate this product in an explosive atmosphere.

Avoid Exposed Circuitry

To avoid injury, remove jewelry such as rings, watches, and other metallic objects. Do not touch exposed connections and components when power is present.

Product Damage Precautions

Use Proper Power Source

Do not operate this product from a power source that applies more than the voltage specified.

Provide Proper Ventilation

To prevent product overheating, provide proper ventilation.

Do Not Operate With Suspected Failures

If you suspect there is damage to this product, have it inspected by qualified service personnel.


Battery Replacement


To avoid damage, a battery must be replaced once every five years. Please contact Grass Valley Product Support to replace the battery.

Safety Terms and Symbols

Terms in This Manual

These terms may appear in this manual:

 **WARNING:** *Warning statements identify conditions or practices that can result in personal injury or loss of life.*

 **CAUTION:** *Caution statements identify conditions or practices that may result in damage to equipment or other property, or which may cause equipment crucial to your business environment to become temporarily non-operational.*

Terms on the Product

These terms may appear on the product:

DANGER indicates a personal injury hazard immediately accessible as one reads the marking.


WARNING indicates a personal injury hazard not immediately accessible as you read the marking.

CAUTION indicates a hazard to property including the product.

Symbols on the Product

The following symbols may appear on the product:

 DANGER high voltage

 Protective ground (earth) terminal

 ATTENTION – refer to manual

Service Safety Summary



WARNING: *The service instructions in this manual are intended for use by qualified service personnel only. To avoid personal injury, do not perform any servicing unless you are qualified to do so. Refer to all safety summaries before performing service.*

Do Not Service Alone

Do not perform internal service or adjustment of this product unless another person capable of rendering first aid and resuscitation is present.

Disconnect Power

To avoid electric shock, disconnect the main power by means of the power cord or, if provided, the power switch.

Use Care When Servicing With Power On

Dangerous voltages or currents may exist in this product. Disconnect power and remove battery (if applicable) before removing protective panels, soldering, or replacing components.


To avoid electric shock, do not touch exposed connections.


Installation procedure of the H.264 Codec Board


Precautions before operations

This section describes the procedure to install the H.264 Codec Board. Unless otherwise described, the removal procedure will be in reverse order of installation. If any notes are given, be sure to follow them.

NOTE: Do not discard any of the removed parts such as screws or stays.

 **WARNING:** *Be sure to turn off the system and disconnect the power cord from the product body prior to install the H.264 Codec Board. Otherwise, electric shock or product failure may result.*

 **WARNING:** *When you attach parts of T3, be sure to use exactly the same screws as were originally used on the parts.*

 **WARNING:** *Part of T3 may be damaged by electrostatic discharge or physical impacts. When you work on your system, be sure to wear a wrist strap for preventing electrostatic discharge (ESD) and provide grounding.*


Required tools

Phillips screwdriver #2

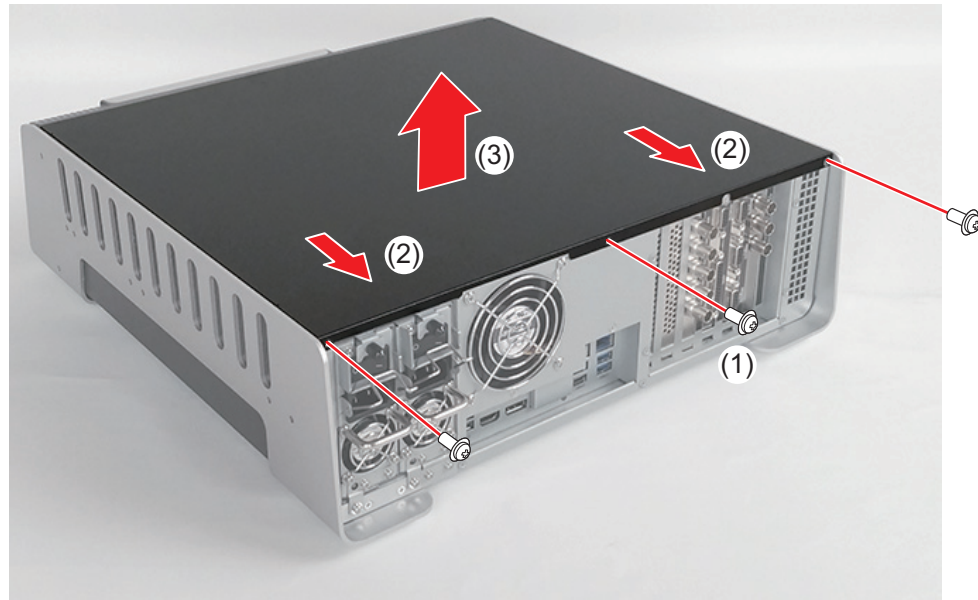
Turning off the T3 and disconnecting the power cord

1. Shutdown T3.
2. Turn off the main power switch.
3. Push the power cable clamp to unlock the power cord.
4. Unplug the power cord from the AC inlet.
5. Perform steps 2 to 4 on the other power supply unit.

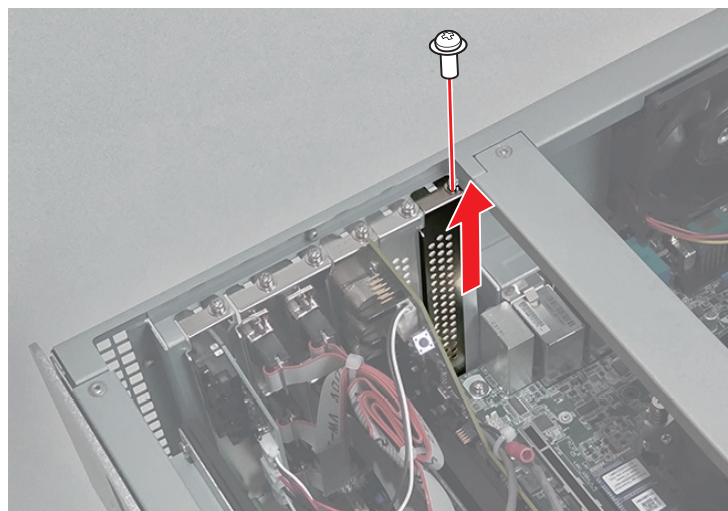
Installing the H.264 Codec Board

 **CAUTION:** When installing the H.264 Codec Board, take care not to damage the motherboard.

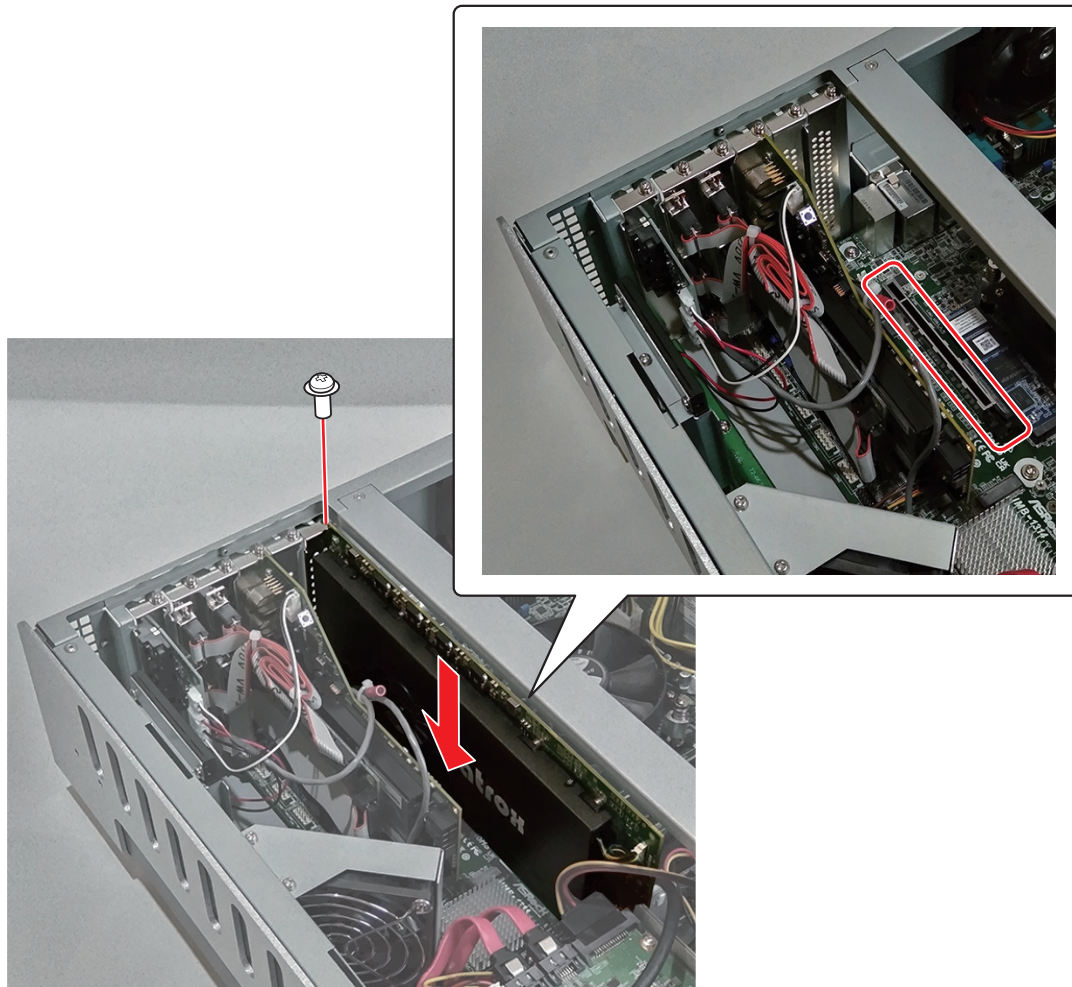
1. Remove the top cover.
 - (1) Remove 3 screws (with springs and large washers) on the rear side.
 - (2) Hold the top cover with both hands to slide it out.
 - (3) Remove the top cover.



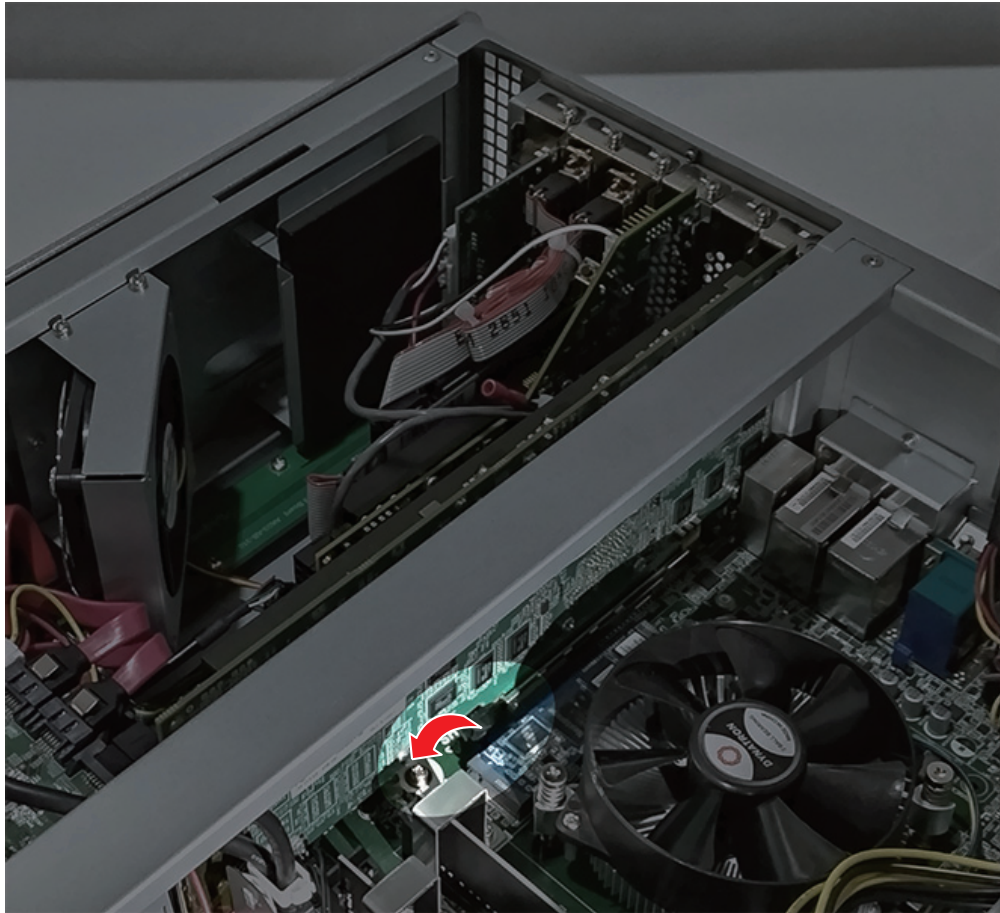
2. Remove the screw (with spring and large washer), and then remove the PCI Express slot cover.



3. Install the H.264 Codec Board to the PCI Express × 16 slot (PCIE3), and tighten it with the screw (with spring and large washer).



NOTE: *To remove the H.264 Codec Board, press the slot lock downward to unlock, and then remove it.*



Upgrading the software

Once the H.264 Codec Board installation finished, upgrade the T3 software to the latest build.

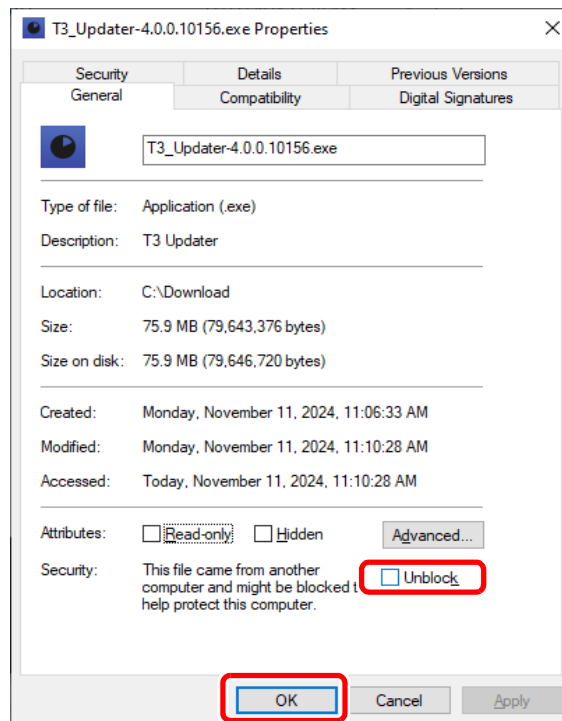
Preparation


Connecting input devices


Directly connect a USB keyboard and mouse to T3. Do not connect them using a USB hub or KVM switch.

IMPORTANT: Changing security option

1. Go to the product support page on the website, and download the latest T3 software installer to your PC.
2. Right-click on the downloaded file, and then click **Properties**.
3. If the **Unblock** check box is displayed, select it, and then click **OK**.



 **CAUTION:** *If you skip this procedure, a warning message such as “Windows Smart Screen” may appear during the update process.*

 **CAUTION:** *If the **Unblock** check box is not displayed, close the “Properties” screen and go to the next step.*

Creating an update medium

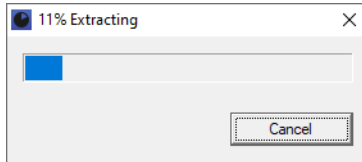
1. Connect a USB memory device to your PC, and create a folder named “T3_Upd” in the USB memory.
2. Copy the downloaded file to the “T3_Upd” folder.

Starting T3 in the maintenance mode

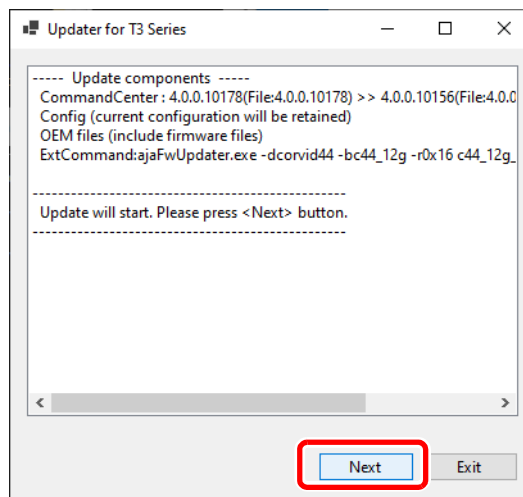
1. Perform the following procedure to switch the T3 to the maintenance mode.
 - From the front panel mode
Switch the screen to **1ch View**, tap **Menu**, and then tap **Tools** → **Maintenance**.
 - From the workstation mode
Click **System** on the menu bar, and click **Maintenance....**
2. On the password entry screen, tap the entry field, enter the password (admin), and then tap **OK**.
3. When the confirmation message appears, tap **Yes**.

Updating the software

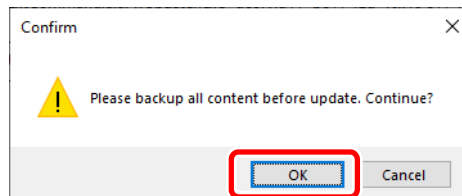
1. Connect the update medium (a USB memory device) to the USB terminal of T3.
2. From the file explorer of T3, open the “T3_Upd” folder.
3. Double-click on the T3_Updater-x.x.x.xxxxx.exe file.
 - The following screen appears.



4. When the “Updater for T3 Series” screen appears, click **Next**.

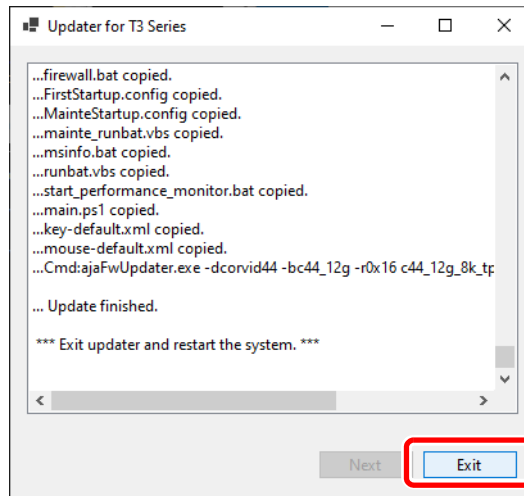


5. When the “Confirm” screen appears, click **OK**.

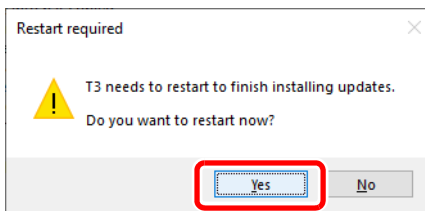


- Update will start.

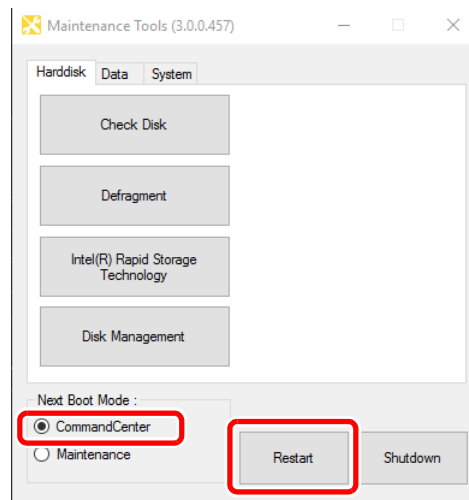
- When the “Updater for T3 Series” screen shows “***Exit updater and restart the system.***”, click **Exit**.



- When the “Restart required” screen appears, click **Yes**.



- In the Maintenance Tools main screen, select CommandCenter for “Next Boot Mode”, and click **Restart**.



- T3 will be restarted in the CommandCenter mode.

- Switch the screen to **1ch View**, tap **Menu**, and then tap **Tools** → **About T3**.

10. Confirm that the “Hardware codec” item is displayed in the list, and then click **OK**.

