Thank You for Choosing Ross

You've made a great choice. We expect you will be very happy with your purchase of Ross Technology. Our mission is to:

1. Provide a Superior Customer Experience
   • offer the best product quality and support
2. Make Cool Practical Technology
   • develop great products that customers love

Ross has become well known for the Ross Video Code of Ethics. It guides our interactions and empowers our employees. I hope you enjoy reading it below.

If anything at all with your Ross experience does not live up to your expectations be sure to reach out to us at solutions@rossvideo.com.

David Ross
CEO, Ross Video
dross@rossvideo.com

Ross Video Code of Ethics

Any company is the sum total of the people that make things happen. At Ross, our employees are a special group. Our employees truly care about doing a great job and delivering a high quality customer experience every day. This code of ethics hangs on the wall of all Ross Video locations to guide our behavior:

1. We will always act in our customers’ best interest.
2. We will do our best to understand our customers’ requirements.
3. We will not ship crap.
4. We will be great to work with.
5. We will do something extra for our customers, as an apology, when something big goes wrong and it's our fault.
6. We will keep our promises.
7. We will treat the competition with respect.
8. We will cooperate with and help other friendly companies.
9. We will go above and beyond in times of crisis. If there's no one to authorize the required action in times of company or customer crisis - do what you know in your heart is right. (You may rent helicopters if necessary.)
TEA-8207 · User Manual

• Ross Part Number: 8207DR-004-08
• Release Date: January 26, 2018.

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Patents


Notice

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Safety Notices

Refer to the “Important Regulatory and Safety Notices” document that accompanied your product.

Statement of Compliance

This product has been determined to be compliant with the applicable standards, regulations, and directives for the countries where the product is marketed.

Compliance documentation, such as certification or Declaration of Compliance for the product is available upon request by contacting techsupport@rossvideo.com. Please include the product; model number identifiers and serial number and country that compliance information is needed in request.

EMC Notices

US FCC Part 15

This equipment has been tested and found to comply with the limits for a class A Digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a Commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio
communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**Notice** — Changes or modifications to this equipment not expressly approved by Ross Video Ltd. could void the user’s authority to operate this equipment.

**Canada**

This Class “A” digital apparatus complies with Canadian ICES-003 and part 15 of the FCC Rules.

*Cet appareil numérique de la classe “A” est conforme a la norme NMB-003 du Canada.*

**European Union**

This equipment is in compliance with the essential requirements and other relevant provisions established under regulation (EC) No 765/2008 and Decision No 768/2008/EC referred to as the “New Legislative Framework”.

**Warning** — *This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.*

**Australia/New Zealand**

This equipment is in compliance with the provisions established under the Radiocommunications Act 1992 and Radiocommunications Labeling (Electromagnetic Compatibility) Notice 2008.

**Korea**

This equipment is in compliance with the provisions established under the Radio Waves Act.

Class A equipment (Broadcasting and communications service for business use)

This device is a business-use (Class A) EMC-compliant device. The seller and user are advised to be aware of this fact. This device is intended for use in areas outside home.

<table>
<thead>
<tr>
<th>Type of Equipment</th>
<th>User’s Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>A급 기기 (업무용 방송통신기자재)</td>
<td>이 기기는 업무용(A급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.</td>
</tr>
<tr>
<td>Class A Equipment (Industrial Broadcasting &amp; Communication Equipment)</td>
<td>This equipment is <em>Industrial (Class A) electromagnetic wave suitability equipment</em> and seller or user should take notice of it, and this equipment is to be used in the places except for home.</td>
</tr>
</tbody>
</table>

**International**

This equipment has been tested under the requirements of CISPR 22:2008 or CISPR 32:2015 and found to comply with the limits for a Class A Digital device.

**Notice** — *This is a Class A product. In domestic environments, this product may cause radio interference, in which case the user may have to take adequate measures.*

**Maintenance/User Serviceable Parts**

Routine maintenance to this openGear product is not required. This product contains no user serviceable parts. If the module does not appear to be working properly, please contact Technical Support using the numbers listed under the “**Contact Us**” section of this manual. All openGear products are covered by a generous 5-year warranty.
and will be repaired without charge for materials or labor within this period. See the “Warranty and Repair Policy” section in this manual for details.

Environmental Information

The equipment may contain hazardous substances that could impact health and the environment. To avoid the potential release of those substances into the environment and to diminish the need for the extraction of natural resources, Ross Video encourages you to use the appropriate take-back systems. These systems will reuse or recycle most of the materials from your end-of-life equipment in an environmentally friendly and health conscious manner.

The crossed-out wheeled bin symbol invites you to use these systems.

If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration. You can also contact Ross Video for more information on the environmental performances of our products.

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Introduction

In This Chapter

This chapter contains the following sections:

- Overview
- Functional Block Diagram
- User Interfaces
- Documentation Terms and Conventions

A Word of Thanks

Congratulations on choosing an openGear TEA-8207 Triple HD/SD SDI Equalizing Amplifier. Thank you for joining the group of worldwide satisfied Ross Video customers!

Should you have a question pertaining to the installation or operation of your TEA-8207, please contact us at the numbers listed on the back cover of this manual. Our technical support staff is always available for consultation, training, or service.
Overview

The TEA-8207 is a three channel HD/SD SDI distribution amplifier, capable of equalizing all common serial digital signals. Support for both standard-definition and high-definition signals makes the TEA-8207 an extremely versatile SDI distribution amplifier.

Each channel of the TEA-8207 equalizes the incoming SDI signal, compensating for up to 300m of cable at 270Mbps and over 120m of cable at 1.485Gbps. One SDI channel provides 3 outputs, and the two other SDI channels provide 2 outputs each. Special attention has been taken to ensure the SDI outputs faithfully reproduce the incoming signals, with excellent jitter and return loss specifications.

LED indicators at the front of the card identify the presence of incoming video, simplifying system troubleshooting.

Features

The following features make the TEA-8207 the best solution for general SDI equalizing, reclocking, and distribution:

• Three independent channels (with 2, 2, and 3 outputs each) for total of 7 outputs
• Equalizes all SDI signals from 143Mbps to 1.485Gbps
• Equalizes up to 300m of Belden 1694A cable at 270Mbps, or over 120m of cable at 1.485Gbps
• LED indicators for signal presence on each channel
• Excellent input and output return loss exceeds SMPTE specifications
• Fits openGear frames
• 5 year transferable warranty
Functional Block Diagram

This section provides a functional block diagram that outlines the workflow of the TEA-8207.

![Simplified Block Diagram of TEA-8207 Functions](image)

*Figure 1.1 Simplified Block Diagram of TEA-8207 Functions*
User Interfaces

The TEA-8207 includes the following user interfaces.

DashBoard Control System

DashBoard enables you to monitor and control openGear frames and cards from a computer. DashBoard communicates with other cards in the openGear frame through the Network Controller Card. The DashBoard Control System software and user manual are available for download from the Ross Video website.

For More Information on...
- the available menus in DashBoard for the TEA-8207, refer to the chapter “DashBoard Menus” on page 4-1.

Card-edge Controls

The TEA-8207 includes jumpers for specifying channel rate selection. LEDs on the card-edge provide monitoring of the input signal and the reclocker status.

For More Information on...
- the configuring the jumpers, refer to the section “Card Overview” on page 3-2.
- the card-edge LEDs, refer to the section “Status LEDs on the TEA-8207” on page 3-3.

SNMP Monitoring and Control

The Network Controller card in the openGear frame provides optional support for remote monitoring and control of your frame and TEA-8207 using SNMP (Simple Network Management Protocol), which is compatible with many third-party monitoring and control tools.

For More Information on...
- the SNMP controls on this card, refer to your TEA-8207 MIB (Management Information Base) file.
- SNMP Monitoring and Control, refer to the manual for your MFC-8300 Series or MFC-OG3 Series User Manual.
Documentation Terms and Conventions

The following terms and conventions are used throughout this manual.

Terms
The following terms are used:

- “Board” and “Card” refer to the TEA-8207 itself, including all components and switches.
- “DashBoard” refers to the DashBoard Control System.
- “DFR-8300 series frame” refers to the DFR-8310 series and DFR-8321 series frames.
- “Frame” refers to the DFR-8300 or OG3-FR series frame that houses the TEA-8207 unless otherwise noted.
- “Operator” and “User” both refer to the person who uses the TEA-8207.
- “openGear frame” refers to the DFR-8300 and the OG3-FR series frames and any available options.
- “System” and “Video system” refers to the mix of interconnected production and terminal equipment in which the TEA-8207 operates.

Conventions
The following conventions are used:

- “Operating Tip” and “Note” boxes are used throughout this manual to provide additional user information.
Installation

In This Chapter

This chapter provides instructions for installing the rear modules for the TEA-8207, installing the card into the frame, and cabling details.

The following topics are discussed:

• Before You Begin
• Installing the TEA-8207
• Cabling for the TEA-8207
Before You Begin

Before proceeding with the instructions in this chapter, ensure that your openGear frame is properly installed according to the instructions in its user manual.

Static Discharge

Whenever handling the TEA-8207 and other related equipment, please observe all static discharge precautions as described in the following note:

ESD Susceptibility — Static discharge can cause serious damage to sensitive semiconductor devices. Avoid handling circuit boards in high static environments such as carpeted areas, and when wearing synthetic fiber clothing. Always exercise proper grounding precautions when working on circuit boards and related equipment.

Unpacking

Unpack each TEA-8207 you received from the shipping container, and check the contents. If any items are missing or damaged, contact your sales representative or Ross Video directly.
Installing the TEA-8207

The TEA-8207 are compatible with the openGear frames. The procedure for installing the rear module in your openGear frame is the same regardless of the frame, module, or card used.

Rear Modules for the TEA-8207

The rear module for the TEA-8207 depends on the openGear frame you are installing the card into.

- **DFR-8310 series frames** — The 8310AR-030 Rear Module is required. The TEA-8207 is also compatible with the DFR-8310-BNC frames.
- **DFR-8321 or OG3-FR series frame** — The 8320AR-030 Full Rear Module is required.

Installing a Rear Module

If you are installing the TEA-8207 in a DFR-8310-BNC series frame, or if the rear module is already installed, skip this section.

**To install the rear module in an openGear frame**

1. Ensure that the frame is properly installed according to the instructions in its manual.
2. Locate the card frame slot on the rear of the frame.
3. Remove the Blank Plate from the rear of the slot you have chosen for card installation.
4. As shown in Figure 2.1, seat the bottom of the rear module in the seating slot at the base of the frame’s back plane.
5. Align the top hole of the rear module with the screw hole on the top edge of the frame back plane.
6. Using a Phillips screwdriver and the supplied screw, fasten the rear module to the frame back plane. Do not over tighten.

*Figure 2.1 Rear Module Installation in an openGear Frame (TEA-8207 not shown)*
7. Ensure proper frame cooling and ventilation by having all rear frame slots covered with rear modules or blank metal plates.

Installing the TEA-8207

Use the following procedure to install the TEA-8207 in an openGear frame:

1. Ensure that the openGear frame is properly installed according to instructions.

   **Note** — Heat and power distribution requirements within a frame may dictate specific slot placement of cards. Cards with many heat-producing components should be arranged to avoid areas of excess heat build-up, particularly in frames using convectional cooling.

2. After selecting the desired frame installation slot, hold the TEA-8207 card by the edges and carefully align the card edges with the slots in the frame.

3. Fully insert the card into the frame until the rear connection plugs are properly seated on the midplane and rear modules.

4. Affix the supplied rear module label to the BNC area on the rear module.
Cabling for the TEA-8207

This section provides instructions for connecting cables to the installed BNC rear modules on the openGear frame backplane. The inputs are internally terminated in 75ohms. It is not necessary to terminate unused outputs.

**DFR-8310 Series Frames Cabling**

The 8310AR-030 rear module occupies one slot and accommodates one card. This rear module provides three SDI inputs and seven SDI outputs. Refer to Figure 2.2 for cabling designations.

![Figure 2.2 Cable Connections for the TEA-8207](image)

**DFR-8321 and OG3-FR Series Frames Cabling**

The 8320AR-030 rear module occupies two slots and accommodates one card. This rear module provides three SDI inputs and seven SDI outputs. Refer to Figure 2.2 for cabling designations.
User Controls

In This Chapter

This chapter provides a general overview of the user controls available on the TEA-8207. The following topics are discussed:

• Card Overview
• Control and Monitoring
This section describes the card-edge controls on the TEA-8207. Refer to Figure 3.1 for locations.

![Figure 3.1 TEA-8207 Card-edge Controls](image)

1. **Channel A Rate Selection Button**
   Channel A has a rate selection button and corresponding SD and HD LEDs. Use the rate selection button and LEDs to set the input signal rate type that Channel A will process. Pressing the button cycles between the HD and SD options. You can choose between the following signal rate types:
   - **HD** — Select this option when using 1.485Gbps rate.
   - **SD** — Select this option when using 143Mbps, 177Mbps, 270Mbps, 360Mbps, and 540Mbps rates.

2. **Channel B Rate Selection Button**
   Channel B has a rate selection button and corresponding SD and HD LEDs. Use the rate selection button and LEDs to set the input signal rate type that Channel B will process. Pressing the button cycles between the HD and SD options. You can choose between the following signal rate types:
   - **HD** — Select this option when using 1.485Gbps rate.
   - **SD** — Select this option when using 143Mbps, 177Mbps, 270Mbps, 360Mbps, and 540Mbps rates.

3. **Channel C Rate Selection Button**
   Channel C has a rate selection button and corresponding SD and HD LEDs. Use the rate selection button and LEDs to set the input signal rate type that Channel C will process. Pressing the button cycles between the HD and SD options. You can choose between the following signal rate types:
   - **HD** — Select this option when using 1.485Gbps rate.
   - **SD** — Select this option when using 143Mbps, 177Mbps, 270Mbps, 360Mbps, and 540Mbps rates.

4. **Bootload Button**
   In the unlikely event of a complete card failure, you may be instructed by a Ross Technical Support specialist to perform a software reload on the card. Refer to the section “Bootload Button” on page 6-2 for details.
Control and Monitoring

The TEA-8207 is a three channel distribution amplifier and has components installed into CHANNEL A, B, and C sections of the card. This section describes the TEA-8207 LEDs.

![LED and Rate Selection Switch Locations](image)

**Figure 3.2 LED and Rate Selection Switch Locations**

### Status LEDs on the TEA-8207

The front edge of the TEA-8207 has LED indicators for the power, video input status, and communication activity. Basic LED displays and descriptions are provided in Table 3.1.

#### Table 3.1 LEDs on the TEA-8207

<table>
<thead>
<tr>
<th>LED</th>
<th>Color</th>
<th>Display and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWR</td>
<td>Green</td>
<td>When lit green, this LED indicates that the card is functioning normal and that no anomalies have been detected. The following conditions must be satisfied:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• a valid input signal is present</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• a valid reference signal is present when a reference is required, and that the reference standard matches the input standard.</td>
</tr>
<tr>
<td></td>
<td>Flashing Green</td>
<td>When flashing green, this LED indicates that the Bootload button was pressed, and the card is receiving a new software load from the frame.</td>
</tr>
<tr>
<td></td>
<td>Flashing Green and Orange</td>
<td>When lit green with flashing orange, this LED indicates a signal or configuration problem. Verify the signal status and settings.</td>
</tr>
<tr>
<td></td>
<td>Amber</td>
<td>When lit amber, this LED indicates the card is running internal diagnostics while powering up.</td>
</tr>
</tbody>
</table>
Factory Default Values

Any channel can be set back to factory settings, where the data rate is set to HD and the alarm is enabled on loss of input.

**To reset a channel to factory default values**

1. Press and hold the **Bootload** button on the card.
2. Press the **Rate Selection** button for the selected channel.
   
   The **Channel # Status** LED flashes green and red for approximately 2 seconds to confirm the reset values.
DashBoard Menus

In This Chapter

This chapter briefly summarizes the menus, items, and parameters available from DashBoard for the TEA-8207. Default parameters are noted with an asterisk (*).

The following topics are discussed:

- Status Tabs
- Setup Tab
- Alarms Tab

Operating Tip — Wait 30 seconds after the last setting change to ensure all changes are saved to the non-volatile memory of the card.
Status Tabs

This section summarizes the read-only information displayed in the Status tabs. The fields in the tabs vary in severity from green (valid), yellow (caution), to red (alarm). DashBoard reports the most severe alarm for a single field. Alarm colors are noted within the tables as text set in brackets next to the menu parameter name.

Product Tab

Table 4.1 provides a summary of the read-only information displayed in the Product tab.

<table>
<thead>
<tr>
<th>Menu Title</th>
<th>Item</th>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>TEA-8207</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplier</td>
<td>Ross Video Ltd.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board Rev</td>
<td>##</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serial Number</td>
<td>######</td>
<td>Indicates the card serial number</td>
<td></td>
</tr>
<tr>
<td>Software Rev</td>
<td>##.##</td>
<td>Indicates the software version</td>
<td></td>
</tr>
</tbody>
</table>

Hardware Tab

Table 4.2 provides a summary of the read-only information displayed in the Hardware tab.

<table>
<thead>
<tr>
<th>Menu Title</th>
<th>Item</th>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage (mV)</td>
<td>#</td>
<td></td>
<td>Supply Voltage</td>
</tr>
<tr>
<td>Current (mA)</td>
<td>#</td>
<td></td>
<td>Current consumption of card</td>
</tr>
<tr>
<td>Rear Module</td>
<td></td>
<td></td>
<td>Indicates the installed rear module</td>
</tr>
<tr>
<td>CPU Headroom</td>
<td>#</td>
<td></td>
<td>Processing power available</td>
</tr>
<tr>
<td>RAM Available</td>
<td>###</td>
<td></td>
<td>On-board processing memory available</td>
</tr>
<tr>
<td>EE Bank</td>
<td>#</td>
<td></td>
<td>Storage count</td>
</tr>
</tbody>
</table>

Signal Tab

Table 4.3 summarizes the read-only information displayed in the Signal tab.

<table>
<thead>
<tr>
<th>Menu Title</th>
<th>Item</th>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal</td>
<td>OK (Green)</td>
<td></td>
<td>All channels are passing a valid signal</td>
</tr>
<tr>
<td></td>
<td>No Input # (Red)</td>
<td></td>
<td>Indicates the channel that has no input signal</td>
</tr>
<tr>
<td>Channel # Status</td>
<td>Signal Present (Green)</td>
<td>A signal is present on the specified channel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No Signal (Red)</td>
<td>A signal is not present on the specified channel</td>
<td></td>
</tr>
</tbody>
</table>
# Setup Tab

Table 4.4 summarizes the **Setup** menu items available in DashBoard for the TEA-8207.

## Table 4.4 Setup Menu Items

<table>
<thead>
<tr>
<th>Menu Title</th>
<th>Item</th>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setup</td>
<td>Channel # Rate(^a)</td>
<td>High Def(^a)</td>
<td>Sets the rate of the specified channel to HD (1.485Gbps). Select this option if a mix of SD and HD signals are passed through the channel.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Std Def</td>
<td>Sets the rate of the specified channel to SD. Select this option when using 143Mbps, 177Mbps, 270Mbps, 360Mbps, or 540Mbps signals.</td>
</tr>
<tr>
<td>Edit Permission</td>
<td>Unlocked(^a)</td>
<td></td>
<td>All configurable options are editable</td>
</tr>
<tr>
<td></td>
<td>Locked</td>
<td></td>
<td>All configurable menu options, except this one, are locked and are read-only</td>
</tr>
<tr>
<td>Factory Defaults</td>
<td>Reset</td>
<td></td>
<td>Resets all menu options to the factory default values</td>
</tr>
</tbody>
</table>

\(^a\) The **Channel A, B, or C Rates** in the **Setup** menu affect the **Slew Rate** of the output driver. Ensure that the correct standard for your input is selected.
Alarms Tab

Table 4.5 summarizes the Alarms tab fields displayed in DashBoard for the TEA-8207.

**Table 4.5 Alarms Tab Items**

<table>
<thead>
<tr>
<th>Menu Title</th>
<th>Item</th>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarms</td>
<td>Loss of Input #</td>
<td>Ignore</td>
<td>The Signal Status field ignores the status for the specified input</td>
</tr>
<tr>
<td></td>
<td>Alarm*</td>
<td></td>
<td>The Signal Status field displays the status for the specified input</td>
</tr>
</tbody>
</table>
Specifications

In This Chapter

This chapter provides technical specification details on the TEA-8207. Note that specifications are subject to change without notice.

The following topics are discussed:

• Technical Specifications
Technical Specifications

This section includes the technical specifications for the TEA-8207.

**Table 5.1  TEA-8207 Technical Specifications**

<table>
<thead>
<tr>
<th>Category</th>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SDI Input</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of Inputs</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Data Rates Supported</td>
<td>All data rates from 143Mbps to 1.485Gbps</td>
</tr>
<tr>
<td></td>
<td>Impedance</td>
<td>75Ω terminating</td>
</tr>
<tr>
<td></td>
<td>Equalization</td>
<td>&lt;300m of Belden 1694A cable @ 270Mbps</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;120m of Belden 1694A cable @ 1.485Gbps</td>
</tr>
<tr>
<td></td>
<td>Return Loss</td>
<td>&gt;15dB to 1.485GHz</td>
</tr>
<tr>
<td><strong>SDI Outputs</strong></td>
<td>Number of Outputs</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Impedance</td>
<td>75Ω</td>
</tr>
<tr>
<td></td>
<td>Return Loss</td>
<td>&gt;17dB to 1.485GHz</td>
</tr>
<tr>
<td></td>
<td>Signal Level</td>
<td>800mV ±10%</td>
</tr>
<tr>
<td></td>
<td>DC Offset</td>
<td>0V ±50mV</td>
</tr>
<tr>
<td></td>
<td>Rise and Fall Time (20-80%)</td>
<td>700ps typical (270Mbps)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>120ps typical (1.485Gbps)</td>
</tr>
<tr>
<td></td>
<td>Overshoot</td>
<td>&lt;1%</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>Total Power Consumption</td>
<td>2W</td>
</tr>
</tbody>
</table>
Service Information

In This Chapter

This chapter contains the following sections:

- Troubleshooting Checklist
- Warranty and Repair Policy
Troubleshooting Checklist

Routine maintenance to this openGear product is not required. In the event of problems with your TEA-8207, the following basic troubleshooting checklist may help identify the source of the problem. If the frame still does not appear to be working properly after checking all possible causes, please contact your openGear products distributor, or the Technical Support department at the numbers listed under the “Contact Us” section.

1. **Visual Review** — Performing a quick visual check may reveal many problems, such as connectors not properly seated or loose cables. Check the module, the frame, and any associated peripheral equipment for signs of trouble.

2. **Power Check** — Check the power indicator LED on the distribution frame front panel for the presence of power. If the power LED is not illuminated, verify that the power cable is connected to a power source and that power is available at the power main. Confirm that the power supplies are fully seated in their slots. If the power LED is still not illuminated, replace the power supply with one that is verified to work.

3. **Re-seat the Card in the Frame** — Eject the card and reinsert it in the frame.

4. **Check Control Settings** — Verify all user-adjustable component settings.

5. **Input Signal Status** — Verify that source equipment is operating correctly and that a valid signal is being supplied.

6. **Output Signal Path** — Verify that destination equipment is operating correctly and receiving a valid signal.

7. **Card Exchange** — Exchanging a suspect card with a card that is known to be working correctly is an efficient method for localizing problems to individual cards.

Bootload Button

In the unlikely event of a complete card failure, you may be instructed by a Ross Technical Support specialist to perform a complete software reload on the TEA-8207.

**To perform a software reload of the card**

1. Eject the card from the frame.
2. Press and hold the **Bootload** button, while re-inserting the card into the frame.
3. Release the **Bootload** button.
   - The **PWR** LED flashes green while the card is waiting for a new software load.
   - If a new software load is not sent to the card within 60 seconds, the card will attempt to restart with its last operational software load.
Warranty and Repair Policy

The TEA-8207 is warranted to be free of any defect with respect to performance, quality, reliability, and workmanship for a period of FIVE (5) years from the date of shipment from our factory. In the event that your TEA-8207 proves to be defective in any way during this warranty period, Ross Video Limited reserves the right to repair or replace this piece of equipment with a unit of equal or superior performance characteristics.

Should you find that this TEA-8207 has failed after your warranty period has expired, we will repair your defective product should suitable replacement components be available. You, the owner, will bear any labor and/or part costs incurred in the repair or refurbishment of said equipment beyond the FIVE (5) year warranty period.

In no event shall Ross Video Limited be liable for direct, indirect, special, incidental, or consequential damages (including loss of profits) incurred by the use of this product. Implied warranties are expressly limited to the duration of this warranty.

This TEA-8207 User Manual provides all pertinent information for the safe installation and operation of your openGear product. Ross Video policy dictates that all repairs to the TEA-8207 are to be conducted only by an authorized Ross Video Limited factory representative. Therefore, any unauthorized attempt to repair this product, by anyone other than an authorized Ross Video Limited factory representative, will automatically void the warranty. Please contact Ross Video Technical Support for more information.

In Case of Problems

Should any problem arise with your TEA-8207, please contact the Ross Video Technical Support Department. (Contact information is supplied at the end of this publication.)

A Return Material Authorization number (RMA) will be issued to you, as well as specific shipping instructions, should you wish our factory to repair your TEA-8207. If required, a temporary replacement frame will be made available at a nominal charge. Any shipping costs incurred will be the responsibility of you, the customer. All products shipped to you from Ross Video Limited will be shipped collect.

The Ross Video Technical Support Department will continue to provide advice on any product manufactured by Ross Video Limited, beyond the warranty period without charge, for the life of the equipment.
Contact Us

Contact our friendly and professional support representatives for the following:

- Name and address of your local dealer
- Product information and pricing
- Technical support
- Upcoming trade show information

Technical Support

<table>
<thead>
<tr>
<th>Telephone: +1 613 • 652 • 4886</th>
</tr>
</thead>
<tbody>
<tr>
<td>After Hours Emergency: +1 613 • 349 • 0006</td>
</tr>
<tr>
<td>Email: <a href="mailto:techsupport@rossvideo.com">techsupport@rossvideo.com</a></td>
</tr>
</tbody>
</table>

General Information

<table>
<thead>
<tr>
<th>Telephone: +1 613 • 652 • 4886</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fax: +1 613 • 652 • 4425</td>
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<tr>
<td>Email: <a href="mailto:solutions@rossvideo.com">solutions@rossvideo.com</a></td>
</tr>
<tr>
<td>Website: <a href="http://www.rossvideo.com">http://www.rossvideo.com</a></td>
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- Online catalog
- Testimonials