RSA-7806
Remote Gain
Stereo Amplifier
User Manual

Covers the following models:
RSA-7806  Remote Gain Stereo Amplifier
RSA-7806-150  Remote Gain Stereo 150Ω Amplifier
RSA-7806-600  Remote Gain Stereo 600Ω Amplifier
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Important Regulatory and Safety Notices

Before using this product and any associated equipment, refer to the “Important Safety Instructions” listed below so as to avoid personnel injury and to prevent product damage.

Products may require specific equipment, and /or installation procedures be carried out to satisfy certain regulatory compliance requirements. Notices have been included in this publication to call attention to these Specific requirements.

Symbol Meanings

This symbol on the equipment refers you to important operating and maintenance (servicing) instructions within the Product Manual Documentation. Failure to heed this information may present a major risk of damage or injury to persons or equipment.

The symbol with the word “Warning” within the equipment manual indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.

The symbol with the word “Caution” within the equipment manual indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

The symbol with the word “Notice” within the equipment manual indicates a situation, which if not avoided, may result in major or minor equipment damage or a situation which could place the equipment in a non-compliant operating state.

This symbol is used to alert the user that an electrical or electronic device or assembly is susceptible to damage from an ESD event.

Important Safety Instructions

This product is intended to be a component product of the RossGear 8000 series frame. Refer to the RossGear 8000 series frame User Manual for important safety instructions regarding the proper installation and safe operation of the frame as well as its component products.

Certain parts of this equipment namely the power supply area still present a safety hazard, with the power switch in the OFF position. To avoid electrical shock, disconnect all A/C power cords from the chassis’ rear appliance connectors before servicing this area.

Service barriers within this product are intended to protect the operator and service personnel from hazardous voltages. For continued safety, replace all barriers after any servicing.

This product contains safety critical parts, which if incorrectly replaced may present a risk of fire or electrical shock. Components contained within the product’s power supplies and power supply area, are not intended to be customer serviced and should be returned to the factory for repair.

To reduce the risk of fire, replacement fuses must be the same type and rating. Only use attachments/accessories specified by the manufacturer.
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 users will be required to correct the interference at their own expense.

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.

Cet appareil numerique de classe “A” est conforme à la norme NMB-003 du Canada.

**EUROPE**

This equipment is in compliance with the essential requirements and other relevant provisions of CE Directive 93/68/EEC.

**INTERNATIONAL**

This equipment has been tested to CISPR 22:1997 along with amendments A1:2000 and A2:2002 and found to comply with the limits for a Class A Digital device.

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 RossGear 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 on the last page of this manual. All RossGear 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 that you purchased required the extraction and use of natural resources for its production. It 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 information sections:

• A Word of Thanks
• Overview
• Functional Block Diagram
• Features
• Documentation Terms

A Word of Thanks

Congratulations on choosing the Ross Video RSA-7806 Remote Gain Stereo Amplifiers. The RSA-7806 amplifier is part of a full line of RossGear Terminal Equipment, backed by Ross Video’s experience in engineering and design expertise since 1974.

You will be pleased at how easily your new RSA-7806 fits into your overall working environment. Equally pleasing is the product quality, reliability and functionality. 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 RSA-7806, please contact us at the numbers listed in the back of this publication. Our technical support staff is always available for consultation, training, or service.
Overview

The Ross RSA-7806 Remote Gain Stereo Amplifier is a dual channel audio distribution amplifier intended for installations where remote control of gain is required. The RSA-7806 provides a means of amplifying and distributing program-level audio with virtually no loss of quality.

The RSA-7806 card is available in three models:

- **RSA-7806**, a 66Ω amplifier card typically used in high impedance applications.
- **RSA-7806-150**, a 150Ω amplifier card for those who require 150Ω back termination.
- **RSA-7806-600**, a 600Ω amplifier card for those who require 600Ω back termination.

The RSA-7806 card is housed in a RossGear AFR-7800 series audio frames.


Please refer to the specific frame User Manual for ventilation and cooling instructions to maintain optimum operating conditions.

The **RSA-7806** amplifiers are part of a full line of RossGear analog distribution products engineered to satisfy the highest quality broadcast standards and the most demanding requirements of your facility.

Functional Block Diagram
Features
The following features make the RSA-7806 Remote Gain Stereo Amplifier the most flexible, high-quality card for your audio distribution requirements:

- Local or Remote gain adjustment
- Stereo, mono, or summing operation
- ±20 dB and +30/-65 dB gain ranges
- Extremely flat response
- 3 Outputs per channel
- Excellent command-mode rejection
- Very low distortion
- Output test points
- 66, 150, and 600Ω versions available
- Fits Ross 7800 Series and Leitch* 880 Series frames
- An improved alternative to the Leitch ARG-880
- 5 year transferable warranty

Documentation Terms
The following terms are used throughout this guide:

- “RSA-7806” also refers to the RSA-7806-150 and the RSA-7806-600 unless otherwise noted.
- “Frame” refers to the AFR-7812C and the AFR-7814C frames that can house the RSA-7806 cards. See the respective User Manuals for details.
- “Operator” and “User” both refer to the person who uses the RSA-7806 cards.
- “Board”, “Card”, and “Module” all refer to the RSA-7806 modules, including all components.
- “System” and “Audio system” refers to the mix of interconnected production and terminal equipment in which the RSA-7806 cards operate.

* Leitch is a trademark of Leitch Technology Corporation
Installation and Setup

In This Chapter

This chapter contains the following information sections:

- Static Discharge
- Unpacking
- Configuration
- Operating Mode
- Gain Control Range
- Remote or Local Control
- Board Installation
- Remote Gain Control Connection
- Cable Connections

Static Discharge

Whenever handling the RSA-7806 cards and other related equipment, please observe all static discharge precautions as described in the following note:

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 RSA-7806 card you received from the shipping container, and check the contents against the packing list to ensure that all items are included. If any items are missing or damaged, contact your sales representative or Ross Video directly.
**Configuration**

The RSA-7806 can be jumper-configured to suit several situations such as:

- Stereo amplifier — 3 outputs each, 2 remote gain controls
- Mono amplifier — 6 outputs, 1 remote gain control
- Audio mixer — 2 inputs, 6 outputs, 2 remote gain controls
- Mono amplifier — 3 outputs plus 3 mixer outputs, 2 remote gain controls

In all cases, local controls may be selected. Two mono amplifiers may be used to provide 3 pairs of stereo outputs.

The companion remote panel, ARP-7805, provides controls for up to 12 channels from a distance of up to 400 meters. Alternatively, any 10KΩ potentiometer may be used to provide remote control.

Installation of the RSA-7806 consists of setting up jumpers to suit the needs of the system as well as optionally connecting the external gain control panel.

Use Figure 2, the card labeling, and the following discussions to set up the RSA-7806 jumpers.

![Figure 2. RSA-7806 User Control Locations](image)
Operating Mode

The mode of operation is set by jumpers JP2 and JP5 to the desired gain range position as shown in the following table:

<table>
<thead>
<tr>
<th>MODE</th>
<th>JP2 (A OUT)</th>
<th>JP5 (B OUT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Mode – 2 channel stereo</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Mono Mode – 1 input, 6 outputs</td>
<td>√</td>
<td>A OUT</td>
</tr>
<tr>
<td>Audio Mixer – 2 inputs, 6 outputs</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>3 Output Mixer + 3 B Channel outputs</td>
<td>√</td>
<td></td>
</tr>
</tbody>
</table>

Gain Control Range

The Gain Control Range is set by jumpers JP3 (A Channel) and JP4 (B Channel) as follows:

- **Normal** — provides ± 20dB gain range (default setting)
- **Wide** — provides +30/-65dB gain range

Remote or Local Control

Set Jumpers JP1 (A Control) and JP6 (B Control) to select Local Control (card edge) or Remote Gain Control for the card as follows:

- **Local** — the gain is set via card edge controls RV1 and RV4 (default setting)
- **Remote** — the gain is set via remote potentiometer (RV1 and RV4 will have no effect)

Board Installation

Use the following steps to install the RSA-7806 cards in a RossGear audio distribution frame:

1. Refer to the User Manual of the RossGear frame, to ensure that the frame is properly installed according to instructions. If this module is to be installed in any compatible frame other than a Ross Video product, refer to the frame manufacturer’s manual for specific instructions.
2. Please note that 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.
3. After selecting the desired frame installation slot, hold the RSA-7806 card by the edges and carefully align the card edges with the slots in the frame. Then fully insert the card into the frame until the rear connection plug is properly seated.
Remote Gain Control Connection

The RSA-7806 may have its gain controlled from a remote position (up to 400m away from the RSA-7806). The gain control can be via the optional ARP-7805 Audio Remote Gain Panel, or by customer supplied 10kΩ potentiometers.

Depending on configuration of the RSA-7806, one or two potentiometers may be required per card.

Use the following steps and Figures 3 and 4 to connect the Remote Gain potentiometers:

1. Connect the **A Channel** remote gain via the **OUT A4** connector on the rear of the frame.
2. Connect the **B Channel** remote gain via the **OUT B4** connector on the rear of the frame.

![Figure 3. Connection of the Remote Gain Potentiometers](image)

![Figure 4. Removable Connector Plug](image)
Cable Connections

This section provides instructions for connecting cables to the RSA-7806 when mounted in RossGear frames.

Use the Stereo markings on the rear of the frame to make the connections for the RSA-7806. See Figure 5 and the tables below, for cable input and output designations.

![RSA-7806/A Cabling Designations for RossGear 7814C and 7812C Series Frames](image)

**Normal Mode – 2 Channel Stereo**

Use the following table to connect the RSA-7806 to enable Normal Mode with 2 Channel Stereo.

*Table 2. Normal Mode – 2 Channel Stereo*

<table>
<thead>
<tr>
<th>RSA-7806 Function</th>
<th>Frame Marking</th>
<th>RSA-7806 Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>A IN</td>
<td>A IN</td>
<td>B IN</td>
</tr>
<tr>
<td>A OUT1</td>
<td>A OUT1</td>
<td>B OUT1</td>
</tr>
<tr>
<td>A OUT2</td>
<td>A OUT2</td>
<td>B OUT2</td>
</tr>
<tr>
<td>A OUT3</td>
<td>A OUT3</td>
<td>B OUT3</td>
</tr>
<tr>
<td>A Remote Gain</td>
<td>A OUT4</td>
<td>B Remote Gain</td>
</tr>
</tbody>
</table>
**Mono Amplifier Mode**

Use the following table to connect the RSA-7806 to enable Mono Mode with 1 input and 6 outputs.

*Table 3. Mono Mode – 1 Input, 6 Outputs*

<table>
<thead>
<tr>
<th>RSA-7806 Function</th>
<th>Frame Marking</th>
<th>RSA-7806 Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>A IN</td>
<td>A IN</td>
<td>B IN</td>
</tr>
<tr>
<td>A OUT1</td>
<td>A OUT1</td>
<td>B OUT1</td>
</tr>
<tr>
<td>A OUT2</td>
<td>A OUT2</td>
<td>B OUT2</td>
</tr>
<tr>
<td>A OUT3</td>
<td>A OUT3</td>
<td>B OUT3</td>
</tr>
<tr>
<td>A Remote Gain</td>
<td>A OUT4</td>
<td>B OUT4</td>
</tr>
</tbody>
</table>

**Audio Mixer Mode**

Use the following table to connect the RSA-7806 to enable Audio Mixer Mode with 2 inputs and 6 outputs.

*Table 4. Audio Mixer – 6 Outputs*

<table>
<thead>
<tr>
<th>RSA-7806 Function</th>
<th>Frame Marking</th>
<th>RSA-7806 Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>A IN</td>
<td>A IN</td>
<td>B IN</td>
</tr>
<tr>
<td>MIX OUT1</td>
<td>A OUT1</td>
<td>B OUT1</td>
</tr>
<tr>
<td>MIX OUT2</td>
<td>A OUT2</td>
<td>B OUT2</td>
</tr>
<tr>
<td>MIX OUT3</td>
<td>A OUT3</td>
<td>B OUT3</td>
</tr>
<tr>
<td>A Remote Gain</td>
<td>A OUT4</td>
<td>B OUT4</td>
</tr>
</tbody>
</table>

**3-Output Mixer Mode**

Use the following table to connect the RSA-7806 to enable 3-Output Mixer Mode with three B Channel outputs.

*Table 5. 3-Output Mixer with 3 B Channel Outputs*

<table>
<thead>
<tr>
<th>RSA-7806 Function</th>
<th>Frame Marking</th>
<th>RSA-7806 Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>A IN</td>
<td>A IN</td>
<td>B IN</td>
</tr>
<tr>
<td>MIX OUT1</td>
<td>A OUT1</td>
<td>B OUT1</td>
</tr>
<tr>
<td>MIX OUT2</td>
<td>A OUT2</td>
<td>B OUT2</td>
</tr>
<tr>
<td>MIX OUT3</td>
<td>A OUT3</td>
<td>B OUT3</td>
</tr>
<tr>
<td>A Remote Gain</td>
<td>A OUT4</td>
<td>B OUT4</td>
</tr>
</tbody>
</table>
Connector Wiring for Inputs and Outputs

On the rear of the Ross frame there are removable connectors for two inputs and eight outputs. Unused outputs do not need to be terminated. See Figure 6 below and the manual for the frame in which you have installed the RSA-7806 for further details on cable connections.

Each connector has sockets for the positive, negative, and grounded wires of a balanced analog audio cable. Wire the external cables to the removable terminal block connectors as outlined in the figures and procedure below.

Figure 6. Connector Wiring for RSA-7806 Inputs and Outputs

Use the following steps to wire the external cables to the removable terminal block connectors:

1. Insert a wire into the designated polarity slot on the connector.
2. Use a tweaker screwdriver to tighten the corresponding screw on the underside of the connector.
3. Repeat steps 1 and 2 for each wire on each connector.
4. Secure the cable to the connector with a tie wrap.
5. Once the cables have been wired to the connectors, install the connectors to the sockets on the RossGear frame so that the slotted tongue fits in the grooves on the frame’s mating connector.
In This Chapter

This chapter contains the following sections:

- Static Discharge
- Unpacking
- Overview
- Installation

Static Discharge

Whenever handling the optional ARP-7805 Remote Audio Gain Panel, and other related equipment, please observe all static discharge precautions as described in the following note:

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 ARP-7805 Remote Audio Gain Panel you received from the shipping container, and check the contents against the packing list to ensure that all items are included. If any items are missing or damaged, contact your sales representative or Ross Video directly.
Overview

The ARP-7805 Remote Audio Gain Panel has been designed for remote gain control of the Ross RSA-7806 Remote Gain Stereo Amplifier. The single rack unit control panel module provides twelve 10K potentiometer controls which are connected to the rack frame via three 14 pin terminal blocks at the rear of the panel. The three rear terminal blocks provide three connections for each of the twelve controls: +5V, the control wiper, and a ground.

Inter-connection between the panel and the rack frame is made using a standard shielded audio twisted pair cable. Single or multiple channel control is possible by wiring each channel’s remote control pins independently or connecting multiple channel controls together and wiring them to a single control panel potentiometer.

The audio signal inputs and remaining outputs are connected according to the standard stereo wiring template outlined on the rear of the rack frame.

Installation

Use the following steps to install the ARP-7805 Remote Audio Gain Panel:

1. Install the RSA-7806 distribution amplifiers in an Audio distribution frame.
2. Determine the remote panel location and the number of controls you will require for the installation.
3. Run a shielded twisted pair cable for each control in which you wish to use, from the panel to the frame location. Be sure and identify each cable to allow for proper allocation of each channel control.
4. Once the cables have been routed, at the control panel, wire the three conductors of each cable to the desired control. Connections are as follows:

<table>
<thead>
<tr>
<th>Panel Controls 1-12</th>
<th>Description</th>
<th>Cable Conductor</th>
<th>Frame Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>GROUND</td>
<td>SHIELD</td>
<td>GROUND</td>
</tr>
<tr>
<td>C</td>
<td>POT WIPER</td>
<td>CONDUCTOR 1</td>
<td>A4+ (channel A) or B4+ (channel B)</td>
</tr>
<tr>
<td>+</td>
<td>+5V</td>
<td>CONDUCTOR 2</td>
<td>A4– (channel A) or B4– (channel B)</td>
</tr>
</tbody>
</table>
Cable Connections

This section provides instructions for connecting cables from the RSA-7806 to the ARP-7805. Connections are as follows:

Figure 7. Cabling Designations for RossGear RSA-7806 to the ARP-7805
Specifications

In This Chapter

This chapter contains the following sections:

- RSA-7806 Technical Specifications
## RSA-7806 Technical Specifications

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>Input Impedance</td>
<td>&gt;35kΩ, balanced</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Max Input Level</td>
<td>+34dBu</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Common Mode Rejection</td>
<td>&gt;110dB @ 60Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;80dB @ 20kHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output</td>
<td>Number of Outputs</td>
<td>3 per channel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Max Output Level</td>
<td>+24dBu</td>
<td>+24dBm</td>
<td>+18dBm</td>
</tr>
<tr>
<td></td>
<td>Output Impedance</td>
<td>66Ω</td>
<td>600Ω</td>
<td>150Ω</td>
</tr>
<tr>
<td></td>
<td>Output Isolation</td>
<td>&gt;70dB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>S/N Ratio</td>
<td>&gt;90 dB (unity gain)</td>
<td>&gt;90 dB (unity gain)</td>
<td>&gt;87 dB (unity gain)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>relative to +8dBu</td>
<td>relative to +8dBm</td>
<td>relative to +8dBm</td>
</tr>
<tr>
<td></td>
<td>Gain Range</td>
<td>Normal Range: ±20dB</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wide Range: +30/-65dB</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frequency Response</td>
<td>±0.025dB 20Hz to 10kHz</td>
<td>Typically –0.08dB @ 20kHz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>THD+N</td>
<td>&lt;0.02% @ +18dBu</td>
<td>&lt;0.02% @ +18dBm</td>
<td>&lt;0.02% @ +18dBm</td>
</tr>
<tr>
<td></td>
<td>Intermodulation</td>
<td>&lt;0.02% (SMPTE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Crosstalk Between Amplifiers</td>
<td>&gt;100dB</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interchannel Crosstalk</td>
<td>&gt;95dB</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Power Consumption</td>
<td>2.8W @ +8dBu</td>
<td>3.6W @ +8dBm</td>
<td>3.6W @ +8dBm</td>
</tr>
</tbody>
</table>

All tests performed at +18dBu and cover 20Hz to 20kHz unless otherwise specified. All measurements made with an Audio Precision test set. Specifications are subject to change without notification.

Note:
- For RSA-7806 dBu is dB relative to 0.775 Vrms
- For RSA-7806-600 dBm is dB relative to 1mW into 600 Ω
- For RSA-7806-150 dBm is dB relative to 1mW into 150 Ω
Troubleshooting Checklist

Routine maintenance to this RossGear product is not required. In the event of problems with your RSA-7806, the following basic troubleshooting checklist may help identify the source of the problem. If the module still does not appear to be working properly after checking all possible causes, please contact your Ross Video products distributor, or the Ross Video Technical Support department at the numbers listed under the “Contact Us” section at the end of this manual.

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. **Reseat the Card in the Frame** – Eject the card and reinsert it in the frame.

4. **Check Control Settings** – Refer to the Installation section of the manual and verify all user-components.

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. **Module Exchange** – Exchanging a suspect module with a module that is known to be working correctly is an efficient method for localizing problems to individual modules.
**Warranty and Repair Policy**

The RossGear RSA-7806 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 RossGear RSA-7806 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 RossGear RSA-7806 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 RossGear RSA-7806 User Manual provides all pertinent information for the safe installation and operation of your RossGear Product. Ross Video policy dictates that all repairs to the RossGear RSA-7806 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 RossGear RSA-7806, 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 RossGear RSA-7806. If required, a temporary replacement module 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.
Ordering Information

In This Chapter

This chapter contains ordering information for the RSA-7806 and related products.

RSA-7806 Family of Audio Cards and Related Products

Standard Equipment

- **RSA-7806** Remote Gain Stereo Amplifier
  
  OR

- **RSA-7806-150** 150Ω Remote Gain Stereo Amplifier
  
  OR

- **RSA-7806-600** 600Ω Remote Gain Stereo Amplifier

- **7806D-004** Remote Gain Stereo Amplifier User Manual

Optional Equipment

- **7806D-004** Remote Gain Stereo Amplifier User Manual (additional User Manual)

- **AFR-7812C** Audio Products Frame and Power Supply (PS-7813) (2 RU, holds 12 modules, includes 1 power supply)

- **AFR-7814C** Audio Products Frame and Power Supply (PS-7813) (1 RU, holds 4 modules, includes 1 power supply)

- **ARP-7805** Audio Remote Gain Panel (1 RU, controls 12 channels)

- **311-050** Spare Removable Terminal Block Connector

Your **RSA-7806** is a part of the RossGear family of products. Ross Video offers a full line of RossGear terminal equipment including distribution, conversion, monitoring, synchronizers, encoders, decoders, keyers, switches, as well as analog audio and video products.
Notes:
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

<table>
<thead>
<tr>
<th>PHONE</th>
<th>General Business Office and Technical Support</th>
<th>613 • 652 • 4886</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>After-hours Emergency</td>
<td>613 • 652 • 4886  ext. 333</td>
</tr>
<tr>
<td></td>
<td>Fax</td>
<td>613 • 652 • 4425</td>
</tr>
<tr>
<td>E-MAIL</td>
<td>General Information</td>
<td><a href="mailto:solutions@rossvideo.com">solutions@rossvideo.com</a></td>
</tr>
<tr>
<td></td>
<td>Technical Support</td>
<td><a href="mailto:techsupport@rossvideo.com">techsupport@rossvideo.com</a></td>
</tr>
<tr>
<td>POSTAL SERVICE</td>
<td>Ross Video Limited</td>
<td>8 John Street, Iroquois, Ontario, Canada K0E 1K0</td>
</tr>
<tr>
<td></td>
<td>Ross Video Incorporated</td>
<td>P.O. Box 880, Ogdensburg, New York, USA 13669-0880</td>
</tr>
</tbody>
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- Company information
- Related products and full product lines
- On-line catalog
- Trade show information
- News
- Testimonials

www.rossvideo.com