Ross Video Limited

RCS-8120

Remote Control Selector

User Manual

ROSS

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RCS-8120 Remote Control Selector User Manual

- Ross Part Number: **8120SDR-004**
- Document Issue: **01A**
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The information contained in this User Manual is subject to change without notice or obligation.

Copyright

Notice

Trademarks

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.

Warning

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.

Caution

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.

Notice

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.

ESD Susceptibility

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

Caution

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 it's component products.

Warning

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.

Warning

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.

⚠️
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.

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.

⚠️
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 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.
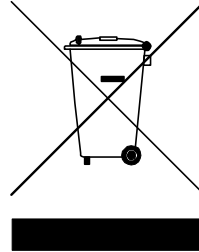
If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration.

You can also contact Ross Video for more information on the environmental performances of our products.

Contents

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 **RCS-8120** Remote Control Selector. The RCS-8120 is part of a full line of Digital Products within the RossGear Terminal Equipment family of products, backed by Ross Video's experience in engineering and design expertise since 1974.

You will be pleased at how easily your new RCS-8120 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 RCS-8120, 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 RCS-8120 Modules provide a convenient method of controlling the Ross family of utility switches (AVS-8064, DSS-8024, and ADS-7864).

Each switch panel has 2 dual push button switches (switch "A" and switch "B"). Two audio type connectors and 1 BNC connector are provided for each switch. These connectors allow easy interface to the Ross family of utility switches or to the RCM-8120 remote panels.

The RCS-8120 is designed to be mounted in the MRP-8120 1RU mounting panel (which can hold up to 5 modules), or mounted in desk with the DCA-8120 in desk mounting adapter. Blank cover plates are available for unused positions on the MRP-8120.

Each of the switches on the RCS-8120 can be used for one of two things:

1. To provide GPI control of a Ross utility switch. Connect a coax from GPI A BNC (GPI B BNC for the B switch) on the RCS-8120 to the DSS-8024 or AVS-8064 it is to control. To connect to an ADS-7864, use A Right for the A switch (B Right for the B switch). When the left switch is pressed in, the GPI will be open. When the right switch is pressed in, the GPI will be shorted.

2. To select between two RCM-8120 panels connected to the same control bus (see owners manual for the RCM-8120). Connect J1 (J3 for the B switch) to the panel you want active when the left button is pushed in, J2 (J4 for the B switch) to the panel you want active when the right button is pushed in.

Note

> If selecting between two RCM-8120 modules, ensure that pin 1 on the J1 connector at the RCM-8120 is not connected to the cable.
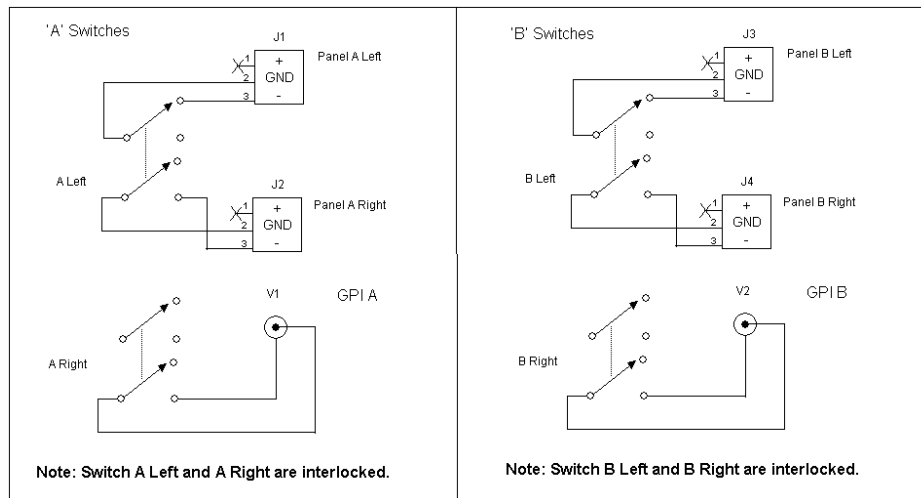
Functional Block Diagram

Figure 1. RCS-8120 Functional Block Diagram

Features

- Controls Ross Utility Switches (AVS-8064, DDS-8024 or ADS-7864)
- Controls RCM-8120 or RCM-8120-1
- All-purpose GPI

Installation and Setup

In This Chapter

This chapter contains the following information sections:

- Static Discharge

- Unpacking

- Module Installation

- Cabling

Static Discharge

Whenever handling the RCS-8120 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 the RCS-8120 and related components 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.

Module Installation

The RCS-8120 were designed to be mounted in the MRP-8120 1RU mounting panel (which can hold up to 5 modules), or mounted in desk with the DCA-8120 in desk mounting adapter. Blank cover plates are available for unused positions on the MRP-8120.

Rack-mount Installation

Use the following steps to install the module in a RossGear MRP-8120 chassis unit:

1. Remove the 4 corner hex nuts from the cover plate bolts.

2. Remove the 2 hex nuts that attach the U bracket to the module cover plate.

3. Install the cover plate on the MRP-8120 (or DCA-8120) with the 4 corner hex nuts.

4. Attach the switch unit to the module cover plate with the 2 hex nuts at the U bracket.

5. Repeat this procedure for each module and any blank slot cover plates you wish to install to the MRP-8120 chassis. All five of the module slots on the chassis should be occupied with modules or blank plates.

6. Install the MRP-8120 chassis in the rack.

Figure 2. Rack Mount Installation Details

In-desk DCA-8120 Installation

To mount the DCA-8120, use the dimensions on the following figure to make your cutout in the desktop. Note the figure is not to scale.

Figure 3. DCA-8120 In Desk Mounting Template.

1. Using the measurements supplied in the figure above, drill, cut, and finish the appropriate holes for the DCA-8120 installation.

2. Using a ¼" nut driver, unscrew the four corner hex nuts which hold the PCB to the module.

3. Remove the PCB assembly from the module cover plate.

4. Install the module cover plate in the DCA-8120.

5. Install the RCM module in the DCA-8120.

6. Using a ¼" nut driver, install the four corner hex nuts to the bolts at the back of the module.
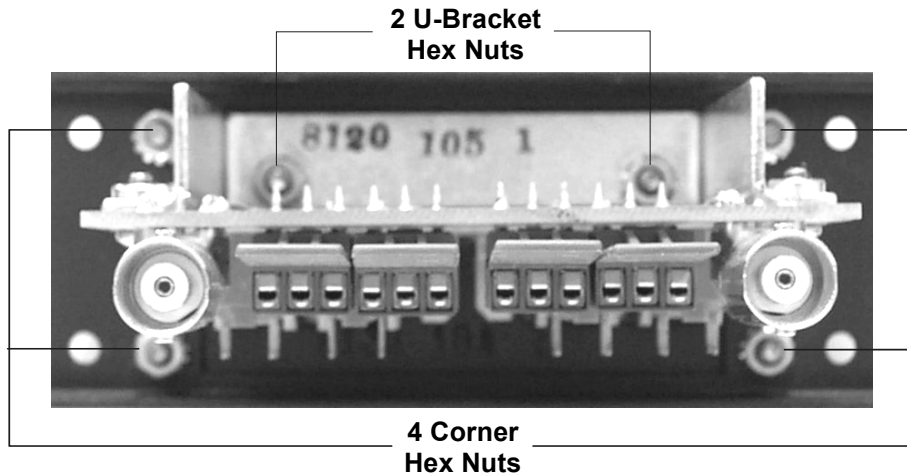
7. Install the DCA-8120 into the desk cut out.

Cabling

This section provides instructions for connecting cables to the RCS-8120 before mounting the chassis into the rack bay near the frame holding the switcher cards.

Connect switch A of the RCS-8120 to the utility switch via J2 (for AVS-7864) or V1 (for DSS-8024 and AVS-8064). If using the 3 pin audio connector, use a good quality audio/control cable (i.e. Belden 1503A 22AWG shielded pair). Connect switch B of the RCS-8120 to the utility switch via J4 (for AVS-7864) or V2 (for DSS-8024 and AVS-8064). See the following Figure.
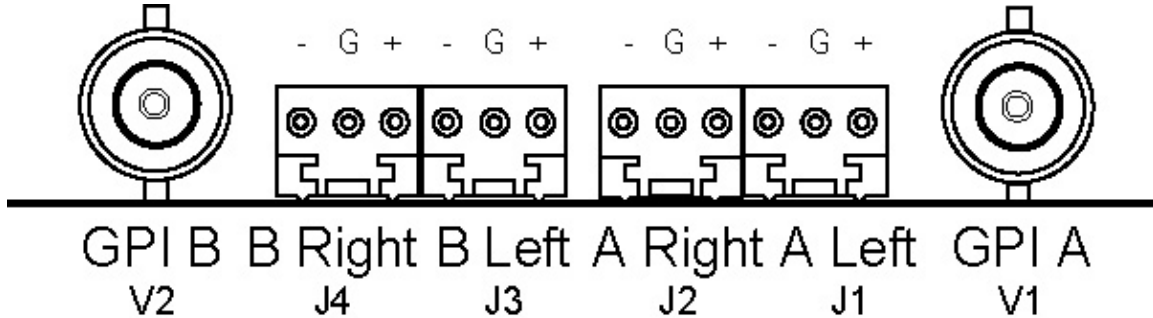

Figure 4. RCS-8120 Cable Connector Locations

Rear Plug-on Connector Wiring

Wire the external cables to the plug-able terminal block connectors as outlined in the diagram and procedure below.
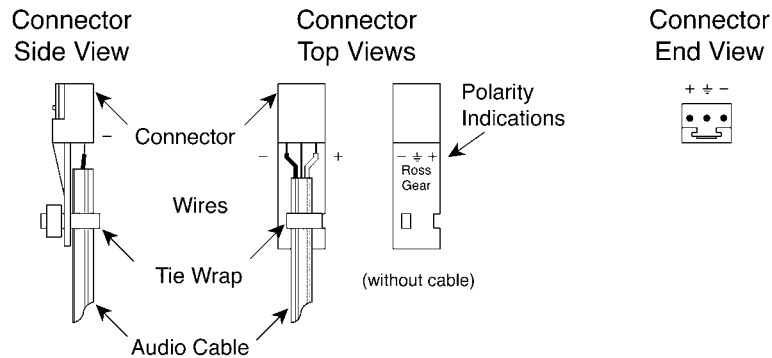

Figure 5. Connector Wiring for Remote Control Selectors

1. Insert the designated wire to the appropriate slot on the connector. See the figure above for details.

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.

Once the cables have been wired to the connectors, install the connectors to the sockets on the RCS-8120 module so that the slotted tongue fits in the grooves on the module socket.

Service Information

In This Chapter

This chapter contains the following sections:

- Troubleshooting Checklist

- Warranty and Repair Policy

Troubleshooting Checklist

Routine maintenance to this RossGear product is not required. In the event of problems with your RCS-8120, 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. **Check Control Settings –** Refer to the Installation and Operation sections of the manual and verify all user-adjustable component settings.

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

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

4. **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 RCS-8120 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 RCS-8120 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 RCS-8120 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 RCS-8120 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 RCS-8120 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 RCS-8120, 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 RCS-8120. 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 RCS-8120 and related products.

RCS-8120 and Related Products

Standard Equipment

- **RCS-8120** Panel Module (four buttons)

Optional Equipment

- **MRP-8120** Modular Rack Panel (holds 5 modules)

- **BPM-8120** Blank Panel Module (cover plate)

- **DCA-8120** Desk Carrier Adapter

- **AVS-8064** AES/Analog Video Switch (Dual 2x1/4x2)

- **DSS-8024** Digital Serial Switch (Dual 2x1/4x2)

- **ADS-7864** Analog Audio Switch (Dual 2X1 / 4X2)

- **RCM-8120** Panel Module (four buttons)

- **RCM-8120-1** Panel Module (two buttons)

- **PS-8102** Universal Power Supply (85-250 volts)
  Two recommended for DFR-8110

- **DFR-8104** Digital Frame 1 RU, Holds 4 Modules

- **DFR-8110** Digital Frame 2 RU, Holds 10 Modules

- **EXT-8100** Module Extender for Digital Modules

Your **RCS-8120 remote Control Selector** 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, switchers, as well as analog audio and video products**.**

Notes

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

PHONE	**General Business Office and Technical Support**	613 • 652 • 4886
	After-hours Emergency	613 • 652 • 4886 ext. 333
	Fax	613 • 652 • 4425
E-MAIL	**General Information**	solutions@rossvideo.com
	Technical Support	techsupport@rossvideo.com
POSTAL SERVICE	**Ross Video Limited**	8 John Street, Iroquois, Ontario, Canada K0E 1K0
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