

FACTOR

ELECTRONICS

PREMIUMAUDIO**VIDEO**LIGHTING**AND**POWER**PRODUCTS**

V-RVC



Owners Manual

IMPORTANT NOTE: THIS OWNER'S MANUAL IS PROVIDED AS AN INSTALLATION AND OPERATING AID. FACTOR ELECTRONICS DOES NOT ASSUME ANY RESPONSIBILITY AS TO ITS ACCURACY AND SHALL NOT BE LIABLE IN TORT OR CONTRACT FOR ANY DIRECT, CONSEQUENTIAL OR INCIDENTAL LOSS OR DAMAGE ARISING FROM THE INSTALLATION, USE OR INABILITY TO USE THIS PRODUCT.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS APPLIANCE TO WATER, RAIN OR MOISTURE. THIS APPLIANCE SHOULD NOT DAMPENED BY WATER DROPS OR SPLASHING. CONTAINERS OF LIQUID SUCH AS VASES SHOULD NOT BE PLACED ON THIS APPLIANCE.

Immediately upon receipt, inspect the unit and shipping container for indications of improper handling or in-transit damage. This equipment was carefully inspected and tested before leaving the factory. Notify the Transportation Company, Wholesaler or Retailer immediately if any damage is found. Be sure to save the carton and packing material as evidence of damage for later inspection. DO NOT SHIP the unit back to the factory unless authorized to do so by the factory. IN TRANSIT DAMAGES ARE NOT COVERED BY THE WARRANTY. **DO NOT INSTALL OR ATTEMPT TO OPERATE THIS UNIT IF IT HAS BEEN DAMAGED.**

IMPORTANT SAFETY INSTRUCTIONS

- Read and keep these instructions.
- Heed all warnings and follow all instructions contained within this manual.
- Do not use this unit near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Operate the product only with the voltage specified on the unit. Fire and/or electric shock may result if a higher voltage is used.
- Do not modify, kink, or cut the power cord. Do not place the power cord in close proximity to heaters and do not place heavy objects on the power cord and/or the product itself, doing so may result in fire or electrical shock.
- Replace the protective cover over the speaker terminals after installation. Do not touch the 70V speaker terminals as electric shock may result.
- Ensure that the safety ground terminal is connected to a proper ground. Never connect the ground to a gas pipe, as a severe explosion and/or fire may result.
- Be sure the installation of this product is stable, avoid slanted surfaces as the product may fall and cause injury, property damage, electrocution and/or fire.
- Note when the unit is turned off it is not completely disconnected from the wall AC power outlet. Do not open the cover unless the device is unplugged from the wall AC power outlet.

Introduction

Congratulations and thank you for purchasing a Factor Electronics product. The Factor Electronics V-RVC is an in-wall microphone and line level preamplifier with separate volume controls for the inputs and a master volume control. The master volume control provides remote volume control of all factor Electronics amplifiers. The V-RVC allows Factor Electronics amplifiers to be expanded to suit the customers needs. The V-RVC is very easy to install and operate. Please read this entire manual to get the most from your V-RVC.

Unpacking

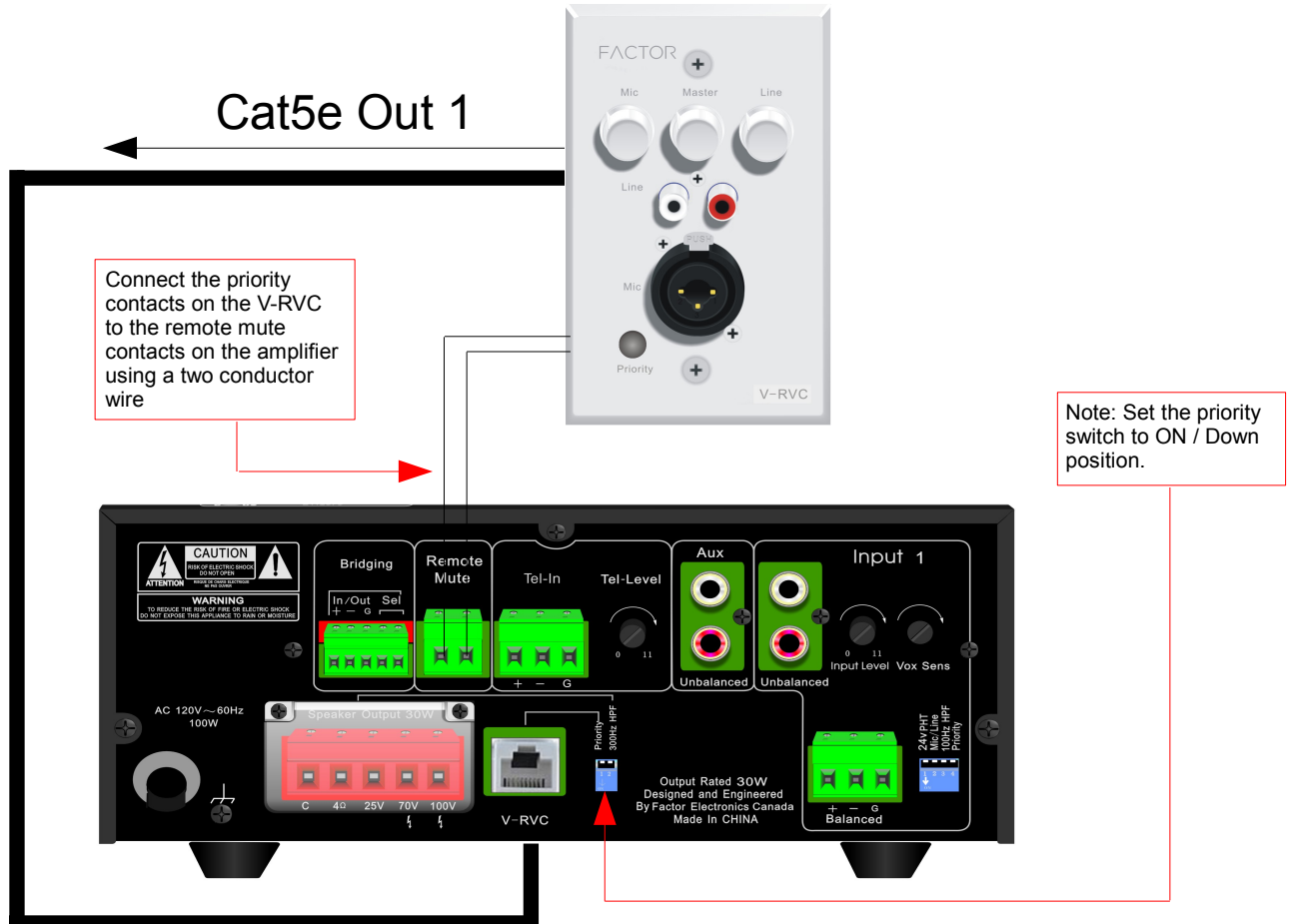
The V-RVC includes the following parts:

- 1 x V-RVC in-wall mic/line preamp
- 2 x Male RJ45 crimp on connectors
- 3 x White front panel security caps
- 2 x Philips White mounting Screws
- 1 x V-RVC manual

Installation With Factor Electronics Amplifiers

The V-RVC can be connected to any Factor Electronics amplifier by connecting a cat5e or cat6 cable to the V-RVC RJ45 output jack, then connecting the cat5e or cat6 cable to the V-RVC input provided on the back panel of all Factor Electronics Amplifiers. Then connect the V-RVC priority contacts to the remote mute contacts on the amplifier using a two conductor wire.

Diagram A



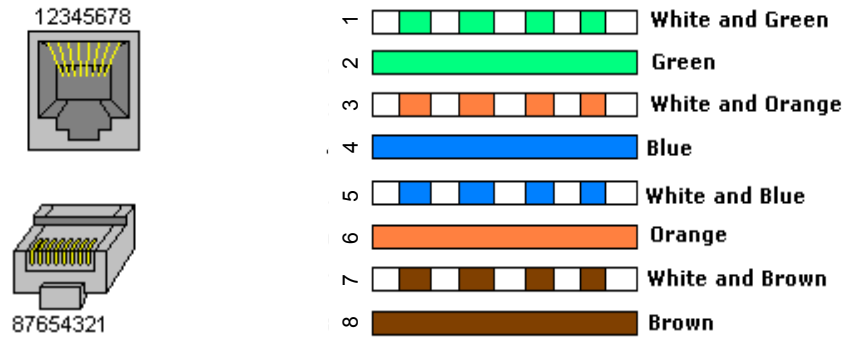
Installation and wiring

The V-RVC should be wired using good quality Cat5e or Cat6 cable. It is recommended to use TIA/EIA 568A cable wiring techniques.

The V-RVC includes two RJ45 crimp-on connectors. Use a good quality RJ45 crimping tool to complete the connections.

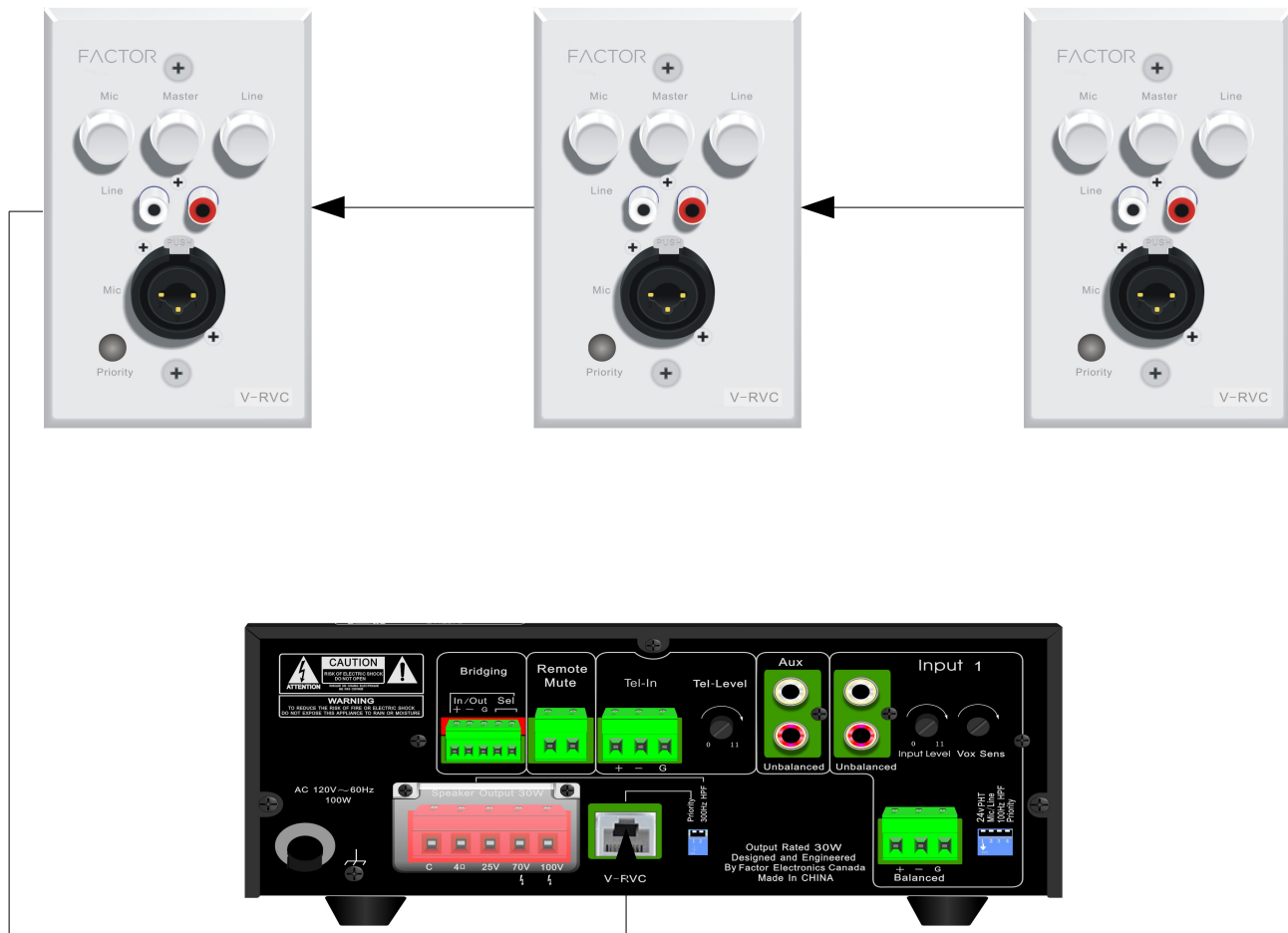
Diagram B

TIA/EIA 568A Wiring



Up to three V-RVC's can be daisy chained on one Cat5e wire and connected to one Factor Electronics amplifier.

Diagram C

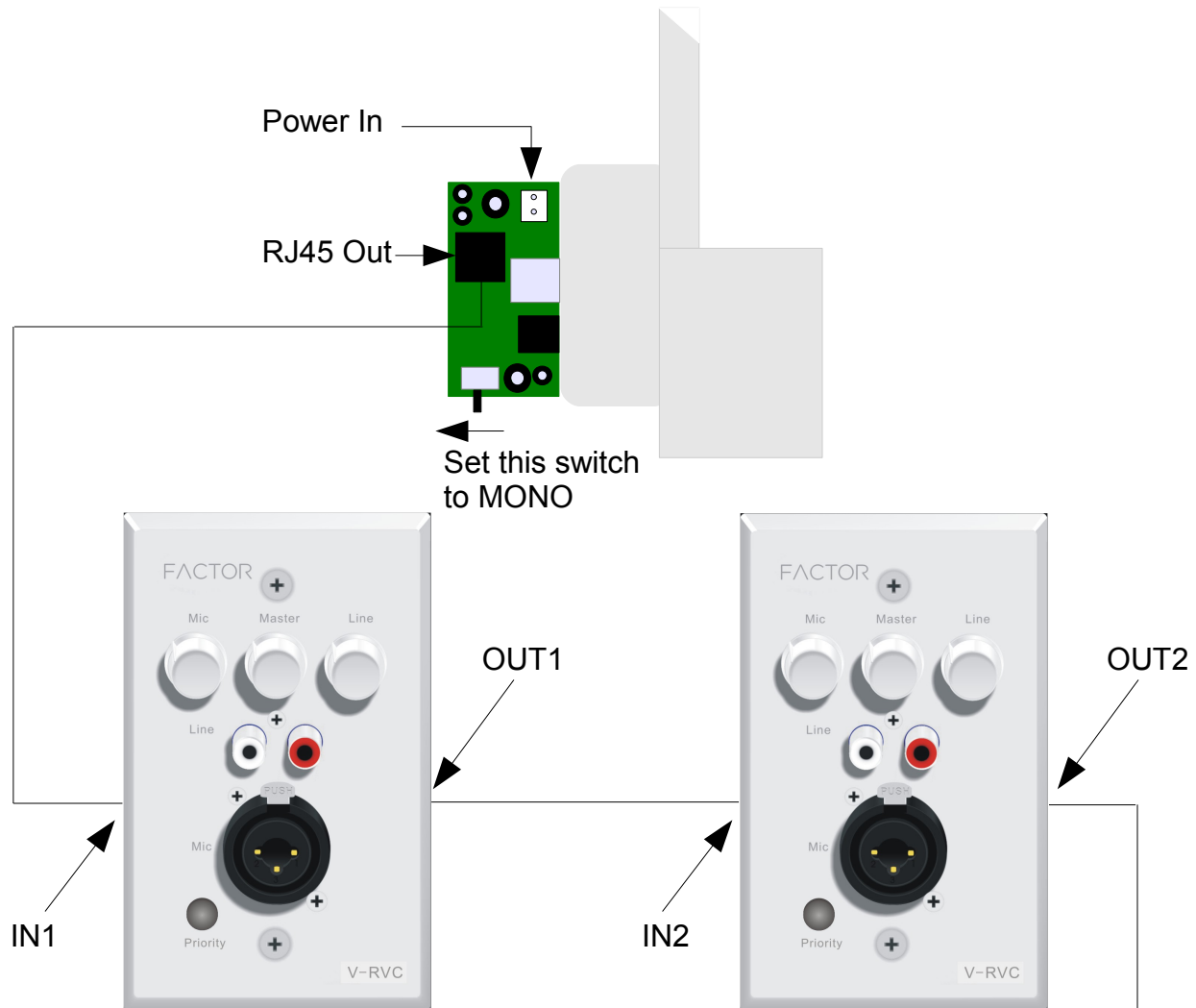


Installation Using The V-RVC and X-Music iPod Dock

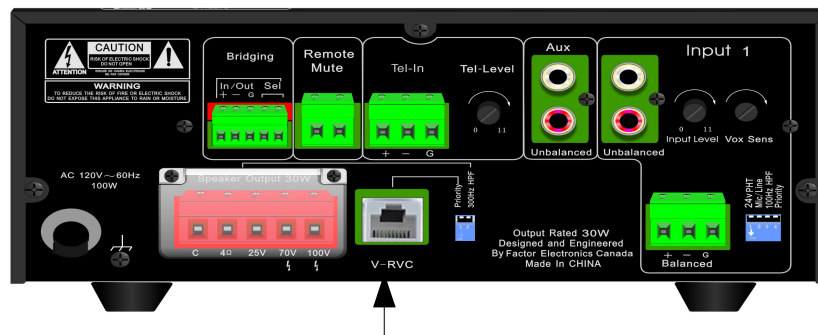
The X-Music in-wall iPod dock can be used in combination with up to two Factor Electronics V-RVC in-wall mic/line pre-amplifier's. Connect the RJ45 output of the X-Music to the RJ45 input of the V-RVC. Then connect the RJ45 output of the V-RVC to the RJ45 input of the second V-RVC. Now connect the RJ45 output of the last V-RVC to the V-RVC input of the Factor Electronics amplifier.

Diagram D

X-Music Side View



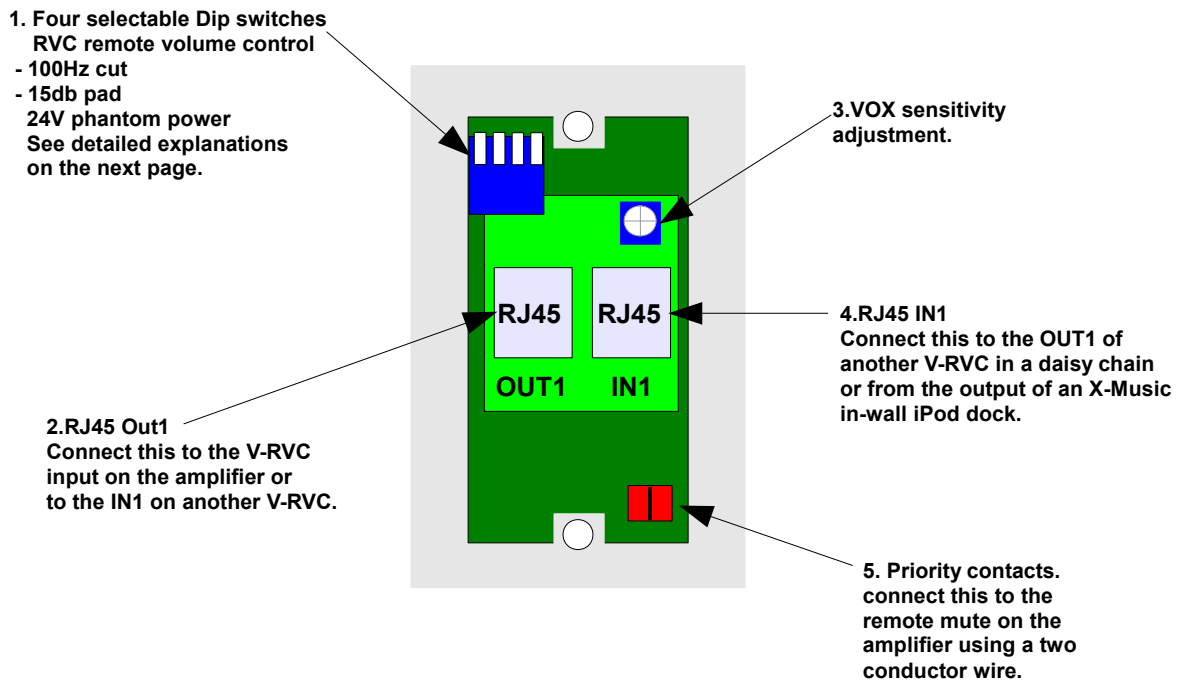
Connect The Cat5e To Any Factor Electronics Amplifier V-RVC Input



Front Panel Controls and Connections Diagram E



Back Panel Controls and Connections



Back Panel Controls and Connections

1. **RVC** Set this dip switch to ON when using a single V-RVC with a Factor Electronics amplifier. This switch enables the remote master volume control feature of the V-RVC. When using multiple V-RVC's on a single amplifier you must designate one V-RVC to be the master volume controller by setting the switch to ON. All other V-RVC's must have this dipswitch set to OFF. If more than one RVC is set to ON it will be impossible to control the master volume of the amplifier. NOTE: To effectively control the master volume of the amplifier from the V-RVC set the amplifier master volume to 75% or 2/3rds full volume and control the overall level from the V-RVC. If the amplifier master volume is set to OFF there will be no sound. Also if the amplifier master volume is set too low the V-RVC will not be able to increase the volume beyond the level that is set on the amplifier. The RVC acts like a remote attenuator.

100Hz CUT Set this dipswitch to ON for microphones that will be used for speech or presentations. This will cut low frequencies below 100Hz at 18dB per octave. This is useful for removing unwanted low frequency noise caused from handling the microphone or rumbles caused by sound transferring from the floor to the mic stand and then to the microphone.

-15dB – Set this dipswitch to ON when using MIC PHT and connecting a condenser microphone. Condenser microphones provide a higher output level that may overload the microphone pre-amp. The -15dB switch reduces the microphone input level by 15dB to avoid overload.

MIC PHT- This applies 24V DC phantom power to pin 2 + and pin 3 – of the XLR microphone input. Phantom power is used to power condenser microphones such as podium microphones, choir microphones and some stage/studio microphones. Dynamic microphones do not require phantom power to operate. Always consult the microphone manual or manufacturer to determine the correct setting for the microphone used.

2. **OUT 1-** The V-RVC OUT1 is the main output of the preamplifier. Connect this to the V-RVC input on the back panel of any Factor Electronics amplifier. It is also possible to daisy chain up to three V-RVC preamplifiers to one amplifier by connecting the OUT1 to the IN1 on subsequent V-RVC preamplifiers in the daisy chain.
3. **VOX SENS-** The V-RVC can automatically override other signals present the amplifier. Set the priority dip-switch on the back panel of the amplifier to on. Now the V-RVC will automatically override other signals. It may be necessary to adjust the sensitivity of the override circuit. Turn the vox sens screw clockwise to increase the sensitivity and counter clockwise to decrease the sensitivity.
4. **IN 1-** The V-RVC IN1 is the input for other V-RVC preamplifiers in a daisy chain or an X-Music in-wall iPod dock . Connect this to the V-RVC OUT1 on the back panel of other V-RVC preamplifiers.

Back Panel Controls and Connections

- 5. PRIORITY-** The V-RVC provides a latching contact switch which can be used to provide constant override of other signals present in the amplifier. Connect the priority contact to the remote mute contacts on any Factor Electronics amplifier. Once the connections are made pressing the priority switch IN will allow the V-RVC to be the only source broadcast in the amplifier. Example: This is common in golf courses, restaurants, and hotels where there may be background music played in the building. Install the V-RVC in a meeting room and press the priority switch. Now the common area background music will be overridden by the V-RVC. Plug a microphone into the V-RVC and presentations can be made in the meeting room which will not be heard in the common areas of the building. Once the meeting is over, press the priority switch out and the common area background music will be broadcast.

Specifications

Frequency Response	20Hz – 20 kHz
Signal-Noise Ratio Microphone	70dB
Signal-Noise Ratio Line	80dB
Power Requirements	24V DC
Dimensions Imperial	W 2.75" x H 5.9" x D 1.96"
Dimensions Metric	W 70mm x H 150mm x D 50mm
Shipping Weight	1lb - 0.45kg
Warranty	3 Years

In an effort to provide our customers with the latest advancements in technology, Factor Electronics Specifications are subject to change from time to time without notice.

Contact Information

Factor Electronics

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Website: www.factorelectronics.com

Warranty

Factor Electronics products (V-RVC and accessories) are warranted to be free from defects in workmanship and materials for a period of (3) years without charge for parts or labor.

This warranty applies only to the original owner. The owners responsibilities are to provide proof of purchase and transportation to the dealer the unit was purchased from or transportation to Factor Electronics. This warranty does not apply to units that have been subject to misuse, abuse, neglect or improper installation, and does not apply to repairs or alterations made by unauthorized persons. This warranty specifically excludes responsibility for consequential damage. Retention of your original bill of sale is required to obtain service under the terms of this warranty.