

# **Operating Procedures**

**For  
Rack Mount  
Video/Audio Receiver**

**Series VR70RM**

**Systems Engineering & Management Company (SEMCO)  
1430 Vantage Court  
Vista, CA 92081**

**August 2005**

# Operating Procedures

## 1.0 System Overview

Systems Engineering & Management Company (SEMCO) is pleased to present one of its most versatile law enforcement audio/video receivers – the VR70RM rack mounted receiver. This frequency agile VR70RM is a single or dual-band receiver that operates between 1710 - 1850 MHz and/or 2185 - 2485 MHz with dual audio sub-carriers tuned to 6.0 MHz (Audio 1) and 6.5 MHz (Audio 2). This receiver has been integrated into a 19" enclosure designed for rack mount applications. Figure 1 depicts the front and rear panels of the VR70RM.



Front Panel



Rear Panel

Figure 1 – VR70RM Rack Mount Receiver

## 2.0 Description

The VR70RM receiver is an video/audio receiver designed for the reception of both color (NTSC) and black & white video signals in the 1710-1850 MHz and/or 2185-2485 MHz frequency ranges and audio signals transmitted on the dual sub-carriers. A frequency select switch is located on the VR70RM front panel to allow for simple frequency adjustments. The VR70RM's rugged rack mount construction is ideal for demanding environmental conditions and the receiver sensitivity provides for exceptional range performance. The small size and low power consumption make these receiver modules ideally suited for applications requiring remote operation.

External connectors and switches have been arranged to enhance the overall functionality of the enclosure by routing these connectors and switches to the front and rear of the enclosure. This provides for dual outputs of the video and audio signals. An RSSI indicator is located on the front panel, as well.

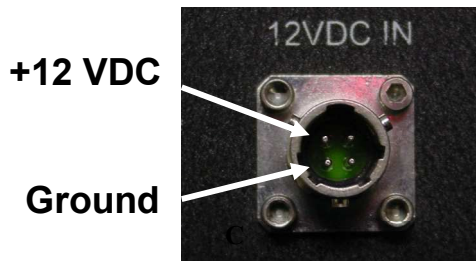
## 3.0 Operation (refer to Figure 1)

### 3.1 Set-up

Setup of the receiver includes selection of the appropriate frequency, connection of an external antenna (not provided), connection of audio and video cables (not provided), and connection of the 12 VDC power supply.

### 3.2 Power

The VR70RM operates on 12 VDC. A mating connector for the receiver has been provided. Please refer to Figure 2 for the pin out for the VR70RM panel connector.



**Figure 2 12 VDC Panel Connector Pin-Out**

### 3.3 Operation

Operation of the VR70RM is straightforward. Once all the appropriate connections have been made, simply toggle the power switch to the PWR ON position. Ensure that the appropriate frequency has been selected by adjusting the frequency select switches to a frequency between 1710 MHz and 1850 MHz and/or 2185 and 2485 MHz.

## 4.0 Troubleshooting Guide

The following troubleshooting guide has been included to provide an initial fault isolation and possible problem resolution for minor issues that may arise during operation.

<b>Fault Indication</b>	<b>Possible Fix</b>
No video or audio (local)	Check the circuit breaker on the rear panel of the VR70RM. 1. Check that all connections are properly seated. 2. Check that the remote monitor is turned-on. 3. Check that the power cable is attached. 4. Check the 12 VDC source. 5. Check the frequency select switch. 6. Check the Power Switch is in the PWR ON position.

## 5.0 Customer Service

5.1 Contact the Customer Service Department at (1-800-995-0636, Extension 143) for technical assistance.