

Operating Procedures

P270 Portable Video Receiver-Recorder And Remote Camera Station



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1.0 System Overview

Systems Engineering & Management Company (SEMCO) is pleased to present one of its most versatile video receivers – the P270 portable receiver-recorder system. The frequency agile P270 receiver is a dual L-band and S-band receiver that operates between 1710-1850 MHz and 2185-2485 MHz. This particular receiver has been integrated into a ruggedized weatherproof case designed for mobile applications. The integrated unit features connectors/switches located on the front/side panels of the case; frequency adjustments, RSSI readout, battery voltage readout and auxiliary connectors for remote video and power connections are located on the right side of the case. Figure 1 depicts the P270 receiver unit.



Figure 1 – P270 Portable Receiver-Recorder Unit

1.1 P270 Portable Receiver System Initialization

The following paragraphs describe the procedures for the P270 setup.

NOTE

Refer to the SONY manuals provided for detailed operation of the 8mm recorder.

1.2 P270 Portable Receiver Power Setup

The P270 is powered via 12 VDC. The power can be provided via an internal 12 VDC rechargeable battery or external 12 VDC input (115VAC adapter included). Power input is selected on the front panel. See

Figure 2. If the switch is selected to Internal battery, the P270 will operate on the internal 12 VDC battery. Estimated operation with the monitor ON, is approximately 30-60 minutes of run time. If the switch is selected to External +12VDC, then the power is supplied via the external fused power connector located on the right side of the case. See Figure 3.

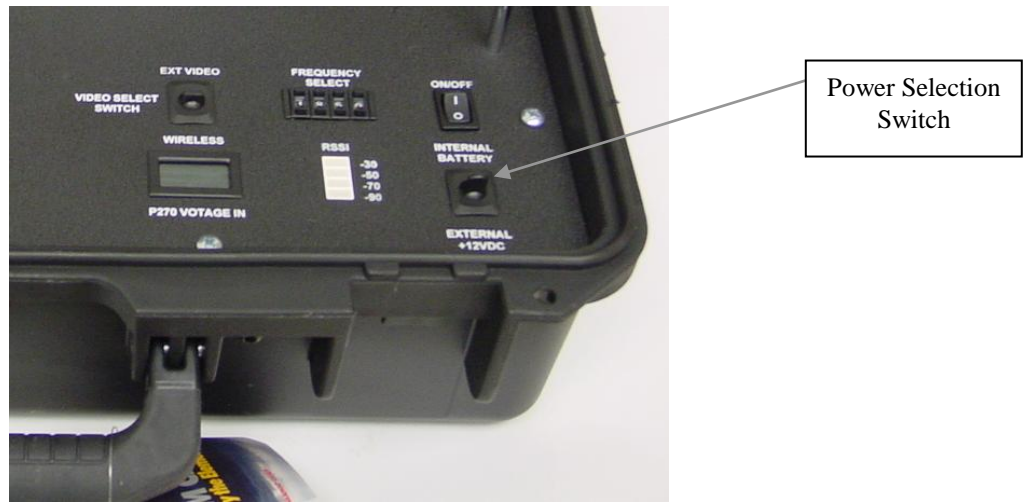


Figure 2 Input Power Selection



Figure 3 External Power Input Connector

If the External Power Adapter is to be used to power the P270, connect the supplied 115VAC/12VDC power adapter to the External Power Connector as shown in Figure 4. The system can be powered on at this time.

NOTE

To charge the internal battery, an external 12VDC battery charger has been supplied. Connect the battery charger to the Battery Charger Connector located on the front panel.



CAUTION: DO NOT OPERATE THE SYSTEM FROM THE INTERNAL BATTERY WHILE SIMULTANEOUSLY CHARGING THE BATTERY.



Figure 4 External Power Adapter

1.3 Receiver Operation

The P270 receiver is a dual band (L-band and S-band) receiver that operates in the frequency bands between 1710-1850 MHz and 2185-2485 MHz. In order to select the desired frequency of operation, the user inputs the frequency in MHz via the Frequency Select rotary switches. Each switch toggles between values 0-9. Simply adjust the switches to read the desired frequency. See Figure 5.



Figure 5 – Frequency Selection

1.3 Video Display

The P270 has an integrated video monitor for display of video. See Figure 6. Wireless video from the internal microwave receiver or an external video input can be displayed on the monitor. In order to select the video source, the user selects either WIRELESS (for receiver video) or EXT Video for an external video source. The external video source will be input via the side panel connectors. A separate 12VDC output is also available to power the external video source, if necessary. See Figure 7.



Figure 6 Video Monitor.

External Video Source Input



Video Source Selection Switch



Figure 7 Video Source Selection

1.3 Antenna Connection

The P270 comes with a directional high gain (12 dB), dual band antenna. See Figure 8. This antenna is connected via the side panel. See Figure 9.



Figure 8 Dual Band Antenna



Figure 9 Antenna Connector

2.0 Power ON

Turn the unit ON by switching the PWR ON/OFF switch to the ON (1) position. The red LEDs on the RSSI indicator will illuminate when power is ON and an RF signal is present. Ensure that the monitor Power ON is also selected for viewing video. To power the system OFF, return the switch to the OFF (0) position.

Adjust monitor controls for clarity and brightness.

Insert Video Tape (Hi 8mm Tape/High Quality is recommended).

NOTE: The SONY recorders function much better in high humidity environments with High Grade 8mm Recording Tape.

Refer to the SONY Manual for detailed discussions on the operation of the recorder unit.

3.0 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.

Fault Indication	Possible Fix
No video	Check the fuse on the side panel of the P270 receiver. 1. Check that all connections are properly seated. 2. Check that the power cable is attached. 3. Check the 12 VDC source. 4. Check the frequency select switch. 5. Check the Power Switch is in the PWR ON position. 6. Check the Power Switch on the Monitor is in the ON position. 7. Check Video Source switch.

4.0 Customer Service

4.1 Contact the Customer Service Department at 1-800-995-0636, Extension 100 for technical assistance.