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V Sweeper

USER MANUAL

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PRODUCT WARRANTY

Optoelectronics, Inc. warrants all products and accessories for one (1) year against defects in materials and workmanship to the original purchaser. Products returned for warranty service will be repaired or replaced at Optoelectronics' option.

Specifically excluded are any products returned under this warranty that upon examination, have been modified, had unauthorized repairs attempted, have suffered damage to the input circuitry from the application of an excessive input signal, have suffered damage to the charging circuitry or internal batteries from the application of excessive voltage, or show other evidence of misuse or abuse. Optoelectronics reserves sole right to make this determination.

NON-WARRANTY

Products not under warranty must be returned, transportation prepaid, to Optoelectronics' service center. Factory service will be performed on a time and materials basis at the service rate in effect at the time of repair. A repair estimate prior to commencement of service may be requested. Return shipping will be added to the service invoice and is to be paid by the customer.

RETURN POLICY

Please contact us first for assistance and to obtain a return authorization number. Service Department: (954) 642-8997. Monday - Friday 9:00 AM to 5:00 PM Eastern Time.

Specifications

Frequency Range:	900MHz - 5.8GHz
Scan Time:	3-15 seconds depending on sensitivity setting
Sensitivity:	6 ranges from -20dBm to -75dBm
Detection Distance:	Up to 500 feet depending on sensitivity setting
Dwell Time:	2, 4, and 8 seconds
Video Protocols:	PAL/NTSC, CCIR/EIA
Display:	2.5" color TFT and 1" LCM
Size:	3.5"H x 2.5"W x 1"D
Weight:	9 oz
Power:	5vdc, 110/240v adapter supplied
Battery:	3.7v Li-ion battery pack, 2200 mAh, 4 hour charge time
Operating Time:	2.5 Hours



CAUTION

WARNING - Maximum input voltage is 5VDC. Automotive voltages may exceed 12V causing damage to internal circuitry. Damage resulting from excessive input voltage is readily apparent and will not be covered under warranty. Units returned for warranty service that have damage resulting from excessive supply voltages will incur service charges.

Introduction

The Optoelectronics, Inc. V Sweeper wireless camera detector allows you to detect hidden wireless video cameras in the frequency range of 900MHz-5.8GHz. With a 2.5" TFT color LCD the V Sweeper shows you what the hidden camera is looking at. A separate smaller LCM displays the frequency and the signal strength of the signal the V Sweeper locked on to. The V Sweeper quickly scans all the available video frequencies used in 3-15 seconds depending on sensitivity setting.

The V Sweeper works with a full range of video protocols, automatically switching for NTSC, PAL, CCIR or EIA systems. The V Sweeper has both an automatic and manual scan mode and an alarm may be activated for an audible beeper or vibrator alert when a camera is detected.

The V Sweeper can detect some signals from as far away as 500 feet. The detection distance depends upon the power output of the transmitter and the sensitivity level selected on the unit. The V Sweeper has 6 separate receive sensitivity settings ranging from a low of -20dBm to a high of -75dBm.

The V Sweeper can automatically scan for signals or manually by using the thumb wheel. When the unit receives a signal the frequency display will stop on the frequency of the signal it detected. At the same time the TFT color monitor will display what the camera is looking at.

1. When a signal is initially detected the frequency is displayed and then will flash the number of times that correspond with the dwell setting. If the dwell setting is set for 2 then the frequency display will flash two times then resume scanning.
2. To stop the unit from scanning while it is detecting a signal move the thumb wheel up or down. You may then manually tune the unit 1MHz at a time for optimal picture setting by moving the thumb wheel up or down. Hold the thumb wheel in the up or down position for three seconds and the unit will tune in 10MHz segments. Release the thumb wheel and the unit will stop scanning.
3. To stop the unit from scanning when it is not in the process of detecting a signal press the thumb wheel in one time quickly.
4. To resume scanning after locking and stopping on a signal press the thumb wheel in one time quickly.
5. When scanning, the TFT display will remain blank until a signal is detected. Depending on the sensitivity setting you may see the signal detected over a range of 15-20MHz.

Setting Scanning Parameters

Receive Sensitivity: There are 6 different receive sensitivity settings.

- | | | |
|----|------------------|--------|
| 1. | L (Low) | -20dBm |
| 2. | ML (Medium Low) | -30dBm |
| 3. | M (Medium) | -40dBm |
| 4. | MH (Medium High) | -50dBm |
| 5. | H (High) | -60dBm |
| 6. | UH (Ultra High) | -75dBm |

The scanning speed varies with each sensitivity setting. The fastest scanning speed comes with the lowest sensitivity setting, while the slowest scanning speed comes with the highest sensitivity setting.

Beeper / Vibrator Alert: The unit can be set to beep, vibrate or both when it detects a signal and will continue to beep or vibrate according to the dwell time setting. For example: If the dwell time is set for 4 seconds then the unit will beep/vibrate every second for 4 seconds once a signal is captured. To turn the beeper or vibrator ON/OFF move the thumb wheel up or down until the B, V or both symbols are displayed. To deactivate both move the wheel until both B and V are no longer visible.

Battery Indicator: The battery symbol indicates the amount of battery power remaining when operating off the internal battery pack. The battery icon will appear dark when it senses full battery and will blink when the battery is nearly depleted. When charging the internal battery pack a red LED will illuminate next to the AC input. When the battery has been fully charged the LED will turn off. Charge the battery for 3-4 hours for a full charge. Run time on a full charge is approx. 2.5 hours.

Once all your parameters are set you may exit back to scan mode by pressing in the thumb wheel for three seconds.

DC 5V IN: Plug supplied 5vdc adapter in to power up the unit and/or charge internal battery pack.

OFF ON: After plugging in the AC adapter or installing internal batteries use this switch to turn the unit ON/OFF.

SIGNAL IN/OUT: 3.5mm mono output for the audio output. Can be hooked up to an external speaker. 3.5mm stereo output for video. Can hook up to an external monitor.

ANTENNA: Antenna 1 and 2. Each antenna is numbered and goes on the corresponding numbered input on top of the unit.

THUMB WHEEL: Press the thumb wheel in to stop the scanning process. Press the thumb wheel up or down to manually tune the unit when locked on a signal.

Getting Started

Install Antennas: There are two antennas included with the V Sweeper. One antenna has the number 1 on it located on the side near the bottom of the antenna, while the other antenna is marked with a number 2 on the side. On the top of the unit each antenna input is also labeled 1 and 2. Screw in the corresponding antenna to each input. Antenna 1 is for 1.2GHz and antenna 2 is for 2.4GHz.

Power On: Connect the supplied 5v adapter into the connector labeled DC 5V In on the right side of the unit. You may also power the unit by its internal 3.7v Li-ion battery pack. You should receive approximately 2.5 hours on a fully charged battery. The AC adapter will charge the battery pack when plugged in. Turn the unit on with the ON/OFF switch also located on the right side.

LCM Display: Once powered on the unit starts scanning automatically. In the small LCM display the frequency is displayed as well as the 6 icons representing the different scanning parameters.

1. The antenna symbol indicates the signal strength with one to three bars.
2. The M symbol with a number of 00, 30, 60 or EX
3. The bell symbol with the number 2, 4, or 8 represents the dwell time setting.
3. The antenna symbol with the letter(s) L, ML, M, MH, H, UH indicates the receive sensitivity setting.
4. The speaker symbol with two posts, B, or V indicates whether the beeper/vibrator is on or off.
5. The battery symbol indicates the amount of power left in the internal batteries.

See pages 4 and 5 for instructions on how to change the different parameters.

Setting Scanning Parameters

Locate the thumb wheel on the left side of the unit and press and hold it in for three seconds. Scanning will stop and the first icon will start blinking.

Signal Strength: This symbol, which is located on the top left of the LCM display does not blink and cannot be altered. The signal strength is indicated by an antenna symbol that has corresponding bars to indicate the strength of the signal detected.

M Setting: If set to 00 the unit will perform continuous scanning. If set to 30 or 60 the screen will go blank and it will pause scanning for the corresponding amount of time, then resume scanning after that time. When set to EX this is the external A/V output. You may plug in the included cable to the Signal In/Out output and then interface to a DVD, external speaker or video monitor. The screen on the V Sweeper will go blank and transfer over to the external video monitor or DVD.

Dwell Time: The dwell time is the amount of time the unit stops scanning when it locks on a video signal. The dwell time may be set for 2, 4 or 8 seconds. Once the dwell time symbol is blinking above the number 2, 4 or 8 you may then change the time by moving the thumb wheel up or down until you have the desired time set (Do not press the wheel in, only move it up or down). Once that is set you may exit back to scan mode by pressing in the thumb wheel for three seconds. If you would like to move on to the next parameter then press the thumb wheel in one time quickly.