



R506

RF DETECTOR

USER MANUAL



CAUTION

WARNING - Maximum input voltage is 12VDC. 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.

WARNING - Maximum antenna input signal is +15dBm (50mW). Under no circumstances should the R506 be directly connected to an RF transmitter or be used in close proximity to a radio transmitter of more than 25 watts. Damage to the input amplifier circuitry is readily apparent and will not be covered under warranty. Units returned for warranty service that have damage to the input circuitry will incur service charges.

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Specifications

Frequency Range:	50MHz-6GHz
Sensitivity:	100uV
Antenna:	Built-in telescoping antenna
Alert Modes:	Beeper, Acoustic, Vibrator, LED signal strength
Controls:	Sensitivity and volume
Size:	5.5"H x 2.75"W x .75"D
Weight:	12oz rugged hard plastic case
Battery:	Rechargeable internal NiMH 7.2V battery pack
Operating Time:	2 days after full charge / 8 hour charge time
Power:	12vdc, 1 amp 110-240v center positive adapter
External Connection:	Earphone input

B A V

The R506 has three different modes for alerting you to RF. Beeper, Acoustic and Vibrator.

Beeper

The unit beeps when detecting a signal. The beeper goes from slow to rapid beeping indicating the strength of signal detected. The stronger the signal the more rapid it will beep.

Vibrator

The unit vibrates when detecting a signal.

Acoustic

The unit will broadcast the noise of the signal detected. While you will not hear any voice communications, what you will hear is an increase in background noise as the signal gets stronger. With little or no signal detected there will be very little background noise apparent.

Sens

The sensitivity switch setting moves from + to -. After turning the unit on there should not be more than the left green LED lit. If one of the red LED's is lit then you may want to turn the sensitivity knob to the minus (-) side to decrease the sensitivity level relative to your current RF environment. This will reduce the background RF noise floor. Turn the knob to the plus (+) side to increase the sensitivity level. When the knob is turned all the way over to the minus (-) side the detection distance will be less than when it is turned all the way over to the plus (+) side.

Vol

The volume level can be adjusted by turning this knob. This will also adjust the audio level of the beeper.

Side Panel Connections / Operation

Headphone/Earphone

You may plug the supplied earphone into the 2.1mm mono jack on the side of the unit while you have the unit in acoustic mode.

Power

Plug the supplied 12v power adapter into this connector to charge the internal Ni-MH 7.2v battery pack. Plug the adapter in for 8 hours to obtain a full charge. The unit can operate for 48 hours continuously on a full charge. When the battery has been depleted the far right LED will be lit. This LED is directly above the low battery symbol.

On/Off Switch

Turn the unit on and off using this switch.

Getting Started

1. Power the unit on and pull out the extendable telescoping antenna.
2. Adjust the sensitivity setting so that only the left LED is lit.
3. Choose between beeper, acoustic or vibrator alert setting.
4. Adjust the sensitivity setting according to your background RF noise level. Generally, adjusting so that only the left LED or two left LED's are lit is the optimal setting.

Pickup distance

The R506 is capable of detecting very low power devices. Following are typical pickup distances for various RF transmitters.

10mW 2.4GHz wireless camera	20 feet	500mW cellular phone	40 feet
1 watt VHF radio	100 feet	5 watt UHF radio	200 feet

Low Battery Indicator

If the Ni-MH battery pack becomes depleted the far right LED will be lit. It is directly over the low battery symbol.

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.

No other warranties are expressed or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. Optoelectronics, Inc. is not liable for consequential damages.

WARRANTY

Products under warranty must be returned, transportation prepaid, to Optoelectronics' service center. All parts replaced and labor performed under warranty are at no charge to the customer.

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.

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