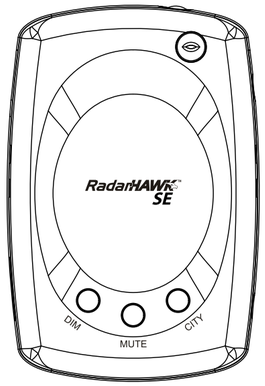
RadarHAWK™ SE
with POP™ mode



RADAR LASER DETECTOR
Owner's Manual

WELCOME

Thank you for purchasing the wireless RadarHAWK™ SE Radar and Laser Detector with POP™ mode. The new RadarHAWK™ SE model incorporates advanced antenna technology and extremely low power consumption circuitry to ensure top-class performance. It is a completely integrated radar and laser detector, which responds X, K, and Ka band radar guns and all known laser speed guns in use today.

The RadarHAWK™ SE is specially designed to be a simple-to-use device in any vehicle or motorcycle keeping you fully protected at all times. This manual contains instructions and information explaining how the RadarHAWK™ SE operates.

Please read the manual in detail to get the most out of the outstanding performance and features of the RadarHAWK™ SE.

Features

- All radar band detection
- High sensitivity antenna
- 360° laser detection
- Detects POP™ mode radar
- VG-2 undetectable
- Highway & two city modes
- Selectable alert tones
- Display brightness control
- Self-test & feature memory
- Auto audio control
- Low-power consumption
- Fast recharging circuit
- Mount on windshield or dashboard
- One year limited warranty

Package Contents

- Mounting Bracket
- Suction Cups
- 12V DC Power Cord & Fuse
- Fastener Tape
- Two AA NiMH Rechargable Batteries
- Operation Manual

ABOUT RADAR/LASER DETECTION

Radar Devices

Until the mid-1970's, X band (10.50~10.55 GHz) was the only frequency used by most police radar devices. Early radar detectors needed only to listen for X band radar. But in 1976 police radar devices using K band (24.05~24.25 GHz) were introduced, leading to the development of the first dual band detectors able to receive both frequencies (X and K).

Then, in 1987, a proliferation of police radar devices using KA band frequencies began with the introduction of photo radar (34.3 GHz), followed by the Stalker (34.2~35.2 GHz) in 1991 and the BEE 36A (33.4~34.4 GHz) in 1992. The introduction of KA band photo radar (34.3 GHz) led to the development of tri-band detectors able to detect X, K, and a small portion of KA band. A fourth category of "wide-band" radar detectors capable of detecting X, K, and wide KA (34.2~35.2 GHz) bands reached the market following the introduction of Stalker radar.

Finally, in response to the BEE 36A, a new generation of "superwide-band" radar detectors was developed. They detect all police radar devices operating on X, K, and superwide KA (33.4~36.0 GHz) bands. All RadarHAWK™ radar/laser detectors are superwide band receivers. When radar detectors proved easily capable of detecting radar from miles away, radar device manufacturers responded by developing "instant-on radar." In the instant-on mode, the radar's transmitter is placed on hold, ready to fire but not yet producing a signal for detectors to hear. The officer waits until his target is very close, releases the radar from stand-by mode, and gets a speed reading within a second or so.

In this situation, no detector can offer much warning. When you receive a radar alert we highly recommend that you promptly reduce your speed if you're driving faster than the speed limit.

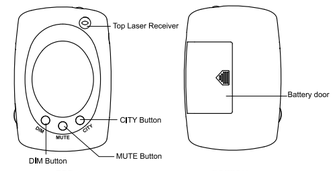
Laser Devices

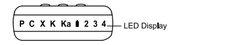
Laser devices transmit an invisible light beam at a frequency (more accurately a "wavelength") of 904 nanometers. A nanometer is how a light wavelength is measured. Different laser devices operate at different light pulse rates and some manufacturers call them "bands." All RadarHAWK™ radar/laser detectors can detect all current laser devices in use.

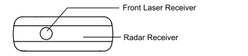
Less than 1,000 laser devices are in service in 45 states at present. Most are used by city police on urban multi-lane roadways. The use of laser devices for speed monitoring is expected to increase, but will remain limited due to their high cost and limited attractiveness to agencies that favor the convenience of conventional moving radar. Currently, laser guns account for less than 5% of the total number of speed monitoring devices (radar and laser) sold in the U.S. annually; during the next five years, this figure is expected to remain under 8%. Laser devices will likely be in service in every state within a few years.

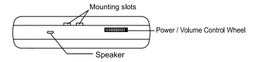
Laser devices can measure the speed of a target vehicle only when it is up to 1,500 feet away in line of sight. This means that when a laser alert is displayed, the speed monitoring system is nearby. When a laser alert is displayed, we highly recommend that you promptly reduce your speed if you're driving faster than the speed limit.

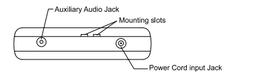
CONTROLS











OPERATIONAL DETAILS

a. Power/Volume Control Wheel
Turns the detector on/off and controls the volume level.

b.DIM Button
Dim mode reduces the illumination of the display.
You can adjust the brightness of the display.

c.MUTE Button
Silences the audio alarm

d.CITY Button
There are two City modes. Press the CITY button to enter City 1 or City 2 mode. Both City modes reduce false alarms while driving in the city. While driving on the highways or rural, press the CITY button again to turn off City mode for long range detection.

e.FRONT LASER RECEIVER/TOP LASER RECEIVER
Laser lens to detect laser signals

f.RADAR Receiver
Receives the radar signals emitted by traffic radars

g.SPEAKER
Alarms with tone

h.MOUNTING SLOTS
Mount the bracket

i.POWER CORD INPUT JACK
Connect the DC Power cord here

j.AUXILARY AUDIO JACK
Connect an earphone or speakers here

k.LED DISPLAY
- P: Power on indicator
- C: City mode indicator
- X: X band signal indicator
- K: K band signal indicator
- Ka: Ka band signal indicator
- ▮: Low battery indicator
- 2 3 4: Signal Strength meter/laser signal indicator

RadarHAWK™ SE
with POP™ mode

SPECIFICATIONS

RADAR

Receiver Type	Dual Conversion Superheterodyne
Antenna Type	Linear Polarized. Self-Contained Antenna
Detector Type	Frequency Discriminator
Frequency of Operation:	X Band K Band Ka Band

LASER

Receiver Type	Pulsed Laser Signal Receiver
Detector Type	Digital Signal Processor
Opto Sensor	Photo Diode with Convex Condenser Lens

GENERAL

Temperature Range	-20°C to +70°C
Power Requirements:	12~15V DC, 500mA (Negative Ground)
Dimensions HxWxD	1.0" X 2.85" X 4.2"
Weight	160g with Two AA NiMH Batteries

*Specifications are typical. Individual units may vary.
Specifications are subject to change without notice.

INSTALLATION

For the best performance, select the proper location for the unit where it has a direct view of the road. The antenna and lens should not be obstructed by metal or metallic surfaces and should be pointed at the horizon for accurate long range detection.

- Choose a location that does not block the driver's vision.
- Mount the detector in a level position.
- Do not mount the detector behind metal surfaces, windshield antennas, wiper blades, ornaments or mirrored glass.
- Do not mount the detector where the driver or passenger may be injured in case of an abrupt stop.

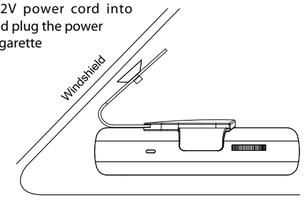
1) FASTENER TAPE MOUNTING ON DASHBOARD

a. Use a damp cloth to thoroughly clean both the bottom of the detector and the dashboard.
b. Peel of the tape's paper backing and apply the tape to the bottom of the detector.
c. Remove the paper backing from the other side of the tape and press the detector onto the dashboard.

2) WINDSHIELD MOUNTING

The supplied windshield bracket lets you quickly mount the detector to your vehicle's windshield.

a. Install the suction cups onto the bracket by fitting them into their holes.
b. Attach the bracket to windshield.
c. Attach the detector to the bracket.
d. Bend bracket for correct detection angle (if necessary). Do not use the detector to bend bracket.
e. Plug the DC12V power cord into the detector and plug the power cord into the cigarette lighter socket.



3) POWER CONNECTION

a. The RadarHAWK™ SE is specially designed to operate on two AA NiMH rechargeable batteries. To ensure maximum performance, we advise that you do not use other battery types.

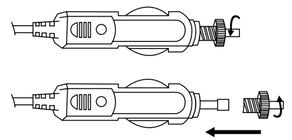
b. The RadarHAWK™ SE is also designed to operate on most DC12V negative ground vehicle electrical systems. The power cord provided with the detector has a cigarette light socket plug at one end and a small connector at the other.

- Insert the small connector into the jack on the side of the detector.
- Insert the other end into the cigarette lighter socket of your vehicle.

If the detector does not operate when you turn it on, remove the adapter from the cigarette lighter socket and carefully check the socket for debris. Also, check the fuse in the adapter and your vehicle's fuse box.

4) REPLACING FUSE

If the detector stops operating, the fuse in the plug might be blown. If it has blown, unscrew the top of the plug to remove the fuse and replace it with a new one.



OPERATION

1) POWER AND VOLUME CONTROL

To turn on the detector, connect power/insert battery and rotate the wheel controller(located on the side of the detector) until you hear it click. To turn off the detector, rotate the wheel controller in the opposite direction until it clicks again. You can also use the controller to adjust the volume level by turning it up or down within the range that it does not click.

2) SELF-TEST & FEATURE MEMORY

The detector performs a self-test of checking and demonstrating its audio and visual alert capacity each time it is powered on. Also, it will automatically remember user settings when the unit is turned off or removed from the power. All the features selected are retained in memory as below:

· Highway or City 1 or City 2
· Bright or Dim or Dimmer
· Tone
· POP Mode

3) BRIGHTNESS CONTROL

Press DIM button to toggle between 3 different brightness levels. The brightness options are: Bright, Dim and Dimmer.

When a signal is detected, alerts are always displayed in Bright, regardless of the brightness level you have selected. The display returns to your setting following the alert. The factory default mode is Bright.

4) MUTE

Press the MUTE button for less than three seconds to toggle between MUTE ON and MUTE OFF. Mute can be used when you want to manually turn the audio alert off. Mute ON will be automatically reset to Mute OFF when you turn the detector off. Mute ON does not remain in the detector's memory. The factory default mode is Mute OFF.

5) AUTO AUDIO CONTROL

Auto Audio Control will have the detector report with reduced audio alarms for continuously detected alerts. When a signal is constantly reported for more than 5 seconds, the detector will gradually reduce the audio level in the following 10 seconds. The reduced audio level will continue for new alerts detected within 60 seconds from the previous alert.

6) HIGHWAY AND CITY 1 AND CITY 2 MODE

The false-alerts are often caused in urban areas by automatic door openers, air traffic control systems, alarm systems and more. The City mode reduces the detector's sensitivity and eliminates responses to false sources. Highway mode provides maximum sensitivity for open road driving where there are no false signals.

There are two CITY modes - "City 1" and "City 2".

City 1 Mode: Reduce all band sensitivity – "C" LED ON

City 2 Mode: No X band detection and reduce K/Ka bands – Both "C & 2" LED blinking together for 3 seconds and then "C" LED ON

City mode is stored in the memory.

The factory default mode is Highway.

Important: The X band is NOT detected in City 2 mode. Some towns and small cities may still be using X band radar gun.

7) POP RADAR DETECTION

There is a POP™ Mode with power cord operation to detect POP™ radar. POP™ Mode does NOT work with battery operation. Press the DIM button for two (2) seconds to turn POP™ mode ON or OFF. POP ON gives "one beep" and POP OFF gives "two (2) beeps". The factory default mode is POP OFF. POP™ Mode (ON or OFF) is stored in the memory.

Example:

[POP ON] ==>[POWER OFF] ==>[POWER ON]==>[STILL POP ON]

The unit displays "Ka and 2 3 4" LEDs together for POP™ radar detection.

8) SIGNAL STRENGTH METER

The numbered LEDs are called a signal strength meter when they are displayed together with a radar band LED to indicate the strength of a detected signal. The higher the number, the stronger the signal.

9) LASER DETECTION

Police laser devices transmit an invisible light beam at a wavelength of 904 nanometers. All numbered LEDs will start blinking when a laser signal is detected.

10) VG-2 UNDETECTABLE

The VG-2 is a "radar detector detector" device used by police to detect signals radiated by a radar detector. The RadarHAWK™ SE does not produce emissions detectable by VG-2 radar detector sensing devices.

11) SELECTABLE TONE

There are two selectable alert tones. To change the tone sounds, press the MUTE button for three seconds. The unit will change the tone sound.

12) DEMO MODE

Press and hold both the MUTE and CITY buttons, then the detector will demonstrate how it operates when each radar and laser signal is detected.

X band signal detected operation

K band signal detected operation

Ka band signal detected operation

Ka POP™ signal detected operation

Laser signal detected operation

All LEDs on

It automatically exits after five seconds from the all-LED on status. Or press any button to exit the all-LED on status, which is the end of DEMO mode. After this has been completed the detector automatically enters detection mode and begins detecting signals.

13) CHARGING THE BATTERIES

When the power is supplied from 12-volt DC power cord, the two AA NiMH rechargeable batteries will be charged and the battery indicator LED will turn ON to show that the batteries are charging. Within 2.5 hours, the batteries will be fully charged and battery indicator LED will automatically turn off.

14) AUTO POWER-OFF AT BATTERY MODE

In the event that you forget to turn off the RadarHAWK™ SE when you leave your vehicle, it has an automatic power-off feature to conserve battery life. The RadarHAWK™ SE will automatically shut off when no signals are detected for approximately 60 minutes. An obtrusive audio and visual warning will confirm that the auto power-off is about to happen. You can cancel auto power-off by pressing any button while the audio and visual warning is being displayed.

15) BATTERY LIFE

The RadarHAWK™ SE can provide approximately 30~40 hours of rechargeable battery life. RadarHAWK™ SE has a separate low battery indication LED. It intermittently blinks with warning alarms from the moment when there is approximately two to four hours of battery life remaining.

CARE AND MAINTENANCE

Your RadarHAWK™ SE is an example of superior design and craftsmanship. The following suggestions will help you to handle your detector in a proper way.

Never leave the detector on the windshield when you park your vehicle. The temperature in the vehicle in summer can reach levels above what is considered to be safe for this detector.

To make you less susceptible to break-in and theft, you should remove the detector from your windshield when you leave your vehicle.

Do not expose the detector to moisture. Rain dew, road splash, or other liquids that can damage the internal components and reduce sensitivity of the detector.

TROUBLESHOOTING

Your RadarHAWK™ SE is designed to deliver consistent and reliable service. If you encounter a problem, please refer to this section before returning your radar detector.

1) If the detector does not turn on

a. Check the power cord or batteries. Be sure that all power connectors are properly installed.
b. Check the fuse that controls power to the cigarette lighter socket. See your vehicles owner's manual.
c. The cigarette lighter socket might be dirty. Clean it with fine emery cloth to ensure a good and clean connection.
d. Vehicle electrical problem exists.
e. Make sure that the volume control is in the ON position.

Caution: Do not place any metal object other than the cigarette lighter or a cigarette lighter plug in the cigarette lighter socket.

2) If the detector gives a false alert when the vehicle hits bumps

a. Check the vehicle's electrical system, including the main battery cable and alternator connections.
b. Install a filter capacitor (470uF. 25volts) on the back of the cigarette lighter socket, across the power connections.

3) If the receiving signals are weak

a. Check the angle of detector.
b. Point detector to the horizon.
c. Radar antenna / laser lens is obstructed.
d. Relocate the detector.

SERVICE & REPLACEMENT

If you have questions, missing parts or comments, please call Q3 Innovation's customer service department at (888) 399-1687 (toll-free within the U.S.) or e-mail to service@q3i.com.

If you wish replacement or repair of a defective product, please follow these procedures:

1) Obtain a Return Merchandise Authorization (RMA) number by calling us at (888) 399-1687 (toll-free within the U.S.) or at (319) 334-3412 between 9:00 a.m. and 5:00 p.m. (CST) Monday-Friday.

We can also be reached by:
- Fax: (319) 334-3421
- E-mail: service@q3i.com
- Please note that RMA numbers are valid for 30 days only.

2) Obtain a proof of purchase, such as a mechanical reproduction of your sales receipt (original receipts cannot be returned). Proof of purchase must show printed date of purchase, model number, and place of purchase. If you cannot provide a proof of purchase, or if the warranty period has ended, the product may be returned to you without being tested and/or there will be a charge for replacement of your product.

3) Pack the product securely to prevent damage in transit. Please send the entire product, including all accessories. Alterations to the product or its accessories will void your warranty. Include your proof of purchase and a description of the problem.

4) Write the issued RMA number on the outside of your package and address it to:

Q3 Innovations, LLC
Attn: Service Center, RMA# [insert the RMA# provided]
2349 Jamestown Ave, Suite 4
Independence, IA 50644

5) Type or print the name and address where the replacement should be delivered.

6) Ship prepaid and insured via traceable carrier such as United Parcel Service (UPS), FedEx Parcel Service, or Priority Mail to avoid loss in transit.

Once we receive your documents and product, we will repair or replace the product for you. Please allow two to three weeks from receipt of your returned product to delivery of your replacement.

RadarHAWK™ SE • FCC ID U9P-RH-SH

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

In addition, any changes or modifications to this product, which are not expressly approved by Q3 Innovations, LLC in writing, could void the user's authority to operate this product.

WARRANTY INFORMATION

LIMITED WARRANTIES; LIMITATION OF LIABILITY

FOR RADARHAWK™ RADAR/LASER DETECTOR
Model: RadarHAWK™ SE

Q3I Innovations ("Q3I") manufactures its products from parts and components that are new or equivalent to new in performance, and warrants to the original user that this product will be free of defects in workmanship and materials for one (1) year from the date of purchase.

This warranty does not cover wear and tear due to normal use, or damage to the product as the result of improper usage, neglect of care, alteration, accident, or unauthorized repair.

If the product is found by Q3I to be defective, Q3I's entire liability and your exclusive remedy for breach of warranty shall be that Q3I will repair or replace the product and return the product or its replacement to you at no charge, provided that you ship the product to Q3I at your expense with a description of the defect and subject to the other conditions of this warranty. Should the product prove to be irreparable, Q3I may substitute an equivalent product of the same or similar style and of a value not in excess of the original purchase price of your instrument.

Q3I warrants the repaired or replacement product to be free from defects in material and workmanship on the same terms as the product originally purchased.

This warranty will be void if the products, serial number, or other identification marks have been defaced, damaged, or removed. This warranty does not apply to the battery necessary to operate the product.

This warranty is extended to the original retail purchaser only and may not be transferred or assigned to subsequent owners. In order to validate your warranty, you must provide proof of purchase acceptable to Q3I together with the product shipped for warranty repair/replacement.

Products returned to Q3I must be pre-authorized by Q3I with an RMA (return material authorization) number marked on the outside of the package. Please refer to the Service and Replacement section for Q3 Innovations contact information.

THE FOREGOING WARRANTY IS GIVEN IN LIEU OF AND Q3I DISCLAIMS ALL OTHER WARRANTIES OR REPRESENTATIONS, EXPRESSED OR IMPLIED, IN FACT OR IN LAW, WITH RESPECT TO THIS PRODUCT, INCLUDING, BUT NOT LIMITED TO, (1) THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, OR (2) THAT USE OF THE PRODUCT WILL BE UNINTERRUPTED AND ERROR FREE.

Q3I shall have no liability for any indirect or speculative damages (including, but not limited to, consequential, incidental, and special damages) relating to the use of or inability to use this product, whether arising out of contract, negligence, tort, or under any warranty theory, or for infringement of any other party's intellectual property rights, irrespective of whether Q3I had advance notice of the possibility of any such damages, including, but not limited to, loss of use, revenue, or profit. In no event shall Q3I's total liability for all claims regarding the product exceed the price paid for the product. Q3I neither assumes nor authorizes anyone to assume for it any other liabilities. Q3I shall have no liability in the event the user receives a speeding ticket violation while using this product.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.