SmartRadar™

With ESCORT® Live!

Ultimate Out-of-Site Protection

Made for iPhone 4S, iPhone 4, iPhone 3GS
Your new SmartRadar™ device is a complete, supercharged, quick-install radar/laser detector with built-in Bluetooth® wireless technology for connection to mobile phones and other Bluetooth devices.

SmartRadar includes full X, K, and SuperWide Ka radar capability, digital signal processing for superior range and reduced false alarms, our patented Mute and AutoMute, audible and visual band alerts, plus all the state-of-the-art performance and features you’d expect from ESCORT®:

- Receiver unit mounts behind your rearview mirror for hidden radar and laser protection.
- Miniature display controller allows easy access to information and controls.
- Ultra-bright alphanumeric display uses 280 LEDs for crystal-clear information.
- Exclusive ExpertMeter™ tracks and displays up to eight radar signals.
- SpecDisplay™ provides actual numeric frequency for any radar signal.
- TSR software automatically rejects traffic flow sensors.
- Program mode lets you instantly customize seven features.
- Compatible with ESCORT’s SHIFTER ZR4™ laser-shifting system.

And, **SmartRadar is fully compatible with the new ESCORT Live™ iPhone® application!**

Using Bluetooth® technology, SmartRadar communicates with your iPhone so you can access your detector settings and manage alerts with just a touch of the screen. This combination of technologies also gives you access to the most powerful driver alert network—ESCORT Live! (Subscription may apply.)

With ESCORT Live, you and your fellow drivers will instantly communicate all radar/laser encounters automatically, providing the most up-to-date and accurate protection on the road. Imagine millions of other drivers helping you Drive Smarter™!

**ESCORT Live Features** *(Enabled only while running the ESCORT Live app)*

- **Multi-view interactive display**, allowing you to manage alerts and detector settings
- Access to our exclusive **real-time ticket protection network**, which warns you of upcoming alerts received by other users in the area
- Access to our **DEFENDER® Database**, which warns you of verified speed traps, speed cameras, and red light cameras
- Our most popular **GPS-powered features**, including speed-limit data for over-speed alerts, live traffic data for your current location, and TrueLock™ to help eliminate false alerts. You can also mark locations for future reference.

We recommend you read this manual in detail to get the most out of your detector’s performance and features.

Please drive safely.
# Table of Contents

- Setting Up SmartRadar 4
- Connections and Controls 4
- Features 5
- Settings and Preferences 9
- Specifications 14
- Understanding Your Detector 15
- Troubleshooting 18
- FCC Compliance Notice 20
- Software Updates 20
- Parts and Accessories 21
- Warranty 22
- Service 22
Setting Up SmartRadar

What’s Included
- Radar/laser receiver with built-in Bluetooth wireless technology
- 2 receiver mounting brackets (suction cup and adhesive mount)
- Mini display controller and mounting bracket
- 2 power connection kits (for rearview mirror or fuse panel connection)
- Zip ties (for securing any loose/dangling wires)
- Quick Reference Guide
- User Manual (on disc)

Registration and Installation
For detailed registration and installation information, see your SmartRadar Quick Reference Guide.

ESCORT Live!
For details on pairing SmartRadar to your iPhone and downloading ESCORT Live, see your SmartRadar Quick Reference Guide.

Connections and Controls

Receiver Unit
For an overview of receiver unit connections and controls, see your SmartRadar Quick Reference Guide.

Mini Display Controller

Power Button
Press to power on or off.

Volume/Mute Button (V-MUTE)
Press and hold to set volume for alerts. Press and release to mute an alert in progress. When connected to ESCORT Live, press three times during an alert to lock out or unlock the alert.

Brightness Button (BRT)
Display brightness adjusts automatically. Press BRT to set a fixed brightness or to select Dark mode.

Matrix Display
Shows current radar sensitivity mode. During an alert, shows band and signal strength or actual radar frequency.

Preferences
Press and hold both BRT and SENS to enter Preferences. Then, easily review or change your settings, pressing BRT to scroll through preference categories and SENS to select an option within the category.

Sensitivity Button (SENS)
Toggles between radar sensitivity modes: Highway, Auto, and Auto No X. ESCORT recommends the Auto mode.
Features

Power-On Indication
Once the start-up sequence is complete, the display will show your current radar sensitivity mode. If you prefer, you can select alternate power-on displays. See the Settings and Preferences section for details.

Volume/Mute
To adjust SmartRadar to your preferred audio level for alerts, simply press and hold the V-MUTE button on the mini display controller. The audio will increase/decrease while it is depressed. Once you reach the desired audio level, simply release the button. SmartRadar will retain this setting in its memory, even if the system is turned off.

The V-MUTE button can also be used for muting the audio during a single alert. Simply press the button during the alert. Once the radar encounter has passed, the mute will disengage, and the audio will return to your preset level.

AutoMute
Your SmartRadar device includes ESCORT’s patented AutoMute feature. After SmartRadar alerts you to a radar encounter at your selected volume level, it automatically reduces the volume more than 50%. This keeps you informed without the annoyance of a continuous full-volume alert. If you prefer, you can turn the AutoMute feature off. See the Settings and Preferences section for details.

SmartMute
If AutoMute has already reduced the volume for one alert and a higher-priority band is detected, SmartRadar will sound an alert at your set volume for the second band before adjusting the volume back down to the AutoMute level.

Display Brightness
The mini display controller’s brightness is automatically adjusted to suit ambient lighting conditions in your car. (The light sensor is located inside the controller, so the display may dim momentarily when you access the buttons.) If you prefer, you can press the BRT button to set a fixed brightness level:

- BRT AUTO: Automatically adjusts brightness (factory setting)
- BRT DARK: Dark mode
- BRT MIN: Minimum brightness
- BRT MED: Medium brightness
- BRT MAX: Maximum brightness

*Note: If you select Dark mode, the mini display controller will not provide any indication that it is on. Therefore, only audible alerts will notify you of detected signals.*

Radar Sensitivity
The SENS button allows you to select your preferred radar sensitivity: Highway, Auto, or Auto No X. In general, ESCORT recommends Auto for everyday driving.

*Highway*
In this setting, SmartRadar will detect all radar signals on all bands at maximum range.
Auto
In this setting, SmartRadar will continuously analyze all incoming signals and intelligently adjust the sensitivity circuits, providing long-range warning with minimal false alarms.

Auto No X
Auto No X works the same as Auto mode; however, X-band is completely turned off.

⚠️ Warning: Do not use SmartRadar in Auto No X unless you are absolutely certain that there are no traffic radar guns using X-band in your area.

Alert Tones
SmartRadar’s factory default for alert tones is Mild mode, which offers softer, simpler alert tones that are less obtrusive to the driving experience:

- X-band, K-band, Ka-band, and Pop = Doorbell chime
  - Low signal strength = Double chime
  - High signal strength = Triple chime
  - If alert remains in area more than 15 seconds = Single chime (as a reminder)
- Laser = Solid brap tone (Since laser signals are a possible threat no matter how weak, SmartRadar alerts you to all laser signals with a full laser alert.)

If you prefer, you can change your alert tone settings to the ESCORT Classic mode, in which SmartRadar uses a Geiger counter-type sound to indicate the signal strength and type of radar signal being encountered. When you encounter radar, a distinct audible alert will sound and will increase as the signal gets stronger. This allows you to judge the distance from the signal source without taking your eyes off of the road. Each band has a distinct tone for easy identification:

- X-band = beep tone
- K-band = brap tone
- Ka-band = double-brap tone
- Laser = solid brap tone
- Pop = solid brap tone

See the Settings and Preferences section for details on switching your alert tones.

Voice Alerts
SmartRadar provides digital voice announcements for alerts and selection feedback. If you prefer, you can turn off the voice feature. See the Settings and Preferences section for details.

Signal-Strength Meter
The matrix display consists of 280 individual LEDs to provide an intuitive ultra-bright display of signal strength and text messages. When it detects radar, it displays the band of the radar (X, K, or Ka) and a precise bar graph of the signal’s strength.

ExpertMeter
ESCORT’s exclusive ExpertMeter option is an advanced display for experienced detector users. Please use SmartRadar for a few weeks to get fully familiar with its other features before using ExpertMeter.
To use the ExpertMeter instead of the standard bar graph meter, you must select it (MeterEXP) in Preferences.

ExpertMeter simultaneously tracks up to eight radar signals: two Ka-band, two K-band, and four X-band signals. The ExpertMeter is actually a miniature spectrum analyzer. It shows what band each signal is, its relative frequency within the band, and its signal strength. ExpertMeter can help you spot a change in your normal driving environment (e.g., a traffic radar unit being operated in an area where there are normally other signals present).

KA || K || X |||
Above is the ExpertMeter display if SmartRadar was detecting two strong Ka-band, two strong K-band, and four strong X-band signals.

As you can see, there are vertical lines after each band designator. Each line shows a signal being detected. The height of each line shows the relative signal strength. On very weak signals, there will not be a vertical line at all. The position of the line shows the relative frequency of the signal within the band.

The band designators (X, K, Ka) will stay on the display for a few seconds after the signal has passed. This allows you to see what the unit detected, even on very brief signals. However, the vertical lines representing individual signals constantly change (several times a second) to give you a continuous view of the signal strength of all radar signals present.

Note: If you use ExpertMeter, the brief signal shown in the power-on sequence when you turn on your SmartRadar device will also be in ExpertMeter: an “X” with a single vertical line.

SpecDisplay
The SpecDisplay option is also designed for the advanced detector user. In this mode, it will display the actual numeric radar frequency being received. To use SpecDisplay instead of the standard bar graph meter, you must select it (MeterSPC) in Preferences.

K 24.150
Display shows a K-band signal at 24.150 GhZ.

Ka 34.700
Display shows a Ka-band signal at 34.700 GhZ.

X 10.525
Display shows an X-band signal at 10.525 GhZ.

Note: Even long-time detector users will require a significant amount of time to get familiar with this new level of information.

SHIFTER ZR4 Laser-Shifting System (optional, sold separately)
Our optional SHIFTER ZR4 laser-shifting system is the most advanced defense against targeting laser guns. It includes three (two front, one rear) highly sensitive laser transceivers that detect laser signals and transmit back a pulsed signal to “shift” or confuse the targeting laser gun.
To avoid undue attention sometimes caused by laser guns providing “jamming” codes to the officer, simply press the V-MUTE button on the mini display controller twice to manually shut off the laser transceivers once you have corrected your speed. The transceivers will refrain from shifting for approximately 60 seconds, giving you time to pass the speed trap.

To turn the laser shifters off, or to switch to Receive Only mode, simply select the option in your SmartRadar Preferences.

**ESCORT Live iPhone Application**

SmartRadar is fully compatible with the new ESCORT Live iPhone application. For comprehensive information on ESCORT Live’s features and functions, visit www.escortinc.com and download the ESCORT Live for iPhone User Manual. Available on the App Store.
Settings and Preferences

SmartRadar offers seven user-selectable options so you can customize it to your preferences.

To access Preferences, press and hold both the BRT and SENS buttons on the mini display controller for two seconds. SmartRadar will beep and display “Prefs,” indicating it is in program mode. (Display brightness will automatically change to maximum during this process.)

Once the unit is in program mode, the BRT button is used to review the preference categories, and the SENS button is used to change the individual settings within the selected option. You can either tap the buttons to switch from item to item or hold to scroll through all the categories/options.

To exit Preferences, simply wait eight seconds without pressing a button. The unit will display “Complete,” accompanied by a voice confirmation, and return to normal operation.

Example
Here’s how you would turn the AutoMute feature off:

1. Enter Preferences by pressing and holding both the BRT and SENS buttons for two seconds. SmartRadar will beep and display “Prefs.”
2. Press and hold the BRT button. SmartRadar will scroll through the categories, starting with Pilot Light (Pilot), then Power-On Sequence (PwrOn), Signal-Strength Meter (Meter), and AutoMute (aMute).
3. Release the BRT button when the display shows “aMute.” Since the factory setting is for AutoMute to be on, SmartRadar will display “aMute ON.” (If you accidentally don’t release the BRT button in time, and it goes to the next category, simply hold the BRT button down again until “aMute” is displayed.)
4. Press the SENS button to change from “aMute ON” to “aMute OFF.”
5. To complete this change, simply wait eight seconds without pressing a button. The unit will display “Complete,” accompanied by a voice confirmation. This is an indication that SmartRadar has returned to its normal operation.
OVERVIEW OF PREFERENCES
* = Factory default

To reset SmartRadar to its original factory settings, press and hold the BRT and SENS buttons on the mini display controller while turning the power on. The display will provide a “Reset” message, accompanied by an audible tone, acknowledging the reset.

**Pilot Light**
(Power-on indication)
Pilot HWY *Radar sensitivity, full word (Highway, Auto, or AutoNoX)
Pilot H Radar sensitivity, letter only (H, A, or ANX)
Pilot H.> Radar sensitivity, letter with scanning dot
Pilot V Vehicle voltage

**Power-On Sequence**
PwrOn FST *Fast power-on sequence (one beep)
PwrOn STD Standard power-on sequence

**Signal-Strength Meter**
Meter STD *Standard bar-graph display
Meter EXP ExpertMeter display (multiple signals)
Meter SPC SpecDisplay (numeric frequency)

**AutoMute**
aMute ON *AutoMute on
aMute OFF AutoMute off

**Voice**
Voice ON *Voice alerts on
Voice OFF Voice alerts off

**Bands**
Bands DEF *Default settings
Bands MOD One or more bands have been modified

*Turn selected bands on and off by pressing and holding the V-MUTE button.*

<table>
<thead>
<tr>
<th>Band</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>*ON / OFF</td>
</tr>
<tr>
<td>K</td>
<td>*ON / OFF</td>
</tr>
<tr>
<td>Ka</td>
<td>*ON / OFF</td>
</tr>
<tr>
<td>POP</td>
<td>ON / *OFF</td>
</tr>
<tr>
<td>LSR</td>
<td>*ON / OFF</td>
</tr>
<tr>
<td>TSR</td>
<td>*SHFT / RECV / OFF (when connected to SHIFTER ZR4 Laser-Shifting System)</td>
</tr>
<tr>
<td></td>
<td>*ON / OFF</td>
</tr>
</tbody>
</table>

**Alert Tones**
Tones MILD *Mild doorbell chime alert tones
Tones CLASSIC Standard ESCORT alert tones
PREFERENCES IN DETAIL
* = Factory default

Pilot Light (power-on indication)

*Pilot HWY
SmartRadar displays a full description of your radar sensitivity: “Highway,” “Auto” or “AutoNoX.”

Pilot H
SmartRadar displays “H” for Highway, “A” for Auto, and “ANX” for Auto No X.

Pilot H.>
SmartRadar displays “H” for Highway, “A” for Auto, and “ANX” for Auto No X. In addition, a single
dot continuously scrolls across the display.

Pilot V
SmartRadar displays the vehicle’s battery voltage.

Note: If the vehicle’s voltage drops below 10.5 volts, a low-voltage warning will be displayed,
followed by an audible alert. A high-voltage warning is also given when the vehicle’s voltage goes
above 16.5 volts.

Note: When operating in Dark mode, the display will be completely dark.

Power-On Sequence

*PwrOnFST
SmartRadar’s power-on sequence is shortened to a single beep. If any bands have been disabled, or
if any communication errors occur between the components, the appropriate messages will be
displayed at this time.

PwrOnSTD
Each time you turn on SmartRadar, it will display the product name, the bands being detected, and
the selected meter display. If any communication errors occur between the components, the
appropriate messages will be displayed at this time.

Signal-Strength Meter

*Meter STD
The standard meter displays the band, along with a bar graph indicating the signal strength.

Meter EXP
ExpertMeter simultaneously tracks up to two Ka-band, two K-band, and four X-band signals, with
accompanying bar graphs indicating the signal strengths.

Meter SPC
SpecDisplay shows the actual numeric frequency of the radar signal being received.
AutoMute

*aMute ON*
Audio alerts are initially set to the volume level you selected; however, after a few seconds, the audio level is automatically reduced to keep you informed but not annoyed.

*aMute OFF*
Audio alerts remain at the volume you set for the duration of the encounter.

Voice

*Voice ON*
All alerts and instructions are communicated using a voice announcement.

*Voice OFF*
Only tones are used for alerts.

Alert Tones

*Tones MILD*
This setting offers softer, simpler alert tones that are less obtrusive to the driving experience:
- X-band, K-band, Ka-band, and Pop = Doorbell chime
  - Low signal strength = Double chime
  - High signal strength = Triple chime
  - If alert remains in area more than 15 seconds = Single chime (as a reminder)
- Laser = Solid brap tone (Since laser signals are a possible threat no matter how weak, SmartRadar alerts you to all laser signals with a full laser alert.)

*Tones CLASSIC*
This setting uses the standard ESCORT radar alert tones:
- X-band = beep tone
- K-band = raspy brap tone
- Ka-band = double brap tone
- Pop = solid brap tone
- Laser = solid brap tone

Bands

*Bands DFT*
In this setting, the factory default settings for North America radar and laser are monitored. It is highly recommended that you use your SmartRadar device in this mode.

*Bands MOD*
If the bands are changed from the factory default settings, SmartRadar will warn you with an audible alert and associated text message that one or more bands have been turned off (e.g., “X-band OFF”). This warning is displayed during the start-up sequence.
Caution: Only modify bands if you are absolutely certain that there are no traffic radar guns using that specific band in your area.

SHIFTER ZR4 Laser-Shifting System (optional, sold separately)

*LSR SHFT
Laser transceivers detect laser signals and transmit back a pulsed signal to “shift” or confuse the targeting laser gun. To avoid undue attention sometimes caused by laser guns providing “jamming” codes to the officer, once you correct your speed, you can press the V-MUTE button on the mini display controller twice to temporarily switch to Receive Only mode and shut off the laser transceivers. The transceivers will refrain from shifting for approximately 60 seconds, giving you time to pass the speed trap.

LSR REC
In this mode, the transceivers will still detect laser, but they will refrain from shifting. This mode is helpful when you want to avoid undue attention sometimes caused by laser guns providing “jamming” codes to the officer or in states where shifters are illegal.

LSR OFF
Laser transceivers are off.
**Specifications**

**Operating Bands**
X-Band: 10.525 GHz ± 25 MHz  
K-Band: 24.150 GHz ± 100 MHz  
Ka-Band: 34.700 GHz ± 1300 MHz  
Laser: 900nm, 33 MHz Bandwidth

**Radar Receiver/Detector Type**
Superheterodyne, GaAs FET VCO  
Scanning Frequency Discriminator  
Digital Signal Processing  
4-Bit High-Resolution A-to-D Converter

**Laser Detection**
Quantum Limited Video Receiver  
Multiple Laser Sensor Diodes (2F)

**Display Type**
HP AlGaAs 280 LED Matrix/Text  
Bar Graph, ExpertMeter, or SpecDisplay  
Automatic Brightness Control, Plus Four Levels of Fixed Brightness, Including Full Dark

**Power Requirement**
12VDC, Negative Ground

**Programmable Features**
Display Brightness  
Power-On Indication  
Power-On Sequence  
Signal-Strength Meter  
AutoMute  
Voice  
Alert Tones  
Bands

**Sensitivity Control**
Highway, Auto, and Auto No X  
Auto Calibration Circuitry

**Dimensions**
Mini Display Controller: 1.00 x 2.25 x 0.50 inches  
Receiver Unit: 3.20 x 1.20 x 3.50 inches
Understanding Your Detector

Interpreting Alerts
Although SmartRadar has a comprehensive warning system, only experience will teach you what to expect from your detector and how to interpret what it tells you. The specific type of radar being used, the type of transmission (continuous or instant-on), and the location of the radar source affect the alerts you receive.

The following examples will give you an introduction to understanding your detector’s warning system for radar and laser alerts.

<table>
<thead>
<tr>
<th>Alert</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detector begins to sound slowly; rate of alert increases until it becomes a solid tone. The signal meter ramps accordingly.</td>
<td>You are approaching a continuous radar source aimed in your direction.</td>
</tr>
<tr>
<td>Detector emits short alerts for a few seconds, then falls silent, only to briefly alert and fall silent again.</td>
<td>An instant-on radar source is being used ahead of you and out of your view.</td>
</tr>
<tr>
<td>Detector suddenly sounds a continuous tone for the appropriate band received.</td>
<td>An instant-on radar or laser source is being used nearby. This kind of alert requires immediate attention.</td>
</tr>
<tr>
<td>Detector sends a brief laser alert.</td>
<td>Laser is being used in the area. Because laser is inherently difficult to detect, any laser alert may indicate a source very close by.</td>
</tr>
<tr>
<td>Detector receives weak signals. Signals may be a little stronger as you pass large, roadside objects. Signals increase in frequency.</td>
<td>A moving patrol car with continuous radar is overtaking you from behind. Because these signals are reflected (reflections are increased by large objects), they may or may not eventually melt into a solid point, even when the patrol car is directly behind you.</td>
</tr>
<tr>
<td>Detector alerts slowly for a while, then abruptly jumps to a strong alert.</td>
<td>You are approaching a radar unit concealed by a hill or an obstructed curve.</td>
</tr>
<tr>
<td>Detector alerts intermittently. Rate and strength of alerts may be consistent or vary wildly.</td>
<td>A patrol car is traveling in front of you with a radar source aimed forward. Because signals are sometimes reflected off of large objects and sometimes not, the alerts may seem inconsistent.</td>
</tr>
<tr>
<td>Detector alerts intermittently; rate and strength of signal increases with each alert.</td>
<td>A patrol car is approaching from the other direction, sampling traffic with instant-on radar. Such alerts should be taken seriously.</td>
</tr>
<tr>
<td>Detector gives an X-band alert intermittently.</td>
<td>You are driving through an area populated with radar motion sensors (e.g., door openers or burglar alarms). Since these transmitters are usually contained inside buildings or aimed toward or away from you, they are typically not as strong or lasting as a real radar encounter.</td>
</tr>
</tbody>
</table>
Caution: Overconfidence in an unfamiliar area can be dangerous. Likewise, if an alert in a commonly traveled area is suddenly stronger or on a different band than usual, speed radar may be set up nearby.

How Radar Works
Traffic radar, which consists of microwaves, travels in straight lines and is easily reflected by objects such as cars, trucks, and even guardrails and overpasses. Radar works by directing its microwave beam down the road. As your vehicle travels into range, the microwave beam bounces off your car, and the radar antenna looks for the reflections. Using the Doppler principle, the radar equipment then calculates your speed by comparing the frequency of the reflection of your car to the original frequency of the beam sent out.

Traffic radar has limitations, the most significant of these being that it typically can monitor only one target at a time. If there is more than one vehicle within range, it is up to the radar operator to decide which target is producing the strongest reflection. Since the strength of the reflection is affected by both the size of the vehicle and its proximity to the antenna, it is difficult for the radar operator to determine if the signal is from a sports car nearby or a semi truck several hundred feet away.

Radar range also depends on the power of the radar equipment itself. The strength of the radar unit’s beam diminishes with distance. The farther the radar has to travel, the less energy it has for speed detection.

Because intrusion alarms and motion sensors often operate on the same frequency as X- and K-band radar, your detector will occasionally receive non-police radar signals. Since these X-band transmitters are usually contained inside of a building or aimed toward the ground, they will generally produce much weaker readings than will a true radar encounter. As you become familiar with the sources of these pseudo alarms in your daily driving, they will serve as confirmation that the device’s radar detection abilities are fully operational.

How Pop Works
Pop mode is a relatively new feature for radar gun manufacturers. It works by transmitting an extremely short burst, within the allocated band, to identify speeding vehicles in traffic. Once the target is identified, or “popped,” the gun is then turned to its normal operating mode to provide a vehicle tracking history (required by law).

Note: According to radar gun manufacturers, tickets should not be issued in pop mode.

How Laser Works
Laser speed detection is actually light detection and ranging (LIDAR). LIDAR guns project a beam of invisible infrared light. The signal is a series of very short infrared-light energy pulses that move in a straight line, reflecting off your car and returning to the gun. LIDAR uses these light pulses to measure the distance to a vehicle. Speed is then calculated by measuring how quickly these pulses are reflected, given the known speed of light.

LIDAR is a newer technology whose use is not as widespread as conventional radar; therefore, you may not encounter it on a daily basis. And unlike radar detection, LIDAR is not prone to false alarms. Because LIDAR transmits a much narrower beam than does radar, it is much more accurate in its ability to
distinguish between targets and is also more difficult to detect. As a result, even the briefest laser (LIDAR) alert should be taken seriously.

There are limitations to LIDAR equipment. LIDAR is much more sensitive to weather conditions than radar, and a LIDAR gun’s range will be decreased by anything affecting visibility, such as rain, fog, or smoke. A LIDAR gun cannot operate through glass, and it must be stationary in order to get an accurate reading. Because LIDAR must have a clear line of sight and is subject to cosine error (an inaccuracy that increases as the angle between the gun and the vehicle increases), police typically use LIDAR equipment parallel to the road or from an overpass. LIDAR can be used day or night.

**How TSR Works**

SmartRadar includes a new boost in anti-falsing software to eliminate excessive alerts from erroneous X- and K-band sources, such as traffic flow-monitoring systems. These systems, which are becoming more widely used in several countries, generate K-band signals to measure the flow of traffic on a given road. Unfortunately, most detectors see this as a real threat and will alert you to it unnecessarily. Our new proprietary software—TSR—intelligently sorts, ranks, and rejects these types of false alarms automatically. The result is ultimate protection without excessive false alarms.
# Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Explanation(s)/Solution(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detector beeps briefly at the same location every day, but no radar source is in sight.</td>
<td>An X-band motion sensor or intrusion alarm is located within range of your route.</td>
</tr>
<tr>
<td>Detector did not alert when a police car was in view.</td>
<td>VASCAR (Visual Average Speed Computer and Recorder), a stopwatch method of speed detection, may be in use. Officer may not have radar or laser unit turned on.</td>
</tr>
<tr>
<td>Detector’s audible alerts become softer after the first few alerts.</td>
<td>Detector is in AutoMute mode. See “AutoMute” in the Settings and Preferences section for details.</td>
</tr>
<tr>
<td>The power-on sequence reoccurs while you are driving.</td>
<td>A loose power connection can cause SmartRadar to be briefly disconnected and will retrigger the power-on sequence. Check all connections.</td>
</tr>
<tr>
<td>You wish to restore the factory default settings for Preferences.</td>
<td>You can return your SmartRadar Preferences to the factory default settings by holding down the BRT and SENS buttons while you turn SmartRadar on.</td>
</tr>
<tr>
<td>The device will not turn on.</td>
<td>Check that vehicle ignition is on. Check all connections.</td>
</tr>
<tr>
<td>The display feels warm.</td>
<td>It is normal for the device to feel warm.</td>
</tr>
</tbody>
</table>

## Explanation of Displays

<table>
<thead>
<tr>
<th>Display reads ...</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pilot HWY</strong></td>
<td>One of the many options in your SmartRadar Preferences <em>(pages 9–13)</em></td>
</tr>
<tr>
<td>**KA</td>
<td></td>
</tr>
<tr>
<td><strong>Reset Power</strong></td>
<td>SmartRadar needs to cycle power. Unplug it from power and restart.</td>
</tr>
<tr>
<td>Display reads ...</td>
<td>Explanation</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>The display is blank.</td>
<td>SmartRadar is in Dark mode. Press the BRT button to change the brightness <em>(page 5)</em></td>
</tr>
</tbody>
</table>

**Bluetooth Pairing Tips**

If you’re having trouble with your Bluetooth connection, try any of the following suggestions:

- Turn off your detector, wait 30 seconds, then turn it back on. On your iPhone, turn Bluetooth off and then on again.

- In the Bluetooth Settings menu of your iPhone, tap the arrow icon next to SmartRadar, then tap **Forget this Device**. Unplug the power cord from SmartRadar, wait 10 seconds, and plug it back in. SmartRadar should appear again under Devices in your Bluetooth Settings. Tap **SmartRadar** to reinitialize pairing.
FCC Compliance Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate this equipment.

This device complies with FCC’s RF radiation exposure limits set forth for general population (uncontrolled exposure). This device must not be collocated or operating in conjunction with any other antenna or transmitter.

Software Updates

You can easily update the operating software for your detector by visiting our Web site. To access updates, you must first register your SmartRadar device at www.escortinc.com. Once registered, you will receive e-mail notifications that updates are now available.

To update your software, follow these simple steps:

1. Connect the mini USB end of a USB data cable to the SmartRadar receiver.
2. Plug the standard USB connector end of the cable into your computer.
3. Log on to www.escortinc.com/download.
4. Follow the instructions online.
Parts and Accessories

Replacement parts are available through your dealer.

The following optional accessories are available for use with SmartRadar:

*Mini Display Controller with 12-ft Cord*......*Call for pricing*

*Standard Coiled SmartCord*...........................$29.95
Available in red or blue

*Direct-Wire SmartCord*.................................$29.95

*Zippered Travel Case*.................................$14.95

*SHIFTER ZR4™*...........................................$249.95
Warranty

ESCORT One-Year Limited Warranty
ESCORT warrants your SmartRadar device against all defects in materials and workmanship for a period of one (1) year from the date of the original purchase, subject to the following terms and conditions:

- The sole responsibility of ESCORT under this warranty is limited to either repair or, at the option of ESCORT, replacement of SmartRadar. There are no expressed or implied warranties, including those of fitness for a particular purpose or merchantability, which extend beyond the face hereof. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.
- This warranty does not cover installation, removal, or reinstallation charges.
- ESCORT is not liable for any incidental or consequential damages arising from the use, misuse, installation, or mounting of SmartRadar. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific rights. You may have other legal rights, which vary from state to state. This warranty does not apply if the serial number on the SmartRadar housing has been removed or if your SmartRadar device has been subjected to physical abuse, improper installation, or modification.

Service

To obtain service, contact ESCORT (800-543-1608) to obtain a Return Authorization Number. Properly pack your product and include: your name, complete return address, written description of the problem with your product, daytime telephone number, and a copy of the original purchase receipt. Label the outside of the package clearly with your Return Authorization Number. Ship the product prepaid (insured, for your protection) to: ESCORT Inc., 5440 West Chester Road, West Chester, OH 45069.

ESCORT Extended Service Plan
ESCORT offers an optional extended service plan. Contact ESCORT Sales for details at 800-433-3487.
ESCORT Inc.
5440 West Chester Road
West Chester, OH 45069

Sales/Service 800.543.1608
www.escortinc.com

©2012 ESCORT Inc. ESCORT®, ESCORT Live!™, SmartRadar™, SpecDisplay™, and TrueLock™ are trademarks of ESCORT Inc.

iPhone is a trademark of Apple Inc., registered in the U.S. and other countries.

“Made for iPhone” means that an electronic accessory has been designed to connect specifically to iPhone and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPhone may affect wireless performance.

Features, specifications, and prices subject to change without notice

Made for
iPhone 4S, iPhone 4, iPhone 3GS

Premium automotive accessories from ESCORT