Designed and manufactured in the USA by Escort, Inc.

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**ESCORT Live Compatible** 

App Store

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CC NOTE

Modifications not expressly approved by the manufacturer could void the user's FCC granted authority to operate the equipment.

#### FCC ID:QKLM4R2. CONTAINS FCC ID:QKLBT2

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.

# Intelligent Long Range Detection System





Excellent Radar/Laser Detection Range



ESCORT Live App Provides Crowd Sourced Alerts



GPS Intelligence Rejects False Alerts

Owner's Manual

# Installed. Intelligent.

Your new ESCORT iX Ci is one of the most advanced custom-installed radar and laser defense systems ever designed.

ESCORT iX Ci delivers long-range warning on all laser and radar bands including X, K, and Superwide Ka. In addition, ESCORT iX Ci contains the following revolutionary features:

- Updatable IVT Filter automatically reduces false alerts from moving In-Vehicle Technology systems and adaptive cruise control
- GPS location-based intelligence automatically locks out false alerts and allows you to mark locations for future reference
- · Access to ESCORT's DEFENDER Database, which warns you of verified speed traps, speed cameras and red light cameras
- Built-In Bluetooth technology gives you access to ESCORT's award-winning real-time ticket protection app, ESCORT Live!
- Optional Laser ShifterMax sensors deliver the ultimate defense against all LIDAR laser guns, including new variable pulse rate guns.

Please drive safely.

# **Important Notes**

# Warning

Never, under any circumstances, look at the Laser ShifterMax sensors while they are powered on and operating. Do not view with optical instruments (like magnifiers).

# **CLASS 1 LASER PRODUCT**

This product complies with IEC 60825-1:2007-03 Ed. 2.0

This product complies with 21CFR Subchapter J Parts 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50 dated June 24, 2007.

#### Please Note

This product may be limited or prohibited in some jurisdictions. Check applicable laws before using.

FCC Note: Modifications not expressly approved by the manufacturer could void the user's FCC granted authority to operate the equipment.

# **Table of Contents**

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Introduction Inside Front Cover		<ul> <li>Marker Enables</li> </ul>	11
What's in the Box	2	Marking Locations	11
Registration and ESCORT Live	2-3	<ul> <li>Clearing the Database</li> </ul>	11
Controls and Features	4-5	Restore Factory Settings	11
Settings & Preferences	6-11	<ul> <li>Serial Number and Software Version</li> </ul>	11
Pilot Mode	8	Software Updates	11
GPS	8	<b>Understanding Your Detector</b>	12-15
Speed Display	8	<ul> <li>Interpreting Alerts</li> </ul>	12
AutoLearn	8	• How Radar Works	14
Signal Strength Meter	9	How IVT Filter works	14
- Meter STD (Standard meter)	9	• How "POP" Works	15
- Meter EXP (Expert meter)	9	• How Laser Works	15
- Meter SPC (Spec Display meter	r) 9	• How GPS Works	15
AutoMute	10	• TSR Signal Ranking Software	15
AutoPower	10	Service	16-19
Units	10	Troubleshooting	16
Voice	10	Service Procedure	17
Band Enables	10	• Warranty	18
Shifters	10	Registration	19

# What's in the Box

## Front Radar Receiver



**GPS Antenna** 



# **Display Module**



# **Control Module**



# Interface



Not shown: **Concealed Alert Indicator** Radio Mute Cable **Download Data Cable Documentation & Mounting Hardware** 

# Registration

Follow these steps to register your ESCORT iX Ci. You will need the detector's serial number to complete the registration. To view the serial number, hold down the MRK and SEN buttons while powering on the detector.

- 1 Visit www.EscortRadar.com and click Product Registration.
- 2 Click the "Registration for all devices" link.
- **3** Follow the onscreen instructions to register your device.

Be sure to write down the username and password you create, as you will need this information to access the ESCORT Live ticket protection app. (You will also receive an e-mail with this information. once you have registered your device.)

# **System Expansion**

The following optional components are available separately, adding 360° radar detection and laser shifting capabilities to ESCORT iX Ci.

# Rear Radar Receiver



ShifterMax Pack Plus



2



# **ESCORT Live**

#### For iPhone:

- 1 Ensure ESCORT iX Ci's power is ON.
- 2 Open the App Store on your iPhone and search for **ESCORT** Live Radar.



- 3 Follow the onscreen instructions to download **ESCORT Live Radar** and then open the app.
- 4 When prompted, enter the username and password you created when registering your product at EscortRadar.com.
- **5** Press the Settings button then select Devices.
- 6 You should see iX Ci listed with Not Connected underneath. Press the iX Ci device entry and when prompted select Pair.



# For Android based smartphones:

- 1 Ensure ESCORT iX Ci power is ON.
- 2 On your smartphone go to Bluetooth® Settings and make sure that Bluetooth® is ON.
- 3 Press Scan for devices and wait for the device list to populate, **iX Ci** should appear under Available devices.
- 4 Press the iX Ci device entry.
- 5 Open Google Play on your smartphone and search for Escort Live Radar.
- **6** Follow the onscreen instructions to download Escort Live Radar and then open the app.



- 7 When prompted, enter the username and password you created when registering your product at EscortRadar.com.
- 8 Open the app, walk through the tutorial, and you're ready to hit the road!

# **Controls & Features**

# Sensitivity (SEN)

The SFN button selects the FSCORT iX Ci's radar. sensitivity. The choices are:

Highway – Full sensitivity

Auto – Reduces X and K band sensitivity based on the speed of the vehicle

AutoNoX - Same as Auto but without X band detection

AutoLoK - Same as Auto but with lowered K band sensitivity at all times

# Power (PWR)

Press and hold to manually turn ESCORT iX Ci on or off. If installed properly, the system will turn on or off automatically with the vehicle's ignition.

# Volume Button (VOL)

Press and hold the VOL button to adjust the alert volume level. The audio will ramp up or down accompanied by a bar-graph on the display. To change the direction of the audio ramping simply release the VOL button and quickly press and hold it again.

NOTE: Your preferred audio level will be stored in memory, even after the detector is turned off.

#### **Alert Tones**

The alert tones 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

# Control Module



# Mute Button (Mute)

The Mute Button has several functions depending on the scenario:

- Press to mute the audio for a specific alert.
- Press three times to lock out a false alert.
- Press twice while receiving a grey locked-out alert to unlock it.
- Press twice while Laser Shifting to put the optional sensors into receive-only mode for one minute. Laser Shifting must first be enabled, see Settings & Preferences.
- When connected to ESCORT Live press and hold mute button to manually report to other users a verified X or K-band alert, or a police officer observing traffic.

# Mark Location Button (MRK)

The "MRK" button allows you to mark a specific location and label it for future reference. Once marked, the ESCORT iX Ci will provide an alert before you reach this area again. This can be extremely useful when there are known speed traps or safety cameras in a particular location.

# **Display Brightness (BRT)**

The "BRT" button selects your preferred brightness level. The factory default setting is Auto (automatic). which will adjust the display brightness based on the ambient light in the vehicle.

# **Concealed Alert Indicator**

- Multi-color indicator is:
  - Solid Green when power is ON
  - Blinking red when receiving a front alert
  - · Blinking blue when receiving a rear alert (only with optional rear radar receiver)

# **Display Module**



#### Pilot/Alert Area

5

The display will show the speed limit (speed limit is only available when connected to the ESCORT Live app) followed by a letter for the selected sensitivity mode, followed by your current speed. If you prefer, you can choose other Pilot indications. During an alert, the display will indicate the radar band or laser, and a precise bar-graph of the signal strength.

Note: In Dark Mode the display will not light during an alert.

# **GPS Signal Indicator**

The GPS icon indicates reception of GPS satellite signal and will rotate when a false alert is being rejected.

Note: The GPS Signal Indicator will not be displayed when GPS is disabled.

# **Settings & Preferences – Overview**

## **How To Use Preferences**

To access the Preferences menu, press and hold both the SEN and MUTE buttons. ESCORT iX Ci will display "Prefs," indicating that it is in program mode.

Once in Preferences mode, the SEN button is used to review the preference categories, and the Up and Down buttons are used to change the individual settings within the selected category.

To exit the Preferences menu, press the power button or simply wait a few seconds without pressing any button. A "Complete" message will display, confirming your selection(s).

Press SEN to go from one category to the next		Press Up or Down to change your setting within a category
Pilot Mode	PilotSPD*  PilotHWY Pilot H Pilot H>- Pilot V	Speed limit (when connected to ESCORT Live app), sensitivity mode, and vehicle speed Full word: Highway, Auto, AutoNoX, or AutoLoK Letter: H, A, ANX, ALK Letter with scanning bar Vehicle voltage
Speed Alert	sAirt ON* sAirt OFF	Speed Alert On Speed Alert Off
Cruise Alert	Cruse 20* OFF/20-160	Offers double-beep alert tone when traveling below specified speed (mph if Units ENG is selected, kph if Units MET is selected)
Meter Mode	Meter STD* Meter EXP Meter SPC	Standard Bar-graph Meter Mode Expert Meter Mode Spec Display Meter Mode
Alert Tones	TonesSTD* TonesSTD+ TonesMLD	Standard ESCORT alert tones Standard ESCORT alert tones for primary alert and double-beep for additional alerts Mild doorbell chime alert tones
AutoMute	aMute LOW/MED*/HI aMuteOFF	Automatically reduces audio to selected volume during alert AutoMute Off
AutoLearn	aLrn ON* aLrn OFF	AutoLearn On AutoPower Off
Units	Units ENG* Units MET	English Units Metric Units
Language	LangENG* LangSPA	English language for voice and text Spanish language for voice and text
Voice	Voice ON* VoiceOFF	Voice alerts on Voice alerts off
GPS Filter	GPS ON* GPS OFF	GPS-powered filtering is on GPS-powered filtering is off

AutoPower	aPwr OFF aPwr 1HR aPwr 2HR aPwr 4HR* aPwr 8HR	When installed to a switched power supply, powers off with the vehicle's ignition Powers off automatically after 1 hour Powers off automatically after 2 hours Powers off automatically after 4 hours Powers off automatically after 8 hours	
Band Enables	Bands DFT* Bands MOD	Factory Default Settings Factory Default Settings Modified	
Press MUTE to go from one category to the next		Press Up or Down to change your setting within a category	
X Band K Band Ka Band Ka POP Laser TSR RDR	X KSW KN1 KN3 KaSW KaN1 KaN3 KaN5 KaN7 KaN9 POP LSR TSR RDR	ON* or OFF ON* or OFF Freq: 24.050-24.250 GHz  NOTE: Turn off K band to select separate narrow segments of the band to turn on or off.  ON* or OFF Freq: 24.175 - 24.250 GHz ON* or OFF Freq: 34.00-36.000 GHz ON* or OFF Freq: 33.400-33.700 GHz NOTE: Turn off Ka band to select separate narrow segments of the band to turn on or off.  ON* or OFF Freq: 33.400-33.700 GHz ON* or OFF Freq: 33.90-34.200 GHz ON* or OFF Freq: 33.500-34.200 GHz ON* or OFF Freq: 35.600-35.400 GHz ON* or OFF Freq: 35.600-35.840 GHz ON* or OFF Freq: 35.600-35.840 GHz ON or OFF* ON or OFF ON* or OFF	
Shifters	ShftSHFT ShftRECV* Shft OFF	Laser Shifting On Laser Receive-only, shifting disabled Laser sensors disabled	
Marker Enables	Mark DFT* Mark MOD	Factory Default settings Factory Default Settings Modified	
Press MUTE to go from one category to the next	•	Press Up or Down to change your setting within a category	
Other Redlight Camera Redlight & Speed Camera Speed Camera Speed Trap Air Patrol	Other rLCam rLSpd spCam sTrap aPtrl	ON* or OFF ON or OFF ON or OFF	
Clear Locations	ClearMRK ClearLCK ClearDEF ClearFMT	Clear all user-marked locations. Press MUTE button to confirm Clear all lockouts. Press MUTE button to confirm Clear all DEFENDER Database data. Press MUTE button to confirm Clear DEFENDER Database, all markers, and all lockouts. Press MUTE button to confirm	

#### \*Default Setting

# Notes for Settings & Preferences

To view serial number and software revision press MRK and SEN while powering on detector.

To restore ESCORT IX Ci to its original factory settings, press and hold MRK and BRT while turning the power on. A **Restored** message will display, acknowledging the reset.

# **Settings & Preferences**

# Pilot (Power-on indication)

**Pilot SPD** (Vehicle speed)

In this setting, the ESCORT iX Ci will display the speed limit (only available when connected to the ESCORT Live app) followed by a letter for the selected sensitivity mode, followed by the vehicle's speed. (factory default)

# Pilot Highway (Full word)

In this setting, the ESCORT iX Ci will display "Highway", "Auto", "AutoNox", or "AutoLoK" as its power-on indication.

#### Pilot H (Letter)

In this setting, the ESCORT iX Ci will display "H" for Highway, "A" for Auto, "Anx" for Auto No X, and "Alk" for Auto Low K.

Pilot H>- (Letter with scrolling bar)
In this setting, the ESCORT iX Ci will display "H"
for Highway, "A" for Auto, "Anx" for Auto No X,
and "Alk" for Auto Low K, accompanied by a
scrolling bar.

# Pilot V (Vehicle voltage)

In this setting, the ESCORT iX Ci will display "H" for Highway, "A" for Auto, "Anx" for Auto No X, and

Note: When you are using the Dark mode, the display will not display anything. Only the controller will illuminate.

# **Speed Alert**

sAirt ON (Speed Alert is on)

In this setting, when an alert is received your vehicle speed is displayed for several seconds followed by the signal strength meter that you have selected. (factory default).

**sAirtOFF** (Speed Alert is off) In this setting, speed alert is off.

#### **Cruise Alert**

8

Cruse 20 (Cruise Alert set to 20)

While you are traveling below the specified Cruise Alert speed, all alerts will only sound a short double-beep. The alert will fully sound when you exceed the Cruise Alert speed (mph if Units ENG is selected, kph if Units MET is selected). The factory default setting is 20.

**CruseOFF** (Cruise Alert is off) In this setting, Cruise Alert is off.

# **Signal Strength Meter**

Meter STD (Standard meter)



The Standard meter mode provides band information and signal strength information of a single alert. When radar is detected, the band (X, K or Ka) and a bar graph of the signal's strength are displayed. When laser is detected, the display will simply read "Laser." If there are multiple alerts present, only the highest priority threat is displayed. Laser is the highest priority threat, followed by Ka, K, then X band radar. (factory default)



With the optional rear radar receiver connected, when a signal is detected a threat direction arrow will be displayed at the right of the display indicating the direction of the threat relative to you. An up arrow indicates the threat is ahead of you. A down arrow indicates the threat is behind you.

Meter EXP (ExpertMeter)



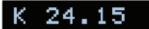
ESCORT's exclusive ExpertMeter option is also designed for the advanced detector user. In this mode, ESCORT iX Ci simultaneously tracks up to three radar signals. It shows each band along with a vertical bar graph of its signal strength. In the image above, a Ka band, K band and a X band are being detected. 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).

Meter EXP (ExpertMeter) continued



With the optional rear radar receiver connected, when a signal is detected a threat direction arrow will be displayed at the right of the display indicating the direction of the highest priority threat relative to you. In ExpertMeter mode, the highest priority threat is the leftmost signal displayed. An up arrow indicates the threat is ahead of you. A down arrow indicates the threat is behind you. In the image above, the Ka band threat is indicated as being behind you.

Meter SPC (Spec Display meter)



The SpecDisplay option is an advanced display for experienced detector users. In this mode, it will display the actual numeric radar frequency being received. Even long-time detector users will require some time to get familiar with this new level of information about detected signals.



With the optional rear radar receiver connected, when a signal is detected a threat direction arrow will be displayed at the right of the display indicating the direction of the threat relative to you. An up arrow indicates the threat is ahead of you. A down arrow indicates the threat is behind you.

# **Settings & Preferences**

#### **Alert Tones**

TonesSTD (Alert Tones set to Standard)

The factory default Standard alert tones 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

**TonesSTD+** (Alert Tones set to Standard Plus)
Features the Standard alert tones outlined above for the primary alert, plus double-beep tones for additional alerts.

TonesMLD (Alert Tones set to Mild)

- 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, laser alerts are always full strength.

#### **AutoMute**

# aMute LOW/MED\*/HI

Your ESCORT MAX Ci includes ESCORT's patented AutoMute feature. Once ESCORT MAX Ci alerts you to a radar encounter at your selected volume level, it automatically reduces the volume to the selected AutoMute level. This keeps you informed without the annoyance of a continuous full-volume alert.

**aMute OFF** (AutoMute is off) In this setting, AutoMute is off.

#### **AutoLearn**

aLrn ON (AutoLearn is on)

The AutoLearn feature analyzes radar signals by location and frequency over time. This allows ESCORT iX Ci to determine if a fixed location signal is a real threat or a false one. If it determines that the signal is an automatic door opener, motion sensor, etc., it automatically locks out this signal at this particular location. A "Stored" message will appear on the display when a signal has been automatically locked out. AutoLearn typically needs to encounter the exact frequency in the same location approximately three times to lock it out. Since some door openers are turned on and off routinely, some variations may occur. ESCORT iX Ci will also unlearn signals to protect you from locking out real threats. If a particular signal is no longer present at a location that was previously locked out, ESCORT iX Ci will unlock that signal. (factory default)

aLrn OFF (AutoLearn is off)

In this setting, any false alerts will need to be locked out manually using the MUTE button.

# Units

UnitsENG (English units)

In this setting, all speed and distance related functions are displayed in English units. (factory default)

**UnitsMET** (Metric units)

In this setting, all speed and distance related functions are displayed in metric units.

# Language

**LangENG** (English language)
In this setting, all voice and text are in English language.
(factory default)

**LangSPA** (Spanish language)
In this setting, all voice and text are in Spanish language.

#### Voice

**Voice ON** (Voice announcements are on) In this setting, all alerts and instructions are communicated using a voice announcement. (factory default)

**VoiceOFF** (Voice announcements are off)
Only tones will be used for alerts.

#### **GPS Filter**

**GPS ON** (GPS Filter is on)

In this setting, GPS-powered filtering is on. (factory default)

**GPS OFF** (GPS Filter is off)
In this setting, GPS-powered filtering is off.

# AutoPower

#### aPwrOFF/1HR/2HR/4HR/8HR

This feature automatically turns off ESCORT iX Ci after a set period of time to save unnecessary drain on your battery. This is especially useful if your vehicle has a constant-power ignition. To turn ESCORT iX Ci on again you must press the power button. (default setting is 4 hours)

# **Band Enables**

laser gun.

11

In the factory default setting the suggested radar and laser bands for North America are monitored and sources of some common false alerts are rejected. It is highly recommended that you use your ESCORT iX Ci in this mode.

If you modify Band Enables then this setting will show Modified. The ESCORT IX Ci will also notify you during the startup sequence with an audible alert, and associated text message stating that bands are modified from the factory default settings.

WARNING: Do not turn off any bands unless you are absolutely certain there are no traffic radar guns using that specific band in your area.

Shifters (optional, available separately)
By adding ShifterMax Pack Plus, ESCORT iX Ci can be equipped with Laser ShifterMax sensors.
Additional sensors can be added to ESCORT iX Ci separately. These highly sensitive laser transceivers will detect a laser signal and, when Shifting is enabled, will respond (or transmit) a pulsed signal back in order to "Shift" or confuse the targeting

The MUTE button can be used to manually shut off Laser Shifting once you have checked your speed. Since some laser guns provide "jamming" codes for the officer, this can be useful to avoid any undue attention. Simply press the MUTE button twice during a laser alert. All Shifters will cease to transmit and the display will change from "Shifting" to "Laser". "Laser" indicates that you are receiving a laser alert in "Receive Only" mode.

The Shifters will remain in the "Receive Only" mode for approximately thirty seconds, giving you time to pass the speed trap. Once this time has expired a double beep tone will be given, indicating that the Shifters are now back in "Shifting" mode.

# **Understanding Your Detector**

#### **Marker Enables**

In the factory default setting, the suggested fixed location alerts are reported. It is highly recommended that you use your ESCORT iX Ci in this mode.

If you modify Marker Enables then this setting will show Modified and only the Markers that you have selected are reported.

# **Marking Locations**

The "MRK" button allows you to mark a specific location and label it for future reference. Once marked, ESCORT iX Ci will provide an alert with an arrow indicating the direction of the location and the distance to this location when you reach this area again. This can be extremely useful when there are known speed traps or camera locations that you would like to remember.

ESCORT iX Ci gives an advanced warning of upcoming markers at the following distances:

- Red light cameras: 250 ft or 10 seconds
- Red light & speed cameras: 250 ft or 10 seconds
- **Speed cameras**: 500 ft when traveling below 55 mph; 1,000 ft when traveling above 55 mph
- **Speed traps**: 0.3 mi or approximately 1,584 ft
- Other: 500 ft when traveling below 55 mph; 1,000 ft when traveling above 55 mph

To mark a location, press the MRK button. The display will read "Mark?" Press MRK again to bring up a menu of markers to choose from.

Repeatedly press MUTE to scroll through the markers then press MRK to select the marker that you wish to use at this location. The display will read "Marked"

Air Patrol locations cannot be marked by the user. To unmark a location, touch the MRK button when you are receiving a marked-location alert. The display will read "Unmark?" Touch the MRK button

again to confirm. The display will read "Unmarked"

# **Clearing Locations**

At some point, you may wish to clear some of the data in ESCORT iX Ci's database. This may include any of the following: Defender Database data, Marked locations or false alert Lockouts. To clear all data in ESCORT iX Ci's database select Format then press MUTE to confirm.

Note: After clearing the database, be sure to use Detector Tools Pro to merge Defender database locations onto your detector.

# **Restore Factory Settings**

To restore ESCORT iX Ci to it's original factory settings, press and hold MRK and BRT while turning the power on. A Restored message will display, acknowledging the reset.

# **Serial Number and Software Version**

To view your ESCORT iX Ci's serial number and software revision, press and hold the MRK and SEN buttons while powering on the detector.

# **Software Updates**

ESCORT iX Ci's firmware, or operating system, and safety camera database is easily updated using our exclusive Detector Tools Pro software found on our web site and the included USB cable.

Follow these steps, in order, to update your ESCORT iX Ci:

- 1 With the ESCORT iX Ci powered on, turn off the vehicle's ignition or disconnect power to the system
- 2 Connect the USB cable to the ESCORT iX Ci Interface and your computer
- 3 Turn on vehicle's ignition or apply power to the system
- 4 Launch the Detector Tools Pro software on your computer and select which update to perform:
- Merge your data with the latest Defender database
- Update your detector with the latest software

Note: Firewalls and anti-virus software may interfere with performing updates. If you need assistance, please contact our service department at 1-800-543-1608.

# **Understanding Your Detector**

Although the ESCORT iX Ci has a comprehensive warning system and this manual is as complete as we can make it, 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 affects the radar alerts you receive.

The following examples will give you an introduction to understanding the detector warning system for radar, laser and safety alerts.

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.

Alert	Explanation
Detector begins to sound slowly; rate of alert increases until it becomes a solid tone. The signal meter ramps accordingly.	You are approaching a continuous radar source aimed in your direction.
Detector emits short alerts for a few seconds then falls silent, only to briefly alert and fall silent again.	An instant-on radar source is being used ahead of you and out of your view.
Detector suddenly sounds a continuous tone for the appropriate band received.  Detector sends a brief laser alert.	An instant-on radar or laser source is being used nearby. This kind of alert requires immediate attention.  Laser is being used in the area. Because laser is inherently difficult to detect, any laser alert may indicate a source very close by.
Detector receives weak signals. Signals may be a little stronger as you pass large, roadside objects. Signals increase in frequency.	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.
Detector alerts slowly for a while then abruptly jumps to a strong alert.  Detector alerts intermittently. Rate and strength of alerts may be consistent or vary wildly.	You are approaching a radar unit concealed by a hill or an obstructed curve.  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.
Detector alerts intermittently; rate and strength of signal increases with each alert.	A patrol car is approaching from the other direction, sampling traffic with instant-on radar. Such alerts should be taken seriously.
Detector gives an X band alert intermittently.	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.

# **Understanding Your Detector**

#### **How Radar Works**

Traffic radar, which consists of microwaves, travels in straight lines and is easily reflected by objects such as cars, trucks, 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 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 your device's radar detection abilities are fully operational.

# In-Vehicle Technology (IVT Filter)

Some modern vehicles are now equipped with radar based in-vehicle technology (IVT) systems for adaptive cruise control, predictive braking, and blind spot monitoring. Because some of these systems operate on the same frequency as police K-band radar, many radar detectors will alert to these signals as police radar. This radar detector is equipped with our updatable IVT Filter which rejects these signals.

Because these safety systems are continually changing, the IVT Filter is updatable. Updates to the IVT Filter are released as firmware updates for your detector that are installed using our exclusive Detector Tools Pro software.

# How "POP" Works

POP 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 (Lidar) Works**

Laser speed detection is actually light detection and ranging (LIDAR). Laser 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. Laser 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.

Laser 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, laser is not prone to false alarms. Because laser 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 alert should be taken seriously.

There are limitations to laser, however. Laser is much more sensitive to weather conditions than radar, and a laser gun's range will be decreased by anything affecting visibility, such as rain, fog or smoke. A laser gun cannot operate through glass, and it must be stationary to get an accurate reading. Because laser 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 laser equipment parallel to the road or from an overpass. Laser can be used day or night.

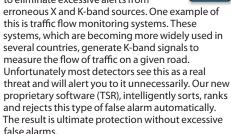
# **How GPS Works**

The Global Positioning
System (GPS) is made up of
twenty four orbiting satellites and was developed
by the U.S. military. There are at least four satellites
visible at any given time every day.

A GPS receiver is designed to locate and receive data from four of these satellites. This data includes the distance to your location from each of the satellites. Once the distance from each satellite is known, the receiver can calculate and pinpoint your exact location.

# TSR Signal Ranking Software

Your radar detector includes a new optional boost in anti-falsing software to eliminate excessive alerts from



The TSR software is set up as an option and can be activated through the Programming section. We suggest you turn TSR on if you are experiencing extreme false alerts in your area. If not, your detector is ready to start protecting you right out of the box.

If you have any questions about this new feature, please give us a call or visit our website for more details

# **Troubleshooting**

Problem	Solution
Detector beeps briefly at the same location every day, but no radar source is in sight.	A motion sensor or intrusion alarm is located within range of your route. If you have AutoLearn enabled, the factory default setting, then ESCORT iX Ci will store this signal after about 3 passes and no longer alert to it.
Detector did not alert when a police	Officer may not have radar or laser unit turned on.
car was in view.	VASCAR (Visual Average Speed Computer and Recorder), a stopwatch method of speed detection, may be in use.
Detector's audible alerts become softer after the first few alerts.	Detector is in AutoMute mode. See "AutoMute" in the Settings & Preferences section for details.
The power-on sequence reoccurs while you are driving.	A loose power connection can cause ESCORT iX Ci to be briefly disconnected and will retrigger the power-on sequence. Check all connections.
You wish to restore the factory default settings.	Press and hold the MRK and BRT buttons while powering on the detector. A "Restored" message will display, acknowledging the reset.
The device will not turn on.	Check that vehicle ignition is on.
The display is blank.	ESCORT iX Ci is in Dark mode. Press the BRT button to adjust the brightness.
Detector displays "Check FR"	There is a communication issue with the Front Receiver (FR). The Front Receiver's connections and wiring should be checked. If no connection or wiring issue is found and the message persists there may be an issue with the component.
Detector displays "ReplacFR"	A critical issue has been reported from the Front Receiver (FR) requiring it to be replaced or repaired.

# **Service Procedure**

# **Service Procedure**

If your ESCORT iX Ci ever needs service, please follow these simple steps:

- 1 Check the troubleshooting section of this manual. It may have a solution to your problem.
- 2 Contact your installing dealer. They will evaluate your unit and arrange repairs if necessary.
- 3 If you installed the system yourself, or can no longer contact your installer, contact our service department at 1-800-543-1608.

# Warranty

# **ESCORT One Year Limited Warranty**

# Three-Year Limited Warranty with installation by authorized installer

What this warranty covers: Escort, Inc. ("Escort") warrants your Product against all defects in materials and workmanship.

For how long: One (1) year from the date of original purchase from an authorized Escort dealer or three (3) years from the date of original purchase when installed by an authorized Escort installer. For a list of authorized Escort installers, see the following website:

https://www.escortradar.com/dealer-locator/

What we will do: If a breach of warranty occurs, Escort, at its discretion, will either repair or replace your Product free of charge.

What we will not do: Escort will not pay shipping charges that you incur for sending your Product to us.

What you must do to maintain this warranty: Show original proof of purchase from an authorized Escort dealer and proof of installation by an authorized Escort installer to be eligible for three years of warranty coverage.

Warranty exclusions: This warranty does not apply to your product under any of the following conditions: 1. The serial number has been removed or modified. 2. Your product has been subjected to misuse or damage (including water damage, physical abuse, and/or improper installation). 3. Your product has been modified in any way. 4. Your receipt or proof-of-purchase is from a non-authorized dealer or internet auction site, including E-bay, U-bid, or other non-authorized resellers. 5. You are not the original purchaser of the Product from an authorized dealer or did not receive it as a gift from the original purchaser of the Product from an authorized dealer.

18

To obtain service: 1. Contact Escort (1-800-543-1608) to obtain a Return Authorization Number. 2. 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 proof of purchase or receipt. 3. Label the outside of the package clearly with your Return Authorization Number. Ship the Product pre-paid (insured, for your protection) to: Escort, Inc., 5440 West Chester Rd., West Chester, OH 45069.

**LIMITATION OF WARRANTY:** The obligations set forth above are Escort's sole obligations and your exclusive remedy. Escort makes no other express warranty. Any implied warranty of merchantability or fitness for a particular purpose that may be applicable to the Product is limited in duration to the duration of this warranty. Some States do not allow limitations on how long an implied warranty lasts. so the above limitation may not apply to you. ESCORT SHALL NOT BE LIABLE FOR CONSEQUENTIAL. SPECIAL OR INCIDENTAL DAMAGES INCLUDING. WITHOUT LIMITATION, DAMAGES ARISING OUT OF THE USE, MISUSE OR MOUNTING OF THE PRODUCT. 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. Escort is not responsible for products lost in shipment between the owner and our service center.

**Other legal rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

Register

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19

EscortRadar.com

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# SCORT

# **REGISTRATION CARD ESCORT PRODUCT**

and return to us, or If you did <u>not</u> purchase your detector directly from ESCORT, please fill out this section register online at our web address: **www.EscortRadar.com** If you purchased your detector directly from ESCORT, you do not need to fill this out.

Zip Serial Number Last Name Middle Initial\_ Ü **ESCORT IX** a question) E-mail (In case we have Product Purchased Place of Purchase First Name:

 $_{\aleph}$ Yes Would you like to be added to our mailing list? e-mail you with updates? ě nS you like Would ) 5. 6.

Primary reason for purchasing this ESCORT product.

# **ESCORT** iX Ci

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20