Quick Reference Guide 2-3

Installation 4-5

- Power Connection 4
- Mounting Location 4
- Windshield Mount 5

Controls and Features 6-9

- Power and volume control 6
- Power-on indication 6
- AutoMute 6
- Mute 6
- Auto / Highway / City Switch 6
- Dim / Dark Switch 7
- Dark Mode 7
- Audible Alerts 7
- Signal Strength Meter 8
- ExpertMeter 8-9

EZ Programming 10-14

- How to use EZ Programming 10
- Example of Programming 10
- Overview of Programming 11
- Details of Programming 12-14

Technical Details 15-21

- Specifications 15
- Interpreting Alerts 16-17
- How Radar Works 18
- How Laser Works 19
- How Safety Radar Works 20-21

Service 22-25

- Troubleshooting 22-23
- Service 24
- Warranty 25
- Accessories 25

To begin using your Passport, just follow these simple steps

1. Plug the small end of the power cord into the side jack, and plug the large end of the power cord into your car's lighter socket.
2. Mount your Passport on the windshield using the windshield mount.
3. Rotate the volume thumbwheel on Passport's left side to turn Passport on and adjust the volume.

Please read the manual to fully understand Passport's operation and features.

EasyMount Slot
Insert Passport's adjustable Windshield mount into this slot. *Pg 4-5*

EasyMount Button
Press and slide the Windshield mount to one of its four positions. *Pg 5*

AutoMute
Passport's patented AutoMute automatically reduces the volume level of the audio alert. *Pg 6*. If you prefer, you can turn AutoMute off. *Pg 10*

Power Jack
Plug power cord or optional SmartCord into this connector. *Pg 4, 8, 25*

Power/Volume Control
Rotate the thumbwheel to turn Passport on and set the volume.

City Button
Switches between AutoSensitivity, City, and Highway settings. In general, we recommend the Auto mode. *Pg 6*

Quick Reference Guide

Radar Antenna and Laser Lens
The back of your Passport should have a clear view of the road ahead. For best performance, do not mount Passport directly behind windshield wipers or tinted areas. *Pg 4*

EZ Programming
Passport is ready to go–just plug it in and turn it on. But you can also easily change 10 features for your preferences. Press both top buttons to enter the Program Mode, then easily Review or Change your settings. *Pg 10-14*

Mute Button
Briefly press this button (next to the display) to silence the audio for a specific alert. (The audio will alert you to the next encounter.) *Pg 6*

Matrix Display
Passport's display will show "Highway", "Auto," or "City" as its power-on indication. *Pg 6*. If you prefer, you can choose other power-on indications. *Pg 10-12*

During an alert, the display will indicate radar band, and a precise bar graph of signal strength. *Pg 8*

Note: in the Dark Mode the display will not light during an alert. *Pg 7*

You can program Passport for the ExpertMeter, which displays up to 8 radar signals at once. *Pg 9*

The display can also show Safety Radar text messages. *Pg 20-21*

Dim Button
Press to adjust display brightness. There are three brightness settings, plus Dark Mode. *Pg 7*

In the Dark Mode, the power-on indication will be changed to AD, HD, or CD (indicating Auto, Highway, or City Dark). In the Dark Mode, Passport's meter will not display during an alert, only the audio will alert you. *Pg 7*

Power Connection

To power Passport, plug the small end of the supplied coiled power cord into the telephone-type power jack on Passport's left side, and plug the lighter adapter into your vehicle's lighter socket or accessory socket.

Passport operates on 12 volts DC negative ground only. The lighter plug provided is standard size and will work in most vehicles. Of course, your lighter socket must be clean and properly connected for proper operation.

Note: depending on your vehicle, the lighter socket power may either be continuously on, or it may be switched on and off with your ignition switch.

Passport's standard lighter adapter has an integral fuseholder. If it is ever necessary to replace the fuse, simply unscrew the tip of the lighter plug and replace the fuse with an identical 2 amp fuse.

Optional power cords

See the Accessories section for details on our new optional SmartCord MuteDisplay cord. Both a plug-in version and a direct-wire version are available.

Mounting Location

WARNING: ESCORT cannot anticipate the many ways Passport can be mounted. It is important that you mount Passport where it will not impair your view nor present a hazard in case of an accident.

Where to mount Passport

For optimum detection performance, we recommend the following:

· Using the Windshield Mount, mount Passport relatively level and a few inches above the dashboard–high enough on your front windshield to provide a clear view of the road from the front and rear.

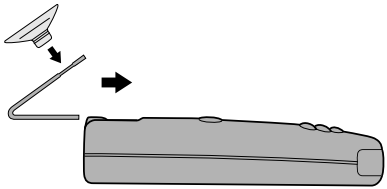
· Mount Passport away from windshield wipers, other solid objects, and heavily tinted areas that might obstruct the radar antenna or laser lens.

Windshield Mount

Passport's EasyMount windshield bracket is designed for unobtrusive and hassle-free mounting.

1 Insert each suction cup into large end of bracket hole and rotate cup outward, locking into place. A spare set of suction cups is included for your convenience. Save them for future use.

2 Depress the adjustment button on the top of Passport (by the word "ESCORT") and slide the EasyMount bracket into the slot until mount is locked into the position which best fits the angle of your windshield (there are four settings available). For extremely horizontal or extremely sloped windshields, the EasyMount bracket can be bent.



3 Mount Passport on your windshield. Using the EasyMount adjustment button, slide Passport forward or backward to a horizontal position.

To ensure that the suction cups adhere to the windshield firmly, be sure to keep both your windshield and the suction cups clean.

When adjusted properly to minimize bouncing, the back top edge of Passport should rest solidly against your windshield.

Caution!

A few vehicles (including some Porsche 944's) have windshields with a soft "anti-lacerative" coating on the inside surface. Use of suction cups will permanently mar this coating. Consult your dealership or the vehicle's owner's manual to determine if your windshield has this coating.

User's Tip

You can leave the EasyMount bracket in place on your windshield, and easily remove Passport by pressing the adjustment button and sliding Passport off the mount. Again, be sure to position the bracket where it won't present a hazard in the event of an accident.

Power and volume control

To turn Passport on and adjust the alert tone volume level, rotate the thumbwheel on Passport's left side. Turn the control away from you to increase the audio volume. When you turn Passport on, it goes through a sequence of alerts.

If you prefer, you may program your Passport for a shorter power-on sequence. See the EZ Programming section for details.

Power-on indication

After Passport's start-up sequence is complete, the matrix display will show "Highway", "City", or "Auto" to show which operation mode is selected.

If you prefer, you can select alternate power-on displays. See the EZ Programming section for details.

AutoMute

Your Passport has our patented AutoMute feature. After Passport alerts you to a radar encounter at the full volume, it automatically mutes the volume to a lower level. 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 EZ Programming section for details.

Mute

The Mute button, located on Passport's front panel, allows you to totally silence the audio alert during a radar encounter.

To mute the audio for a single specific signal, briefly press the Mute Button. After that radar encounter has passed, the mute will automatically reset and the audio will alert you to the next encounter.

Auto / Highway / City Switch

The City button selects Passport's sensitivity mode. We recommend the "Auto" (AutoSensitivity) mode for most driving.

Passport's new AutoSensitivity mode provides long-range warning, with minimum false alarms. In this mode, Passport's internal computer continuously analyzes all incoming signals and intelligently adjusts the sensitivity circuits.

You can also select conventional "Highway" and "City" modes. When driving in urban areas where annoying X-band intrusion alarms and door openers are common, City Mode can be engaged to lower X-band sensitivity and reduce X-band alerts. Full sensitivity is maintained on all other bands. You can customize Passport's City mode sensitivity. See the EZ Programming section for details.

Dim / Dark Switch

Passport's Dim button selects the brightness of Passport's display. There are four settings: Maximum, Medium, Minimum, and Dark. Press the Dim button to select your preferred brightness.

Each time you turn Passport on, it automatically selects the brightness setting you last used.

If you prefer, you can have Passport always turn on at a specific brightness. See the EZ Programming section for details.

Dark Mode

When you select the Dark mode with the Dim switch, Passport changes to a very inconspicuous power-on indication: a very dim "AD", "HD", or "CD". (In this display, the A, H, or C indicates Auto, Highway, or City, and the D indicating Dark.)

When Passport is in the Dark Mode, the display will not show visual alerts when Passport detects signals. Only the audible alert will tell you of detected signals.

If you prefer, you can have Passport's display totally dark when you are in the Dark mode. (This is particularly useful when you have the optional SmartCord MuteDisplay; a lighter cord with power-on light, alert light, and a mute button.) See the EZ Programming section for details.

Audible Alerts

For Radar signals:

Passport uses a geiger-counter-like sound to indicate the signal strength and type of radar signal being encountered.

When you encounter radar, a distinct Audible Alert will sound and occur faster as the signal gets stronger. When the signal is very strong, the Audible Alerts will blend into a solid tone. This allows you to judge the distance from the signal source without taking your eyes from the road.

Each band has a distinct tone for easy identification. X-band = beep tone, K-band = raspy brap tone, Ka-band = double-brap tone.

For Laser signals:

Since Laser signals are a possible threat no matter how weak, Passport alerts you to all laser signals with a full laser alert.

For Safety signals:

If you have turned on the SWS and Safety Alert detection in Passport's programming, Passport will alert you to these signals with a double-beep tone, and a corresponding text message. A complete listing of the text messages is on page 21.

If you haven't programmed your Passport to decode the safety signals (see pages 10, 14, 21), it will still display them as strong K-band radar signals.

Power Connector

Passport's new power jack uses a telephone-type connector. This new 4-conductor connector works with the included coiled cord, and with our optional new SmartCord MuteDisplay.

The SmartCord is a special power cord that has a power-on indicator, a bright alert light that warns of radar or laser, and a convenient mute button right on the plug.

It's the perfect addition for any car where reaching the detector mute button on the windshield is a stretch. And for discreet night driving, put Passport in the Dark Mode, and use the SmartCord for your visual alerts. Other drivers won't know you have a detector.

Two versions are available: A SmartCord that plugs into your lighter socket and has a coiled cord, and a Direct-wire SmartCord module that you wire into your electrical system, with an 8 foot straight cord to route to your Passport.

For more information or to order, call us toll-free at 1-800-433-3487.

Signal Strength Meter

Passport's new matrix display consists of 280 individual LED's, to provide an intuitive ultra-bright display of signal strength and text messages.

When Passport detects radar, it displays the band of the radar (X, K, or Ka), and a precise bar graph of signal strength.

When Passport detects laser, the display will show "LASER."

NOTE: If you are operating Passport in the Dark Mode, the display will not light when a signal is detected- only the audio will alert you.

ExpertMeter

Passport 7500's new ExpertMeter option is an advanced display for experienced detector users. Please use Passport for a few weeks to get familiar with its other features before using ExpertMeter.

To use the ExpertMeter instead of the bar graph signal strength meter, you must select ExpertMeter in Passport's EZ Programming (see pg 10-12).

Passport's standard signal strength meter only displays information about a single radar signal. If there are multiple signals present, Passport's internal computer determines which is the most important threat to show on the bar graph meter.

However, Passport's ExpertMeter simultaneously tracks up to 8 radar signals. It shows you detailed information on up to 2 Ka-band, 2 K-band, and 4 X-band signals.

ExpertMeter can help you spot a change in your normal driving environment; for example, a traffic radar unit being operated in an area where there are normally other signals present.

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.

Above is the ExpertMeter Display if Passport was detecting 2 strong Ka-band, 2 strong K-band, and 4 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 of that signal. The position of the line shows the relative frequency of the signal within the band.

NOTE: If you use ExpertMeter, the brief signal shown in the power-on sequence when you turn on your Passport will also be in ExpertMeter: an "X" with a single vertical line.

A few more examples will help you better see how the ExpertMeter works.

Here ExpertMeter shows 1 strong K-band signal, and three X-band signals, two strong and one weak.

Here ExpertMeter shows 1 weak Ka-band signal, and three weak X-band signals.

On very weak signals, there will not be a vertical line at all. This shows a very weak X-band signal.

ExpertMeter Details

The band designators (X, K, Ka) will stay on the display for a few seconds <u>after</u> 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 <u>continuously</u> change (several times a second) to give you a continuous instantaneous view of all radar signals present.

Note: even long-time detector users will require a significant time to get familiar with this new level of information about detected signals.

There are 10 user-selectable options so you can customize your Passport 7500 for your own preferences. The buttons that are normally used for CITY and DIM are used to enter the Program Mode, to REVIEW your current program settings, and to CHANGE any settings as desired. Pages 12-14 explain each option in more detail.

How to use EZ Programming

1. **To enter Program Mode, hold both top buttons down for 2 seconds.** *(The unit will beep twice, and will display "Program").*

2. **Then press the REVIEW button to review the current settings.** *(You can either tap the button to change from item to item, or hold the button to scroll through the items.)*

3. **Press the CHANGE button to change any setting.** *(You can either tap the button to change from setting to setting, or hold the button to scroll through all the options.)*

4. **To leave the Program Mode, simply wait 8 seconds without pressing any button.** *(The unit will display "Complete", beep 4 times, and return to normal operation.)*

(To quickly return to the all of the factory defaults, hold the City, Dim, and Mute buttons down while turning on the unit.)

An example

For example, here's how you would turn Passport's AutoMute feature off.

1 Enter the Program Mode by holding both buttons down for 2 seconds. *Passport will beep twice and display "Program".*

2 Then hold the REVIEW button down. *Passport will scroll through the categories, starting with Pilot Light ("Pilot"), then Power-on sequence ("PwrOn"), then Signal strength meter ("Meter"), and then AutoMute ("aMute").*

3 Release the REVIEW button when Passport shows the AutoMute item. *Since the factory setting is for AutoMute to be on, Passport will display "aMute ON".*

(If you accidentally don't release the Review button in time, and Passport goes to the next category, hold the Review button down again, and after Passport scrolls through all categories, it will begin again at the top of the list.)

4 Press the CHANGE button to change from "aMute ON" to "aMute OFF"

5 To complete the Programming, simply wait 8 seconds without pressing any button. *Passport will display "Complete", beep 4 times, and return to normal operation.*

Overview of EZ Programming Options

Press the REVIEW button to go from one category to the next

Press the CHANGE button to change your setting within a category

PILOT LIGHT (Power-on indication)	Pilot HWY	*(full word: *Highway* or *Auto* or *City*)
	Pilot H	(letter: *H* or *A* or *C*)
	Pilot H.>	(letter, with scanning dot)
	Pilot +	(symbol: + or • or –)
	Pilot +.>	(symbol, with scanning dot)
	Pilot +>	(scanning symbol)
POWER-ON SEQUENCE	PwrOn STD	*(standard power-on sequence)
	PwrOn FST	(fast power-on sequence)
SIGNAL STRENGTH METER	Meter STD	*(standard signal strength meter)
	Meter EXP	(Expert Meter)
AUTOMUTE	aMute ON	*(automute on)
	aMute OFF	(automute off)
AUDIO TONES	Tone STD	*(Standard tones)
	Tone LOUD	(Loud tones)
CITY MODE SENSITIVITY	City STD	*(Standard City mode sensitivity)
	City LoX	(Low X band sensitivity in City Mode)
	City NoX	(No X band sensitivity in City Mode)
BRIGHTNESS	Brt LAST	*(Last brightness used)
	Brt MIN	(Minimum brightness when turned on)
	Brt MED	(Medium brightness when turned on)
	Brt MAX	(Maximum brightness when turned on)
	Brt DARK	(Dark Mode when Passport turned on)
DARK MODE	Dark STD	*(Standard Dark: shows *HD*, *AD*, *CD*)
	Dark ALL	(All Dark. No display.)
SAFETY WARNING SYSTEM	sws OFF	*(Safety Warning System detection off)
	sws ON	(Safety Warning System detection on)
SAFETY ALERT	sa OFF	*(Safety Alert detection off)
	sa ON	(Safety Alert detection on)

11

**These are Passport's factory settings*

Pilot Light (power-on indication)

Note: when you are using the Dark mode, the display will only show HD, AD, or CD, (Highway-Dark, Auto-Dark, or City-Dark).

PilotHWY (full descr iption)
In this setting, Passpor t will displa y "Highw ay," "City ," or "A uto" as its po wer-on indication. (factor y default)

Pilot H (letter)
In this setting, Passpor t will displa y "H" for Highw ay, "C" f or City , and "A" f or Auto.

Pilot H.> (Letter with scanning dot)
In this setting, Passport will display "H" for Highway, "C" for City, and "A" for Auto. Also, a single dot will continuously scroll across the display.

Pilot+ (symbol)
In this setting, Passport will display "+" for Highway, "." for Auto, and "-" for City.

Pilot+.> (symbol with scanning dot)
In this setting, Passport will display "+" for Highway, "." for Auto, and "-" for City. Also, a single dot will continuously scroll across the display.

Pilot+> (scanning symbol)
In this setting, Passport will display "+" for Highway, "." for Auto, and "-" for City. Each will continuously scroll across the display.

Power-on Sequence

PwrOnSTD (standar d)
In this setting, each time you turn on Passport, it will display "Passport 7500", "LASER", "Ka-band", "K-band", "X-band", followed by a brief X-band alert. (factory default)

PwrOnFST (fast po wer-on)
In this setting, each time you turn on Passport, it will display a brief X-band alert.

Signal Strength Meter

MeterSTD (standar d meter)
In this setting, the meter displays the band of the received signal, and a bar graph showing the relative signal strength. (factory default)

MeterEXP (Exper t Meter)
In this setting, the meter simultaneously tracks multiple radar signals. It shows up to 2 Ka band, 2 K band, and 4 X band signals.

Note: The ExpertMeter feature is explained in more detail on page 9.

AutoMute

aMute ON (autom ute on)
In this setting, Passport's audio alerts will initially be at the volume you set, but after a few seconds, Passport will automatically reduce the volume level, to keep you informed, but not annoyed. (factory default)

aMuteOFF (autom ute of f)
With AutoMute off, Passport's audio alerts will remain at the volume you set for the duration of the radar encounter.

Audio Tones

Tone STD (Standar d tones)
This setting uses more pleasing tones. (factory default)

ToneLOUD (Loud tones)
This setting uses tones that are more piercing, and easier to hear in a louder vehicle.

City Mode Sensitivity

City STD (Standar d)
In this setting, when you put Passport in the City mode, X-band sensitivity is significantly reduced, to reduce annoyance from X-band intrusion alarms and motion sensors. (factory default)

City LoX (Lo w X band sensitivity)
In this setting, when you put Passport in the City mode, X-band sensitivity is reduced more than the standard setting. This will reduce X band alarms from other sources even further, but also significantly reduces range to X band traffic radar.

City NoX (No X band sensitivity)
In this setting, when you put Passport in the City mode, Passport will not respond to any X band signals. WARNING: Only choose this setting if you are absolutely certain that there are no X band traffic radar units where you drive.

Brightness

Brt LAST (Last)
In this setting, when you turn on Passport, the display will be the last brightness you had selected during operation with the dim button. (factory default)

Brt MIN (Minimum)
In this setting, each time you turn on Passport, the display will be at the lowest brightness.

Brt MED (medium)
In this setting, each time you turn on Passport, the display will be at the medium brightness.

Brt MAX (maximum)
In this setting, each time you turn on Passport, the display will be at the maximum brightness.

Brt DARK (Dark)
In this setting, each time you turn on Passport, the display will be in the dark mode. This is recommended only when using Passport's optional remote display so you still have a visual indication to confirm that Passport is operational.

Dark Mode

Dark STD (standard)
In this setting, when you select the dark mode, the only display will be a very dim HD, AD, or CD, indicating Highway-Dark, Auto-Dark, or City-Dark). (factory default)

DarkALL (all)
In this setting, when you select the dark mode, Passport's display will be totally dark, without even displaying any power-on indication. This is recommended only when using Passport's optional SmartCord so you will have a visual indication to confirm that Passport is operational.

Safety Warning System

sws OFF (safety warning system detection off) (factory default)

sws ON (safety warning system detection on)

Safety Alert

sa OFF (safety alert detection off) (factory default)

sa ON (safety alert detection on)

Features and 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 (DSP)
- 4-bit high-resolution A-to-D converter

Laser Detection

- Quantum Limited Video Receiver
- 5 Laser Sensor Diodes

Display Type

- HP AlGaAs 280 LED Matrix/Text
- Bar Graph or ExpertMeter ™
- 3-Level Dimming, plus Dark Mode

Power Requirement

- 12VDC, Negative Ground
- SmartCord MuteDisplay ™ Compatible

Programmable Features

- Power-On Indication
- Power-On Sequence
- Signal Strength Meter
- AutoMute
- Audio Tones
- City Mode Sensitivity
- Display Brightness
- Dark Mode
- Safety Warning System Alerts
- Safety Pilot Alerts

Sensitivity Control

- AutoSensitivity ™, Highway, and City

Dimensions

1.1 x 2.8 x 5.0 Inches

Patented Technology

Passport is covered by one or more of the following Escort Inc. US patents. Additional patents may be listed inside the product.

5,668,554	5,559,508	5,365,055	5,347,120
5,305,007	5,206,500	5,164,729	5,134,406
5,111,207	5,079,553	5,049,885	5,049,884
4,954,828	4,952,937	4,896,855	4,887,753
4,862,175	4,750,215	4,686,499	4,631,542
4,613,989	4,604,529	4,583,057	4,581,769
4,313,216	D314,178	D313,365	D310,167
D308,837	D296,771	D288,418	D253,752

Although Passport has a comprehensive warning system and this handbook is as complete as we can make it, only experience will teach you what to expect from your Passport and how to interpret what it "tells" you. The radar alerts you receive are affected by the specific type of radar being used, the type of transmission (continuous or instant-on) and the location of the radar source.

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

Alert	Explanation
Passport begins to sound slowly, then the rate of alerts increases until the alert becomes a solid tone. The Signal Meter ramps accordingly.	You are approaching a continuous radar source aimed in your direction.
Passport emits short alerts for a few seconds and 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.
Passport suddenly sounds a continuous tone for the appropriate band received. All segments in the Signal Strength Meter are lit.	An instant-on radar source or laser source is being used nearby. This kind of alert requires immediate attention!
A brief laser alert.	Laser is being used in the area. Because laser is inherently difficult to detect, any laser alert may indicate a source very close by.
Passport receives weak signals. These signals may be a little stronger as you pass large, roadside objects. The 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.
Passport alerts slowly for awhile and then abruptly jumps to a strong alert.	You are approaching a radar unit concealed by a hill or an obstructed curve.

Alert	Explanation
Passport alerts intermittently. Rate and strength of alerts may be consistent or vary wildly.	A patrol car is travelling 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.
Passport 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.
Passport gives an X-band alert intermittently.	You are driving through an area populated with radar motion sensors (door openers, burglar alarms, etc.) 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. CAUTION: Since the characteristics of these alerts may be similar to some of the preceding examples, overconfidence in an unfamiliar area can be dangerous. Likewise, if an alert in a commonly travelled 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, 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-Band radar, your Passport will occasionally receive non-police radar signals. Since these X-Band transmitters are usually contained inside of buildings 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 Passport's radar detection abilities are fully operational.

How Laser (Lidar) Works

Laser speed detection is actually LIDAR (Light Detection And Ranging). LIDAR guns project a beam of invisible infrared light. The signal is a series of very short infrared light energy pulses which 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 (or laser) is a newer technology and is not as widespread as conventional radar, therefore, you may not encounter laser on a daily basis. And unlike radar detection, laser detection 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 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 which 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 Safety Radar Works

There are two separate Safety Radar systems in limited use today: Safety Alert, and Safety Warning System (SWS). Both systems use modified K-band radar signals.

From the factory, your Passport is programmed with safety radar decoding OFF. If Safety Radar is used in your area, your Passport will display these signals as K band radar signals instead of safety radar unless you use the EZ Programming to turn Passport's safety radar decoding ON.

The Safety Alert safety radar system has three possible alerts:

- Safety Vehicle
- Road Hazard
- Train Nearby

The SWS safety radar system has 64 possible messages (60 currently allocated). The SWS messages your Passport can display are listed on the facing page.

Note: some of the safety messages have been condensed, so each message can be displayed on one or two screens on Passport's eight character display.

Since Safety radar technology is relatively new and the number of transmitters in operation is not yet widespread, you will not receive Safety signals on a daily basis and should not be surprised to encounter emergency vehicles, road hazards and railroad crossings that are unequipped with these transmitters and, therefore, fail to provide a signal. As Safety transmitters become more prevalent (the number of operating transmitters is growing every day), these Safety radar signals will become more common.

For more information and details about SWS safety radar, visit their web site at www.swslc.com.

SWS Text Messages

1	WorkZone		**33**	HighWind	
2	Road	Closed	**34**	Severe	Weather
3	Bridge	Closed	**35**	HeavyFog	
4	WorkCrew	Highway	**36**	Flooding	
5	WorkCrew	Utility	**37**	BridgIce	
6	Detour		**38**	RoadIce	
7	Truck	Detour	**39**	Dust	Blowing
8	MustExit		**40**	Sand	Blowing
9	Rtlane	Closed	**41**	Blinding	Snow
10	CntrLane	Closed	**42**	Future	use
11	LeftLane	Closed	**43**	RestArea	
12	Future	use	**44**	RestArea	w/servic
13	Police		**45**	24hrFuel	
14	Train		**46**	Insp Stn	Open
15	Low	Overpass	**47**	Insp Stn	Closed
16	BridgeUp		**48**	Reduced	Speed
17	Bridge	Wt Limit	**49**	Speed	Enforced
18	RockSlid	Area	**50**	HazMatls	Exit
19	School	Zone	**51**	Expect	Delay
20	Road	Narrows	**52**	10 Min	Delay
21	Sharp	Curve	**53**	20 Min	Delay
22	Croswalk		**54**	30 Min	Delay
23	Deer	Crossing	**55**	1 Hour	Delay
24	Blind or	Deaf Kid	**56**	Traffic	TunRadio
25	SteepUse	LowGear	**57**	Pay Toll	
26	Accident		**58**	Trucks	ExitRght
27	PoorRoad	Surface	**59**	Trucks	ExitLeft
28	Loading	SchooBus	**60**	Future	use
29	DontPass		**61**	EmergVeh	Moving
30	Dangrous	Intrsect	**62**	Police	Pursuit
31	Emergncy	Vehicle	**63**	Oversize	Vehicle
32	Future	use	**64**	SloMovng	Vehicle

Problem	Solution
Passport beeps briefly at the same location every day, but no radar source is in sight.	• An X-band motion sensor or intrusion alarm is located within range of your route. With time, you will learn predictable patterns of these signals.
Passport does not seem sensitive to radar or laser.	• Make sure that Passport's radar antenna is not blocked by windshield wipers and that the laser lens is not behind tinted areas. • Determine if your vehicle has an Instaclear®, ElectriClear® or solar reflective windshield which may deflect radar or laser signals. • Passport may be in City Mode.
Passport did not alert when a police car was in view.	• 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.
Passport did not provide a Safety signal while within range of an emergency vehicle.	• Safety transmitters may not be commonly used in your area.
Passport's display is not working.	• Press the Dim button to deactivate Dark Mode.
Passport's audible alerts are less loud after the first few alerts.	• Passport is in AutoMute Mode. See page 6 for details.
Passport bounces or sags on windshield.	• Passport is not making contact with the windshield to provide stability. While holding down Passport's EasyMount button, slide Passport further back toward the windshield so that the back top edge makes firm contact.
Passport's power-on sequence reoccurs while you are driving.	• A loose power connection or dirty lighter socket can cause Passport to be briefly disconnected.
Your 14-year old son has changed all 10 of the EZ Programming options.	• You can return all of the programming options to the factory defaults by holding down the City, Dim, and Mute buttons while you turn Passport on.

Problem	Solution
Passport will not turn on.	• Check that both ends of the cord are properly connected. • Check that volume control is ON. • Check that vehicle ignition is ON. • Check that vehicle lighter socket is functional • Try Passport in another vehicle.
Passport feels very warm.	• It is normal for Passport to feel warm.

Explanation of Displays

AD	Sensitivity control is in Automode, display is in Dark Mode (page 7)
HD	Sensitivity control is in Highway mode, display is in Dark Mode (page 7)
CD	Sensitivity control is in City mode, display is in Dark Mode (page 7)
No display	Passport is in the Dark Mode, and is programmed for All Dark (page 7,14)
PilotHWY	One of the many programming messages (pages 10-14)
WorkZone	One of the many Safety Radar messages (pages 20-21)
Caution	Passport has detected a Safety Radar Signal, but the signal isn't yet strong enough to decode the specific safety message (page 20-21)
X| *or* K| *or* KA| *etc.*	Passport has been programmed in the ExpertMeter Mode (page 8,9)

Service Procedure

If Your Passport 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 Call us at 1-800-543-1608. We may be able to solve your problem over the phone. If the problem requires that you send your Passport to the factory for repair, we will provide you with a Service Order Number, which must be included on the outside of your shipping box.

Enclose The Following Information With Your Passport :

- Your Service Order Number
- Your name and return address
- Your daytime telephone number
- A description of the problem you are experiencing.

Out Of Warranty Repairs

For out of warranty repairs, include pre-payment in the amount you were quoted by the Escort Customer Service Representative. If the detector has been damaged, abused or modified, the repair cost will be calculated on a parts and labor basis. If it exceeds the basic repair charge, you will be contacted with a quotation. If the additional payment is not received within 30 days (or if you notify us that you choose not to have your Passport repaired at the price quoted), your Passport will be returned, without repair. Payment can be made by check, money order or credit card.

Mail Passport and Power Cord To:

ESCORT
Customer Service Department
Service Order Number _____
5440 West Chester Road
West Chester, Ohio 45069

For your own protection, we recommend that you ship your Passport postpaid and insured. Insist on a proof of delivery and keep the receipt until the return of your Passport.

ESCORT One Year Limited Warranty

ESCORT warrants your Passport 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 the Passport detector. 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.
- ESCORT is not liable for any incidental or consequential damages arising from the use, misuse, or mounting of the Passport . 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 housing of the Passport has been removed, or if your Passport has been subjected to physical abuse, improper installation, or modification.

Accessories

The following accessories and replacement parts are available for Passport 7500.

Replacement coiled cord	***$14.00***
Soft Carrying Case	***$12.00***
SmartCord MuteDisplay	***$29.95***

A special power cord that has a power-on indicator, a bright alert light that warns of radar or laser, and a convenient mute button right on the plug.

It's the perfect addition for any car where reaching the detector mute button on the windshield is a stretch. And for discreet night driving, put Passport in the Dark Mode, and use the SmartCord for your visual alerts. Other cars won't know you have a detector.

Two versions are available: A SmartCord that plugs into your lighter socket and has a coiled cord (shown), and a Direct-wire SmartCord module that you wire into your electrical system, with an 8 foot straight cord to route to your Passport.