

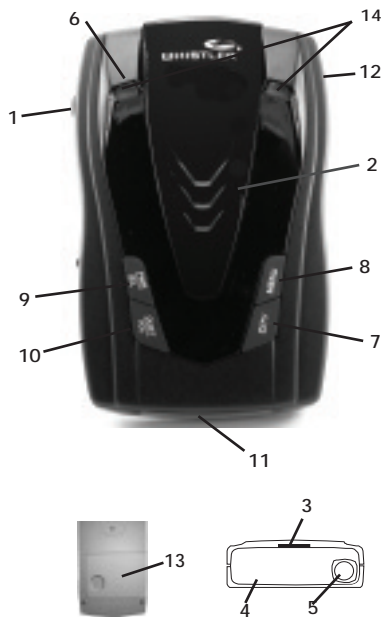
OWNER'S MANUAL

XTR-440
XTR-540

Battery Powered
LASER-RADAR
DETECTOR



WHISTLER FEATURES



FEATURE DESCRIPTIONS

Whistler's ergonomic and user-friendly design provides a new level of operating convenience. Special features include:

1. **Bracket Release Button** – Provides quick and easy release of the mounting bracket.
2. **Speaker** – Provides distinct audio warnings for X, K, Ka band radar, safety radar, laser and VG-2.
3. **Mounting Bracket Location** – Slot holds mounting bracket firmly.
4. **Radar Antenna** – Compact, high-efficiency antenna receives radar signals.
5. **Front Laser Antenna** – High gain optical lens provides increased sensitivity and field of view for leading-edge laser detection.
6. **Rear Laser Antenna** – An integrated optical waveguide provides superior detection of laser signals transmitted from behind.
7. **City Button** - Reduces the annoyance of false alerts typically encountered in urban driving areas.
8. **Menu Button** - enters Option Select Mode.
9. **Power/BL** -Turns unit on/off and engages backlight settings (press and hold).
10. **Quiet/Vol Button** – Engages Quiet/Auto Quiet Mode. Press and hold to adjust volume.
11. **Blue LCD Text Display** – Provides distinct visual confirmation of signals detected, signal strength, and engaged modes of operation.
12. **Power Jack** – Provides connection for the power cord.
13. **Battery Compartment** – Compartment for 3 NiMH batteries.
14. **Low Profile Alert Periscopes** – Provides an additional attention getting visual alert.

INSTALLATION

Battery Installation

Unit requires 3 AA rechargeable batteries (included). **Unit must plug into a live lighter socket to fully charge the batteries overnight before first use!** Remove the battery compartment cover by sliding the cover to the edge of the unit and lift up. Insert batteries and reinstall battery compartment cover.

Ni-MH rechargeable batteries should be used and are included with the unit.

Note: *DO NOT mix battery types as this can damage the batteries.*

Important: *Use only NiMH batteries. Ni-Cd batteries should not be used.*

Caution: *Only use rechargeable batteries. Charging non-rechargeable batteries can damage the unit or possibly cause the batteries to explode. See battery charging section (page 6) to charge batteries with the power cord.*

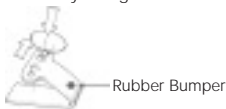
Mounting Guidelines

- Mount the unit as low as possible near the center of the windshield.
- Do not mount the unit behind wipers, ornaments, mirrored sunscreens, etc. These obstructions have metal surfaces which can affect radar and laser signals and reduce critical warning time. (Regular tinted glass does not affect reception.)
- Some windshields have an Instaclear™ or Electriclear™ type coating, which affect radar signals. Consult your dealer or the vehicle's owner's manual to determine if your windshield has this coating.
- Avoid placing the unit in direct contact with windshield.
- To reduce the possibility of theft, unplug and conceal the unit when not in use.

INSTALLATION

Windshield Mounting

- Install the two suction cups and rubber bumper onto the bracket by fitting them into their holes.



- Press the suction cups onto the windshield at the location you have chosen.



- Slide the detector onto the bracket until it locks into place.
- If necessary, the unit may be leveled by bending the windshield bracket.
- Press the bracket release button and remove the detector before bending.

Power Cord Connection

- Plug the small end of the power cord into the unit's power jack.
- Plug the large end into the vehicle's cigarette lighter socket.

Note: Cord fits tightly into detector. When installing the cord, expect some resistance.

Fuse Replacement

The lighter socket plug is equipped with a replaceable 2 amp 3AG fuse located behind the silver tip. To replace the fuse, carefully unscrew the tip of the plug.

Important: Unscrew slowly. The tip contains a spring which may fly out when disassembling. Insert the new fuse with the spring and screw on the tip. With use, screw cap on plug may loosen. Retighten occasionally.

Unscrew the tip of the lighter socket plug carefully when replacing the 2 amp fuse.



OPERATION

Battery Life

The unit can provide approximately 15 hours of laser/radar detection. There are settings that can maximize battery life.

- 1) Display intensity set to Dim
- 2) Auto Quiet engaged
- 3) Auto Shut Off set to 1 hour
- 4) Use a lower volume setting
- 5) Use Mute whenever possible

Important: The detector's display will flash and three fast beeps will sound when the batteries have approximately one hour of battery life left. This is a reminder to recharge your batteries.

Battery Charging

Power Cord - Plug your included power cord into the detector and into the lighter socket to slowly charge the rechargeable batteries. This will also provide power to the detector. The display will show an asterisk, i.e. (H*H*H*) when the unit is charging the batteries. The asterisk will flash during charging and go out when charging is complete.

When the power cable is removed from the detector or the vehicle's lighter socket is switched off, the unit will alarm and display (PLUG OUT) then turn off.

Note: The unit will continue to charge when powered off until it senses a full charge.

Important: As with all battery operated devices, remove the batteries when this unit will not be used for an extended period of time. Damage caused by leaky or improperly charged batteries are not covered under warranty. Check with the battery manufacturer about their specific product warranty and disposal recommendations.

OPERATION

Power On and Self-Test

Each time your Whistler detector is turned on, an automatic self-test sequence confirms that the speaker and visual displays are functional.

- Press Power. Display shows in order:
1. X-Band 2. K-Band 3. Ka-Band 4. LASER
5. POP ON 6. VG-2 7. SR 8. BSAV
9. BAT 10. FILTER

Setting Saver

Setting Saver saves your personalized settings when the detector is turned off or you lose power.

Feature Engaged Confirmation

Each time a button is pressed one beep confirms feature "on", two beeps confirm feature "off".

Audio Level Adjustment

- Press and hold the "Quiet/VOL" button and the volume level will increase then proceed to decrease the volume. Continuing to hold this button will repeat the sequence. As audio level is adjusted, beeps are provided and the display indicates volume level.

Auto Quiet Mode

Auto Quiet reduces the selected audio level to level (1) approximately 5 seconds after a radar or safety radar signal is detected. The alert for any new signal within 20 seconds will resume at level (1). Auto Quiet does not affect VG-2 or laser alerts.

- Press Quiet/VOL (before a signal is detected) to engage Auto Quiet.
- Press Quiet (when the unit is not alarming) to cancel Auto Quiet mode.

OPERATION

Quiet Mode

Quiet cancels audio during an alert and any new alert within 20 seconds. After 20 seconds, approximately 2 beeps are provided on any new alert and unit then remains quiet.

- Press Quiet to cancel the audio.
- To restore the standard audio alert pattern, press Quiet a second time during an alert or turn the unit off, then on.

Teach/Tutorial Mode

Provides simulated alerts for each type of signal.

- Press City and Quiet/VOL simultaneously and release.
- Display Shows: (TEACH)
- Press Power/BL to exit.

City/City 1/City 2 Mode

Whistler's Three Stage City Mode is designed to reduce the annoyance of automatic door openers, intrusion alarms and other devices which share frequencies with police radar. Generally, X band is used for these devices.

- Press City button to cancel Highway Mode and engage City Mode.
- Press City button again to enter City 1 Mode
- Press City button again to enter City 2 Mode
- Press City button a fourth time to cancel City 2 Mode and return the unit to Highway Mode.

In City Mode, weak speed/safety radar signals give an initial alarm of two beeps, and then remains quiet unless the signal becomes very strong. When the signal strength increases, two additional beeps are provided. City 1 and City 2 Modes operate the same as Highway Mode, but in City 1 Mode, X band requires a stronger signal to alert. In City 2 Mode, X-band is not detected.

Caution: Some towns/small cities may still be using X band radar. City Modes do not change the audio alert for laser or VG-2.

OPERATION

Highway Mode

Highway mode provides full audio warnings any time radar (X, K, Ka, Safety Radar) or laser signals are detected, and is recommended for open road driving.

For more information on City and Highway modes, please visit our FAQ page on our website: www.whistlergroup.com

Backlight Setting

The backlighting can be programmed to be illuminated all the time, only when alarming or choices in between. The options are selectable by pressing and holding the Power/BL button on the unit. The options are:

OFF-OFF = Backlight is off during normal operation and off when the unit alarms

OFF-DIM = Backlight is off during normal operation and dim when the unit alarms.

OFF-BRT = Backlight is off during normal operation and bright when the unit alarms.

DIM-OFF = Backlight is dim during normal operation and off when the unit alarms.

DIM-DIM = Backlight is dim during normal operation and dim when the unit alarms.

DIM-BRT = Backlight is dim during normal operation and bright when the unit alarms.

BRT-BRT = Backlight is bright during normal operation and bright when the unit alarms.

Backlight will turn on, if selected, while the unit alarms and remain on for 3 seconds after the unit stops alarming. When any button is pressed, the backlight will illuminate at the dim setting and remain on for 3 seconds afterwards. The backlight will also illuminate while in option mode.

Low Profile Alert Periscopes

Whistler's Low Profile Alert Periscopes provide an added attention getting visual alert. The two extra LED's flash on and off when the unit alarms to provide a unique visual alert. This alert can be programmed through the Option Select Mode to be: ON, OFF, or FLASHING during alerts.

OPERATION

Compass Calibration (XTR-540 only)

The unit needs to be calibrated in order for the compass to provide accurate headings. To calibrate the unit, perform the following procedure:

1. Mount the unit level in the center of the vehicle's windshield. Make sure there are no magnetic sources near the detector (i.e., speaker).

2. Select a large, clear area (parking lot or field) without any power lines.

3. Press the Menu button until display shows **CAL MODE**. Then press the Power/BL and Quiet/Vol buttons simultaneously. The display shows (scrolling):

(Drive in two complete circles)

4. If calibration does not automatically finish, press the Power/BL and Quiet/VOL buttons simultaneously to complete calibration. The unit will beep twice and display: (CAL DONE) → (NE 45 H)

Important: If the unit mounting is relocated in the vehicle, (i.e., visor to windshield mounting or dash mounting), or if the unit is moved to another vehicle, you must recalibrate the compass.

VG-2 Mode

See Option Select Mode to turn this feature on/off. When a VG-2 signal is detected, the VG-2 alert is sounded and the display flashes "VG-2". After 3 seconds, the audio is canceled and the display no longer flashes. This cycle is repeated if the VG-2 signal is detected again.

During the period a VG-2 signal is detected, a radar signal cannot be detected. However, because the VG-2 alert has confirmed that a patrol car is nearby, you are already aware of the potential for speed monitoring and can adjust your speed accordingly. Laser detection is not affected while a VG-2 signal is detected. (See page 18 for more information)

OPERATION

Auto Shut Off Mode

Auto Shut Off Mode automatically shuts off the detector. The timer is reset:

1. Each time the detector is turned off
2. The optional power cord is unplugged
3. Any button is pressed before the timer has expired.

The detector will alert you with an audible and visual warning before it shuts off. This auto off function can be programmed for the following: Off, 1, 2, or 3 hours. During this warning you can reset the timer by pressing any button. If the unit has automatically turned itself off, press the Power button to turn the unit back on. You can manually engage the Auto Shut Off Mode by pressing and holding the City button until one beep is heard. Refer to "Option Select Mode" for instructions for changing the Auto Shut Off Mode settings.

Filter Mode

There are times when a radar detector can emit the same frequency as police radar and can cause your detector to falsely alarm. Sometimes a detector can display a signal when picking up another radar detector in vehicle close by. The Whistler Filter Mode option provide a method to study the signal which will verify if the signal is a legitimate police radar or a false alert from another detector.

Filter: Allows for normal filtering.

Filter 1: Provides an extra step to analyze the signals that may come from other detectors.

Filter is the factory default and should provide adequate filtering for most conditions. If you experience excessive alerts due to radar detectors in other vehicles, try the Filter 1 option. Filter Mode functions in both Highway and City Modes. See Option Select Mode to change Filter settings.

OPERATION

Option Select Mode

Entering Option Select Mode allows you to customize options such as Tone Select, Abbreviated Power Up Sequence, and VG-2 Mode. Press the Menu button to enter Option Select Mode. When selecting options, the Power/BL or Quiet/VOL buttons must be pressed within 20 seconds or Option Mode will automatically be exited. To enter: **(CAL MODE & COMBO - 540 ONLY)**

Press Menu:	Display Shows:	To Change: P=Power/Q=Quiet	Option:
1st Time	CAL MODE	Press Both P & Q	Starts Compass Calibration
2nd Time	COMBO	P or Q	COMBO = Radar & Compass RADAR = Radar Only / COMPASS = Compass Only
3rd Time	TONE 3	P or Q	Tone 1, 2, 3 (Three Different Tone Patterns)
4th Time	TEST YES	P = YES Q = OFF	X, K, Ka Audio Tones One Beep During Power Up
5th Time	X-ON	P = ON Q = OFF	X Band On X Band Off
6th Time	K-ON	P = ON Q = OFF	K Band On K Band Off
7th Time	Ka-ON	P = ON Q = OFF	Ka Band On Ka Band Off
8th Time	LASER ON	P = ON Q = OFF	Laser Band On Laser Band Off
9th Time	VG2 OFF	P = ON Q = OFF	Turns VG-2 On Turns VG-2 Off
10th Time	SR OFF	P = ON Q = OFF	Turns Safety Radar On Turns Safety Radar Off SWS™
11th Time	POP ON	P = ON Q = OFF	POP On POP Off
12th Time	B SVR 1 HR	P or Q	Options are 1H, 2H, 3H & NO
13th Time	LED BLINK	P or Q	Twin Alert Periscope On (ON, OFF, or Blinking)
14th Time	FILTER	P or Q	Filter Mode Filter 1 Mode

OPERATION

Stay Alert Feature

The Stay Alert Feature is designed to test a driver's alertness. To engage (when unit is not alarming) :

- Press and hold the City button for approximately 2 seconds. Release button during or immediately after the alert is given. Display shows: **(RU ALERT)**

Within 30-60 seconds an alert is sounded; to show alertness, the driver must press either the City, Volume, or Quiet buttons within 3-5 seconds. If a button is pressed within 3-5 seconds, the cycle is repeated.

If a button is not pressed within 3-5 seconds alarm sounds and the display shows: **(S REST)**

- Press Power to exit.

WARNING!!! Stay Alert is NOT intended as a substitute for adequate rest. You should NOT operate a vehicle if you are drowsy. During extended periods of vehicle operation, you should take frequent breaks. Improper reliance on the Stay Alert feature may result in vehicle damage, personal injury or death. **NEVER OPERATE A VEHICLE IF YOU ARE DROWSY.**

Safety Warning System™

In communities where transmitters are located, the Safety Warning System™ displays over 60 text messages. When Safety Radar is detected, a unique audio alert sounds.

Safety Warning System Text

Example: Poor - Road - Surface.

Note: Not all areas have Safety Warning System™ transmitters.

POP™ MODE ALERTS

POP™ Mode Alerts

Because POP™ Mode radar utilizes the same K or Ka band frequencies, POP™ Mode Alerts will be displayed as regular radar alerts.

LASER/RADAR ALERTS

Speed Radar Audio/Visual Alerts

When X, K, or Ka is detected, the band ID and signal strength are displayed. The audio alert is continuous and has a pattern like a geiger counter. The faster the beep, the closer or stronger the radar source.

Laser Audio/Visual Alerts

When a laser signal is detected, the audio alert is continuous for a minimum of 3 seconds.

- The Display Shows: (LASER■■■■)

Pulse Protection®

Pulse (instant-on) radar is more difficult to detect than conventional radar because it remains 'off' until activated to measure the speed of a targeted vehicle.

When a pulse type transmission is detected, the Whistler detector sounds an urgent 3-second audio warning and the display shows: (PULSE)

After the 3-second pulse alert, the standard alert pattern continues for as long as the signal is present.

It is important to respond promptly to a pulse alert, since warning time may be minimal.

VG-2 ALERTS

VG-2 Audio/Visual Alerts

Note: You must turn this feature on before it will detect VG-2.

When a VG-2 signal is detected, the detector 'hides' its own radiated signal and becomes undetectable by the VG-2.

Every 30 seconds, the detector checks for a VG-2 signal. If a VG-2 signal is still present, the unit continues to hide and repeats the VG-2 alert. If no signal is detected, two beeps are provided, indicating an 'all clear' condition. During a VG-2 Alert X, K, and Ka band signals cannot be received (Reference page 21 for VG-2 information).

Alert Priority

When two or more signals are received at the same time, the alert priority is:

1. Laser
2. VG-2
3. Speedy Radar
4. Safety Radar

Example:

If X band is alerting, then suddenly a VG-2 signal is detected, the VG-2 warning will override the X band alert.

RESET FEATURES

Reset Features

All user features can be reset to factory settings.

- Unplug the Power Cord from the unit.
- Remove the Batteries.
- Press and hold Power/BL and Quiet/Vol buttons.
- Plug the Power Cord into the unit.
- Wait for 2 beeps.
- Release Power/BL and Quiet/Vol buttons.

Unit is now reset to the following features and settings.

Default factory settings are:

1. Audio to level (4).
2. Highway/Combo Mode.
3. Auto Quiet Mode OFF.
4. VG-2 Detection Mode OFF.
5. Safety Radar OFF.
6. Vehicle Battery Saver to 1 hour.
7. Full Power Up sequence.
8. Default TONE 3.
9. POP ON.
10. Backlighting Dim/Bright.
11. Periscopes to Flashing.

TROUBLESHOOTING

Your Whistler detector is expertly engineered and designed to exacting quality standards to provide you with reliable, trouble-free operation. If your unit has been correctly installed following the guidelines in this manual, but is not operating optimally, please refer to the troubleshooting guide below.

PROBLEM: No display or audio.

- Make sure the batteries are installed with the correct polarity.
- Make sure the batteries are fully charged.

TROUBLESHOOTING

- Make sure the battery contacts are clean.
- Check the fuse in the plug; replace if necessary with a 2 amp, 3AG type.
- Check the fuse for lighter socket; replace if necessary.
- Make sure the lighter socket is clean.

PROBLEM: Unit alarms when vehicle hits bumps.

- Make sure the batteries are seated properly.
- Make sure that the battery door is fully closed.
- Make sure the battery contacts are clean.
- Check for the loose lighter socket; tighten and clean.
- Check the connections at both ends of the power cord. Substitute another cord to determine if the cord is defective. Return defective cord to the factory.

PROBLEM: Audio alerts are not loud enough.

- Cancel Auto Quiet Mode or City Mode.
- Check audio level setting (see page 7).

PROBLEM: Low Battery Life.

- One or more of the batteries may be defective.
- See the battery life tips on page 6.

CARE AND MAINTENANCE

Care And Maintenance

During the summer months, avoid prolonged exposure to direct sunlight by removing your unit from the dash when your vehicle is parked for an extended period of time. Do not spray water, cleaners, or polishes directly onto the unit. The spray may penetrate through the openings and damage the unit. Also, do not use any abrasive cleaners on the unit's exterior.

As with all battery operated devices remove the batteries when the unit will not be used for an extended period of time. Damage caused by leaky or improperly charged batteries are not covered under warranty.

ARE DETECTORS LEGAL?

In Most States YES!

Laser-Radar detectors are legal in every state for automobiles and light trucks (under 10,000 lbs.) except Virginia and Washington, D.C., which have local regulations restricting the use of radar receivers in any vehicle.

FCC INFORMATION

FCC ID : HSXWH15

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.

Important: FCC (Federal Communications Commission) requirements state that changes or modifications not expressly approved by Whistler could void the user's authority to operate the equipment.

SPEED MONITORING

Radar Facts

A radar gun operates by transmitting radio waves at certain frequencies which reflect off objects and are picked up by the radar gun's receiving section. When a radar beam reflects off a moving target, a measurable frequency shift occurs. The radar unit converts this shift into miles per hour to determine your vehicle's speed. Currently, the FCC permits operation of traffic radar guns at X Band (10.500 - 10.550 GHz), K Band (24.050 - 24.250 GHz), and Ka Band (33.400 - 36.000 GHz).

Note: A radar detector will not alarm if an officer is not transmitting on any one of the above radar bands.

POP™ Mode

POP™ Mode is a feature on some radar guns operating on K and Ka bands. When the gun is in POP™ Mode and activated, a brief burst of energy, less than 1/15 of a second, is transmitted and the vehicle's speed is quickly acquired. A detector without POP™ Mode detection capability cannot respond to this brief transmission.

SPEED MONITORING

Laser Facts

It's well documented that many radar guns cannot reliably provide the speed of a targeted vehicle that is traveling in a group of vehicles. In contrast, a laser gun can target a specific vehicle out of a line of traffic and determine its speed. The advantage of laser over radar in terms of target identification is the result of the laser gun's narrow beam. A radar gun's transmission can cover more than a four-lane highway at a distance of 1,000 feet, compared with a laser gun's transmission which covers about 3 feet at the same distance. For best protection, keep these points in mind:

- Because the vehicle's license plate or headlights are the laser gun's primary targets, mounting the Whistler detector on the dashboard can improve laser detection at short range.
- Do not follow closely behind any vehicle. If you can't see past a vehicle ahead of you, chances are your detector won't either.
- The receiving range of laser signals will not be the same as radar signals. Laser guns are most often used at short range.

Whistler Laser-Radar detectors receive all current laser guns which operate at a laser wavelength of 905 +/- 10mm.

- Pro Laser™ I II III
- LT1 20-20
- Ultra Lyte

SPEED MONITORING

Laser Tips

If you are the targeted vehicle, a laser gun can often determine your speed within a few seconds after you receive an alert. In this situation, there is generally no time to safely adjust your speed. However, if you are traveling near or behind the targeted vehicle, and receive an alert, response time should be sufficient. Any laser alert, regardless of duration, requires immediate action!

Other Speed Detection Systems

Several techniques other than radar or laser are used to measure vehicle speeds. When these methods are being used, no detector can provide a warning. These techniques include:

- **Pacing** - A patrol car drives behind you and matches your driving speed.
- **Vascar/Aircraft** - The time it takes a vehicle to travel a known distance is measured.

Radar Detector Detectors: VG-2, Spectre

The Interceptor VG-2 or simply VG-2, is one type of microwave receiver used by Police to detect signals radiated by the local oscillator of a radar detector. Because its purpose is to identify persons driving with radar detectors, these devices are known as a "radar detector detector" (RDD).

An RDD is the primary tool used by the police to identify radar detector equipped vehicles. If caught in a state or country where detectors are illegal (see page 18), drivers risk losing their radar detector and receiving a fine. In addition, instant-on radar is almost always used in combination with an RDD, leaving unsuspecting motorists vulnerable to receive two tickets - one potentially for speeding, the other for possession of a detector.

SPEED MONITORING

Note: Having a radar detector capable of detecting the VG-2 may alert you to the presence of a speed trap. The newest tool Police have to detect radar detectors is called Spectre. As of this printing, Spectre can detect the majority of undetectable (VG-2) laser/radar detectors on the market.

It is the responsibility of the radar detector user to know and understand the laws in your area regarding the legality of the use of radar detectors.

WARRANTY INFORMATION

Consumer Warranty

This Whistler Laser-Radar detector is warranted to the original purchaser for a period of one year from the date of original purchase against all defects in materials and workmanship. This limited warranty is void if the unit is abused, modified, installed improperly, or if the housing and/or serial numbers have been removed. There are no express warranties covering this product other than those set forth in this warranty. All express or implied warranties for this product are limited to the above time. Whistler is not liable for damages arising from the use, misuse, or operation of this product.

Note: Damaged caused by incorrect battery placement or battery leakage is not covered under this warranty.