

## OPERATIONS

### Compass Calibration Set-up (Z-23R Only)

The unit must 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 Dark and Quiet buttons simultaneously. The display shows (scrolling):

Drive in two complete circles

4. If calibration does not automatically finish, press the Dark and Quiet buttons simultaneously to complete calibration. The unit will beep twice and display shows, for example: **CAL DONE**→**NE 45 H**

**Note:** In Combo Mode, an “H” or “C” will be shown to indicate mode of operation.

**Important:** If 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.

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## 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 police measure the time it takes your vehicle to travel a known distance.

### 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 19), 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 potential for speeding, and the other for possession of a detector.

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## 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.

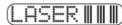
## LASER/RADAR ALERTS

### Speed Radar Audio/Visual Alerts

When X, K, or Ka is detected, the band ID and signal strength is 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: 

### Pulse Protection®

Pulse (or 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, your 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.

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## 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. Spectre can detect the majority of undetectable (VG-2) laser/radar detectors on the market.**

**It is the responsibility of the individual radar detector owner 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 two years 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:** Units that cannot be repaired will be replaced with the same or similar model. Replacement unit’s warranty will be based on the original unit’s purchase date.

### Service Under Warranty

During the warranty period, defective units will be repaired without charge to the purchaser when returned with a dated store receipt to the address below. Units returned without a dated store receipt will be handled as described in section **“Service Out Of Warranty.”**

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## 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 (see pg. 22).

## ALERT PRIORITY

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

1. Laser
2. VG-2
3. Speed Radar
4. Safety Warning System™

**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

All user features can be reset to factory settings.

- Unplug the Power Cord from the unit.
- Press and hold the Quiet button.
- Plug the Power Cord into the unit.
- Wait for 2 beeps.
- Release the Quiet button.

**Unit is now reset to the following features and settings.**

**Default factory settings are:**

1. HIGHWAY Mode
2. Dim/Dark Mode to full illumination of display
3. Auto Quiet Mode OFF
4. VG-2 Detection Mode OFF
5. SWS™ OFF
6. Vehicle Battery Saver ON
7. Full Power Up sequence
8. Default TONE 3
9. POP™ OFF
10. Voice ON (Z-19R Only)
11. LED Periscope to BLINK
12. TFSR OFF
13. Combo Mode (Z-23R Only)

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## WARRANTY INFORMATION

Due to the specialized equipment necessary for testing a Laser-Radar receiver, there are no authorized service stations for Whistler brand detectors other than Whistler.

When returning a unit for service, please follow these instructions:

1. Ship the unit in the original carton or in a suitable sturdy equivalent, fully insured, with return receipt requested to:

**Whistler Repair Dept.**  
551 N. 13th St.  
Rogers, AR. 72756

**Please allow 3 weeks turn around time.**

**Important:** Whistler will not assume responsibility for loss or damage incurred in shipping. Therefore, please ship your unit insured with return receipt requested. **CODs will not be accepted!**

2. Include with your unit the following information, clearly printed:
  - Your name and street address (for shipping via UPS), a daytime telephone number and an email address, if applicable.
  - A detailed description of the problem (e.g., “Unit performs self-test but does not respond to radar”).
  - A copy of your dated store receipt or bill of sale.

3. Be certain your unit is returned with its serial number. For reference, please write your unit’s serial number provided on page 27 of this manual.

Units without serial numbers are not covered under warranty.

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## 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.**
- 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.**

- Check for a 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 the defective cord to the factory.

**PROBLEM: Audio alerts are not loud enough.**

- Cancel Auto Quiet Mode or City Mode.
- Check audio level setting (see pg. 9).

If difficulties occur which cannot be solved by information in this Troubleshooting Guide, please call Whistler Customer Service at 1-800-531-0004 or visit our FAQ page at [www.whistlergroup.com](http://www.whistlergroup.com), before returning your unit for service.

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## WARRANTY INFORMATION

**Important:** To validate that your unit is within the warranty period, make sure you keep a copy of your dated store receipt. You may register your warranty online at [www.whistlergroup.com](http://www.whistlergroup.com), however, for warranty verification purposes, a copy of your dated store receipt must accompany any unit sent in for warranty work.

### Service Out of Warranty

Units will be repaired at “out of warranty” service rates when:

- The unit’s original warranty has expired.
- A dated store receipt is not supplied.
- The unit has been returned without its serial number.
- The unit has been abused, modified, installed improperly, or had its housing removed.

The minimum out of warranty service fee for your Whistler Z-19R detector is \$50.00 (U.S.) and \$55 (U.S.) for the Z-23R detector. If you require out of warranty service, please return your unit as outlined in the section “Service Under Warranty” along with a certified check or money order in the amount of \$50.00 for the Z-19R detector and \$55 for the Z-23R detector. Payment may also be made by MasterCard, VISA or American Express; **personal checks are not accepted.**

**In the event repairs cannot be covered by the minimum service fee, you will be contacted by a Whistler technical service specialist who will outline options available to you.**

If you elect not to have your unit repaired, it will be returned to you along with your certified check or money order.

**Important:** When returning your unit for service, be certain to include a daytime telephone number and an email address (if applicable).

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## 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.

## ARE DETECTORS LEGAL?

### In Most States YES!

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

The Federal Highway Administration (FHWA) issued a regulation, effective January, 1994 which prohibits radar and laser detector use in vehicles over 10,000 lbs. Prior to the FHWA regulation, laws existed in New York restricting the use of radar detectors in trucks over 18,000 lbs. and in Illinois in trucks over 26,000 lbs.

## FCC INFORMATION

### FCC ID : HSXWH10 - Z-19R/Z-23R

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.

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## WARRANTY INFORMATION

### Customer Service

If you have questions concerning the operation of your Whistler detector, or require service during or after the warranty period, please call Customer Service at: **1-800-531-0004**

Representatives are available to answer your questions Monday - Friday from 8:00 a.m. to 5:00 p.m. (CT) or visit the FAQ’s at [www.whistlergroup.com](http://www.whistlergroup.com).

## SPECIFICATIONS

### Laser Wavelength:

905 ± 50 nanometers (nm)

### Radar Frequencies:

10.500 - 10.550 GHz (X Band)  
24.050 - 24.250 GHz (K Band )  
33.400 - 36.000 GHz (Ka Superwideband)

**Operating Temperature Range:**-10 C to +70 C (+14 F to +158 F)

### Power Requirements:

Operational 12 to 15 volts DC, 250mA nominal  
Vehicle Battery Saver, 30mA nominal.

### These U.S. patents apply:

#5,666,120, #7,215,276

POP™ Mode is a trademark of MPH Industries, Inc.  
SWS™ is a trademark of Safety Warning System L.C.

Specifications are subject to change without notice.



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## 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 only alarm if an officer is 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.

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## ACCESSORIES

These and other accessories can be ordered directly from Whistler by calling **1-800-531-0004** or visiting our online store at [www.whistlergroup.com](http://www.whistlergroup.com)

Order #	Description	Price
202151	Windshield Bracket Kit	\$9.95
206552	Power Cord (5')	\$14.95
206880	Hardwire Kit (10') (for wiring to fuse box)	\$9.95
206666	Modular* Cord Package (includes coiled and straight cords, and power adapter)	\$17.95
159032	Package of 8 Suction Cups	\$2.95
402080	Non Skid Dash Pad	\$6.95
202138	Visor Bracket	\$6.95

\* Modular: Interconnecting pieces cord and plug. **Shipping and handling (per order) \$5.00. Prices are subject to change without notice.**

write serial number in the space provided

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## 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 your laser detector will not be the same as a radar detector. 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 +/- 50nm.

- Ultra Lyte
- LTI 20-20
- LTI TruSpeed® S
- Pro Laser™ I III
- Laser Ally
- Laser Atlanta® Stealth Mode

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## OWNER’S MANUAL

# Z-19R/Z-23R

# LASER-RADAR

# DETECTOR

### The Whistler Group Corporate Headquarters

3604 NW Frontage Rd. • Bentonville, AR 72712  
Tel 479.273.6012 • Fax 479.273.2927

### Customer Return Center

551 N. 13th St. • Rogers, AR 72756  
Customer Service Tel 800.531.0004

[www.whistlergroup.com](http://www.whistlergroup.com)

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# WHISTLER

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Dear Whistler Customer,

If you have questions concerning the operation of this Whistler product please call:

**Customer Service**  
1-800-531-0004

Monday - Friday • 8:00 am - 5:00 pm CT  
or visit our website

[www.whistlergroup.com](http://www.whistlergroup.com)

Please keep the receipt in a safe place. You may register your product online at [www.whistlergroup.com](http://www.whistlergroup.com). For warranty verification purposes, a copy of your dated store receipt must still accompany any unit sent in for warranty work. If the unit is returned without a dated store receipt, an out of warranty service charge applies. Note: Your warranty period begins at the time of purchase. The warranty is validated only by the dated store receipt! Please record the serial number of the unit in the space provided in the warranty section of the manual.

To fully acquaint yourself with the operation of your Whistler detector and to better understand the differences between detecting radar, laser, and safety radar signals, we recommend reading this entire manual or visiting our F.A.Q. page on our website [www.whistlergroup.com](http://www.whistlergroup.com)

Enjoy your Whistler detector and please drive safely.

Sincerely,

The Whistler Group, Inc.

## OPERATION

### Power On Self Test & Volume

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

### Dim/Dark Mode

Dim/Dark Mode reduces the illumination of the display.

- Press the Dark button to reduce illumination to a Dim setting.
- Press the Dark button a second time to engage Dark Mode. The display illumination is further reduced.

Dim or Dark Mode can be engaged during an alert. In Dark Mode, the display goes dark for as long as a signal is being detected and for 20 seconds after, then the display returns to the dimmer setting.

- Press the Dark button a third time to restore full illumination to the display.

### Setting Saver

Setting Saver stores your personalized settings so that when the detector is turned off and then on again, you do not have to re-enter them.

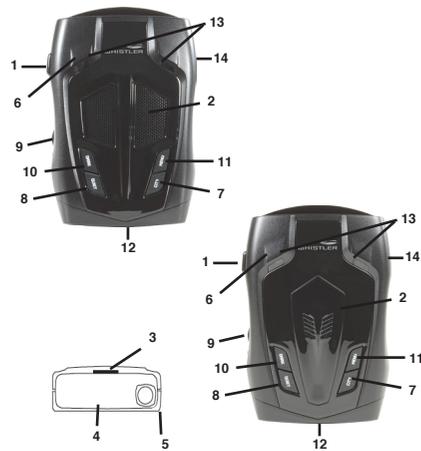
### Feature Engaged Confirmation

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

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## WHISTLER FEATURES

### Feature Listings of Z-19R/Z-23R



### Features

- Digital Compass (Z-23R Only)
- Total Band Protection™
- OLED Text Display
- Detects POP™ Mode
- 360° Maxx Coverage
- 3 City Modes/Highway Mode
- Quiet/Auto Quiet Mode
- Dim/Dark Mode
- Real Voice® (Z-19R Only)
- Stay Alert™
- Setting Saver
- Selectable Vehicle Battery Saver™
- Safety Warning System™
- Alert Priority
- Alert Periscopes
- Total Laser Detection
- Traffic Flow Signal Rejection
- High Gain Lens
- VG-2 Detection

## FEATURE DESCRIPTIONS

- 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 warning system, 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** – high gain optical lens provides increased sensitivity and field of view for leading-edge laser detection.
- 6. Rear Laser** – 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. Quiet Button** - pressing QUIET before a signal is detected engages Auto Quiet Mode which automatically reduces the audio level after the initial warning to a low audio level setting. Pressing QUIET during a radar/laser encounter silences audio alerts, while allowing visual alerts to keep you informed.
- 9. Power / Volume Control** – turns unit on/off and adjusts audio level.
- 10. Dim / Dark** - engages Dim/Dark modes.
- 11. Menu Button** - enters Option Select Mode.
- 12. Text Display** - provides distinct visual confirmation of signals detected, signal strength, and indicates engaged modes of operation.
- 13. Alert Periscopes** - provide added visual alerts of threats ahead.
- 14. Power Jack** – Provides connection for the power cord.

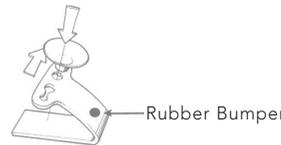
## INSTALLATION

### 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 owner's manual supplied with your vehicle to determine if your windshield has this coating.
- Avoid placing the unit in direct contact with the windshield.
- To reduce the possibility of theft, conceal the unit when not in use.

### 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. (Image A)



Rubber Bumper

## INSTALLATION

### Windshield Mounting - (Continued)

**Important:** Some newer cars have a plastic safety coating on the inside of the windshield. The windshield bracket may leave permanent marks on this type of surface. To find out if your vehicle has this type of windshield, check the vehicle's owner's manual or ask your dealer. We recommend that you do not leave the suction cup bracket on the window in direct sunlight. If the detector is removed, this may cause blistering of the dash in some vehicles.

- 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. (Image B)



Windshield Mounting

**IMPORTANT:** Make sure the unit is level

## INSTALLATION

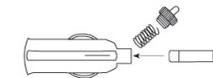
### Power Cord Connection

- 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.

## OPERATION

### Integrated Real Voice® (Z-19R Only)

When selected, Real Voice® will be used to articulate the following:

1. Band Identification
2. Safety Warning System messages
3. Feature Selection

**Note:** In certain cases, the voice message does not replicate the text message.

### Quiet Mode

Quiet mode cancels audio during an alert and any new alert within 20 seconds. After 20 seconds of no alerts, the audio is restored for any new alerts.

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

### Auto Quiet Mode

Auto Quiet mode reduces the selected audio level approximately 5 seconds after a radar signal is detected. The alert for any new signal within 20 seconds will resume at the lower level. Auto Quiet mode does not affect laser alerts.

- Press Quiet (before a signal is detected) to engage Auto Quiet.
- Once the Auto Quiet mode is engaged, you may cancel the audio alarm by pressing Quiet.
- Press Quiet (when the unit is not alarming) to cancel Auto Quiet mode.

### Alert Periscopes

Whistler's Alert Periscopes provide an added attention getting visual alert. The two extra LEDs 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: 1. flash for all alarms, 2. remain on, or 3. turn LEDs off completely.

## OPERATION

### 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 returns the unit to Highway Mode.

In City Mode, weak speed/safety warning systems signals give an initial alarm of two beeps, and then remains quiet until 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, only the X band is reported at high levels. 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.

### Highway Mode

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

For more information on City and Highway modes, please visit our F.A.Q. page on our website: [www.whistlergroup.com](http://www.whistlergroup.com)

### Teach/Tutorial Mode

- Provides simulated alerts for each type of signal.
- Press City and Quiet buttons simultaneously
  - Display Shows: **TEACH**
  - Press Dark button to exit.

## OPERATION

### 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 17 for more information)

### Selectable Vehicle Battery Saver Mode

The Vehicle Battery Saver Mode automatically shuts off your detector within 3 hrs. The timer is reset if the detector is turned off, unplugged or any button is pressed before the timer has expired. The detector will alert you with an audible and visual warning before it shuts off. During this warning, you can momentarily reset the timer by pressing any button. If the unit has automatically turned off, press any button to turn the unit back on. Refer to "Option Select Mode" for instructions for deactivating battery saver mode feature.

### Traffic Flow Signal Rejection (TFSR)

Recently, many new products operate on X or K band causing nuisance alerts to radar detectors. Some of these are radar based Traffic Monitoring Systems mounted to poles alongside the highway and others are K Band Lane Change Assistants and Blind Spot Detectors found on some automobiles.

## OPERATION

### Traffic Flow Signal Rejection (cont'd)

When turned on in option mode, helps eliminate excessive alerts from erroneous X and K-band sources. Traffic flow monitoring systems are getting more common. Many of these systems generate radar signals to measure the flow of traffic across multiple lanes. Most detectors will alert you to it unnecessarily. This rejection feature examines the incoming signal and will aid in reducing the alerts to such sources. We suggest you turn TFSR on if you are experiencing excessive X or K band false alerts every half mile or so along stretches of roadway that contain these traffic flow sensors.

### Compass Mode (Z-23R Only)

The unit is programmed from the factory in "Combo Mode". COMBO mode means that the unit provides both compass headings as well as detects laser/radar signals. Through the "Option Select Mode", either laser/radar or compass features can be turned off; RADAR equals detection of all police bands and laser; COMPASS equals no detection of police laser/radar.

### 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 Dark or Quiet buttons must be pressed within 20 seconds or Option Select Mode will automatically be exited. (See page 13 for Option Select chart)

## OPERATION

### Z-19R/Z-23R

Feature	Display Shows	To Change D=Dark / Q=Quiet	Option
CAL <small>(Z-23R ONLY)</small>	CAL MODE	Press Both D & Q	Starts Compass Calibration
COMBO <small>(Z-23R ONLY)</small>	COMBO	D or Q	Combo - Radar&Compass Radar - Radar Only Compass - Compass Only
TONE	TONE 3	D or Q	Tone 1, 2, 3 (3 Different Tone Patterns)
TEST	TEST YES	D = YES Q = OFF	X, K, Ka Audio Tones One Beep During Power Up
VG-2	VG-2 OFF	D = ON Q = OFF	Turn VG-2 ON Turn VG-2 OFF
SWS	SWS OFF	D = ON Q = OFF	Turn SWS ON Turn SWS OFF
POP	POP OFF	D = ON Q = OFF	POP ON POP OFF
ALERT PERISCOPES	LEDBLANK	D or Q	Alert Periscopes ON (ON, OFF or Blinking)
VOICE <small>(Z-23R ONLY)</small>	VOICE ON	D = ON Q = OFF	Real VOICE Engaged Real VOICE Disengaged
BATTERY SAVER	B SVR ON	D = ON Q = OFF	Battery Saver ON Battery Saver OFF
TFSR	TFSR ON	D = ON Q = OFF	TFSR = ON TFSR = OFF(default)

**Note:** To exit Option Select Mode press and hold the menu button.

## OPERATION

### Stay Alert Feature

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

- Press and hold the City button for approximately 2 seconds. Release the button during or immediately after the alert is given.

DISPLAY SHOWS: **RU ALERT**

Within 30-60 seconds, two beeps are sounded; to show alertness, the driver must press either the City, Menu, 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, an alarm sounds.

DISPLAY SHOWS: **GET REST**

- Press the Dark button to exit the Stay Alert feature.

**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!**

**SWS™**

### Safety Warning System™

In communities where transmitters are located, the Safety Warning System™ provides over 60 text messages. When Safety Warning System™ is detected, the audio alert sounds like a geiger counter.

**Safety Warning System Text** Example: Poor - Road - Surface.

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