OWNER'S MANUAL

FCC Information

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

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

Change or modification not expressly approved by the party responsible for Compliance could void the user' s authority to operate the equipment

CONTENTS

I. MODEL FEATURES AND CONTROLS

II. ACCESSORIES INCLUDED WITH RADAR DETECTOR
- Owner ' s Manual
- Power Cord
- Mounting kit
- Hook & Loop Fasteners
- Spare Fuse

III. MOUNTING INSTALLATION
- Windshield Mounting
- Dash Board Mounting
- Power connection

IV. OPERATION GUIDE
- Power on & Self-Test
- Feature Engaged Confirmation
- Mute Mode
- City/City1 Modes
- Dim/Dark Modes
- VG-2 Mode
- Tutorial Mode
- Voltage Meter Mode
- Digital Electronic Compass Mode
- User Programmable Menu Mode
- Memory Retention

V. RADAR/ LASER/ VG-2 ALERTS
- Speed Radar Visual /Audio Alerts
- Laser Visual /Audio Alerts
- VG-2 Visual /Audio Alerts
- Instant Visual/Audio Alerts
- Safety Radar Visual/Audio Alerts

VI. TROUBLESHOOTING GUIDE
- Factory setting

VII. SPEED MONITORING DEVICES
- Radar speed gun
- Laser speed gun
- Radar Detector Detectors

VIII. MAINTENANCE
- Care and Maintenance
- Fuse Replacement

IX. SPECIFICATIONS

I. MODEL FEATURES AND CONTROLS

X, K, Ka Super Wideband Detection

All Laser Detection

360 ° Laser Detectability

Safety Radar System (SA, SWS) Detection

VG2 (Radar Detector Detector) Detection

VG2 undetectability

Instant On/Pulsed Radar Alert

Smart Text Display (8 Digit: 280 LED Matrix)

Digital Voltage Meter

Digital Electronic Compass (WT1030 only)

User Programmable

Memory Retention

Signal Strength Meter

Visual & Audible Alarms

External Laser Jack (Option)

Power On/Off with Volume Control

Mute Mode

Dim/Dark Modes

City/City1 Modes

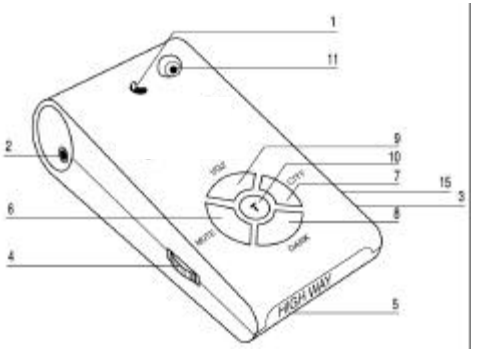
VG2 Mode

Tutorial Mode

Voltage Meter Mode

User Selection (Programmable) Modes

Compass Calibration Mode (WT1030 only)



1. Bracket Lock/Release Button Easy lock/release of the mounting bracket.

2. Power Jack Connection for the power cord.

3. Speaker Provides distinct audio alarms for X, K, Ka band radar, laser and the VG-2.

4. Power/Volume Control Turns unit on/off and adjusts audio level.

5. High Visibility Text Display Provides distinct visual confirmation of signals strength, signal band identification and indicates engaged modes of operation.

6. MUTE Button Pressing MUTE during a radar/laser encounter silences audio alerts.

7. CITY Button Reduces the annoyance of false alerts typically encountered in urban driving areas.

8. DARK Button Reduces illumination of display to "dim" or "dark" settings.

9. VG2 Button Pressing VG2 to engage or disengage VG-2.

10. T Button Tutorial mode engage button

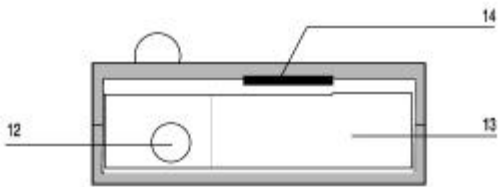
11. Laser Lens (Rear) An integrated optical waveguide provides superior detection of laser signals transmitted from behind

12. Laser Lens (Front) High gain optical lens array provides increased sensitivity and field of view for leading edge laser detection.

13. Radar Antenna Compact, high-efficiency antenna receives radar signals.

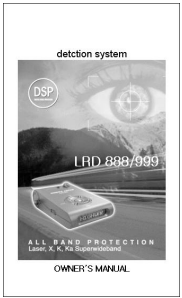
14. Mounting Bracket Location Slot holds mounting bracket firmly.

15. EXT Port for external laser connection (Option Laser Module)



II. ACCESSORIES INCLUDED WITH RADAR DETECTOR

1. Owner's Manual



2. Power Cord

3. Mounting kit

4. Hook & Loop Fasteners

5. Spare Fuse 2A 250V

Ⅲ. MOUNTING INSTALLATION

Mount the unit as low as possible near the center of the windshield.

Do not mount your 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 newer windshields have an Instaclear™ or Electriclear™ type coating, which affect radar signals.

Avoid placing unit in direct contact with windshield.

To reduce the possibility of theft, conceal your unit when not in use.

Windshield Mounting

Install the mounting kit at the windshield as it follows.

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. 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 and get it locked with switch.

If necessary, the unit may be leveled by bending the windshield bracket. Push the bracket release switch and remove the detector before bending.

Dashboard Mounting

Make sure the mounting location you have chosen is relatively level and is clean and dry. Clean with isopropyl alcohol if necessary to remove any waxes or polishes.

Separate the fastener strips. Peel the paper backing off each strip and adhere one piece to the dash and the other piece to the bottom of the unit, taking care not to cover the serial number.

Be careful not to place the fastener strip over the unit ' s serial number. If the fastener strip is removed, the serial number may be pulled off the unit. Units without serial numbers are not covered under warranty.

Power Connection

Plug the small end of the power cord into the unit ' s power jack.

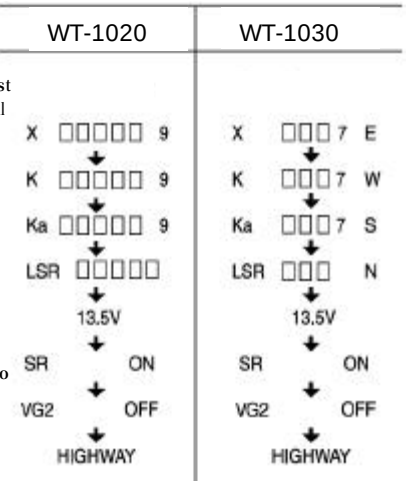
Plug the large end into the vehicle ' s cigarette lighter.

Ⅳ. OPERATION GUIDE

Power On And Self-Test

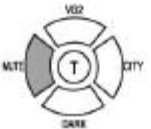
Each time your WT-1020 detector is turned on, an automatic self-test sequence confirms that the speaker and visual displays are functional and displays the engaged features.

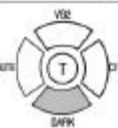
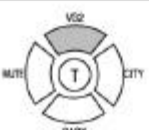
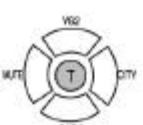
Turn Power/Volume control clockwise. Display reads:

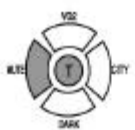


Feature Engaged Confirmation

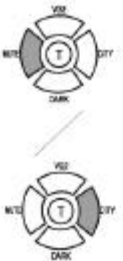
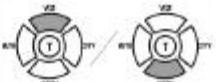
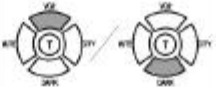
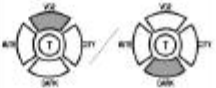
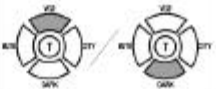
Each time a button is pressed one beep confirms feature "on", two beeps confirm feature "off".

Function Mode	Key engage / disengage		Display	Function
MUTE	MUTE/ AUTO OFF			To cancel the audio when signal is detected. After 20 sec, automatically mute off
CITY CITY1	CITY CITYx2 / CITYx3		CITY CITY1	To reduce X band sensitivity To unable to detect X band signal •Two levels of City Mode are designed to reduce the annoyance of automatic door openers for X band detecting sensitivity, intrusion alarms and other devices which share frequencies with police radar. In City Mode, weak speed/safety radar signals give an initial alarm of two beeps, and then the unit remains quiet unless the signal becomes very strong. When the signal strength increases, two additional beeps are provided. In City 1 X-band is not detected. CAUTION: Some towns/small cities may still be using X band radar.

Function Mode	Key engage / disengage		Display	Function
DIM DARK	DARK DARKx2 / DARKx3		DIM DARK	To reduce illumination to a Dim/Dark setting Dim or dark 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
VG2	VG2/VG2		VG2 ON VG2 OFF	To detect VG2 signal
Tutorial	T (2 sec hold) / T		TEACH X 1111 4 K 1111 4 Ka 1111 4 LASER III VG2 VG2 CAUTION	To provide simulation alert for each type of signal (X band, K band, Ka band, Laser, VG2, Safety Radar)

Function Mode	Key engage / disengage		Display	Function
VOLTAGE METER	MUTE+T (2 sec hold) / AUTO OFF		12.3 V	To display your voltage of car battery
DIGITAL ELECTRONIC COMPASS	T+CITY (2 sec hold)		CALIBRATION ... ... MODE TURN UNIT ... ... TWICE WAITING! Press " T " Button CAL. DONE HIGHWAY	LRD S WT-1030 only To provide electronic compass heading

USER PROGRAMMABLE MENU MODE

MENU MODE	MODE SELECTION	MODE	SUB SELECTION	SUB MODE
 MUTE+CITY (2 sec hold)		DISPLAY		WT-1030 only [COMBO / RADAR / COMPASS]
		TONE		[TONE1 / TONE2 / TONE3]
		SELF TEST		[TEST YES / TEST NO]
		SAFETY RADAR		[SR ON / SR OFF]

- COMBO MODE DISPLAY (HWY SE)
- RADAR MODE DISPLAY (HIGHWAY)
- COMPASS MODE DISPLAY (135° SE)

Memory Retention

Electronically remembers all your own settings for a certain period of time after power-off.

V. RADAR/ LASER/ VG-2 ALERTS

Speed Radar Visual /Audio Alerts

When X, K or Ka is detected, the band ID and signal strength is displayed with an audible alert.
Example:

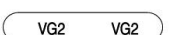
Laser Visual /Audio Alerts

When a laser signal is detected, LSR is displayed with signal strength. The audio alert is continuous for a minimum of 3 seconds.
Example:

VG-2 Visual /Audio Alerts

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 VG-2 Alert, the X, K, and Ka band signals cannot be received



Instant Visual/ Audio Alert

When an instant signal (strong signal) is detected, an urgent 3 second audio warning is sounded and the display shows:

After 3 seconds standard alert pattern continues.

Safety radar Visual/ Audio Alert

The WT-1020/1030 detects the new Safety Warning system. This provides advanced warning of various road hazards including accident sites, highway construction, emergency vehicles and enables you to respond more appropriately to potentially dangerous conditions. It provides a distinct audio tone and illuminates the first strength bar and the last bar in the display.

VI. TROUBLESHOOTING GUIDE

PROBLEM: No display or audio.

Check fuse in the plug and replace if necessary with a 2 amp 3AG type.

Check fuse for lighter socket; replace if necessary.

Make sure lighter socket is clean.

PROBLEM: Unit alarms when vehicle hits bumps.

Check for loose lighter socket; tighten and clean.

Check connections at both ends of power cord. Substitute another cord to determine if cord is defective. Return defective cord to the factory.

PROBLEM: Unit alarms when using vehicle equipment or electrical accessories (brakes, power mirrors/windows, directionals, horn, etc.).

Vehicle's electrical system, including battery and alternator, may have electrical noise. Install a filter capacitor (470mfd. 25 volt or larger capacitance value) on the back of the lighter socket.

Factory setting

All user features can be reset to factory settings. Please follow below steps for reset.

1. Unplug Power Cord from unit
2. Press and hold City and Mute.
3. Plug Power Cord into unit.
4. Wait for 2 beeps.
5. Release City and Mute button. Unit is now reset

- Factory reset -

Highway Mode On (WT-1030: Combo Mode On).

Dim/Dark Mode to full illumination of display.

VG-2 Detection Mode Off

Ⅶ. SPEED MONITORING DEVICES

Radar speed gun

A radar gun operates by transmitting radio waves at certain frequencies which reflect off objects and are then 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(Federal Communications Commission) 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).

Laser speed gun

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 transmission can cover more than a four-lane highway at a distance of 1,000 feet, compared with a laser transmission which covers about 6 feet at the same distance.

For best protection, keep these points in mind:

Because your vehicle's license plate or headlights are the laser gun' s primary targets, mounting your detector on the dashboard can improve laser detection at short range.

Do not follow closely behind any vehicle you cannot see through. 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

Radar Detector Detectors

The Interceptor VG-2, or simply VG-2, is a 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, the VG-2 is known as a "radar detector detector".

VIII. MAINTENANCE

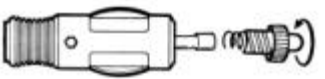
Care And Maintenance

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.

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. (MPORTANT: 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.

IX. SPECIFICATIONS

General

Dimensions:	65mm(W) x 118mm(L) x 32mm(H)
Weight:	148 g
Power Requirement:	12- 15V DC
Temperature Range:	Operating -20 ° C to +80 ° C
	Storage -40 ° C to +100 ° C

Laser Detector

Receiver Type	Pulse Laser Signal Receiver
Sensor Front End	Convex Condenser Lens
Detector Type	Pulse Width Discriminator
Receiver Bandwidth	30 MHz
Spectral Response	800- 1100 nm

Radar Detector

Receiver Type	Double Conversion Superheterodyne
Detector Type	Scanning Frequency Discriminator
Antenna Type	Linear Polarization
Frequency of Operation	10.525 GHz ± 50 MHz (X Band)
	24.150 GHz ± 100 MHz (K Band)
	34.700 GHz ± 1300 MHz (Ka Band)

Specifications are subject to change without notice.

MEMO

MEMO