

# **USER MANUAL**

LONGEST RANGE / MULTARADAR CAPABLE

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# **Radar Detector Radenso Pro M-Edition**

#### **Foreword**

Congratulations on your new investment. You chose one of the best high-tech, GPS enabled, mobile radar and laser detector available on the market today. The Radenso Pro M-Edition is the evolution of the Radenso equipped with an additional circuit designed to detect the newest Multaradar and Gatos RT 3 delivering astonishing detection range on all radar bands. Coupled with multiple filters against annoying false alerts your Radenso Pro M-Edition will alert only when it counts.

# **RADENSO PRO M-Edition FEATURES:**

- Extremely sensitive high performance windshield mounted radar detector.
- Longest detection range on all bands.
- Multaradar and Gatso RT 3 capable.
- Selectable X, K, Ka narrow, MRCD, MRCT and Gatso radar bands tuned to the exact radar frequencies used in North America for increased range and reduced false alarms.
- Selectable Ka POP radar band (ON/OFF).
- Selectable 2-level Traffic Sensor Rejection Filter (TSR Low and TSR High).
- Selectable 2-level filter for MRCD bands.
- Selectable Ka band filter.
- Highway, City and AutoCity Mode.
- Revolutionary Auto City Mode with selectable band filtering based on speed settings.
- MUTE Mode mutes all K and X band alerts as long as it is activated. Ka and Laser alerts are not muted.
- Bright, Dim and Dark Display modes.
- Smart Dark Display Mode (turns on display only for alerts).
- Bright Alphanumeric LED display.
- AutoMute reduces volume of alerts after 2 seconds.
- Preloaded GPS Speed and Red Light Camera database.
- Unlimited free lifetime updates for database and firmware no obsolescence ever.
- 7 selectable display modes (Speed/Time, Speed/Voltage, Battery/Voltage, Time, Speed, Speed/Compass).
- Displays radar frequency during visual alert.
- Voice Alerts with frequency announcement during alert.
- Mark your own POI locations for future alerts.
- GPS lockout of false alert areas.
- User-friendly, easy intuitive voice-guided feature section.
- Large suction cups for firm, secure installation on windshield.
- Power Cord with Power ON/OFF button.
- Optional Direct Wire power cord available.
- 1 year manufacturer's warranty.

# **QUICK START UP GUIDE:**

#### To start using your Radenso Pro-M radar detector follow these easy steps:

- 1. Slide the windshield mounting bracket into the QuickMount slot at the front of the radar detector.
- 2. Plug the small end of the power cable into the power jack on the Radenso Pro-M on the left side and connect the large plug with the 12V power socket in your car.
- **3.** Press the red button at the large end of the power cable (at the 12V socket) to turn the power cable on. The button will light up and indicate if Power is on.
- **4.** Press the Power button (left button on top of unit) for 2 seconds to turn on *Radenso PRO M*. Unit will power up with the start-up sequence. After a few seconds, the Radenso Pro-M will notify you with a voice message that the satellite is connected.
- **5.** Adjust the volume level by pressing the volume buttons "+2 or "-" located on the right side of the unit.

#### **CHANGE DEFAULT SETTINGS:**

**Radenso Pro-M** is now ready to go. If you want to change any of the default settings of your unit please refer to the next pages.

#### MAIN FUNCTIONS OF RADENSO PRO-M:

The *Radenso Pro-M* is one of the most powerful radar detectors in the industry. It's designed to protect the driver from speeding tickets/fines. The Radenso Pro-M communicates with the driver in English and it's main functions are the detection of microwave radars (X / K / Ka narrow bands), laser guns, red light cameras and fixed-speed cameras (GPS database).

#### **Notifications:**

When a radar signal is detected, the driver will be alerted by a visual text warning and a voice/tone alert. The display and voice alert will indicate the detected radar band, frequency and signal strength. A beeping warning tone will increase its intensity with increasing signal strength. The signal strength has ten levels. GPS alerts are reported by voice; for example "Speed Camera".

# **FUNCTION OF CONTROL BUTTONS:**

#### Power/Menu Botton

Volume Buttons [+ -] \( \)

Short press: You will enter into setup menu. During an alert pressing the button mutes the volume. The next alarm will be reported again with the Default volume.

Long press: Turn unit ON / OFF.

Short press: Changing volume of the Radenso Pro-M or change

program options in the Menu

Mode.



Alphanumeric Display Radenso Pro-M will show selected display mode, visual alerts and Display/Alert Lockout Button text messages.



# **Power Jack**

Plug power card into this port.



#### **Radar Horn Antenna and Laser Lens**

Needs unobstructed view of the road ahead. Do not mount behind metal coated windshields or wipers.

#### Release Button

Press this button and slide the windshield mount until it is locked. Press button to unlock the mount for removal.

#### Mode/Sensitivity/Mark Button

Short press: Scroll between Highway/City/AutoCity modes.

Long press: Add your own POI GPS point for future alarms.

Short press: Select display brightness (bright, dim, smart dark, full dark).

Long press: Lockout alert loca-

tion.

#### **USB Port**

Connect USB data cable to update database and/or firmware from our website.

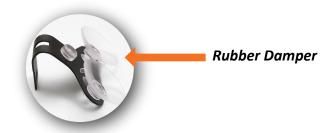
#### Windshield Mount Slot

Insert the windshield mount into this slot until you hear the "click".

# **INSTALLATION**

The Radenso Pro-M windshield mount allows a firm and secure installation of the radar detector at the windshield of your vehicle. Locate an area at the windshield that enables an unobtrusive installation with clear view to the road ahead.

 Place the nipple of the suction cups in the large hole of the bracket and pull the suction cup into the small hole to secure them. Push the rubber damper into the hole in the middle of the bracket.



- 2. Attach the windshield mount to the desired area of the windshield. Make sure it is in a level position parallel to the road ahead. To adjust the angle if necessary, gently push or pull on the bracket to bend it. DO NOT use the detector to bend the bracket.
- **3.** Insert the windshield mount into the slot at the front of the detector until it is locked in position.

For firm and secure adhesion to the windshield, clean the windshield and suction cups before usar installing.

- **4.** Plug the small end of the power cable into the detector (located on the left side) and the large end into your vehicle's 12V ACC socket.
- **5.** To remove *Radenso Pro-M* from the windshield press the release button on top of the unit and slide the unit off the mount.

# **CONTROL BUTTONS ON TOP AND SIDE OF THE UNIT:**

Left button: MENU / ON-OFF.

**Short press:** You will enter into setup menu. During an alert pressing the button will mute the volume.

The next alarm will be reported again in the standard volume.

Long press: Turn ON / OFF Radenso Pro-M.

# Middle button: BRIGHTNESS / ALERT SUPPRESSION

**Short press:** You can change the brightness of the display -> Bright -> Dim -> Smart Dark -> Full Dark.

**Bright:** Brightest display setting. **Dim:** Slightly dimmed display.

Smart Dark: Display is deactivated but will come on with text warning during an alert.

Full Dark: Display is completely deactivated. Only voice and tone alerts are active.

**Long Press:** Holding the button for 2 seconds during an obvious false alert will lockout the location in the future. The signal will then be reported and the alarm suppressed when passing the market location again. You can reactivate the location again by holding the button when approaching the marked location.

**During start up:** Pressing and holding the button during startup will reset the Radenso Pro-M to factory reset settings and will display the uploaded Firmware version.

# Right button: SENSITIVITY / ADD YOUR OWN GPS POINT

**Short press:** You can scroll between Highway / City / Auto City modes. In City or Auto City modes the sensitivity of X / K / Ka bands can be reduced according to user preference.

**Long Press:** Add your own POI GPS point for future alarms.

# +/- BUTTONS ON THE RIGHT SIDE:

**Short press:** Changing alert volume of *Radenso Pro-M* or change program options while in Menu Mode.

# **MENU AND USER SELECTABLE FEATURES:**

Press left button to enter Menu Mode.

Press *left button* again to go from one menu option to the next.

Press **VOLUME** + or – button (on the right side of detector) to change your setting within the category. To save the changed selection simply wait a few seconds without pressing any button. The unit will display **"Setting Completed"** to confirm your selection. Alternatively, you can leave the menu and save the setting by tapping the **right button**.

# THE FOLLOWING SELECTABLE FEATURES ARE AVAILABLE:

SELECTABLE FEATURE	DESCRIPTION	SETTING	
Setting Mode	Select driving Mode	Highway City Autocity (see next page)	
Display Mode	Select what the display should show	Speed / Time Speed / Voltage Voltage Time Speed Speed / Compass	
Units	Select the unit of speed	English Metric	
Alerts	Select alert display	Frequency Bar	
Voice	Select voice mode	On Off	
Auto Mute	If activated alert volume will be muted after 2 seconds	On Off	
1 Beep	Indicates entering of locked out area with 1 Beep	On Off	
Minimum speed sensing radar	Select speed	Off (10-130 mph)	
X Band	Activate / desactivate X Band	On Off	

SELECTABLE FEATURE	DESCRIPTION	SETTING
K Band	Activate/deactivate K Band	Wide Narrow Off
K TS Rej.	Choose between Low and High Filter option	TSR LOW TSR HIGH Off
Ka Band	Activate/deactivate Ka Band	Wide Narrow Off
Ka Filter	Activate / deactivate Ka filter to reduce falses on Ka band	On Off
Ka Pop Band	Activate/deactivate Ka POP	On Off
Laser Band	Activate/deactivate Laser	On Off
MRCT Band	Activate/deactivate MRCT band	Wide Narrow Off
MRCD Band	Activate/deactivate MRCD band	Wide Narrow Off
Gatso Band	Activate/deactivate Gatso band	On Off
MR Filter	Activate/deactivate MR filter	Low High Off
Startup sound	Start-up detector with a tone sequence	On Off
GPS connected announcement	Voice announcement when GPS is connected	On Off
GPS detection by database type	Via middle button you can select different types of GPS alert areas. For editing use + / You can on / off each type of alert.	
GPS Warning Distance	Choose how far before you want to be alerted to the POI	Normal (approx. 800 ft.) Farther (approx. 1250 ft.) Farthest (approx. 1650 ft.)

SELECTABLE FEATURE	DESCRIPTION	SETTING
Set local time	You can change time using + / - button on the side	Set the hours only, minutes will automatically adjust by GPS
Factory Reset	To reset to factory settings press middle button	
Delete all user locations	For deleting all stored user locations press middle button	

# **SETTING AutoCity SPEED**

The *AutoCity* driving mode allows the setting of minimum alert detection speed for signal suppression and signal filtering resulting in significantly reduced false alerts. Select AutoCity in Setting Mode.



**Setting AutoCity speed:** (feature selectable only if Setting Mode is set to AutoCity): Tapping the Middle button lets you select the speed for editing



Left speed setting indicates the speed below which the radar reception of the detector will be completely disabled (in example above 20 mph). No signals from police radar or false signals from automatic door openers will be reported.

The right speed setting indicates the speed below which the detector will detect alerts in City mode with reduced radar sensitivity (in example above 40 mph).

+ / - buttons on the right side of the detector will change the specific speed setting.

**RECOMMENDATION "20" and "35":** The detector will not alert to any signal below 20 mph and will operate with reduced radar reception between 20 and 35 mph. Maximum detector sensitivity will be achieved above 35 mph.

Setting City and AutoCity sensitivity (this option is available only in *City or AutoCity Mode*): By means of the **Middle button** you can select the radar band for editing.



To change the sensitivity of signal reception use + / - button on the side of the unit. The level of signal suppression can be selected in the range 0-9. The displayed numbers indicate the sensitivity reduction in the different radar bands. The example displayed above indicates that the X Band sensitivity is reduced by 50%, K Band sensitivity reduced by 20% and Ka Band sensitivity is not reduced at all (0% reduction).

# **GPS LOCKOUTS:**

The detector lets you mark known false alert areas so that you will not receive audio alerts in the future at the marked location. The detector stores the GPS coordinates as well as radar band, radar frequency and signal strength and compares it each time with the actual signal received. If the received signal at the lockout location is different from the saved signal in terms of frequency and/or signal strength the detector automatically unmutes and you will be alerted by audio again.

The display will show the band and signal strength and a small "L" icon in front of the radar band letter indicates that the area is locked out. You can then either ignore the alert or delete the previously saved locked out and re-save the new one.

To set a GPS lockout press the middle button during an alert for 2 seconds. The detector will state "Lockout started" and will complete the process by stating "False alert area added". To manually unlock the detector press the middle button for 2 seconds in a locked out area. You can also delete all lockouts in the menu.

# TROUBLESHOOTING

PROBLEM	ROOT CAUSE / CORRECTIVE ACTION
The detector will not turn on	<ul> <li>Check if power cable is connected</li> <li>The power cable has not been switched on at the power plug. Make sure the red light at power plug is lit.</li> <li>Turn on ignition</li> </ul>
Display is not turning on	<ul> <li>Power cable is disconnected or switch has not been turned on</li> <li>Display is set to "Dark" Mode</li> </ul>
The detector alerts visually but there are no voice or audio alerts	•The alert volume is turned down. Increase volume
The windshield mount does not adhere to the windshield	Clean the suction cups and windshield
The detector alerts to a signal but no police radar trap can be located	•The detector could have received a false signal from a motion sensor. Lockout the known false locations by pressing the middle button during the alert.
The unit suddenly alerts with high intensity while driving on the Interstate although there is no police in sight	<ul> <li>Speed Info Traffic sensors are in place along your road.</li> <li>Turn on the Traffic Sensor Rejection filter in the Menu</li> </ul>
The detector starts alerting with low intensity following another vehicle	•The vehicle in front of you is equipped with Blind Spot Mirror or Lane Assist feature. Turn on the K band filter in the Menu.
Radenso Pro-M did not alert to approaching police vehicle	<ul> <li>The officer is not operating radar equipment</li> <li>One or more radar bands have been deactivated</li> <li>Check in the Menu if all radar bands used in your area are turned on</li> <li>You may have activated a speed limit in the menu and you were traveling below the set speed limit</li> <li>You activated Speed Meter Mode which disables the radar antenna. See page 8 for reactivation.</li> </ul>
Radenso Pro-M <b>never</b> alerts to radar or the alarm turns on after passing the radar source.	l waves Check with your local dealer
The unit did not alert to a Red-light or Speed camera	<ul> <li>GPS detection has been turned off in the Menu.Turn GPS detection On</li> <li>The location is not yet stored in the database. Check if a database update is available for upload</li> </ul>
The detector alerts to a SpeedCam or Redlight camera but no camera can be found	<ul> <li>The location used to have a speed or Redlight camera but it was disassembled</li> <li>The camera is located on the other side of the road in opposite travel direction</li> </ul>

# **TECHNICAL SPECIFICATION:**

#### **Operating Frequency:**

**GPS: SIRF STAR IV** 

Ka narrow: 33.80, 34.7, 35 5 GHz

(± 120 MHz)

Ka Wide: 33.4 GHz - 36.0 GHz K narrow: 24.1 GHz (± 70 MHz) K wide: 24.1 GHz (± 150 MHz) X band: 10.525 GHz (± 50 MHz)

Laser: 904mm

#### **Operating Frequency:**

Operating temperature: -30° - +180 ° F (-20° - +85° C)

Operating voltage: 11-16 V

Energy consumption: 250 mA normal, 330 mA max. (12V)

Dimensions: 2.44 x 3.62 x 1.33 inch 62 x 92 x 34 mm

#### **FCC COMPLIANCE**

This device complies with part 15 of FCC rules: Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received including interference that may cause undesired operation.

**FCC NOTE:** CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE MANUFACTURER COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

#### **DATABASE & FIRMWARE UPDATES:**

**Radenso Pro-M** is web ready and equipped with a Mini USB data port. It is recommended to check for GPS Database updates every three months. To download updates of the GPS database or to update the firmware follow the instructions described in the "UPDATE" section of the Radenso Homepage http://radenso.com

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#### **ONE (1) YEAR LIMITED WARRANTY**

RADENSO warrants, for two years, to the original retail owner, this RADENSO product to be free from defects in materials and craftsmanship with only the limitations or exclusions set out below.

WARRANTY DURATION: This warranty to the original user is valid for 12 months after the date of original retail sale.

#### **SCOPE OF WARRANTY:**

From the date of original consumer purchase and for the respective periods specified above, RADENSO agrees to repair or replace, at its sole expense, all RADENSO brand products purchased directly from RADENSO or from an Authorized RADENSO Dealer, which are defective in material and/or workmanship during ordinary consumer use. Repairs may be completed using new or refurbished parts that meet or exceed RADENSO specifications for new parts. RADENSO, at its sole discretion, may replace a product, with a refurbished or reconditioned unit having comparable features and a limited consumer warranty.

#### **EXCLUSIONS:**

IF YOU PURCHASE A RADENSO PRODUCT FROM AN UNAUTHORIZED DEALER, YOUR RADENSO WARRANTY WILL NOT BE VALID.

This Warranty does not apply with respect to the following:

- **1.** Defects or damage caused by accident, fire/smoke, flood/water damage, power surge (or related electrical abnormalities), lightning or other acts of nature.
- 2. Defects or damage caused by abuse, misuse, negligence, accident, unauthorized product modification or service, or failure to observe the instructions contained in the manual furnished at the time of original purchase.
- **3.** Deterioration/failure due to corrosive atmosphere, including but not limited to; smoke, high humidity or extreme temperature.
- 4. Damage caused during shipment or handling.
- **5.** Products purchased from anyone other than Radenso or an Independent Radenso Authorized Dealer. If you are uncertain as to whether a dealer is authorized, please contact Radenso's Customer Service.
- **6.** Products that have had their serial numbers altered or removed.
- 7. Products purchased in "AS IS" condition or noted as "DEMO", "DISPLAY", "OPEN BOX", or "CLEARANCE".
- **8.** Products that have been altered or repaired by anyone other than Radenso or a Radenso authorized service station in a manner that has affected their performance, stability or reliability.
- 9. Accessories attached to or to be used with Radenso products, such as antennas, mounts, cables, etc.
- **10.** Any product attached to or used with the RADENSO product.
- 11. Packing materials and cosmetic items.
- 12. Installation and removal of Radenso products from the vehicle.
- **13.** Maintenance, cleaning or periodic check-ups.

#### **OBTAINING OF WARRANTY SERVICE**

If, after following the instructions in this Operating Guide, you are certain that the product is defective, pack the product carefully (preferably in its original packaging) and include evidence of original purchase and a note describing the defect. The product should be shipped freight prepaid, by traceable means, or delivered, to warrantor at:

RADENSO, 1100 Sycamore St. 1st floor, Cincinnati OH 45202

1-888-RADENSO (1-888-723-3676) 9 a.m. to 5.00 p.m., Eastern Time, Monday through Friday