radenso RC M

user manual

contents.

what's inside.

A. Front Radar Antenna
- Weatherproof radar antenna
- Universal mounting brackets with stainless steel hardware
- 6-foot cable with waterproof connector
- 10-foot extension cable

B. GPS Antenna
- Weatherproof, magnetic mount GPS antenna

C. CPU
- Central CPU that all modules plug in to
- Connects to 12v power and ground

D. Display and Control Module
- Magnetically detachable display/control pad
- Flush-mountable base station
- Mounting hardware and adhesive pads
- Micro USB cable to display

E. USB Flash Drive
- USB flash drive used for firmware updates

F. USB Extension Cable
- USB extension cable allows easy access to USB ports for firmware updates

G. External Speaker
- External speaker provides loud, clear audio alert tones

additional accessories.

RC M AL Priority Laser Defense Kit (optional)

- Three individual AL Priority laser sensors
- AL Priority CPU
- Radenso RC M bridge cable

RC M AL Priority Laser Rear Defense Kit (optional)

- Two individual AL Priority laser sensors

Rear Radar Antenna (optional)

- Weatherproof radar antenna
- Stainless steel mounting brackets hardware
- 6-foot cable with waterproof connector
- 10-foot extension cable

Please Note:

All intellectual property incorporated in AL PRIOR-ITY product is reserved to its legal proprietor. Patents: US 8,309,926; EP2277060; AUS 2008355569; US 8,786,490; CA2939856A1, US 9,500,744 and others. Industrial designs: DM 079630-0001. Trademarks: US3222340, US4123648, US4280659, AUS1423337, EM-1073712, EM 1140797, CN 1140797, AUS153306, and others.

installation guide.

Professional Installation Recommended

It is recommended that you have a professional install your new Radenso RC M. To properly install this system requires extensive experience with automotive electronics. If you are unfamiliar with 12v electronics, many authorized dealers can install your Radenso RC M system for you.

Attempting to install this product without expertise in automotive electronics may cause personal injury or damage to your vehicle.

WARNING:

The mounting location of your radar antennas and laser sensors is absolutely critical to determining the ultimate performance of your installation.

The best performance will always be given with a direct line of sight and a clear view of the road. Technically, radar waves can pass through certain types of plastic, so it is acceptable in certain cases to mount the radar antenna behind a bumper or grill. However, maximum performance will always be achieved with nothing physically blocking the radar antenna.

Laser is different than radar - it MUST have a clear line of sight. Since laser is light based, system performance is heavily dependent on an unobstructed view with level, square mounting.

After installation is complete, please proceed to the next section to update the software on the RC M and ALP.

YOU MUST UPDATE SOFTWARE BEFORE USE!

software updates.

IMPORTANT:
Before powering on your device for the first time, we will be preparing to update the firmware on the RC M CPU and the ALP CPU (if present). Updating the firmware is mandatory before use.

The firmware update process is similar for both control units - we will be downloading firmware files from a website, placing them on a USB flash drive, and then plugging them into the control units. Once powered on, the control units will recognize the firmware files are present and automatically begin updating.

Updating the RC M firmware
1. Take the included USB flash drive and plug it into a computer. Either Mac or PC is fine.
2. Point your browser to **radenso.com/pages/firmware.**
3. In the center of the page, you will see text that says "Or click here for manual serial number input." Click on the text "here" to go to the serial number entry page.
4. Enter the serial number of the RC M CPU into the "serial number" box. The serial number is just the last five digits of the sticker on the back of the CPU. For example, if the sticker reads "RR007 63148" than the correct numbers to enter are, "63148"
5. For the drop-down boxes that say "front radar" and "rear radar" select RC M for the front, and do the same for rear if a rear antenna is present.

6. Click "upload and verify" and a box will pop up offering two download options - "Download all in one ZIP archive," or "Download files individually."
7. Click on the blue download icon next to the "Download all in one ZIP archive" text to download your firmware update.
8. When the download is complete, unzip all files in the archive to the USB Flash Drive.
9. Remove the flash drive from your computer and plug it into the RC M CPU's USB port.
10. Power on the RC M system while the USB flash drive is still plugged in. The RC M will automatically recognize the software update file and begin the update process. You will see several status messages on the screen as the unit cycles through updating the various modules (display, front antenna, rear antenna, etc). Once the firmware update is complete, the unit will reboot.
11. Manually power the RC M off and back on. Once the RC M boots back up, the update process is complete.

software updates.

Updating the AL Priority.

1. Take the included USB flash drive and plug it back into your computer. Delete any existing files on it so you are starting with a blank flash drive.
2. Point your web browser to **alpupdate.com** and click on "I agree" to accept the Terms of Use.
3. You will see the option "Configure" in large text on the left side of the page. Click on the blue "Enter" button to enter the configuration file setup.
4. Select "North America" under the region drop-down. This will take you to a page with several options.
5. By default, the AL Priority system is shipped in parking sensor only mode. **If you wish to enable laser defense, you must choose the "PDC & LID" option.**
6. Choosing "PDC & LID" will present several more options below. **Leave everything default except for "LID" time. This must be set to "Unlimited."**
7. Click "Save & download" to download your configuration file. Move this file to the USB flash drive.
8. Point a new browser window back to **alpupdate.com**. This time, click on the blue "Enter" button under the "Firmware upgrade" text.
9. Enter the serial number of your ALP control unit (found on a sticker on the back of the unit) enter the prompt, and press "OK."
10. You will be prompted to answer a simple math problem as proof that you are human and not a bot. Solve the problem and hit "Press to Download."

11. A firmware file will be downloaded to your computer. Move this file onto the USB flash drive. The flash drive should now have two files on it: the config file and the firmware file.
12. Go in to the RC M menu and enable jammer (off by default). Power the system off, and then plug the USB flash drive into the ALP CPU. Make sure the RC M and ALP are both powered off when you plug it in.
13. Turn on the RC M system and wait several seconds. The RC M will automatically recognize that the ALP has the firmware update flash drive plugged in, and the CPU will begin updating.
14. Once the ALP has finished updating, the RC M display will give you a message indicating that the process has finished.
15. Remove the flash drive from the ALP control unit and manually power off the RC M system.
16. Power the RC M system back on and the process is complete.

RC M user interface.

The Radenso RC M has an easy to use interface. The removable, magnetic display has five buttons - each with dual functionality depending on the length of the button press, and whether or not the user is in the settings menu.

A. Power Button
Short Press: Enter settings menu.
Long Press: Power on/off
Function once in menu: Advance to next menu setting

B. Brightness Button
Short Press: Adjusts brightness, toggles SmartDark mode, which keeps the display blank until alert is received, except for a single moving "status" pixel
Long Press: GPS Lockout
Function once in menu: Advances cursor within sub-menu

C. Driving Mode Button
Short Press: Changes current driving mode
Long Press: Stores user GPS point of interest
Function once in menu: Saves and exits menu

D. Volume Down Button
Short Press: Reduces RC M volume
Long Press: N/A
Function once in menu: Lowers numerical value

E. Volume Up Button
Short Press: Raises RC M volume
Long Press: N/A
Function once in menu: Raises numerical value

Three Button Mute
While a radar or laser signal is being detected, buttons A, B, or C may be used to mute the alert.

menu settings and features.

Front Radar
Recommended setting: On
Options: Off, on
Description: Front radar antenna enabled or disabled.

Rear Radar
Recommended setting: On
Options: Off, on
Description: Rear radar antenna enabled or disabled.

Driving Mode
Recommended setting: Auto City
Options: Auto City, Highway, City
Description: Default driving mode when the RC M is powered up.

Auto city speed limit
Recommended setting: 50 km/h / 70 km/h
Options: Increments of 5 km/h
Description: Low speed threshold beneath which K and X band signals will automatically mute / High speed threshold past which detector is automatically set to maximum sensitivity.

City Level (Front Antenna)
Recommended setting: X 4, K 2, Ka 0
Options: 0-9 for each band
Description: Allows the user to individually control sensitivity to each radar band for the front antenna while in City or AutoCity mode. The numbers represent the amount of signal attenuation; 0 is none, 9 is maximum.

City Level (Rear Antenna)
Recommended setting: X 4, K 2, Ka 0
Options: 0-9 for each band
Description: Allows the user to individually control sensitivity on each radar band for the rear antenna while in City or AutoCity mode. The numbers represent the amount of signal attenuation: 0 is none, 9 is maximum.

F-X (Front Antenna - X Band)
Recommended setting: Off
Options: Off, on
Description: X band for front antenna enabled or disabled.

F-K (Front Antenna - K Band)
Recommended setting: K-NZ
Options: Off, wide, narrow, K-NZ
Description: K band for front antenna enabled or disabled.

F-K TS Rej (Front Antenna - K Traffic Sensor Rejection Filter)
Recommended setting: High
Options: Low, high, off
Description: Filter that reduces K band false alerts from traffic sensors.

F-Ka (Front Antenna - Ka Band)
Recommended setting: Narrow
Options: Off, wide, narrow
Description: Ka band scanning width for front antenna. To enable Ka band segmentation set option to narrow.

F-Ka 33.8 (Front Antenna - Ka Band 33.8 GHz)
Recommended setting: Off
Options: Off, on
Description: Detection for Ka band frequency 33.8 GHz for the front antenna.

F-Ka 34.3 (Front Antenna - Ka Band 34.3 GHz)
Recommended setting: Off
Options: Off, on
Description: Detection for Ka band frequency 34.3 GHz for the front antenna.

menu settings and features.

F-Ka 34.7 (Front Antenna - Ka Band 34.7 GHz)
Recommended setting: On
Options: Off, on
Description: Detection for Ka band frequency 34.7 GHz for the front antenna.

F-Ka 35.5 (Front Antenna - Ka Band 35.5 GHz)
Recommended setting: Off
Options: Off, on
Description: Detection for Ka band frequency 35.5 GHz for the front antenna.

F-Ka Filter (Front Antenna - Ka Band Filter)
Recommended setting: High
Options: Off, normal, high
Description: Ka band false alert filter level for the front antenna.

F-Ka POP (Front Antenna - Ka POP Radar)
Recommended setting: Off
Options: Off, on
Description: Enhances Ka band POP detection for front antenna.

F-Laser (Front Antenna - Laser Detection)
Recommended setting: On
Options: Off, on
Description: Enables or disables laser detection for the front RC M antenna.

F-MRCT (Front Antenna - MultaRadar CT band)
Recommended setting: Off
Options: Off, on
Description: Enables or disables MRCT band radar detection for the front antenna.

F-MRCD (Front Antenna - MultaRadar CD band)
Recommended setting: Off in USA, narrow in Canada
Options: Off, wide, narrow
Description: Enables or disables MRCD band radar detection for the front antenna.

F-Gatso (Front Antenna - Gatso Radar)
Recommended setting: Off in USA and Canada
All setting options: Off, on
Description: Enables or disables Gatso radar detection for the front antenna.

F-MR Filter (Front Antenna - MultaRadar Filter)
Recommended setting: High
Options: Off, low, high
Description: False alert filter level for MRCD, MRCT, and Gatso.

R-X (Rear Antenna - X Band)
Recommended setting: Off
Options: Off, on
Description: X band for rear antenna enabled or disabled.

R-K (Rear Antenna - K Band)
Recommended setting: Narrow
Options: Off, on, narrow
Description: K band for rear antenna enabled or disabled

R-K TS Rej (Rear Antenna - K Traffic Sensor Rejection Filter)
Recommended setting: High
Options: Low, high, off
Description: Filter that reduces K band false alerts from traffic sensors.

menu settings and features.

R-Ka (Rear Antenna - Ka Band)
Recommended setting: Narrow
Options: Off, wide, narrow
Description: Ka band scanning width for rear antenna. To enable Ka band segmentation, set option to narrow.

R-Ka 33.8 (Rear Antenna - Ka Band 33.8 GHz)
Recommended setting: Off
Options: Off, on
Description: Detection for Ka band frequency 33.8 GHz for the rear antenna.

R-Ka 34.3 (Rear Antenna - Ka Band 34.3 GHz)
Recommended setting: Off
Options: Off, on
Description: Detection for Ka band frequency 34.3 GHz for the rear antenna.

R-Ka 34.7 (Rear Antenna - Ka Band 34.7 GHz)
Recommended setting: On
Options: Off, on
Description: Detection for Ka band frequency 34.7 GHz for the rear antenna.

R-Ka 35.5 (Rear Antenna - Ka Band 35.5 GHz)
Recommended setting: Off
Options: Off, on
Description: Detection for Ka band frequency 35.5 GHz for the rear antenna.

R-Ka Filter (Rear Antenna - Ka Band Filter)
Recommended setting: High
Options: Off, normal, high
Description: Ka band false alert filter level for the rear antenna.

R-Ka Pop (Rear Antenna - Ka POP Radar)
Recommended setting: Off
Options: Off, on
Description: Enhances Ka band POP detection for rear antenna.

R-Laser (Rear Antenna - Laser Detection)
Recommended setting: On
Options: Off, on
Description: Enables or disables rear laser detection for the rear RC M antenna

R-MRCT (Rear Antenna - MultaRadar CT band)
Recommended setting: Off
Options: Off, on
Description: Enables or disables MRCT band radar detection for the front antenna

R-MRCD (Rear Antenna - MultaRadar CD band)
Recommended setting: Off in USA, narrow in Canada
Options: Off, wide, narrow
Description: Enables or disables MRCD band radar detection for the rear antenna

R-Gatso (Rear Antenna - Gatso Radar)
Recommended setting: Off in USA and Canada
Options: Off, on
Description: Enables or disables Gatso radar detection for the rear antenna.

menu settings and features.

R-MR Filter (Rear Antenna - MultaRadar Filter)
Recommended setting: High
Options: Off, low, high
Description: False alert filter level for MRCD, MRCT, and Gatso.

Jammer
Recommended setting: On (if jammer is connected)
Options: Off, on
Description: Tells the RC M if there is an AL Priority laser jammer present.

Parking Assistance
Recommended setting: User preference
Options: Off, on
Description: If AL Priority laser jammer is connected, it can also function as a parking aid that emits a tone when an obstruction is encountered.

Laser Jamming Timer
Recommended setting: 7s
Options: 1-9 seconds, unlimited
Description: Sets the time after the RC M will automatically disable the laser jammer after an active laser encounter. Gives the user time to slow down and allow a speed reading on the car without inconveniencing the user by hitting a "jammer kill" button.

Jamming Default?
Options: Press Driving Mode button for yes
Description: Resets Anti-Laser Priority CPU to factory default settings.

Display Mode
Recommended setting: User preference
Options: Speed/time, speed, speed/compass, speed/voltage, voltage, time
Description: Controls what information is shown on the display during regular driving.

Units
Recommended setting: User preference
Options: English (mph), metric (km/h)
Description: Controls what units the RC M displays in.

Alerts
Recommended setting: Bar
Options: Bar, frequency
Description: Controls whether alerts are displayed with a frequency readout or with a bar graphic.

Voice
Recommended setting: On
Options: Off, on
Description: Voice alerts on or off

Beep First
Recommended setting: Beep first
Options: Beep first, voice first
Description: When an alert is received, controls whether or not the RC M beeps first, followed by a voice alert, or alerts the user with voice first, followed by a beep.

Auto Mute
Recommended setting: On
Options: Off, on
Description: After eight seconds of alerting the volume is automatically reduced

X Tone
Recommended setting: User preference
Options: 1-15
Description: Choose the specific tone you hear during an X band alert.

K Tone
Recommended setting: User preference
Options: 1-15
Description: Choose the specific tone you hear during a K band alert.

menu settings and features.

Ka Tone
Recommended setting: User preference
Options: 1-15
Description: Choose the specific tone you hear during a Ka band alert.

MD Tone
Recommended setting: User preference
Options: 1-15
Description: Choose the specific tone you hear during an MRCD alert.

MT Tone
Recommended setting: User preference
Options: 1-15
Description: Choose the specific tone you hear during an MRCT alert.

G3 Tone
Recommended setting: User preference
Options: 1-15
Description: Choose the specific tone you hear during a Gatso3 alert.

G4 Tone
Recommended setting: User preference
Options: 1-15
Description: Choose the specific tone you hear during a Gatso4 alert.

Laser Tone
Recommended setting: User preference
Options: 1-15
Description: Choose the specific tone you hear during a laser alert.

1-Beep
Recommended setting: User preference
Options: Off, on
Description: Determines whether or not the detector alerts the user when entering into a previously locked out area. If enabled, the detector will emit a single notifying beep.

Low Speed Mute
Recommended setting: 25 km/h
Options: off, 0-135 km/h in increments of 5
Description: Mutes all radar below the set speed

Startup Sound
Recommended setting: User preference
Options: Off, on
Description: Emits a startup tone upon power on.

PWR Off if Display removed
Recommended setting: User preference
Options: Off, on
Description: If the setting is on, the entire system including ALP is turned off when the RC M magnetic display is removed. Placing the magentic display back will reboot the system.

GPS connect announce
Recommended setting: User preference
Options: Off, on
Description: Turns on/off the voice announcement when the RC M has GPS connected after initial startup.

GPS detection Speed Cam
Recommended setting: On
Options: Off, on
Description: Turns on/off the GPS feature of the RC M. Required to be on to use many other features of the RC M.

GPS Warning Distance
Recommended setting: Normal
Options: Normal, farther, farthest
Description: Changes the distance of red light camera, speed camera, and user point alerts. Normal is 800 feet away, Farther is 1200 feet away, Farthest is 1650 feet away

Factory Reset?

menu settings and features.

Options: Press Driving Mode button for yes
Description: Changes all settings to Radenso recommended USA settings.

Delete all user locations?

Options: Press Brightness button for yes
Description: Deletes all stored user locations

Delete all false alert areas?

Options: Press Brightness button for yes
Description: Deletes all False alert lockouts

S/N: XXXXXX

Description: Displays the serial number of your RC M CPU

Hub XX Disp XX

Description: Displays current firmware and display version on the RC M.

warranty.

Two (2) Years 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 24 months after the date of the 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 cause 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.
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. Any product attached to or used with the RADENSO product.
10. Packing materials or cosmetic items.
11. Installation and removal of RADENSO products from the vehicle.
12. Maintenance, cleaning or periodic check-ups.

warranty.

OBTAINING OF WARRANTY SERVICE:
If, after contacting Radenso Customer Service, 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,
222 East 14th St.
Cincinnati OH 45202

1-888-RADENSO (1-888-723-3676) 9 a.m. to 5 p.m., Eastern Time, Monday through Friday

support and contact.

Contact Information
Thank you for purchasing the most advanced radar and laser defense in the world. Here at Radenso, we take your support very seriously; if you need support in any capacity, please contact us immediately.

Address

Radenso
222 East 14th St.
Cincinnati, OH 45202
1-888-RADENSO

Phone

(1-888-723-3676)

9AM-5PM EST, Monday - Friday
support@nolimitsenterprises.com

Email

We hope you enjoy your product for

many years, and thank you again for your patronage.

Regards,

The Radenso Team