



v. 1.0.6

# Specifications: Radar & Laser Detector:

Power Requirements:	USB port must be rated at more than 5V, 1.5A
Frequencies:	10.525 GHz 24.125 GHz 33-36 GHz 904 Nanometer
Sensitivity:	X - 112 Dbm K -110 Dbm Ka wide - 102 Dbm Laser < 200 nano-watt
Alarm:	Separate for each Band Variable alarm for Range
Controls:	Menu, Volume, On/Off, Voice, Language, Tone, Dim, Mute, City/Highway, Test, Scrambler, Factory Reset
Spectre: VG-2:	100% Undetectable [Spectre I, II III; VG-2, 3]
Size:	1.4" x 3.7" x 4.6"

# **INTRODUCTION**

Dear Owner,

Congratulations on your purchase of the world's most sophisticated radar and laser detector and scrambler. Odin is a completely integrated radar and laser detector which responds not only to all the radar guns in use today, but to the other latest development in speed monitoring devices-laser guns.

Odin is the result of Rocky Mountain Radar's commitment to provide you, our valued customer, with the most innovative technologically advanced radar and laser detectors on the market. Odin was created for drivers who will not settle for anything less than the best.

To improve the functionality and user experience we have developed a new app called ODIN by Rocky Mountain Radar. This new app was designed to seamlessly connect your Odin with your smart device allowing you to change your settings on your device from the app, relay all alerts to your smart device and monitor speed.

# **Features:**

## **5 Mile Detection Range:**

Full 360° Radar and Laser Detection Full, 5-mile detection of all bands and frequencies used by police, including X, K, Ka, super wide bands and all laser. This radar detector uses micro-scan. It enables our detectors to scan 2-4 times faster than any other detector, which gives you a 100% probability of detecting POP Radar. This technology is unique to Rocky Mountain Radar detectors.

### **Early Warning Discriminator: (EWD)**

The EWD filter prevents false alarms emitted by safety sensors in newer vehicles and over the road drivers.

### Traffic Sensor Rejection: (TSR)

The TSR prevents false alerts transmitted by sensors that monitor the traffic flow on roadways around major cities.

# Super Clear OLED Display:

The screen is clearly visible in all lighting conditions, so you don't lose focus in any way from the road.

## **Undetectable to Police: (detector detectors)**

Odin radar detector and laser detector incorporates a Monolithic Microwave Integrated Circuit (MMIC), which reduces internal signals from leaking out of the antenna by up to 1/1,000,000 (one millionth) of previous levels which makes the unit totally undetectable to police.

#### **Radar/Laser Scrambling:**

Police radar/LIDAR guns need to get multiple readings sequentially in order to display a valid speed to the officer. When Odin detects a speed detection device, it floods the signal with additional signals making it impossible for the speed detection device to get an accurate reading.

## WARRANTY:

This unit (Odin) comes with a 3-year (36 month) warranty. **Must Have Proof of Purchase** 

## Speeding ticket rebate:

This unit comes with a 1 year of the Speeding Ticket Protection Program. If you get a speeding ticket while using our product, we'll pay your ticket.

This product has been designed and certified to comply with part 15 of the FCC rules. Any changes or modifications not expressly approved by Rocky Mountain Radar may void your authority to use this product.

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.





## Installation

Best place to mount the unit:

You will get the best performance from your detector if you mount it approximately in the center of the windshield, as close as possible to the rear-view mirror without obstructing the unit's view of the road either to the front or rear. Make sure unit is level with the road. Dash mount is not recommended. The unit's Laser lens must not be blocked, and the Laser Lens should have a clear view out of the back window to allow 360° Laser detection.

Radar and laser signals pass through glass but not through other materials and objects such as:

- Windshield wipers
- Sunshades
- Metallic tinting on the windshield
- Heated windshields

(Instaclear for Ford, Electriclear for GM.)

# Mounting the Unit:

1.) Place the suction cups on the windshield bracket.

2.) Place the windshield bracket into Odin. Align the edge of the bracket with the slot opening on the front of the case. Gently slide the bracket into the case **while pressing the bracket release button** until it locks into place. To release bracket, press the bracket release button as you slide out the bracket.

To prevent damage to the unit you must press the release button to release windshield mount before pulling it out.



3.) Clean the windshield before you mount the unit for better results. Place the windshield bracket in the upper center portion of the windshield. The ideal position will be right below the rear-view mirror. Make sure the unit has an unobstructed view of the road. Then Press firmly to seat suction cups.

4.) Carefully bend the windshield bracket mount to a level position.

5.) Insert the small end of the USB-C power cable gently into the power jack on the right side of the unit and the large end into the USB port in your vehicle.



Remote Mounting is not recommended

Dash Mounting is not recommended

# Settings:

When changing the Settings on your detector, please keep in mind:

- Buttons have multiple functions.
- All current settings will be stored in memory.

**Controls:** There are 4 buttons on top of Odin, Menu, Dim, Mute and City.





**Menu:** Press and hold the Menu button down for an extended period of time (approximately 3 to 5 seconds) to go into Menu Mode. Display will show "Menu" with one beep. When Menu Mode is displayed, press and release the Menu button in step increments to scroll up or the Dim button to scroll down on menu items, once the desired menu item is reached press the Mute or City button to change the setting.

Note: If no button is pressed for approximately 10 seconds Odin will automatically "Exit" the Menu mode.

# The Menu items are:

1.) Voice On/Off

- 2.) Language Mode English/ Spanish
- 3.) Alarm Tone High/Low
- 4.) X Band On/Off
- 5.) K Band On/Off
- 6.) Ka Band On/Off
- 7.) Laser On/Off
- 8.) K Wide/Narrow
- 9.) Ka Wide/Narrow
- 10.) K Filter (EWD) On/Off
- 11.) TSRF (TSF) On/Off
- 12.) Voltage Meter On/Off
- 13.) Scrambler On/Off
- 14.) Bluetooth On/Off
- 15.) Self-Test On/off
- 16.) Factory Reset

17.) Exit

Wa	arning: It is your responsibility to be familiar
Radar Detectors in your locality. The manufacturer	
and i use	retailer assume no liability or responsibility for or application of this product in Violation of
anj	y applicable law. Please check your state and local laws and regulations of this product.

Rocky Mountain Radar does not condone the use of excessive speed on the highways, nor does it endorse breaking the speed limit laws of the United States of America. Please drive safely when using this or any other electronic device in your car.

**Dim:** To adjust brightness press the Dim button for a split second (momentary contact) to select between Bright, Dim, Dimmer, Dark. To brighten the alarm light, press the Dim button again until you reach desired setting. In Dark mode there will be a small dot moving from left to right on the display, letting you know that the unit is still powered on. If using Dark Mode, the unit will alert with audio of the presence of radar or laser, but **not visually**.

Note: If the unit is in Dark mode the Mute mode cannot be engaged.

**Mute:** Press the Mute button for a split second (momentary contact) to select "Mute On", "Auto Mute", or "Mute Off". Mute On mode disables voice and

beeping sounds for quiet operation. "Auto Mute" mode will alarm 4 times then go into Mute mode; the display will keep alerting with no sound unless a new signal is received.

**City:** Engage the city function to reduce false alarms in high RF noise areas. City function reduces the X band sensitivity by 50%. Highway mode has all bands at 100% sensitivity.

**Reminder:** If you forget the settings you last used on the unit use the "Factory Reset?" found on the Menu. Unit will reset to factory default.

**Factory Default Mode Settings:** Bright, Mute off, Highway, Voice on, English Voice, High tone, K filter on, Scrambler on, Self-Test on, Voltage meter on, TSRF on, X Band on, K Band on, Ka Band on, Laser on, K Wide, Ka Wide.

**Self-Test Mode:** Begins right after the start message "Rocky Mountain Radar" detection alarms with signal strength will be displayed along with the user preferred activated settings-scrambler test, voice, language and alarm tone. Self-test mode can be de-activated through the Menu selection.

Reminder! Odin will memorize the settings of the features above when the unit is powered off. Be sure to re-adjust the settings to your normal preferences!

#### **Caution!**

**Note:** To prevent possible heat damage or theft, do not leave the unit in direct sunlight or plain sight when not in use.

**Alarms:** A separate alert tone will sound for each band of radar encountered with frequency band displayed X, K, Ka or Laser. For X, K and Ka band the signal strength indicators are displayed with arrows and numerically. Tone frequency will increase as signal strength becomes stronger.

**Signal Strength:** Signal Strength will be first indicated by the display of arrows followed by a number 1-5. When all 5 arrows and the number 5 are displayed the signal is at the strongest level.

VG-2, VG-3 and Spectre: Odin is 100% Undetectable. On Odin the new MMIC prevents detection of the radar detector completely.

Auto Memory: Odin has an automatic memory. Any setting enabled when the unit is turned off will still be enabled when the unit is turned back on. If you have set the unit on Mute or have Dimmed the display be sure to readjust the settings to your normal preference.

Odin gives you the option to deactivate X, K, Ka and Laser. Caution must be used when deactivating the radar bands, if you do not know the type of speed monitoring device used by police in your area.

Odin features K Narrow and K wide mode. K Wide operates at full detection strength. K Narrow is a very useful feature, where the frequency range swept in the Kband region is reduced and more centered around a tuned police radar gun.

Odin features Ka Narrow and Ka wide mode. Ka Wide operates at full detection strength. Ka Narrow focuses the detector on the police radars frequencies used in the USA, 33.8 Ghz, 34.7 Ghz, and 35.5 Ghz.

Odin has a built in Voltage Meter that checks and displays vehicle battery voltage when the mode is activated.

**Tamper Fee:** Tampering with, disassembly, or modification of this product voids the warranty and a fee of \$150.00 will be charged to repair it.

## Connecting to the App with Bluetooth

- 1.) Turn Odin's Bluetooth feature to On so it will be discoverable by your smart device.
- 2.) Download the Rocky Mountain Radar App **Odin** for your smart device.
- 3.) Once downloaded open the app and tap the menu icon in the top right corner to open the menu.
- 4.) Tap Bluetooth Connection in the drop-down menu this will open the Bluetooth menu in the app.
- 5.) Tap Scan for Odin Device.
- 6.) Your Odin device will appear underneath.
- 7.) Tap on your device to pair with it.
- 8.) It will turn orange when it connects.
- 9.) You can now relay all alerts to your smart device and change your settings on your device from your app,

**Reminder:** Odin has an automatic memory. Any setting enabled when the unit is turned off will still be enabled when the unit is turned back on. If you have set the unit on Mute or have Dimmed the display be sure to readjust the settings to your normal preference.

# **Radar Scrambler Specifications:**

Frequencies:	8.0-38.2 GHz
Antenna:	Dual Ridge cast waveguide
Mixer:	Custom MM wave Schottky
Doppler: Generator	Pseudo Random Digital Noise

# Lidar Scrambler:

Full Laser coverage using asynchronous pulse position modulation to confuse the lidar computer.

# How does it work?

The Rocky Mountain Radar scramblers are full-featured radar and laser scramblers combining active laser and passive radar scrambling capabilities.

The radar scrambling circuit mixes Pseudo Random Digital Noise Generator (PRDNS) with the incoming police radar signal and reflects it back to the radar gun. The computer in the radar gun must receive eight

identical, consecutive readings before it will display your speed. All the different speeds contained in the White Noise confuse the computer in the radar gun, so it does not display any speed. This effect duplicates the normal operation that the officer often observes.

Since it is normal to occasionally lose the target speed, the officer is not suspicious. Reasonable care should be used as flagrant violators could still be caught with an estimated speed.

The laser scrambling circuit transmits a series of pulses at the same wavelength used by the police laser guns (Lidar), which are electronically timed at about 100 feet apart. When the pulses pass through the windshield, they will lose up to 50% of their power. The power output is 6 to 10 times that needed to trigger the detector in the laser gun. Lidar sends out laser pulses and measures how long it takes to hit your car and come back. From the speed of light, it can determine your *range*. It sends out several more pulses and calculates your speed from the change in distance over time. The Rocky Mountain Radar scramblers only allow the Lidar to see up to 100 feet, so it is unable to calculate your speed.

# **Scrambler Activation:**

# All Scramblers are factory set to the off Position:

Scrambler: To turn the scrambler on/off:

Note: If no button is pressed for approximately 10 seconds Odin will automatically "Exit" the Menu mode.

1. Press and hold the Menu button approximately 3-5 seconds or until "MENU" is displayed.

2. Press the Menu button in increments until "Scrambler" is displayed

3. Press the Mute or City button to turn scrambler on/off.

If the scrambler is on, "Scrambler Test" will be displayed in the startup sequence. When the unit's scrambler setting is set to off, then "Scrambler off" will be displayed in the startup sequence. During the startup sequence the current menu settings are displayed. If "Self-Test mode" setting is de-activated the unit will only show current settings on the display. **To activate or de-activate scrambler quickly press and hold the City button for an extended period of time (3 to 5 seconds)** 

## **Limited Warranty**

The manufacturer warrants Odin against all defects in materials and workmanship for the period of 36 months from the date of the original purchase, subject to the following terms and conditions: The sole responsibility of the manufacturer under the Warranty period is limited to either repair or, at the option of the manufacturer, replacement of Odin. There are no expressed or implied warranties, including those of fitness for a particular purpose of merchantability, which extend beyond the face hereof. Some states do not allow limitation on how long an implied warranty lasts, so the above Limitations may not apply to you.

Returns should be sent with an explanation of the problem including your physical address (no PO Boxes), proof of purchase, and telephone number. If the information is not included there will be a delay in the repair or replacement of your unit. If the unit is out of warranty, there is a \$62.00 Service fee.

Accessories: The following accessories and parts are available:

Windshields mount

Suction Cups (set of 3)

USB Adapter

USB-C Power Cable

Owner's Manual

Carrying Case

# **IS IT LEGAL?**

The Rocky Mountain Radar scramblers conform to all FCC rules and regulations. Part 15 of the FCC code regulates consumer products that may leak or transmit radio frequency energy into the atmosphere. Since the scramblers are not transmitters, these sections do not apply.

The radar scrambler is a *reflective receiver* and has no emissions. **It does not transmit but** uses the police radar gun's own signal as a carrier of its information. The laser scrambler transmits a series of light pulses. There are no laws regarding the transmission of invisible light.

Rocky Mountain Radar does not condone the use of excessive speed on the highways, nor does it endorse breaking the speed limit laws of the United States of America. Please drive safely when using this or any other electronic product in your car.

# **FREQUENTLY ASKED QUESTIONS**

## Can I test it with roadside trailer radars?

The trailers you see on the side of the road that show your speed are not legal to write tickets. They do not contain the sophisticated sampling computers that are in police radar guns. Since our units confuse the computers and there is none, they will not work reliably against the trailers.

# Can the police detect it?

The radar and laser scramblers do not have RF emissions and cannot be detected. <u>On Odin the new MMIC</u> <u>prevents detection of the radar detector completely</u>.

# What states are they NOT legal in?

The Rocky Mountain Radar scramblers are **not** legal in Texas, Colorado, Utah, California, Nebraska, Oklahoma, Minnesota, Illinois, Tennessee, South Carolina *(unless the switchable scrambler feature is set to off)* and Virginia. The Rocky Mountain Radar detectors are **not** legal in commercial vehicles in most states. Use caution in these states.

# What is Punch-Through?

The signal reflected by the car gets stronger the closer the target is to the radar gun. The Rocky Mountain Radar scrambler uses the radar signal as a carrier and reflects it through a high-gain antenna. It will work only as long as the scrambling signal is greater than the signal from the target. Punch-through is when these signals are equal or within 50-200 feet.

# What is the effective range?

The radar scrambler works at four to six times the range of the radar gun. The laser scrambler is effective at more than two times the Lidar range.

## How do I know the scrambler is working?

When you turn the unit on and it goes through the selftest (at start up the unit does a self-test as long as the Self-Test mode is on), to confirm all the circuits in the scrambler are working correctly. You will see "Scrambler On" if the scrambler is activated.

# Why won't my unit turn on?

Check the following:

- 1) The on/off thumbwheel on the side of the unit
- 2) Unplug and plug the unit back in.
- 3) If it is none of these, return the unit to the manufacturer for repair/replace at our discretion.

# Where is the best place to mount my unit?

The manufacturer recommends in the upper center of the windshield (right below the rear-view mirror) for the maximum coverage. There can be no metallic interference with the unit.

## What does the Voltage Meter do?

The Voltage Meter Checks and displays your vehicles battery voltage when the mode is activated.

# What is the (EWD) K Filter?

The EWD is a K filter that Odin has to help prevent false alarms caused by some safety features in newer vehicles, for example Blind-spot/side-assist/anti-collision warning and other safety technology that operate in K Band.

# What is the difference between K/Ka Narrow/ Wide?

When on Wide mode the unit will pick up all signals around; some may be false signals from buildings or other vehicles. Since these signals are valid signals the detector will display them as detection. On Narrow mode the unit will shorten slightly the distance and reduce the false alarms.