## The Judge

Radar and Laser Detector Radar and Laser Scrambler

Owner's Manual Rocky Mountain Radar

## **Specifications:**

#### Radar & Laser Detector:

Frequencies: 24.125 GHz

33-36 GHz

904 Nano-meter

**Sensitivity:** 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:** 100% Undetectable [Spectre I, II

**VG-2:** III; VG-2, 3]

**Size:** 1.4" x 3.7" x 4.6"

**Other:** 1 - Year Ticket Rebate Program and a 3 - Year Warranty. (Complete Sign and mail in Ticket Rebate Registration card within 30 days of purchase or register online.)

#### INTRODUCTION

Dear Owner,

Congratulations on your purchase of the world's most sophisticated radar and laser detector and scrambler. The Judge 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.

The Judge 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. Created for drivers who will not settle for anything less than the best, The Judge has increased sensitivity on K and Ka bands giving it an extended range of detection as far as five miles. This high tech unit has increased laser scrambling, bi-lingual voice capability, an OLED Display, best of all is the Early Warning Discriminator (EWD) preventing false alarms from several new vehicle safety sensors. The K Filter helps filter out those annoying K Band Radar false alarms caused by the safety alert features in newer vehicles, such as Lane Departure Warning, Blind Spot Warning and other Safety Warning Systems.

RMR-The Judge incorporates a Monolithic Microwave Integrated Circuit (MMIC) that reduces internal signals from leaking out of the antenna by up to 1/1,000,000 (One

Millionth) of previous levels which make the unit totally undetectable to police.

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:**

- 1.) Complete, sign and mail the Ticket Rebate Registration Card within 30 days from the date of purchase. Registration can also be done online at rockymountainradar.com.
- 2.) Attaching the windshield bracket to The Judge. 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. Note: Tinted glass will degrade the laser performance. Unit must be placed above windshield wipers to avoid undesired interference.

- 4.) Carefully bend the windshield bracket mount to a level position.
- 5.) Insert the small end of the power cord gently into the power jack on the right side of the unit and the large end into the cigarette lighter receptacle.

## **Remote-mounting** is not recommended

**Hardwire:** Remove cigarette lighter plug. Connect the red wire to +12 Volts, and connect the white wire to ground.





**Controls:** There are 4 buttons on top of The Judge, 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.

#### The Menu items are:

- 1.) Voice On/Off
- 2.) Language Mode English/ Spanish
- 3.) Alarm Tone High/Low
- 4.) K Filter On/Off
- 5.) Scrambler On/Off
- 6.) Self-Test On/Off
- 7.) Factory Reset?
- 8.) Menu Exit



Warning: It is your responsibility to be familiar with all laws applicable to the possession and use of Radar Detectors in your locality. The manufacturer and retailer assume no liability or responsibility for use or application of this product in Violation of any 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.

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.

**City:** Engage the city function to reduce false alarms in high RF noise areas. City function reduces the K-Ka 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 and Self-Test on.

**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! The Judge 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 K, Ka or Laser. For K and Ka band the signal strength indicators are displayed with arrows and numerically. Tone frequency will increase as signal strength becomes stronger.

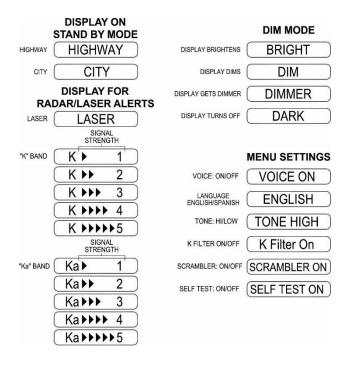
**Signal Strength:** Signal Strength will be first indicated by the display of arrows followed by a number 1-5. When all 5 arrows and the number 5 are displayed the signal is at the strongest level.

VG-2, VG-3 and Spectre: 100% Undetectable

On The Judge the new MMIC prevents detection of the radar detector completely.

Auto Memory: The Judge 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 read just the settings to your normal preference.

**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.



## **Specifications:**

## Radar Scrambler:

Frequencies: 8.0-38.2 GHz

Antenna: Dual Ridge cast waveguide

Mixer: Custom MM wave Schottky

Doppler: Pseudo Random Digital Noise Generator

## **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

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

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

- 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 be 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 at startup.

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 The Judge 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 The Judge. 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 freight prepaid 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 and a 90-day warranty on repairs.

Send to:

ROCKY MOUNTAIN RADAR 6469 Doniphan Drive El Paso TX 79932

Phone: 915-587-0307 Fax: 915-587-6408

## We do not accept COD shipments

## We do not accept freight collect shipments

## Accessories:

The following accessories and parts are available:

Windshields mount	\$ 5.00
Suction Cups (set of 3)	\$ 2.00
2 amp fuses (two each)	\$ 2.00
Power Cord	\$ 5.00

(Free online download from our website)

Replacement Owner's Manual

A \$10.00 shipping and handling fee will be added to the total of each order.

# PayPal, VISA/MC AMEX and Discover Accepted

\$ 3.50

## **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.

For a complete list of FAQ's please visit our website www.rockymountainradar.com

## FREQUENTLY ASKED QUESTIONS

The Rocky Mountain Radar scramblers are designed to give you radar and laser scrambling from the front half of the car.

#### 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. On The Judge the new MMIC prevents detection of the radar detector completely.

## What states are they <u>NOT</u> 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 self-test (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) The fuse in the power cord. (To check the fuse in the power cord, unscrew the silver tip end that plugs into the cigarette lighter. If the fuse

is blown, replace with a 2 amp fast burning fuse).

- 3) The fuse for your cigarette lighter.
- If it is none of these, return the unit to the manufacture 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 is the (EWD) K Filter?

The EWD is a K filter that The Judge 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.

## I only see a small dot on my display, what happened?

The unit is in Dark Mode. In Dark Mode the unit only shows a small dot moving from left to right. Press the Dim Button (momentary contact) to adjust to your desired setting.

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