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> [Garmin Varia Rearview Radar Tail Light \(Model 010-01509-00\) User Manual](#)

## Garmin 010-01509-00

# Garmin Varia Rearview Radar Tail Light (Model 010-01509-00)

User Manual

## INTRODUCTION

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The Garmin Varia Rearview Radar Tail Light (RTL500) is a cycling safety device designed to enhance rider awareness and visibility. It detects vehicles approaching from behind, providing visual and audible alerts to the cyclist when paired with a compatible Garmin Edge device or Varia head unit. Additionally, the integrated tail light increases the cyclist's visibility to drivers, with a feature that brightens and blinks upon detecting an approaching vehicle.

## WHAT'S IN THE BOX

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- Varia radar tail light transmitter (RTL 500)
- Seat-post quarter-turn mount
- Universal seat-post quarter-turn mount
- MicroUSB cable
- Manuals

## DEVICE OVERVIEW

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The Varia RTL500 unit features a radar sensor, an integrated tail light, and a power button. The device is compact and designed for rear mounting on a bicycle seat post.



Image: Garmin Varia Rearview Radar Tail Light (RTL500) showing its compact design and tail light lens.

The power button is typically located on the side or top of the unit. It is used to turn the device on/off and to initiate pairing mode. The tail light array is positioned at the rear for maximum visibility.

## INSTALLATION

Proper installation ensures optimal radar performance and tail light visibility.

1. **Choose a Mount:** Select either the standard seat-post quarter-turn mount or the universal seat-post quarter-turn mount based on your bicycle's seat post shape and size.
2. **Attach the Mount:** Securely attach the chosen mount to your bicycle's seat post. Ensure it is positioned vertically and does not interfere with other bicycle components. The mount should be angled so the Varia device is perpendicular to the road surface.
3. **Mount the Varia Device:** Align the Varia RTL500 with the quarter-turn mount. Press down and twist clockwise until the device locks securely into place.
4. **Verify Position:** Ensure the Varia device is mounted high enough on the seat post to provide an unobstructed view of the road behind. The tail light should be clearly visible from the rear.



Image: Example of the Garmin Varia RTL500 mounted vertically on a bicycle seat post, ensuring clear line of sight.

## SETUP AND PAIRING

The Varia RTL500 must be paired with a compatible Garmin Edge cycling computer or Varia head unit to receive radar alerts.

1. **Power On Varia:** Press and hold the power button on the Varia RTL500 until the tail light illuminates.
2. **Enter Pairing Mode:** With the Varia device on, press and hold the power button again for approximately 5 seconds until the status LED begins to flash purple. This indicates it is in pairing mode.
3. **Pair with Edge Device:** On your compatible Garmin Edge device (e.g., Edge 1000, 810, 520, 510, 25, 130, 1030, 820, Explore 1000, Explore 820) or Varia head unit, navigate to the sensor menu.
4. **Add Sensor:** Select the option to 'Add Sensor' or 'Search for Sensors'. Your Edge device should detect the Varia radar.
5. **Connect:** Select the Varia radar from the list of detected sensors and confirm the connection. Once paired, the status LED on the Varia device will turn solid blue, and your Edge device will display the radar status.

*Note:* Refer to your specific Garmin Edge device manual for detailed instructions on adding sensors.

## OPERATION

Once paired and powered on, the Varia RTL500 operates automatically to detect approaching vehicles.

- **Vehicle Detection:** The radar can detect vehicles approaching from behind up to 140 meters (153 yards).
- **Visual Alerts:** On your paired Edge device, a visual indicator (e.g., a column of dots or vehicle icons) will appear on the side of the screen, showing the position and relative speed of approaching vehicles. The color of the display may change to indicate the threat level (e.g., green for clear, amber for approaching, red for fast approaching).
- **Audible Alerts:** Your Edge device may also provide audible tones to alert you to approaching vehicles.
- **Tail Light Functionality:** The integrated tail light will brighten and flash more intensely when an approaching vehicle is detected, increasing your visibility to the driver.
- **Light Modes:** The Varia RTL500 typically offers various light modes (e.g., solid, flash). These can often be controlled through your paired Edge device.

## MAINTENANCE

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Regular maintenance ensures the longevity and optimal performance of your Varia RTL500.

- **Charging:** Charge the device using the provided microUSB cable. Connect the cable to the Varia device's charging port and to a standard USB power adapter or computer USB port. The charging indicator will show the charging status. A full charge typically takes a few hours.
- **Cleaning:** Regularly clean the radar lens and tail light lens with a soft, damp, lint-free cloth. Avoid using abrasive cleaners or solvents that could damage the surfaces.
- **Storage:** When not in use for extended periods, store the device in a cool, dry place. Charge the battery periodically to maintain its health.
- **Battery:** The device uses a non-replaceable Lithium Ion battery. Do not attempt to open the device or replace the battery yourself.

## TROUBLESHOOTING

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If you encounter issues with your Varia RTL500, try the following steps:

- **Device Not Turning On:** Ensure the battery is charged. Connect the device to a power source using the microUSB cable.
- **Not Pairing with Edge Device:**
  - Ensure both the Varia RTL500 and your Edge device are powered on and within range.
  - Confirm the Varia device is in pairing mode (flashing purple LED).
  - Check your Edge device's sensor settings to ensure radar sensors are enabled.
  - Try removing and re-adding the sensor on your Edge device.
  - Perform a soft reset on both devices (refer to their respective manuals for instructions).
- **No Vehicle Detection:**
  - Ensure the Varia device is mounted correctly and has a clear, unobstructed view of the road behind.
  - Verify the device is fully charged.
  - Ensure the radar lens is clean and free of dirt or debris.
- **Short Battery Life:**
  - Ensure the device is fully charged before each ride.
  - Operating in colder temperatures can reduce battery performance.
  - Frequent brightening/blinking due to high traffic can consume more power.

## SPECIFICATIONS

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Feature	Specification
Model Number	010-01509-00
Product Dimensions	0.9 x 2.9 x 1.7 inches (2.29 x 7.37 x 4.32 cm)

Item Weight	0.847 ounces (24 grams)
Batteries	1 Lithium Ion battery (included)
Frequency Bands Supported	24 GHz
Power Source	Battery Powered
Display Type	LED (for tail light)
Color	Black
Manufacturer	Garmin
Compatible Devices	D2 Charlie, D2 Delta, D2 Delta PX, D2 Delta S, Edge 1000, Edge 1030, Edge 130, Edge 25, Edge 510, Edge 520, Edge 810, Edge 820, Edge Explore 1000, Edge Explore 820, fēnix 5, fēnix 5 Plus, fēnix 5S, fēnix 5X, fēnix 5X Plus, fēnix Chronos, Forerunner 735XT, Forerunner 935, Forerunner 945, tactix Charlie, Varia Vision In-sight Display, vívoactive 3, vívoactive 3 Music, vívoactive HR

## SAFETY INFORMATION

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Always prioritize your safety when cycling. The Varia RTL500 is a supplementary device and should not replace your awareness, proper cycling practices, or adherence to traffic laws. Always wear appropriate safety gear, including a helmet, and ensure your bicycle is in good working condition. Be aware of your surroundings and traffic conditions at all times.

## WARRANTY AND SUPPORT

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For warranty information, technical support, or to purchase accessories, please visit the official Garmin website or contact Garmin customer service. Keep your proof of purchase for warranty claims.