

GARDIA R300

REARVIEW RADAR AND TAIL LIGHT

USER MANUAL



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WARNING

This device, the Bryton Gardia R300, is intended to be an additional aid in riding and is not a substitute for maintaining situational awareness. Always be aware of your surroundings and do not operate this device while in motion, stare at or become distracted by the display. Improper usage of this device could result in serious injury or death. Use this device at your own risk.

Video Tutorials

For step-by-step guides on how to use the device or the Bryton Gardia app, please scan the QR code below for the Bryton Sport YouTube channel and check out the Tutorial Videos.



<http://www.youtube.com/c/BrytonActive>

Introduction

This section will guide you through basic setup prior to first use with your Gardia R300.

Getting Started

- Update Device Firmware ([Updating the Device Firmware via the App, page 10](#))
- Charging ([Charging the Device, page 6](#))
- Installation ([Installing the Device, page 7](#))
- Pairing with the Gardia App ([Pairing the Gardia Device with Your Phone, page 9](#))
- Pairing with Rider-Series Bike Computers ([Pairing the Gardia With Your Rider-Series Bike Computer, page 12](#))

Device Overview



- A** Power Button / Switch Lights
Press and hold 1 second to turn on/off the device.

Note: You can tell whether the device is powered on based on the indicator LED is flashing or not.

Single press to change light modes.

- B** Power Indicator LED
Changes colors based on the remaining battery level and charging status.
- C** Link Indicator LED
Changes color when paired with the Gardia app and compatible bike computers.

Power / Light Indicator LED

POWER INDICATOR LED

Battery Status

Slowly Flashing Green	50% to 100% battery life remains
Slowly Flashing Yellow	15% to 50% battery life remains
Slowly Flashing Red	Below 10% battery life remains. Low battery mode will be activated automatically

Charging Status

Flashing Green	Still Charging
Solid Green	Fully Charged

LINK INDICATOR LED

Slowly Flashing Blue	The device is linked and can be controlled by a paired app or compatible Bryton device
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Reboot the Device

Press and hold 12 seconds to reset the Gardia device.

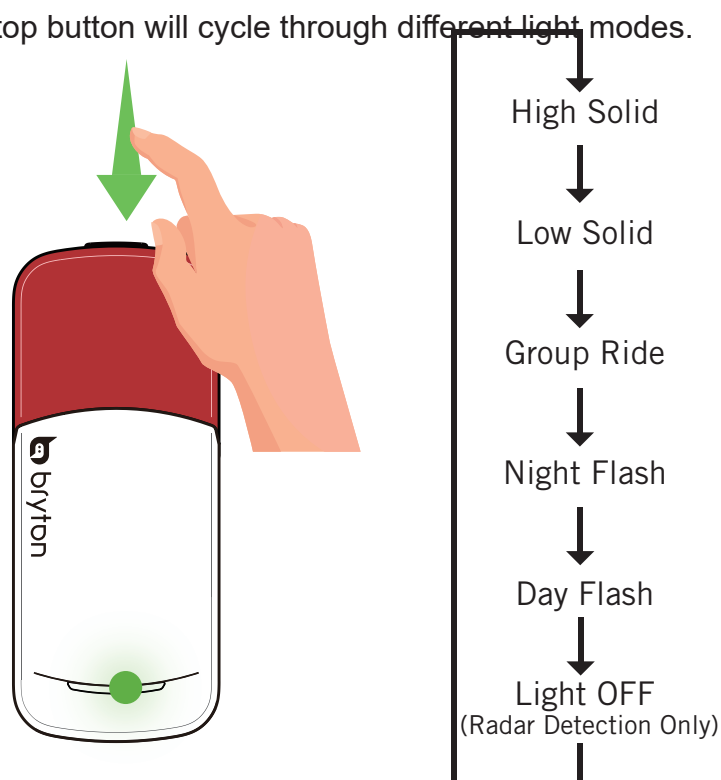
Note: Gardia R300 will go through different status when you continue pressing the power button. Ensure that you keep pressing for 12 seconds until the device resets.

Light Operation

Manual Mode with Smart Control

Manual Mode

Single pressing the top button will cycle through different light modes.



Smart Control

Warning Light: There are two warning light patterns. When a vehicle is detected by the Gardia radar, based on the level of threat, the light will automatically switch to a suitable warning light to highlight the cyclist and catch the attention of approaching drivers.

Brake Light: When deceleration is detected, the light will illuminate for 2.5 seconds to notify approaching vehicles/cyclists.

Low Battery Light: When the battery drops below 15%, the light will automatically dim and enter power-saving mode. This will extend the battery life.

Sleep Mode

When the Gardia R300 is inactive for more than 10 minutes, it will enter Sleep Mode to conserve battery life. The current light mode will be saved before entering sleep. Once the Gardis R300 detects motion, it will reactivate and return to the previous light mode.

Tail Light Modes and Intensity

Mode	Light Intensity	Lumen	Duration	Flash Behavior
High Solid	High	20	Up to 8 hr	Strong Steady Light
Low Solid	Low	5	Up to 12 hr	Soft Steady Light
Group Ride	Moderate	12	Up to 11 hr	Slow Light Up / Dim Down
Night Flash	Moderate	12	Up to 17 hr	Quickly Flashing Light
Day Flash	High	73	Up to 17 hr	Quickly Flashing Light
Light Off	Off	0	Up to 24 hr	Light Off, Radar Remains Active
Sleep Mode	Off	0	Up to 1 Year	Vehicle Detection Disabled

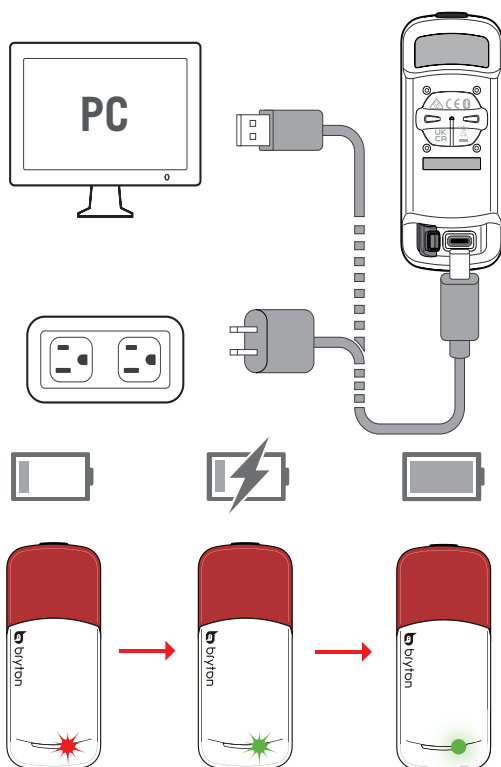
Situational Light Modes and Intensity

Mode	Flash Behavior
Brake Light	Increase light intensity more than 50% for 2.5 seconds.
Red Warning Light	Slowly flashes 3 times then quickly flashes 4 times.
Yellow Warning Light	Slowly flashes 2 times then quickly flashes 3 times.
Power Saving Mode	When under 15% remaining battery life, the lumens will be decreased to half of the light's intensity.

Device Information

Charging the Device

The built-in lithium-ion battery can be charged using a standard wall outlet or via USB cable with your PC.



1. Detach the rubber cover from the USB port.
2. Plug the USB type C cable into the USB port on the Gardia R300.
3. Plug the cable into a standard USB AC adapter or into your PC's USB port.
4. If using a standard USB AC adapter, plug the adapter into a standard wall outlet.
5. Allow the device sufficient time to fully charge. The LED light will flash green while charging and change to solid green when charging is complete.
6. Detach the USB cable and close the rubber cover from the USB port.

Note:

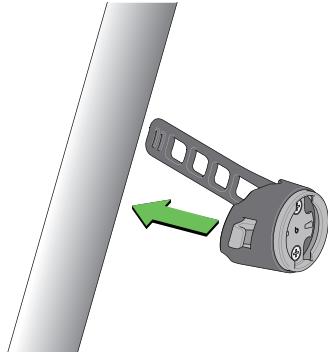
1. To prevent water damage and corrosion, ensure that the USB port, rubber cover, and the device are fully dry before charging or connecting to your PC.

2. The devices will not charge when exposed to temperatures outside of this range: -22 to 55°C (-4 to 131°F)

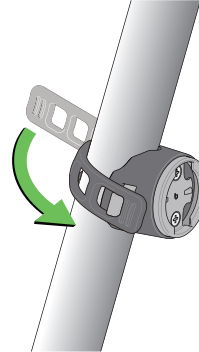
Installing the Device

How To Install

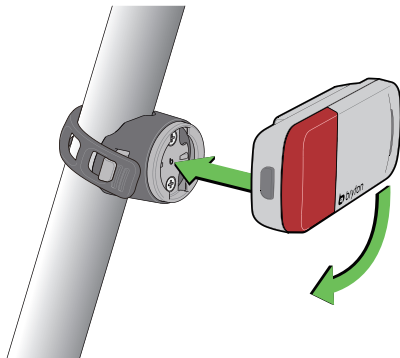
Step 1: Locate a secure mounting position.



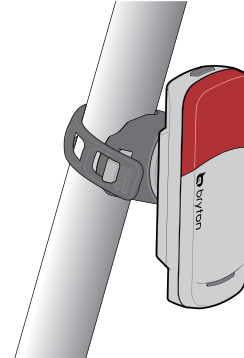
Step 2: Fasten the rubber mount with the letter "b" facing upwards.



Step 3: Rotate the device to securely lock into place.



Step 4: Ensure the device is securely fastened.



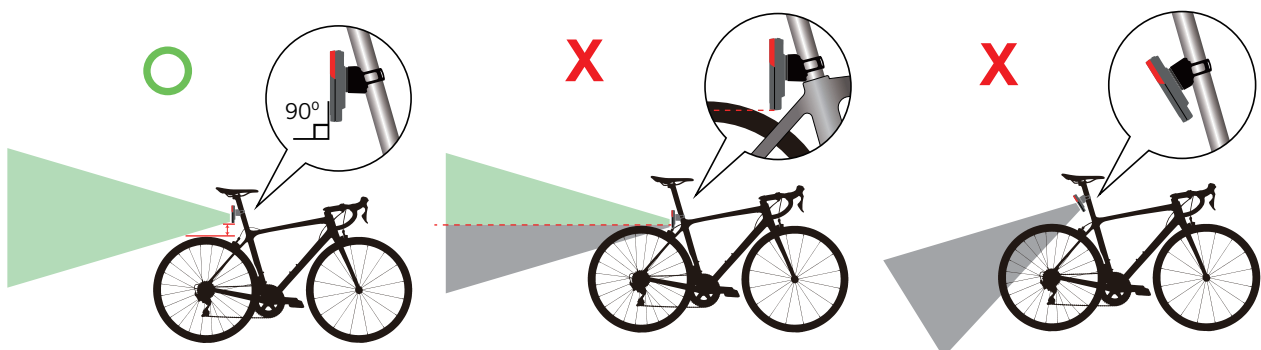
Device Installation Notice

- Choose a location to securely mount the Gardia R300 to ensure it does not interfere with the safe operation of your bike.
- For maximum light visibility and radar detection, ensure the device is mounted as high on the seat as possible.

Note:

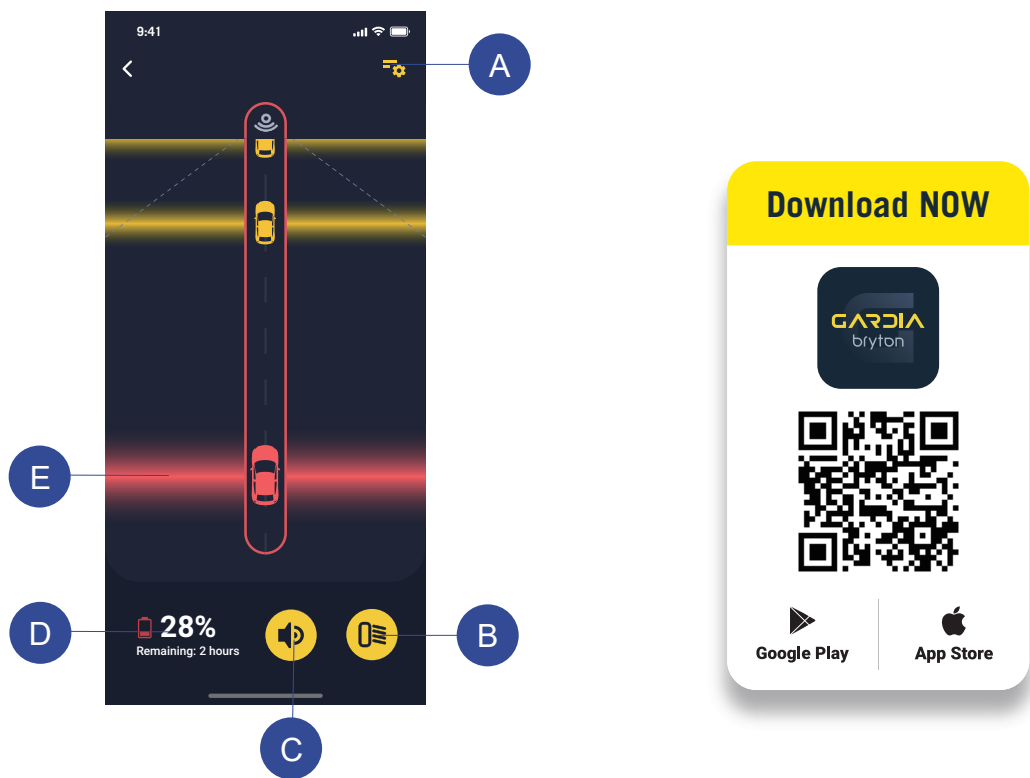
The included mounts are designed to fit most seat post angles. The mount can fit 27.2 mm, 30.9 mm, 31.6 mm, D cross section, and aero cross-section seat posts. In any configuration, the mount surface should be vertical.

- The device should face to the rear of the cyclist and perpendicular to the road.
- Ensure there is nothing obstructing the front of the light.
- Test your configuration during daylight and in a safe environment.



The Gardia R300 and the Gardia App

Download the Bryton Gardia app from the iOS app store or Google Play store or scan the QR code to locate the app. By connecting your Gardia app with your phone, you can adjust light modes and view radar notifications & updates.



A	Select to change device settings
B	Select to change light modes
C	Select to turn on / off alert sounds
D	Display battery status and remaninig battery hours
E	Colors displayed based on threat level

Pairing the Gardia Device With Your Phone

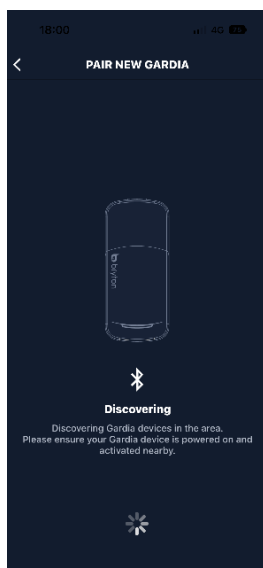
1. Before pairing, please ensure that Bluetooth is enabled on your phone and the Gardia R300 device is powered on.



2. Open the Bryton Gardia app and drag down the page to connect.



3. Once the Gardia R300 has been detected, select the device from the list of options and confirm pairing.

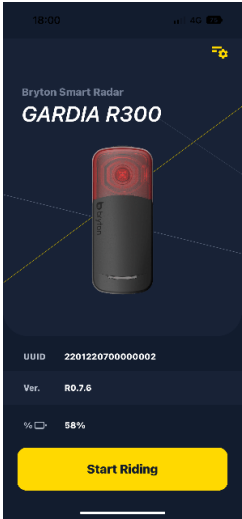


4. Once paired, the indicator LED will flash blue. This indicator light informs users that the Gardia R300 has been successfully paired with the app.

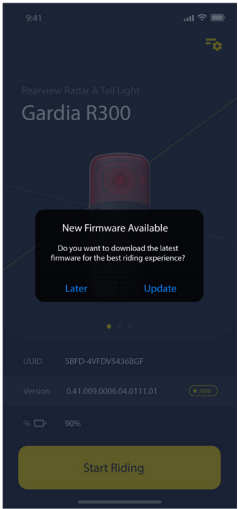


Updating the Device Firmware via the App

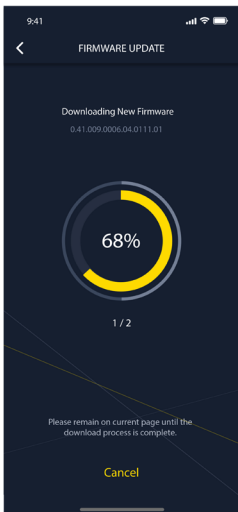
1. Once paired, the Gardia R300's device status and details will be displayed on the app.



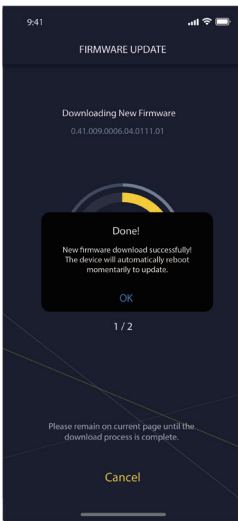
2. If a new firmware version is available, an update message will display automatically. Select Update from the pop-up or select **★ NEW** from the status menu to start the update.



3. The update will take a few minutes to download.

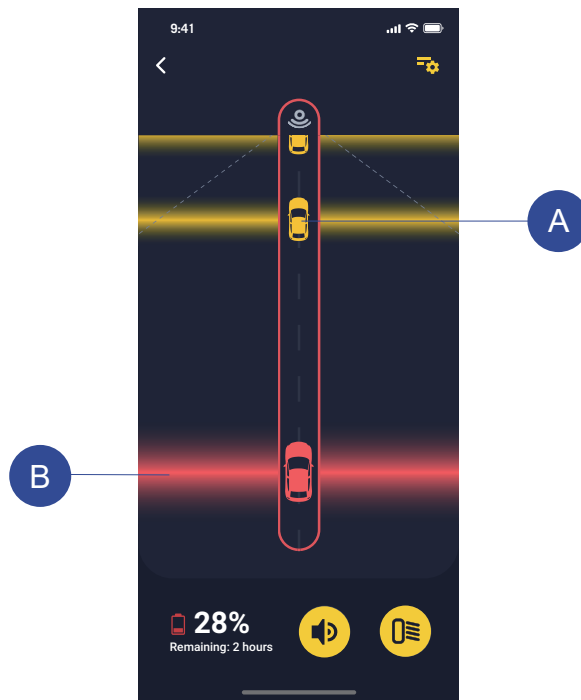


4. Once complete, press Done.



Viewing the Gardia on the App

1. Before your ride, press Start Riding on the Gardia app.
2. The radar's status and information will appear on the data screen.
3. The vehicle's position **A** will move up the screen as a vehicle approaches your bike. Next to the vehicle, the threat level's color **B** will change based on the detected level of threat. Green signifies that no vehicle is detected. Yellow indicates an approaching vehicle. Red indicates that a vehicle is approaching at high speeds.



Customizing the Gardia App Settings

Customizing Alert Settings

Before customizing the radar's alert settings with the Gardia app, please ensure that you have already paired the app with your Gardia device. In the Alerts setting, you can enable sound and vibration alerts so you will be notified even with your phone is stored away, instead of mounted on the handlebar.

1. From the home page of the Gardia app select  > 
2. Toggle to enable Sounds & Threat Cleared Tone & Vibration

Enable Brake Light

The Gardia radar tail light can detect when you are braking and notify vehicles behind you with a brake light, lowering the possibility of collisions when slowing down or emergency braking.

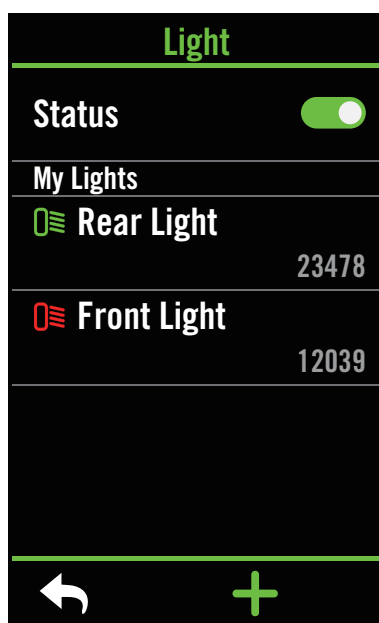
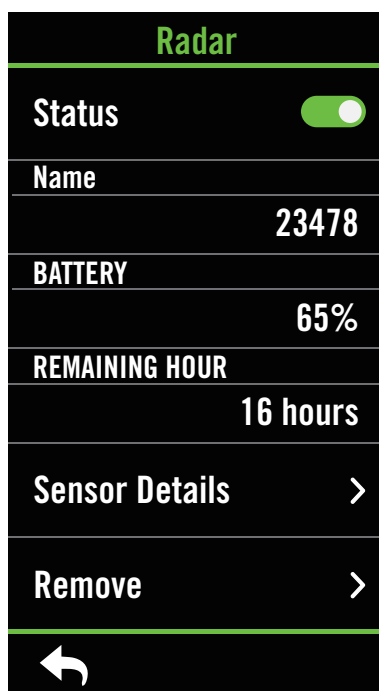
1. From the home page of the Gardia app select  .
2. Enable the brake light  status.

The Gardia R300 and the Bryton Rider Series

The Gardia R300 device can be controlled remotely and have settings modified using a compatible Bryton Rider-series bike computer. This section will provide detailed instructions for Gardia R300 usage with the Rider S500 and Rider S800 devices. Other compatible Bryton Rider-series devices will contain similar settings and controls.

Pairing the Gardia Device With Your Rider Series

After initial pairing, the Gardia R300 will be automatically connected with your Bryton Rider-series bike computer when you start your ride and the Gardia R300 is powered on and within range.



1. Ensure that the Bryton Rider device is within range of your Gardia R300 (3m).

Note:

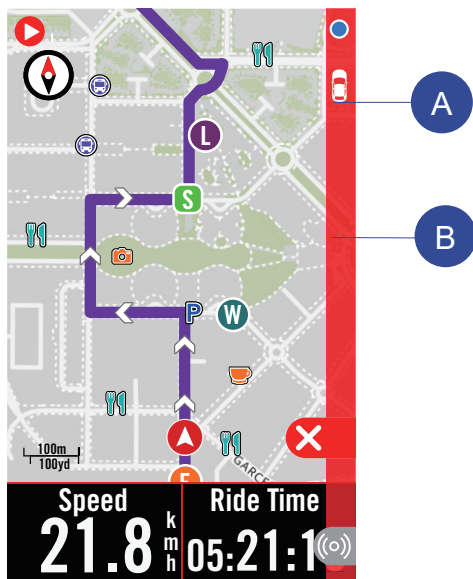
To avoid interference, ensure you are 10 m away from other ANT+ sensors when pairing.

2. Turn on the Rider-series device.
3. Select Settings > My Sensors > + > Radar or Light
4. Select the detected Gardia device.
5. If your Gardia R300 has been successfully paired with your Rider-series device, the status and other information of both the radar and light will be displayed.

Note:

Only compatible Rider-series devices, such as the Rider RS500 / Rider RS800 / Rider 750 / Rider 420 can be paired with the Gardia R300 and display radar-related data.

Viewing the Gardia on the Rider Series



1. Go for a ride.
2. The Gardia radar's status and information will be displayed on the data screen.
3. The vehicle's position **A** will move up the screen as the vehicle approaches your bike. Next to the vehicle, the threat level's color **B** will change based on the detected level of threat. Green signifies that no vehicle is detected. Yellow indicates an approaching vehicle. Red indicates that a vehicle is approaching at high speeds.

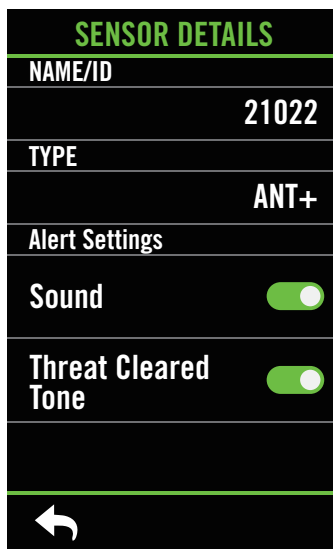
Note:

The Gardis R300 can also be paired with other ANT+ Radar compatible cycling computers.

Customizing the Rider Series Settings

Customizing Alert Settings

If alert tones have been enabled in the Gardia R300 settings, the Bryton Rider-series device will use audio alerts to notify the cyclist of status changes. When approaching cars are detected, the Rider-series device will beep one time and will beep again once the threat has cleared.



1. Ensure that the Bryton Rider-series device is connected to the Gardia R300.
2. Select **Sensor Details > Alert Settings**
3. To enable alert tones, toggle the button to enable **Sound**
4. To enable the clear tone, toggle the button to enable **Threat Clear Tone**

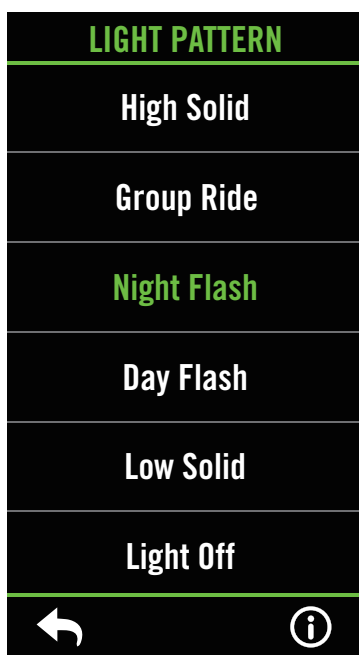
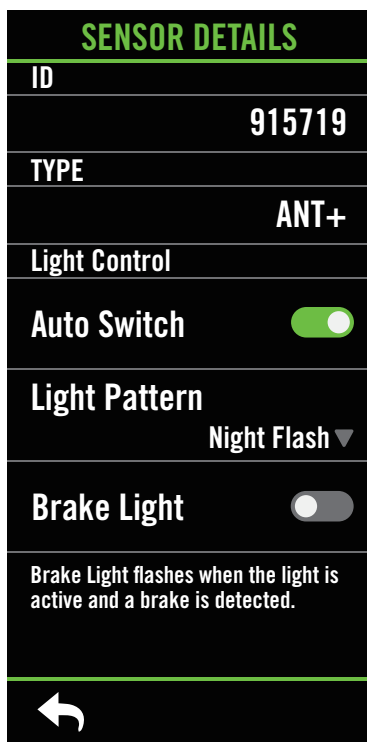
Remove Radar

1. From the **My Sensors** menu, select **Radar**, and choose the paired Gardia device.
2. Select **Remove** to remove the paired radar.

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Customizing the Tail Light Settings



Control Light Patterns

Light modes can be controlled remotely via your Bryton Rider-series device after connecting with the Gardia R300.

1. From the **My Sensors** menu, select **Light**, and choose a paired light
2. Select **Sensor Details**
3. Under the Light Patterns section, you can open the drop-down menu to select a light mode.
4. By pressing  in the right-hand corner, you can learn more about each light mode.

Enable Auto Switch

The Gardia R300 will utilize the Bryton Rider-series device's sunrise and sunset time to adjust its light mode.

1. From the **My Sensors** menu, select **Light**, and choose a paired Gardia device.
2. Select **Sensor Details**
3. Toggle the button to enable **Auto Switch**.

Enable Brake Light

Utilizing a built-in G-sensor, the Bryton Gardia R300 radar tail light can detect when you are braking and notify vehicles behind you with a brake light.

1. From the **My Sensors** menu, select **Light**, and selects a paired Gardia device.
2. Select **Sensor Details**
3. Toggle the button to enable **Brake Light**.

Remove Light

1. From the **My Sensors** menu, selects **Light**, and choose a paired Gardia device.
2. Select **Remove** to remove the paired radar or select  to delete the paired Gardia device.

Appendix

Specifications

Gardia R300

Item	Description
Dimensions	97 X 20.9 X 40 mm
Weight	66 g
Radar Range	Up to 150 m
Light Viewing Range	Up to 1.6 km
Light Viewing Angle	220°
Operating Temperature	-4 to 131°F (-20 to 55°C)
Battery Charging Temperature	-4 to 131°F (-20 to 55°C)
Battery	Rechargeable, built-in, lithium-ion polymer battery
Battery Life	Up to 9 hr. in high solid mode Up to 12 hr. in low solid mode Up to 10 hr. in group ride mode Up to 22 hr. in night flash mode Up to 27 hr. in day flash mode Up to 40 hr. in light off mode Up to 1 year in sleep mode
LED luminous Flux	20 lm (high solid mode) 5 lm (low solid mode) 12 lm (group ride mode) 12 lm (night flash mode) 73 lm (day flash mode)
ANT+™	Featuring certified wireless ANT+™ connectivity. Visit www.thisisant.com/directory for compatible products.
BLE Smart	Bluetooth smart wireless technology
Water Resistance	IPX7, Water resistant to a depth of 1 meter for up to 30 minutes



Basic Care For Your Gardia R300

Taking good care of your device will reduce the risk of damage to your device.

Device Care

- Do not drop your device or subject it to severe shock.
- Do not expose your device to extreme temperatures and excessive moisture.
- Do not use power and/or data cables that have not been supplied by or received prior official approval from Bryton.
- Do not put your device in contact with chemical cleaners, solvents, sunscreen, insect repellents or other dry or liquid chemicals that can damage components and finishes.
- Ensure the USB rubber cover is tightly closed to prevent water exposure and damage to the USB port.

Cleaning the Device

- The screen surface can easily be scratched. Do not use a cloth or any material that can scratch the optical lens on the front of the device. Scratching the optical lens may cause poor radar performance.
- Remove dirt and debris from the USB rubber cover and surrounding area.
- While the USB rubber cover is closed, briefly run water over the device to remove dust. After cleaning, allow the device to dry completely before opening the cover.
- Do not attempt to disassemble, repair, or make any modification to your device. Any attempt to do so will make the warranty invalid.



RF Exposure Information (MPE)

This device meets the EU requirements and the International Commission on Non-Ionizing Radiation Protection (ICNIRP) on the limitation of exposure of the general public to electromagnetic fields by way of health protection. To comply with the RF exposure requirements, this equipment must be operated in a minimum of 20 cm separation distance to the user.

Hereby, Bryton Inc. declares that the radio equipment type Bryton product is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

http://www.brytonsport.com/download/Docs/CeDocs_GardiaR300.pdf



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