BONTRAGER

TRANSMIT**R** remote + **I**on 700 RT + flare RT
User Guide / Instruction Manual Content

Overview

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Pairing and Operation of the TRANSMITR Remote
- Pairing to TRANSMIT**R** / ANT+ compatible lights
- Controlling modes and features

Status LEDs on the TRANSMIT**R remote**
- Using the remote to see mode and battery status of lights
- Using turn signal configuration

Attaching the TRANSMIT**R remote to bars**
- Determining orientation/position
- Installing the TRANSMIT**R** remote

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Transmitr Remote + Transmitr Lights

Overview

Welcome to Bontragar's TRANSMITR /ANT+ compatible lighting ecosystem of products. This manual supports the TRANSMITR Remote, Ion 700 RT head light, and flare RT day/night visible tail light. You'll find information to support all of Bontrager's TRANSMITR compatible products in this manual. Please visit Bontrager.com for additional information.

Basic guidelines

- *The Transmitr System Remote can pair to any Transmitr enabled light.*

- *The pairing process is the same for all Transmitr enabled lights, regardless of whether it is a headlight or tail light.*

- *Only Bontrager lights designated 'RT' are compatible with the Transmitr System Remote*

- *Pairing is a procedural function of the ANT+ protocol and required to enable the remote control of TRANSMITR / ANT+ lights. In a single pairing session, up to 7 distinct Transmitr-enabled lights can be paired to a single Transmitr remote. Once in pairing mode, the system will automatically search to pair each system light one at a time, in sequence. Multiple lights can be paired to a single button. All pairings must be done in a single session. If lights are added to the system later, all lights will need to be re-paired to the remote*

- *Special functions and configurations are only available with select Bontrager TRANSMITR lights designated with an RT include a) High Beam, b) Turn-Signal Configuration b) Brake light configuration*

Transmitr Remote

What's In the Box

A) TRANSMITR Remote
B) 22mm Bar Adapter
C) Handlebar Mount
D) Mount screw
E) Remote mounting screws
F) 2032 Coin Cell Battery

A

B

F

C

E

D
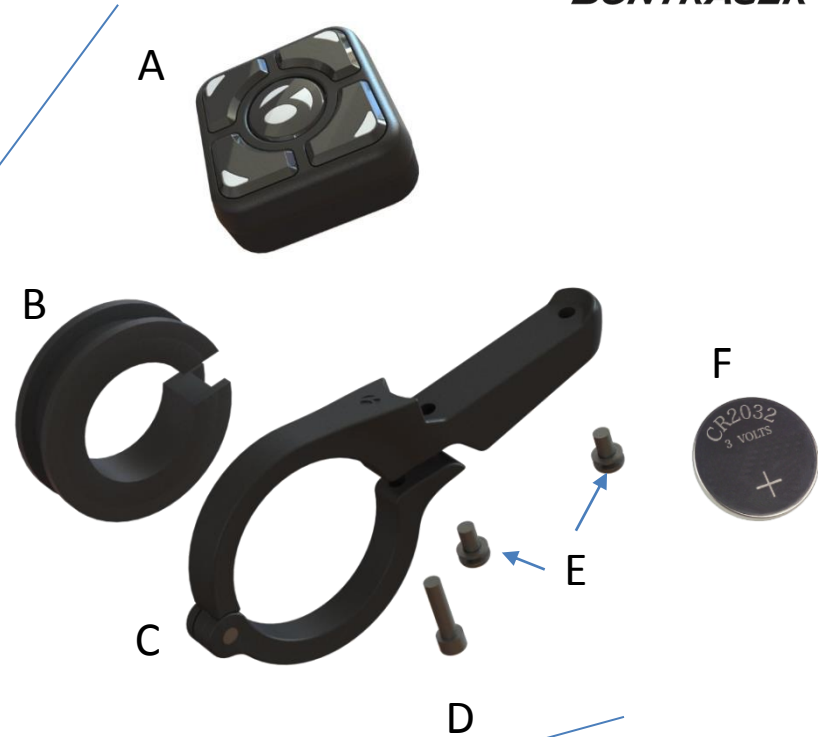
TRANSMIT**R** remote + TRANSMIT**R** **/ ANT+ lights setup**

*Pairing the remote to TRANSMIT**R** / ANT+ lights*

Step 1. **Prepare the light(s) for pairing**
- Press the power button on the light(s) to turn it on, then off again.
- Note: Do not press power button on the light(s) again until pairing is complete.

Step 2. **Put the remote into pairing mode**
- Press and hold the center button on the remote for **at least** 8 seconds.
- Release the center button when the corner button LEDs begin flashing.
- The center button will flash RED indicating that the remote is searching for a light

Step 3. **Connect to the** remote
- Place the light(s) close to the remote (within 6 inches).
- When the remote finds a light, it will start to flash and the center button on the remote will change from flashing RED to flashing GREEN.
- NOTE: move 15 feet from other TRANSMIT**R /** ANT+ compatible lights to prevent accidental pairing.

TRANSMIT**R** remote + TRANSMIT**R** lights setup

Pairing the remote to TRANSMITR / ANT+ compatible lights

Step 4.
Pairing the light (s) to the desired button (s):
While the light is still flashing, quick press and release any button on the remote you would like to pair the light to.
The remote will then illuminate the corresponding button, and the light will stop flashing and turn off.
Please note: The center button on the remote will turn back to RED until it finds another available ANT+ compatible light.
Note: Move unintended RT lights 15' away from the remote to avoid unintended pairing.
Note: If a light is accidentally paired, start pairing process over.

Step 5. (if pairing to additional lights)
Pairing additional lights to the remote:
After a light has been paired to a button on the remote, the center button on the remote will turn back to red as it searches for other Ant+ lights. If the remote finds another ANT+ compatible light, the light will begin flashing and the center button on the remote will turn green again.
Repeat step 4 for each additional light desired. Up to 7 lights can be paired to the remote at any time.
Please Note: once pairing is finished, any additional lights desired to be added to the system will require the complete pairing procedure.

Step 6.
Exit Pairing:
When all TRANSMIT**R /** ANT+ compatible lights are paired to the desired remote buttons, quickly press and release the center button on the remote to exit pairing mode. It will stop flashing red and turn off.

Step 7.
Verify pairing:
1. Quickly press and release the center button to turn on all paired lights. Press and hold the center button to turn them off.
2. Quickly press and release each paired button on the remote to turn on the individual light(s). Press and hold the same button to turn the light off.

Using the TRANSMIT**R** remote
Controlling Modes and Features

- Each quick press and release of a paired button will change the mode, and provide indication of the mode and battery status of the light.

Power on/off all lights:
- To turn on **all** lights paired to the remote, quickly press and release the center button.
- To turn all paired lights off, press and hold the center button on the remote until lights turn off.
- Please Note: that LEDs in the buttons paired to lights will illuminate.

Power on/off individual lights:
- To turn on an individual light quickly press and release the button that it is paired to.
- Press and hold the paired button to turn it off

Changing modes of individual lights:
- Quickly press and release the paired button to select the desired mode of the corresponding light. Please note: The remote will enable wireless control of the modes in order of the manual operation of the light.

High beam feature:
While paired *headlights* are on, a quick press and release of the center button on the remote will put the light into HIGH (700Lumens) mode. Another quick press and release will return it to the previous setting.
- If it is already in High mode, it will return to whatever the previous lower setting was.

Using the TRANSMITR remote

Mode and battery status of lights

Any time a button is used to interact with a paired light, the remote will show the battery status of that light. The center button LED on the remote will behave exactly like the battery status LED on the individual light and the button that is paired to that light will also illuminate.

Light Mode

Battery Status
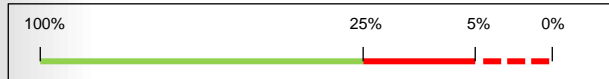
Battery Level (Run time):
While the light is on, the status of the battery can be seen from the LED integrated into the power button.
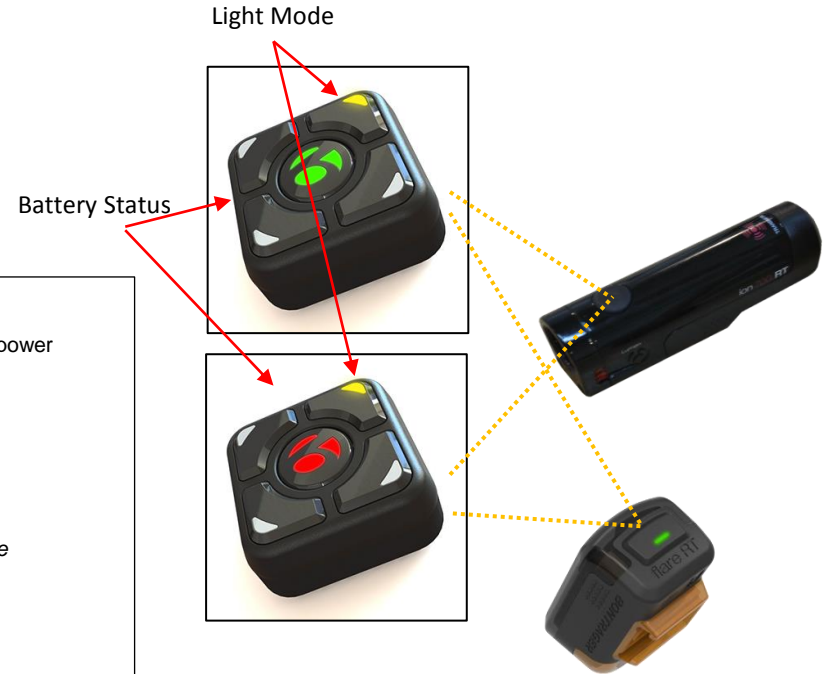
Green: >25% battery remaining

Red: battery remaining is between 5% and 25%

Flashing Red: the battery is less than 5% remaining.
The main LED will also default to a flash mode at 5% to extend function as long as possible

100%		25%	5%	0%

Battery level LED progression

TRANSMIT**R** remote setup

Determine desired orientation and position of the remote.

In front of the bar near stem

Behind the bar near stem

In front of the bar between the shifter and the grip (flat bars) Note: placement of the remote will depend on personal preference and clearance with shift levers.

Transmitr Remote Setup

Installing the remote on drop bars

- The remote can be installed on the bike before or after pairing to lights.

Step 1.
If not already installed, attach the remote to the bracket:
Attach it to the plastic bracket with the included screws to the desired orientation.

Step 2.
Positioning:
On road/drop bars, the remote can be placed near the stem according to rider preference. The spacer ring is not necessary on 31.8mm bars.

Installation Option:
The remote and bracket can be installed behind the bar based on personal preference. (The remote may be turned 180 degrees on the bracket in this case)

TRANSMIT**R** remote setup

Installing the remote on flat bars

Step 1.
If not already installed, attach the remote to the bracket:
Attach it to the plastic bracket with the included screws to the desired orientation.

Step 2.
Install the spacer ring as needed:
If installing on 22mm bars, install the spacer ring at the installation point.
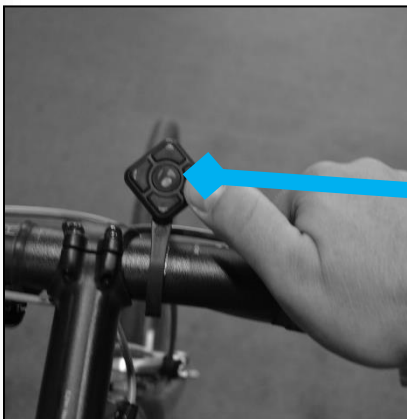

Step 3.
Attach the bracket and remote to the bar:
Use the supplied screw to attach the remote bracket over the spacer ring.

Step 4.
Positioning:
If installing between the grip and shifter/brake lever hanger as shown, take care not to impede usage of any of the levers and reposition as necessary.

TRANSMIT**R remote + Flare RT**

Using the turn signal configuration feature

- Configure the light for turn signal function according to the light's user manual
- To activate a turn signal, quick press and release the corresponding button.
- The activated turn signal button will flash for the duration that the light is displaying a turn signal.
- Press and release the same button again to turn off the turn signal.
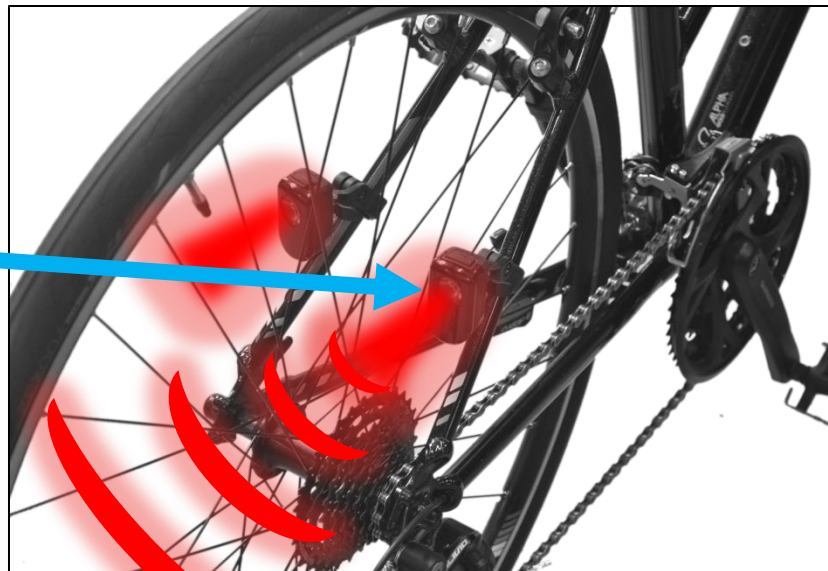
TRANSMIT**R** Remote

Troubleshooting

Remote is unresponsive:

- Open battery door and check battery orientation; reinstall or replace battery.
- Attempt to put the remote into pairing mode. If no LEDs light up then the battery needs to be replaced.

Light won't pair to a remote:

- Verify that the light supports ANT+ wireless control. Only ANT+ enabled lights will work with the remote
- Verify that the battery in the light is not dead by turning it on and off
- Turn the light on and off to make sure the wireless transmitter in the light is activated
- Verify that the light is within 6 inches of the remote
- Make sure that the remote is in pairing mode. In pairing mode if the remote has not found a light, the center button will flash red. If it has found a light the center button will flash green.
- If the center button is flashing green and the light has not changed to a flashing mode then the remote found a different light. Move to an area that is at least 10ft away from any ANT+ lights then restart pairing mode.
- Hold down the power button for 10 seconds to reset the light. Turn on and off. Try pairing process again.
- Read the instructions of the remote for further information
- During pairing mode, light went straight from Red to Green. It's ready for pairing to a button.
- During pairing it takes a long time for the remote to find a light (ie. Switch from Red to Green). WiFi networks, and other RT lights will create interference and affect pairing. It's best to remove move other unintended lights 15ft away or more.

Remote stopped controlling a light

- Make sure that the light battery is not dead. If it is, recharge the battery.
- Make sure that the light is within range of the remote. This is typically within 25ft of the remote, but varies with orientation of the light and remote and other environmental factors.
- A pairing session may have been started which erases all previous pairings. Pair all of the lights that are desired to be controlled during the same pairing session.
- Some lights may have multiple functional configurations. If a lights configuration was changed it may need to be re-paired to the remote.
- If all of the above doesn't work then try replacing the battery in the remote. When the battery in the remote is close to dead, the remote may work for short period of time before resetting and losing pairing.
- When entering or exiting standard or turn signal mode, the remote stopped responding. It will need to be repaired when put into a new configuration.

Appendix

TRANSMIT**R Remote**

ION 700 RT

Flare RT

Transmitr Remote

Appendix

Replacing a Depleted Battery

Remove Remote and Bracket from Handlebar:
- Use a 2.5mm hex wrench to remove the remote bolt from the underside of the bracket

Remove the Remote from the bracket:
- Using the same 2.5mm hex wrench, remove the two bolts that hold the remote to the bracket

Remove battery door and replace battery:
- Using a coin, twist off the battery door
- Remove old battery, note it's orientation (+ side is visible).
- Install new battery
- Replace battery door

Reverse step 1 and 2 to reinstall on the handlebar.

Ion700 RT

What's in the box

A) Ion 700 RT
B) Sync bracket
C) Micro USB cable

B

A

C

Ion700 RT
Initial charging and charge status

Although the ION 700 RT comes charged, it is recommended to charge it for 5 hours before first use to ensure the highest performance out of the box.

Status LED

Charging:
While charging via the USB port, the light will remain off but the status LED will flash to show charging status.

Flashing red: Actively charging.
As the battery progresses from zero charge to full charge, the flashes will get progressively longer in duration.

Green: Charging has completed

0%   100%

Charging LED progression

Ion700 RT
Power and standard operating modes

The Ion700 RT can be operated as a stand-alone headlight whether it is paired to the TRANSMIT**R** remote or operated on its own.

Powering ON:
- Press the power button one time to turn on the light.
- The power button LED will show battery status.
- Ion 700 RT has Memory-On feature- when powered on, it will return to the last mode used before powering off

Changing the Mode:
- Each press and release of the power button will move consecutively to the next mode pattern.

Turning off:
- Press and hold the power button until the light turns off.

Ion700 RT

Standard operating modes / run time table

The Ion700 RT can be operated as a stand-alone headlight whether it is paired to the Transmitr remote or operated on its own.

Changing Mode:
Each press and release of the power button will advance to the next function mode.

Modes:
- Steady High (700 lumen)
- Steady Medium (450 lumen)
- Steady Low (200 lumen)
- Day-Vis flash (ultra-high flash and random pattern)
- Night-Vis flash (flash with steady component to reduce eye strain)

- High Beam Feature (reduces brightness to 25% with press of center button)

Memory-On Feature:
The Ion 700RT will return to whatever mode was active when the light was turned off

USE RUNTIME TABLE SAME AS ION 700

Ion700 RT

Standard operating modes / run time table

Battery level (run time):
While the light is on, the status of the battery can be seen from the LED integrated into the power button.

Green: >25% battery remaining

Red: battery remaining is between 5% and 25%

Flashing Red: the battery is less than 5% remaining.
*The main LED will also default to a flash mode at 5% to extend function as long as possible

100%	25%	5%	0%

Battery level LED progression

Status LED

In Summary, the Ion 700 battery status indicator LEDs tell the rider three things:
- Charge level left while in use
- How close the battery is to being fully charged
- When the Battery is fully charged

Ion700 RT + TRANSMITR remote

Ion 700 RT Troubleshooting

Light won't pair to a remote:

- Turn the light on and off to make sure the transmitter in the light is activated
- Make sure the light is held close to the remote during pairing
- Read the instructions of the remote for further information
- Hold down the power button for 10 seconds to reset the light. Turn on and off. Try pairing process again.

Flare RT

What's in the box

A) Flare R
B) Sync bracket
C) Seat pack clip
D) Micro USB cable
E) Seat stay mount

A

B

C

D

E
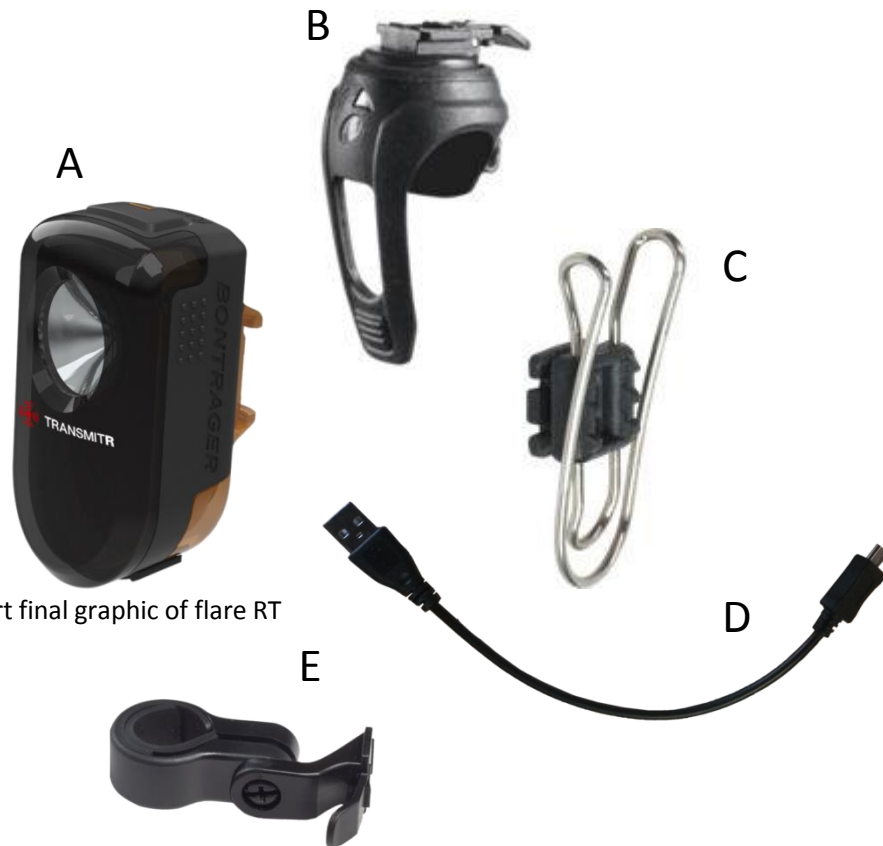
Note: Insert final graphic of flare RT

Flare RT

Initial charging and charge status

While the Flare RT comes charged,it is recommended to charge your Flare RT for 2.5 hours before first use to ensure maximum performance out of the box.

Status LED

Charging:
While charging via the USB port, the light will remain off but the status LED will flash to show charging status.

Flashing red: Actively charging.
As the battery progresses from zero charge to full charge, the flashes will get progressively longer in duration.

Green: Charging has completed

0%   100%

Charging LED progression

Flare RT

Power and standard modes

The Flare RT can be operated as any standard tail light whether it is paired to the TRANSMIT**R** remote or operated on its own.

Powering ON:
- Press the power button one time to turn on the light.
- The power button LED will show battery status.
- Flare RT has Memory-On feature- when powered on, it will return to the last mode used before powering off

Changing the Mode:
- Each press and release of the power button will move consecutively to the next mode pattern.

Turning off:
- Press and hold the power button until the light turns off.

Flare RT

Standard Mode Descriptions and Run time table

Daytime Flash
> 65 lumen random bursts for 6.5 hours
> This mode offers extreme visibility in daytime.

Nighttime Flash
> Max bursts up to 65 lumens for 23 hours
> This mode was designed for nighttime visibility

Daytime Steady
> 25 lumens for 5.5 hours
> This mode was designed as a steady mode for daytime visibility.

Nighttime Steady
> 5 lumens for 21 hours
> This mode was designed for use at night when ambient light is low.
> It is also great for group rides.

Run time table

Mode	Run time	Low battery strobe	Total Run Time	Peak Lumens
Daytime Flash	6.5 hrs	+1 hrs	7.5 hrs	65
Night time Flash	23 hrs	+1 hrs	24 hrs	65
Daytime Steady	5.5 hrs	+1 hrs	6	25
Night time Steady	21 hrs	+1 hrs	22 hrs	5
Turn Signal Configuration	"	"	"	"

**Low Battery Mode:
As a safety feature, when the battery gets to 5% power, the light will automatically switch into a Low Battery mode, which is meant to maximize the remaining runtime before the battery is depleted. Should the light reach this mode, it has approximately 1 hr of remaining functionality. If the light enters Low Battery Strobe, charge the light immediately for 2.5hrs for full charge.

Flare RT

Battery Level Status

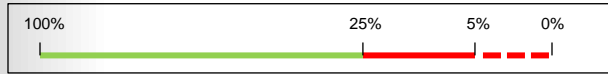Status LED

Battery Level (Run time):
While the light is on, the status of the battery can be seen from the LED integrated into the power button.

Green: >25% battery remaining

Red: battery remaining is between 5% and 25%

Flashing Red: the battery is less than 5% remaining.
**The main LED will also default to a flash mode at 5% to extend function as long as possible

| 100% | 25% | 5% | 0% |

Battery level LED progression

**Low Battery Strobe:
As a safety feature, when the battery gets to 5% power, the light will automatically switch into a Low Battery Strobe mode, which is meant to give the rider an additional hour of runtime before the battery is depleted. Should the light reach this mode, charge the light immediately for 2.5hrs for full charge.

Flare RT

Sync Bracket Connection

The Flare RT may be connected to a bicycle with included sync bracket, a seat pack with seat pack clip, or seat stay bracket.

Sync bracket sizing 22.2 - 31.8mm
- Loosen center screw to adjust hook for varying diameter seat posts.

Sync bracket orientation:
- The seat bracket has 360 deg of adjustability. It is designed to enable lights to be pointed parallel with the ground.

Seat pack clip:
- Attach seat pack clip for use with seat bags and racks.

Flare RT + Transmitr Remote
Turn Signals

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Flare RT + Transmitr Remote

Turn Signal Indicator Configuration

With the addition of a second Flare RT light, the Rider can configure the Transmitr System to act as Turn Signal Indicators

- It is recommended that only two tail lights are used in TSC at any time to optimize effectiveness.
- Recommended Placement is on the seat stays to optimize separation
- Lights should be placed on same side corresponding to their paired button on the remote.
- Turn Signal Configuration limits the Flare RT to a Steady-Low (primary mode), and flashing (activated when turning.)
- Changing the configuration will require all system lights to be re-paired to the remote.
- Remote operates the turn signals similar to a motorcycle: one press turns on the signal; another press turns the signal off.
- The remote will show the signal flashing on the paired button for that light

Flare RT + Transmitr Remote

Turn Signal Indicator Configuration

Step 1. **Put the light into Turn Signal Configuration:**
- Starting from 'OFF', press and hold the power button on the Flare RT for 10 seconds.
- Let go of the button when the main LED turns on. The configuration is now changed.
- Verify Turn Signal Configuration by cycling the modes. There will be only two modes- steady and flash.
- Repeat this step for the second Flare RT.
- Step 1 is repeated to take it out of Turn Signal Configuration.
- Note: when putting flare RT into or taking it out of turn signal mode, it will need to be re-paired to the remote.

Step 2. **Put the remote into pairing mode**
- Press and hold the center button on the Transmitr remote for **at least** 8 seconds.
- Release the center button when the corner button LEDs begin flashing.
- The center button will flash RED indicating that the remote is in Pairing Mode.
- Note: the remote will time out of pairing mode in 2 minutes. If this occurs repeat above.

Step 7. **Repeat Steps 4-7 of 'Pairing to the Remote)**

Flare RT + Transmitr Remote

Installing the Lights for Turn Signals

It is advised that if using two Flare RT lights in turn-signal configuration, they should be installed on the seat stays. The separation between the lights is important for this feature.

Step 1. **Placement of Lights in TSC**
Install the seat-stay brackets anywhere below the brakes. They should be level with each other.

Step 2.
After attaching the lights, make sure the lights are level with each other in relation to the ground plane.
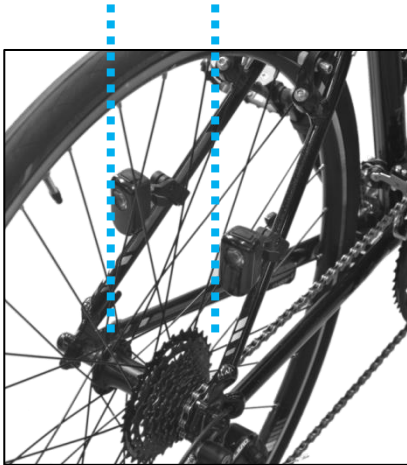
Step 3.
Make sure the lights are positioned perpendicular to the ground so that they face directly rearwards but not angled up or down.

Flare RT + Duo Trap (Hidden Feature)

Auto Brake Signals

Flare RT + Duo Trap S / ANT+ compatible sensor

Auto brake light functionality

Each Flare RT comes with a hidden feature. With the addition of an Ant+ sensor and a second wheel magnet, the Flare RT can function as an automatic brake light similar to those in a car or motorcycle. When set up, this functionality will work regardless of what mode or configuration the light is in.

- Works with all Bontrager Ant+ compatible sensors
- Compatible with any brand Ant+ sensor
- Works with one or more Flare RT lights
- Requires a second wheel magnet not included (shop can supply)
- Trip 300 has setting for 1 or 2 wheel magnets
- Wheel size must be custom set to account for the second magnet on all other computers (quick conversion table on pg 24)

Flare RT + Duo Trap S / ANT+ compatible sensor

Setting up auto brake light functionality

Each Flare RT comes with a hidden feature. With the addition of an Ant+ sensor and a second wheel magnet, the Flare RT can function with automatic brake lights. This functionality will work regardless of what mode or configuration the light is in.
*The addition of the second wheel spoke magnet requires a custom wheel size in any computer being used with the Ant+ sensor.


Step 1. **Second Magnet**
- Install a second spoke magnet on a spoke at 180 degrees from the existing magnet,
- Align both magnets so they pass the sensor as described in the sensor manual.
- If there is no existing sensor and magnet, install them first.

Step 2. **Activate the Sensor**
- Activate the sensor by spinning the wheel so that the magnet passes the sensor at least twice. LEDs on the sensor should light up to show activation.
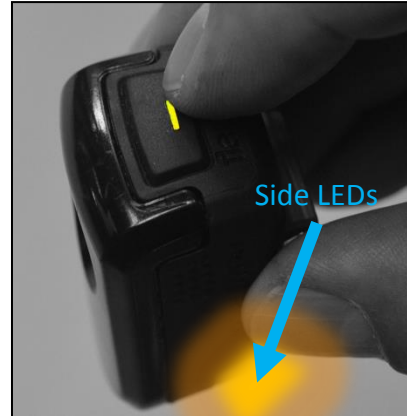
Side LEDs

Step 3. **Turning on Brake Light Configuration**
- Press and hold the power button of the Flare RT for at least 20 seconds. After 8 seconds the side LEDs will flash. Let go of the button when this happens.
- The main LED will turn on at 5 seconds and then turn off. Simply continue holding the power button down until 40 seconds have elapsed and the side LEDs begin flashing.

Step 4. **Pairing to the Duotrap**
- Move the Flare RT close to the speed sensor. When the light has paired to the sensor, the side LEDs will go steady for 2 seconds and turn off.
- Once pairing has happened, the light is ready to be used with auto-brake light feature.
- If no sensor is found within 30 seconds the light will return to sleep and steps 3-4 will need to be repeated.

Flare RT + Duo Trap / ANT+ compatible sensor

Auto brake light functionality – wheel size conversion

When two wheel magnets are installed, the user's computer may display the speed as twice as fast as the rider is actually going. On the Bontrager Trip 300 bicycle computer, there is a feature for selecting Number of Wheel Magnets. The user would select '2' for this option.

For other computers, a custom wheel size will need to be entered that is half of the actual wheel size.

Custom wheel size conversion table

Wheel Size / mm		With 2 magnets Use Custom to Enter:
700:23	2096	1048
700:25	2105	1053
700:28	2136	1068
700:32	2155	1078
700:35	2168	1084
700:38	2180	1090
650:2.0	2189	1095
650:2.2	2208	1104
29:2.0	2309	1155
29:2.2	2326	1163
29:2.3	2340	1170
26:1.5	2010	1005
26:2.0	2055	1028
26:2.2	2064	1032
Custom	0001-2999	Rollout #/2

Flare RT troubleshooting

Light won't pair to a Duo Trap S or other ANT+ speed sensor:
- Make sure the sensor that you are trying to connect to is an ANT+ sensor.
- Make sure the sensor is activated. On the Duo Trap LEDs will light up to indicate that the sensor has been activated. Note that these LEDs only light up for a few seconds after activation.
- Make sure that you hold the light close to the sensor during pairing. This was implemented so that it is easier to pair to a particular sensor when several sensors are in the area.

Light won't pair to a remote:
- Make sure the light is on while attempting to pair to the remote.
- Make sure the light is held close to the remote during pairing.
- Read the instructions of the remote for further information

Light only has two modes:
- The light is in "turn signal configuration" hold the button down for_____

Brake light function is not working:
- Make sure that you are paired to an ANT+ speed sensor
- Make sure that the speed sensor is working properly
    - Are the magnets aligned correctly?
    - Does the sensor battery need to be replaced?

Brake light function is erratic:
- Make sure that two wheel magnets are installed on spokes 180 degrees apart.
- Make sure the magnets are aligned properly with the sensor by consulting the manual for the sensor

After setting up the light my computer speed isn't displaying properly:
- If your computer is a Trip 300, go through setup and select 2 as the number of wheel magnets
- If your computer is not a Trip 300, you need to set a custom wheel size. Refer to the user manual of your computer and the provided table for the value.

TRANSMIT**R** Remote Regulatory Statements

FCC ID:O4GTKRMTE

This device complies with part 15 of the FCC Rules.

Operation is subject to the following 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.

NOTES:

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE GRANTEE OF THIS DEVICE COULD VOID THE USER'S AUTHORITY TO OPERATE THE DEVICE.

This device complies with Industry Canada's licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This equipment complies with FCC and IC radiation exposure limits set forth for an uncontrolled environment. This equipment is in direct contact with the body of the user under normal operating conditions. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Leprésent appareil est conforme aux CNR d'Industrie Canada applicable aux appareils radio. Exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilsateur de l'appareil doit accepter tout brouillage radioélectrque subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet appareil est conforme aux limites d'exposition à la fréquence radio (FR) d'IC et de FCC. Cet appareil est en contact direct avec l'utilisateur dans des conditions normales d'utilisation. L'émetteur ne doit pas être co-implémenté ou utilisé conjointement avec une autre antenne ou un autre émetteur