BLINKERS®

USER MANUAL

Please take a moment to read this manual before using Blinkers. If you need further support, please contact us at support@blinkers.io.

DE Für die Bedienungsanleitung auf Deutsch, besuchen Sie:
FR Pour le mode d'emploi en français, veuillez consulter:
ES Para la guía del usuario en español, por favor consulte:
IT Per il manuale di istruzioni in italiano, fare riferimento a:

https://www.blinkers.bike/usermanual

1- WARNINGS

! Blinkers are designed to be a complement of hand signals, and NOT a replacement. You need to continue using your hands to indicate a change of direction when you cycle in the road. Even if Blinkers provide additional visibility and predictability, we can't ensure that vehicles around you will see and understand your intentions.

! The remote control on the handlebar shows the turn signal that is activated. Make sure you look at it every time you use it to check that is indicating to the right direction. Indicating to the wrong direction can be very dangerous and increase the risk of accident.

! When plugging Blinkers into the mounts, do NOT put your finger on the edge that plugs into the bike mounts, so that you don't pinch your fingers. Instead, hold Blinkers from one of the sides.

! The turning indicators, as well as the brake light and the regular white and red lights are less visible during daylight.

! Do not attempt to access the components inside. It may damage the electronics and will void your warranty.

! In case you have a Blinkers with laser, never look directly into the laser beam, shine it at someone else's eyes or at other vehicles. Do not use optical instruments like microscope, telescope or binoculars to view the laser beam. Do not point the laser at reflective surfaces.

! Handle the laser functionality with care. It must never be used for any other purpose other tan on your bicycle. Blinkers has a safety feature that the laser cannot be used if it is not plugged in the rear mount.

! The laser is only visible during night conditions.

! The laser has been programmed to work for only 10min at a time. This is due to the heating that the laser generates when functioning, which might damage its performance in the long-term if it is used for too long.

Blinkers contains a class 2M laser according to IEC 60825. It has an output power of <5mW, and wavelength of 510-525nm.

2- CHARGING

Before using Blinkers, you need to fully charge the battery. To charge your light(s):

1. Open the USB cover on the back of the light
2. Connect the USB cable and power Blinkers with 5 VDC voltage.
3. Once charging, the screen will indicate the level of battery for 2 s
4. Once fully charged (~2,5 h), close the USB cover

! *Do not pull too hard he USB cover. You may take it out from its hole.*

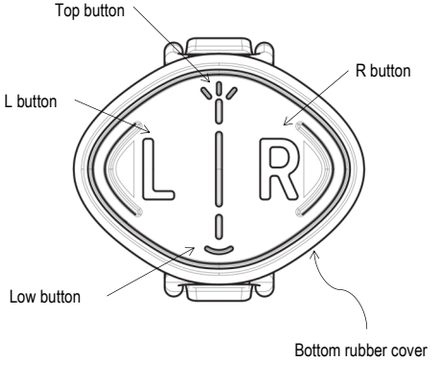
3- PAIRING

Before using Blinkers for the first time, you need to pair the light(s) with the remote control. To pair your light(s):

1. Make sure your Blinkers are charged. See **2– CHARGING.**
2. Connect Blinkers to USB cables or plug them in the mounts.
3. Press the top and low buttons of the control pad for 3s and wait until the "L" and "R" lights turn on. See "Remote control sketch".
4. Bring the remote control close to the **rear Blinker** (max.10cm) and wait until the low green light on the remote control turns on.
5. Now, if you have a **front Blinker**, bring the remote control close to the front Blinker (max.10cm) and wait until the top red light of the remote control turns on.
6. Finally, all the lights of the remote control will start blinking: it means that the Blinkers and the remote control are paired.

! Make sure you pair the rear Blinker first, before the front.

! If you have a Blinker Set, but you end up using only one Blinker, we recommend that you re-pair the single Blinker alone with the remote control. You can also pair the front Blinker alone.



Remote control sketch

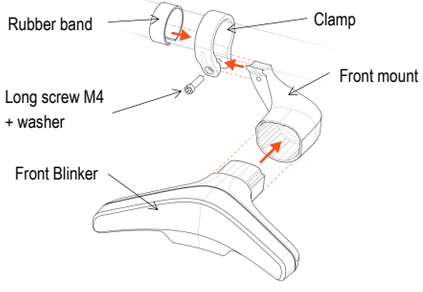
4- MOUNTING

* Front Mount

1. Select the appropriate clamp.

Handlebar diameter	Type of clamp
Ø23-26 mm	Small clamp
Ø28-33 mm	Big clamp

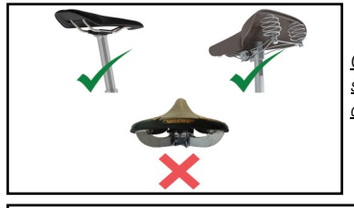
2. Select the appropriate rubber insert and fit it into the clamp. The appropriate dimensions are printed on the rubber bands.
3. Slide the clamp over the handlebar with the bolt hole facing forward, place the front mount on the clamp, and insert the long screw.



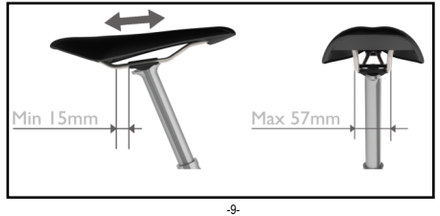
4. Tighten the screw until the clamp fits the handlebar. Do not fully tighten it for now.
5. Place the Front Blinker into the front mount (magnetic attachment), and regulate the angle of the white light.
6. Once the Blinker is at the correct angle, tighten the bolt using the allen key until the clamps fits well and cannot rotate anymore.

* Saddle Mount

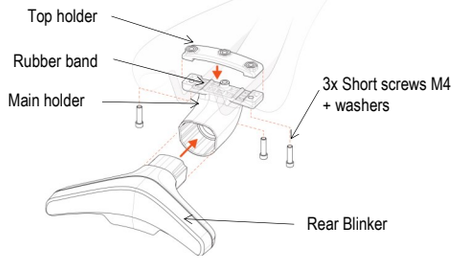
1. Make sure your saddle is compatible with the rear mount.



Compatible saddles & dimensions



2. Fit the rubber insert onto the main holder and place it below the tubes under the saddle.
3. Place the top holder on top of the tubes below the saddle. Insert the three screws from the bottom.
4. Tighten the 3 short screws until the mount fits the tubes.



Note: if you have a rack or a basket, check the rack mount in our website

5- BATTERY MGT.

The screen of the Blinkers will display the battery level for 2s everytime you plug them into the mounts, so that you always know the battery that you have left before starting your ride. The same will happen when you connect the USB cable to Blinkers.
If you have not used Blinkers for longer than a month, recharge them.

∗ Run times and modes

Light \ Laser	ON	OFF
ON	20 h	25 h
Flashing 1	30 h	35 h
Flashing 2	25 h	30 h

If Blinkers are plugged in the mounts, the battery will slowly be consumed. If possible, plug them out, the battery will last longer in that way.

∗ Remote control

Blinkers' remote control has a CR-2032 coin cell (3 V). In normal usage, it should last for about 10 months. After that, the remote control will start mal-functioning. It is time to change the coin cell.

To change the coin cell, you need to take the bottom rubber cover out of the remote control, pull the used coin cell out and insert the new one.

∗ Light intensity

Front light	100 lm
Rear light	30 lm
Brake light	100 lm

6- OPERATING YOUR BLINKER

1. Connect the USB cables to Blinkers and charge them.
2. Fix the mounts onto the bicycle (see **4– MOUNTING**)
3. Pair your Blinkers (See **3– PAIRING**).
4. Plug Blinkers into the mounts, and fix the remote control on the handlebar with the rubber band. Blinkers are now ready to be used.

∗ TURN SIGNALS

∗ Press the 'R' button to signal a RIGHT turn. The turning indicator will automatically switch off after 12 s. If you want to deactivate it yourself, you just have to press the "R" botton again.
∗ Press the 'L' button to signal a LEFT turn. The turning indicator will automatically switch off after 12 s. If you want to deactivate it yourself, you just have to press the "L" botton again.

∗ Press the "R" button for 1,5 s if you do NOT want the RIGHT indicator to be automatically turned off after 12 s.
∗ Press the "L" button for 1,5 s if you do NOT want the LEFT indicator to be automatically turned off after 12 s.

∗ LIGHT MODES

∗ Press the LOW button to change the modes of the rear red light.
∗ Press the TOP button to change the modes of the front white light.

∗ LASER & EMERGENCY MODE

∗ Press the LOW button for 2 s to (de-)activate the laser projection.
∗ Press the TOP button for 2 s to (de-)activate the "emergency mode".

∗ BRAKE LIGHT

∗ The brake light works automatically whenever the rear Blinker detects a sudden deceleration. It's not possible to deactivate.

7- RIDE SAFELY

! Blinkers, by adding extra lights like turning indicators, a laser projection and a brake light, greatly improves your visibility and predictability in the road. However, **the risk is still there** because cyclists are the most vulnerable users of the road: two wheels to balance and no chassis to protect us. Therefore, you need to be CAREFUL and AWARE of your surroundings to avoid getting into dangerous situations in the road.

! We recommend to wear a helmet. It is super important to be seen and understood, but if by any reason, you find yourself in an accident, a helmet will protect the most important part of your body: your head.

! The blind spot is a dangerous place to ride. You are invisible to cars and other vehicles and they might not consider you when making a change of directions.

! We recommend to also use your hands to indicate a turn, as some car drivers can still recognize this signal better than the Blinkers.

8- TROUBLES?

! *When I press the buttons on the remote control, nothing happens to the Blinkers.* – Have you paired them? See **3- PAIRING.** Have you plugged Blinkers into the bike mounts? Blinkers need to be plugged into the bike mounts if you want to use them. See **6- OPERATING YOUR BLINKER**. Perhaps you have run out of battery in the remote control. See **5- BATTERY MANAGEMENT.**

! *I don't know how to fix the mounts into the bike.* – See **4- MOUNTING** to have a detailed description of how to fix the mounts.

! *I plug Blinkers into the mounts and the batttery level doesn't display in the screen, and the lights don't turn on.* – You probably need to charge the battery of Blinkers.

! *I can't activate the laser* – See **6- OPERATING YOUR BLINKER** to know what the buttons are used for.

If you have any problems with Blinkers or you need any support, check www.blinkers.bike/usermanual or e-mail info@blinker.io.

9- MAINTENANCE

To ensure proper function of Blinkers, keep your light, optic USB cover and mounts clean. You can wipe dirt away using a soft, damp cloth. Do not use harsh abrassive or corrosive materials to clean your light. Do not submerge Blinkers in the water.

OPERATING TEMPERATURES
Blinkers can be used between -10 ºC and +35 ºC. You should not use them outside this range of temperatures, as it can damage the battery and the electronics inside. Also, you should only charge it in temperatures between 5 ºC and 35 ºC.

WATER PROTECTION
Blinkers is IP-64 water resistant. You can ride with it under the rain, under the snow, but you should not go diving with it.

BATTERY MAINTENANCE
Extended periods of non-use will affect the battery, as well as long exposure to low (-0 ºC) and high (+35 ºC) temperatures. You should store Blinkers at cool temperatures and recharge it above 50 % after long periods of non-use.

10- WARRANTY

Blinkers carries a two (2) years warranty from the original purchase date to the original owner (proof of purchase required). Blinkers warranties cover any manufacturing defects in material or workmanship. Issues not covered by warranty include normal wear & tear, improper installation, attempting to access or modify electronics, damage or failure due to accident, misuse, abuse and neglect.

Velohub does not accept any liability for injuries or other damages resulting from the use of Blinkers.

Your use of Blinkers is at your own disretion and risk. You will be solely responsible for (and Velohub disclaims) any and all loss, liability or damages resultuing from the use of our products, including loss of life, personal injury, or the loss of or damage to computer, mobile device, and all other property. Velohub does not guarantee or promise any specific level of performance or battery life associated with the use of Blinkers or any feature of them.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For more information, please visit www.blinkers.bike/usermanual

11– BLINKERS INCLUDES

Rear/Laser Blinker	Blinker/Laser Set
Rear Blinker (w or w/o laser)	Blinker set (w or w/o laser)
Saddle mount (w 1x rubber band)	Saddle & Front mount (w 3x rubber bands)
Remote control w 2x O-ring	Remote control w 2x O-ring
1x Coin cell CR2032	1x Coin cell CR2032
3 small screws M4 & washers	3 small screws & 1 long screw M4 & washers
Allen key	Allen key

This device complies with part 15 of the FCC Rules. 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.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.