

TBT-50R TBT-120F
TBC-1 (COMBO)
USER MANUAL

Thank you for choosing a Serfas Thunderbolt 2.0 Tail Light! We know you will be happy with the performance and value you are getting in this product. This manual is intended to help get you started on your journey down that well lit path. Please read this manual completely and use the recommended care precautions before using this product. If you have any further questions regarding this product please go to our website at www.serfas.com or call us at 1-623-888-5841.

SPECIFICATIONS

- * STRIP OF 16 HIGH POWERED WHITE MICRO LEDS (TBT-120F)
- * STRIP OF 30 HIGH POWERED RED MICRO LEDS (TBT-50R)
- * CNC ALUMINUM HEAT SINK LIGHT HOUSING
- * LAST MODE MEMORY FUNCTION
- * AUTO SAFE MODE
- * USB RECHARGEABLE
- * WIRED REMOTE SWITCH COMPATIBLE
- * SIDE VISIBILITY
- * WATER RESISTANT (IPX4)

CONTENTS INCLUDED



TBT-50R PICTURED

Contents:

- Thunderbolt 2.0 Tail or Headlight
- Aero Post Bracket
- Small Bracket O-Ring
- Medium Bracket O-Ring
- Large Bracket Strap (TBT-120F Only)
- USB Cable
- Manual

TBC-1 Combo Kit Includes 2 of each item above except Large Bracket Strap and Manual.

Optional Accessories:

- TS-REMOTE-F: USB Remote
- Multiple Serfas Brackets

LIGHT OPERATION

1. Double click the power button to toggle between the steady and flashing modes. (With mode memory, the light will resume previous mode upon next usage.)
2. Press and hold the power button for 1 second to switch off. (With mode memory, the light will resume previous mode upon next usage.)

HOW TO CHARGE THE BATTERY

Attention: If you do not use the battery for a long time, be sure to fully recharge every 3 months. Please store the battery in a cool and dry place. Recharge the battery after each long usage.

Charging indicator

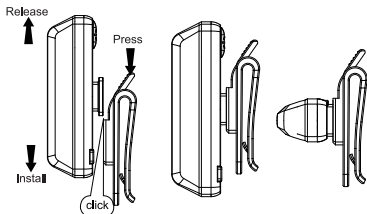
- * Flashing Blue - charging
- * Steady Blue - charged

Power button



1. Plug USB micro cable into charging port.
2. Plug cable into wall or computer USB socket.
3. Charge time may depend on computer or wall charger.
4. When the battery is fully charged, please unplug the USB cable or wall charger. Then replace the rubber cover.
5. It is normal that the battery may get warm during charging as the chemical in battery is undergoing a reaction. If the battery is not drained completely before charging, it may also get warm.
6. Several factors can influence the battery's durability: type of cell strain, the maintenance routine, the temperature and number of charges, etc.
7. The battery capacity may become 80% effective after 300-500 charge/discharge cycles.
8. The battery voltage and capacity decrease at low temperatures, especially near or below the freezing point. The capacity decreases 5%-10% at freezing (burn time decreases 50%). At -20°C, the capacity decreases 30% (burn time decreases 70%). The battery performance will return normal when the temperature gets up to 70°F/20°C.
The battery will lose around 1% of its capacity per day when you store the battery at normal room temperature. Battery temperature should never exceed 104°F/40°C, it will lose about 5% of its capacity per day.
9. If you do not use the battery for a long time, be sure to fully recharge every 3 months. Please store the battery in a cool and dry place.

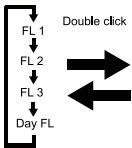
OPTIONAL ACCESSORIES NOT INCLUDED



Method 1 Method 2

1. Slide tail light forward onto belt clip until it clicks into place.
2. Press down release lever to remove.

LIGHT OPERATION CONTINUED



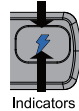
Low battery status

- * Steady blue

Auto safe mode

- * Flashing blue

Power button



AUTO SAFE MODE

1. When the signal " " turns on, it means the battery is low. You should charge your light.
2. When the signal " " flashes, it means that it is in a very low power stage, and the safe mode will be on not allowing you to change modes until the light is charged. The light may have an hour left for usage. (Depending on which mode the light was on before entering safe mode, it would affect the run time of safe mode before battery is completely drained.)

RUNTIMES

TBT-50R

MODE	LUMEN	RUNTIME
Low	10	up to 5.5 hrs
Medium	15	up to 2.25 hrs
High	25	up to 1.5 hrs
Low Flash	10	up to 13 hrs
High Flash Fast	25	up to 5 hrs
High Flash Slow	25	up to 9.5 hrs
Daytime Flash	50	up to 19.5 hrs

TBT-120F

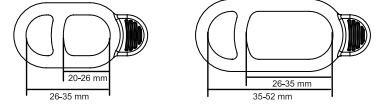
MODE	LUMEN	RUNTIME
Low	20	up to 5.5 hrs
Medium	40	up to 2.5 hrs
High	60	up to 1.5 hrs
Low Flash	25	up to 18.5 hrs
High Flash Fast	60	up to 7.5 hrs
High Flash Slow	60	up to 12 hrs
Daytime Flash	120	up to 23 hrs

HOW TO CLEAN AND CARE FOR THE LIGHT

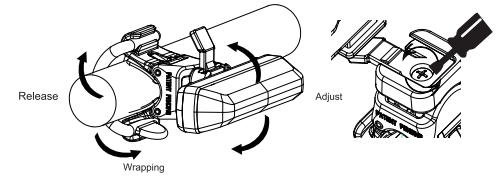
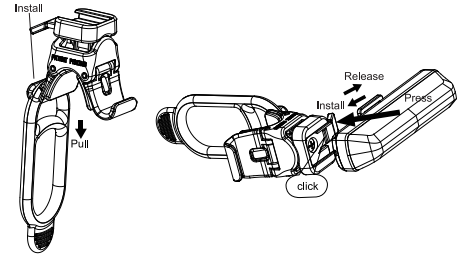
- * Make sure to clean the dust and dirt on the light with a soft damp cloth after every ride.
- * Water resistant is for rain water only. Do not submerge the battery or the whole light into water when cleaning.

HOW TO MOUNT THE TAIL LIGHT

1. Choose the strap that fits your bar.
2. Make sure the strap is secure on the light hook.
3. Hold the light on the handlebar/seat post.
4. Wrap the rubber strap around the bar and stretch the strap around the opposite light hook.
5. Slide the light forward onto bracket until it clicks into place.
6. Press down the release lever to remove.
7. Adjust the beam angle by loosening the screw knob and rotating the light up or down for your preferred angle. Tighten the screw to secure the light in place.

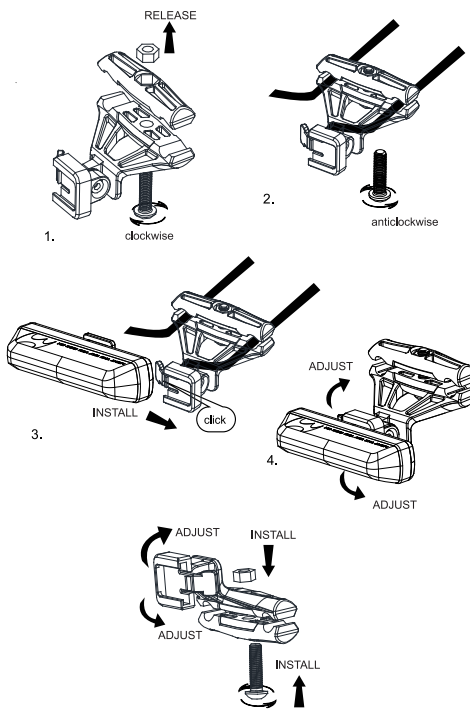


* Large Bracket Strap Included with TBT-120F is meant to be used for headtubes and other large mounting areas on the front of the bike.



HOW TO MOUNT THE TAIL LIGHT TO THE SADDLE RAIL BRACKET

1. Loosen the screws in the saddle bracket with the Allen key.
2. Clamp the bracket onto the saddle rail.
3. Align the screw holes, using the Allen key to tighten the bracket.
4. Slide light forward onto bracket until it clicks into place.
5. Press down the release lever to remove.
6. Twist the light body to adjust the vertical angle.



- CAUTION:** When riding at night, please follow the guidelines below:
- * Use of appropriate bike lighting is recommended & in some places required by law.
 - * Light may get hot when in use.
 - * Unplug USB connector by the plug, never by the cable.
 - * Do not dismantle the tail light. (VOIDS WARRANTY)
 - * Not for use under water.
 - * Do not look directly at light.
 - * Keep tail light away from fire and combustible materials.
 - * Unplug the light, charger and cable once the battery is fully charged.
 - * This light is for bicycle use only.
 - * Do not charge over 5V.
 - * Light sensor mode must be off before charging or storing.
 - * Do not smoke while charging as the battery may release hydrogen gas. Always charge your battery in a well-ventilated space.
 - * Never connect or disconnect the plug or cord with wet hands while charging. Do not connect or disconnect the plug or cord when they are wet, it may lead to electric shock.

WARRANTY

Serfas warrants to the original purchaser of this product that the product is free from defects in material and workmanship for the lifetime of the product. This warranty does not apply to damage due to heat, physical damage (crashing) resulting from abuse, neglect, improper repair, improper fit, or alterations of the fixture. This warranty is in lieu of all other agreements and warranties, general or specific, express or implied and no representative or person is authorized to assume liability on behalf of Serfas in connection with the sale and use of this product.

Serfas reserves the right to request the return of any product submitted for warranty consideration. All customers should contact Serfas directly for warranty service.

To make a claim, please email warranty@serfas.com or call us at 1-623-888-5841.

- * Please include your full contact information (name, address, phone number, and email [if applicable]), and a description of the issue.
- * Address items to:

Serfas
 2333 W. Utopia Rd.
 Phoenix, AZ 85023

Serfas batteries are covered by a **ONE YEAR LIMITED WARRANTY** from the date of purchase. This covers the battery and battery internals.

Please file claims with Serfas directly. Do not take to retailer for warranty issues.