



TST-450F TSL-700F
TSL-950F

USER MANUAL

Thank you for choosing a SerfasTRUE series 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

- * HIGH PERFORMANCE CREE LED
- * CNC ALUMINUM HEAT SINK LIGHT CAP
- * LIGHT SENSITIVE AUTO ON/OFF
- * LAST MODE MEMORY FUNCTION
- * QUICK RELEASE RECHARGEABLE LITHIUM ION BATTERY
 - TSL-450F (3.7V 1400 mAh)
 - TSL-700F (3.7V 1400 mAh)
 - TSL-950F (Samsung 3.7V 2600mAh)
- * 7 LIGHT MODES
- * QUICK RELEASE AERO HEADLIGHT BRACKET (fits all round bars and AERO style bars)
- * HIGH PRECISION OPTICAL LENS
- * SIDE VISIBILITY
- * WATER RESISTANT (IPX4)

CONTENTS INCLUDED

Contents:

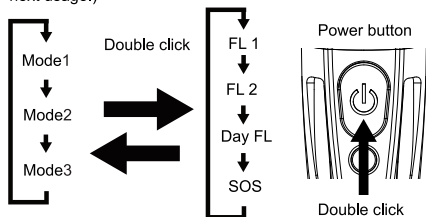
- TRUE Series Headlight
- Lithium Ion Battery
- Handlebar Bracket
- USB
- Manual

Optional Accessories:

- TS-REMOTE-F: USB Remote
- TOPBAR-BRACKET: Flat Bar Bracket
- UNI-OS: 35mm Oversize Bracket
- UNI-HLMT: Helmet Mount

LIGHT OPERATION

1. Your new light has two different modes (solid beam and flashing). Double Clicking the power button will switch the mode between solid and flashing. When turning on the light it will resume in whichever function it was set to when turned off.
2. To turn light on press power button.
3. With each press of the power button the light will change its power setting.
4. Press and hold the power button about 1 second to switch off. (With mode memory, the light will resume previous mode upon next usage.)



* The light may occasionally get stuck in auto or regular mode. To reset electronics remove battery for a few seconds then re insert.



Never use the SOS mode unless there is a real emergency or danger occurring. The SOS signal is visible for several miles. The battery can support up to several hours of SOS signal usage.

LIGHT SENSITIVE AUTO ON/OFF FUNCTION

1. Press power button to turn on light. (If not already on)
2. Press and hold the power button for 3 seconds until indicator light in power button goes from blue to green. This turns the light sensitive feature on. (To turn off light sensitive feature press and hold power button 3 seconds until indicator goes from green to blue.) * Light must be on to switch this function on or off.
3. Select the mode you want to use by pressing the power button.

Normal Status

* Working - steady blue

Light Sensitive Auto On/Off

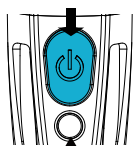
* Standby - flashing green

* Working - steady green

Low battery status

* Flashing red

Power Button / Indicators

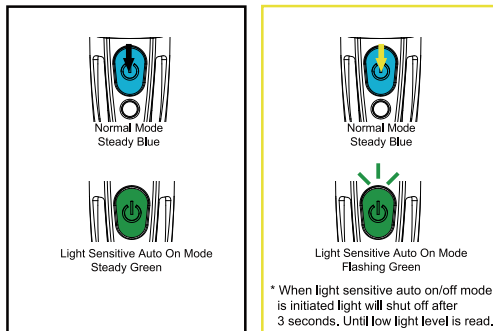


Light Sensor

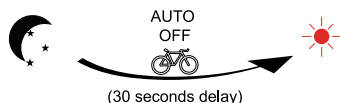
LIGHT SENSITIVE AUTO ON/OFF OPERATION

Dark Environment

Well-Lit Environment



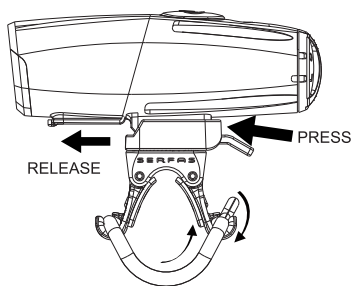
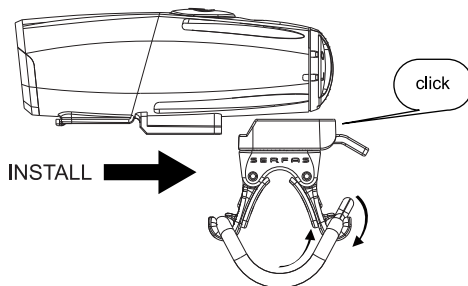
* When light sensitive auto on/off mode is initiated light will shut off after 3 seconds. Until low light level is read.



Remember to turn off the light when not in use. You must turn light off when storing. To turn light off in any mode press and hold the power button for half a second. FAILURE TO TURN LIGHT OFF CAN LEAD TO LIGHT TURNING ON DURING STORAGE. THIS CAN LEAD TO THE LIGHT OVERHEATING AND CAUSE PERMANENT DAMAGE.

HOW TO MOUNT THE HEADLIGHT

1. Install the bracket onto handlebar by wrapping one of the three included rubber straps around post/bar and stretching strap around hook to secure.
2. Slide headlight forward onto bracket until it clicks into place.
3. Press down release lever to remove.
4. The bracket fits all round bars and AERO style bars.

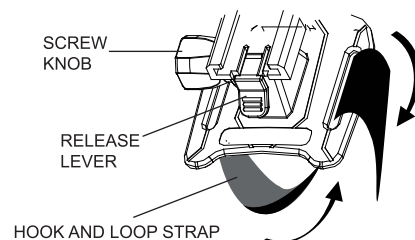
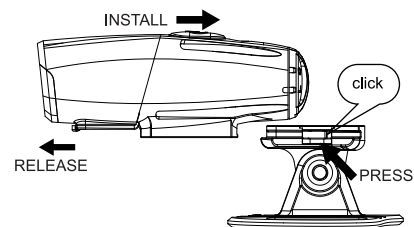


* Included bracket is intended to fit most applications. In the rare instance it does not this light is compatible with any Uni-Headlight Bracket from Serfas.

HOW TO MOUNT THE HEADLIGHT TO HELMET

* Helmet mount sold separately.

1. Remove the belt from one side of the helmet mount.
2. Place the helmet mount into the desired location on helmet.
3. Wrap belt around helmet and tightly attach the end of the belt to itself.
4. Insert the headlight into the helmet mount until it clicks into place.
5. Press down release lever to remove.



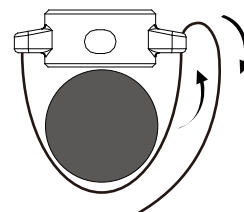
To adjust the vertical beam angle when mounted on the helmet, loosen the screw knob and rotate the light up or down to your preferred angle, then tighten the screw knob to secure the light in place.

REMOTE SWITCH INSTALLATION

* Remote Switch sold separately.

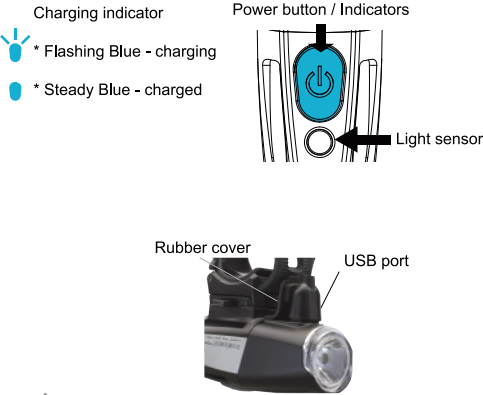


1. Connect the remote switch by using the USB port.
2. Wrap the Velcro belt around the handlebar.
3. Align the switch to desired location.
4. Pull the Velcro belt tightly to secure.



BATTERY CHARGING INSTRUCTIONS

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 battery after each long usage.



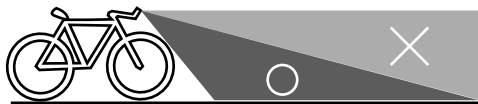
CAUTION

- * Do not charge over 5V.
- * Light sensor mode must be off before charging.
- * Keep away from flammable objects while charging as this may lead to fire or battery explosion.
- * 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 whilst charging. Do not connect or disconnect the plug or cord when they are wet, it may lead to electric shock.

1. Find the charging place under the head part of the light.
2. Lift the rubber cover and you'll see the charging port.
3. If using a USB cable, connect it to your computer USB port.
4. If using a wall charger, connect it to the wall outlet (100 to 240 volts).
5. Charge time may depend on computer or wall charger.
6. When the battery is fully charged, please unplug the USB cable or wall charger. Then replace the rubber cover.
7. It is normal that the battery may heat up during charging (up to 104°F/40°C), as the chemical in battery is undergoing a reaction. If the battery is not drained completely before charging, it may also get warm.
8. Several factors can influence the battery's durability: type of cell strain, the maintenance routine, the temperature and number of charges, etc. Normally speaking, the higher the battery capacity, the longer the burn time.
9. The battery capacity may become 80% effective after 300-500 charge/discharge cycles. The battery may have 3 years life span under good care.
10. 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 to 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.
11. 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.

BEAM ADJUSTMENT

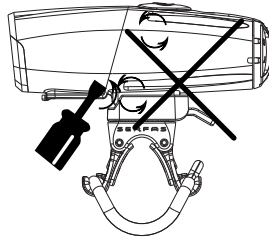
To adjust the horizontal beam, spin the headlight left to right for your best side to side beam angle. To adjust the vertical beam angle, loosen the mount and rotate the light up and down to your best vertical beam angle, then re-tighten the mount.



The beam is widely dispersed and very bright. To prevent blinding of oncoming vehicles on public roads, it is best to adjust the angle downward.

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.



CAUTION: When riding at night, please follow the guidelines below:

- * Use of appropriate bike lighting is recommended & in some places required by law.
- * Use caution when handling, the light may get hot.
- * Unplug USB connector by the plug, never by the cable.
- * Do not dismantle the headlight or battery.
- * Provide sufficient airflow to the headlight for cooling during use.
- * Not for use under water.
- * Do not look directly at light.
- * Do not leave the light on and unattended.
- * Keep headlight and battery away from fire and combustible materials.
- * Do not store head unit when hot or immediately after use.
- * Unplug the light, charger and cable once the battery is fully charged.
- * This light is for bicycle use only.



RUNTIMES

TSL-450F

MODE	LUMEN	RUNTIME
High	320	up to 2 hrs
Medium	180	up to 4 hrs
Low	100	up to 7 hrs
Low Flash	60	up to 20 hrs
Medium Flash	200	up to 18 hrs
Daytime Flash	450	up to 57 hrs
SOS	—	up to 24 hrs

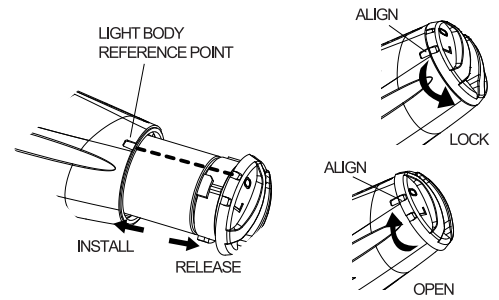
TSL-700F

MODE	LUMEN	RUNTIME
High	450	up to 1.5 hrs
Medium	250	up to 3 hrs
Low	150	up to 5 hrs
Low Flash	100	up to 20 hrs
Medium Flash	300	up to 18 hrs
Daytime Flash	700	up to 45 hrs
SOS	—	up to 24 hrs

TSL-950F

MODE	LUMEN	RUNTIME
High	700	up to 1.5 hrs
Medium	350	up to 3 hrs
Low	180	up to 5 hrs
Low Flash	150	up to 20 hrs
Medium Flash	450	up to 18 hrs
Daytime Flash	950	up to 45 hrs
SOS	—	up to 24 hrs

HOW TO INSTALL AND RELEASE THE BATTERY



Battery installation

1. Align the "point O" to the light body reference point. Install the battery cover into the light body.
2. To lock turn the battery cover clockwise until the "point L" aligns with the light body reference point.

Battery release

1. Turn left to open the battery and the battery will pop out slightly.
2. Pull the battery out from the light body.

***Attention:** To maintain smooth battery installation / release, use bicycle friendly grease to lubricate the battery cover opening and battery o-ring.

OVERHEAT PROTECTION

The overheat protection circuitry in your light ensures that it operates at safe temperatures to insure a long life. Continued heat build up is the biggest enemy of LED's and causes lower lumen output and lifespan when operated too hot. Under proper operating conditions your LED should last 50,000+ hours. (See battery info for battery lifespan)

When your light is on many factors can cause it to get too hot (inadequate airflow, mud, dirt, walking up that hill). When this happens the circuitry in this device will automatically go into "Medium" mode. Once the air flow over the light has improved and the running temperature is reduced the circuitry will kick the light back into the previous mode.

SIMPLE PROBLEMS ANALYSIS AND SOLUTION

1. Problem: The light is not on

Solution: Check if the battery still has power
Check if the power button was pressed hard enough
Check if the battery is installed correctly
Check if the USB remote control is properly plugged in

2. Problem: The light turns off over rough terrain

Solution: Check if the battery is fully inserted.

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.

For more information please contact us at info@serfas.com.

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