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CONTENTS INCLUDED

* ADJ 1300
* Rechargeable lithium ion battery (3200 mAh) pack
* Handlebar bracket
* Helmet mount
* Remote switch
* Extension cable
* Smart charger
* Magic tape band

SPECIFICATION

ADJ 1300
* 2 Cree XM-L high brightness LEDs
* CNC aluminum alloy body
* Adjustable light beam system
* 7 modes: Over drive / High / Standard / Low / Flashing / Strobe / SOS
* Quick release handlebar mount (fits 22-35mm)
* Quick release helmet mount
* Over heat protection system
* Modes indicator
* Low battery indicator
* Precision optical lens

XP-BS-S2
* Rechargeable lithium ion battery (7.2V 3200 mAh)
* Charging & fully charged indicator
* Automatic turn on or off indicator
* (when plug in or pull out the DC & USB cable)
* Taillight function with ON / OFF button
* USB power output function

XP-NC
* Smart charging (100-240 volts) with fully charged indicator and automatically charged cut-off system

* ADJ 950
* Rechargeable lithium ion battery (2600 mAh) pack
* Handlebar bracket
* Helmet mount
* Remote switch
* Extension cable
* Smart charger
* Magic tape band

SPECIFICATION

ADJ 950
* 2 Cree XM-L high brightness LEDs
* CNC aluminum alloy body
* Adjustable light beam system
* 7 modes: Over drive / High / Standard / Low / Flashing / Strobe / SOS
* Quick release handlebar mount (fits 22-35mm)
* Quick release helmet mount
* Over heat protection system
* Modes indicator
* Low battery indicator
* Precision optical lens

XP-BS-SS2
* Rechargeable lithium ion battery (7.4V 2600 mAh)

XP-NC
* Smart charging (100-240 volts) with fully charged indicator and automatically charged cut-off system

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ADJUSTABLE LIGHT BEAM SYSTEM

With a dual-lamp design, ADJ 1300 & ADJ 950 could make your cycling having both near and long-distance illumination. And according to the varied road section, you can flexibly adjust the appropriate illumination.

Light pattern
Distance 1M
Total angle 86°
Dia. 1.6M

Adjust vertical angle 12°
Spot angle 17°
Dia. 0.3M

Distance 0.21M
Distance 0.34M

Adjust vertical angle 19°
Spot angle 17°
Dia. 0.3M

SWING INDICATOR

With maximum up and down rotation angle setting, it could better control any excessive swings occurrence.

First beam
Second beam

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HANDLE BAR MOUNTING

MOUNTING THE HEADLIGHT

1. Insert the handlebar bracket into the bottom slot of the light;
2. Spin the below part of the bracket counter-clockwise to loosen the screw;
3. Unlock the bracket and put the light in suitable place of your handle bar;
4. Twist the screw clockwise to lock the bracket;
5. The bracket fits 22-31.8mm handle bar. Additional shims are included and you can use them when necessary.

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 mounting and rotate the light up and down to your best vertical beam angle, then tighten the mounting.

The beam is widely dispersed, besides its high brightness. To prevent from blinding the oncoming vehicles on the public roads, you’d better adjust the angle downward.

HELMET MOUNTING

MOUNT THE HEADLIGHT ONTO HELMET

1. Remove the belt from one side of the helmet mount.
2. Place the helmet mount into the suitable location on helmet.
3. Wrap belt around helmet and attach the end of the belt to itself tightly.
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 desired angle, then tighten the screw knob to hold the light in place.
LIGHT OPERATION

1. Press the power button to choose the modes:
   In this button control, four modes are cycling in loop.

2. Fast press the on / off button two times to change to the flashing modes. Fast press two times back to the steady light cycle.

3. Press and hold the on / off button around 1 second to turn off the light.

4. When the indicator turns flashing red, it means the battery is low. You’d better charge the battery right now.

   Low battery indicator
   * Flashing red - Low battery

   Never use the SOS sign unless there is a real emergency or dangerous occurring. The SOS signal is visible for several miles. And the battery can support for long runtime up to several hours.

OVER HEAT PROTECTION

The over heat protection device can ensure the bicycle light in a good running temperature condition, so that to protect the LEDs without burning case.

When the bicycle light is running and without adequate air flow, this protection device will automatically start to dim the light to standard brightness mode, it can reduce the heat of the light and ensure the LEDs won’t get damage due to over heat.

Once the air flow condition of the light is improved, the running temperature of the light will go down, then the over heat protection device will cut, the brightness of the bicycle light will get back to the beginning of the selected mode.
REMOTE SWITCH OPERATION

Equipped with an outer setting controller, you could get handy with the light for brightness transferring into an approximate power when riding. And it will be helpful for heat dissipation and avoid any scalds occurrence when light working long and getting hot.

1. Open the light tail cover.
2. Then plug in the controller wire.
3. Make sure it has been completely jointed.

*When unused, please ensure the protective cap closed to avoid water getting in.

REMOTE SWITCH MOUNTING

1. Put one end of the belt go through the cycle handle bar
2. Align to the controller button and pass through.
3. Please pull the Velcro ends tightly.

REMOTE SWITCH HELMET MOUNTING

1. Put one end of the belt go through the helmet hole.
2. Align to the controller button and pass through.
3. Please pull the Velcro ends tightly.

REMOTE SWITCH OPERATION

1. Press the power button to choose the modes:
   In this button control four modes are cycling in loop.

2. Fast press the on/off button two times to change to the flashing modes. Fast press two times back to the steady light cycle.

   ![Diagram of light modes]

3. Press and hold the on/off button around 1 second to turn off the light.

   ![Diagram of SOS mode]

   *Never use the SOS sign unless there is a real emergency or danger occurring. The SOS signal is visible for several miles. And the battery can support for long runtime up to several hours.*

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XP-BS-S2 BATTERY OPERATION

XP-BS-S2

It is normal that the battery may get high temperatures during charging (up to 104°F/40°C), as the chemical in battery is in reaction. If the battery is not drained completely before charging, it may also get warm.

Several factors can influence the battery’s durability: type of cell strain, the maintenance routine, the temperature and etc. Normally, the higher the battery capacity, the longer the running time.

The battery capacity may become less effectiveness; about 80% of its value after 300-500 charge/discharge cycles. The battery may have 3 years life span under good care.

The battery voltage and capacity decrease apparently at low temperatures, especially near or below ice point. The capacity decreases 5%-10% at freezing. At -20°C the capacity decreases 30%. 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.

If you don’t use the battery for a long time, be sure to make it a fully recharge every 3 months before storing again. Please keep the battery in cool and dry place when storing.

BATTERY CONNECTION

1. Plug in the DC cable
2. Plug in the USB cable (Do not use in raining)
3. Both plug in

INPUT: 8.4VDC === 1.5A
RATING: 7.2V === 3200mAh
20.04 Whr
RATING: 3.6V === 6400mAh
OUTPUT: 5.0VDC === 1.5A

BATTERY OPERATION

1. Press the power button will show the battery capacity.
2. Press the power button two times to change into the talight modes.
3. Press the power button two times again to get back to the capacity mode.
4. Press and hold the power button around 1 sec. in any modes to turn off.

*Make sure the cover is closed in place, When not use,

Off

Battery Indicator

Steady

Flashing

Hold 1 sec.

Hold 1 sec.

Method 1

Method 2

Method 3

POWER BUTTON
XP-BS-S2 BATTERY INDICATOR

INDICATOR
100% = 5 LED
80% = 4 LED
60% = 3 LED
40% = 2 LED
20% = 1 LED

TAILLIGHT FUNCTION
There are two modes in tail light function,
1. Steady -- 6 LUMENS .35 hours runtime (in full capacity)
2. Flashing-- 50 hours runtime

EXTENSION DC CABLE
If the distance between the headlamp and the battery is very far away, you can use the extension DC cable provided. Insert one end of the extension cable to the headlamp cable port and insert the other end to the battery cable port until you hear a click sound.

BATTERY CHARGING
Attention: MOON would like to recommend you to use the original supplied charger to charge the battery. The battery will be harmed if you use any other chargers. Unplug the charger once the battery is fully charged. Never use the smart charger at outdoor.

BATTERY CHARGING — CONTINUED
1. Connect the battery and the charger,
2. Connect the charger to the wall outlet,
3. The charger shows steady red when charging,
4. After fully charged it changes to steady green,
5. Smart charging ensures longer battery life,
6. Wall charger is compatible with 100 to 240 volts, for worldwide use.

CHARGING INDICATOR
100% = 5 LED
80% = 4 LED
60% = 3 LED
40% = 2 LED
20% = 1 LED

20% = 1 LED
40% = 2 LED
60% = 3 LED
80% = 4 LED
100% = 5 LED

Charging indicator

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SEAT POST / BAR MOUNTING THE BATTERY

Method 1
1. Thread the Velcro strap counter-clockwise through the 2 slots at the side of the battery. The hook surface of the Velcro strap should face the battery.
2. Place the battery on the frame where is safe and convenient.
3. Wrap the Velcro strap over the tube
4. Thread the Velcro strap through the slot on the top end of the strap itself.
5. Pull the Velcro strap and attach it tightly and firmly.

Method 2
1. Thread the Velcro strap clockwise through the 2 slots at the side of the battery. The hook surface of the Velcro strap should back the battery.
2. Place the battery on the frame where is safe and convenient.
3. Wrap the Velcro strap over the tube
4. Thread the Velcro strap through the slot on the top end of the strap itself.
5. Pull the Velcro strap and attach it tightly and firmly.
XP-BS-SS2 LITHIUM BATTERY

XP-BS-SS2

**INPUT**: 8.4VDC \(\Rightarrow\) 1.5A
**RATING**: 7.4V \(\Rightarrow\) 2600mAh
19.24 Whr

It is normal that the battery may get high temperatures during charging (up to 104°F/40°C), as the chemical in battery is in reaction. If the battery is not drained completely before charging, it may also get warm.

Several factors can influence the battery’s durability: type of cell string, the maintenance routine, the temperature and etc. Normally, the higher the battery capacity, the longer the running time.

The battery capacity may become less effectiveness; about 80% of its value after 300-500 charge/discharge cycles. The battery may have 3 years life span under good care.

The battery voltage and capacity decrease apparently at low temperatures, especially near or below ice point. The capacity decreases 5%-10% at freezing. At -20°C, the capacity decreases 30%. 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.

If you do not use the battery for a long time, be sure to make it a fully recharge every 3 months before storing again. Please keep the battery in cool and dry place when storing.

**BATTERY CHARGING**

Attention: MOON would like to recommend you to use the original supplied charger to charge the battery. The battery will be harmed if you use any other chargers. Unplug the charger once the battery is fully charged. Never use the smart charger at outdoor.

**BATTERY CHARGING – CONTINUED**

1. Connect the battery and the charger.
2. Connect the charger to the wall outlet.
3. The charger shows steady red when charging.
4. After fully charged it changes to steady green.
5. Smart charging ensures longer battery life.
6. Wall charger compatible with 100 to 240 volts, for use worldwide.

**EXTENSION DC CABLE**

If the distance between the headlamp and the battery is very far away, you can use the extension DC cable provided.

Insert one end of the extension cable to the headlamp cable port and insert the other end to the battery cable port until you hear a click sound.

charging indicator

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## RUN TIME & LIGHT DIAGRAM

### LIGHT DIAGRAM

![Light Diagram](image)

### ADJ 1300 (XP-BS-S2) 3200mAh

<table>
<thead>
<tr>
<th>Mode</th>
<th>Lumen</th>
<th>Runtime</th>
<th>Weight</th>
<th>Charge Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over drive</td>
<td>1300</td>
<td>Up to 1 hour 40 mins</td>
<td>Lightbody 104g Battery case 164 g</td>
<td>4 hours</td>
</tr>
<tr>
<td>High</td>
<td>850</td>
<td>Up to 2 hours 30 mins</td>
<td>Lightbody 104g Battery case 164 g</td>
<td>4 hours</td>
</tr>
<tr>
<td>Standard</td>
<td>550</td>
<td>Up to 3 hours 40 mins</td>
<td>Lightbody 104g Battery case 164 g</td>
<td>4 hours</td>
</tr>
<tr>
<td>Low</td>
<td>300</td>
<td>Up to 9 hours 40 mins</td>
<td>Lightbody 104g Battery case 164 g</td>
<td>4 hours</td>
</tr>
<tr>
<td>Flashing</td>
<td>850</td>
<td>Up to 7 hours 30 mins</td>
<td>Lightbody 104g Battery case 164 g</td>
<td>4 hours</td>
</tr>
<tr>
<td>Strobe</td>
<td>850</td>
<td>Up to 8 hours 20 mins</td>
<td>Lightbody 104g Battery case 164 g</td>
<td>4 hours</td>
</tr>
</tbody>
</table>

### ADJ 1300 (XP-BS-S2) 2600mAh (optional)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Lumen</th>
<th>Runtime</th>
<th>Weight</th>
<th>Charge Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over drive</td>
<td>1300</td>
<td>Up to 1 hour 30 mins</td>
<td>Lightbody 104g Battery case 140 g</td>
<td>3 hours</td>
</tr>
<tr>
<td>High</td>
<td>850</td>
<td>Up to 2 hours</td>
<td>Lightbody 104g Battery case 140 g</td>
<td>3 hours</td>
</tr>
<tr>
<td>Standard</td>
<td>550</td>
<td>Up to 3 hours</td>
<td>Lightbody 104g Battery case 140 g</td>
<td>3 hours</td>
</tr>
<tr>
<td>Low</td>
<td>300</td>
<td>Up to 7 hours</td>
<td>Lightbody 104g Battery case 140 g</td>
<td>3 hours</td>
</tr>
<tr>
<td>Flashing</td>
<td>850</td>
<td>Up to 5 hours</td>
<td>Lightbody 104g Battery case 140 g</td>
<td>3 hours</td>
</tr>
<tr>
<td>Strobe</td>
<td>850</td>
<td>Up to 5 hours</td>
<td>Lightbody 104g Battery case 140 g</td>
<td>3 hours</td>
</tr>
</tbody>
</table>

### ADJ 950 (XP-BS-S2) 3200mAh (optional)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Lumen</th>
<th>Runtime</th>
<th>Weight</th>
<th>Charge Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over drive</td>
<td>950</td>
<td>Up to 2 hours 30 mins</td>
<td>Lightbody 104g Battery case 164 g</td>
<td>4 hours</td>
</tr>
<tr>
<td>High</td>
<td>800</td>
<td>Up to 3 hours 20 mins</td>
<td>Lightbody 104g Battery case 164 g</td>
<td>4 hours</td>
</tr>
<tr>
<td>Standard</td>
<td>400</td>
<td>Up to 5 hours 40 mins</td>
<td>Lightbody 104g Battery case 164 g</td>
<td>4 hours</td>
</tr>
<tr>
<td>Low</td>
<td>180</td>
<td>Up to 12 hours 30 mins</td>
<td>Lightbody 104g Battery case 164 g</td>
<td>4 hours</td>
</tr>
<tr>
<td>Flashing</td>
<td>600</td>
<td>Up to 10 hours 20 mins</td>
<td>Lightbody 104g Battery case 164 g</td>
<td>4 hours</td>
</tr>
<tr>
<td>Strobe</td>
<td>800</td>
<td>Up to 10 hours 10 mins</td>
<td>Lightbody 104g Battery case 164 g</td>
<td>4 hours</td>
</tr>
</tbody>
</table>

### ADJ 950 (XP-BS-S2) 2600mAh

<table>
<thead>
<tr>
<th>Mode</th>
<th>Lumen</th>
<th>Runtime</th>
<th>Weight</th>
<th>Charge Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over drive</td>
<td>950</td>
<td>Up to 2 hours</td>
<td>Lightbody 104g Battery case 140 g</td>
<td>3 hours</td>
</tr>
<tr>
<td>High</td>
<td>800</td>
<td>Up to 2 hours 40 mins</td>
<td>Lightbody 104g Battery case 140 g</td>
<td>3 hours</td>
</tr>
<tr>
<td>Standard</td>
<td>400</td>
<td>Up to 4 hours 30 mins</td>
<td>Lightbody 104g Battery case 140 g</td>
<td>3 hours</td>
</tr>
<tr>
<td>Low</td>
<td>180</td>
<td>Up to 8 hours</td>
<td>Lightbody 104g Battery case 140 g</td>
<td>3 hours</td>
</tr>
<tr>
<td>Flashing</td>
<td>600</td>
<td>Up to 7 hours</td>
<td>Lightbody 104g Battery case 140 g</td>
<td>3 hours</td>
</tr>
<tr>
<td>Strobe</td>
<td>800</td>
<td>Up to 7 hours</td>
<td>Lightbody 104g Battery case 140 g</td>
<td>3 hours</td>
</tr>
</tbody>
</table>
**HEADLIGHT**

The headlight cannot be turned on.
- *Make sure the power button was firmly pressed.
- *Make sure battery is securely connected with the headlight.
- *Make sure the battery is fully charged.

The headlight turns off over rough terrain.
- *Make sure battery is securely connected with the headlight.
- *Make sure the control button is securely connected with the headlight.

**BATTERY**

The battery cannot be turned on.
- *Make sure the power button was firmly pressed.
- *Make sure the battery is fully charged.

**REMOTE SWITCH**

The headlight cannot be turned on with remote switch.
- *Make sure the power button was firmly pressed.
- *Make sure battery is securely connected with the headlight.
- *Make sure the battery is fully charged.

**EXTENSION CABLE**

The headlight cannot be turned on with extension cable.
- *Make sure the cable is connected in place.
- *Make sure the control button is securely connected with the headlight.
- *Make sure the cable is securely connected with the battery.

**PRESS**

**POWER BUTTON**

**click**

**CARE**

**CAUTION**

- The ADJ 1300 & 950 are designed to be used on bikes in some of the most extreme outdoor conditions. Over time, dust and dirt may hinder the connections on your battery and headlight. To prevent this from happening, ensure both of battery and headlight are cleaned after every ride.
- Wipe the headlight and battery down with a damp cloth. Do not submerge the battery or headlight in water. Remove all dirt around or on the plugs or jacks on both the battery and headlight. The CREE XLM-1 high-brightness LEDs have extensive life so bulb replacement is not required.

**CAUTION: Night riding is more dangerous than day riding.**
Exercise caution when riding at night and follow the guidelines listed below:
- *Headlight may get hot during use. Caution to use when handling.
- *Unplug the battery, headlight and remote switch when not in use.
- *Unplug the battery and charger when fully charged.
- *Unplug connector by the plug, never by the cable.
- *Only use the provided charger when charging.
- *Do not modify or substitute any parts with Non-MOON parts.
- *Do not disassemble the headlight and battery case.
- *Provide adequate airflow to the headlight to cool during use.
- *Do not look directly at light.
- *Do not operate or submerge any parts of the system under water.
- *Do not operate the light unattended.
- *Keep headlight and battery away from fire and combustible materials.
- *Do not store head unit when it is hot or immediately after use.
- *Carrying a flash light is recommended.
- *Do not dismantle the battery case.
- *Keep battery away from fire and combustible materials.
- *Do not charge except specified charging condition.
- *Do not heat above 100℃ or short circuit.
- *This light is for bicycle use only.

**WARRANTY**

MOON warrants to the original purchaser of this product that the product is free from defects in material and workmanship for a period of one year. This warranty does not apply to damage due to heat, physical damage 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 MOON in connection with the sale and use of this product.

MOON reserves the right to request the return of any product submitted for warranty consideration. All customers should contact the local dealer or regional distributor for warranty service.

To make a claim, first call local dealer or regional distributor. Some issues may be resolved upon the initial call, if return of the product is necessary, please refer to the following instructions:
- *We recommend that items be sent by a traceable method (such as FedEx or UPS). MOON is not responsible for lost or misdirected packages.
- *Please include your full contact information (name, address, phone number, and email [if applicable]), and a description of the issue.
- *Address items to: local dealer or regional distributor

What is not covered: MOON Lights are covered by a ONE YEAR LIMITED WARRANTY from the date of purchase. This covers the lights and cables only. It does not cover the battery or battery internals.

Batteries are covered by 120 days warranty.

For more information please contact us at cs@moon-sport.com.