

Here you find solutions for problems considering solely headlights. Solutions for problems referring to lighting systems in general and to SON hub dynamos you find in the leaflet „SON hub Service“.

## E6

**Attention:** The E6 headlight must not be checked with the help of a battery! The high starting current could damage the reed switch.

Symptom	Please check:	What to do?
<b>Reflector is defective</b>	<ul style="list-style-type: none"> <li>- Did it break by force?</li> <li>- Ingress of water?</li> <li>- Is reflector loose on socket?</li> </ul>	<ul style="list-style-type: none"> <li>- Order spare part (see below).</li> <li>- The Seal did not fit tight enough in the first series (year of manufacture 2002). Please send in headlight or reflector.</li> </ul>
<b>Headlight cannot be switched on</b>	<ul style="list-style-type: none"> <li>- Is the halogen bulb defective?</li> <li>- Is the bulb fitted correctly?</li> <li>- Is the switch mounted the right way round?</li> </ul>	<ul style="list-style-type: none"> <li>- Replace bulb.</li> <li>- Insert bulb with groove at guidance at reflector</li> <li>- Switch the headlight to <b>ON-position</b> by moving the tip of the switch lever to the <b>left</b> (view in the direction of travel). If that is not possible: pull off the switch and mount it the other way round.</li> </ul>
<b>Headlight cannot be switched off</b>	Has the headlight been run with a battery?	The reed switch must be replaced. Please send in the headlight.

## E6-Z

Symptom	Please check:	What to do?
<b>Reflector is defective</b>	See above at E6	
<b>Headlight cannot be switched off</b>	Is the switch mounted the right way round?	Switch the headlight to <b>ON-position</b> by moving the tip of the switch lever to the <b>left</b> (view in the direction of travel). If that is not possible: pull off the switch and mount it the other way round.
<b>Secondary headlight illuminates, primary headlight does not illuminate</b>	Does the light system work when using only the primary headlight?	If not: see leaflet „SON hub service“.
<b>Secondary headlight does not illuminate</b>	Is the bulb defective?	Attention: inside the secondary headlight a capacitor is connected in series. So it cannot be run nor checked by direct current. For replacement please use bulbs 6V/3W.
<b>Secondary headlight and primary headlight illuminate faintly</b>	Are they both connected in series?	When connected in parallel the electrical current of the hub dynamo, which provides limited electrical current, is not sufficient.

## Lumotec

Symptom	Please check:	What to do?
<b>Slack joint</b>	Are bulb and contact plate connected loosely?	Open headlight, take out spiral spring carefully, bend the contact plate at the back centre for about 3 mm with the help of a little screw driver. Put the spiral spring back in.
<b>Bulbs often blow</b>	Is the Zener diode defective?	Check the Zener Diode within the headlight: insert defective bulb, disconnect rear light, make front wheel spin fast and switch ON-OFF-ON-OFF quickly. If the overvoltage protection works at ON position the way the front wheel vibrates and the way it rolls out changes significantly. If not: send in headlight for repair (Zener diode will be soldered). If so: see SON hub service information sheet.
<b>Reflector is defective (broken)</b>	Damage caused by external force?	Please order spare part (see below).

Symptom	Please check:	What to do?
Cable is defective		If possible then please repair it yourself, as it is not cost-effective to have it repaired by us
Switch is defective	<ul style="list-style-type: none"> <li>- Is the switch lever bent?</li> <li>- Is the damage caused by external force?</li> <li>- Is it a transport damage?</li> <li>- Have the inner parts of the switch been broken (funny feeling when operating the switch)?</li> </ul>	It is not cost-effective to have the switch repaired by us.

## Lumotec oval plus

Symptom	Please check:	What to do?
Standlight does not work	Have the threaded eyes at the wires leading to the LED become loose?	<ul style="list-style-type: none"> <li>- Tighten threaded eyes carefully. See that you do not short circuit adjoining parts when doing this.</li> <li>- Send in the headlight for check or repair.</li> </ul>
Cannot be switched off	- Do you use this headlight together with a Shimano hub dynamo?	The switch of the Lumotec oval plus separates the earth connection to the dynamo. This is why it is not suitable for hub dynamos with earth connection to the bicycle frame (Shimano, Wing 2).
Cable is defective		If possible then please repair it yourself. If not, send in the headlight to have the cable replaced by us.
Switch is defective	<ul style="list-style-type: none"> <li>- Is the switch lever bent?</li> <li>- Is the damage caused by external force?</li> <li>- Is it a transport damage?</li> <li>- Have the inner parts of the switch been broken (funny feeling when operating the switch)?</li> </ul>	Send in the headlight to have the switch replaced.

## Lumotec oval senso plus

Symptom	Please check:	What to do?
Bulbs often blow	See leaflet «SON hub Service» The function of the overvoltage protection can hardly be verified.	In case of doubt please send in the headlight for check.
Standlight or automatic sensor do not work		<ul style="list-style-type: none"> <li>- Tighten threaded eyes carefully. See that you do not short circuit adjoining parts when doing this.</li> <li>- Send in for check or repair.</li> </ul>

## Guarantee

For SON and E6 with date of purchase 1 January 2004 or later we issue 5 years of guarantee (for older models 3 years). All other headlights and repairs are under warranty for 2 years. Please send in a proof of purchase with repair orders during the period of guarantee.

## Processing of repairs of headlights

**Shipment:** Please add a description of the defect.

Please send us the SON hub disassembled of spokes or front wheel (attention: parcel post may charge you for bulky goods). Please send parcel postage paid. We do not accept freepost parcels.

**Duration:** The work on the repair normally does not take longer than a week.