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### **FORWORD**

#### -TECHNOLOGY GIVES YOU A SAFER AND MORE COMFORTABLE RIDE-

With the help of e-bikes, cyclists can ride faster and further. Higher speed reduces reaction times when facing rapidly changing road conditions and unexpected road events. The average speed of e-bikes is much faster than ordinary bicycles meaning increased lighting is required to maintain safety. Sufficient lighting allows cyclists to see further and more clearly. To maintain safety, e-bike headlights play a more important role in comparison to ordinary bicycles.

Among the leaders in high-end bicycle products, SP strives to use advanced technology to provide quality products that are safer, more comfortable and more convenient for cyclists.

#### **FORWORD**

#### -SEVEN BRIGHT MODES FOR MAXIMUM SAFETY-

The low beam mode of EP-4 meets the exacting requirements of the German regulation standard for bicycle headlamps. The EP-4 projects high brightness and a razor sharp cut-off line. Brightness below the cut-off line is intense while very little light strays above the horizontal cut-off line. The EP-4 illuminates the road ahead while avoiding dangerous glare vis-à-vis oncoming cars or pedestrians. It also provides a remarkable, wide-angle beam function allowing riders to increase breadth of vision and heightened awareness of environment on demand. In addition, its high beam function provides incredibly bright illumination for you.

With an EP-4, you can choose from a variety of lighting modes to suit different riding conditions, thus providing for safer and more comfortable riding. We seek only to provide you with higher quality, more convenient and safer products.

## PRODUCT CONTENT



The EP-4 box has a length, width and height of 9 x 9 x 8.5 cm.

When you receive your EP-4, you will also receive the following accessories.

- 1 x Front Headlight
- (2) 1 x Control Button (with cable)
- (3) 1 x Power Cable
- (4) 1 x Bracket for Handlebar
- (5) 2 x Screws for the Handlebar Bracket
- (6) 1 x Bracket for Folk
- (7) 1 x Nut and Bolt Set for Folk Bracket
- 8 2 x Ty-Rap Ties

# TECHNICAL DATA

### -WIDER LIGHTING GIVES YOU A SAFER RIDE-

For Mode 1 to 6, please press the power switch to cycle through the modes of operation.

For Mode 7, please press the high beam button.

Mode	Light performance	Power comsumption	<b>Power comsumption</b> (Add Mode 7/ high beam)	Brightness	<b>Brightness</b> (Add Mode 7/ high beam)
Mode 1	Low beam (low)	2 W	8 W	290lm	990lm
Mode 2	Low beam (medium)	3 W	9 W	390lm	1090lm
Mode 3	Low beam (high)	4 W	10W	510lm	1210lm
Mode 4	Low beam (high) + Wide beam (low)	8 W	14W	1090lm	1790lm
Mode 5	Low beam (high) + Wide beam (mediu	ım) 10W	16W	1290lm	1990lm
Mode 6	Low beam (high) + Wide beam (high)	12W	18W	1530lm	2230lm

# TECHNICAL DATA

## SPECIFICATION DETAILS:

290 <sub>.</sub> - 1530lm*	
2-12 W	
1-6, 7	
700 lm*	
6 W	
6 Power LEDs	
0.96 W	
12 V DC	
50 x 45 x 42 mm	
83g	
Black	
Aluminum	

# TECHNICAL DATA



# CONTROL BUTTON (WITH CABLE)

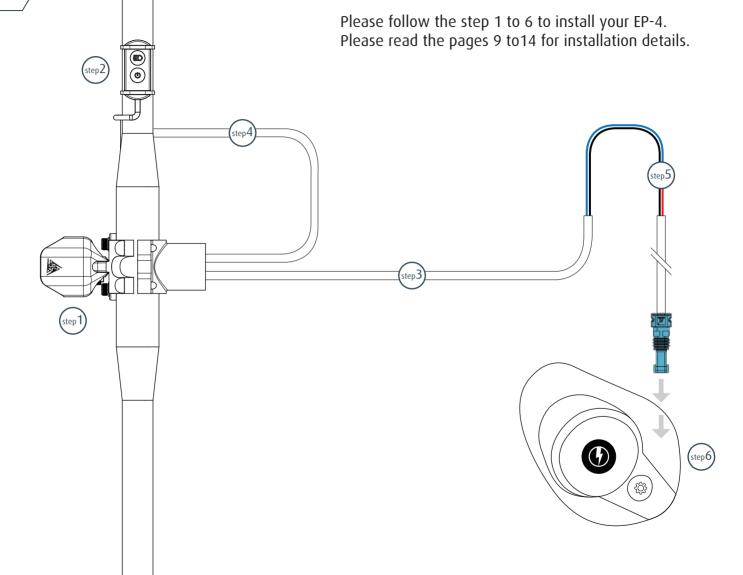
LxWxH	45 x 27 x 8 mm
CABLE LENGTH	220 mm
WEIGHT	14.3g
COLOR	Black
HOUSING MATERIAL	Aluminum



## POWER CABLE

LxWxH	50 x 17 x 9 mm
CABLE LENGTH	1020 mm
WEIGHT	20g
COLOR	Black
HOUSING MATERIAL	Plastic

# INSTALLATION





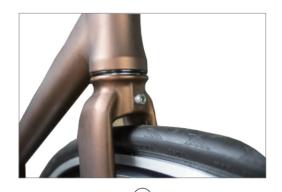
Pictures of the included components appear on the left. Your stem should appear as in picture 1.

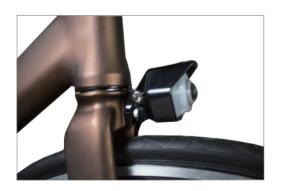
- 1 Remove the holts from the stem
- 2. Install on the headlight bracket. (Picture 2)
- 3. Fasten all stem bolts to 6 Nm. (Picture 3)
- 4. Install the headlight and fasten the nuts and bolts. (Picture 4)

Please install the EP-4 and adjust the beam to project toward a wall on a level surface at a distance of 5 meters.

Then adjust/aim the cut-off line at a level that is half way between height at which the headlamp is mounted and ground level.







(2)

Before you install the EP-4, assess whether your fork appears like the one in Picture 1. Since not the same on all bikes accept the same fork crown bolt, the components you receive in the box does not include an extra one. However, such bolts should be readily available from any quality hardware store.

- 1. Mount the bracket on your fork crown.
- 2. Install the headlight. (Picture 2)
- 3. Fasten all bolts to 6 Nm.

Please aim the headlamp as per the instructions above for best results.



You will find two Ty-Rap cable ties in the box. (Picture 1)

- 1. Install the button on the holder.
- 2. Use the two Ty-Rap cable ties to secure the button. (Picture 2)
  3. Cut the unnecessary length of the ties once
- installed.







Step 3: Link the power cable

There are 2 cables from the light body. Connect the cable with red connector plug from the light body and the power cable with red connector plug.

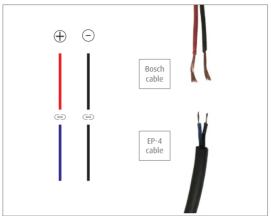


Step 4: Link the control button cable

There are 2 cables from the light body. Connect the cable with blue connector plug from the light body and the control button cable with blue connector plug.

Step 5: Link Bosch front light connection cable with EP-4 power cable Step 6: Insert Bosch blue connector into front light port







Step 5: Link Bosch front light connection cable with EP-4 power cable

Check the cable color carefully. Link the black cable from Bosch connection cable and black cable from EP-4. They are both negative electrode.

Link the red cable from Bosch connection cable and blue cable from EP-4. They are both positive electrode.

Step 6: Insert Bosch blue connector into front light port



## **INSTALLATION**



Please install the headlight in accordance with the instructions and photos provided.

A correct EP-4 installation appears in the provided pictures.

SP offers different kinds of products to join you on the road. The EP-4 is small, but powerful headlight to be with you on your entire journey!

Enjoy your rides with Shutter Precision!

### **GENERAL INFORMATION**

### CARE INSTRUCTIONS

- 1. Never use a high-pressure hose or alcohol-containing fluids to clean the headlight or its accessories.
- 2. Clean the front optic with water and a soft clean cloth when necessary.
- 3. Do not use aggressive cleaning agents and do not use alcohol based cleaning agents!
- 4. Check the mounting bolts from time to time.

#### WARRANTY & SERVICE

2-year warranty: SP products are covered under warranty for 2-years from the date of purchase.





## Shutter Precision

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