

# Brake Light pro

## Installation and Operation Manual

### Model **BLP-U01**

**For use on ALL motorcycles, ATVs and cars without bulb monitoring**

## 1. Foreword

Congratulations on your purchase of a HealTech Brake Light Pro programmable brake light flasher module. This product will fit all vehicles and will power all types of 12V bulbs (incandescent, halogen) and LED lights. It is simple to install, connecting in-line with the brake light wire.

The BLP module is the next generation of brake light flashers with features not found in competing products – touch sensor for easy programming and maximum reliability, high power FET with short circuit protection, and extremely small size for trouble free fitment in tight spaces.

Rear end collisions are the most common type of road accident. Motorcycle Safety Foundation (MSF) and training literature suggest that you pump your brakes (flash your brake lights) for improved visibility at the start of deceleration. The use of this device will increase safety, especially on motorcycles. On cars, we recommend flashing the 3<sup>rd</sup> brake light only. Premium cars with flashing brake lights are being introduced on more and more markets.

**Warning:** Check local vehicle statutes to see if brake light flashers are allowed in your country/state, since the Brake Light Pro can save lives but can be illegal in some countries. If the use of brake light flashers is restricted in your country or state, we recommend setting the unit to mode "1" which simulates manual flashing of the brake light (3 slow flashes). You are responsible to comply with the laws of your region. E.g. California Vehicle Code 25250 allows a maximum of four flashes within four seconds. Mode "1" complies with this regulation.

## 2. Specifications

Dimensions:

30 x 20 x 13 mm (1.18 x 0.78 x 0.51 inches)

Voltage range:

6V to 20V

Maximum load:

120W

Operating temp:

-40C to +80C (-40F to +176F)

Light patterns:

11 modes + bypass

### 3. Installation

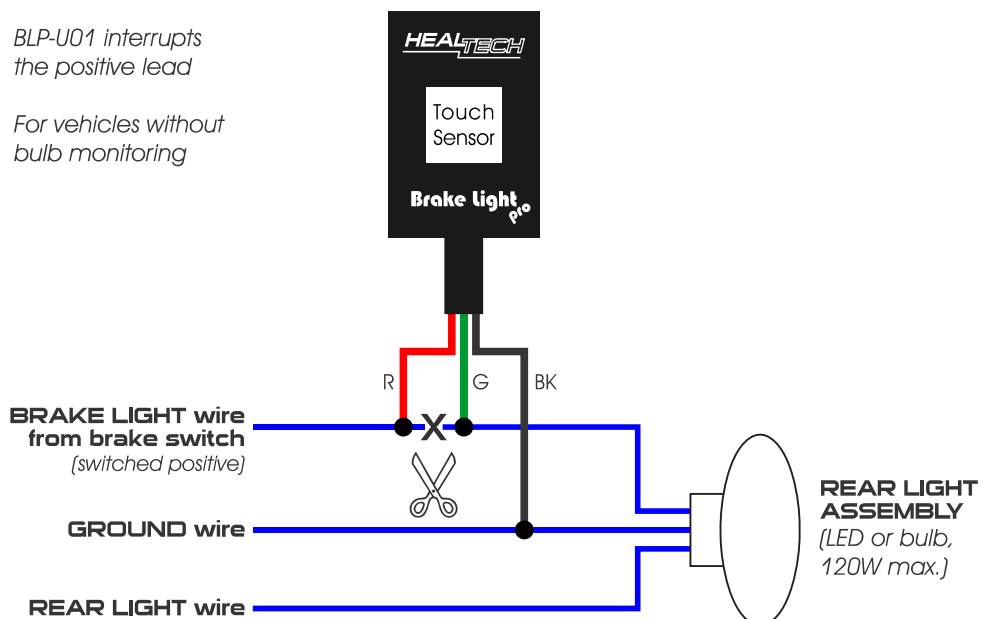
*Disclaimer: Do not attempt to install the product if you don't have basic mechanical skills. HealTech Electronics Ltd. and its distributors shall not be liable for any loss or damage caused by improper installation.*

*This product may or may not be legal for use on public roads in your country/state. Installation and use is entirely at the customer's discretion.*

Note: These instructions are applicable to a wide range of motorcycles and describe the main install steps needed for a successful installation. You can find motorcycle specific *Supplementary Manuals* on our website. Please visit:

**[www.healtech-electronics.com/BLP](http://www.healtech-electronics.com/BLP)**

1. **Find the wires** which go into the **rear light assembly**.  
On most motorcycles, it has three wires: *Brake light wire*, *Rear light wire*, *Ground wire*. If the bike has more bulbs, find these three wires at a connector before they split into more ends.
2. **Identify the Brake light wire**, which comes from the brake switch. To do this, use a voltmeter or 12V light bulb. Connect one end of the meter (or bulb) to chassis ground or battery negative terminal. Connect the other end of the meter (or bulb) to one of the rear light wires, e.g. by backprobing at the connector, using a thin needle. With the ignition key ON, apply the brake to turn the brake light on. If the voltmeter shows battery level (or the bulb turns on) when the brake lever is pulled and go off when the brake is released, you have found the brake light wire. Otherwise, try again with the other wires.
3. **Identify the Ground wire**. Same way, connect the meter (or bulb) between chassis ground and the second wire out of the three. Have the ignition key ON, lights ON and apply the brake. If the voltmeter shows less than 1V (or the bulb does NOT turn on), you have found the ground wire.
4. Turn the ignition key OFF then **cut** the **Brake light wire** where you'd like to make the splices. Do the connections as per the diagram below:



- 4a. Use the supplied **RED quick connector to splice the BLP Black wire:**  
*Place the unstripped bike's ground wire inside the run channel. Close side cover until latched. Insert the unstripped BLP Black wire completely and check its position. Insert the blade (u-contact) and press down by finger pressure. Then, depress the u-contact with pliers. Close hinged top cover until latched. Remove the excess gel around the connector with dry cloth.*
- 4b. Use the supplied two **YELLOW quick connectors to splice the BLP Red and Green wires** to the two wire ends of the bike's brake light wire:  
*Insert the two unstripped wires all the way and press down the yellow cap with pliers. Remove the excess gel around the connector with dry cloth. Visually inspect the splice, and confirm the yellow cap is completely down.*
5. Turn the ignition ON and **Test** the Brake light operation. The light should flash for a few seconds.
6. Peel off the green plastic from the back of the unit, and mount it such a way that you can reach the top side of the box with your fingers. Secure the wires with the cable ties supplied.

#### 4. Operation

The unit is fully functional after installation. If you wish, you can change the flashing mode (default is #11) easily with a few taps on the module. Here's the list of available modes:

Mode #	Frequency [Hz]	Duration (s)	Total flashes
0 (bypass mode)	0	-	0
1	1.5	2	3
2	1.5	5	8
3	3	2	6
4	3	5	15
5	6	2	12
6	6	5	30
7	9	2	18
8	9	5	45
9	12	2	24
10	12	5	60
11 (deceleration warning signal)	sweeps from high to low frequency	3	8

#### Notes:

- In bypass mode, the brake light works the same way as without the module installed.
- Modes 1 to 10 start with a 1 second pulse, which ensures the brake light reaches the maximum brightness within the shortest time. Then it flashes the light with 75% duty cycle (75% ON, 25% OFF) for best visibility (flashing light without loss of brightness).

- In modes 1 to 11, when the flashing cycle ends, the brake light remains ON as long as you apply the brake.
- Modes 7 to 10 are suited for LED lights only as bulbs can not reproduce the flashing speed of these modes.
- The setting is stored in flash memory, no need to re-program the device if you disconnected the battery.

### **To change the flashing mode:**

- The BLP unit must be secured with the sticky tape at the back. **Do NOT hold** the unit in your hands while programming as it will interfere with the process.
- Have the ignition key in ON position and engine stop switch in RUN position, then **apply and hold the brake**, so the brake light turns ON.
- **Wait until the flashing cycle ends** and the brake light remains steady. Do not release the brake at this point, hold until the programming is complete.
- **Touch and hold** the sensor for about 5 seconds, **until the brake light turns OFF**. This confirms you are in programming mode.  
*Note: to avoid unintentional programming, you must touch and hold the sensor area about 2-4 seconds AFTER the flashing cycle ends and the light is steady. If you miss this programming window, you need to release the brake and start over.*
- **Release the sensor** (and the whole unit). The light comes ON and remains ON. This means mode "0" is selected. If you wish to leave the module in bypass mode, release the brake and the setting is stored.
- To select the next mode, **touch and hold** the sensor, **until the light turns OFF**. When you **release the sensor**, the **next mode is selected** and you see the flashing light pattern for that mode.
- When the desired mode is selected, **release the brake** and the setting is stored.

## **5. Warranty**

The BLP module is built to last with HealTech's industry leading build quality: all leads are protected against short circuits and high energy transients. Only high quality components have been used, and the epoxy layer construction gives extreme protection for the internal parts from shocks, vibrations and water.

To ensure trouble-free operation from the start, all units have been extensively tested prior to shipment. For this reason, please make sure you followed the install steps properly and check the connections before you report a problem.

Our dealers are offering a 30-day money-back guarantee on HealTech products if the product does not fulfill your expectations. *(All parts must be returned in original condition for full refund.)*

Furthermore the product is covered by our 2-year replacement warranty from the date of purchase.

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