



Flashback Modulator Installation Instructions

The FlashBack LED brake light modulator comes complete with connection hardware.

Included in the kit is:

- 1 Flashback LED brake light modulator
- 6 wire crimp splice connectors
- 1 cable tie strap
- 1 indicator LED

Tools required:

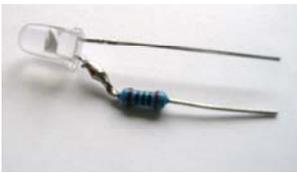
You will require pliers to install the supplied wire splice connectors, and the supplied indicator LED to identify the wires in the light wiring harness. You may require wire cutters if there is no in-line connector on your brake light or if the wiring harness plugs directly into the light housing. Other tools may be required to remove the light assembly if you cannot access the wiring directly and this will depend on the model of bike.

Step 1: Access wiring harness.

The FlashBack Modulator is installed in-line with the taillight wiring harness. You will probably find it easiest to install the Modulator behind the taillight if there is enough space. In this case you may need to remove the taillight. On some bikes you can just reach behind the light and unplug the connectors. If there is no space or if your taillight is integrated into the rear fender you will probably mount it under the seat. In this case you will need to trace the wires back from the light to the best access point. We cannot give instructions for all bikes here but check our web site www.adventuretech.ca where we will post installation tips for tricky bikes that we learn about.

Step 2: Identify the wire functions in the taillight wiring harness.

You must identify the function of the three wires in the taillight wiring harness in order to connect them correctly to the modulator. The easiest way to do this is to disconnect the taillight, turn on the bike electrical system so the taillight would be on, bridge the indicator LED across successive pairs of wires in the wiring harness until the LED turns on. The indicator LED is directional so it will only light up when the resistor is on the positive voltage side of a pair of wires so try it both ways across each combination of wires. There are 6 possible configurations with three wires, only one will light up with just the taillight on.



When the LED lights the wire on the resistor side is the taillight signal, the wire on the LED side is the ground or common, and the other wire is the brake signal. Confirm this by applying the brake and putting the indicator LED across the brake and ground wires with the resistor side to the brake signal wire. The LED should turn on. If it does not turn on, reconnect the light to ensure it is working correctly then repeat the previous steps.

Two wire system:

Bike side connections:

- Connect the previously identified ground wire on the bike to the black wire on the IN side of the Modulator.
- Connect the tail/brake light signal wire on the bike to the red wire on the Modulator.
- Leave the white wire unconnected.

Taillight side connections:

- Connect the ground wire on the light to the black wire on the OUT side of the Modulator.
- Connect the tail/brake light signal wire on the light to the blue wire on the Modulator.
- Leave the orange wire unconnected.

Three Wire System:

The crimp connectors supplied are very easy to use. Slip the connector over the wire the Modulator is to connect to, insert the corresponding Modulator wire and use pliers to press the metal insert into place, then close the plastic cover. Make sure the bike electrical system is turned off.

The Modulator is labeled IN and OUT. The IN side connects to the bike; the OUT side connects to the taillight.



Bike side connections:

Connect the previously identified ground wire on the bike to the black wire on the IN side of the Modulator.

Connect the taillight signal wire on the bike to the white wire on the Modulator.

Connect the brake signal wire on the bike to the red wire on the Modulator.

Taillight side connections:

Connect the ground wire on the light to the black wire on the OUT side of the Modulator.

Connect the taillight signal wire on the light to the blue wire on the Modulator.

Connect the brake signal wire on the light to the orange wire on the Modulator.

Step 4: Test

To test the Modulator turn on the bike and apply the brake lever. The flash pattern is preset for you to the medium duration dual rate pattern but you can change it by following the instructions below.

Note: If it is operating as a normal brake light you may need to change it to flash mode as described in the programming instructions.

Step 5: Fasten the Modulator to the bike.

The Modulator should be securely fastened to the bike. A cable tie strap is included with the kit for this purpose. On bikes where there is no easy fastening point, strap the modulator to the wiring harness as close to a tie down point as possible. Be sure not to over tighten the strap so as to avoid wire damage.

Brake Flash Patterns:

There are seven flash patterns available from the FlashBack Modulator, three dual rate patterns and four pulse patterns.

Selection #	Flash Description
1	Short duration dual rate
2	Medium duration dual rate
3	Long duration dual rate
4	2 pulse
5	3 pulse
6	4 pulse
7	5 pulse

Programming:

Programming your modulator to select flash modes or standard brake mode is really easy. If your brake light is in flash mode and you want to be in standard brake mode turn bike key to the on position and within the first 5 seconds apply the brake lever 5 times and hold lever down on the last application for the count of three you will have changed the setting. The brake light will blink off once to indicate that it has changed to normal brake operation mode. If the Modulator is in normal mode following the above procedure will revert back to the last flash pattern selected.

Following the mode selection procedure above the modulator will be in flash selection mode for five seconds. Applying and holding the brake 1 to 7 times in the same manner as for mode selection will select the flash pattern indicated in the table above. The brake light will blink off twice to indicate that the flash pattern has been changed.

Example:

To change from the default flash, medium duration dual rate, to Long duration dual rate, you will:

1 - Turn the key on.

2- Apply the brake 5 times holding the last application until the brake light blinks off once, (about one second).

3 - Apply the brake 3 times holding the last application until the light blinks off twice (about one second).

4 - Apply the brake and observe the flash pattern selected.

Notes: The Modulator is only in programming mode when the key is turned on and then only for the first 5 seconds. Every time the bike is started the FlashBack Modulator will remember the setting until you change it.

To ensure that you do not accidentally change the programming of the Modulator when you first turn on your bike, apply the brake once and hold for about one second or wait five seconds before applying the brake.

To ensure that you do not accidentally change the flash pattern after switching between normal and flash modes, apply the brake 8 or more times or wait five seconds before applying the brake.

Emergency Flash Mode:

This setting is used whenever you might want to really be noticed on the side of the trail or road. This mode is the same as most cars have. To access this feature turn the key to the on position and apply brake lever 9 times within the first 5 seconds and hold the last application.

Note:

After using Emergency mode and the key is turned off the next time the bike is turned on the brake flash mode will revert back to the last setting you had. In other words if you want emergency mode again you will have to go through the process again. A way to remember the count of 9 is to think of 911.

Warranty

V.I. Adventure Tech Ltd. will warranty Flashback LED Brake Light Modulator for a period of one year against defects in material and workmanship only.

Bike Safety

Please ensure that you always do a comprehensive pre-trip check before you ride!



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