

## Shiftlight Operating Instructions:

Setting up your shiftlight:

The RPM module requires you to set the turn-on RPM and the number of cylinders. Once these two pieces of information are set, they will not need to be reset unless to a different value. However, if the settings are ever lost the light will notify you of the condition and you will need to reset both values.

The RPM module will remain in *Normal* mode by default. It will also return to this mode after settings have been recalled or changed

Programming the number of cylinders:

- 1) Refer to the attached chart for selecting the proper DIP switch setting for your application.
- 2) Ensure that the Shiftlight has power, i.e. turn the ignition key on. The engine **does not** need to be running.
- 3) **Press and hold** Pushbutton #1 (Refer to the picture) until the indicator begins to flash rapidly. Approximately two (2) seconds.
- 4) Release the button.
- 5) After a short pause, the indicator will flash the setting back to you.

Note:

In actuality, you are setting the number of pulses the module receives per revolution of the engine. Use this information to make your setting selection from the chart if your application is non-distributor.

The indicator will flash the number of cylinders you have set. Count the flashes to double check the setting. If the reported setting does not match with what you tried to set, double check the DIP switch settings. It is easy to be between ON and OFF with the switches. Re-check and repeat the procedure.

If an invalid setting is used, i.e. not in the chart, the indicator will flash the "error flash". The indicator will flash six (6) times. The pattern is, two quick flashes followed by a pause, repeated three (3) times. Total of 6.

For 2/4/6/8 cylinder settings, the indicator will flash 2/4/6/8. For Coil Per Plug setting, the indicator will flash once.

Programming the RPM turn-on point:

- 1) Refer to the attached chart for selecting the proper DIP switch setting for your turn-on RPM.
- 2) Ensure that the Shiftlight has power, i.e. turn the ignition key on. The engine **does not** need to be running.
- 3) **Press and hold** Pushbutton #2 (Refer to the picture) until the indicator begins to flash rapidly. Approximately two (2) seconds.
- 4) Release the button.
- 5) After a short pause, the indicator will flash the setting back to you.

Note:

You are setting the turn-on RPM in 100 RPM increments. Thus, the indicator will flash the upper two digits of your setting back to you. There is a lower limit placed on the RPM which you can set, 500 RPM. A zero is displayed as two rapid flashes.

**Examples:**

1) If you want to set the turn-on point to be 5800 RPM, refer to the chart for the DIP switch settings for this RPM. Or, if you can do binary in your head, figure out the binary equivalent of 58 (5800 / 100) ☺ Follow the programming procedure above. After a pause, the indicator will begin flashing. It will flash five (5) times in a row, pause for about 1 second, then flash eight (8) times. Basically it is flashing 58 back to you.

## **Installation Instruction**

The wiring for the module is pretty straight forward. The minimum number of connections needed for operation is three (3)

Exiting the back of the housing is a black cable containing three wires, Red, Black, and Green.

**Red Wire** – Connect this wire to a +12V source. The fuse block is a good choice for this connection, a switch accessory fuse is a prime choice. The will turn the module off when the key is off. But, any switched +12V source is ok.

**Black Wire** – This is the ground connection for the module. Chose a convenient ground location. A mounting screw or any other metal piece that makes a direct connection to the body will do. The radio ground is also a possibility.

**Green Wire** – This is the Tach input to the module. This can be either from the Tach line of the engine computer or from the switched side of an ignition coil.

LS1 specific:

The RED connector on the PCM is the one closest to the flat top/cover. The BLUE connector is closest to the bottom (not flat).

98 LS1: Tach line is Pin 35 on the BLUE connector. Tach line is a white wire

99-00 LS1: Tach line is Pin 10 on the RED connector. Tach line is a white wire

There are gray plastic covers on the connector. These will pop off. The wires are numbered under this gray cover. Pop the cover off, find the appropriate wire and splice into it. Run the wire into the vehicle and to your light.

You can drive external Lights and other devices with the RPM module. A relay is required when this is done. A standard automotive relay will work.

To drive other devices:

- 1) Remove the module from the housing.
- 2) Note two wires, Red and Black, connecting the light assembly to the RPM module.
- 3) You can cut/splice into the black wire to provide a switched ground to drive a relay.

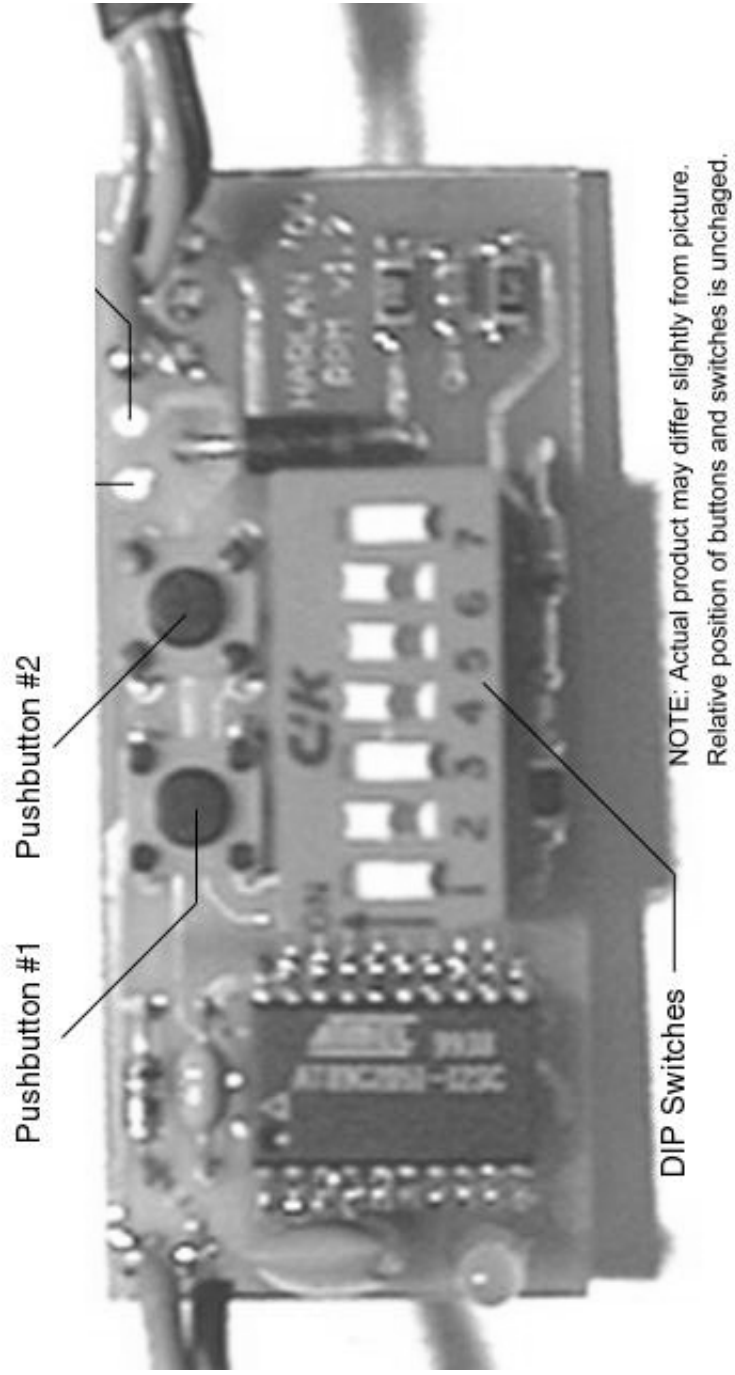
**DO NOT** try and directly ground external lights or solenoids with the module, you will fry it!

Chose an appropriate mounting location for the module. The indicator is some what directional. It will appear brighter when aimed directly at you.

Questions:

Email: [turbhawk80@yahoo.com](mailto:turbhawk80@yahoo.com) or [harlan@sketchy.net](mailto:harlan@sketchy.net)

Web: <http://harlan.sketchy.net>



SWITCH POSITIONS

RPM	1	2	3	4	5	6	7
500	ON	OFF	ON	OFF	OFF	OFF	OFF
600	OFF	ON	ON	OFF	OFF	OFF	OFF
700	ON	ON	ON	OFF	OFF	OFF	OFF
800	OFF	OFF	OFF	ON	OFF	OFF	OFF
900	ON	OFF	OFF	ON	OFF	OFF	OFF
1000	OFF	ON	OFF	ON	OFF	OFF	OFF
1100	ON	ON	OFF	ON	OFF	OFF	OFF
1200	OFF	OFF	ON	ON	OFF	OFF	OFF
1300	ON	OFF	ON	ON	OFF	OFF	OFF
1400	OFF	ON	ON	ON	OFF	OFF	OFF
1500	ON	ON	ON	ON	OFF	OFF	OFF
1600	OFF	OFF	OFF	OFF	ON	OFF	OFF
1700	ON	OFF	OFF	OFF	ON	OFF	OFF
1800	OFF	ON	OFF	OFF	ON	OFF	OFF
1900	ON	ON	OFF	OFF	ON	OFF	OFF
2000	OFF	OFF	ON	OFF	ON	OFF	OFF
2100	ON	OFF	ON	OFF	ON	OFF	OFF
2200	OFF	ON	ON	OFF	ON	OFF	OFF
2300	ON	ON	ON	OFF	ON	OFF	OFF
2400	OFF	OFF	OFF	ON	ON	OFF	OFF
2500	ON	OFF	ON	ON	ON	OFF	OFF
2600	OFF	ON	OFF	ON	ON	OFF	OFF
2700	ON	ON	OFF	ON	ON	OFF	OFF
2800	OFF	OFF	ON	ON	ON	OFF	OFF
2900	ON	OFF	ON	ON	ON	OFF	OFF
3000	OFF	ON	ON	ON	ON	OFF	OFF
3100	ON	ON	ON	ON	ON	OFF	OFF
3200	OFF	OFF	OFF	OFF	OFF	ON	OFF
3300	ON	OFF	OFF	OFF	OFF	ON	OFF
3400	OFF	ON	OFF	OFF	OFF	ON	OFF
3500	ON	ON	OFF	OFF	OFF	ON	OFF
3600	OFF	OFF	ON	OFF	OFF	ON	OFF
3700	ON	OFF	ON	OFF	OFF	ON	OFF
3800	OFF	ON	ON	OFF	OFF	ON	OFF
3900	ON	ON	ON	OFF	OFF	ON	OFF
4000	OFF	OFF	OFF	ON	OFF	ON	OFF
4100	ON	OFF	OFF	ON	OFF	ON	OFF
4200	OFF	ON	OFF	ON	OFF	ON	OFF
4300	ON	ON	OFF	ON	OFF	ON	OFF
4400	OFF	OFF	ON	ON	OFF	ON	OFF
4500	ON	OFF	ON	ON	OFF	ON	OFF
4600	OFF	ON	ON	ON	OFF	ON	OFF
4700	ON	ON	ON	ON	OFF	ON	OFF
4800	OFF	OFF	OFF	OFF	ON	ON	OFF
4900	ON	OFF	OFF	OFF	ON	ON	OFF
5000	OFF	ON	OFF	OFF	ON	ON	OFF
5100	ON	ON	OFF	OFF	ON	ON	OFF
5200	OFF	OFF	ON	OFF	ON	ON	OFF
5300	ON	OFF	ON	OFF	ON	ON	OFF
5400	OFF	ON	ON	OFF	ON	ON	OFF
5500	ON	ON	ON	OFF	ON	ON	OFF
5600	OFF	OFF	OFF	ON	ON	ON	OFF
5700	ON	OFF	OFF	ON	ON	ON	OFF
5800	OFF	ON	OFF	ON	ON	ON	OFF
5900	ON	ON	OFF	ON	ON	ON	OFF
6000	OFF	OFF	ON	ON	ON	ON	OFF
6100	ON	OFF	ON	ON	ON	ON	OFF
6200	OFF	ON	ON	ON	ON	ON	OFF

SWITCH POSITIONS

RPM	1	2	3	4	5	6	7
6300	ON	ON	ON	ON	ON	ON	ON
6400	OFF	OFF	OFF	OFF	OFF	OFF	OFF
6500	ON	ON	ON	ON	ON	ON	ON
6600	OFF	ON	OFF	OFF	OFF	OFF	ON
6700	ON	ON	OFF	OFF	OFF	OFF	ON
6800	OFF	OFF	ON	OFF	OFF	OFF	ON
6900	ON	ON	ON	ON	ON	ON	ON
7000	OFF	ON	ON	OFF	OFF	OFF	ON
7100	ON	ON	ON	OFF	OFF	OFF	ON
7200	OFF	OFF	ON	OFF	OFF	OFF	ON
7300	ON	ON	OFF	ON	OFF	OFF	ON
7400	OFF	ON	OFF	ON	OFF	OFF	ON
7500	ON	ON	OFF	ON	OFF	OFF	ON
7600	OFF	OFF	ON	ON	OFF	OFF	ON
7700	ON	ON	ON	ON	OFF	OFF	ON
7800	OFF	ON	ON	ON	OFF	OFF	ON
7900	ON	ON	ON	ON	OFF	OFF	ON
8000	OFF	OFF	OFF	OFF	ON	OFF	ON
8100	ON	OFF	OFF	OFF	ON	OFF	ON
8200	OFF	ON	OFF	OFF	ON	OFF	ON
8300	ON	ON	ON	OFF	ON	OFF	ON
8400	OFF	OFF	ON	OFF	ON	OFF	ON
8500	ON	OFF	ON	OFF	ON	OFF	ON
8600	OFF	ON	ON	ON	ON	OFF	ON
8700	ON	ON	ON	OFF	ON	OFF	ON
8800	OFF	OFF	OFF	ON	ON	OFF	ON
8900	ON	ON	ON	ON	ON	OFF	ON
9000	OFF	ON	OFF	ON	ON	OFF	ON
9100	ON	ON	OFF	ON	ON	OFF	ON
9200	OFF	OFF	ON	ON	ON	OFF	ON
9300	ON	ON	ON	ON	ON	OFF	ON
9400	OFF	ON	ON	ON	ON	OFF	ON
9500	ON	ON	ON	ON	ON	OFF	ON
9600	OFF	ON	OFF	OFF	OFF	ON	ON
9700	ON	ON	OFF	OFF	OFF	ON	ON
9800	OFF	ON	OFF	OFF	OFF	ON	ON
9900	ON	ON	OFF	OFF	OFF	ON	ON
10000	OFF	OFF	ON	OFF	OFF	ON	ON
10100	ON	OFF	ON	OFF	OFF	ON	ON
10200	OFF	ON	ON	OFF	OFF	ON	ON
10300	ON	ON	ON	OFF	OFF	ON	ON
10400	OFF	OFF	OFF	ON	OFF	ON	ON
10500	ON	OFF	OFF	ON	OFF	ON	ON
10600	OFF	ON	OFF	ON	OFF	ON	ON
10700	ON	ON	OFF	ON	OFF	ON	ON
10800	OFF	OFF	ON	ON	OFF	ON	ON
10900	ON	OFF	ON	ON	OFF	ON	ON
11000	OFF	ON	ON	ON	OFF	ON	ON
11100	ON	ON	ON	ON	OFF	ON	ON
11200	OFF	OFF	OFF	OFF	ON	ON	ON
11300	ON	ON	OFF	OFF	ON	ON	ON
11400	OFF	ON	ON	OFF	ON	ON	ON
11500	ON	ON	OFF	OFF	ON	ON	ON
11600	OFF	OFF	ON	OFF	ON	ON	ON
11700	ON	ON	OFF	ON	OFF	ON	ON
11800	OFF	ON	ON	OFF	ON	ON	ON
11900	ON	OFF	ON	OFF	ON	ON	ON
12000	OFF	OFF	OFF	ON	ON	ON	ON

SWITCH POSITIONS

# Cylinders	1	2	3	4	5	6	7
2	<b>ON</b>	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	<b>ON</b>	OFF	OFF	OFF	OFF	OFF
6	OFF	OFF	<b>ON</b>	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	<b>ON</b>	OFF	OFF	OFF
Coil Per Plug	OFF	OFF	OFF	OFF	<b>ON</b>	OFF	OFF

NOTE: LS1 uses 4 cylinder mode