

SHIFT LIGHT

A SHIFT LIGHT is a device which shows when the engine reaches the RPM limit, typically the shift-up RPM; it allows to shift-up at the best possible time, by not having to check the rev-counter and keeping the eyes on the track, improving car performance.

The SHIFT LIGHT led will flash when RPM reaches the set value (SHIFT POINT).

SL-P1 & SL-S2 are compact microprocessor-controlled rev-limiters/shift-lights, for cars and motorbike, they have got high-efficiency led, controlled by a photoresistance, an internal relay for the rev-limiter; shift point and rev-limiter point are separately setting.

Both SL-P1 & SL-S2 are 12V DC powered and have got a protection for overvoltage.

REV LIMITER/RELAY

It is possible to set the shift light to activate an output when the RPM reaches the set point (RPM LIMIT) : output can be used to control an ignition cutter, a water injector, a nitrous injector, etc..

SHIFT POINT & RPM LIMIT are independent.

Pack contents:

- Shift light SL-P1 / SL-S2
- Operating instructions
- VELCRO® for installation
- Faston for electrical connection
- Extra connector for coil

MOUNTING

Installation has to be operated only by skilled and professional people, because it is necessary to work on parts and devices vital for vehicle working and safety.

Led are designed to be installed on the dashboard, however in a driver-visible area; choose the best place so that led side of the shift light is on the same level as the driver eyes, at a distance of at least 40 cm.

Mount device so that the driving safety is not compromised.

It is suggested to install the shift light using the VELCRO® included.(clean both surfaces with alcohol)

Respect connection below; displace and lock cables in a safety way.

Be sure that the vehicle is switched of and with the key in OFF before working on cables.

CABLES AND CONNECTIONS

COLOR	FUNCTION
Brown	Power +12V DC
Gray	Ground
Pink	Ignition Signal
Green	Common relay
White	Normally opened relay
Yellow	Normally closed relay

Power and ignition signal cables are the minimal connection (only shift light).

BROWN: connect the cable to a source active while the key is on "RUN", typically inside the fuse panel.(it is not necessary to change the fuse value)

GRAY: connect the cable to - battery connector; it is also possible to plug the cable with a screw to a metallic area of the frame; bad connection may cause problems..

PINK: this wire brings to the shift-light the frequency of ignition: connect directly to RPM counter cable ("TACHO" output).

If it is impossible, connect it **TO 12V** output of coil **USING THE SUPPLIED SHORT CABLE**.

In case of RPM signal integrated in the vehicle wiring harness contact the car manufacturer to know colour and position of rev counter plug.

This device can not work with CAN network systems..

RELAY OUTPUT

Internal relay switches when RPM reaches the set value RPM LIMIT

GREEN : relay common

YELLOW: normally closed relay connector

WHITE: normally opened relay connector

Connect terminals to an external relay (strongly suggested) or directly to 12V coil connectors.

SETTING

This shift-light is easily and directly setting by the two buttons BLINK and LIMITER on the upper side of the case.

Settable parameters (kept in memory also when power is off) are:

RPM LIMIT Number of RPM when internal relay switches (relay automotive). When limiter is active, led flash without blinking.

SHIFT POINT Number of RPM when led start to blink, when RPM decreases of 100 RPM led switch off.

Step by step setting sequence:

- Start the engine.

- SHIFT LIGHT.
 1. Bring RPM to the half of the required SHIFT POINT and keep this RPM stable.
 2. Press BLINK button for at least two seconds: led start to blink
 3. When the RPM is recorded, led stop blinking and stay on.

- LIMITER.
 1. Bring RPM to the half of the required SHIFT POINT and keep this RPM stable.
 2. Press BLINK button for at least two seconds: led start to blink
 3. When the RPM is recorded, led stop blinking and stay on.

DEVICE DISABLING

It is possible to disable completely this device by a switch on the + Power cable or setting both RPM LIMIT and SHIFT POINT with engine off and shift light on.

TECHNICAL DATA

- 3 LED Shift-Light, simultaneous (SL-P1) / sequentially (SL-S2) flashing
- Shift up point and limiter point setting.
- RPM reading precision of 10 RPM.
- Max read RPM of 15000 RPM –4 stroke 4 cylinder engine
- Max amperage 200 mA
- Power voltage 11-15 V