CARTEK
MOTORSPORT ELECTRONICS

SEQUENTIAL SHIFT LIGHT

USER GUIDE AND INSTRUCTIONS JULY 2016

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INTRODUCTION

The **SEQUENTIAL SHIFT-LIGHT** from **CARTEK** is microprocessor controlled and can be installed on any vehicle that has an RPM signal. The RPM signal should be the same as used by the car's tachometer but it can also accept any RPM output from the ECU (5V or 12V square wave) or ignition coil trigger signal.

The **SEQUENTIAL SHIFT-LIGHT** offers 5 stages of illumination commencing with the outer Green LEDs sequencing through to all 7 LEDs flashing.

Stage 1 Stage 2 Stage 3 Stage 4 Stage 5 (Flashing)

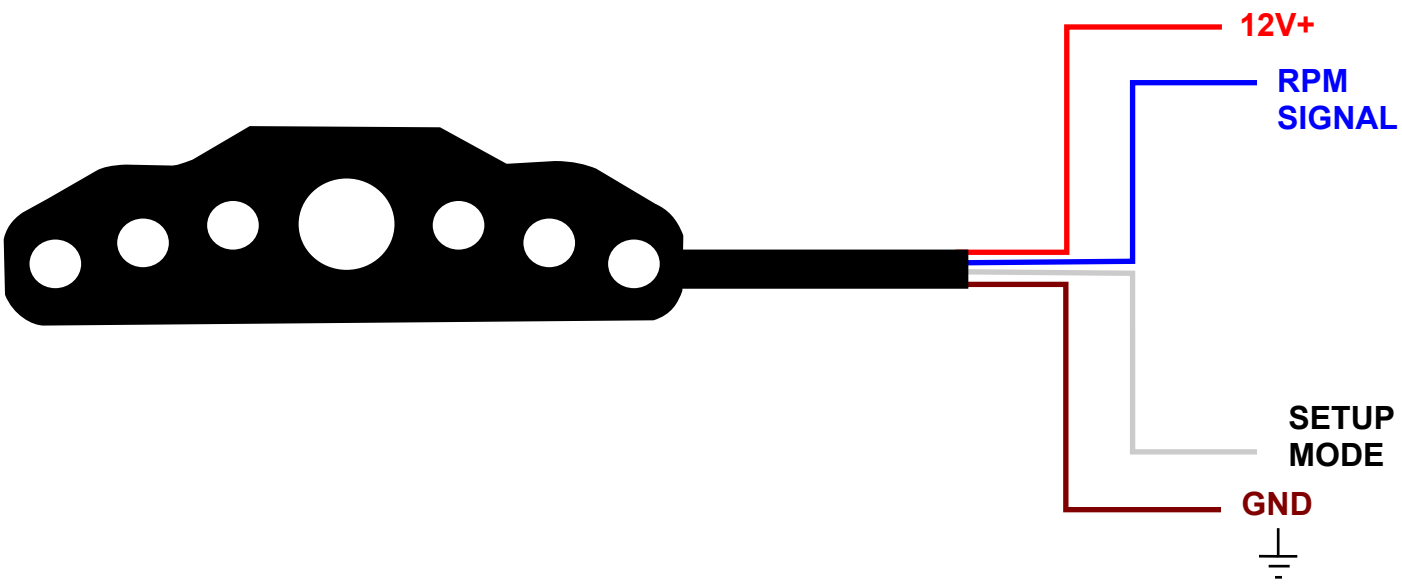
INSTALLATION

The SEQUENTIAL SHIFT-LIGHT should be positioned so that it can be seen clearly by the driver. Once the ideal position has been found, the unit it can be fixed using the special adhesive tape or the screws supplied.

The SEQUENTIAL SHIFT-LIGHT has 5 wires: RED positive (+12v), BROWN negative (GND), BLUE tacho signal (RPM), WHITE only used during setup. GREEN wire is not used

The RED wire should be connected to a switched IGN 12Volts, the BROWN wire should be 'earthed' to the chassis and the BLUE wire should be connected to the same wire which feeds the RPM signal to the vehicle's tachometer.

The end of the WHITE wire must be insulated using tape except during the set up phase of the unit.

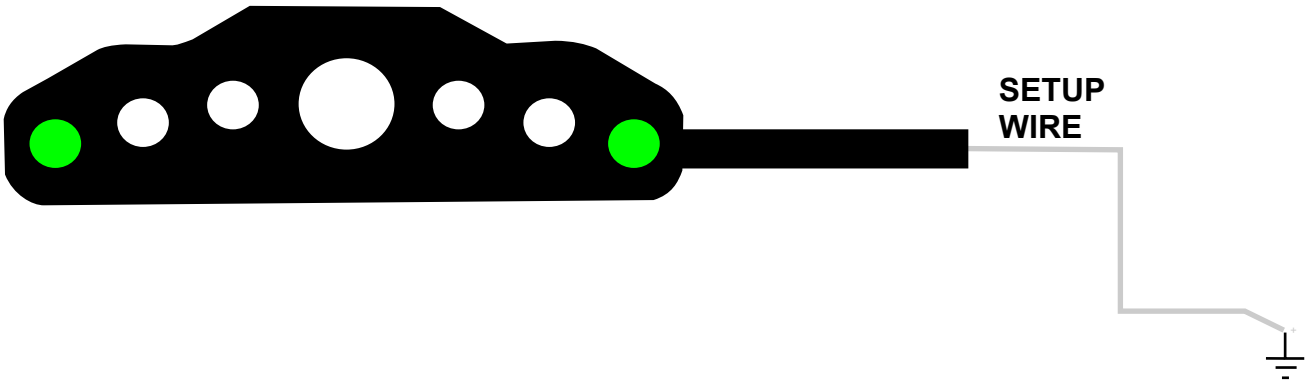


ENTER SETUP MODE

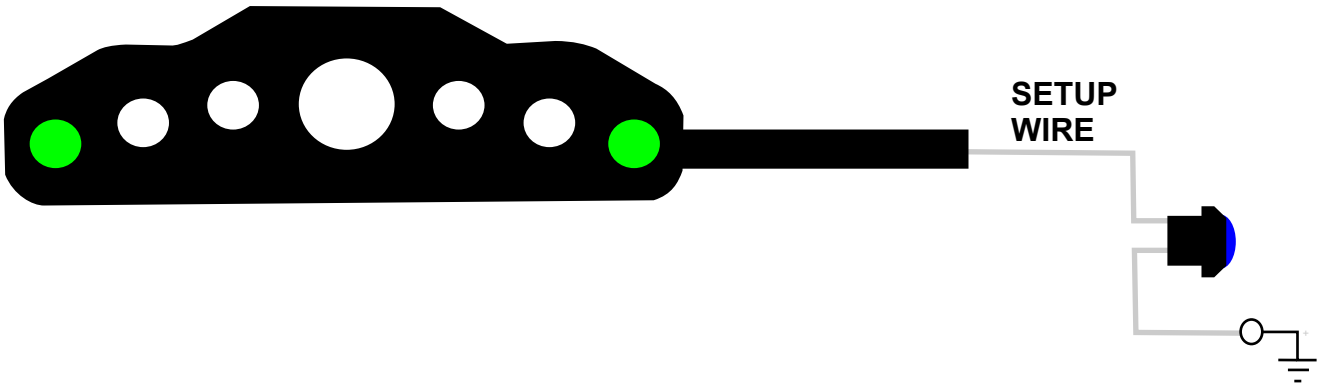
The SEQUENTIAL SHIFT-LIGHT is completely automatic, it is only necessary to carry out the following short set-up procedure during installation:

- To go into set up, turn on the ignition and start the engine.

- Remove any insulation from the end of the WHITE wire and momentarily touch the wire to chassis earth (MUST BE A GOOD CONNECTION). The two outer green LED's will then begin to flash to indicate that Setup Mode has been started.

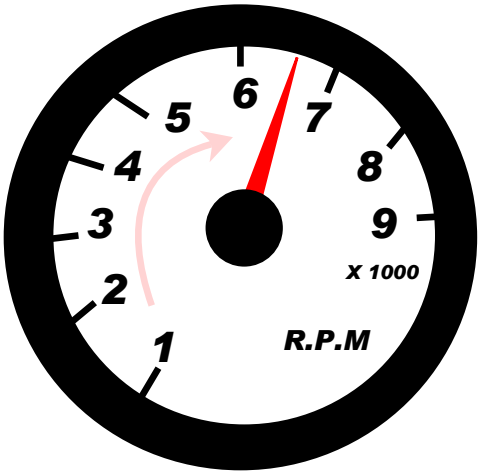


It is sometimes easier to temporarily connect a switch between the Setup Wire and Chassis Earth to get reliably step through the Setup Mode:

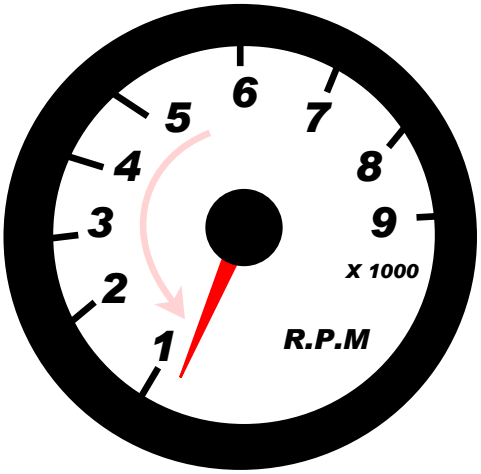


SET LOWER RPM

- At this point you have to set the engine revs for the lower RPM of the sequence. Take the revs to the level that you wish the unit to register as a first level, even for an instant. For example if you wish to set 6500rpm, carefully accelerate until the revs reach 6500rpm then immediately reduce the revs. The SEQUENTIAL SHIFT-LIGHT will record the maximum rpm reached during this phase and store it to the first LED sequence.

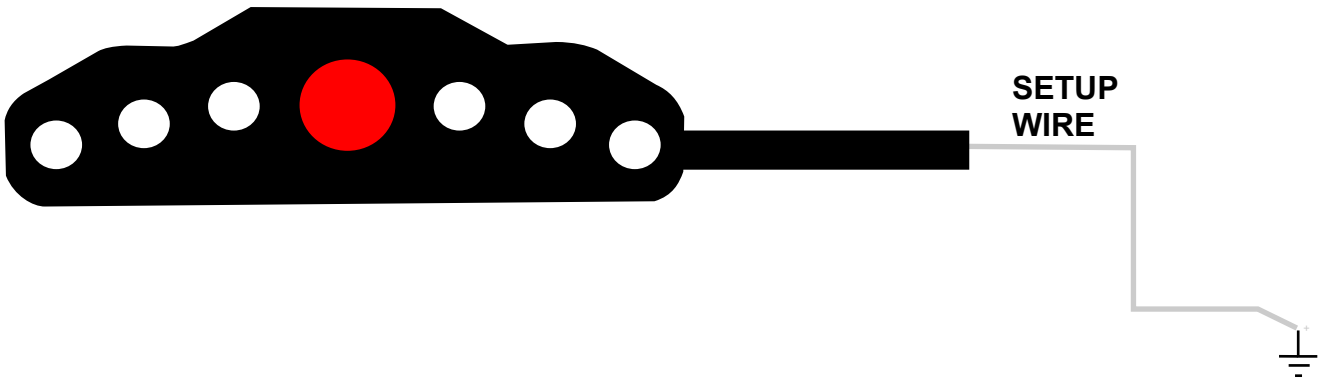


1) Raise Revs to Start of Sequence



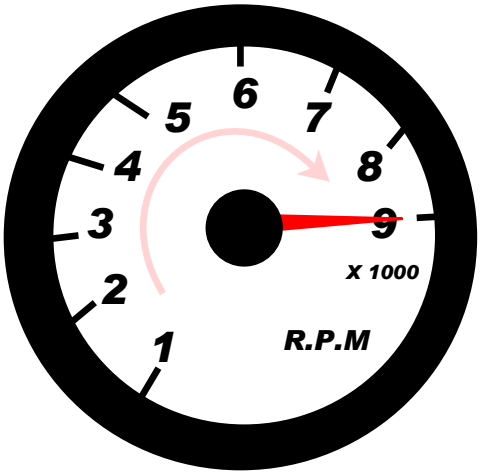
2) Immediately reduce the Revs

- "Earth" the calibration wire again - either by touching the wire to chassis, or using the switch method. The Green LEDs will stop flashing and Red one will now begin to flash.

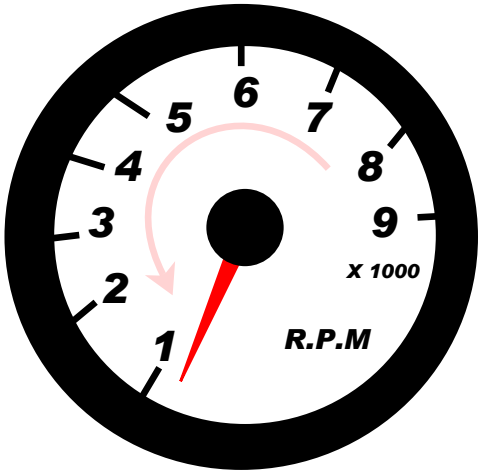


SET HIGHER RPM

- At this point you have to set the engine revs for the upper RPM of the sequence. Take the revs to the level that you wish the unit to register as a final level, even for an instant. For example if you wish to set 9000rpm, carefully accelerate until the revs reach 9000rpm then reduce the revs. The SEQUENTIAL SHIFT-LIGHT will register the maximum rpm reached during this phase and store it to the final LED sequence.

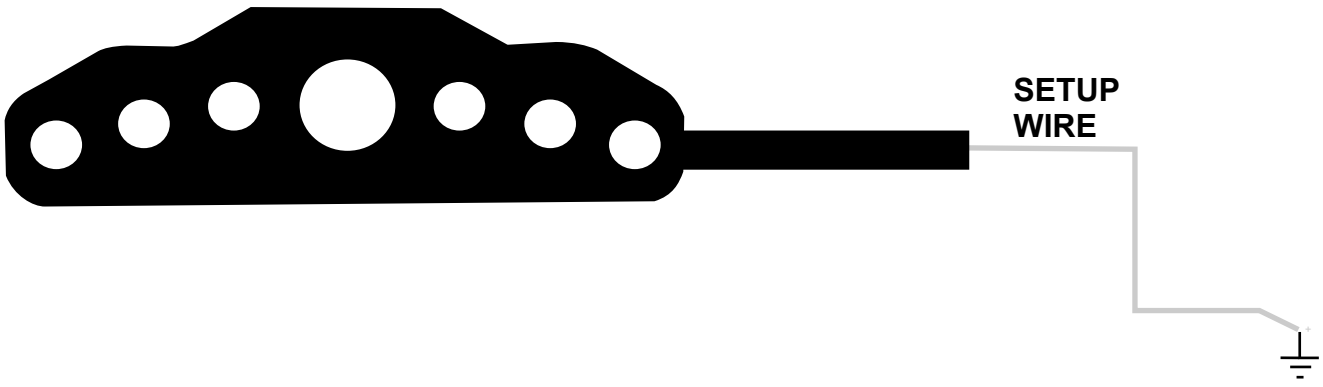


1) Raise Revs to End of Sequence

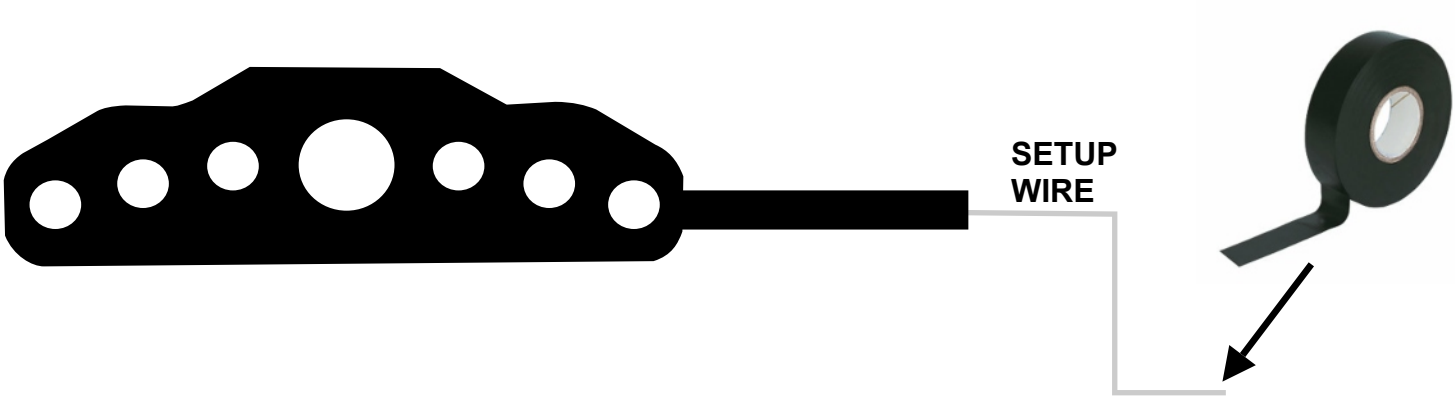


2) Immediately reduce the Revs

- Touch the White wire to Earth for a 3rd time to complete the setup operation. The SEQUENTIAL SHIFT-LIGHT will then flash all 7 LEDs as it calculates and stores the intermediate LED/RPM values. When the LEDs stop flashing this will indicate that the setup procedure is complete.



COMPLETE SETUP



- Re-insulate the end of the WHITE wire. The unit has now been calibrated and is ready for use.