



INSTALLATION GUIDE



SEQUENTIAL SHIFT LIGHT

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.



For off-road use only

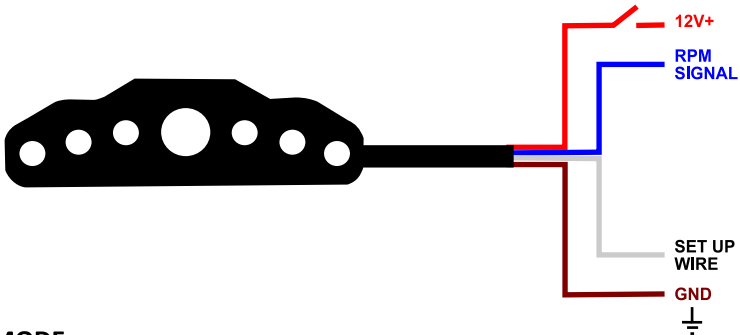
INSTALLATION

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 set up. 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.

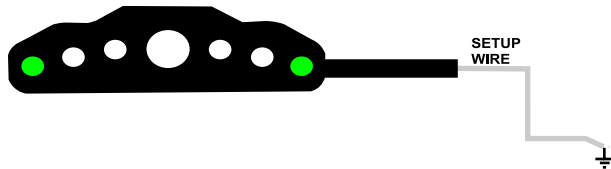
The end of the WHITE wire must be insulated using tape except during the set up phase of the unit.



SETUP MODE

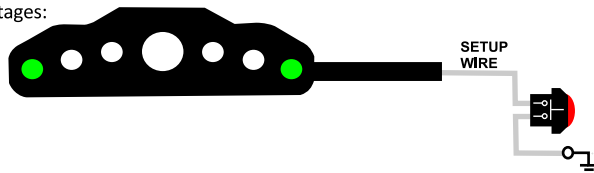
The SEQUENTIAL SHIFT-LIGHT is completely automatic, it is only necessary to carry out the following short set up procedure during installation:

- Remove some insulation from the end of the WHITE wire and temporarily hold this wire to a convenient chassis/earth point.
- Whilst keeping the WHITE wire touching the earth point, switch the ignition ON and start the engine.
- When the engine has started then remove the WHITE wire from the earth point and the two outer Green LEDs will begin to flash. This indicates that it is in 'Set Up Mode'.



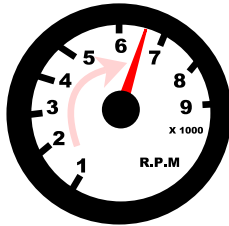
Advice:

It is sometimes easier to temporarily connect a switch between the Set Up Wire and Chassis Earth to help step through the set up stages:

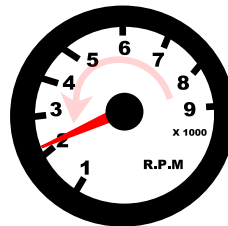


SET LOWER RPM

This is the engine speed at which you would like the LED sequence to begin. Carefully increase your RPM to the required Lower engine speed then immediately reduce the engine speed. For example if you wish to set 6500rpm, slowly accelerate until the revs reach 6500rpm then immediately reduce the revs. The SEQUENTIAL SHIFT-LIGHT will record the maximum RPM reached during this stage and store it to the first LED sequence.

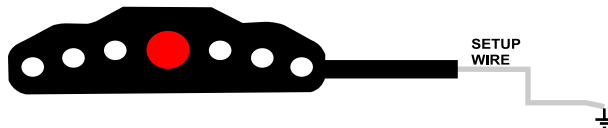


1) Raise RPM to Sequence Start engine speed



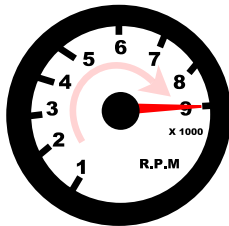
2) Immediately reduce the RPM

Momentarily touch the White wire to Earth again. The Green LEDs will now stop flashing and Red LED will begin to flash.

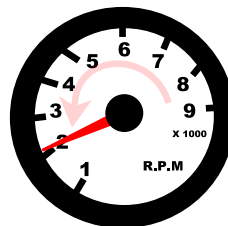


SET UPPER RPM

This is the engine speed at which you would like the LED sequence to finish and is normally the speed at which you will be shifting gear. Carefully increase your RPM to the required Upper engine speed then immediately reduce the engine speed. 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 stage and store it to the final LED sequence.

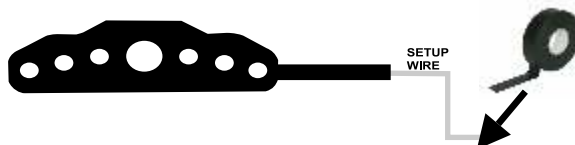


1) Raise RPM to Sequence End engine speed



2) Immediately reduce the RPM

Momentarily touch the White wire to Earth for a 3rd time to complete the set up 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 set up procedure is complete.



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

- To adjust the RPM Settings then simply repeat these instructions from the start.

CAN-BUS SIGNAL CONVERTER



For modern cars that do not have an RPM signal output:

The CAN-Bus Signal Converter from CARTEK simply plugs into the OBD (On Board Diagnostic) socket found on most modern cars and provides four useful signals by extracting and converting engine data from the car's CAN-Bus network. Simply wire the RPM output of the CAN Bus Signal converter then away you go.



For the latest information and extra
installation advice go to:
www.cartekmotorsport.com/downloads

Part Numbers:

CK-LS-07 Sequential Shift Light

CK-CC-04 OBD 2 CAN-Bus Converter

**MOTORSPORT IS DANGEROUS.
THIS PRODUCT IS DESIGNED FOR MOTORSPORT USE ONLY AND SHOULD NOT
BE USED ON ROAD/STREET VEHICLES OR ON PUBLIC HIGHWAYS.
NO WARRANTY IS MADE OR IMPLIED REGARDING ANY CARTEK PRODUCTS TO
PROTECT USERS FROM INJURY OR DEATH.
USER ASSUMES ALL RISKS.**

CARTEK AUTOMOTIVE ELECTRONICS LTD

Unit 25, Mitchell Point
Ensign Way, Hamble
Southampton, SO31 4RF
UNITED KINGDOM

Tel: +44 (0) 2380 457747
Email: info@cartekmotorsport.com
Web: www.CARTEKMOTORSPORT.com