Specification

Power requirement	12V (9V – 25V tolerance)
Power consumption	max 0.08A at 12V dc (all lights lit)
Accuracy	Within 10 RPM
Terminations	+, - and coil
Number of cylinders	1, 2, 3, 4, 5, 6, 8, 10 & 12
Operating temperature	0°C – 50°C (32°F - 122°F)
RPM range	3000 – 20,000 (all cylinder options)
Size (W x H x D)	58mm x 16mm x 35mm
Weight	40 grams (excluding cable)
Memory lifetime	Approximately 40 years
Cable length	1.5 metre (Longer length available on request)
Available Input ratios	
1CY	0.5 pulses per revolution
2CY	1 pulse per revolution
3CY	1.5 pulses per revolution
4CY	2 pulses per revolution
5CY	2.5 pulses per revolution
6CY	3 pulses per revolution
8CY	4 pulses per revolution
10CY	5 pulses per revolution
12CY	6 pulses per revolution
Reverse Polarity Protected	

LED Specifications.

Red shift led	–	8mm 3500mcd
Red small led	–	5mm 1000mcd
Green	–	5mm 1000mcd
Yellow	–	5mm 1000mcd
Blue	–	5mm 1000mcd
Orange	–	5mm 1000mcd
White	–	5mm 1000mcd

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SLD5 Sequential Shift Light
Installation and Operation Manual

Thank you for choosing the Digital Race Electronics SLD5 sequential shift light system. The SLD5 is easily mounted on your dashboard to give you a visual indication of the optimum point at which to change gear whilst racing.

Unlike conventional shift lights, which require you to rev your engine in order to program the point at which you want the light to come on, the SLD5 can be set up without starting the engine. The built in display enables you to program the shift point more accurately than just using your rev counter.

The SLD5 also features a ‘maximum revs recall’ facility. At the touch of a button, the built in display shows the maximum number of revs attained since it was last reset. This feature provides invaluable reassurance that you have not exceeded the recommended maximum number of revs for your engine. However, if your engine is fitted with a rev limiter, the maximum recordable revs system cannot operate properly and may record spurious readings.

New features include shift flash, this flashes all the LED’s at a user settable point to grab your attention even further. The smaller warning lamps can also be set to turn on individually or in pairs to suit your preferences.

We think you will find the information supplied by the SLD5 invaluable – use it to your advantage!

Installation

WARNING – The SLD5 shift light system is not suitable for capacitor discharge ignition systems where the green input wire would normally be connected to a coil negative terminal. However, if the capacitor discharge ignition system has a low voltage rev counter signal output, it will work perfectly.
Using the hook and loop tape supplied, position the unit on the dashboard where the lights can easily be seen. Feed the wire through to the coil or rev counter and connect as follows:
Red wire – ignition switched power or battery positive (+)
Blue wire – earth (-)
Green wire – coil (-) or rev counter signal

If your vehicle is fitted with a wasted spark ignition system, connect the green wire to one of the negative leads (on 3 pin connectors it is usually an outer lead). Wasted spark systems usually fire at half the rpm of a normal coil system, i.e 1 pulse per revolution, where normally it would be 2 pulses per revolution. To enable the display to work accurately, set the number of cylinders to 2 as described below.

Initial Setup

1. Switch on the ignition, but do not start the engine. Upon power up, all the LED's will illuminate for a period of 1 second, after which the display will show '0000' to indicate standby mode.
2. Press and hold the 'down/adjust' and 'up/max' buttons simultaneously until the display shows 'disp'.
3. After 3 seconds the current RPM display mode will show - either 1 or 10. If 1 is selected, the display will only be able to show RPM values up to a maximum of 9990. If 10 is selected, the display will show the RPM values divided by 10, up to a maximum of 20000 RPM (displayed as 2000). To alter the setting, use the 'up/max' button to change from 1 to 10 and the 'down/adjust' button to change from 10 to 1.
4. After 3 seconds the display will show 'stal', followed by either 'on' or 'off'. Use the UP/Down buttons to select whether the stall warning system is enabled (on) or disabled (off).
5. After 3 seconds, the display shows 'LEDS', this enables you to select between fully sequential LED's or the smaller LED's turning on in pairs. Select '1' for single or '2' for pairs.
6. After 3 seconds the display will show 'cyls' followed by the current cylinder selection. The factory setting is 4 cylinders, displayed as '4CY'. To alter the setting, use the 'down/adjust' or 'up/max' button to change the number of cylinders shown on the display.
7. Wait 3 seconds for the unit to return to standby mode.

Shift Light Adjustment

1. Switch on the ignition, but do not start the engine.
2. Press and hold the 'down/adjust' button until the large right LED illuminates and the display shows 'HI'.
3. After 3 seconds the display shows the current shift light set point. Depending on how you have set the RPM display mode (see above) this is displayed as either true RPM or RPM /10. The factory setting is 7000 RPM. To alter the setting, use the 'down/adjust' or 'up/max' button to change the number shown on the display.
4. Once set, wait 3 seconds, the large light goes out, the small left hand light illuminates and the display shows 'LO'.
5. After 3 seconds, the display shows the current lowest light setting. The factory setting is 6200 RPM. To alter the setting, use the 'down/adjust' or 'up/max' button to change the number shown on the display. The low lamp set point can be set anywhere from the minimum of 2600 rpm, to within 400 rpm of the shift lamp set point (e.g. if the shift light set point is 9000 rpm, the low lamp can be set anywhere in between 2600 rpm and 8600 rpm.) The intermediate lamp settings are then calculated automatically.
6. Wait a further 3 seconds, the display will show 'FLSH', then the flash setpoint. This can be set anywhere between 2600rpm and 20,000rpm. If you don't want to use this feature, adjust the setpoint above the usable rev range. You can set this to come on with any combination of lights.
7. Wait 3 seconds for the settings to be saved and the unit to go back into standby displaying '0000'. If you switch the ignition off or start the engine before this point, the new settings will be lost.

Maximum Revs Recall

1. Switch on the ignition, but do not start the engine.
2. Press and hold the 'up/max' button to display the maximum number of revs attained since last reset. (Depending on how you have set the RPM display mode, this is displayed as either true RPM or RPM /10.)
3. To reset the memory, press the 'down/adjust' button whilst the maximum revs value is being displayed, otherwise the current value will be saved.
4. After 3 seconds the unit goes back into standby.

Note 1: If the 'up/max' button is pressed after the maximum revs value has been reset, the display will show '0000' and the system will return to standby mode.
Note 2: If you have selected RPM display mode '1' (true rpm) and the maximum recorded revs exceeds 9990, the display will show 'Err'. To read the actual value, change the RPM display mode to '10' temporarily.

Stall Warning

If enabled (see 'initial setup'), this feature is activated once the engine has exceeded 2000 rpm. If the engine stalls, and power is not interrupted to the SLD5, all 5 lights flash rapidly. To reset the unit, press any button or restart the engine.

LED Brightness

This is adjustable using the 'up/down' buttons 'only' while the engine is running. The level selected will then be displayed for 5 seconds upon starting the engine or while changing the brightness level. There are 6 available brightness levels with '0' being very dull. When the engine is switched off, the selected brightness level is stored by the shift light and automatically set at this level next time the engine is started.

RPM Check facility.

During set-up, you can confirm the shift light is seeing the correct rpm from the engine. This feature uses the on board display to indicate the current rpm, acting like an electronic rev counter. While this feature is active, the shift light LED's are not available. There is no filtering applied to this display, so the displayed rpm will be an instantaneous indication, with no delay or smoothing. To activate this function, press and hold the 'up' button while switching on the ignition. All the LED's will illuminate for 1 second, then the display will show '0000'. When you start the engine, the display will show the current rpm. This will use the settings you have assigned during set-up, i.e. number of cylinders and display range. To return to normal operation, press the 'down' button. The shift light will then restart. The engine does not have to be stopped during this reset.