Optical / Hall SmartLink

This is the internal card in the Link Computer which configures the computer to the different applications, in this case Optical Trigger or Hall Effect applications.

This SmartLink is intended for use with Hall Effect (magnetic shutter) or opto beam type triggers derived from either a distributor or a Crank Angle Sensor (CAS). Both types are typically "open collector" outputs and the module provides pull-up resistors to +5v for this purpose. Note that all trigger heads require power and earth supplies and that some types require a regulated 5 to 8 volt supply (Especially "Lumenition"). The SmartLink has two independent channels to allow both trigger and sync. processing for multi coil applications. Distributor based systems require only the "Trig" channel).

The SmartLink has the facility to select which "edge" is active since there are many variants and combinations of trigger types. There are two LED's and a DIP Switch to allow selection of either edge. Proceed as Follows:

1. Fully wire the Link System as per the instruction manual. It is advisable to disable both the ignition system and the fuel injectors before further testing.

2. Remove the white cover from the Link Computer (4 screws to expose the SmartLink. The trigger SmartLink is the small circuit board above the main circuit board. Observe the DIP Switch, the Red LED (sync) and the Green LED (trigger).

3. With the key on rotate the distributor (crank angle sensor) while observing the green LED. The exact point when the LED goes from OFF to ON is the trigger point (spark event). For distributor systems this OFF to ON transition must occur when the distributor rotor arm is pointing at a HT lead segment. If the "edge" is incorrect then the Dip Switches should be set as follows.

Switch	State	Result
1	OFF	"Normal"
2	ON	
1	ON	"Opposite"
2	OFF	

CAUTION
Switch 1 and 2 must always be different.
i.e. Do not have both switches ON or both OFF

3. The "sync." channel works in a similar manner except switches 3 and 4 are used instead. The required sync. "edge" will be noted with appropriate application sheets depending on the application. The Caution note also applies to switches 3 and 4.