

## WIRE FUNCTIONS

<b>Red</b>	<b>Power supply positive Connected to 12/24V Supply via 10Amp fuse</b>
<b>Black</b>	<b>Power supply negative (0V) Connect to vehicle earth (ground)</b>
<b>Blue</b>	<b>Distance Pulse Input (Tachograph only) Pin B8</b>
<b>Orange</b>	<b>LH Indicator Input</b>
<b>Yellow</b>	<b>RH Indicator Input</b>
<b>Pink</b>	<b>Speed Output (12/24V = Active)</b>
<b>Green</b>	<b>LH Indicator Output (12/24V = Active)</b>
<b>Purple</b>	<b>RH Indicator Output (12/24V = Active)</b>

Please connect the wires as above, Indicator inputs Trigger at > 9.5V. This Module can control connected devices on both sides of the vehicle.

e.g. **Correct:** LH Indicator Input when triggered will give LH Indicator Output for devices fitted on the Left side, That need to be activated when indicating.

### Operation:

The module may be operated in three modes:

**1. Speed signal and Indicator dependant (default):**

The LH / RH outputs will only be activated then vehicle is below the desired cut out speed and indicator is on. 'Speed Control OFF' Cannot be selected for this mode to operate (i.e. Dip switches are 1,2 & 3 OFF, Switch 4 ON). **Applications Side Obstacle Detection System, Side Warning Alarm**

**2. Indicator signal dependant ONLY:**

If 'Speed Control OFF' is selected, the outputs will be activated with respect to the state of the indicators only. This mode is selected by setting dip switches 1,2 & 3 to the OFF position and switch 4 ON.

**Applications: Side Camera**

**3. Speed signal dependant ONLY:**

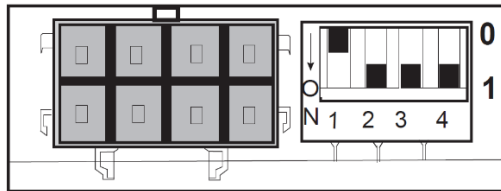
Connect to the Pink Output wire, the Corresponding output will be activated when the vehicle speed is below the threshold setting, As speed setting Table.

**Applications: Front Obstacle Detection System. Corner Obstacle Detection System, DVS and FORS.**

**Hazard Lights:** Both outputs will be OFF when hazard lights are on (i.e. both LH and RH indicators are on).

When module detects a pulse from Tachograph on Pin B8, the on-board LED will flash at a rate of half the frequency of the speed signal.

**Speed Threshold Setting Via DIP Switch:**



(‘1’ = ON, ‘0’ = OFF)

**Speed setting Table:**

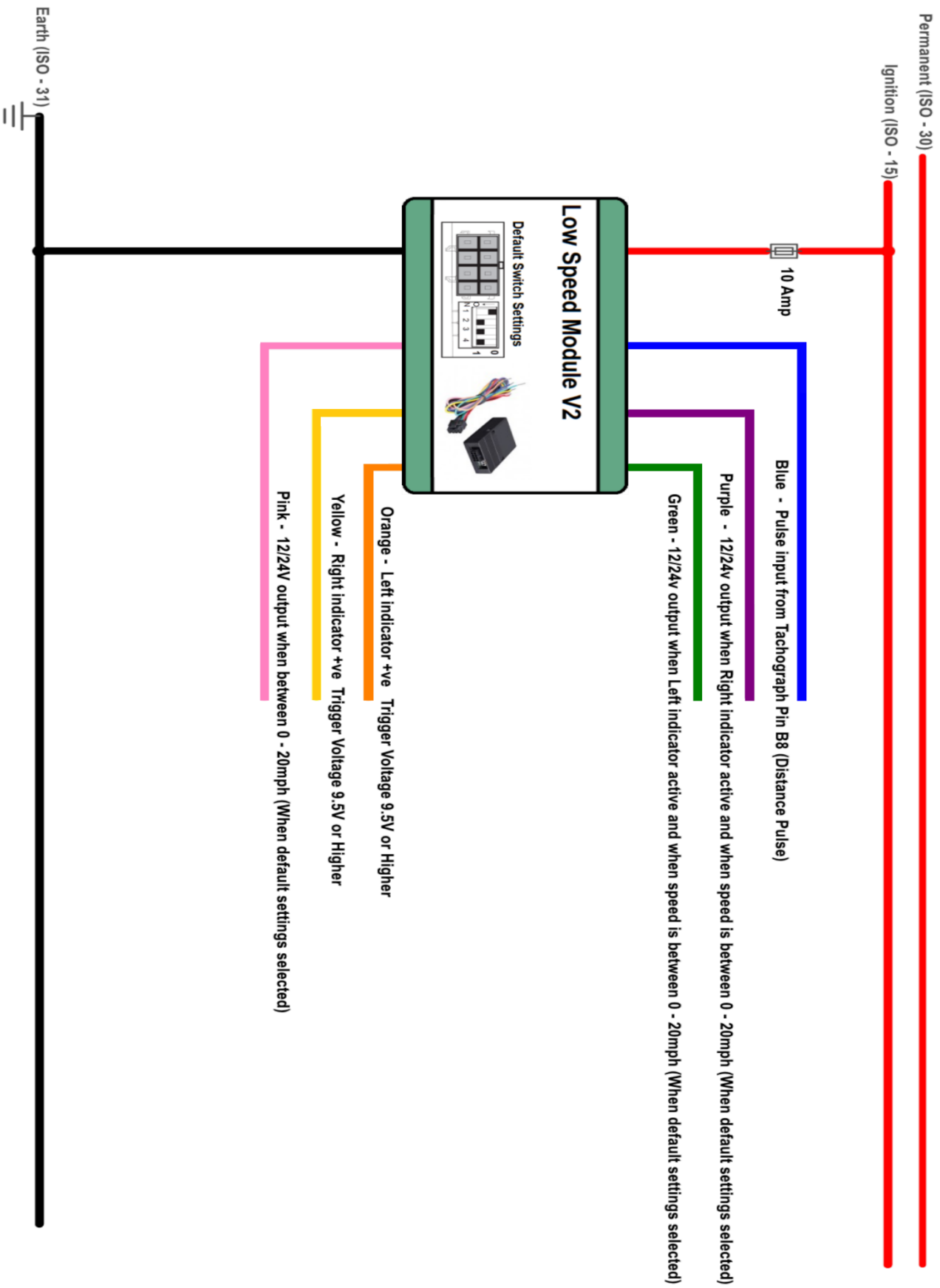
When Connected to Distance Pulse from Tachograph pin B8

Switch Settings	Speed Cut out (Increasing speed) mph	Speed Cut In (Decreasing speed) mph
0001	Speed Control OFF	Speed Control OFF
0011	11	10
0101	16	15
0111 (default setting)	21	20
1001	26	25
1011	31	30
1101	36	35
1111	41	40

**Specifications:**

Speed range	0 to 40mph.
Speed Input Tolerance	+/- 10%
Max. switch power output current	3A (use a relay for higher current requiring devices).
Operating voltage range	10Vdc to 32Vdc
Input current	Typ. <0.03A (switch power output off) Max. <1.8A (switch Power output on).
Operating temperature range	-40C to +85 C.
Indicator Trigger Voltage	➤ 9.5V
Time from Trigger to output	2 second delay from input to give output

**Please note:** When Connected to the standard distance pulse of 4 pulses per meter output from pin B8 on the Tachograph, Select the required cut off speed from the table using the switch settings.



**Wiring Diagram:**

### **Troubleshooting Guide:**

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
No Power	Wrong connections	Check power connections and fuse
Incorrect speed cut-off	Connections or switch settings	Check Blue wire is connected to Pin B8 on Tachograph and that switches are in correct settings required
No Output on Left Output (Green Wire)	LH Input or Speed setting	Check Voltage on LH Input (Orange Wire) is Above 9.5V when output needed
No Output on Right Output (Purple Wire)	RH Input or Speed setting	Check Voltage on RH Input (Yellow Wire) is above 9.5V when output needed
No Output on Both LH/RH output	Voltage Levels due to Diagnostics system	Make Sure Voltage on Both inputs Below 9.5v when not active and either use Relay or Zener Diodes (0-834-05) to block unwanted voltage on inputs
Output on left when hazard lights on	RH Input not connected	Connect RH Input to the RH Indicator feed
Output on Right when hazard lights on	LH Input not connected	Connect LH Input to the LH Indicator feed