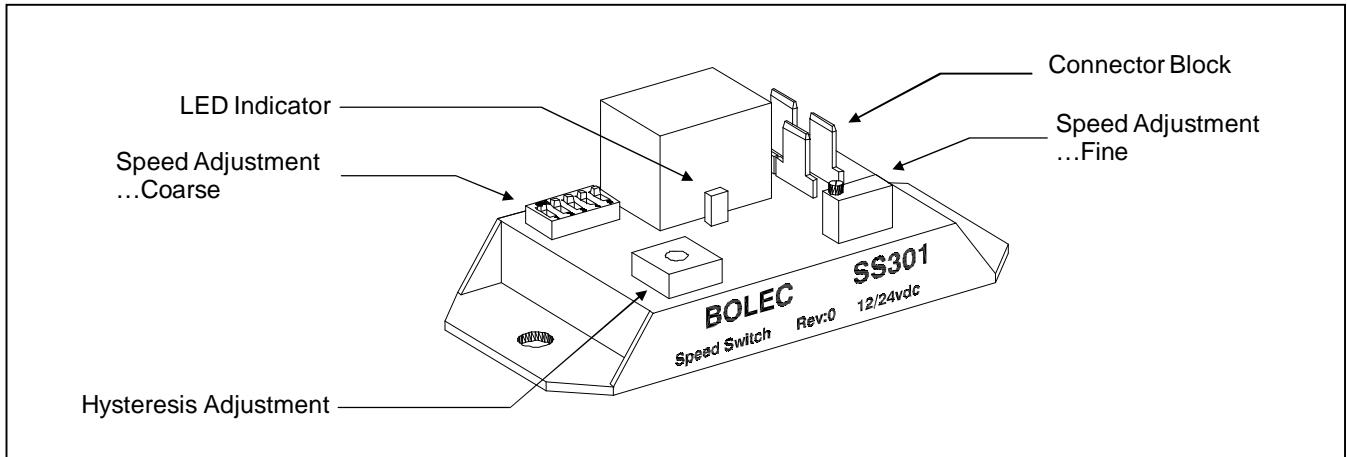


# BOLEC

## SPEED SWITCH – MULTI RANGE

P/No. SS301 Connection Instructions for 12/24VDC Module



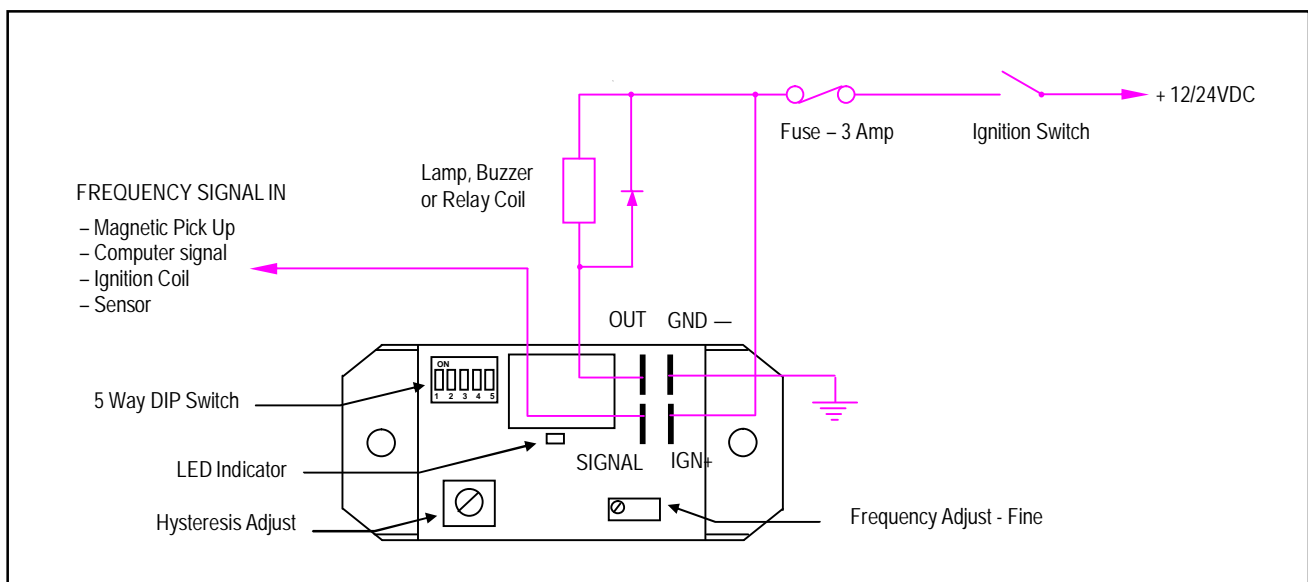
### GENERAL

The SS301 has been designed to work with all standard signal inputs and to give a relay contact (ground signal) out once a predetermined frequency has been reached. Adjustable hysteresis is provided to help prevent chattering at the switch point and to allow a gap between “switch on” and “switch off” points. DIP switches are provided to set the frequency covered and to convert the unit from 12 to 24 VDC.

### FITTING INSTRUCTIONS

1. Mount the module in a convenient place under the dashboard using double sided tape, silicone, cable ties or similar.
2. Connect “IGN+” to a switched ignition supply line preferably via a 2 AMP fuse.
3. Connect “-” to a good ground or earth.
4. Connect “SGNL” to the signal source.
5. Connect “OUT” to a lamp, buzzer or relay coil (12V 3A resistive MAX). The “OUT” terminal switches internally to ground. Fit a diode across any coils to stop high voltage switching spikes.

### CONNECTIONS



## SETTINGS

1. To set switch at a specific frequency, speak to your retailer about having this module pre-set to your specifications.
2. Alternatively, if the equipment is available, wire the unit on a test bench with 12V power supply and an AF signal generator capable of putting out an accurately measured 10V p-p signal in the 0 – 10,000 Hz range.
3. Set the switching frequency required on the signal generator.
4. Ensure DIP SWITCH 1 is set as appropriate for 12 or 24 VDC.
5. Ensure only one of DIPSWITCH 2-5 is set on for the appropriate frequency range.
6. DIP switch settings

	OFF	ON
6.1. SW1	24 VDC	12 VDC
6.2. SW2		10 – 50 HZ
6.3. SW3		40 – 350 HZ
6.4. SW4		250 – 1800 HZ
6.5. SW5		1500 – 12,000 Hz

*NOTE: The changeover point for switch ranges may vary slightly from figures shown here, but a full range of coverage will always be available.*

7. Turn the adjustment pot clockwise until the LED goes out (if LED is not on, ignore point 7)
8. Turn the adjustment pot anticlockwise slowly until the LED just comes on and you hear the relay close. The module is now set. Test & repeat points 7 & 8 a few times until satisfied.
9. Note, this is a 25 turn pot and you may have to turn the adjustment screw 25 full turns to get the adjustment where you want it.

*NOTE: This module is designed as a universal unit to suit as many automotive type applications as possible. However there may be some systems where the input or output signals are not compatible with this unit. The manufacturer is not responsible for incorrect fitting or damage caused by or during the fitting of this module.*

## NOTES

1. This unit will not respond to frequencies over approximately 13 KHz, and will drop out if driven above this frequency. If higher frequency switching is required, contact the manufacturer.
2. If the “switch on” and “switch off” points are too close the relay will chatter. Stop this by turning the hysteresis adjustment clockwise to increase the gap between switch on and release. Turn anticlockwise to decrease the gap.
3. Temporarily replacing your alarm circuit with a test light can simplify the setting procedure. Or use the LED indicator to show when switching occurs.
4. When switching relay and solenoid coils with other electronic items around, it is recommended to fit reverse EMF diodes across all coils.
5. This unit will not work if supply to it fails. It is good practice to make circuits fail-safe where possible and practical.

## SPECIFICATIONS

1. Dimensions: Approximately 58 x 42 x 29mm overall.
2. Input Signal: Sine, square wave, 1.5-50 VAC, Max 12KHz.
3. Voltage: 12 - 24Volt DC Negative Ground systems.
4. Hz Range: 10 – 12,000 Hz , 1.5 VAC or greater.
5. Hysteresis: Fully adjustable
6. Contact Rating: 12vdc 3amp, 24vdc 1.5amp