

# ***STEDMAN MOTORSPORTS***

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# DISCLAIMER

**Stedman Motorsports shall not in any event be liable for incidental, consequential or punitive damages of any nature whatsoever, including personal injury and lost profits. It is acknowledged that participation in any motor sport may result in serious injury or death, and that the risk of such personal injury or death is assumed by any person who uses any products manufactured, sold or supplied by Stedman Motorsports.**

# Introduction

**We would first like to thank you for your purchase of our system. We believe it is the best system available to you on the market today. This system balances effectiveness with ease of installation, broad field of uses, and cost.**

**As with all technical devices such as engines, shocks, carburetors, clutches etc; the product's performance is based largely on your ability to use it properly. Testing in controlled circumstances will help you determine the proper settings for your application and your situation.**

**Testing is very important to help you utilize this product to its full potential. Please read all of the instructions and information thoroughly before attempting to install or use this product**

# How does it work?

**This unit features a high-speed processor coupled to an infrared ride height sensor.**

Upon startup, the processor checks the position of the dial and the stored ride height trigger value. The position on the dial represents the amount of time the trigger height needs to be exceeded in order to trigger the outputs. Should the ride height exceed the trigger value, retard 1 immediately turns on then retard 2 will turn on later if the ride height still exceeds the trigger value. Once the ride height is below the trigger value both retards turn off.

# Installation

Installation of the system is very simple. It is very important to *make all connections correctly*. Improper installation could result in poor system performance or damage to the unit.

Keep all wires away from any spark plug wires and coils or other sources of electrical noise and heat.

The unit should be mounted away from any sources of electrical noise or high heat. It can be easily mounted with Velcro to allow for easy removal. If Velcro is used, a tie-wrap should also be used to securely mount the unit.

Seven connections are required.

Positive (5-16v) Red Ground Black Retard1 Blue Retard2 Brown

Ride Height 5v Orange

Ride Height Gnd Black

Ride Height Signal White

# Installation

The unit will work with a 12 or 16 volt connection. The ground should be a solid battery ground. Retard1 and 2 are connected to what ever you choose to use to bring the wheelie under control. The output will be equal to the input voltage.

The Ride height (R/H) sensor has a working range between 4.24" and 38". Mount the R/H in an area away from heat. You will need to make a connection harness with the included connectors and terminals. 16AWG wire is more than adequate. Position the sensor so the mounting holes are in line with the axles of the car. The sensor doesn't need to be located at the absolute front of the car. When mounting keep in mind the working range of the sensor.

# Configuration

The dial on the front of the unit sets the threshold time for activation. The higher the dial value, the longer the wheelie must exceed the trigger value to turn on the

**Retards .Dial Position Threshold Time**

**1 0.05 seconds**

**2 0.10**

**3 0.15**

**4 0.20**

**5 0.25**

**6 0.30**

**7 0.35**

**8 0.40**

**9 0.45**

**0 0.50**

The dial can be moved at any time and the new threshold time will be active immediately.

# Configuration

To set the trigger ride height, simply push the button on the front of the unit. This will force the Wheelie Control to save the current ride height reading into memory.

This value is the new trigger value. After the change is complete the LED will flash red momentarily then return to green.

Use a jack to raise the car to the desired trigger height.

Power up the Wheelie Control, ensure nothing is between the sensor and the ground. Press the button on the front of the unit and the trigger value is set.

# Configuration

To set the second stage threshold, press the button while powering up the unit. The LED will glow yellow for five seconds. Move the dial to the desired position. The second stage threshold setting is the amount of time after threshold one is active. The LED will flash red once complete.

When the trigger height is exceeds for the set threshold time, Retard1 (Blue wire LED is yellow) turns on. If the wheelie is still above the trigger value for threshold one + threshold two, Retard2 (Brown wire/LED is red) turns on.

# Configuration

## Dial Position Threshold Time

1 0.05 seconds

2 0.10

3 0.15

4 0.20

5 0.25

6 0.30

7 0.35

8 0.40

9 0.45

0 0.50

# Configuration

The output signal is the same as the voltage on the red wire. The relay inside the Wheelie Control will handle about 300 mA. So if you plan to drive a big load, I suggest using another relay.

# Lay Out

