

# **WOLF3D**

**Version 4Plus**  
Engine Management System

# **Installation Manual and User Guide Addendum**

Revision Number 1.002

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# 1 Introduction

This Installation Manual covers information on wiring for the Wolf3D Version 4Plus.

The Wolf3D Version 4Plus has Stepper Motor control, 2 more Auxiliary Inputs, 3 more Auxiliary Outputs, and 2 additional Ignition Outputs over and above that of the Wolf3D Version 4.

This manual is only meant as a supplement to the Wolf3D Version 4 Installation Manual and User Guides.

**The Wolf3D Version 4Plus has a separate 18 pin connector mounted next to the regular Wolf3D Version 4's 36 pin connector. All Pins on the 18 pin connector are prefixed with the letter "P" to distinguish them from pins on the 36 pin connector which have no prefix letter.**

## 2 Input Triggering

The second Input Trigger is only available on the Wolf3D Version 4Plus. It is used for a Sync Pulse to reset the Input Trigger Count.

**See the Wolf3D Version 4 Manual for more information about input triggering.**

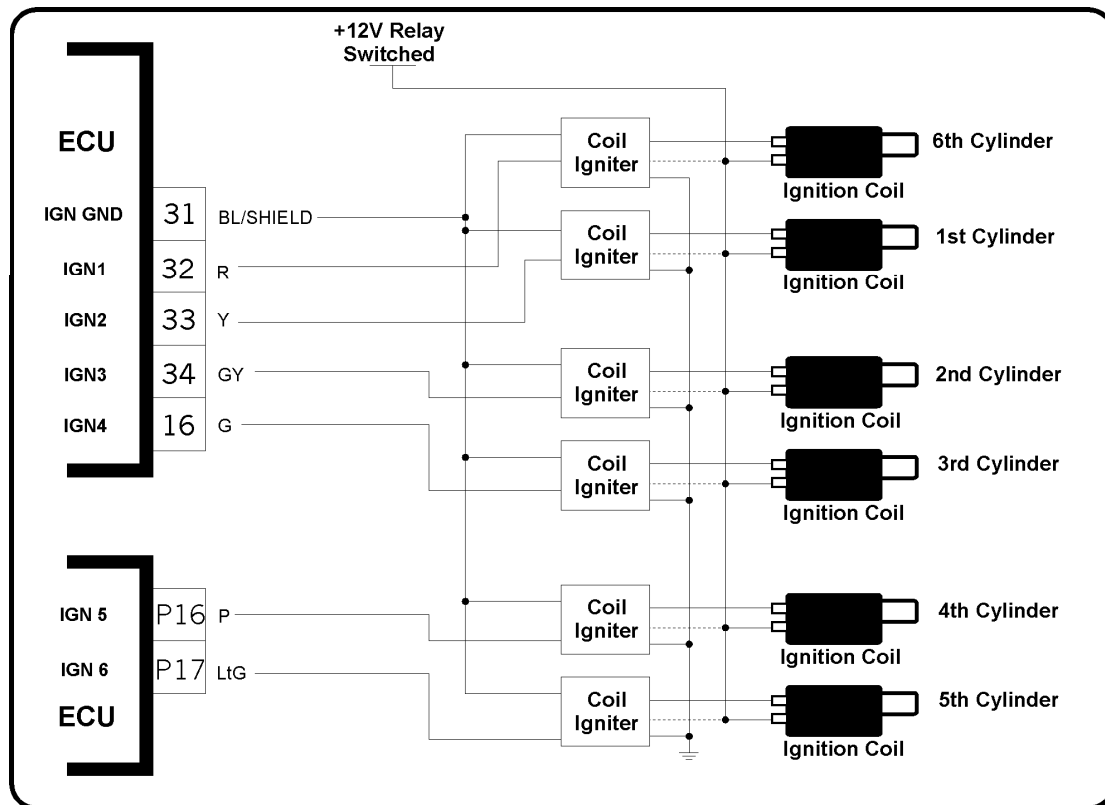
The Pin for the Sync input is P12 of the Wolf3D Version 4Plus.

### 3 Ignition Outputs

The Wolf3D Version 4Plus has 2 extra Ignition Outputs. You only need to use these 2 extra Ignition Outputs when you require 6 individually fired ignition coils.

Engines that require 6 separate ignition outputs are:  
20B Rotary Engines, Multicoil 12 Cylinder Engines and 6 Cylinder Engines with 1 coil per cylinder that you wish to fire sequentially, not banked.

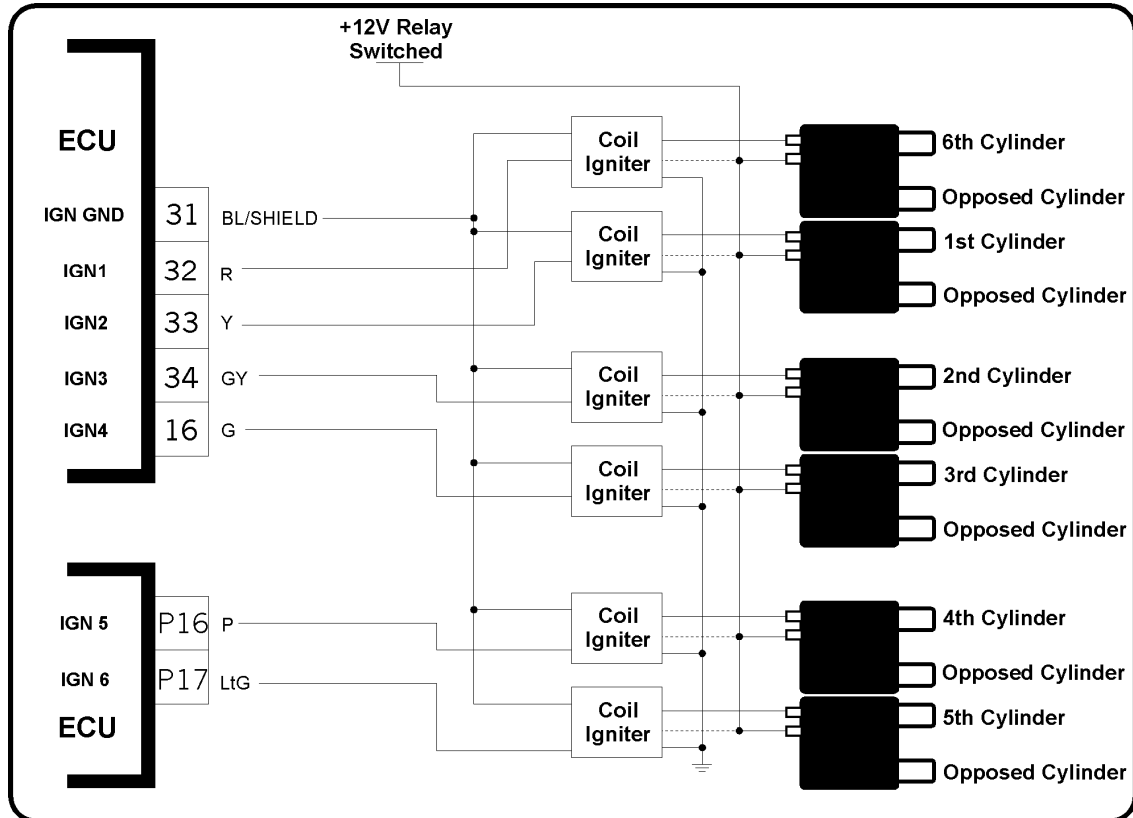
#### 3.1 6 Cylinder with Sequential Ignition



Engines that could require the above ignition system are 6 cylinder engines that have individual coils per cylinder, or 6 cylinder engines that are running high turbo or supercharged pressure and have ignition problems.

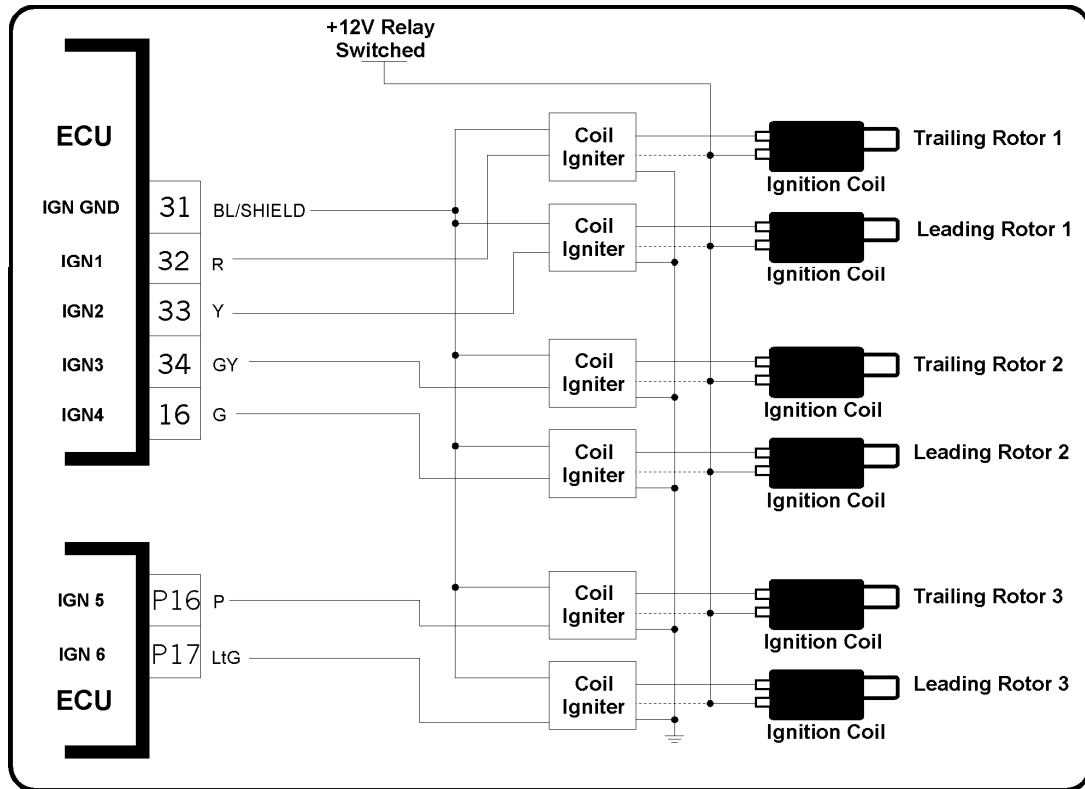
### 3.2 12 Cylinder with 6 Dual Output Ignition Coils

You can replace a single or dual coil 12 Cylinder Ignition System with a crank or cam sensor and 6 Dual Output coils. This will give your engine a power ignition system.



### 3.3 Triple Rotor (20B) Rotary Engine

To get the most out of a triple rotor, you should run 6 individual leading and trailing coils for each rotor.



## 4 Stepper Motor

### 4.1 Wiring Setup

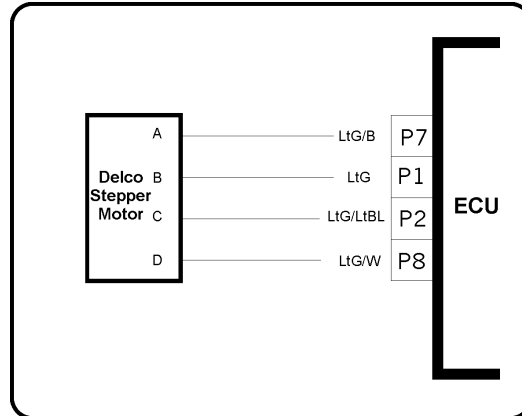
The Wolf3D Version 4Plus can use a Stepper Motor to control the engine idle speed.

You must use a Stepper Motor that has 4 wires or pins. Some Stepper Motors have 6 wires or pins. These Stepper Motors cannot be used.

A 4 wire Stepper Motor is electrically made up of 2 coils.

Here is how to wire up a Delco 4 wire Stepper Motor. The Delco Stepper Motor is the most common type of Stepper Motor used for Idle Speed Control.

Notice on the Connector of the Delco Stepper Motor there are pin markings A,B,C and D. This makes it very simple to configure the wiring for this stepper motor.



**NOTE: If you have any trouble wire the operation of the Stepper Motor, Please call Wolf Tech line on 03 9761 3609.**

### 4.2 Software Setup

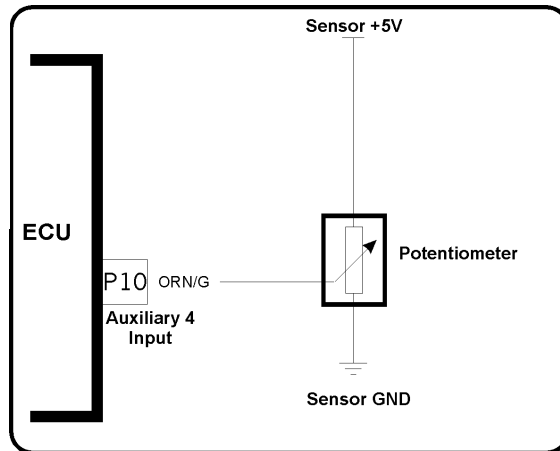
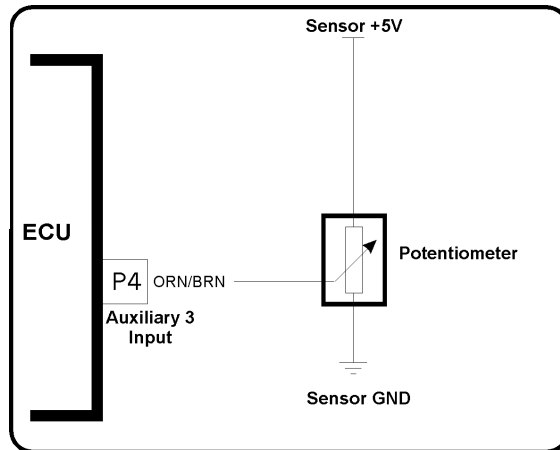
Use the Wolf3D Version 4 User Guide to setup the stepper motor. The parameters are the same for a stepper motor as they are for a pulse width modulated solenoid.

## 5 Auxiliary Inputs

The Wolf3D Version 4Plus has two extra Auxiliary Inputs over and above the Wolf3D Version 4. They are all located on the 18 Pin Connector of the Unit. All Pins on the 18 pin connector are prefixed with the letter "P" to distinguish them from pins on the 36 pin connector which have no prefix letter.

**See the Wolf3D Installation Manual and User Guide to specific information regarding the Auxiliary Inputs.**

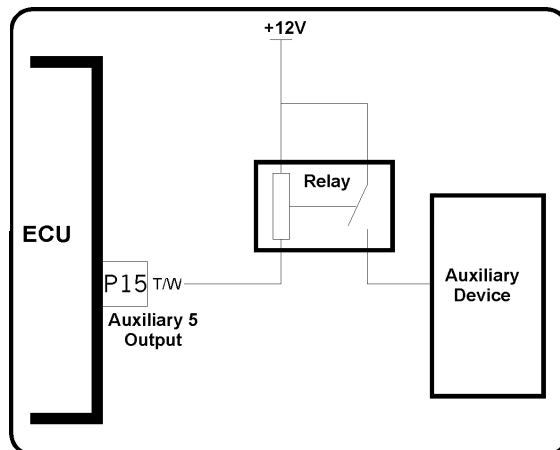
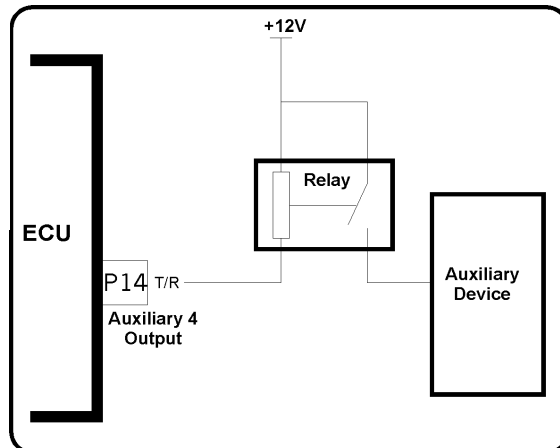
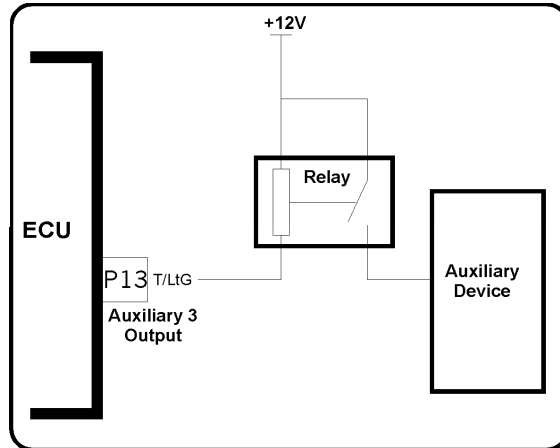
Unlike Auxiliaries 1 and 2, Auxiliary Inputs 3 and 4 have their own dedicated input pins.



## 6 Auxiliary Outputs

The Wolf3D Version 4Plus has 3 extra Auxiliary Outputs over and above the Wolf3D Version 4. They are all located on the 18 Pin Connector of the Unit. All Pins on the 18 pin connector are prefixed with the letter "P" to distinguish them from pins on the 36 pin connector which have no prefix letter.

**See the Wolf3D Installation Manual and User Guide to specific information regarding the Auxiliary Outputs.**



## 7 Pinouts

Pin ID Number	AME Part Number	Wire Colour	Wire Type	Pin Description
P1	93225	Light Green	0.85mm <sup>2</sup> – 16/0.26	Stepper A1
P2	93245	Light Green/Light Blue	0.85mm <sup>2</sup> – 16/0.26	Stepper A2
P3				Not Used
P4	92513	Orange/Brown	0.5mm <sup>2</sup> – 7/0.32	Aux 3 Input
P5	94081	Black/White	1.25mm <sup>2</sup> – 16/0.32	GND
P6	92643	Red/Dark Blue	0.5mm <sup>2</sup> – 7/0.32	+5V
P7	93205	Light Green/Black	0.85mm <sup>2</sup> – 16/0.26	Stepper B1
P8	93256	Light Green/White	0.85mm <sup>2</sup> – 16/0.26	Stepper B2
P9				Not Used
P10	92527	Orange/Light Green	0.5mm <sup>2</sup> – 7/0.32	Aux 4 Input
P11				Not Used
P12	92323	Grey/Green	0.5mm <sup>2</sup> – 7/0.32	Input Trigger 2
P13	93727	Tan/Light Green	0.85mm <sup>2</sup> – 7/0.32	Aux 3 Output
P14	93763	Tan/Red	0.85mm <sup>2</sup> – 7/0.32	Aux 4 Output
P15	93783	Tan/White	0.85mm <sup>2</sup> – 7/0.32	Aux 5 Output
P16	91555	Pink	0.3mm <sup>2</sup> – 7/0.26	IGNITION 5
P17	91225	Light Green	0.3mm <sup>2</sup> – 7/0.26	IGNITION 6
P18	94081	Black/White	1.25mm <sup>2</sup> – 16/0.32	GND