

All information contained in this owner manual is the property of C5 Performance Inc. and cannot be duplicated in whole or in part by any means or disseminated or distributed without the prior written consent of C5. The information in this manual has been carefully compiled and checked for accuracy and is believed to be correct. However, C5 Performance accepts no responsibility for inaccuracies which may occur. All specifications subject to change without notice.

#### C5 Performance Inc.

N2151 County Road M

Hortonville, Wisconsin, USA 54944

The following customer actions automatically voids the warranty.

- 1) Use of any other spark plug wires other than resistor type wires with at least 4.000 ohms of resistance.
- 2) Use of non-resistor spark plugs.
- 3) Drilling or cutting of any kind into the module
- 4) Incorrect wiring of the module.
- 5) Use of module on systems with defective charging systems.
- 6) Use of defective coils.
- 7) Directly shorting the coil output wires to +12 VDC.
- 8) Physical damage to the ignition
- 9) Any other items covered in the warranty & instruction manual.

#### LIMITED WARRANTY

C5 electronic assemblies have a warranty to the original retail purchaser that it will, free of charge, repair or replace at its own option, the product if returned within 6 months after purchase and if found by the manufacturer to be defective in material or workmanship. This warranty is not transferable by the purchaser and shall be voided: if alterations not authorized by C5 Performance are made in the equipment or if the serial number or date of manufacture has been altered, defaced or removed. Nor does this warranty apply: if the equipment has been subjected to accident, misuse, improper hookup, damaged by flood, fire, or act of God, or has been used on circuits or voltages other than those indicated in its instruction manual.

If the equipment is found to be defective in materials or workmanship the equipment will be returned and C5 will pay the return shipping (this does not include next day shipping, second day shipping, shipments outside of the continental U. S. A. or shipments outside of the U.S.A.). All warranty work outside of the U.S.A. must include prepayment of return shipping. Customs, duties or tariffs are not covered by this warranty. If the equipment is found to be defective but is due to customer misuse (as described in warranty) C5 Performance will notify the customer and if the customer wants the defective equipment returned C5 will return the equipment C.O.D. freight. If the equipment is found to be in operational order when returned to the factory C5 will return the module with a \$25.00 service charge plus freight and C.O.D. Charges.

**Any module returned under the warranty must include note of explanation of failure and be accompanied by a dated bill of sale.**

C5 Performance warranty obligations are limited to those set forth herein and no other obligations, expressed or implied, are assumed by C5 Performance Inc.

Some states do not allow the exclusions or limitations of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### INSTALLATION SEQUENCE:

**WARNING: Do not touch coil terminal output to +12.**

**DO NOT use Solid or Spiral wound suppression spark plug wires of less than 800  $\Omega$  per foot. Failure to observe this will damage ignition & Void the Warranty.**

For conversions:

1. Install the C5 ignition coils in a central location to the spark plugs. Do not connect power to coils yet!
2. Remove all stock ignition parts including mechanical timing advance parts.
3. Insert ignition in place of the original points plate, routing wires so they don't rub.
4. Insert the Ignition hold down standoffs & tighten.
  - 5a. Connect BLACK Coil Trigger of module to Trigger terminal of cyl #1 coil.
  - 5b. Connect WHITE Coil Trigger of module to Trigger terminal of cyl #2 coil.
6. See the cylinder order chart to determine routing of high voltage wires and coil trigger connections. **Never allow coil trigger leads to come near the spark plug leads!**
7. Connect the green wire to the tachometer trigger wire if used. If not used, fold and shrink-tube the green wire so it cannot touch other wires.
8. Connect Red module power to ignition or kill switch positive +12 VDC and black ground lead to the battery negative post.
9. Connect black wire of each coil to battery negative (-) using appropriate gauge wire.
8. Insert the encoder disc onto the adapter (standoff) or timing shaft. Secure using hardware from original engine or hardware provided in the kit. Lightly tighten the disc (see diagram). Consult the wiring diagram.
9. Rotate the engine to **TOP DEAD CENTER of cylinder #1**. Turn on ignition power, rotate disc until LED lights up. Using a light strength thread locking agent, secure the screw or bolt. Some kits require distributor to be rotated to set timing. Turn off the ignition.
10. Recheck Top Dead Center.
12. Replace the spark plug wires and NOW connect red power wire of all coils to battery (+) terminal. You may use one common power lead of the appropriate gauge wire.
13. Start the Engine.

#### BLUE SENSOR 1 & GREY SENSOR 2 LEADS

When the sensor wires are grounded or ungrounded it tells the ignition which of the four timing maps to follow. Consult the chart provided to determine how you want to use the ignition. We have rotary switches available if you wish to change maps manually.

Both leads grounded typically are designed for a stock engine with normal load. The use of a vacuum switch can be used to sense load for high compression performance engines or heavy load. You may change timing maps while the engine is running.

**Choice of spark plug wires is an important consideration when using an electronic ignition system and you should only use the wires provided with this kit. Use ONLY Resistor (CARBON CORE) or approved Spiral Wound Spark Plug wires.**

#### SPARK PLUGS

You must use resistor spark plugs with electronic ignitions.

Spark plug gap should be limited to as small as possible, while still maintaining performance.

A wide spark plug gap can cause the following problems: Hard cold starting, misfires during rich or lean fuel conditions, and reduction of upper rpm range. Initial settings for spark plug gaps are:

**Spark plug gap .028- 0.032 inches maximum!**

#### Many things effect spark plug gap settings:

**Compression Ratio:** The higher the engine compression, the more voltage required to fire the plug, and the narrower the plug gap should be. **RPM:** The higher the rpm's the less time the coil has to charge to break over voltage or complete saturation. A narrower spark plug gap will help high rpm

# 2 CYLINDER

# CD-2 WITH MC-1 COILS

# IGNITION MANUAL



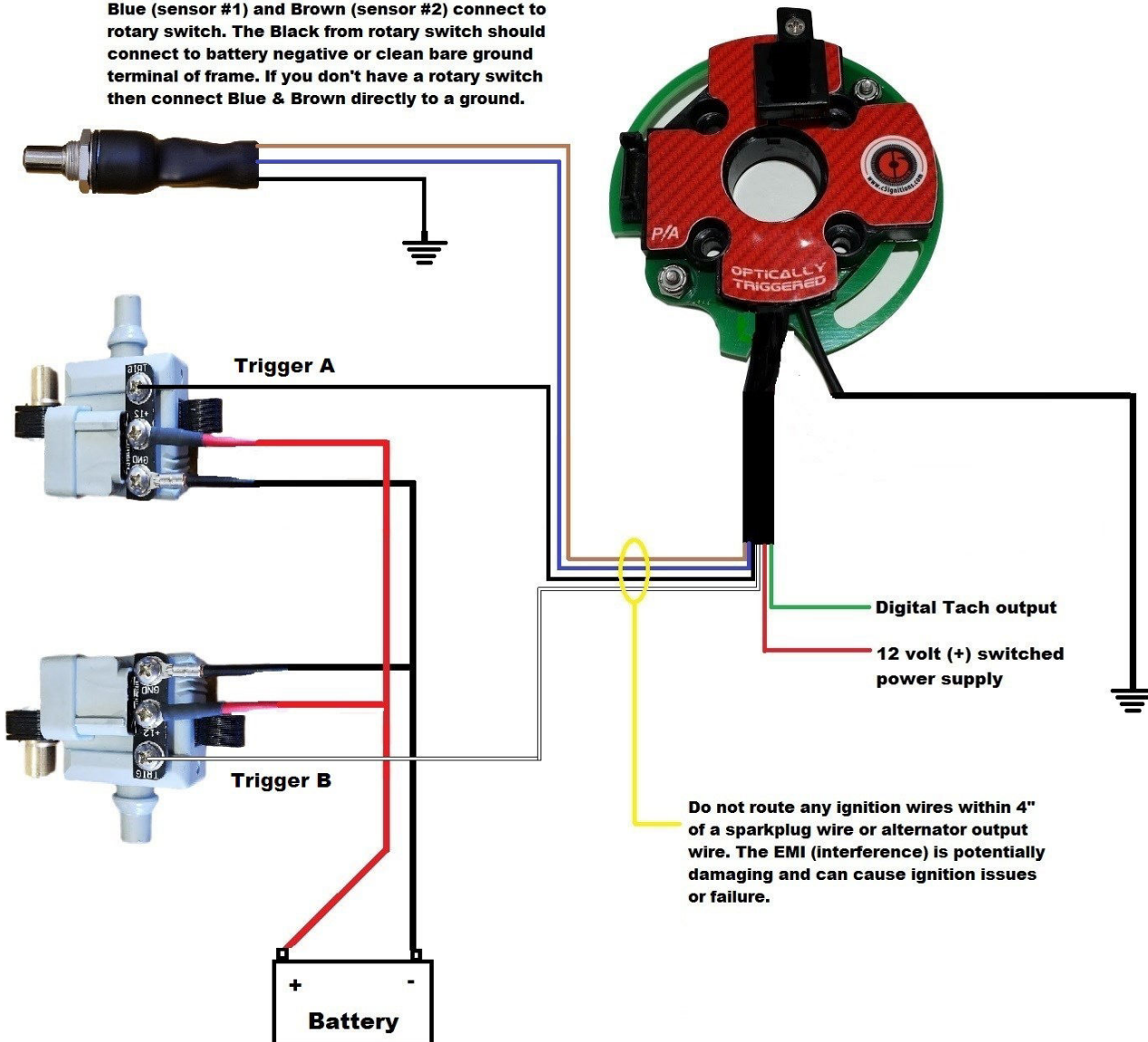
C5 PERFORMANCE INC  
N2151 COUNTY ROAD M  
HORTONVILLE, WISCONSIN  
USA 54944

Phone: 920-403-0555  
C5@C5IGNITIONS.COM



The MC-1 (shown) and MC-2 coils must use the provided coil springs. Install springs by pushing the fat end into the coil boot as shown to the left. Failure to use the springs will cause damage to the ignition!

Blue (sensor #1) and Brown (sensor #2) connect to rotary switch. The Black from rotary switch should connect to battery negative or clean bare ground terminal of frame. If you don't have a rotary switch then connect Blue & Brown directly to a ground.



Do not route any ignition wires within 4" of a sparkplug wire or alternator output wire. The EMI (interference) is potentially damaging and can cause ignition issues or failure.

### On 2 cylinder engines:

Black ignition trigger A => #1 cylinder  
White ignition trigger B => #2 cylinder

We recommend coil power and ground leads go directly to the battery.

Use appropriate gauge wire to avoid high rpm misfire due to lack of amperage!

2 Sensor Wires may be Grounded or Ungrounded to switch timing curves, between 4 timing curves.

	Blue Sensor 1	Brown Sensor 2
1	Grounded	Grounded
2	Grounded	UnGrounded
3	UnGrounded	Grounded
4	UnGrounded	UnGrounded

**Normal Stock Application**  
Ground Blue and Brown Wires  
Higher Compression or lower octane fuels may require less advance. This can be achieved by ungrounding the appropriate Sensor wires or the addition of a VOES, vacuum switch.

### Encoder (rotor) Installation and Cam end play

Cam end play should not exceed 0.020"

Tighten applying blue Loctite to threads.

