



**123 Bernard Street
CHELTENHAM VIC 3192**

Tel: + 613 9532 6000

Tel: + 613 9553 6100

Fax: + 613 9532 6001

www.iceignition.com

7 Amp 3 Step (7043E) Ignition Box - Wiring Notes

Module to coil loom (supplied semi finished). Please ensure the following:

- * Orange wire to coil positive (run direct to ignition coil - do not splice with any other wires).
- * Green wire to coil negative (run direct to ignition coil - do not splice with any other wires).
- * Black wire to earth / ground (run direct to engine block - do not splice with any other wires).
- * Be sure to keep the earth / ground wire from the ICE modules as short as possible. Always run the earth / ground wire from the ignition module (and voltage booster if fitted), to somewhere on the engine block, same as the battery earth / ground cable as per the instructions below. This is the only way to guarantee proper earth / ground.

Trigger Wires (white & black):

Rising Edge = White wire to ignition 12 volts.

Black wire to ignition output wire from ECU - Must be an "Open Collector" type output.

Falling Edge = White wire to ignition output wire from ECU - Minimum 5 volt square wave signal.

Black wire to earth / ground as close to ECU as practical - keep as short as possible.

Optional features:

- * White (single) wire : Apply 12 volts to activate low rpm limit (usually armed by trans-brake switch or similar).
- * Yellow (single) wire : Apply 12 volts to activate burnout rpm limit (usually armed by line-lock switch or similar).
- * Note: If both the white and yellow wires are activated at the same time, the burnout (yellow wire) limit will apply.
- * Green (single) wire = Tach Output (12 volt square wave - normally high, then low for 1.1 m/s per spark).
- * Red wires: If connected = distributor trigger mode; If disconnected = crank trigger mode.
- * Blue wires: If connected = no start retard; If disconnected = 10 degrees start retard.
- * Brown wires: When disconnected = 6 cylinder mode.
- * Orange wires: When disconnected = 4 cylinder mode.
- * Note: If both the brown and orange wires are disconnected, box will function in 4 cylinder mode.
- * Note: When brown and orange wires are connected, box functions in 8 cylinder mode.

Power supply to coil positive - no booster or inc booster 2316 / 2216 - ideal:

- * Supply 12 volts switched (13.8 - 14.8 volts from alternator) to coil positive or booster (if fitted) via ignition switch.
- * If vehicle has ballast resistor or resistor wire, by-pass these and feed direct voltage to coil or red wire of booster.
- * Never leave original wire from the ignition switch connected to the coil positive if booster fitted (refer diagram).
- * Do not try to power anything but a single coil with the booster.
- * If wired correctly, two wires go to coil positive and one wire goes to coil negative.

Earth / Ground:

THE IMPORTANCE OF THIS STEP CANNOT BE OVER EMPHASIZED AND WILL VOID THE WARRANTY ON THE IGNITION IF IT IS NOT FOLLOWED.

* Battery negative cable **MUST** run direct to a bare metal bolt boss on the engine block (should also be attached to body) as a single cable.

* If the battery is mounted in the front of the vehicle the cable must be a minimum of 12mm - 13mm in diameter including the shielding, and must consist of a fine strand copper core.

* If the battery is mounted in the rear of the vehicle the cable must be a minimum of 14mm to 15mm in diameter including the shielding, and must consist of a fine strand copper core.

* For street cars, if you currently have the battery earth / ground cable running from the battery negative to the chassis and chassis to the engine and are relying on the body / roll cage to make the connection for earth / ground, **DO NOT** assume that because your existing ignition works like this, that the ICE Ignition will also work. You will void your warranty and quite possibly have to buy replacement parts.

* For race cars, if you currently have the battery earth / ground cable running from the battery negative to the roll cage and are relying on the roll cage and aluminum engine plates to make the connection for earth / ground, **DO NOT** assume that because your existing ignition works like this, that the ICE Ignition will also work. You will void your warranty and quite possibly have to buy replacement parts.

General:

- * Keep all looms routed away from the high tension wires.
- * These measures are to ensure no noise enters the looms and disrupts the microprocessor inside the unit.
- * Mount the unit using the vibration mounts supplied, inside the vehicle cabin, away from heat and moisture.
- * Avoid soldering wires, as they become brittle where the solder ends, flex at that point, then break.
- * To ensure unit functions correctly, the above steps must be adhered to.