



# Installation and Troubleshooting Guide

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## CDI P/N: 511-9701 BATTERY CD TESTER

**WARNING:** The 511-9701 Battery Tester is primarily for use in testing battery CD ignition modules on the engine. The knob on top of the unit controls the test RPM. Please do not run the tester over 3 minutes at a time at maximum RPM due to heat buildup inside the tester. Overheating will damage the unit. This tester can also be used to test EFI injector coils.

### Recommended Tools:

- Spark tester (CDI 511-9766)
- Piecing probes (CDI 511-9770)
- Fluke 8 DC voltmeter (CDI 518-8) or equal

1. Disconnect the spark plug wires from the spark plugs and reconnect them to the spark tester.
2. Verify that you have at least 9½ DC volts present at cranking on the ignition wire from the keyswitch and that the polarity is correct. Some batteries have been known to accept a reverse charge when recharged.
3. Align the rotor tip with the #1 spark plug wire tower.
4. Disconnect the points/sensor/trigger wire from the CD module as used for each application.

### Connect the tester as indicated below:

1. Turn the ignition switch on and check for firing. If any other spark plug wire fires besides the one that the rotor is pointed at, the distributor cap is bad.
2. Turn the ignition switch off and realign the rotor to another cylinder and repeat step 1.

## JOHNSON/EVINRUDE

P/N's: 389549, 389550, 389551, 397123, 113-7123

Tester	CD Module
Black	Case/engine ground
Black Jumper	No connection
Red	Red or purple 12V from keyswitch
Black/White stripe	Black/white wire to points
Blue	Blue or green coil wire (leave on coil)
White	No connection

P/N's: 398362, 398363, 113-8362

Tester	CD Module
Black	Case/engine ground
Black Jumper	No connection
Red	Red or purple 12V from keyswitch
Black/White stripe	Black/white wire to sensor
Blue	Blue or green coil wire (leave on coil)
White	No connection

## CHRYSLER / FORCE

P/N's: 404301, 523301, 523301-1, 115-3301

Tester	CD Module
Black	Case/engine ground
Black Jumper	No connection
Red	Blue wire (12V from keyswitch)
Black/White stripe	White/black wire (normally goes to points or preamp)
Blue	Gray coil wire (leave on coil)
White	No connection

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## MERCURY

Note: On Mercury battery CD modules (switch boxes), connect the red wire from the tester to the red wire from the solenoid as a initial test. Be aware that the tester will start firing the CD as soon as you connect the red wire. If the CD fires when connected to the red terminal but will not when connected to the white keyswitch terminal, this indicates a problem in the harness or keyswitch.

P/N'S: 332-2986, CDI 114-2986

Tester	CD Module
Black	Case/engine ground
Red	White or White/Red (12V from keyswitch)
Black Jumper	White trigger terminal (a)
White	Black trigger terminal (a)
Black/White stripe	No connection
Blue	Black or green coil wire (leave on coil)

(a) If there is no output from the switch box, swap the White and Black trigger connections, then retest.

If CD module tests OK, reconnect the red wire from the tester to the brown trigger terminal and retest. If the CD will not operate when connected to the brown trigger terminal, the CD module is bad.

P/N'S: 332-4796, 114-4796

Tester	CD Module
Black	Case/engine ground
Red	White (12V from keyswitch)
Black/white stripe	No connection
Blue	Green coil wire (leave on coil)
White	Blue trigger terminal
Black Jumper	Black trigger terminal

If CD module tests OK, reconnect the red wire from the tester to the white/black trigger terminal and retest. If the CD will not operate when connected to the white/black trigger terminal, the CD module is bad.

P/N'S: 332-2803, 114-2803

Tester	CD Module
Black	Case/engine ground
Red	White (12V from keyswitch)
Black/white stripe	Brown points terminal
Blue	Black or green coil wire (leave on coil)
White	No connection
Black Jumper	No connection

P/N: 337-4411

Tester	CD Module
Black	Case/engine ground
Black Jumper	No connection
Red	Red (12V from starter solenoid)
Black/white stripe	Blue terminal
Blue	Green coil wire (leave on coil)
White	No connection

If CD module tests OK, reconnect the red wire from the tester to the white trigger wire from the harness and retest. If the CD will not operate when connected to the white trigger wire from the harness, check the harness and/or keyswitch.

## TESTING EFI INJECTORS

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**WARNING!!! DO NOT USE THIS TESTER TO CHECK INJECTORS FOR FUEL SPRAY OUTSIDE OF THE ENGINE.**

Please do not dry fire the injector without any fuel in it over 15 seconds at a time as damage to the injector may result.

Connect the wires as indicated below, using one of the piercing probes and adapter to connect the black/white wire to the injector wires. You will need to connect a jumper wire from the Red wire to the positive side of the injector.

With the keyswitch in the on position, the tester should start pulsing the injector as soon as the red wire from the tester is connected. Rotating the knob will vary the firing RPM.

<u>Tester</u>	<u>Engine/injector</u>
Black	Case/engine ground
Black Jumper	No connection
Black/White stripe	Negative side of injector (Brown, blue/white and green/yellow wires in turn near the injector connection).
Red	Purple from engine harness (12V from keyswitch)
Blue	No connection
White	No connection

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