



CAUTION: CAREFULLY READ INSTRUCTIONS BEFORE PROCEEDING

OVERVIEW

The Daytona Sensors PR-i system is 50 states street legal for use with the following applications:

- P/N 101001 PR-i module has ARB E.O. No. D-641-7 for 1957-1974 Chevrolet, 1956-1974 Pontiac, and 1957-1974 Oldsmobile V8 single points distributors
- P/N 101002 PR-i module has ARB E.O. No. D-641-7 for 1957-1974 Ford V8 single points distributors

The PR-i system replaces mechanical breaker points on older vehicles with a modern electronic module. Installation of the PR-i system eliminates the requirement for periodic breaker points replacement. The PR-i module uses a Hall effect sensor to detect the points cam lobes and provides very stable spark timing. Since the unit is not subject to "points bounce" at high RPM, the useable RPM range is extended. The unit includes a precise digitally set RPM limiter with 200 RPM steps from 5,200 to 7,000 RPM. Electronic dwell control affords maximum ignition energy at high RPM and reduced current draw at low RPM. Mechanical (centrifugal) and vacuum advance mechanisms continue to function the same as with the original breaker points and timing advance curves are unaffected. The unit mounts in place of the original equipment breaker points allowing easy on-vehicle installation without removing or disassembling the distributor. No shutter or magnet wheel is required. The unit is compatible with most original equipment coils and has a simple two wire hookup to the coil. Our P/N 101003 PR-i high energy ignition coil is recommended for maximum spark energy.

PREPARATION

Start by inspecting your ignition system. The rotor and cap should be replaced with original equipment specification parts to avoid possible arcing and clearance issues. We recommend that you also replace the spark plugs and spark plug wires.

CAUTION: Do not use solid copper spark plug cables or non-resistor type spark plugs. The unit may misfire.

Vehicles with original equipment breaker points ignition use ballast resistance to limit coil current. Ballast resistance can be in the form of an external ceramic ballast resistor or resistance wire between the COIL+ terminal and the ignition switch or internal resistance within the coil.

The PR-i system requires proper ballast resistance. Before proceeding with installation, test for proper ballast resistance and observe the coil notes:

1. Disconnect all wires going to the COIL- terminal. Turn on the ignition switch but do not crank the engine. Use a volt meter to measure the voltage between the COIL+ terminal and chassis ground. The reading should be close to 12 volts. Momentarily jumper the COIL- terminal to chassis ground. If the reading at the COIL+ terminal drops below 9 volts, your system has external ballast resistance. If the voltage does not drop below 9 volts, proceed to step 2. **Note: if you are replacing the coil, you do not require any additional ballast resistor that may be supplied with the coil.**
2. Disconnect all wires going to the coil terminals. Use an ohm meter to measure the resistance between the COIL- and COIL+ terminals. If the resistance is greater than 3 ohms, your coil has internal ballast resistance. **Note: if you are replacing the coil with a low resistance coil, such as our PR-i high energy ignition coil, you must add a two terminal ballast resistor such as BWD RU-12, Echlin ICR23, or Wells CR107 between the COIL+ terminal and the ignition switch as shown in Figure 3.**

INSTALLATION

1. Turn off the ignition switch and disconnect the battery ground cable before proceeding.
2. Remove the original equipment breaker points, condenser, and wire going to the COIL- terminal. Do not remove any ground strap between the breaker points plate and distributor base plate. Clean the breaker points plate. Lubricate the advance mechanism with WD-40 and verify that no parts are missing or binding.

- Use a small flat screwdriver to set the PR-i module RPM limit switch to a safe value for your engine:

Switch Setting	RPM Limit
0	5,200
1	5,400
2	5,600
3	5,800
4	6,000
5	6,200
6	6,400
7	6,600
8	6,800
9	7,000

- For proper orientation of the PR-i module, refer to Figure 1 for Chevrolet (clockwise distributor rotation), Figure 2 for all other GM (counter-clockwise distributor rotation), or Figure 3 for Ford applications. PR-i module P/N 101001 has two sets of mounting holes. The most clockwise set is used for Chevrolet applications.

- Apply the supplied thermal grease to the bottom of the PR-i module. Use the supplied 8-32 socket head cap screws to secure the PR-i module. Align the PR-i module as close to the points cam as possible without it touching the outer cam lobes.

- For all Chevrolet and GM, install the supplied grommet in the cable exit hole and then slide the PR-i wire harness through it. Hint: use a length of scrap wire taped to the end of the harness as a leader. For Ford, slide the wire harness through the grommet first. Route the PR-i wire harness away from the rotor and other moving parts within the distributor as shown and secure it with a supplied tie wrap (not required for Ford).

- If you are replacing the coil, install the new coil and any required ballast resistor.

- Connect the red and yellow wires from the PR-i module to the COIL+ and COIL- terminals as shown in Figure 4 using the supplied ring terminals.

- Reinstall the distributor rotor and cap. Make sure all spark plug wire connections are secure.

- Reconnect the battery. Start the engine and set ignition timing to manufacturer's specifications. Note: dwell meter reading are not relevant with an electronic ignition such as the PR-i system and should be ignored.

Figure 1 – Chevrolet Installation



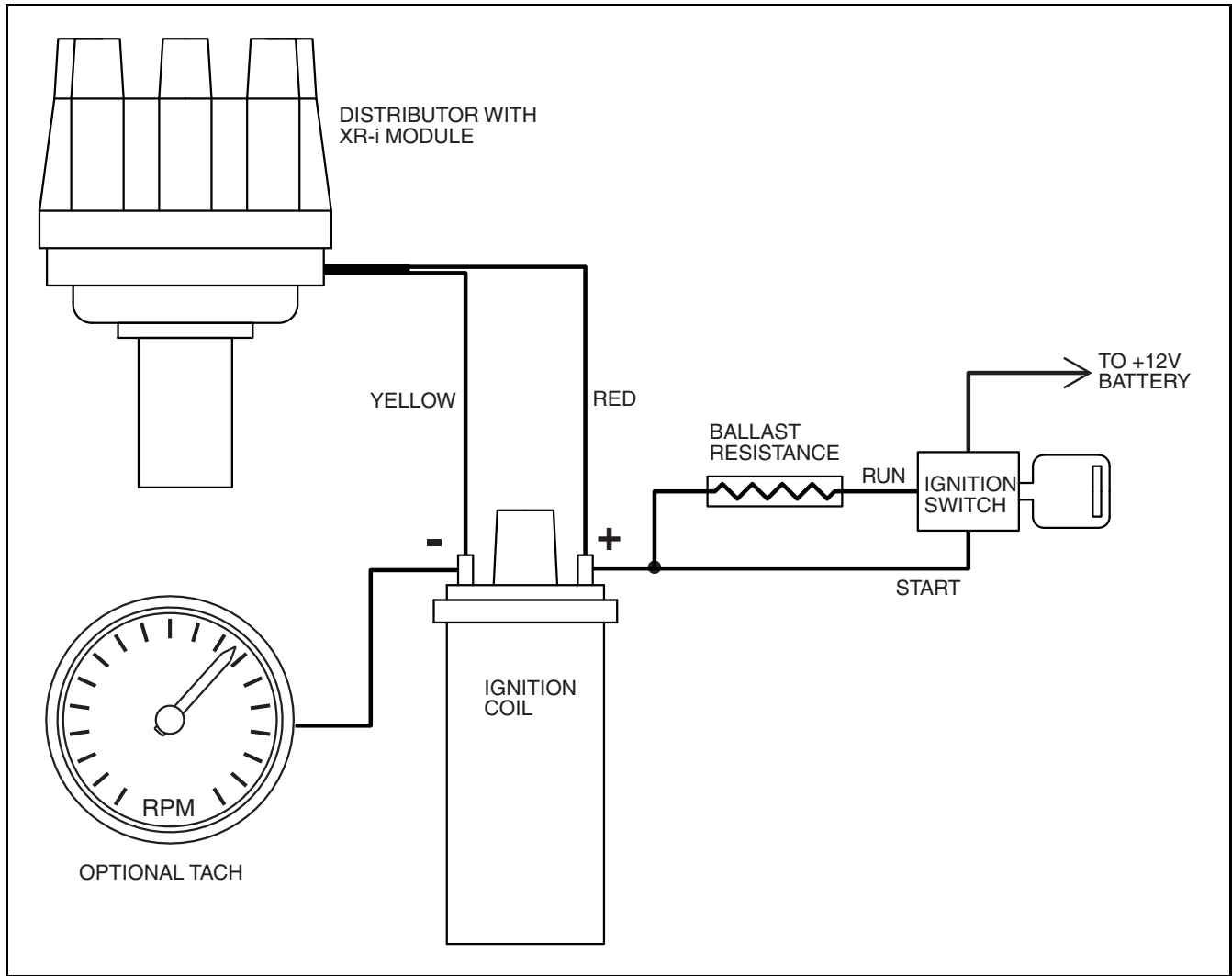
Figure 2 – Other GM Installation



Figure 3 – Ford Installation



Figure 4 – PR-i Hookup



TROUBLESHOOTING

Experience has shown that most units returned for warranty are OK and another problem, such as improper ballast resistance or a defective coil, is later identified.

ENGINE WILL NOT START

1. Turn on the ignition switch but do not crank or start the engine. Use a volt meter to measure the voltage between the COIL+ terminal and chassis ground. The reading should be close to 12 volts. If not, recheck all electrical connections from COIL+ terminal back to ignition switch.
2. Disconnect the high voltage coil wire from the center of the distributor cap and connect it to a test spark plug or place it ¼" away from ground. Crank the engine. If you observe sparks firing, the PR-i module and coil are functioning properly. Possible problems preventing the engine from starting include rotor missing, incorrect timing (distributor was moved), improper firing order (spark plug wires were changed), or defective rotor, cap, spark plug wires, or spark plugs.
3. If no sparks are observed in step 2, connect a test light between the COIL- terminal and chassis ground. Crank the engine. If you observe the test light flashing, the PR-i module is functioning correctly but the ignition coil is defective.
4. If the test light does not flash in step 3, disconnect any wires to the COIL- terminal except the yellow wire from the PR-i module. Crank the engine. If

you observe the test light flashing, the PR-i module is functioning correctly but a short circuit exists in the additional wiring or devices that were connected to the COIL- terminal.

5. If the test light does not flash in step 4, replace the ignition coil. Crank the engine. If the test light still does not flash, the PR-i module is improperly installed or defective.

ENGINE OPERATION INTERMITTENT OR ROUGH

1. Recheck all electrical connections. Look for corroded terminals and broken wires.
2. If you have not already done so, replace distributor rotor and cap, spark plugs, spark plug wires, ignition coil, and ballast resistor. Verify that spark plugs are correct heat range and gap size.
3. Check distributor advance mechanism for proper operation. Check vacuum hoses for cracks and proper connections. Note that a clogged fuel filter or stuck PCV valve can cause symptoms similar to ignition problems.

TACHOMETER INOPERATIVE OR ERRATIC

1. The tachometer is connected to the COIL- terminal. Trace tachometer signal wiring from COIL- terminal back to tachometer. Look for corroded terminals and broken wires. Refer to your service manual for wiring details.
2. If the tachometer is erratic or reads high, you may need to reduce the signal level by adding a resistor in series with the tachometer signal wire. Please contact our tech support for details.