

IGNITION SYSTEMS



Sierra's Ignition Product Offering

- 66 Ignition Coils
- 28 Condensors
- 32 Contact Sets
- 32 Distributors
- 32 Distributor Caps
- 14 Distributor Accessories
- 24 Ignition Conversion Kits
- 32 Ignition Sensors and Pickups
- 77 Ignition Wire Sets
- 24 Stators
- 25 Rotors
- 53 Power Packs/ Switchboxes



Ignition Systems

Sierra pioneered the marine aftermarket and set the standards for quality, reliability, and performance with our ignition parts – the highest quality on the market. Most have exceeded the quality and performance of the OEM parts they were designed to replace and have become the technician's product of choice



Ignition Systems

Sierra parts compare to competitors because Sierra parts are OEM quality and fit. This means no extra steps or effort needs to be taken to make our parts fit.

Sierra parts are backed by our Best in the Business Limited Lifetime Warranty!



The Best in the Business

- Limited lifetime
- We pay parts and labor
- We pay incidental charges
- We pay your posted shop rate

the best in the business
Sierra
WARRANTY

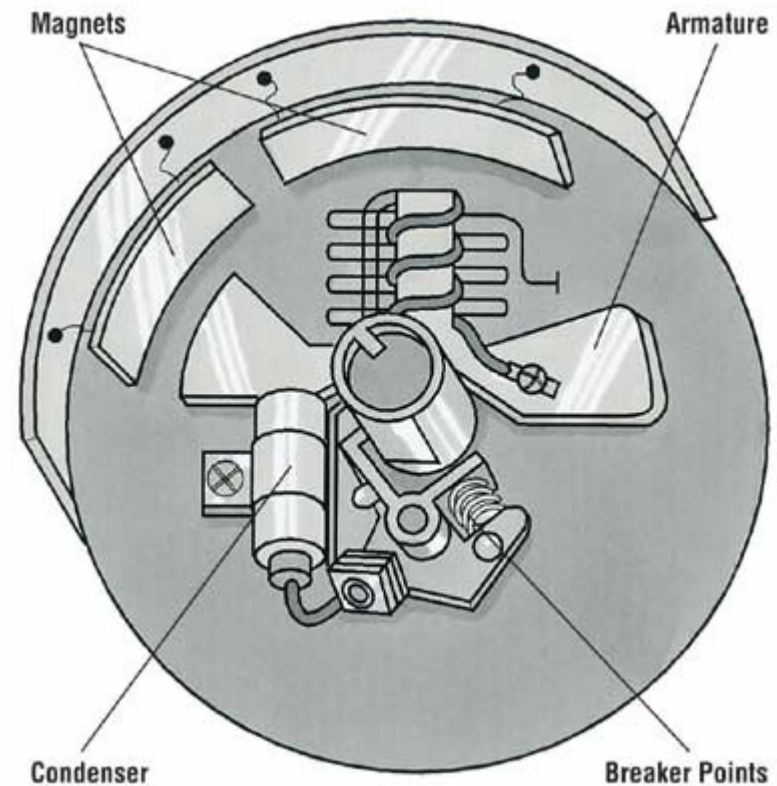
noweaklinks



Ignition Systems

Outboard

- Magneto
- Capacitor Discharge Ignition (CDI)
- Alternator Driven Ignition (ADI)



CDI System



- Introduced by OMC in 1971.
- CDI-stands for capacitor discharge ignition system.
- simply stores electricity in a capacitor (power pack, switch box) until discharged to the coil.
- Results in higher voltage-40,000V and up.
- Faster spark-6 micro seconds compared to 50 micro seconds for magneto ignition.
- Uses timer base and sensor to tell power pack when to fire.

ADI System

Used by Mercury on most larger horsepower applications

ADI-stands for alternator driven ignition

Has both low and high speed windings in the stator

Low speed windings for up to 2,000 rpm

High speed windings for over 2,000 rpm

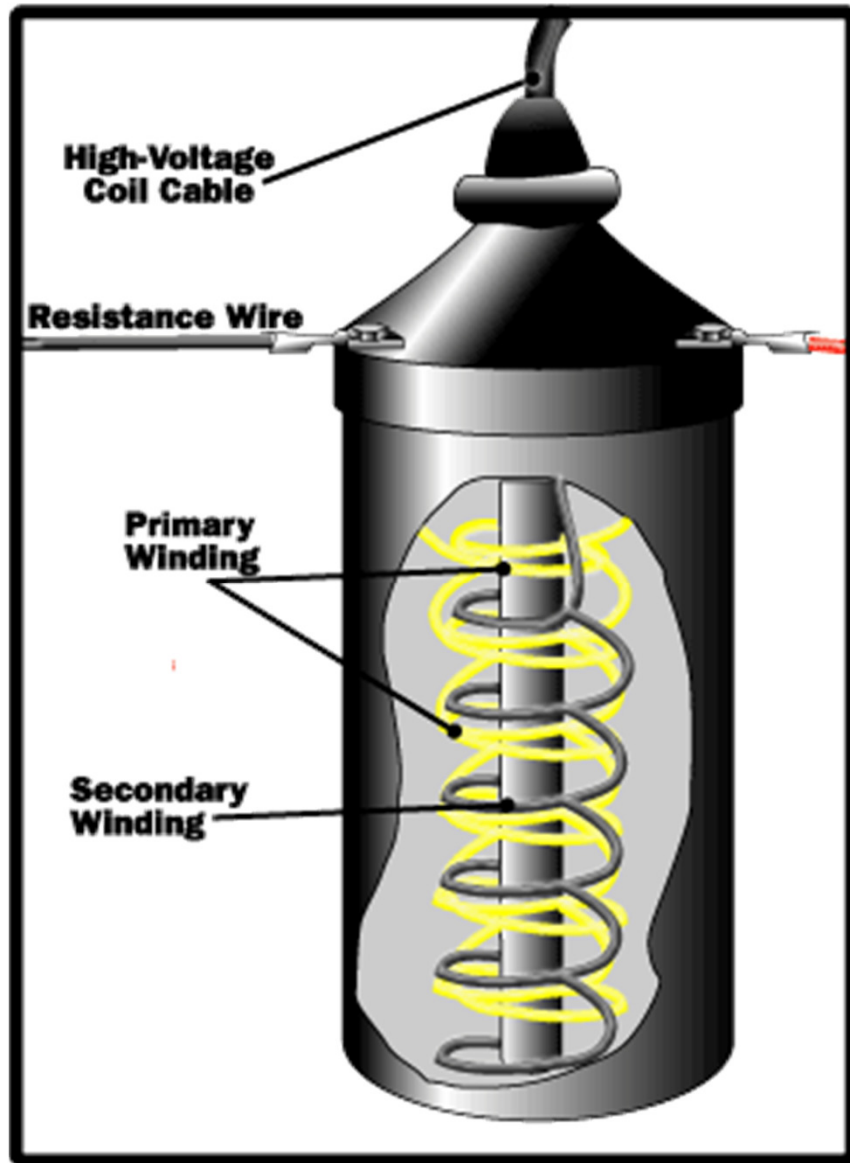


Battery Ignition

- Used in I/O and Inboard applications
- Consists of the following:
 - Coil (either oil filled or epoxy)
 - Distributor
 - Points and Condenser (conventional)
 - Electronic
 - HEI-High Energy Ignition
 - Delco EST & HVS



Ignition Coils



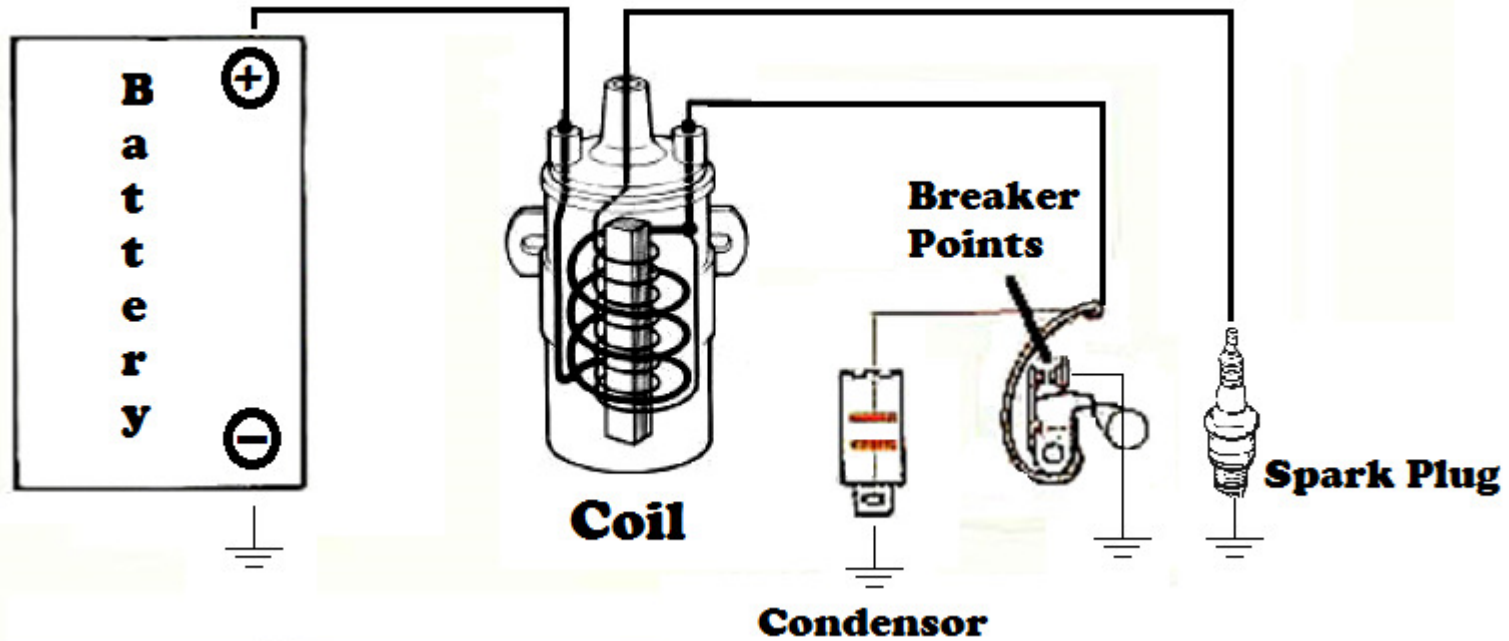
Traditional - oil filled
Current flows from the battery through the primary winding of the coil

The primary coil's current can be suddenly disrupted by the **breaker points**, or by a solid-state device in an electronic ignition which induces a high voltage into the secondary windings that is sent through the coil cable.



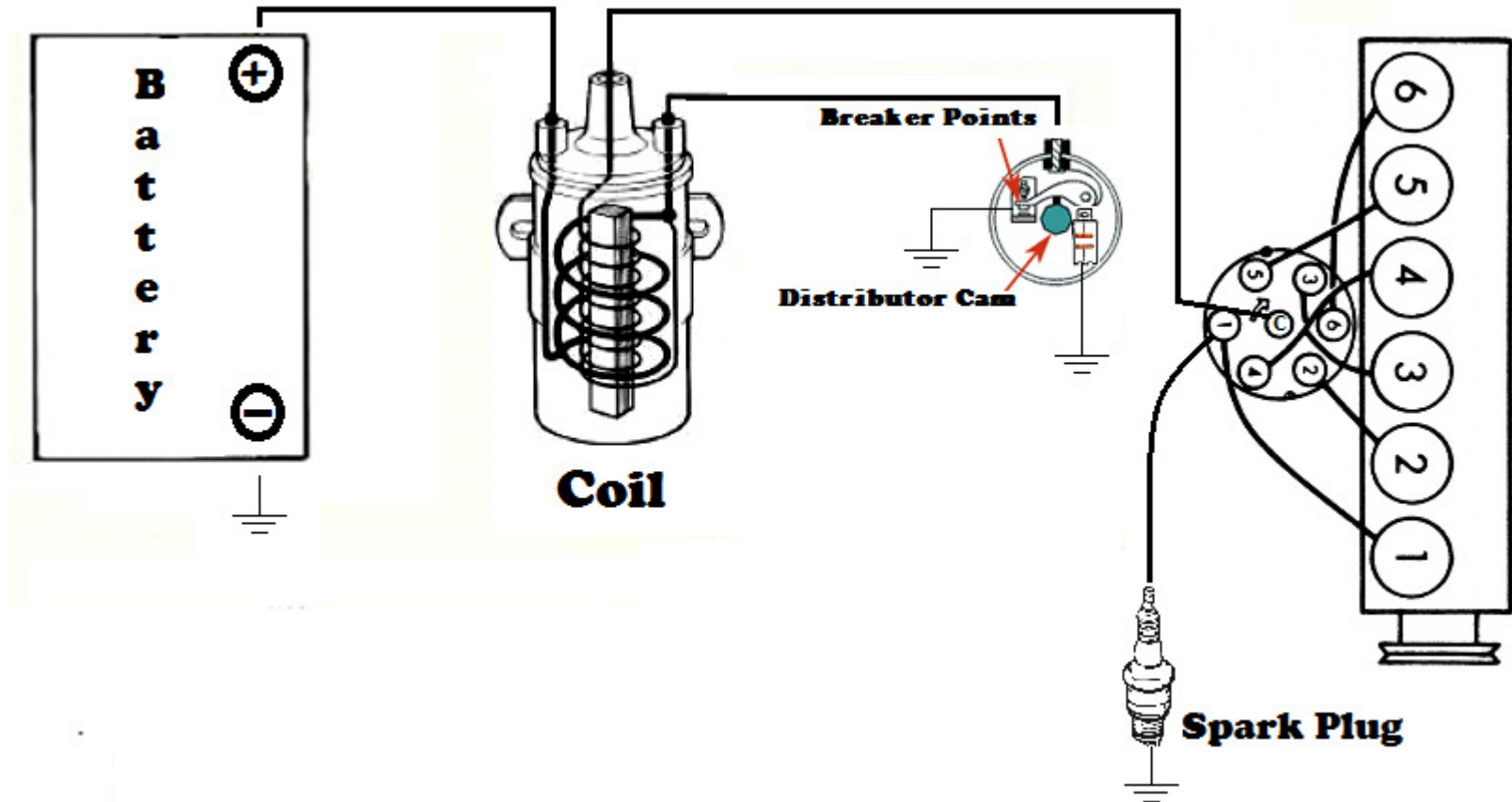
Ignition Systems

Inboard/Inboard Outdrive (I/O)
– Conventional (Points)



Ignition Systems

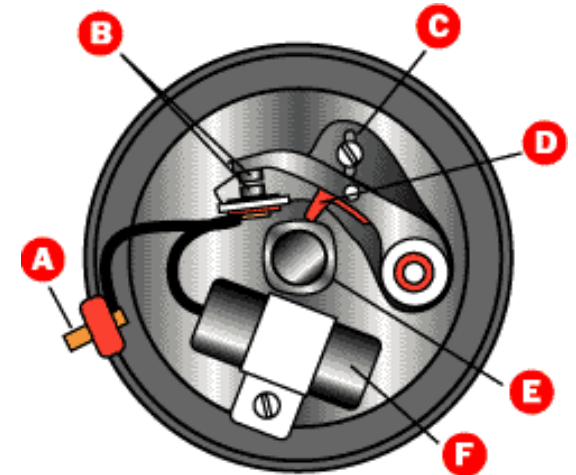
Add a Distributor



Conventional Ignition Systems

Common Problems with a conventional ignition system are:

- Points wear and erode (poor current flow and sloppy timing)
- Points limit power input to coil (limiting coil output)
- Point dwell limits and "point float" or "bounce" limit high power at high RPM
- Mechanical Advance wears
- Points get wet and stop working altogether

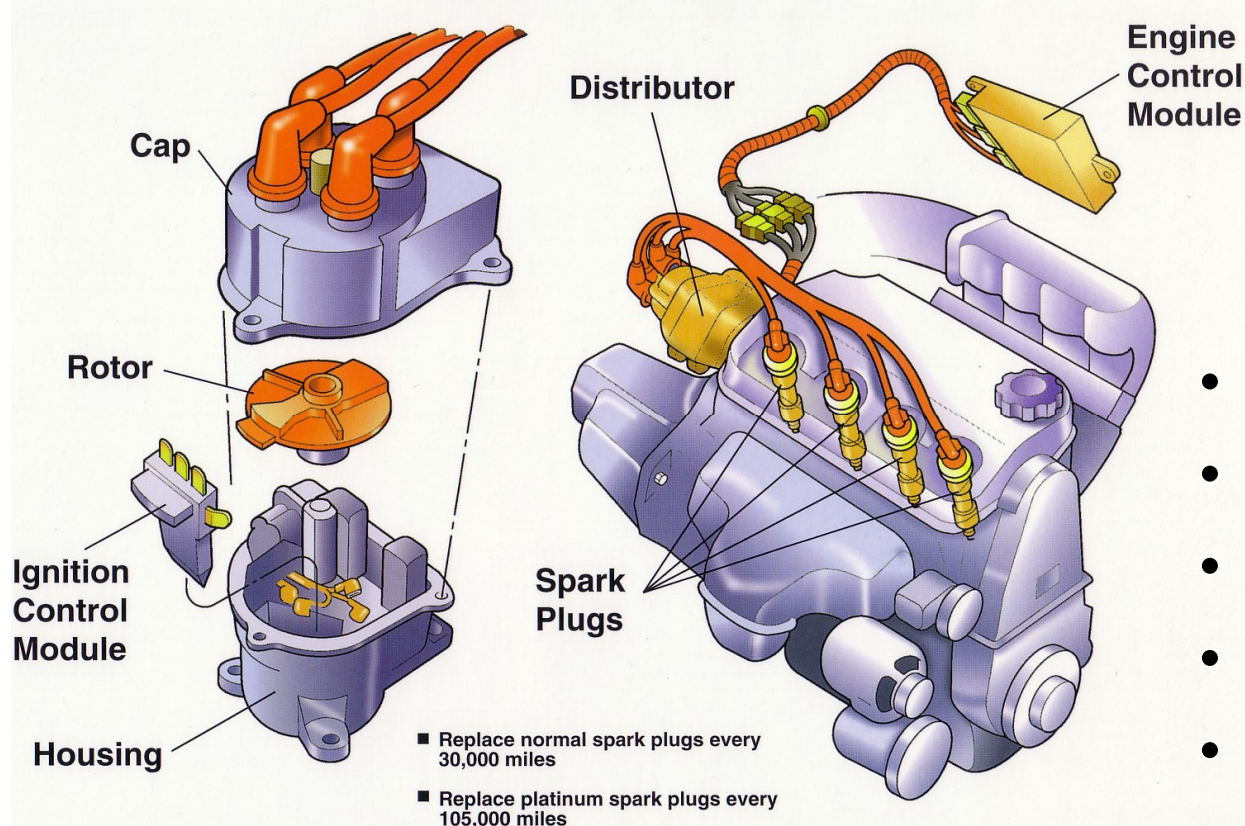


© 2001 HowStuffWorks, Inc.

- A** Connection to coil
- B** Breaker points
- C** Adjusting screw
- D** Cam follower
- E** Distributor cam
- F** Condenser



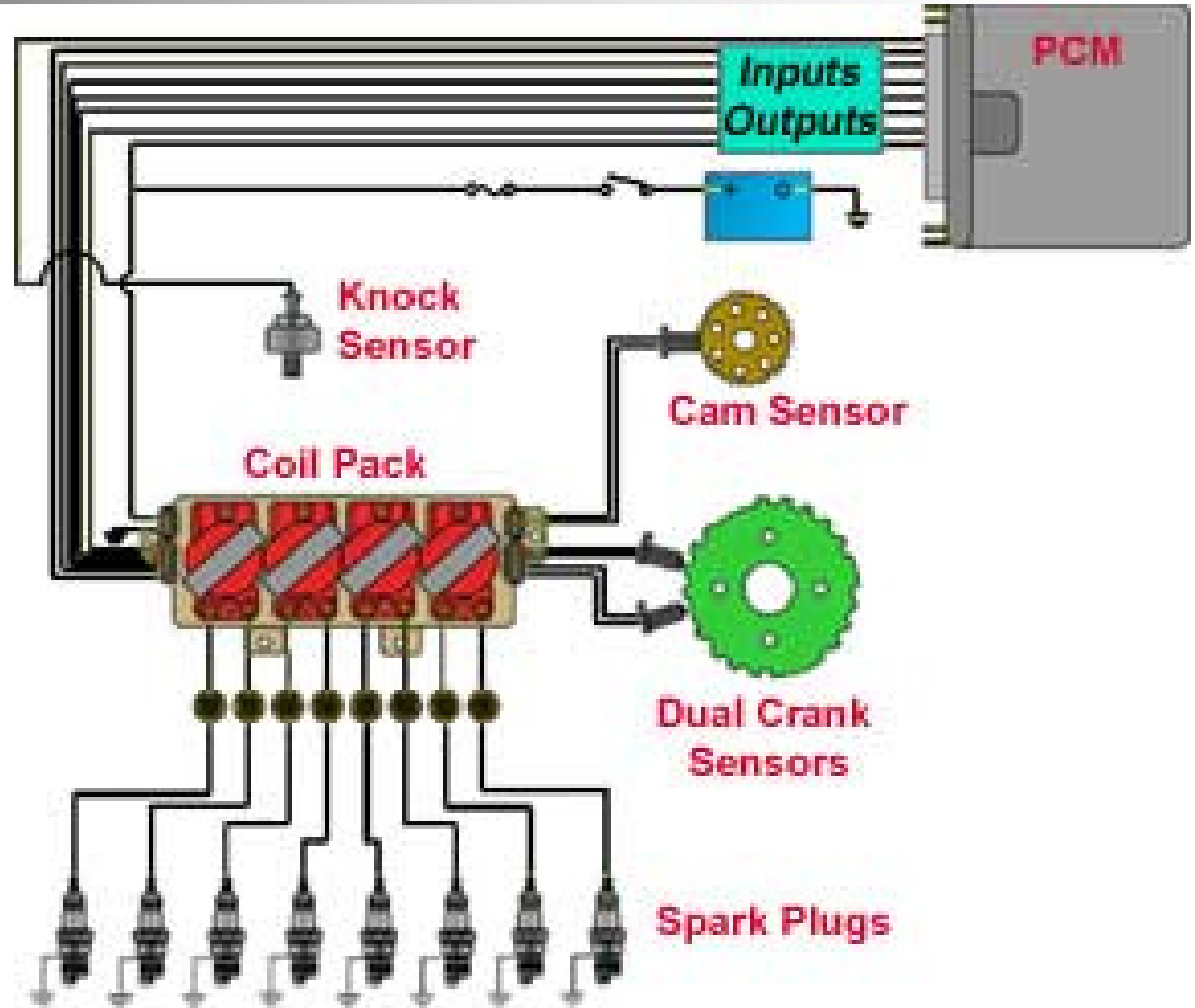
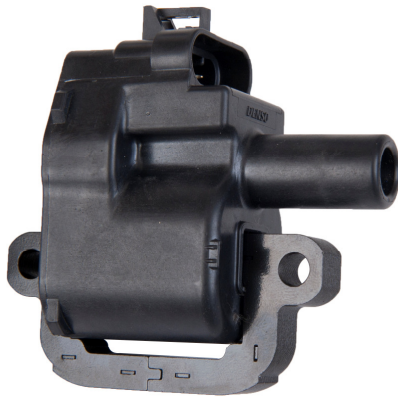
Electronic Ignition System

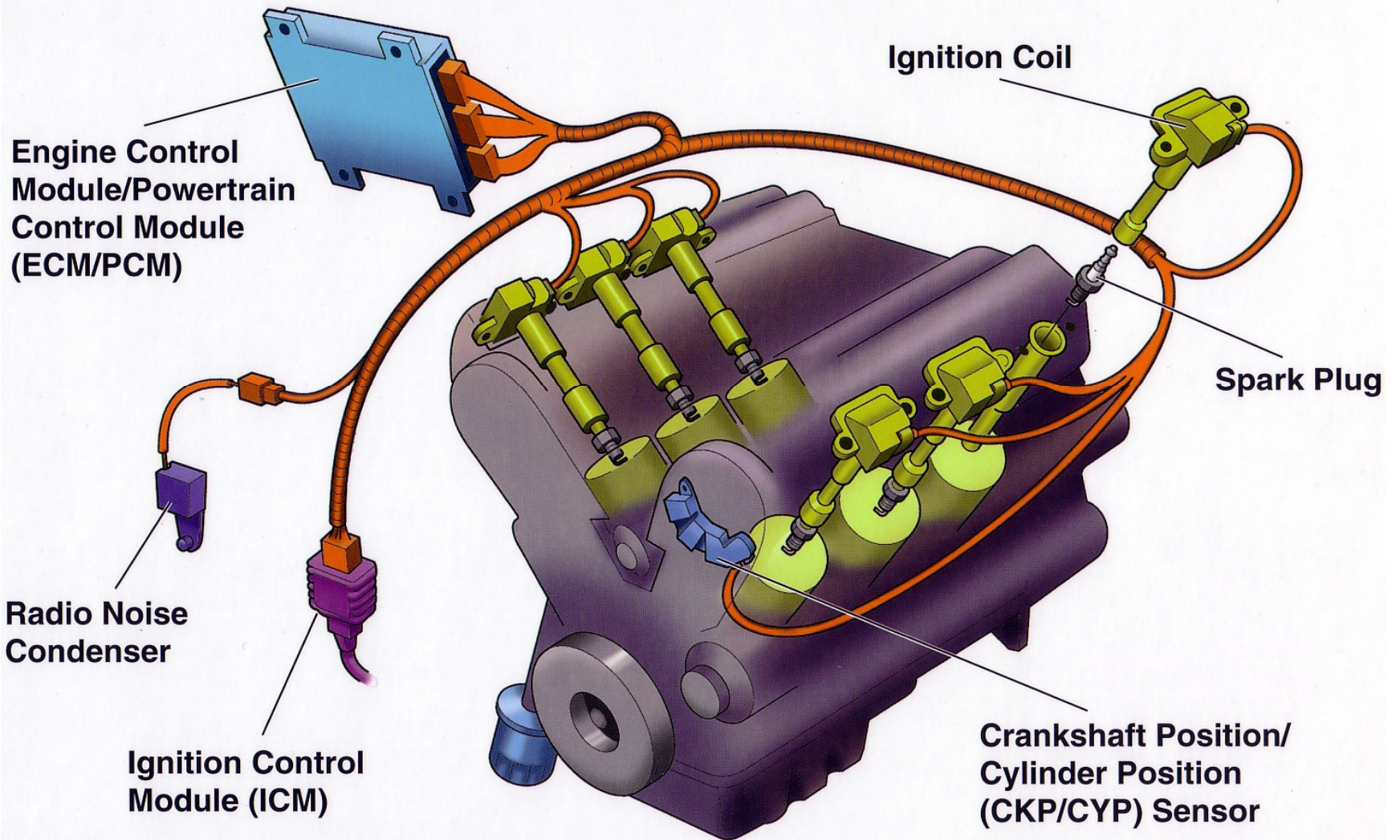


- Maintenance Free
- No moving Parts
- Accurate Timing
- Improved Starting
- Hotter Spark
- Durable – Long Lasting

Distributorless Ignition

Modern Ignition





Mallory Marine Products

- Most products carried over into Sierra Product line
- Mallory name will only be branded on select ignition products such as distributors

