

# Points Conversion Ignitions

## XR700 Points-To-Electronic Ignition

- Converts points type distributors to electronic ignition!
- Increased timing accuracy.
- Replaces many Bosch, Lucas, Hitachi and ND units.
- All new status LED light for easy diagnostics.
- Fully potted for protection from dirt, moisture and vibration.
- Optical trigger for precise ignition timing!
- More powerful signal than points type
- Most reliable of its type
- 6th generation of reliability
- Short circuit proof
- Positive ground compatible
- 50 State Legal

## Applications

Description	Part No.
<b>XR700 System</b>	
For Domestic 4, 6 and 8 Cylinder and VW/Bosch "009" Distributor Applications. 12 Volt Negative or Positive Ground. For 1975 and earlier vehicles. <b>CARB E.O. D-47-2</b>	<b>700-0226</b>
For Import and Universal 4, 6 and 8 Cylinder Applications. 12 Volt Negative or Positive Ground. For 1975 and earlier vehicles. <b>CARB E.O. D-47-2</b>	<b>700-0231</b>
For 1974-83 Imports with 4 and 6 cylinder engines equipped with Bosch, Hitachi, or Nippondenso OE Electronic Ignition Modules. For applications where the OE module has failed and must be eliminated. See applications chart for details. <b>CARB E.O. D-47-3.</b>	<b>700-0292</b>
For 1979-83 British imports with 4, 6 and 8 cylinder engines equipped with Lucas OPUS distributors. For applications where the OPUS module has failed and must be eliminated. OPUS system has three wires on OE pickup. If pickup has two wires, you have a conventional magnetic pickup distributor and cannot install an optical trigger. You must use an HI-6R ( <b>Pt. No. 6000-6400</b> ) connected directly to the magnetic pickup in the Lucas distributor. <b>CARB E.O. D-47-3.</b>	<b>700-0300</b>
For Mallory YL Dual Point and Unilite Distributor applications only. For 1975 and earlier vehicles. <b>CARB E.O. D-47-3</b>	<b>700-0309</b>

## Recommended Coils

Description	Part No.
PS20, Black, Canister Style	730-0020
PS40, Chrome, Canister Style	730-0040



## Specifications

<b>Operating voltage</b>	6 to 18 volts, reverse polarity protected, negative or positive ground. Not compatible with 6 volt electrical systems as these may drop below 4 volts during cranking.
<b>Coil current limit</b>	4.5 amps (externally limited by ballast resistor on XR700). Internal short circuit protection limit set at 7 amps.
<b>RPM range</b>	6,000 RPM (RPM range higher for 4 and 6 cylinder engines).
<b>Primary voltage output</b>	400 volts (inductive discharge)
<b>Primary energy output</b>	60 millijoules with PS20/40 coil.
<b>Peak spark gap current</b>	60 milliamps with PS20/40 coil.
<b>Spark duration</b>	300 microseconds at 6,000 RPM
<b>Dimensions</b>	3-1/2"L x 3"W x 1-1/2"H, 1 lb.



## XR700 Replacement Parts

### And Optional Accessories

**A. XR700 Ignition Module**

For 12 Volt Negative or Positive Ground (does not include optical trigger or required installation kit)

**Part No. 700-0001**

**B. Optical Trigger**

For XR700 (requires installation kit sold separately)

**Part No. 700-0020**

**C. XR700 Ignition Module and Optical Trigger**

For 12 Volt Negative or Positive Ground (requires installation kit sold separately)

**Part No. 700-0021**

**D. Installation Kits**

**Part No. 700-2226**

Includes shutters and brackets for installation of optical trigger on domestic 4, 6 and 8 cylinder and VW/Bosch "009" breaker point distributor applications.

**Part No. 700-2231**

Includes shutters and brackets for installation of optical trigger on most import 4, 6 and 8 cylinder breaker point applications. Also used as universal installation kit for many other breaker point applications.

**Part No. 700-2292**

Includes shutters and brackets for installation of optical trigger on 1974-83 imports with 4 and 6 cylinder engines equipped with certain Bosch, Hitachi, or Nippondenso OE Electronic Ignition Modules. For applications where the OE module has failed and must be eliminated.

**Part No. 700-2300**

Includes shutters and brackets for installation of optical trigger on 1979-83 British imports with 4, 6 and 8 cylinder engines equipped with Lucas OPUS distributors. For applications where the OPUS module has failed and must be eliminated. Note that the HI-6S is not compatible with 12 cylinder engines.

**Part No. 700-2309**

Includes shutters and brackets for installation of optical trigger on Mallory YL Dual Point and unilite 8 cylinder distributor applications.



A.



B.



C.



D.

## TECH TIPS: BALLAST RESISTANCE

### How can I tell if my vehicle has ballast resistance?

Here's a quick test for ballast resistance. run the engine at fast idle and measure battery voltage using a volt meter. It should be about 14 volts. Then measure the voltage at the COIL+ terminal. If there is a difference of more than 3 volts, a ballast resistor is present.

### When is a ballast resistor required?

A ballast resistor is required only with XR700 systems. Without proper ballast resistance, the XR700 and coil will overheat and fail. All vehicles with original equipment points ignition are factory equipped with ballast resistance. This can be in the form of a ceramic ballast resistor or a resistance wire between the ignition key and COIL- terminal. It can also be in the form of internal resistance within the coil, such as Bosch® blue coils (typical on VW) and Lucas® coils found on older British vehicles.

### What do I need to do about ballast resistance when installing an XR700?

If the vehicle had points and you are keeping the original coil, you do not need to do anything else. If you are changing coils and your vehicle has a ceramic ballast resistor or resistance wire, everything should still be OK. follow the coil installation instructions.

If you are changing coils and your original coil had internal ballast resistance, you must add a ballast resistor (usually supplied with the coil). Use a volt-ohmmeter to check the original coil. Coils with internal ballast resistance will read at 3 ohms or more.