INSTALLATION INSTRUCTIONS

UNILITE® DISTRIBUTOR

This product is applicable to pre-1966 California and pre-1968 federally certified passenger cars. It is also applicable to non-emission controlled trucks and similar vehicles. It is not applicable or intended for use on any emission controlled vehicles operated on highways or roads, unless otherwise noted.

IMPORTANT

Before installing the UNILITE® Distributor, make sure that your vehicle is equipped with an ignition ballast resistor (or loom resistance wire) in the wire between the ignition switch and the coil (+) terminal. Check a service manual for your vehicle to locate the ignition ballast resistor (or loom resistance wire). If your vehicle is not equipped with an ignition ballast resistor, install a Mallory Ignition Ballast Resistor Part No. 700 in the wire between the ignition switch and the coil (+) terminal. *Failure to use an ignition ballast resistor will eventually destroy the UNILITE® Ignition Module.*

PARTS INCLUDED IN THIS KIT: 1 UNILITE® Distributor 1 Distributor Wire Harness

GENERAL INFORMATION

Advance Curve:
Most UNILITE® Distributors with part numbers that end in "01" have 24° (crankshaft degrees) of mechanical advance (between 3,000 and 3,200 RPM). Listed below are exceptions:

CHEVY LUV	28° AT 3,000 RPM
CHEVY VEGA	20° AT 3,800 RPM
CHRYSLER SB V8	20° AT 3,000 RPM
FLAT HEAD FORD V8	16° AT 3,600 RPM
MODEL A FORD	18° AT 2,000 RPM
MODEL B FORD	14° AT 2,500 RPM
VW RABBIT, DASHER	28° AT 4,600 RPM
CHEVY V6 2.8L AND 3.1L	24° AT 4,400 RPM

Ignition Coils:
The UNILITE® Ignition system works with most stock ignition coils and aftermarket high performance ignition coils. For optimum performance, use a Mallory PROMASTER® Coil Part No 29440 or 29625, or Mallory Chrome Electronic Ignition Coil Part No. 29216.

Spark Plug Wires:
To prevent false triggering and premature ignition failures, use suppression type spark plug wire. We recommend spiral core ignition wire, such as Mallory PRO SIDEWINDER® Ignition Wire.

Spark Plug Gaps:
For street applications, use your engine manufacturer's specifications. For racing applications, start with your engine manufacturer's specifications. Then experiment with, and closely monitor, various gaps to achieve maximum performance.

Electric Welding:
Disconnect the distributor wire harness before welding on the vehicle.
NOTE: When replacing an HEI type distributor, it may be necessary to purchase and install distributor boots and terminals for the spark plug wires to correctly fit the UNILITE® Distributor cap.
Part No. 668 HEI to UNILITE® Boot Terminal Kit

OLD DISTRIBUTOR REMOVAL

Step 1
Disconnect the trigger wire from the coil (-) terminal. Locate the spark plug wire on the original distributor cap that that is used to set engine timing. See a service manual for this location. Mark the distributor cap and distributor housing at this spark plug wire position.

Step 2
Turn the engine crankshaft in the direction of rotation until the timing mark lines up with the top dead center (TDC) mark on the timing tab. See a service manual for these locations.

Step 3
Remove the distributor cap from the distributor. Do not remove the spark plug wires or coil wire at this time. Make sure the rotor blade points to the mark made on the distributor housing (from Step 2). If it does not, repeat Step 2 until the timing mark lines up (again) with the TDC mark on the timing tab.
NOTE: Once you are finished with Step 3, DO NOT turn the crankshaft until the new distributor is installed.

Step 4
Note the direction that the rotor is pointing. If you are replacing a vacuum advance distributor, note the direction the vacuum chamber is pointing. Remove the distributor hold down clamp and remove the distributor from the engine.
CAUTION: Leaving the key on without the engine running will result in damaging the Ignition Module and the coil. If you must have the key on unplug the distributor at the white connector first.

UNILITE® DISTRIBUTOR INSTALLATION

Step 1
Remove the distributor cap from the UNILITE® Distributor.

Step 2
Place the UNILITE® Distributor in the engine. Rotate the UNILITE® Distributor housing in the opposite direction of rotor rotation until the nearest slot on the rotor's shutter wheel is aligned with the optical eye of the UNILITE® Module. This will generally give timing close enough for starting purposes. Put the distributor hold down clamp in place and tighten slightly, leaving it loose enough to turn the UNILITE® Distributor. Make a mark on the UNILITE® Distributor housing where the rotor points.

Step 3
Install the UNILITE® Distributor cap. Remove the spark plug wire on the original distributor cap that the engine timing is set from, and install it onto the UNILITE® Distributor cap post above the mark on the UNILITE® Distributor housing where the rotor had pointed. Install the remaining spark plug wires from the original distributor cap to the UNILITE® Distributor cap in the same sequence.

WIRING PROCEDURE

The 3 wires coming from the UNILITE® Distributor must be connected using the distributor wire harness furnished (see Figures 1 and 2).

RED WIRE: If you use loom resistance wire, connect to the coil (+) terminal.
If you use a ballast resistor, connect to 12 volt side of ballast resistor.

GREEN WIRE: Connect to the coil (–) terminal.

BROWN WIRE: Connect to engine block ground. Clean away any grease, oil and paint from the mounting surface before the connection is made.

ADDITIONAL CONNECTIONS

Vacuum advance applications: Connect original vacuum hose to the UNILITE® Distributor vacuum chamber. Replace hose if cracked, damaged, or if it is not long enough. If the previous distributor was not equipped with vacuum advance, connect a vacuum hose to a ported vacuum outlet on the carburetor.

Tachometer operation: Connect wire or wires as recommended by the actual tachometer manufacturer.

STARTING ENGINE

CAUTION: Be sure all tools, wires and miscellaneous objects are clear of moving engine parts and extreme heat before staring the engine.

Step 1

Recheck all wires and connections to make sure they are correct. Check and clean, or replace spark plugs. If replacing spark plugs, use types recommended by the engine manufacturer.

Vacuum advance applications: Disconnect the vacuum hose to UNILITE® Distributor vacuum chamber at the carburetor and temporarily plug this carburetor fitting.

Step 2

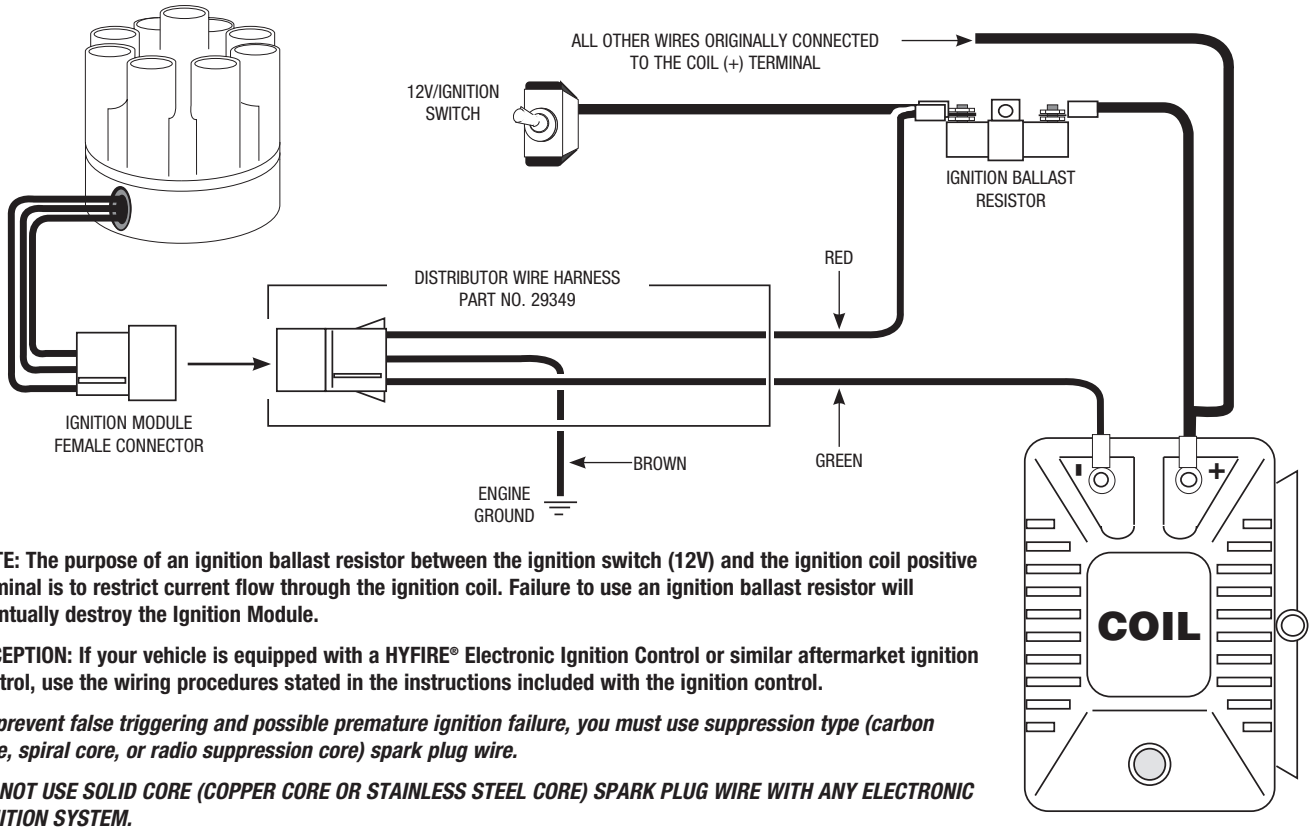
Connect a timing light and start the engine. If the engine fails to start, rotate the distributor in small increments clockwise or counterclockwise until the engine starts. Do not exceed more than ten degrees of distributor housing rotation in either direction.

Step 3

Set timing as recommended by the engine manufacturer, then tighten distributor hold down clamp. Check timing again. If timing has moved, repeat Step 3.

Vacuum advance applications: Reconnect the vacuum hose between the UNILITE® Distributor vacuum chamber and the carburetor.

FIGURE 1 UNILITE® WIRING DIAGRAM USING BALLAST RESISTOR



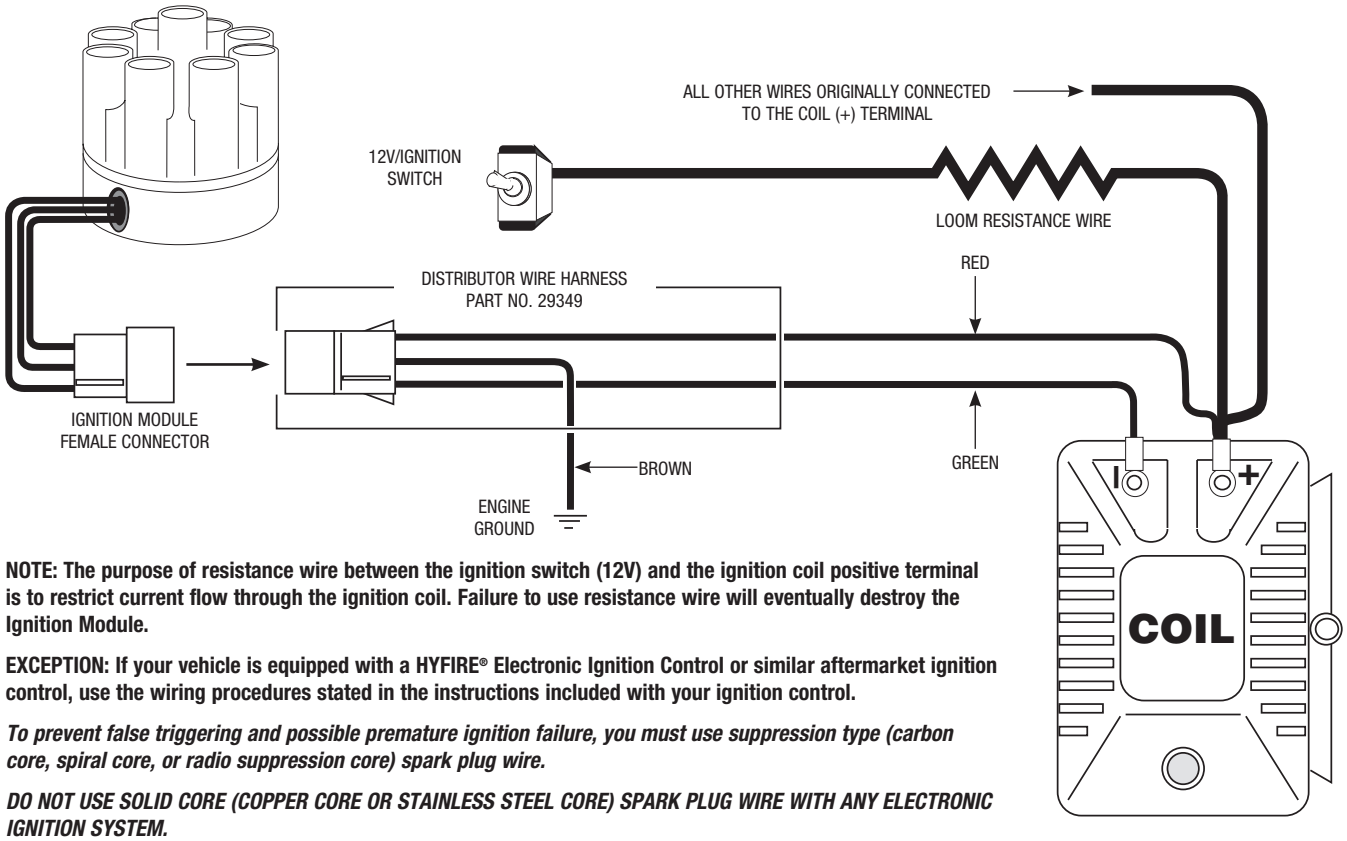
NOTE: The purpose of an ignition ballast resistor between the ignition switch (12V) and the ignition coil positive terminal is to restrict current flow through the ignition coil. Failure to use an ignition ballast resistor will eventually destroy the Ignition Module.

EXCEPTION: If your vehicle is equipped with a HYFIRE® Electronic Ignition Control or similar aftermarket ignition control, use the wiring procedures stated in the instructions included with the ignition control.

To prevent false triggering and possible premature ignition failure, you must use suppression type (carbon core, spiral core, or radio suppression core) spark plug wire.

DO NOT USE SOLID CORE (COPPER CORE OR STAINLESS STEEL CORE) SPARK PLUG WIRE WITH ANY ELECTRONIC IGNITION SYSTEM.

FIGURE 2 **UNILITE® WIRING DIAGRAM USING OEM PRIMARY RESISTANCE WIRE**



NOTE: The purpose of resistance wire between the ignition switch (12V) and the ignition coil positive terminal is to restrict current flow through the ignition coil. Failure to use resistance wire will eventually destroy the Ignition Module.

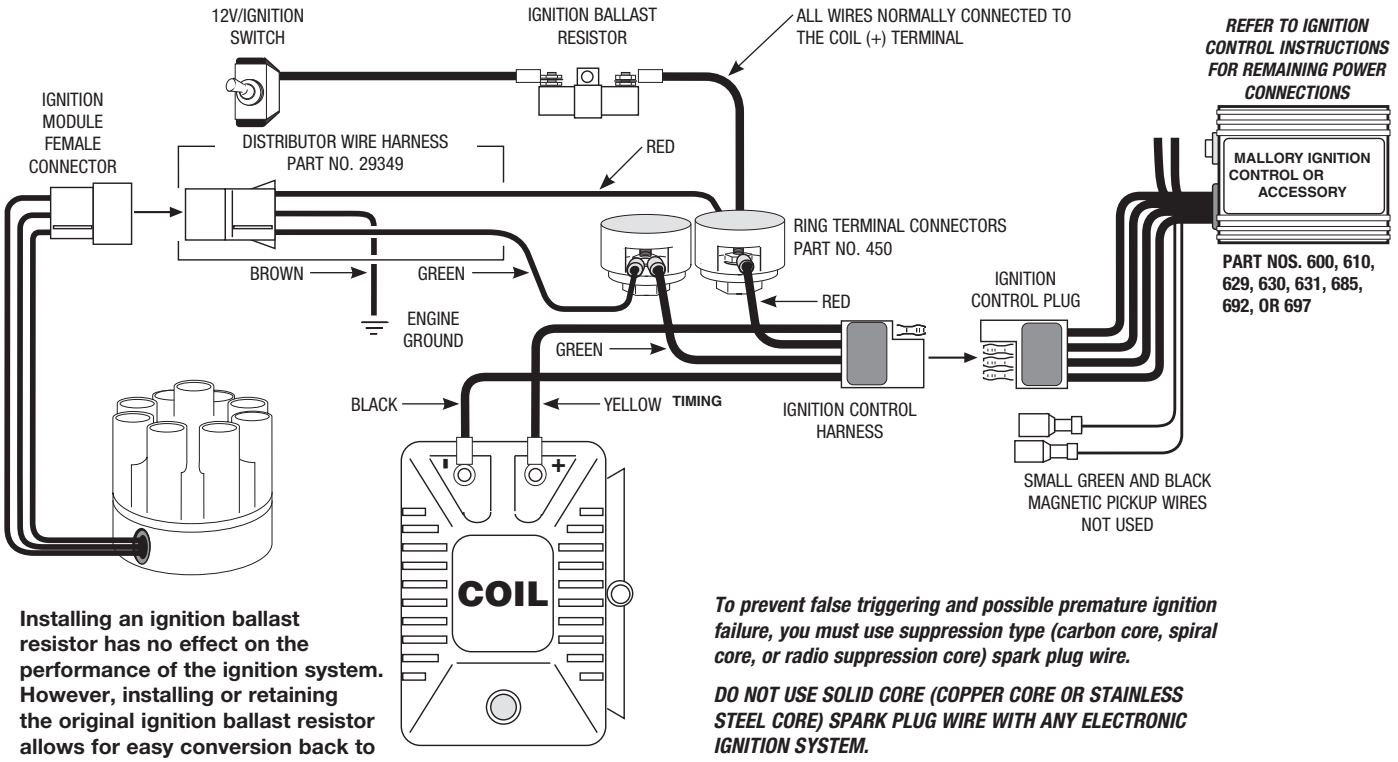
EXCEPTION: If your vehicle is equipped with a HYFIRE® Electronic Ignition Control or similar aftermarket ignition control, use the wiring procedures stated in the instructions included with your ignition control.

To prevent false triggering and possible premature ignition failure, you must use suppression type (carbon core, spiral core, or radio suppression core) spark plug wire.

DO NOT USE SOLID CORE (COPPER CORE OR STAINLESS STEEL CORE) SPARK PLUG WIRE WITH ANY ELECTRONIC IGNITION SYSTEM.

NOTE: The Red wire from the distributor would prefer to see 12v using a loom resistor makes that a little more difficult.

FIGURE 3 **WIRING DIAGRAMS USING AFTERMARKET ELECTRONIC IGNITION CONTROLS**

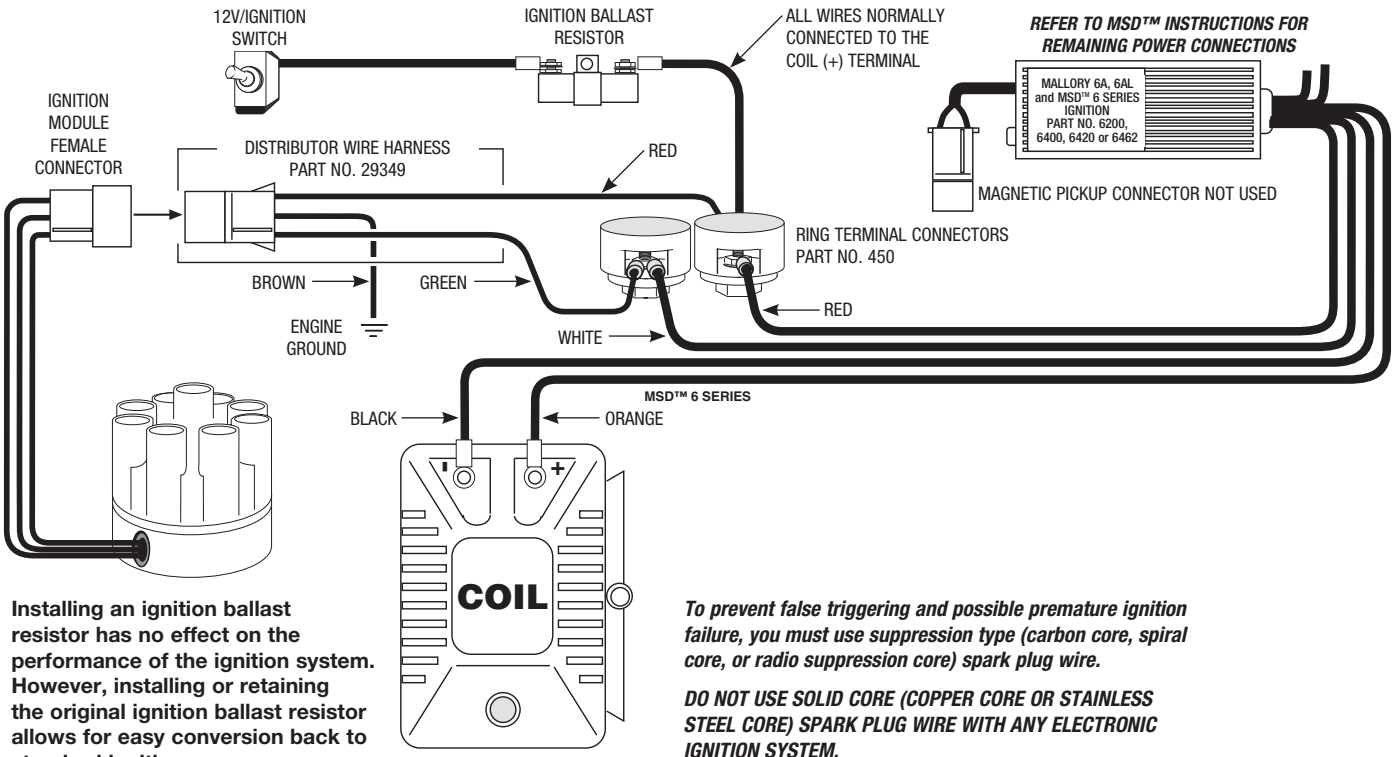


Installing an ignition ballast resistor has no effect on the performance of the ignition system. However, installing or retaining the original ignition ballast resistor allows for easy conversion back to standard ignition.

To prevent false triggering and possible premature ignition failure, you must use suppression type (carbon core, spiral core, or radio suppression core) spark plug wire.

DO NOT USE SOLID CORE (COPPER CORE OR STAINLESS STEEL CORE) SPARK PLUG WIRE WITH ANY ELECTRONIC IGNITION SYSTEM.

FIGURE 4



Installing an ignition ballast resistor has no effect on the performance of the ignition system. However, installing or retaining the original ignition ballast resistor allows for easy conversion back to standard ignition.

To prevent false triggering and possible premature ignition failure, you must use suppression type (carbon core, spiral core, or radio suppression core) spark plug wire.

DO NOT USE SOLID CORE (COPPER CORE OR STAINLESS STEEL CORE) SPARK PLUG WIRE WITH ANY ELECTRONIC IGNITION SYSTEM.

AUTOMOTIVE AND MARINE UNILITE® DISTRIBUTOR TUNE–UP PARTS

AUTOMOTIVE	DISTRIBUTOR CAP	ROTOR/SHUTTER (EXCEPT 47 SERIES)	ROTOR/SHUTTER 47 SERIES ONLY
8 CYL. (STACK CAP)	209	335	322
8 CYL. (FLAT CAP)	221	360	–
6 CYL. (37 AND 38 SERIES)	226	331	–
6 CYL. (45, 46 AND 47 SERIES)	270	339	323
4 CYL. (37 AND 38 SERIES)	225	337	–
4 CYL. (45, 46 AND 47 SERIES)	271	340	325
MARINE	(YLU SERIES ONLY)		
8 CYL. (STACK CAP)	209D	335	
8 CYL. (FLAT CAP)	221B	360	
6 CYL. (SMALL HOUSING, 3.12" O.D.)	226B	331	
6 CYL. (LARGE HOUSING, 3.65" O.D.)	270B	339	
4 CYL. (SMALL HOUSING, 3.12" O.D.)	225B	337	
4 CYL. (LARGE HOUSING, 3.65" O.D.)	271B	340	

UNILITE® MODULE, ALL MODELS: PART NO. 605
DISTRIBUTOR WIRE HARNESS, ALL MODELS: PART NO. 29349

OPTIONAL ACCESSORIES FOR THE UNILITE® DISTRIBUTOR

Active Power Filter. . . . . Part No. 29351
Helps prevent module failures due to voltage spikes associated with "noisy" electrical systems and electrical defects.

Advance Curve Change Kit . . . . . Part No. 29014
Required to change the amount and rate of advance within a range of 14° to 28°. Includes degree keys, springs, and instructions to plot advance curves.

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