DISTRIBUTOR INSTRUCTIONS

Fitting and Setting Base Timing:

Distributors are fitted with cast iron gears – check with cam manufacturer to ensure compatibility before installation.

Rotate engine by hand to compression TDC(top dead centre) on cylinder 1 – If replacing an existing distributor the rotor will point towards no. 1 terminal on the cap before removal – leaving the leads and cap connected on the engine makes transferring the leads in the correct firing order easy.

If the body of the distributor does not seat on the block, the oil pump drive may not be engaged. Slowly rock the engine by hand until the distributor drops and engages the oil pump and camshaft – return engine to TDC with the rotor pointing to no. 1 terminal.

Once the distributor is correctly seated, fit the hold down clamp firmly – still loose enough for the distributor to be turned by hand.

Connect the wiring to the distributor as per the attached wiring diagram – wiring does vary between HEI and Ready To Run distributors – both distributors must use a good known 12v feed otherwise damage may occur and warranty will be void.

Connect the ignition leads in the correct firing order – this varies engine to engine.

Once installed and firing order is verified – connect timing light and start engine. If engine will not start, turn distributor and retry – both directions may need to be tried to enable the engine to idle.

Run engine until warm and a stable idle is established and set base timing – to set base timing, disconnect and cap off vacuum line (if used), have engine running at desired idle speed when at operating temperature – rotate distributor until correct timing is shown on the balancer. Idle speed may need to be set using both timing and the throttle stop.

If a known amount of mechanical advance is desired, this can now be checked. Once confirmed, vacuum advance can be connected – ported vacuum source is recommended to minimise advance at idle

Changing Advance:

HEI distributors have adjustable vacuum advance. This is adjusted by turning a 2.5mm allen head set screw in the vacuum port. Turning the screw clockwise will increase the amount of vacuum advance – this will need to be tuned to the engine/vehicle/driving style.

If pinging/detonation evident under light throttle – remove vacuum advance. If pinging/detonation is evident under load or higher RPM retard base timing.

Mechanical advance can also be adjusted on both distributors – spring and weight kits are available from many suppliers to modify the curve if needed.

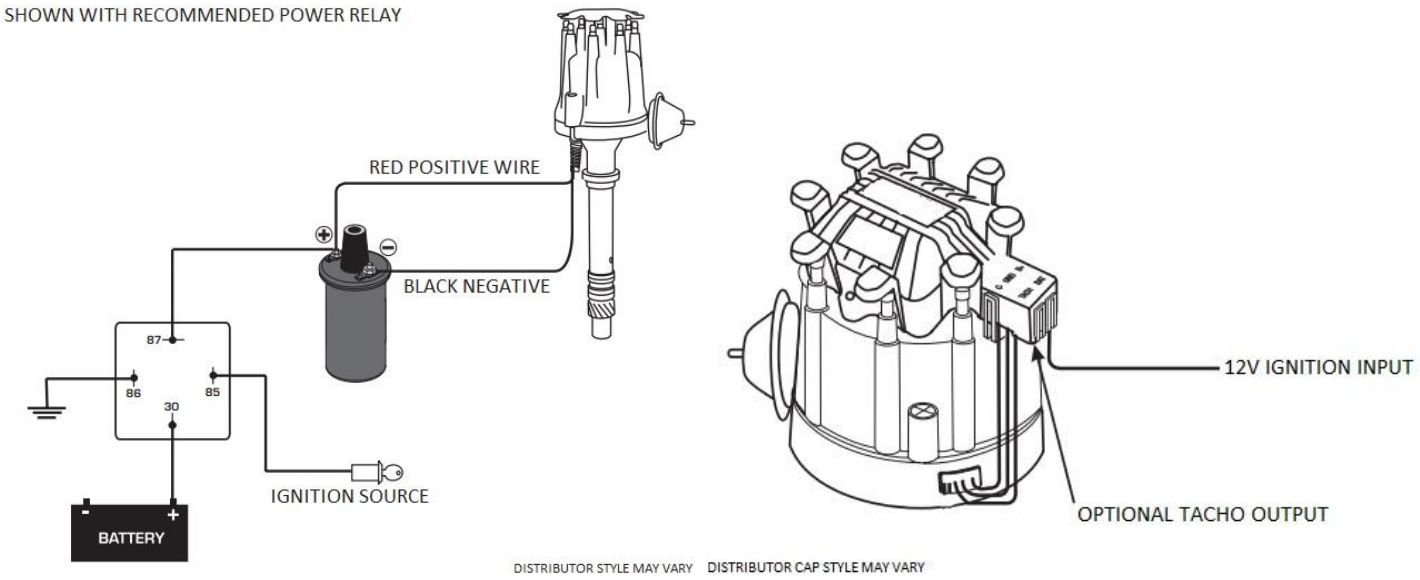
HEI distributors require the cap and rotor to be removed to access the mechanical advance mechanism – springs, weights and stops can be changed here.

Ready To Run distributors require the distributor to be removed from the engine, vacuum canister, pickup retaining bolts and distributor gear to be removed – the distributor shaft can then be lifted to access the mechanical advance mechanism – Do NOT attempt to change mechanical advance if you are not confident in disassembling the distributor as engine and/or distributor damage can occur if not performed correctly.

Wiring:

Both HEI and Ready To Run distributors require a clean 12v power source – if there are any uncertainties about the existing vehicle wiring, or if it cannot be verified if any resistors are still in the wiring, a relay must be used – if incorrect voltage is supplied or a resistor is still present in the wiring, damage can occur and warranty will be void. This will ensure that the coil and distributor will operate at its full potential – this is recommended even with known good wiring.

If there is a terminal from the starter motor to give battery voltage on cranking, this can be discarded and is not needed.



Troubleshooting:

Most problems are associated with poor installation or poor wiring – always ensure that there is a known good power supply and the block is earthed correctly.

On initial start-up, engine back fires, misses or kicks back – Install position incorrect – timing too far out – if engine cannot be started in any distributor placement - remove distributor, set engine at compression TDC cyl 1 and re install.

Engine will not run and is firing through the exhaust – popping on crank – distributor may be installed 180° out – remove distributor, set engine at compression TDC cyl 1 and re install.

Engine will only run with key in start position – check wiring – not all ignition sources have power under cranking. Do not use crank only power ie starter motor output – check ignition timing – may be too far advanced.

Engine consistently back fires or only runs on certain cylinders – check firing order – if still present check lead and spark plug condition – rectify as needed.

Common Firing Orders:

Chevrolet – Big block and Small block – 1-8-4-3-6-5-7-2

Ford 351W – 1-3-7-2-6-5-4-8

Chrysler - 1-8-4-3-6-5-7-2