

Installation Instructions for 40077, 40078, & 40532 Buick V8 Distributor

These instructions will help you to install JEGS Buick V8 distributor featuring Mechanical Advance with Vacuum Advance or the Ready to Run (RTR) style distributor.

Please read these instructions before installing:

You should always disconnect the battery, negative lead first, before working on the ignition system. When you are done reconnect the battery installing the positive lead first.

Note: The 215-350ci small block Buick engine distributors have 14 tooth gear, while 400-455ci big block Buick engine (not Nailhead) distributors have a 13 tooth gear. The drive gears installed on these Buick distributors are sized for a 0.500 in. shaft. Be sure to double check hood clearance on 1970-1971 GS models with the air intake snorkel.

Included with the distributor:

- 1 – Billet Buick V8 Distributor
- 1 – Distributor Rotor, Cap and Distributor Cap Spark Plug Wire Retainer
- 1 – Installation Hardware Kit

How to Install the Distributor:

1. If the distributor to be replaced has not already been removed from the engine, remove its cap. Do not remove the spark plug wires at this time.
2. Crank the engine slowly until the rotor blade aims at a fixed point on the engine or firewall. Note this point for future reference.
3. Unplug all external connectors coming from the distributor.
4. Now put the existing cap back on and note and mark which spark plug wire the rotor (blade) is pointing at. Then number the wires according to cylinder and remove the wires. If in doubt you can leave the wires connected to the old cap and transfer them to the new cap later in the process (see point # 9).
5. Loosen and remove the distributor hold-down bolt and clamp. Lift the old distributor out. At this point the rotor may move from its position. Note the direction of movement. The rotor is moving due to the helical cut teeth on the distributor gear.
6. Lower the new distributor into position. Please note that the rotor will move in the opposite direction as when the removing the old distributor. When the distributor is fully seated make sure that the rotor is aimed at the same fixed point as was the rotor from the old distributor. After the new distributor has been lowered into place, you may find that it hasn't seated firmly against the engine block. This indicates that the lower end of the distributor shaft is not properly aligned with the oil pump drive. Do not attempt to force the distributor into position.
7. Either remove the distributor and use a long screwdriver to turn the oil pump shaft until it properly aligns with the distributor shaft, or reinstall the hold-down clamp and thread the bolt just enough to exert a very slight pressure against the distributor. Then manually rotate the engine until the distributor drops down into place. When the distributor is fully seated make sure that the rotor is aimed at the same fixed point as was the rotor from the old distributor.
8. With the distributor properly seated, tighten the hold-down bolt just enough so that the distributor is held in place, but can still be rotated with a little effort.
9. Remove the plug wires one at a time from the old cap and install them in the corresponding positions of the new cap. After all wires have been transferred, verify that the wire in the terminal post that is aligned with the rotor leads to number one cylinder. If you are unsure of cylinder number position or firing order, this information can be found in the service manual that covers your particular engine. Install the distributor cap.
10. Once the engine is started, use a timing light to verify that the initial timing is set correctly.



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Mechanical Advance Curve – Spring Selection:

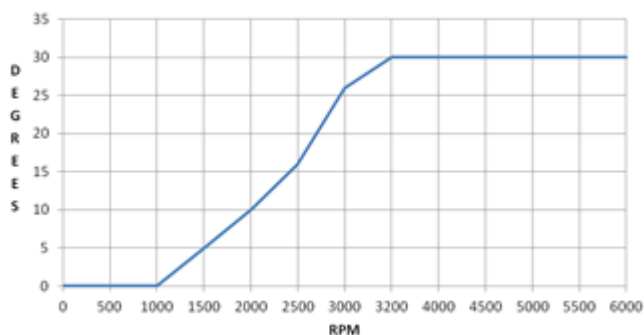
This distributor comes equipped with the **Blue** medium tension mechanical advance springs installed along with a **Blue** mechanical advance stop bushing. This produces a mechanical advance curve of approximately 21 crankshaft degrees, beginning at approximately 1000 RPM and all in by approximately 3200 RPM.

In the included installation hardware kit you received two sets of optional mechanical advance springs. The *silver-metallic* springs are heavy tension and the *light silver* springs are light tension. The springs can be used in sets or mixed depending on the advance curve you desire.

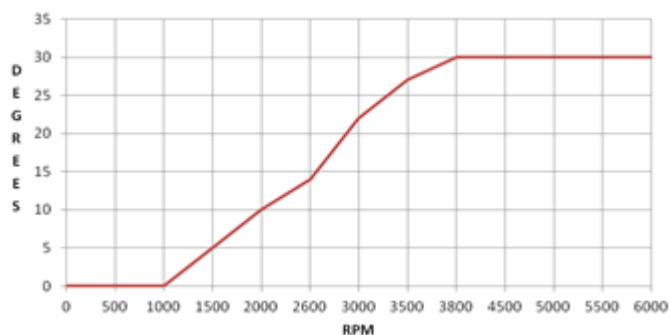
To change the springs you will need needle nose pliers.

- First remove the distributor cap and rotor. You will find the springs under the rotor.
- Take the needle nose pliers and carefully lift the springs off their posts (so you can reuse them if needed).
- Do not lose the spacer bushings under the springs.
- When installing the new springs make sure that the eyelet of the spring sits completely in the groove on the post. Please see the mechanical advance curve charts to select the curve and springs that will produce the mechanical advance curve best suited for your engine.

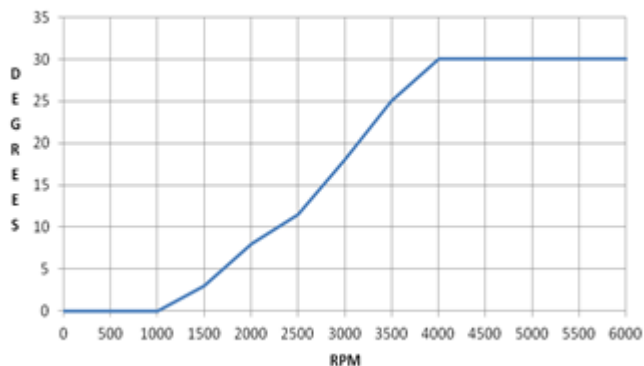
Timing Curve - 2 LT Silver Springs



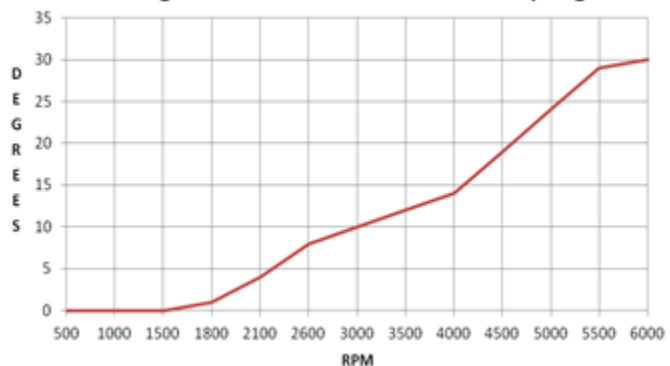
Timing Curve - 1 Blue & 1 LT Silver Spring



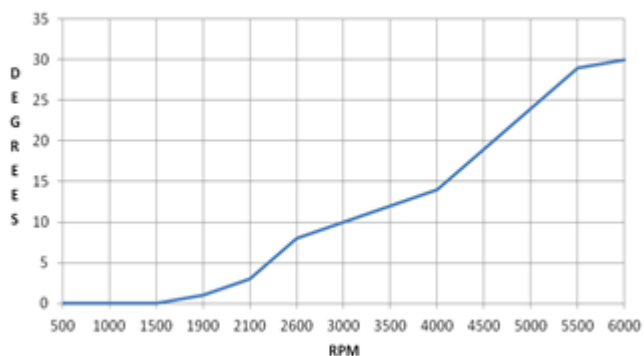
Timing Curve - 2 Blue Springs



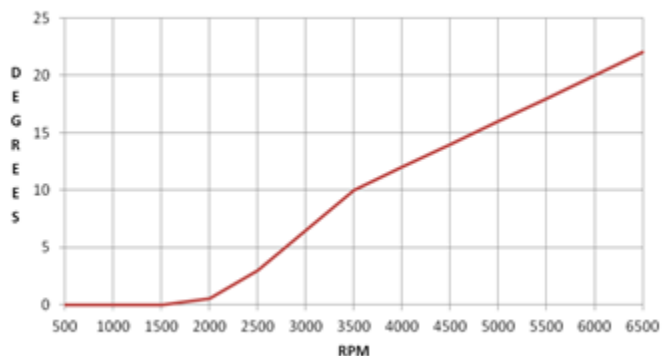
Timing Curve - 1 HD Silver & 1 LT Silver Spring



Timing Curve - 1 HD Silver & 1 Blue Spring



Timing Curve - 2 HD Silver Springs



Mechanical Advance Stop Bushing:

The stop bushing limits the total amount of mechanical advance that the distributor can produce. The distributor comes equipped with a Blue 21° crankshaft advance stop bushing already installed. There are 3 different mechanical advance stop bushings included in the installation hardware kit. If a different amount of total mechanical advance is desired, follow the procedures to change the bushings.

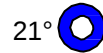
Bushing Sizes:



Red



Silver



Blue



Black

How to change the Mechanical Advance Stop Bushing:

1. Remove the distributor cap and rotor.
2. Remove the locknut and washer on the bottom of the advance assembly.
3. Remove the bushing and install the new one.
4. Install the washer and locknut, the distributor rotor and cap.

How to set up the Mechanical Advance Lock Out:

1. Remove the advance components including the springs, weights and the advance stop bushing from the advance assembly.
2. Remove the roll-pin from the drive gear and remove the gear thrust and spacer washer from the shaft.
3. Slide the shaft two inches out of the housing.
4. Rotate the shaft 180° and insert the advance stop bushing pin into the small hole on the advance plate.
5. Install the locknut and washer to the advance stop bushing pin. This locks the advance in place.
6. Install the drive gear and roll-pin.

Vacuum Advance:

If the distributor comes equipped with a vacuum advance canister, it is designed to produce a total of approximately 10 crankshaft degrees at advance, starting at a vacuum signal of 6 in. of Hg and all in at a vacuum signal of 18 in. Hg. The amount of vacuum advance can be adjusted by inserting the 3mm Allen wrench, in the installation hardware kit, into the hose nipple on the vacuum advance canister. Turn the wrench clockwise to increase the amount of vacuum advance or counter-clockwise to decrease. Hook up the vacuum hose from a ported (typically) vacuum source on the carburetor to the nipple on the vacuum advance canister.

How to install the Vacuum Advance Lock-Out:

If for whatever reason the vacuum advance canister needs to be removed from the distributor, there is a vacuum advance lock-out included in the installation hardware kit. This is best done prior to installing the distributor into the engine.

1. Remove the distributor cap and rotor.
2. Remove the roll-pin from the drive gear and remove the gear thrust and spacer washer from the shaft.
3. Slide the shaft about two inches out of the housing. If this does not yield enough working room, you can remove the shaft assembly from the distributor housing. Please note there are numerous spacers and shims on the shaft that can slide off if you are not careful.
4. Remove the two screws holding the vacuum canister in place.
5. Remove the snap ring that holds the magnetic pickup assembly in place.
6. Carefully lift up on the magnetic pickup plate and remove the vacuum advance canister.
7. Install the **Black** plastic vacuum advance lock-out in place of the vacuum canister and secure it with the two screws.
8. Lower the magnetic pickup assembly plate back into place making sure it is level and not cocked to one side. Reinstall the snap ring.
9. Lower the shaft assembly into the housing, slowly turn the distributor shaft and make sure that the reluctor wheel makes contact with the magnetic pickup.
10. Install the thrust washer, shim, drive gear and roll pin.
11. Install the cap and rotor.
12. If the old distributor had a vacuum advance canister, make sure to disconnect the vacuum line and plug the vacuum port.

Wiring - Mechanical & Mechanical with Vacuum Advance 2-wire distributor:

A high performance ignition system, such as a Digital CD Ignition, must be installed with these distributors. Please refer to the instructions, included with the ignition control box, for wiring connections utilizing a 2-wire magnetic pick up.

- **Black Wire** with **Orange Tracer** = Positive (+)
- **Black Wire** with **Violet Tracer** = Negative (-)

Wiring - Ready to Run (RTR) 3-wire distributor:

The Ready to Run (RTR) 3-wire distributor has an internal ignition control module and does not require an external ignition control box to run.

There are three (3) wires coming out of the distributor, terminating in a Weather Pack 3 pin connector. The wire colors are **Orange**, **Red**, and **Black**. These plug into the mating Weather Pack 3-pin connector on the pig tail harness that is in the installation hardware kit. Attach the ring terminals on the pigtail harness as noted below.

Red: Connect to Coil (+)

Orange: Connect to Coil (-)

Black: Connect to engine, frame or chassis ground

Note: Check to see that your coil location will reach the distributor when wired.

Note: Weather Pack connectors will only plug together one way. Make sure the connectors are locked together.

Note: For best performance, use a coil with 0.50 Ohms primary resistance or less

Note: To install with an external ignition control module, please refer to the instructions that come with the ignition control module



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