

THE MALLORY MINI-MAG MAGNETO INSTALLATION PROCEDURE

THE MAGNETO:

1. Remove the original cap from the distributor. (Do not remove the plug wires from the cap.)
2. Crank engine slowly. Align timing marks with the rotor pointing to No. 1 spark plug position.
3. Remove the original distributor.
4. Position the magneto in the engine. CAUTION — Be sure it is fully seated the same as the original distributor.
5. Rotate the magneto housing slowly until the points are closed, ready to open in the proper direction of rotation. Tighten magneto hold down bolt.
6. Place the Mallory cap on the magneto housing. The rotor should be pointing to No. 1 terminal of the cap.
7. Transfer No. 1 wire of the old cap to the No. 1 terminal of the magneto cap.
8. Transfer remaining plug wires from the old cap to the new cap in the same order. (Please refer to Figure 1 for proper wiring of the cap.)
9. Remove spark plugs. Clean and test, replace if necessary with the proper heat range. Set clearance at .018-.020.

NOTE: The carburetor must be adjusted to compensate the change in plug clearances.

THE MINI-MAG POWER-PAK:

(For battery started engines)

1. Remove the original coil.
2. Fasten the Mini-Mag Power-Pak to the engine.
CAUTION: During cranking, battery current flows through the metal core of the coil. DO NOT ALLOW THE CORE TO TOUCH ANY GROUND ON THE ENGINE.
3. Attach the ignition switch wire to the "Ignition switch" terminal.
4. Note that the Magneto and Power-Pak Box have corresponding "P" and "R" terminals. Attach separate wires connecting "P" to "P" and "R" to "R".
5. The remaining terminal labeled "To Starter" must be attached to the same terminal of the starter or starter solenoid as the starter energizing wire from the ignition switch.
CAUTION: This step is extremely important. With the proper hook up, the magneto is converted to battery ignition during cranking only.

6. If an overdrive wire is used, attach it to the "P" terminal at the Power-Pak box.

THE MINI-MAG DRAG-PAK:

NOTE: The Mini-Mag Drag-Pak is designed for use on engines not equipped with a battery and are started by pushing. When installing the Mini-Mag Magneto and Drag-Pak, follow steps 1 to 9 then proceed as follows:

1. Remove the original coil.
2. Fasten the Mini-Mag Drag-Pak to the engine.
3. Connect the primary wire of the coil to the "P" terminal of the magneto. Use wire supplied for this connection. Cut to proper length. Solder knife connection. (To prevent shorting, be sure the knife connection is insulated.)
4. Mount the special on and off toggle switch at a convenient location of the instrument panel. It will be necessary to drill a hole $\frac{1}{2}$ " in diameter.
5. Connect the "P" terminal of the magneto to the "Off" side of the toggle switch. Fasten another wire from the "On" side to a suitable ground. When switch is in the "Off" position, the magneto is grounded to stop the engine; with switch in the "On" position, there is no connection between the "P" terminal and ground.
6. **CAUTION:** Be sure the secondary wire is firmly engaged with the spike of the coil tower.
7. Connect the ground wire (supplied with the Drag-Pak) between the "R" terminal of the magneto to the screw holding the timing plate.

SPECIAL APPLICATIONS:

In some cases, a battery may be used during starting only and then removed from the circuit during the running of the engine. This applies to engines on Dynamometers, some competition cars and Marine Racing. Since these engines crank slowly during the starting period, it is suggested that the Drag-Pak be used with a Mallory 28066 Vibrator. This Vibrator will provide a hot booster spark during cranking but **MUST BE REMOVED** from the circuit after the engine is started. (Complete instructions are provided with each Vibrator).

FINAL CHECKS:

1. Start the engine. Immediately observe oil pressure. This is a double check to be certain that the magneto is properly seated in the engine.
2. To set initial timing:
Locate TDC by either setting the magneto so the points just start to open or by idling the engine and setting the magneto to TDC with a timing light.
To set the initial timing, either move the entire magneto housing, (similar to a battery distributor) or refer to Figure 2 on the use of the magneto timing plate.
Set timing to engine manufacturers specifications. Timing may have to be reset for maximum performance.
CAUTION: To use the timing plate, the **band clamp screw must be loosened**. This will permit movement of the upper part of the magneto housing which will change the position of the

timing plate pointer. Be sure to retighten the band clamp screw after setting the timing.

3. Adjust carburetor mixture screws to compensate for change in spark plug clearances. Recommended idling 500 R. P. M. minimum.
4. It may be necessary to change the carburetor air cleaner if the magneto interferes with its installation.
5. Final initial timing setting is best obtained either with a chassis dynamometer or on a road test. An additional initial advance may be needed for peak power performance.
6. Check point spacing at the end of the first 5,000 miles. After this, check spacing at 10,000 mile intervals. (Point spacing is stamped on the name plate.) Lubricate the cam lobes. We recommend Mallory Cam Grease No. 26015 or Texaco Thuban 250.

Keep these instructions in the glove compartment. Any service man who is skilled in ignition can service this system.

MAGNETO CAP INSTRUCTIONS

(Please refer to Figure 1)

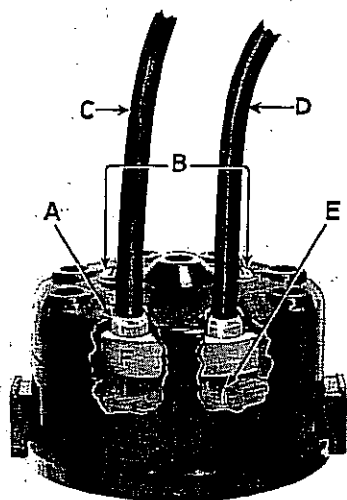


Figure 1

Proper wiring of the plug wires in the cap is most important. Proceed as follows:

1. Loosen screws "B" several turns.
2. Remove the original clip from the plug wire.
3. Cut the plug wire flat at the end with side cutters.
4. Moisten wire end slightly, press it firmly through the cap cover seal "F" and then to the full depth of the lower spike "E".
5. In Figure 1, wire "C" is engaged properly. Wire "D" is wrong.
6. After all wires are seated, tighten screws "B". At this time, the extended boss shown at "A" will form a perfect seal with the taper in the cap cover.

MAGNETO TIMING PLATE

The Magneto Timing Plate, (Fig. 2) permits an easy method of adjusting the **Initial** timing. The readings are calibrated to show **engine advance**. Please note step 2 of FINAL CHECKS which specifies that the engine advance of the fly wheel or crankshaft pulley must be set at TDC. At this time, the Magneto housing must be locked in place with the points **closed** and **ready to open**. After this, any change in the pointer position will indicate the exact amount of initial engine advance. Using this as a reference, the timing can be easily changed until maximum performance is obtained.

Please note that the Timing Plate provides you with information about the internal mechanical advance. This includes the R.P.M. at which the advance starts and the R.P.M. the total advance is reached. It must be remembered that this is separate from the initial setting of the pointer. Whenever the Magneto points are replaced or adjusted, the initial timing should be rechecked. (Changing the clearance of the points will change the timing.)

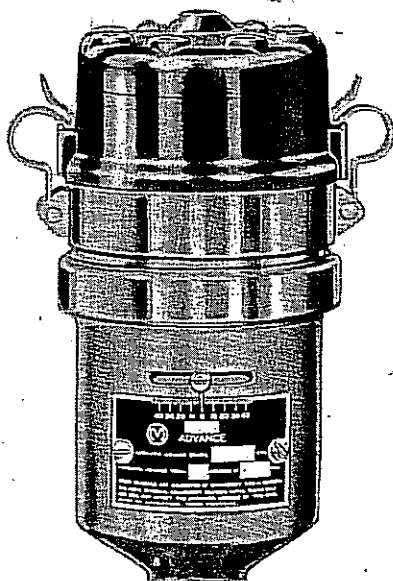
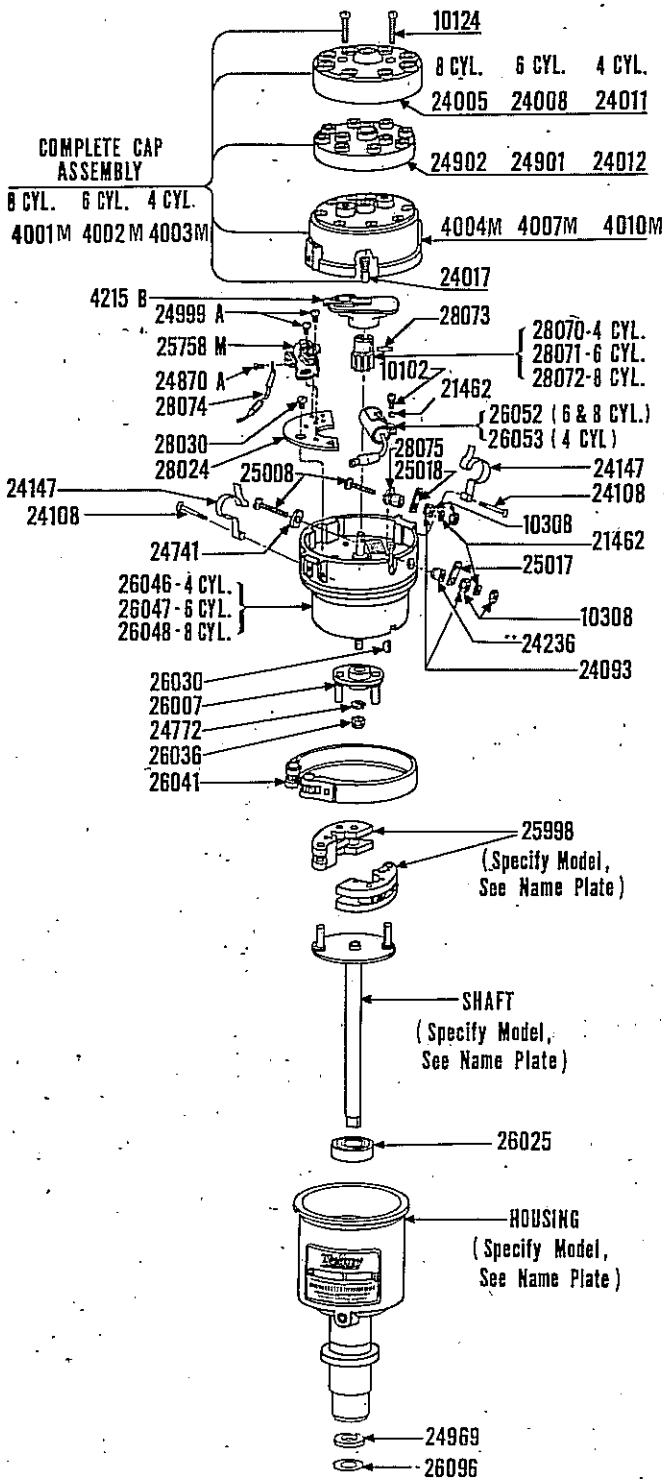
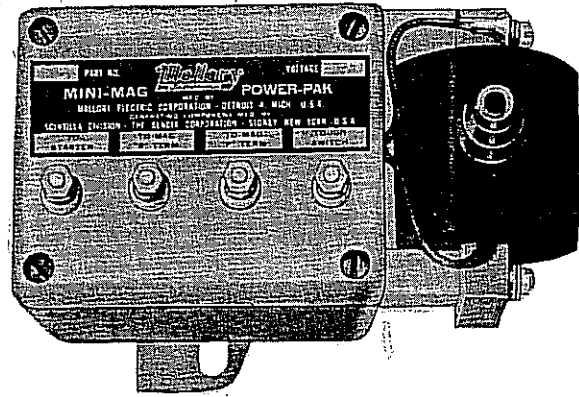


Figure 2

MALLORY MINI-MAG MAGNETO

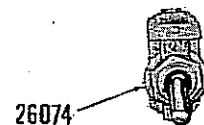
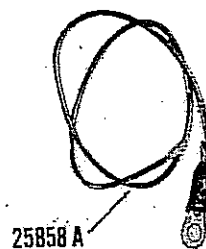
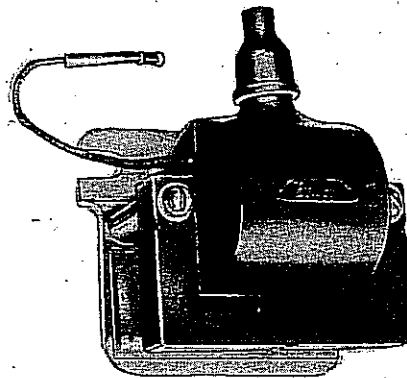


POWER PAK



12 VOLTS — 26055C
6 VOLTS — 26054C
(FOR BATTERY STARTED ENGINES)

DRAG PAK



USE 26061A
(FOR PUSH START ENGINES
WITH NO BATTERY)

TUNE UP SUGGESTIONS

Your Mallory Mini-Mag Magneto has been very carefully designed to last for many miles of trouble free service. However, it will require periodic attention. We recommend the following checks at each tune up:

1. Remove the 2 screws at the cap cover. (See Figure 1.)
2. Lift the cap cover, seal clear from the cap base. Leave all plug wires intact in the cover.
3. Inspect each spike in the cap base. Improper wire seating on the first installation will cause corrosion. This can be cleaned by using a short piece of spark plug wire. Insert the wire over the spike and rotate it until all corrosion is cleaned. Inspect all spark plug wires for leakage. Replace if necessary.
4. Remove the cap base. Wash it in a suitable cleaning solvent. Dry thoroughly and inspect all surfaces for secondary breakdown. It is permissible to scrape the lower cap segments slightly if needed.
5. Caution — note the position of the rotor. Carefully remove it from the cam. You will note that it can be installed in two different positions, depending on rotation. A small arrow is visible at the upper part of the cam slot to serve as a guide. Clean the rotor. A slight scraping of burned surfaces is permissible.
6. Inspect point surfaces. A grey burning condition is normal. Do not replace unless there is excessive pitting.
7. Space points to proper clearance. (Clearance is stamped on the name tag.) Place a suitable lubricant at the cam surfaces. (We recommend Mallory Cam Grease, Part No. 26015 or Texaco Thuban 250.)
8. If the Magneto is removed from the engine, washing of the outer surfaces is permissible. **Do not** immerse the entire magneto in the cleaning solvent. This can cause damage to the windings.
9. Make sure wires are in good condition. All terminal ends should be soldered and tightened securely.
10. No service of the Power-Pak Box is required other than an inspection of external wiring and mounting.
11. Remove all spark plugs for cleaning and testing. Replace if necessary. Set gap at .018-.020.
12. Other suggestions include checking:
 - a. State of charge of the battery.
 - b. Cleaning battery cables.
 - c. Heat riser valve for sticking.
 - d. Mechanical valve adjustment.
 - e. Carburetor adjustments.
 - f. Carburetor air cleaner.
 - g. Fuel supply and pressure.
 - h. Fuel strainer.
 - i. Regulator and generator.
 - j. Starter draw.
13. Set initial timing with a timing light, vibrator or other suitable means.
14. Final road test. Adjust magneto for maximum performance under load conditions.

TACHOMETER INFORMATION

If a Tachometer is used with the Mini-Mag Magneto, please be certain that it is the correct model. The following list designates the Tachometer Model of each manufacturer for 8, 6, and 4 cylinder engines:

Engine Type	Sun	Radson	Stewart-Warner	Seatronics Car Tach.	Faria	Dixson	Westach
8 Cyl.	EB-12A and RC Meter	8N8	100A 100C 100T	CT 61	Standard 4 Cyl. Tach.	77M	80 C
6 Cyl.	EB-8A and RC Meter	6N8	100E 100G	CT 61	Standard 3 Cyl. Tach.	77M	80 C
4 Cyl.	EB-6A and RC Meter	4N8	100J 100L	CT 61	Standard 2 Cyl. Tach.	None	80 C

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