



**PERFORMER-PLUS
CAMSHAFT / LIFTERS / LUBE KIT
CATALOG # 2132**

**MODEL: 304-360-401 c.i.d. AMC V8 engines
GENERAL INSTRUCTIONS**

- **Please** study these instructions carefully before you remove your stock camshaft. If you have any questions or problems, do not hesitate to contact our **Technical Hotline at: 1-800-416-8628**.
- These instructions are designed to give general installation guidelines. A complete step-by-step procedure manual would require many pages. If you are a novice or just learning to work on automotive engines, we recommend consulting either Chilton or Motors automotive manuals before you begin. You may also wish to contact an experienced mechanic. Be advised: improper installation may result in **LOW MILEAGE, POOR PERFORMANCE, COSTLY REINSTALLATION AND EVEN ENGINE DAMAGE**. Installing a camshaft is a complex procedure. Please follow these instructions carefully. **Failure to do so may void your warranty**.
- **Before** you begin the removal and installation process, please examine the kit for possible shipping damage. If the camshaft is damaged, contact your dealer immediately. Also, make sure you have all the recommended tools and parts as listed below. As you read through these instructions the first time, use the preparation checklist to check off the exact items you will need.
- *Performer-Plus* camshafts are ground specifically for use with the corresponding *Performer AMC* manifold #2131 or #3731. Both are dyno-matched and street proven to work as a team; especially when matched with Edelbrock Tubular Exhaust Systems. However, the Performer camshaft package may be used by itself.

PREPARATION CHECKLIST

Tools & Equipment For Installation

- Box and open end wrenches
- Socket set
- Distributor wrench
- Pliers (channel locks & hose clamp)
- Screw drivers (regular and phillips)
- Torque wrench
- Hammer
- Gasket scraper or putty knife
- Timing light Vacuum gauge
- Rags
- Water bucket
- Harmonic balancer puller
- Masking tape (for tagging hoses and electrical wires)
- Engine oil & filter
- Crankshaft dampener puller

Hardware & Parts To Buy

- Gaskets - Fel-Pro #MS 96011, OEM or equivalent
- Pipe plugs, if needed
- Edelbrock Gasgacinch #9300
- RTV Silicone Sealant
- Chalk
- Paper and pencil
- Radiator coolant
- Edelbrock Sure Seat Valve Springs, #5832 or #5932 (for rotators)
- Edelbrock Performer-Link True Rolling Timing Chain and Gear Set, #7818
- Teflon tape
- Front cover oil seal, OEM or equivalent

REMOVAL OF ENGINE PARTS BEFORE CAMSHAFT INSTALLATION

Be sure to keep all parts in order

WARNING! DO NOT REMOVE RADIATOR CAP OR RADIATOR HOSES WHILE ENGINE IS HOT!

1. Disconnect the battery.
2. Drain radiator coolant. Drain plug will normally be located on lower right or left side of the radiator facing the engine.
3. Remove radiator and air conditioning condenser if so equipped. In some cases, the front grille may have to be removed. Measure distance from front cover to grille or brackets that may interfere with camshaft against the length of the camshaft.
4. Remove the gas cap to relieve pressure. Disconnect fuel line and plug. Replace gas cap.
5. Disconnect all linkage from carburetor such as throttle, throttle springs, transmission, cruise control and automatic choke.
6. Tag and remove coil wires and sensor wires.
7. Tag and remove vacuum lines.
8. Remove distributor cap and wires, rotate engine until rotor points towards number 1 terminal in cap and pointer on front cover is on top dead center (TDC) and remove distributor. Note the approximate position of the distributor housing in relation to the manifold to assist in getting the distributor properly located during re-installation.
9. Remove valve covers.
10. Remove carburetor and intake manifold. Remove and discard intake manifold gasket.
11. Remove rocker arms and pushrods.
NOTE: Late model engines- Intake and exhaust rocker arms of each cylinder pivot on a bridged pivot assembly which is secured to cylinder head by two cap screws.
WARNING: Cap screws should be loosened alternately one turn at a time to avoid breaking bridge. Keep rockers and pushrods in order for re-assembly.
12. Remove hydraulic valve lifters.
13. Remove crankshaft pulley, and using a suitable puller, crankshaft dampener.

14. Remove two front oil pan bolts. Remove bolts securing timing chain cover to block.
NOTE: Bolts vary in length and must be installed in same location as removed. Pull cover forward until free of locating dowel pins.
NOTE: The front cover oil seal should be replaced before the front cover is re-installed.
15. Remove fuel pump and fuel pump pushrod. Rotate engine until timing marks are aligned as in Figure 2.
16. Remove bolts retaining camshaft sprocket. Remove sprocket and chain.
17. Remove crank sprocket using a gear puller.
18. Remove camshaft.

- **VALVE SPRINGS**

- **WARNING ABOUT YOUR WARRANTY:**

In order for this *Performer-Plus* cam and lifter kit to be covered under ANY WARRANTY you must use either the correct Edelbrock *Sure Seat* valve springs or the stock original equipment valve springs. Failure to do so could cause the cam lobes to wear excessively and could cause additional engine damage.

1. This camshaft is designed to function either with the stock springs or with Edelbrock *Sure Seat* valve springs #5832 (std. retainer set), or for use with valve rotators, use #5932.
2. For older vehicles and vehicles with high mileage we highly recommend replacing the valve springs with *Sure Seat* Valve Springs # 5832 (std. retainer set), or for use with valve rotators, #5932.
3. Check spring height and set to factory specifications for correct year and model.

- **DUE TO THE MANY POSSIBLE SETTINGS OVER THE YEARS, WE ADVISE CHECKING MOTORS, CHILTON, OR FACTORY SERVICE MANUALS FOR CORRECT SPRING HEIGHT FOR YOUR VEHICLE.**

- **LIFTERS**

1. New lifters must be used with a new camshaft. Use only the lifters supplied with your kit .
2. Check to make sure all lifters fit freely in lifter bores.

- **INSTALLATION INSTRUCTIONS**

1. Coat cam lobes and bottom of each lifter with MOS2 lube supplied with your kit. **This will prevent cam lobe and lifter wear from occurring during initial engine start up. Do NOT pre-oil or "pump-up" lifters before installation as this may hold valves off the valve seat leading to loss of compression and/or bent valves during initial engine start up.**
2. Install new camshaft with new sprockets and timing chain.
CAUTION: When using *Performer-Link True Rolling Timing Chain and Gear Set* #7818 with an Edelbrock cam and lifter kit, straight up timing alignment is achieved. If any other timing gear set is used, it is necessary to check camshaft position for correct timing alignment. This requires indexing the camshaft with a degree wheel to verify timing alignment. O.E.M. or non-Edelbrock timing gear sets are not recommended for use with Edelbrock camshafts. Use locking compound material on bolt threads holding gear to cam. Torque to factory recommendations (30 ft./lbs.).
3. Install camshaft with timing marks lined up as recommended by factory specifications. See Figure 2.

- **PUSHROD AND ROCKER ARM INSTALLATION**—After the cam is installed and timed correctly (see Figure 2), install pushrods, lifters and rocker arms.

- **VALVE ADJUSTMENT**

1. Rocker arm adjustment is 0 lash. Install push rods and rocker arm assembly and tighten rocker arm nuts on early models and bridge cap screws on late models. **NOTE:** On late models, alternately tighten cap screws one turn at a time.

- **FRONT COVER OIL SEAL REMOVAL & INSTALLATION**

1. For front seal removal, pry seal out from the inside of the cover. Clean seal bore and apply light coat of suitable sealer such as Edelbrock Gasegacinch #9300 to outer surface of new seal. Drive seal into place from inside cover using suitable tool. When seal contacts outer flange of cover it is installed correctly. Apply a light film of engine oil to lips of neoprene seal.

- **INSTALL FRONT COVER**

1. Remove lower locating dowel pin from engine block and clean all gasket surfaces.
2. Cut both sides of oil pan gasket flush with engine block. Using old gasket as a guide, trim new gasket to correspond to amount cut off at oil pan. Apply suitable sealer such as RTV Silicone sealant to both sides of gasket and install on engine front cover.
3. Install front oil pan seal and align tongues of new oil pan gasket pieces with seal and cement into place on cover. Apply suitable sealer to cut-off edges of original oil pan gaskets and place cover into position, then install two front oil pan bolts. Tighten bolts slowly and evenly until cover aligns with upper locating dowel. Install lower dowel through cover and drive into corresponding hole in engine block. Install cover retaining bolts in same location they were removed from and tighten.
5. Torque front timing cover bolts to 25 ft. lbs.
6. Install front harmonic balancer and torque to 80 ft.-lbs.,.
7. Install fuel pump and pushrod.
8. Install water pump using new gaskets and torque to 4 ft.-lbs.
9. Install intake manifold using new intake gasket set and torque bolts to 25 ft/lbs.

- **DISTRIBUTOR INSTALLATION AND ENGINE TIMING**

1. Turn the engine over in direction of rotation until the No. 1 intake valve closes and continue until the pointer on the front cover is approximately five degrees before top dead center (BTDC). See Figure 1 for firing order.
2. Re-install the distributor with the rotor pointing towards No. 1 terminal in the cap, and with the distributor housing in its original position. If distributor will not drop down all the way to the flange on the engine, it will be necessary to align the distributor shaft with the oil pump drive. Slowly rotate the engine until the distributor drops down against the engine, then continue turning until two complete revolutions are completed and the timing marks once again come to five degrees BTDC.
3. Lightly tighten the hold-down clamp so that the distributor can still be turned to determine final setting using a timing light with the engine running.
4. Replace valve covers, carburetor linkage and remaining vacuum and electrical connections.
5. Engine oil & filter should be changed before and after break-in.

CAMSHAFT & LIFTER RUN-IN

IMPORTANT: DO NOT ALLOW THE ENGINE TO RUN UNDER 2000 RPM FOR THE FIRST 1/2 HOUR. Vary engine speed between 2000 and 2500 rpm. Slow idle speeds may result in severe cam and lifter wear.
START THE ENGINE AND BRING TO BREAK-IN RPM.

- **IMPORTANT NOTES AFFECTING YOUR WARRANTY**

CAM LOBE WEAR— Cam lobe wear is almost non-existent unless mismatched parts are used or installation of the cam and lifters is done improperly. Most cam damage is caused by the timing gear loosening due to improper torque on bolts. Bolts holding gear to camshaft should be torqued carefully and a locking compound applied to threads of bolts. Before installing your new Performer-Plus camshaft, check the gear drive on the distributor and oil pump for any signs of wear. If worn, be sure to replace with a new gear or you may wear out your camshaft prematurely. High-volume oil pumps are not recommended with Performer-Plus camshafts. Edelbrock camshafts are designed to use O.E.M. type gears only.

- **CAM GEARS AND CAMSHAFT END PLAY**— If cam gear becomes loose, the cam will slide back in the block, causing the lifters to hit the lobes next to them and also the cam bearing journals. If the engine is run after this happens, the bottom of the lifters and the sides of the lobes will become chipped.

SPECIAL INSTRUCTIONS

With the Edelbrock manifold and camshaft package plus a header installation, a carburetor jet change and ignition change may be required for best performance. Due to the varied applications of years and models of vehicles, no one combination could suffice for all installations. The following procedure is only a guideline and in many cases, the manufacturing specifications for recommended carburetors or timing may be best.

- **CARBURETION**

OEM square-bore 4-bbl—In most cases carburetor modification for best performance may be found in a plus or minus 2 number jet change.

Edelbrock #1405 (600 cfm, manual choke)—No modifications necessary.

Edelbrock #1406 (600 cfm, electric choke)—No modifications necessary.

- **IGNITION TIMING**

In most cases, an increase of 10° to 14° will give best performance. Aftermarket ignition curve kits may be used. Vacuum advance line should be connected to direct manifold vacuum for best performance, not ported vacuum. Disconnect vacuum advance when checking timing, then reconnect after timing adjustment.

NOTE: The best combination for any particular vehicle or application must be determined by trial and error using the above information as a guideline.

- **TUBULAR EXHAUST SYSTEM**—For best performance, a tubular exhaust system is recommended with the Performer package to provide the most low-end torque. Please consult your Edelbrock dealer or the Edelbrock catalog for a listing of available Edelbrock *Tubular Exhaust Systems*. Be sure to check local emission control regulations for legality of camshaft and exhaust system changes.

- **PLEASE** complete and mail your warranty card. Be sure to write the model number of this product in the “Part # _____” space.

- **THANK YOU.**

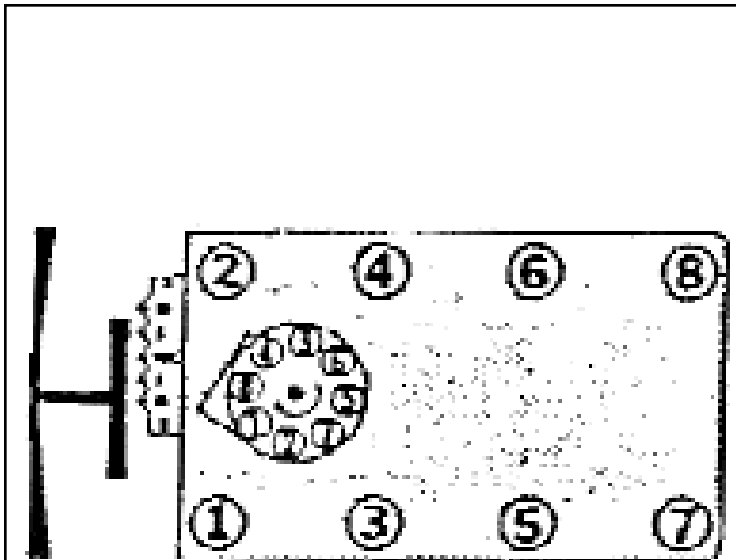


Figure 1

304-401 c.i.d AMC V8

Firing Order and Timing Marks

Turn distributor counter clockwise to advance timing

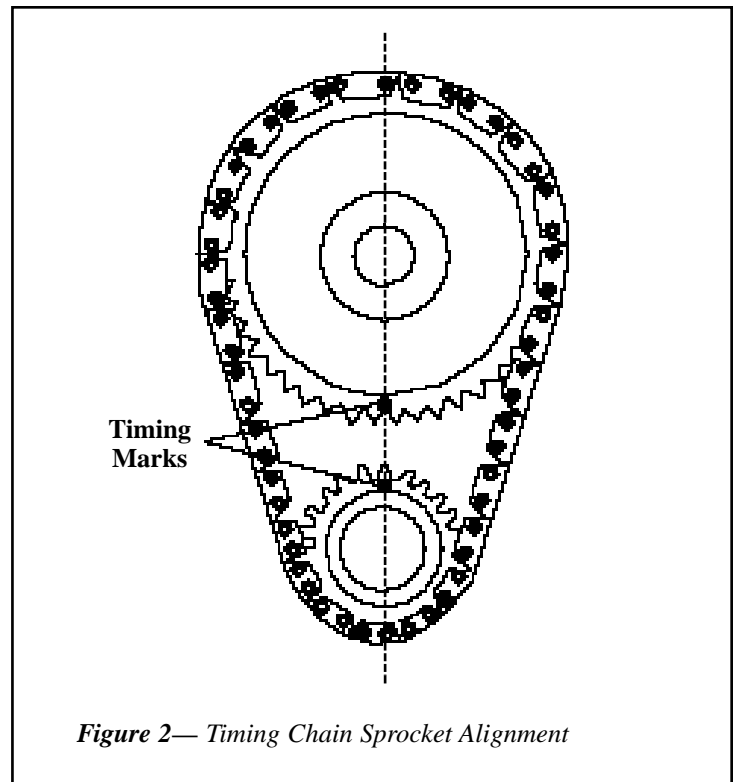


Figure 2— Timing Chain Sprocket Alignment

CAMSHAFT: Performer-Plus
CATALOG #2132
ENGINE: 304-401 c.i.d. AMC V8
RPM RANGE: 1500-5500



CAUTION:

Use only Sure Seat Valve Springs, #5832 or 5932
Use stock ratio rocker arms only

Duration at 0.006" Lift: Intake: 278° Exhaust: 288°

Duration at 0.050" Lift: Intake: 204° Exhaust: 214°

Lift at Cam: Intake: 0.280" Exhaust: 0.295"

Lift at Valve: Intake: 0.448" Exhaust: 0.472"

Timing at 0.050" Lift:

	Open	Close
Intake:	3° ATDC	27° ABDC
Exhaust:	42° BBDC	8° BTDC

Centerlines:

Lobe Separation - 110° Intake Centerline - 105°

CAUTION: Use Performer-Link Timing Set, #7818. Do not use late model timing sets. They are machined in a retarded position and are not recommended for this camshaft installation. Edelbrock Performer-Link True Rolling Timing Sets feature three keyways for specific timing selection. Always use the "0" or straight-up timing mark when installing Performer-Plus camshafts with Performer-Link Timing Sets.

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