• PLEASE study these instructions carefully before installing your new camshaft. If you have any questions or problems, do not hesitate to call our Technical Hotline at: 1-800-416-8628.

• CAMSHAFT: Edelbrock Performer RPM camshafts are ground specifically for use with the corresponding Performer RPM manifold. The Performer RPM manifold #7181, and Performer RPM camshaft #7182, are designed to work as a team to give you better driveability and performance. They are dyno-matched and street-proven. For best results, use the Edelbrock manifold/camshaft package with the carburetor and headers we recommend. The Performer RPM camshafts are designed for use with modified or high performance cylinder heads and valve train components only. Screw-in studs and H.P. adjustable rocker arms must be used.

  NOTE: Maximum performance is achieved only when the Edelbrock Performer RPM Power Package components are used with the following equipment:
  • Performer RPM manifold/camshaft/timing set/vane springs
  • Performer Series carburetor #1407 (750 cfm)
  • fuel delivery system of sufficient capacity
  • 1-3/4” headers
  • aftermarket/re-curved distributors

• IMPORTANT: This instruction sheet provides general installation guidelines which can affect your warranty. Read it carefully. It is not our intent to cover each detail of installation here; a step-by-step procedure manual would be far too lengthy. We want to caution you that installing a camshaft is a complicated procedure that requires a good general knowledge of automotive engines. If you are not confident that you can complete the camshaft installation successfully, we suggest you consider having it installed by an experienced mechanic.

  CAUTION: Improper installation will result in LOW MILEAGE, POOR PERFORMANCE, COSTLY REINSTALLATION, and ENGINE DAMAGE.

  TO AVOID THESE PROBLEMS YOU MUST DO THE FOLLOWING:
  Carefully study and understand all instructions.
  Examine the camshaft for possible shipping damage (if damaged contact your dealer immediately).

• TOOLS AND EQUIPMENT
  Use the following checklist for items needed.
  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
  gear puller- for crankshaft sprocket

HARDWARE & PARTS TO BUY
  Intake gaskets Edelbrock #7220, OEM or equivalent
  pipe plugs, if needed
  Edelbrock Gasgacinch, #9300
  RTV Silicone
  chalk
  paper and pencil
  radiator coolant
  teflon tape
  Edelbrock Performer-Link True Rolling Timing Chain and Gear Set #7820 or Accu-Drive Gear Drive #7892
  Edelbrock Sure Seat Valve Springs, #5722
  Manifold bolt kit #8584

INSTRUCTIONS FOR ENGINE PARTS REMOVAL BEFORE INSTALLING CAMSHAFT
  NOTE: Vehicles equipped with air conditioning must have the system evacuated by a certified technician prior to removing any A/C components. Failure to do so may violate local and/or federal laws.

  1. Disconnect battery.
  2. For ease of installation, keep all parts in some sort of order.

   WARNING: Do not remove radiator cap or radiator hose if engine is hot.

  3. Drain radiator coolant, move fan shroud back and remove fan and spacer from water pump. On air conditioned vehicles, remove bolt, lower idler pulley and compressor-to- water pump mount. Disconnect hoses and brackets. Most vehicles will require radiator removal prior to cam removal. Remove water pump.

  4. Disconnect all linkage from carburetor such as throttle, throttle springs, transmission, cruise control and automatic choke.

  5. Tag and remove vacuum lines.

  6. Remove valve covers.

  7. 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 vacuum advance canister in relation to the manifold to assist in getting the distributor properly located during re-installation.

  8. Remove carburetor and intake manifold. Remove fuel pump.

  9. Remove rocker arms and pushrods.

   CAUTION: If your engine has non-adjustable rocker arms (1969-1/2 or later), you must install screw-in studs and high performance adjustable rocker arms. Crane and other manufacturers sell conversion kits for this which do not require removal and machining of the heads.

  10. Remove hydraulic valve lifters.

  11. Remove crankshaft pulley and, using a suitable puller, crankshaft damper.

  12. Loosen oil pan and remove front cover.
5. Install intake manifold using new intake gasket set and torque manifold bolts

3. The above procedure assures correct hydraulic lifter preload. Repeat this
   installation procedure for each of the other six cylinders in the firing order:
   (1-3-7-2-6-5-4-8)

4. Re-install front cover, fuel pump, water pump, and oil pan using new gas-

5. Install intake manifold using new intake gasket set and torque manifold bolts
to 25 ft./lbs. (except for end bolts of early style heads which have no support;
hand tighten only).

6. Install crankshaft damper and torque to factory specification.

NOTE: The front cover oil seal should be replaced before the front cover is
re-installed.
13. Rotate engine until timing marks are aligned as shown in Figure 1.
14. Remove cam sprocket bolt, washer, and fuel pump eccentric. Slide sprocket
and timing chain forward to remove.
15. Remove the thrust plate and camshaft, then remove the crank sprocket.

• VALVE SPRINGS

CAUTION: WARNINGS ABOUT YOUR WARRANTY
In order for this Performer RPM cam and lifter kit to be covered under ANY
WARRANTY you MUST use the correct Edelbrock Sure Seat Valve Springs.
Failure to install new Edelbrock valve springs with your new Performer RPM
Cam could cause the cam lobes to wear excessively and could cause addi-
tional engine damage.

• INSTALLATION INSTRUCTIONS

1. Coat cam lobes and bottoms of each lifter with MoS2 lube (supplied) to pre-
vent cam lobe and lifter wear from occurring during initial start-up.

2. Install new camshaft with new sprockets, timing chain and lifters.
CAUTION: Use Edelbrock Performer-Link True Rolling Timing Chain and Gear
Set #7820 or Accu-Drive gear drive set #7892. Do not use late model timing
chain & gear sets that are designed in a retarded position and are not rec-
commended for this camshaft installation. Edelbrock Timing Sets feature three
keyways for specific timing selection. Use locking compound material on the
bolt threads holding timing gear to cam. Torque to factory recommendations
specified in motor repair manual. Install camshaft with timing marks lined up
as recommended by factory specifications. See Figure 1. When using
Performer-Plus Timing Chain and Gear Sets (7800 series) with Edelbrock cam
and lifter kits, straight up timing alignment is achieved. If any other timing
gear set is used, it is necessary to check cam 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 recom-
manded for use with Edelbrock camshafts.

• INSTALLING PUSHRODS AND ROCKER ARMS

High performance pushrods and rocker arms and studs are recommended
for this installation.

After the cam is installed and timed correctly (see Figure 1), it will be neces-
sary to check each pushrod for correct lifter pre-load.

• VALVE ADJUSTMENT

1. Turn the engine over until cylinder #1 is in firing position. Verify that the #1
piston is at TDC and that both lifters are in the down position. You may now
install the adjusting nut on both the intake and exhaust rocker arms for cylin-
der #1 and tighten them to zero lash, then tighten the nuts a further quarter
turn to achieve the proper pre-load.

2. Rotate the crankshaft 90° so that the next cylinder in the firing order (#3) is
at TDC and repeat the adjustment process.

3. The above procedure assures correct hydraulic lifter preload. Repeat this
procedure for each of the other six cylinders in the firing order:
(1-3-7-2-6-5-4-8)

4. Re-install front cover, fuel pump, water pump, and oil pan using new gas-

ets.

5. Install intake manifold using new intake gasket set and torque manifold bolts
to 25 ft./lbs. (except for end bolts of early style heads which have no support;
hand tighten only).

6. Install crankshaft damper and torque to factory specification.

1. This camshaft is designed to function with Edelbrock Sure Seat Valve springs
#5722. Do not use dual valve springs with this camshaft. Valve Spring
Retainers #9733 may be used if your heads are equipped with Chevrolet
valves. Retainers #9724 will give 0.100" taller installed height and may be
necessary for proper spring height if you are using OE specification Ford
valves. Do not use rotator type valve springs or retainers for this application.

• LIFTERS

1. New lifters must be used with new camshaft. Use only the high rev lifters
supplied with this kit.

2. Check to be sure that all lifters fit freely in the lifter bores and that the factory
did not install oversized lifters in your block to compensate for machining
errors.

1. Start the engine and bring to break-in rpm.

CAUTION: Change the engine oil and filter before start-up and again after the
initial break-in. 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.

1. Start the engine and bring to break-in rpm.

IMPORTANT INSTRUCTIONS 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 coming loose due to improper
torque on bolt. Bolts holding gear to camshaft should be torqued carefully
and a locking compound applied to threads of bolts.

• CAM GEARS AND CAMSHAFT END PLAY- If cam gear becomes loose, the cam
could cause the cam lobes to wear excessively and could cause addi-
tional engine damage.

• INSTALLING DISTRIBUTOR AND TIMING ENGINE

NOTE: Before installing your distributor, check the gear drive on the distribu-
tor and oil pump for any signs of wear. If worn, be sure to replace them or
you may wear out your camshaft prematurely. This is especially true when
rebuilding your engine and a high performance oil system is used, which
generates a heavier load on the camshaft gear system. Edelbrock camshafts
are designed to use OEM-type gears only.

1. Turn the engine over in the direction of rotation until the No. 1 intake valve
   closes and continue until the pointer on the front cover is approximately 5
degrees BTDC.

2. Re-install the distributor with the rotor pointing towards No. 1 terminal in the
cap, and with the vacuum advance canister in its original position.

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. Re-install air conditioner, if so equipped.

6. Re-fill radiator with coolant and re-connector battery.

7. Double check all connections, fuel lines, etc. before starting engine.

• CAMSHAFT/LIFTER RUN-IN

CAUTION: Use Edelbrock Performer-Link True Rolling Timing Chain and Gear
Sets #7820 or Accu-Drive gear drive set #7892. Do not use late model timing
gear set is used, it is necessary to check cam 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 recom-
manded for use with Edelbrock camshafts.

Things to look for that can cause failure and damaged parts are as follows:

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1. Improper valve-to-piston clearance (this should be no less than 0.080”).
2. Rocker arm stud slot clearance (both ends; valve closed and open).
3. Proper spring settings (see dimensions with spring instruction sheet; correct dimensions mean maximum performance and longer engine life).

- **SPECIAL INSTRUCTIONS**
  With the Edelbrock manifold and camshaft package plus a header installation, a carburetor jet change may be required for best performance. Due to the varied applications of year and model 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.

- **IGNITION TIMING**
  Ignition timing for this package may vary with each application. A good starting figure would be between 10 degrees to 14 degrees initial timing at idle with vacuum advance disconnected. Total advance should not exceed 32 degrees to 34 degrees with initial and centrifugal weights combined and should be at full advance at 3000-3500 rpm. After timing is adjusted, re-connect the vacuum advance line.
  NOTE: The best combination for any particular vehicle or application must be determined by trial and error using the above information as a guideline.

- **HEADERS**
  For best performance, headers are recommended. For this application, they should be 1-5/8” or 1-3/4” diameter, approximately 31” long and terminating into a 3” collector. The remainder of the exhaust system should consist of dual exhaust and tail pipes, at least 2” diameter with low back-pressure mufflers.

- **WARNING**
  In order for this Performer RPM cam and lifter kit to be covered under ANY WARRANTY you MUST use the correct Edelbrock Sure Seat Valve Springs. The end flap or label from your Sure Seat Valve Spring box must be sent in with your camshaft warranty card. Failure to install new Edelbrock Sure Seat Valve Springs with your new Performer RPM cam and lifter kit could cause the cam lobes to wear excessively and could cause additional engine damage. IF YOU HAVE ANY QUESTIONS ABOUT THIS APPLICATION, PLEASE CONTACT OUR TECHNICAL DEPARTMENT IMMEDIATELY.

- **CAUTION:** Use Edelbrock Performer-Link Timing Chain and Gear Set #7820 or Accu-Drive gear drive #7892. Do not use late model timing chain and gear sets that are designed for emission-controlled engines. These timing sets are machined in a retarded position and are not recommended for this camshaft installation. Edelbrock Timing Sets feature three keyways for specified timing selection.

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- **Firing Order**
  1-3-7-2-6-5-4-8
  351-W c.i.d. Ford V8
  Turn distributor clockwise to advance timing.
CAMSHAFT: Performer RPM Hydraulic
CATALOG: #7182
ENGINE: Ford 351-W V8
RPM RANGE: 1500-6500

CAUTION: Do not use dual valve springs.
Use only recommended Edelbrock Sure Seat Valve Springs #5722.
Use stock ratio (1.6:1) rocker arms only.

Duration at .004" Lift: Intake 290° Exhaust 300°
Duration at .050" Lift: Intake 224° Exhaust 234°
Lift at cam: Intake .310" Exhaust .325"
Lift at valve: Intake .496" Exhaust .520"
Timing at .050 Lift: Open Close
Intake 6° BTDC 38° ABDC
Exhaust 51° BBDC 3° ATDC

Intake Centerline: 106° Lobe Separation: 110°

- CAUTION: Use Edelbrock Performer-Plus Timing Chain and Gear Set #7820 or Accu-Drive gear drive #7892. Do not use late model timing chain and gear sets that are designed for emission-controlled engines. These timing sets are machined in a retarded position and are not recommended for this camshaft installation. Edelbrock Timing Sets feature three keyways for specified timing selection.

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