

Application: 1958–1982 C1–C3 Corvette

## **INSTRUCTION SHEET**

## Part Number



Part Includes

1 - Component

# **Intake Manifold**



Tools Needed



Engine Components

## PRELIMINARY CHECKLIST:

- $\hfill\square$  Carefully study and understand ALL instruction sheets.
- $\hfill \square$  Carefully check the manifold instruction sheet to make sure it is the correct one.
- □ Inspect manifold for possible shipping damage (if damaged, contact your dealer immediately).
- Check all threaded holes.
- □ Check all internal passages with a light and a wire making sure they are clean and unobstructed.

□ Check carburetor, points, plugs, wires and distributor vacuum and mechanical advance systems to avoid possible problems in the future.

□ Check automatic transmission shift points before removal of your stock manifold, and adjust linkage after manifold installation for same shift points (if needed).

- $\hfill\square$  Check emission parts for proper function before removing stock manifold.
- $\hfill\square$  Check air/fuel ratio before and after new manifold installation.
- □ Use correct gaskets with Edelbrock Gasgacinch #9300 RTV silicone sealant.
- □ Position manifold and follow torque sequence correctly as per instruction sheet.
- □ Use correct carburetor and adapter if recommended. Always use a new carburetor base gasket.
- □ Use Teflon tape or PST thread sealer on all pipe plugs, fittings and bolt threads.
- $\square$  Re-install vacuum lines correctly and replace all bad lines with the correct size.
- □ Set ignition timing to correct specification.
- □ Adjust the automatic choke correctly.

**NOTE:** It is recommended to refer to this checklist again AFTER installation to be sure all steps have been completed.

## THINGS TO DO BEFORE REMOVAL OF THE STOCK MANIFOLD:

Use the following checklist for items needed:

- $\hfill\square$  Box and open end wrenches
- $\hfill\square$  Socket set
- Distributor wrench
- Pliers (channel locks and hose clamp)
- Screw drivers (regular and Phillips)
- Torque wrench





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- □ Hammer
- Gasket scraper or putty knife
- Timing light
- □ Vacuum gauge
- □ Rags
- Water bucket
- $\hfill\square$  Paper and pencil

## ADDITIONAL PARTS AND EQUIPMENT:

- Gaskets-OEM or OEM equivalent
- $\hfill\square$  Pipe plugs, if needed
- □ RTV High Temp silicone sealer or 0/2 sensor safe RTV
- Masking tape
- □ Modeling clay or putty
- $\square$  Chalk
- Radiator coolant
- $\hfill\square$  Teflon thread tape or PST thread sealer or equivalent
- $\hfill\square$  Check manifold instruction sheet for catalog numbers of 0EM parts needed for installation

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## **CHECKING HOOD CLEARANCE:**

NOTE: Check hood clearance BEFORE removing stock manifold.

## STEP 1.

Use modeling clay or putty and make 5 stools, 2 or 3" high.

## STEP 2.

Position stools on air cleaner at front, rear, each side, and on center stud (see Figure 1).

## STEP 3.

Close hood to locked position and re-open.

## STEP 4.

See Figure 2 and record measurements for the locations labeled A, B, C, D, and E.

## STEP 5.

These figures show the amount of clearance between the hood and the air cleaner.

## MANIFOLD AND CARBURETOR HEIGHT:

STEP 1.

Remove the air cleaner.

## STEP 2.

Lay a straightedge (such as a yardstick) across the top of the carburetor from front to back.

## STEP 3.

Measure from block and manifold end seal surface (see Figure 3).

## STEP 4.

Record measurements A and B from Figure 3.



## STEP 5.

Measure and record the height of the carburetor.

NOTE: Most 4-bbl carburetors are about 3-1/4" tall (mounting flange to air cleaner flange).

## STEP 6.

Place a straightedge on top of the new manifold including any adapters or gaskets.

## STEP 7.

Measure the distance from the end seal surface the same as the stock manifold (see Figure 4).

## STEP 8.

Record the new measurements.

## STEP 9.

Add the carburetor measurement to the new manifold figures recorded.

## STEP 10.

If the new combination is taller, subtract this amount from the hood clearance figure for the new hood clearance. **CAUTION:** Maintain at least 1/2" clearance between the hood and air cleaner because of engine torque. If there is insufficient clearance, a low profile air cleaner may solve the problem.

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NOTE: On engines without end seal surfaces, select a standard point from which to measure.

## AIR CLEANER:

Use stock air cleaners unless changing carburetor.

**NOTE:** If a new or replacement air cleaner is used, there may be inadequate hood clearance. Make sure it performs the same function as stock and meets legal emissions requirements.

## **AUTOMATIC TRANSMISSION CHECK:**

For best performance, economy, and emissions, the shift point must be check before and after the manifold change. **NOTE:** This check should be performed ONLY at a sanctioned drag strip or test track.

## STEP 1.

With the shifter in DRIVE, accelerate to wide open throttle from a standing start. Hold this position, noting speedometer MPH when the transmission makes the first 1–2 shift. After the intake manifold has been installed, make the same test, again noting MPH of this first shift.

## STEP 2.

The transmission on certain vehicles require precise adjustments. It is recommended to consult a reputable transmission shop for final adjustments once the installation has been completed. Incorrect shift points can result in transmission damage.

## CHECKING EMISSION LEVELS:

## STEP 1.

Where required by law, after making any equipment change to the engine package, it is the responsibility of the consumer to make certain all OEM emission equipment remains operational.

## STEP 2.

It is recommended that tailpipe levels be measured before and after equipment installation. This procedure will provide guidelines for keeping vehicle emission levels within legal limits.

## EGR SYSTEMS:

Exhaust Gas Recirculation (EGR) systems are used on most 1972 and later passenger cars, trucks, and recreational vehicles. If your vehicle has an EGR system, law requires that this system be retained with the new manifold.



## **EXHAUST MANIFOLD HEAT RISER VALVE:**

## STEP 1.

If the vehicle is equipped with an exhaust manifold heat riser valve (generally located on the passenger side of the vehicle below the exhaust manifold), check the valve for proper operation.

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## STEP 2.

This valve is spring-loaded and must work freely from the close to open position by hand.

## STEP 3.

After engine warm up, the bimetal spring must keep the valve in the open position. If the valve does not open or opens only part way, excessive exhaust heat will transfer through intake manifold, causing damage to the manifold.

## **AUTOMATIC CHOKE:**

## STEP 1.

With the engine cold and not running, remove air cleaner and open throttle by hand. This will allow the choke blade to close.

## STEP 2.

By hand, feel how much tension is holding the blade closed. Preliminary setting should be the same AFTER manifold installation. See choke section on later pages.

## **BRACKETS:**

Some bracket parts or bracket modification may be required when replacing a 2-bbl carburetor with a 4-bbl carburetor. Refer to the manifold instruction sheet for part numbers needed and drawings of possible parts modifications.

## **CLEAN ENGINE:**

## STEP 1.

It is recommended to clean the engine to prevent dirt from falling into the engine lifter valley or intake ports.

## STEP 2.

Cover ignition system Use Gunk (or equivalent) and a brush to thoroughly clean manifold and the area between manifold and valve covers.

## STEP 3.

Rinse with water and blow dry.

## VACUUM LINES:

## STEP 1.

Vacuum lines are a major source of manifold, carburetor, and ignition malfunction problems causing poor mileage, performance, and high emissions.

## CAUTION: IT IS VERY CRITICAL THAT THE PROCEDURE OUTLINED BELOW BE FOLLOWED AND COMPLETED WITH EXTREME CARE.

## STEP 2.

Before removing stock manifold, either make a sketch or tag each vacuum line with masking tape showing where each line goes on the carburetor, manifold, distributor, transmission, all emission sensors, and EGR valve.

**NOTE:** There are 2 types of vacuum signals. One is called Manifold Vacuum. Two is called Timed Port Vacuum. Each has its particular function and must be connected correctly for proper engine, transmission, ignition, emission, and accessory function. Use the following procedure to determine one from the other and note it on the sketch or tags.



#### **MANIFOLD VACUUM CHECK:**

#### STEP 1.

Start the engine with the vehicle out of gear, set the brake and block the wheels. Idle until engine is warm and the automatic choke is completely off.

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#### STEP 2.

With engine at idle, place a vacuum gauge over the end of each line and check for vacuum (see Figure 5). If it shows a vacuum, note this on the sketch or tag as "manifold vacuum".

#### TIMED PORT VACUUM CHECK:

#### STEP 1.

For lines not showing vacuum in the previous test, open throttle slowly to about 1500rpm. If some vacuum is now shown, note on tags or sketch as "timed port vacuum".

CAUTION: Vacuum line fatigue is common. It is wise, at this time, to replace all vacuum lines, making sure to use the correct size.

**NOTE:** Remember all lines must be re-connected to their proper vacuum source.

#### **REMOVING THE STOCK MANIFOLD:**

**STEP 1.** Disconnect battery.

#### STEP 2.

For ease of installation, keep all parts in some sort of order.

## WARNING: Do not remove manifold if engine is hot.

## STEP 3.

Drain radiator coolant (drain plug will normally be located on lower right facing engine).

NOTE: See individual manifold instruction sheet for water draining requirement. Some engines do not require draining.

#### STEP 4.

Remove gas cap to relieve pressure. Disconnect fuel line and plug. Replace gas cap.

## STEP 5.

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

#### STEP 6.

Tag and remove coil wires and sensor wires.

## STEP 7.

Remove previously marked vacuum lines.

## STEP 8.

Remove radiator hose, thermostat housing, and thermostat, if mounted on manifold.

## STEP 9.

Remove all brackets that are on the manifold.

## STEP 10.

Loosen or remove valve cover bolts on valve covers for manifold removal and replacement. It may be necessary to replace valve cover gaskets, if broken, to prevent oil leakage.



## **REMOVING IGNITION:**

CAUTION: Follow instructions carefully, as serious damage can occur when ignition is not installed correctly.

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#### STEP 1.

Remove distributor cap.

#### STEP 2.

Note position of rotor and make a mark on the distributor case in line with the rotor point.

#### STEP 3.

Note position of distributor vacuum canister and place one type of mark on valve cover or fire wall in line with the vacuum outlet.

#### STEP 4.

Note position of points (or magnetic trigger wheel), if open, how much; if closed, note the distance from point block to cam lobe.

#### STEP 5.

See Figure 6 for all details.

STEP 6. Remove distributor.

STEP 7.

Do not rotate engine after removing distributor.

#### DOWEL PIN REMOVAL:

WARNING: On some engines, there are dowel pins in the front and rear valley seal surfaces. These dowel pins MUST be removed. This manifold is not drilled for dowel pins and will not seal if they are not removed. Damage may result.

#### PREPARATION PROCEDURE FOR INSTALLING MANIFOLD

#### **PORT SURFACE CLEANING:**

To prevent gasket pieces from falling into ports and combustion chambers when cleaning old gaskets from head surfaces, lay rags in lifter galley and stuff paper or rags into ports (see Figure 7). When clean, remove stuffing carefully making sure all particles fall on rags in lifter galley. Carefully remove rags containing particles. Wipe surfaces clean with rags using lacquer thinner to remove any oil or grease.

NOTE: This is a MUST to ensure proper sealing.

#### **INSTALLING FITTINGS, PIPE PLUGS, & STUDS:**

## STEP 1.

Do not over-tighten or cross-thread fittings, pipe plugs, studs or bolts in the aluminum manifold. Damage to threads or a cracked mounting boss may result unless caution is used when installing accessories.

#### STEP 2.

Use Teflon tape or PST thread sealer or equivalent. Install fittings, pipe plugs, and carburetor studs from the stock manifold.

#### **GASKET SURFACE PREPARATION:**

CAUTION: Always use recommended gaskets or equivalent. Check with gasket manufacturer for compatibility with aluminum intake manifolds. DO NOT USE Permatorque gaskets. The use of Permatorque gaskets can lead to improper sealing due to the hardness of the gasket.

STEP 1.



Check gaskets on head surface and manifold to make sure they are correct. Beaded side faces up.

**NOTE:** In some cases, there may be a right and left side gasket difference. Be sure they are placed correctly.

## STEP 2.

Coat head surface and cylinder head side of intake gaskets with Edelbrock Gasgacinch #9300 (see Figure 8).

## STEP 3.

Within a few minutes, gaskets and surface will become tacky to the touch. Carefully place gaskets on head surface, aligning ports and bolt holes.

## STEP 4.

With gasket in place, apply a small amount of RTV High Temp silicone sealer around water passages intake manifold side (see Figure 9).

## STEP 5.

With this manifold, use of the RTV High Temp silicone sealer is a must instead of end seal gaskets. Apply a 1/4" thick ribbon of sealant across each end seal surface. Some installations will require 02 sensor safe silicone (see Figure 10).

## MANIFOLD INSTALLATION:

## STEP 1.

Carefully position manifold on engine, centering bolt holes with bolt holes in head.

NOTE: On some manifolds, study manifold instruction sheet for special instructions.

## STEP 2.

Refer to manifold instruction sheet for placement of any special bolts furnished with your manifold.

## STEP 3.

Apply RTV silicone or Teflon tape to bolt threads, where exposed to water, oil, or engine vacuum.

## STEP 4.

Start all bolts by hand. Refer to individual manifold instructions for torque sequence.

Carburetor installation:

CAUTION: Use only recommended carburetors listed on manifold instruction sheet. Use of a new base gasket is a MUST. For non-OEM carburetor, install according to manufacturer's instructions. Use gaskets furnished with carburetor.

## STEP 1.

Connect all fuel lines, linkage, and throttle springs.

## STEP 2.

Connect all vacuum lines refer to the drawing made earlier or tags for correct placement.

## WIRING:

Connect all electrical wiring as per drawings or tags.

## THERMOSTAT:

## STEP 1.

To ensure proper function of thermostat, place it in a pan of boiling water. It should open quickly to the wide open position. If questionable, replace it with one for the correct year and model of the vehicle.

## STEP 2.

Install thermostat with proper orientation. Apply Edelbrock RTV silicone on manifold surface using a new gasket and place it in position aligning holes. Apply RTV silicone to water neck surface and bolt threads. Position water neck. Start



bolts by hand and tighten.

#### STEP 3.

Make sure radiator drain is closed. Replace coolant.

#### STEP 4.

Re-connect battery.

#### **INSTALL IGNITION:**

STEP 1.

Manifold must be in place and torqued to specifications.

## STEP 2.

Install distributor with rotor pointing to the mark on the housing and the vacuum can lined up with the mark on the fire wall or valve cover (see Figure 6).

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## STEP 3.

Make sure the distributor is all the way down and the distributor shaft is fully engaged in the oil pump drive.

## STEP 4.

Rotate distributor until point opening or magnetic trigger wheel alignment is the same as when ignition was removed.

## STEP 5.

Install hold down clamp and tighten to hold in place.

## STEP 6.

Final setting to specifications must be made with timing light.

#### **RE-TIMING ENGINE:**

**NOTE:** If for some reason engine was rotated, the engine must be re-timed. Use the following procedure for re-timing the engine.

#### STEP 1.

Remove spark plug from No. 1 cylinder. See individual manifold instruction sheet for No. 1 cylinder.

## STEP 2.

Remove coil wire from distributor and ground it.

## STEP 3.

**THIS STEP REQUIRES TWO PEOPLE OR A REMOTE STARTER SWITCH.** One person rotates engine by slowly bumping starter. One person holds his finger over the No. 1 plug hole until compression is felt.

## STEP 4.

Continue to bump starter until timing mark on the crankshaft pulley shows approximately 5 degrees before top dead center.

## STEP 5.

See Figure 6 for correct positioning of rotor and ignition on No. 1 cylinder.

## STEP 6.

Disregard previous mark placed on distributor.

## STEP 7.

Install distributor so that rotor lines up with new mark and points are just open or magnetic trigger wheel aligns with sensor.



## STEP 8.

Final setting to factory specifications is made with a timing light.

**NOTE:** Rotate distributor opposite direction of rotor rotation to advance timing. Rotate with rotor rotation to retard timing. If these instructions are followed carefully, the engine should start and not backfire after the manifold installation.

#### **AUTOMATIC CHOKE:**

CAUTION: Improper or careless setting of the automatic choke will cause poor mileage and poor performance. Follow detailed instructions carefully.

#### STOCK ELECTRIC CHOKE:

#### STEP 1.

When installing the OEM electric choke carburetor, re-connect choke wire as removed. DO NOT USE COIL WIRE.

## STEP 2.

When replacing OEM electric choke carburetor with an Edelbrock electric choke carburetor, connect the choke wire to the choke cap terminal marked "+".

**NOTE:** Be sure the other connector is connected to a good ground (see Figure 11).

#### **CONVERTING TO ELECTRIC CHOKE:**

CAUTION: Electric chokes will not function properly on less than 12 volts.

#### STEP 1.

Turn the ignition key to the "Run" position. Use a volt meter and locate a +12 volt source (not the coil). For example, the input side of the resistor, a fuse panel terminal, or any common +12 volt terminal that has power only when the ignition switch is on. In some cases, the wiper or heater motor.

**NOTE:** Be sure the source is +12 volts, and only when the ignition switch is in the "Run" position.

## STEP 2.

Do not use the plus side of the coil. This terminal is only 8 or 9 volts and will not operate the choke.

## STEP 3.

Follow carburetor manufacturer's instructions.

## SETTING THE ELECTRIC CHOKE:

#### STEP 1.

There will be an index mark on the choke cap and there will be adjustment notches on the choke cap housing. For initial setting, make sure index mark is in the center of the adjustment notches (see Figure 12).

#### STEP 2.

Final setting will depend on climate conditions for the area. Cap indicates direction for richer or leaner choke setting.

#### **DIVORCED CHOKES:**

**NOTE:** Where designs permits, Edelbrock duplicates the stock manifold choke mounting configuration. For applications where this is not possible, due to carburetor selection or manifold design, Edelbrock has incorporated on the manifold a special heat pad, which will allow the automatic choke function to be retained under the following situations.

#### STEP 1.

Carburetor choke linkage determines choke blade opening by pushing up or pulling down.

#### STEP 2.

Chevrolets may use the stock assembly unless carburetor selection requires a different choke opening direction.

STEP 3.



Thermostat assembly (GM part no. 3973497 for chokes which open with an upward motion, or GM part no. 3989058 for chokes which open with a downward motion) and dust cover (GM part no. 14006795 for both applications) may be purchased from a Chevrolet dealer. NAPA #2-313 or equivalent may also be used in place of GM #3973497.

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#### STEP 4.

Check Edelbrock choke rod numbers below. These are available from Edelbrock dealers or from Edelbrock directly, in unavailable locally.

#### Choke Rods -

9171: 4-V Rochester divorced choke rod for small-block Chevrolets (Performer 2101, 3701).

6179: 4-V Rochester divorced choke rod for big-block Chevrolets (Performer 2161, 3761).

#### SETTING DIVORCED CHOKE:

## STEP 1.

Install correct choke thermostat on manifold.

## STEP 2.

Refer to individual manifold instruction sheet for Edelbrock choke rod part number and choke.

## STEP 3.

Choke must be set with engine cold.

## STEP 4.

Be sure carburetor and thermostat are securely bolted in place.

## STEP 5.

Insert plain end of Edelbrock choke rod in rolled eye of spring and clip end in carburetor linkage (see Figure 12).

## STEP 6.

Open throttle by hand and push on choke blade. By bending link, adjust to the same pre-load condition that was felt with the stock manifold.

## STEP 7.

When pre-load is set, remove link from carburetor end. Slide cover over link to base. Push down on cover until it snaps in place (see Figure 12).

## STEP 8.

Replace clip end carburetor linkage and install clip furnished (see Figure 12).

## STEP 9.

Open throttle by hand and work choke linkage by hand. Choke should work freely from closed to open position. If there is any bind, check cover for rod clearance and re-shape rod to clear.

#### **TROUBLESHOOTING:**

Below is a list of the most common problems experienced after a manifold installation. Under each problem lists several possible causes for the problem.

#### WATER LEAKS:

- Failure to use new or current gaskets and proper sealant.
  Caution: Fel-Pro brand Permatorque gaskets are not recommended for use with aluminum intake manifolds. Use recommended or equivalent gaskets only.
- 2. Failure to use Teflon tape, pipe dope, or liquid Teflon on fitting and bolt threads as recommended.
- 3. Failure to replace questionable hoses or clamps.
- 4. Use of chrome thermostat housing. Chrome on the gasket surface prevents proper sealing of the gasket



## VACUUM LEAKS:

- 1. Failure to replace questionable hoses.
- 2. Incorrect re-connection of vacuum hoses.
- 3. Forgetting to connect a hose.
- 4. Incorrect manifold gaskets or carburetor gaskets. Do not use Fel-Pro Permatorque gaskets for any aluminum intake manifold. Use the correct Edelbrock, OEM replacement, or Fel-Pro Printoseal gaskets.
- 5. Failure to use Edelbrock carburetor spacer plates when recommended.
- 6. Failure to re-torque manifold if recommended.

## FOULED LUGS AND OIL LEAKS:

- 1. Failure to re-torque manifold if recommended.
- 2. Incorrect manifold gaskets and sealant.
- 3. Faulty PCV valve or use of incorrect PCV valve.
- 4. End seal slippage or failure to use enough RTV sealant in place of end seals.

## **AUTOMATIC CHOKE PROBLEMS:**

1. Failure to follow instructions completely or clogged exhaust crossover passages.

## **POOR MILEAGE AND/OR PERFORMANCE:**

- 1. Incorrect selection of manifold for engine application.
- 2. Incorrect carburetor choice.
- 3. Re-curving distributor curves when not recommended.
- 4. Incorrect automatic choke setting.
- 5. Failure to adjust automatic transmission shift point per instructions if necessary.
- 6. Improper vacuum hose installation (leaking).
- 7. Failure to set timing to specification with timing light.
- 8. Failure to replace plugs, wires, points, and/or rebuild carburetor if necessary.
- 9. Restricted air flow due to dirty air cleaner elements.

## **MILEAGE TIPS:**

- 1. Due to varied conditions, such as weather, traffic, and types of driving, average mileage should be computed with a minimum of 4 to 5 tanks of gasoline.
- 2. Install a vacuum gauge and program your driving habits to keep the vacuum as high as possible at all times.
- 3. Keep tires inflated to highest pressure recommended by manufacturer.
- 4. Keep air filter clean and replace when needed.
- 5. Re-adjust automatic choke for winter and summer.
- 6. Use light throttle when accelerated.
- 7. Keep points and timing to maximum factory setting at all times.
- 8. Check spark plugs and ignition wires at least every 10,000 miles and replace if questionable.
- 9. Using a vacuum gauge, keep carburetor adjusted to highest idle vacuum.

**NOTE:** For automatic transmission cars, adjust idle in gear. Idle adjustments must be made at the manufacturer's specified rpm.

# WARNING: MAKE SURE to have an assistant holding the brake, with the parking brake applied to prevent any accidental movement of the vehicle during adjustment!

10. Edelbrock replacement manifolds are designed to maintain high vacuum at cruise throttle position and sharp



10. throttle response with minimum throttle opening. Unnecessary demands on the added performance will affect mileage.

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## CARE AND CLEANING OF INTAKE MANIFOLD

## AS-CAST (NATURAL) FINISH:

## STEP 1.

Due to manufacturing processes associated with cast aluminum, in certain conditions as-cast aluminum manifolds may develop a light oxidation or "patina" on the surface. To prevent oxidation, thoroughly clean the manifold prior to installation and on a regular basis with a mild cleaner such as Simple Green<sup>®</sup> or an "all finish" wheel cleaner formulated for aluminum wheels.

## STEP 2.

If oxidation does occur, it can be removed using Eastwood Co.'s OxiSolv<sup>™</sup> Aluminum Cleaner. This cleaner is intended for prepping surfaces for painting, but works well to remove oxidation from cast aluminum.

CAUTION: OxiSolv<sup>™</sup> is an acid cleaner. Use hand and eye protection and follow all warnings and instructions on the product label. Use ONLY in a well ventilated area. DO NOT use this product to clean painted, polished, or chrome plated parts. See product label for further details.

- a. Metal surfaces to be cleaned should be free of any grease, oil, or wax before applying this product.
- b. Apply the product to the intake manifold, being careful not to get excess overspray on any nearby painted, polished, or chrome plated surfaces. Rinse away any overspray from these surfaces as soon as possible.
- c. Keep the surface being cleaned wet with the product for approximately 10 minutes, then rinse. Repeat process if desired results are not obtained.

## **POLISHED FINISH**

## STEP 1.

Clean polished intake manifolds using a soft cloth and mild cleaner such as Simple Green<sup>®</sup> or a soap and water solution.

## STEP 2.

Use a high quality, aluminum polish to maintain the polished finish of your intake manifold.

## STEP 3.

Protect the finish by applying a coat of any automotive wax.

## ENDURASHINE<sup>™</sup> AND PERMASTAR<sup>®</sup> FINISH:

## STEP 1.

NEVER clean EnduraShine or PermaStar parts with solvents or carburetor cleaners of any kind. These cleaners will dull the luster and will remove the coating. Do not use paper towels to wipe or clean the EnduraShine or PermaStar parts. ALWAYS use a soft, non-abrasive, absorbent, lint-free, cotton or micro-fiber cloth, and a short circular stroke cleaning motion. Only use a mild non-solvent cleaner such as Simple Green® or a soap and water solution.

## STEP 2.

Use only CLEAR COAT SAFE automotive polishes to remove scratches. For best results, use a product such as Novus<sup>®</sup> No.2 Fine Scratch Remover. Meguiars<sup>®</sup> Cleaner Wax or Mothers<sup>®</sup> Plastic Polish is also recommended. Before the application of any scratch removal product, ensure the surface of the part is clean and free of any dirt or grime and follow the directions of the cleaning product carefully.

## STEP 3.

Protect the finish by applying a coat of any automotive wax.

**NOTE:** Any cleaning products used on the EduraShine or PermaStar parts MUST be clean coat safe or developed for the cleaning of acrylic coatings. It is suggested to apply any automotive wax coat after cleaning, this will help to seal the surface and protect the finish. Use of abrasive or solvent cleaners will void the manufacturer's warranty.