



PART #74196

SuperRam Plenum/Runner Kit

**WARNING:** READ ALL INSTRUCTIONS BEFORE STARTING THIS INSTALLATION. FUEL LINES AND FUEL RAIL MAY BE UNDER HIGH PRESSURE, UNBOLT AND UNSCREW VERY CAREFULLY AS TO RELEASE ANY RESIDENT PRESSURE ON FUEL. NOTE THAT THE FOLLOWING INSTRUCTIONS MUST BE DONE WHILE VEHICLE IS COLD AND HAS NOT OPERATED WITHIN 24 HOURS. ALWAYS USE EXTREME CAUTION WHEN WORKING WITH ELECTRICAL, AND COOLANT SYSTEM COMPONENTS!

ACCEL SuperRam Plenum/Runner Kit is a direct bolt-on replacement but offers improved performance and fuel economy potential. Consisting of the Lingenfelter designed plenum and runners, this new SuperRam Plenum/Runner configuration significantly improves volumetric efficiency for more horsepower and torque. The plenum lid is removable to enable plenum-to-runner port matching. Optional billet plenum lid part #74198.

Please read the following instructions carefully before installing your new SuperRam Plenum/Runner Kit. Also we recommend that you study your applicable OEM service manual before you begin your installation. Please make a note of your engine configuration with special attention to all vacuum, fuel, and electrical connections for your future reference. It is a good habit to tag each part from your engine upon removal. This will help facilitate your re-assembly. If you have any questions or problems, please contact our Tech Line at (313) 380-1328.

Before beginning your installation, make sure that you have the following parts:

Supplied with, SuperRam Plenum/Runner Kit

- 17 1/4 - 28 X 1/2 Button Head Screws
- 16 1/4 - 28 X 3/4 12 pt Head Bolts
- 4 M8 X 25 Socket Head Bolts
- 4 M8 X 30 Socket Head Bolts
- 1 M6 X 12 Screw
- 1 90 Degrees Brass Fitting - 1/4" NPT
- 1 Cold Start Block Off Kit
- 1 Gasket Set, Runners, Box
- 1 13" 11/32 Vacuum Line
- 2 3/8" NPT Pipe Plugs
- 1 1/4" NPT Pipe Plug

**NOTE:** THE SMALL BLOCK SUPERRAM PLENUM/RUNNER KIT (PART #74196) IS LEGAL FOR SALE ON CALIFORNIA POLLUTION-CONTROLLED MOTOR VEHICLES. EXECUTIVE ORDER #D-221-12.

The following is a list of what is not included with this kit, but is suggested by ACCEL for ease of installation:

Loctite 262 thread locking compound  
Anti-seize lubricant  
Fel-Pro #229 silicone rubber adhesive sealant  
Plastic locating pins from stock gaskets  
OEM approved valve cover gaskets  
Digital volt meter

#### THROTTLE BODY REMOVAL

1. Disconnect battery.
2. Drain coolant.
3. Disconnect throttle linkages, cable retaining bracket.
4. Disconnect air inlet tube from throttle body and air cleaner assembly.
5. Remove throttle body bolts.
6. Disconnect TPS and IAC electrical connections.
7. Disconnect vacuum lines.

#### RUNNERS

**WARNING: FUEL LINES AND FUEL RAIL MAY BE UNDER HIGH PRESSURE, UNBOLT AND UNSCREW VERY CAREFULLY AS TO RELEASE AND RESIDENT PRESSURE OR FUEL.**

1. Carefully disconnect fuel lines from intake assembly. Watch out for spraying fuel! Be sure this operation is done on a cold engine.
2. Remove and save runner bolts and plenum assembly.
3. Push fuel rail assembly up to clear runners.
4. Remove runners and gaskets, save the OEM plastic locating pins for later re-assembly.

#### INTAKE MANIFOLD

1. Remove fuel rail assembly. Be careful for any residual fuel left in the fuel rail.

2. Remove spark plug wires and distributor cap.
3. Rotate engine manually to top dead center with distributor rotor pointing to cap location cylinder #1 and mark for proper installation.
4. Remove distributor.
5. Remove all fittings, sensor, etc... from your OEM plenum and intake. Please note location where removed from. This will facilitate re-assembly later.

#### REASSEMBLY

1. Install all sensors, fittings, etc... on your new ACCEL/Lingenfelter plenum and runners. Be sure to put sealer on threads. Install the two (2) 3/8 pipe plugs into threaded holes inside your new plenum. You should use Loctite 262 or equivalent and stake the plugs with a punch or chisel to prevent loosening.
2. Apply a thin bead of silicone to end rails and install intake gaskets.
3. Apply silicone sealer to intake manifold bolts and torque bolts to manufacturer's specifications.
4. Re-install distributor, cap, and wires. See Figure 1 for cylinder location.
5. You may be required to remove valve covers and rocker arms for cylinders 2, 3, 6, and 7 exhaust only. If removed, re-install rocker arms and set according to OEM specs.
6. Check alignment on runner gaskets. Some trimming may be required.
7. Apply a thin film of silicone to the runner gaskets, then carefully install the gaskets.
8. Carefully start the bottom runner bolts first (M8X25). Then slide runner over these bolts. Remember to always lubricate all bolts with an anti-seize compound.
9. Gently apply a small amount of lubricant to the injector O-rings.
10. Install fuel rails, but do not tighten them.

11. Install 4 - M8X30 bolts in the outside runner holes. Then install the original equipment runner bolts in the remaining holes.
12. On applications where the cold start solenoid is not used, a block off plug and plate with an O-ring is supplied. This should be installed in the machined hole in the drivers side runner and held in with a runner bolt.
13. Tighten fuel rail bolts.
14. NOTE: On some applications the fuel injectors may slightly interfere with the SuperRam runners. To correct this problem you can increase the clearance by carefully filing the interference area with a file.
15. Lay T.V. cable on top of intake.
16. Apply a thin film of silicone to the plenum/runner gaskets and carefully install them.
17. Install the SuperRam plenum. Be sure to check that all sensors are installed and then connect the MAT sensor.
18. Carefully install the bolts from the runners to the SuperRam plenum. Do not tighten until all bolts have been started. These bolts thread up into the box.
19. Install the two original vacuum fittings, from the original plenum, into the rear of the SuperRam plenum. The 90 degree brass fitting installs in the hole on the driver side. On 1985-89 vehicles you should install the M6X12 screw in the small hole next to the vacuum fittings and the 1/4 pipe plug in the third threaded hole. On 1990-91 vehicles this hole locates the Map sensor. Install you vacuum fitting for the MAP sensor in the third hole. Be sure to apply silicone to all fittings to prevent vacuum leaks.
20. Carefully remove the fittings from the power brake booster. Remove the steel line and the factory vacuum hose. Install the 11/32" vacuum line. Some trimming may be necessary. The opposite end connects to the 90 degree brass fitting. This step replaces the OEM factor power brake vacuum line with a new rubber hose assembly. Be sure to carefully check power brake function before operation of vehicle.
21. Apply a thin film of silicone to the intake plenum box and install intake plenum top.

22. Carefully start all top bolts but do not tighten until all bolts have been started.
23. Install throttle body and gasket.
24. Reconnect all vacuum lines, electrical connections, and intake ducting.
25. Install valve cover gaskets and valve covers.
26. Carefully connect fuel lines and any coolant system hose.
27. Replace coolant.
28. Reconnect battery.

#### START UP AND CHECK OUT

1. Check TPS voltage.  
1985-89 Idle voltage should be .54 volts.  
1990-91 Idle voltage should be .70 volts.
2. Check initial timing and reset to 6 degrees (with ignition bypass disconnected) for best performance.  
  
Please Note: Retard timing if you have any problems with detonation.
3. Your Idle Air Control motor (IAC) may need to be adjusted to allow the computer to provide proper idle. See GM service manual for instructions.