



Mini-Ram Installation Instructions

1.MAN550/551/552

1. Disconnect the battery
2. Turn the motor over until the timing marks line up, and the rotor points at the number 1 terminal.
3. Remove the distributor noting the position of the rotor so you will have it correct on reinstallation of the distributor.
4. Remove your existing induction system. Clean all gasket material from heads and block. Temporarily set new gaskets in place with Mini-Ram and check bolthole alignment. Make sure the oil pressure fittings have clearance at the back of the manifold. The fitting should be in place before installing the manifold.
5. Bolt the Mini-Ram into position. We recommend using silicone to seal the ends of the manifold instead of cork or rubber end gaskets.
6. Now install the injectors and fuel rails. , Use a lubricant, like WD-40, to help slide the o-rings into position. Insert the injectors into the fuel rails (electrical connection facing out), and snap retain clips into place. Now press each rail assembly into position making sure all of the injectors are completely seated. Make sure the fuel transfer tube is properly seated between the two rails. Loosely install the hard fuel lines to the fuel rails. Select the proper fittings from the fuel rail kit to connect the fuel lines to your car. Once this is done tighten the hard lines at the fuel rails.
7. Reconnect the battery. Turn your ignition key to the run position to energize the fuel pump. Adjust the pressure to 47psi as a starting point. Check for leaks. There are two ports in the center of both sides of the manifold. These are for your vacuum connections. Any vacuum ports not used must be plugged. Three of the ports are 3/8" NPT, and one is 1/4" NPT (national pipe thread). We do not supply these fittings.
8. With your vacuum needs met, it is time to install your distributor. With the rotor pointing in the proper direction, set the distributor in place. It may not drop all the way in. If this is the case, turn the oil pump shaft until the distributor drops completely in.

9. Install your coolant temp. Sensor in one of the tapped hole in the front of the manifold, the other one can be used for your heater. Do what ever is neater for your situation. We do not run coolant through the throttle body; it will be necessary to cut the water cavity off of your lower throttle body housing. If you take the housing off and look at the water cavity and the IAC motor cavity, you will see what needs to be cut off. You only need the IAC cavity and three mounting holes. See photo on the left. We also offer a billet aluminum IAC housing without coolant passage, pictured on the right.



10. Install your water neck. It uses a standard small block Chevy thermostat. Fill the system with coolant and check for leaks.

11. Install your throttle body with the bolts supplied in the kit. Connect your throttle, kick down, and cruise cables. If using a stud style throttle body (85-88) you may need to use the stud extensions included in the kit for cable alignment. One bolt on the other can be tack welded. If you have a cable guided throttle body (89 or newer), use the small alum. Bracket on top of the fuel rail for the throttle cable. Have someone step on the accelerator pedal to make sure the butterflies are opening all the way. Make sure the floor mats are not interfering.

12. Install your manifold air temp. Sensor into the air cleaner ducting in front of the throttle body. Use the harness extension kit provided.

13. Reinstall wiring.

14. Set your base timing to 6 deg, with the EST wire disconnected. Hook up EST and disconnect the battery to clear the codes