

COLD AIR SYSTEM

Installation Instructions for:
Part Number 21-405
1992 - 1996 Honda Prelude S/SI/VTEC

ADVANCED ENGINE MANAGEMENT INC.

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Instruction Part Number: 10-208
1992-1996 Honda Prelude S/SI/VTEC F22A1, H22A1, & H23A1 C.A.R.B. E.O. #D-392-5
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Congratulations! You have just purchased the finest Air Induction & Filtration system for your car at any price!

The **AEM** Cold Air System is the result of extensive development on a wide variety of cars. Each system is engineered for the particular application. The **AEM** Cold Air System differs from all others in several ways. We take the inlet air from outside of the engine compartment where the inlet air is considerably cooler than the hot underhood air. The cooler inlet air temperature translates to more power during the combustion process because cool air is denser than warm air. **AEM** has conducted extensive inlet air temperature studies and we have seen temperature reductions of up to 50 degrees by pulling air from outside of the engine compartment. The <u>air mass</u> flow to the engine is increased because of the increased airflow <u>and</u> reduced inlet temperature, which translates to more power.

Our system is constructed of lightweight aluminum and then painted with a zirconia based powder coat for superior heat insulating characteristics. The aluminum will not crack in extended use like plastic and it is actually lighter than plastic. The tube diameter and length are matched for each engine to give power over a broad rpm range. Unlike the plastic systems that use a continually diverging cross section, we take advantage of the acoustical energy in the duct to promote cylinder filling during the intake valve-opening event.

Our Dyno testing as well as **independent dyno tests** (see 7/97 Sport Compact Car Magazine) prove that the **AEM** Cold Air System produces as much as twice the power gain than any other system on the market.

Bill of Materials

92-96 Honda Prelude

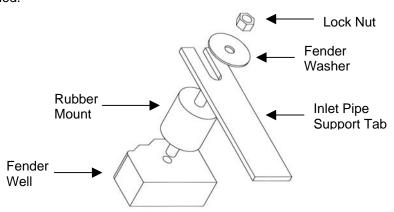
1	2-439	Inlet Pipe
1	21-202	2.75" AEM Air Filter & Clamp
1	444.460.04	6mm Nylock Nut
1	559999	6mmx25mmx1mm Washer
1	1228599	Rubber Mount
1	5-275	2.75" Rubber Connecting Hose
2	103-BLO-4420	2.75" Hose Clamps
2	4093-5	3/4" Hose Clamps
2"	65128	3/8" Breather Hose
1	784631	1/8" Rubber Grommet
1	8-103	1/8" Nylon Straight Connector
1	8-105	1/8" Vacuum Cap
1	10-207	Instructions
2	10-922S	Regular AEM Decals
1	10-400W	White License Plate Frame
1	10-905	Warning Decal
1	10-405	E.O. Decal

Read and understand these instructions BEFORE attempting to install this product.

- 1. Make sure vehicle is parked on a level surface.
- 2. Set parking brake.
- 3. Disconnect negative battery terminal.
- 4. If engine has run within the past two hours let it cool down.
- 5. The following items will be removed from the vehicle.
 - (a) The OE inlet tube.
 - (b) The air filter case.
 - (c) Intake air noise resonators underneath the air filter case (inside fender well).
- 6. Removal of intake air tube.
 - (a) Disconnect the breather tube from the intake air tube.
 - (b) Remove the small lines from the air inlet tube. This line provides filtered air to the *intake* air bypass valve (IAB).
 - (c) Loosen the hose clamp holding the air tube to the throttle body.
 - i) Remove the inlet hose from the throttle body and carefully lift it up.
 - ii) Separate the inlet tube from the air filter case and lift the inlet tube out and away from the area of work.

7. Removal of air filter case

- (a) Undo the bolts holding the air filter case and lift it away from the vehicle. It may be easier to separate the top half from the bottom half and then remove the bottom half from the vehicle. You can then assemble the air filter case and set it aside for storage.
- 8. Removal of the lower resonator
 - (a) Raise the front of the vehicle and support it using jack stands. Make sure that the jack stands are rated for the vehicle's weight.
 - (b) Remove the stone shield underneath the front of the vehicle.
 - (c) Remove the front right inner fender well cover from underneath.
 - (d) Remove the bolts holding the lower resonator from the vehicle and lower the resonator away from the vehicle.
 - (e) On VTEC models there is an intake noise valve in the resonator. To remove this valve you need to disconnect the vacuum line that runs between the valve and the intake manifold. Install a vacuum cap on the exposed port on the intake manifold upon removal of the vacuum line.
- 9) Installing the inlet pipe
 - a) Install one black 2.75" connector hose and two hose clamps on the throttle body end of the primary pipe. That is the end that is closest to the breather nipple.
 - i) Connect the pipe to the throttle body but just snug the hose clamps down.
 - ii) This will allow you to adjust the inlet pipe for proper position before you tighten it down.
 - b) Install the 2 3/4" connector hose and two hose clamps on the end of the pipe.
 - i) The support tab on the inlet pipe will line up with a threaded hole on the inner fender well. Install the rubber isolator mount and attach the air inlet tube onto the rubber mount. Install the large fender washer and the lock nut onto the isolator mount stud and snug it down. Failure to install the rubber mount will void all warranties of the Cold Air System. Below is a diagram of how the rubber mount should be installed.



- c) Make sure that the pipe does not interfere with any accessories or electrical components in the engine compartment.
- d) Tighten all the hose clamps.
- f) Connect the breather hose to the inlet tube using the black connector hose and two clamps supplied with the kit.
- 10) Install the AEM filter on to the end of the inlet tube. Push the filter on around 2 inches over the inlet pipe and install one hose clamp to secure the filter on to the inlet pipe. Once fitment is checked, you can either push the filter on to the inlet pipe more or less depending on clearances. Tighten the hose clamp after this is done.
- 11) Re-assembly of stone shield
 - a) Failure to install inner fender well (splashguard) will result in diminished performance and increase potential for engine damage by the ingestion of water during wet weather conditions.
 - Assemble the inner fender well cover that was removed to gain access to the resonator.
 - ii) Assemble the front stone shield.
- 12) Installation of the vacuum lines
 - a) Install the small rubber grommet into the small hole in the inlet pipe.
 - b) Insert the straight section of plastic tubing into the O.E. vacuum line.
 - c) Push the plastic tubing into the hole in the grommet. Make sure that it makes a good seal.
 - d) On VTEC models, if you haven't done so already, follow the vacuum line from the intake air valve to the intake manifold. Remove this line from the intake manifold and install a vacuum cap over the exposed port.
- 13) Prepare to start
 - a) Perform final fit check of the entire system.
 - i) The inlet pipe should not contact any components along its path.
 - b) Tighten all hose clamps.

For Technical Inquiries
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