

# SHORT RAM SYSTEM

Installation Instructions for: Part Number 22-501 & 22-503 2001-2005 Honda Civic EX A/T 2001-2004 Honda Civic DX/LX A/T 2001-2004 Honda Civic EX M/T 2001-2004 Honda Civic DX/LX M/T

ADVANCED ENGINE MANAGEMENT INC. 2205 126<sup>TH</sup> Street, Unit A Hawthorne, CA. 90250 Phone: (310) 484-2322 Fax: (310) 484-0152 www.aempower.com Instruction Part Number: 10-273 2001 Honda Civic EX A/T D17A2 C.A.R.B. E.O. #D-392-16 2002-2003 Honda Civic EX A/T D17A2 C.A.R.B. E.O. #D-392-18 2001-2003 Honda Civic EX M/T D17A2 C.A.R.B. E.O. #D-392-18 2004 Honda Civic EX A/T M/T C.A.R.B. E.O.# D-392-24 2001 Honda Civic DX/LX A/T D17A1 C.A.R.B. E.O. #D-392-16 2002-2003 Honda Civic DX/LX A/T D17A2 C.A.R.B. E.O. #D-392-18 2001 Honda Civic DX/LX M/T D17A2 C.A.R.B. E.O. #D-392-18 2004 Honda Civic DX/LX A/T M/T C.A.R.B. E.O.# D-392-24 2005 Honda Civic EX A/T M/T C.A.R.B. E.O.#Pending Short Ram Air Intake Systems that are pending CARB approval are illegal in California except on racing vehicles which may never be used on public highways. © Copyright 2001

**Congratulations!** You have just purchased the finest Air Induction & Filtration system for your car at any price!

The **AEM** Short Ram Air Intake System is the result of extensive development on a wide variety of cars. It is the most advanced short pipe air intake system on the market. Each system is specifically engineered for its particular application. All **AEM** Short Ram Air Intake Systems deliver maximum performance gains through lightweight, all-aluminum, mandrel-bent tubing that is tuned in both length and diameter. The aluminum will not crack in extended use like plastic. The tube length and diameter are matched for each specific engine to give power over a broad RPM range. Unlike plastic systems that use a continually diverging cross-section, we take advantage of the acoustical energy in the inlet duct to promote cylinder filling during the intake valve-opening event. Every intake is coated with a high-gloss, heat-reducing Zirconia based powder coating. This special blend of powder coating helps reduce heat penetration, which in turn reduces the temperature of the inlet air charge. The cooler inlet air temperature translates to more power during the combustion process because cool air is denser than warm air. The <u>air mass</u> flow to the engine is increased because of the increased airflow and reduced inlet temperature, which translates to more power.

1	2-467	Inlet Pipe 2.5"
1	2-468	Inlet Pipe 2.75"
1	559999	6 x 25 x 1 Washer
1	1-2030	Bolt M6 x 1 x 16mm
1	21-202	2.75" AEM Air Filter&
		Clamp
3	103-BLO-4020	2.5" Hose Clamp
1	103-BLO-4420	2.75" Hose Clamp
1	5-252	Connector Hose 2.5" x 2"
1	5-257	Reducer Hose 2.75" to 2.5"
5	65004	5/8" Breather Hose
2	99024.032	1" Hose Clamp
1	784633	Rubber Grommet

## Bill of Materials for: 22-501

### Bill of Materials for: 22-503

1	2-472	Inlet Pipe 2.75"
1	2-473	Inlet Pipe 2.75"
1	559999	6 x 25 x 1 Washer
1	1-2030	Bolt M6 x 1 x 16mm
1	21-202	2.75" <b>AEM</b> Air Filter & Clamp
1	103-BLO-4020	2.5" Hose Clamp
3	103-BLO-4420	2.75" Hose Clamp
1	5-275	Connector Hose 2.75" x 3"
1	5-257	Reducer Hose 2.75" to 2.5"
5	65004	5/8" Breather Hose
1	99024.032	1" Hose Clamp
1	784633	Rubber Grommet

Read and understand these instructions **<u>BEFORE</u>** attempting to install this product.

Note: This inlet pipe kit requires the removal and reinstallation of emissions related components. If you are not familiar with the installation and/or the operation of these components then please refer this installation to a qualified professional.

### 1) Getting started

- a) Make sure vehicle is parked on a level surface.
- b) Set parking brake.
- c) Make sure you have the anti-theft code for the radio.
- d) Disconnect negative battery terminal.
- e) If engine has run within the past two hours let it cool down.

### 2) Removing the stock air inlet system

- a) Before removing any of the O.E. components, label each individual part so that no components become mixed up during the installation process. There is one breather hose and one Intake Air Temperature (IAT) sensor. Refer to the following diagrams for the identification of these components. (Fig. 1)
- b) Remove the battery cables from the fuse box, and remove the wire harness clamp from the Intake Air Duct. (Fig. 2)
- c) Remove the Intake Air Duct by loosening the bolt at one end and then pulling the other end up out of the mounting tab. (Fig. 3)
- d) Remove the two Intake Air Duct mounting tabs from the fenderwell. (Fig.3)
- e) Remove the four bolts securing the intake resonator and pull the intake resonator out of the car. (Fig. 4)
- f) Remove the IAT sensor connector, then remove the breather hose. Loosen the hose clamp on the throttle body. Remove the Air Cleaner Housing by loosening the two bolts securing it. (Fig. 5)
- g) Remove the IAT sensor from the Air Cleaner Housing by gently pulling straight back. Set the IAT sensor aside in a safe place.

### 3) Installing the AEM Short Ram Air Intake System

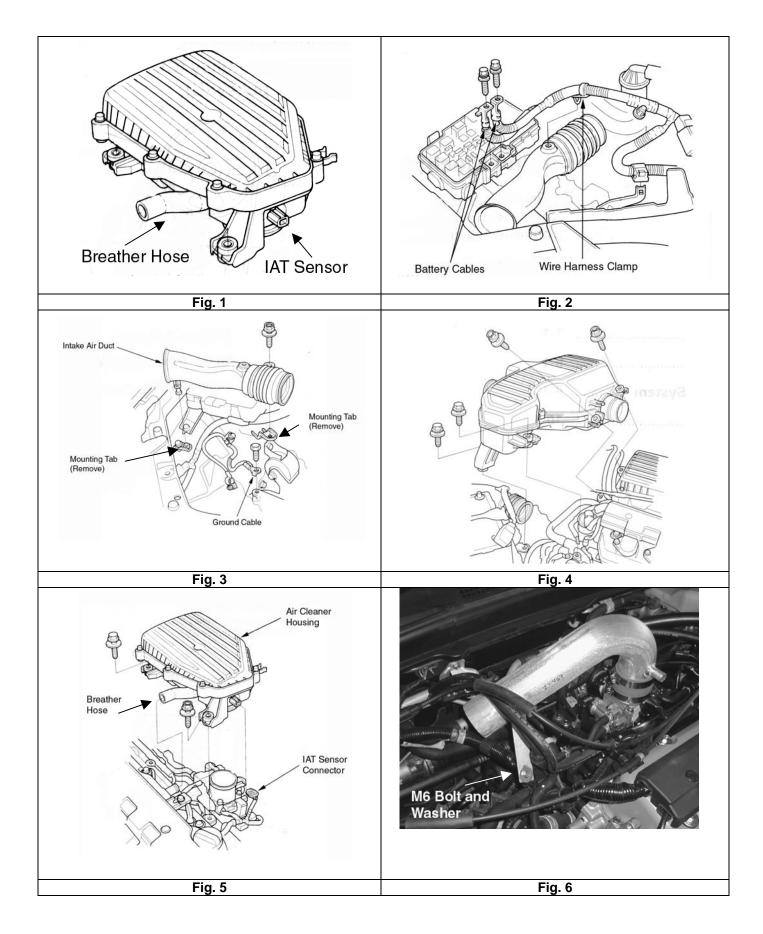
- a) When installing the Short Ram Air Intake System, DO NOT completely tighten the hose clamps or mounting tab hardware until instructed to do so later in these instructions.
- b) Install the hose onto the throttle body with a hose clamp.
  - i) For Civic **EX**, use the 2.50" x 2.00" hose and 2.50" hose clamp.
  - ii) For Civic LX, use the 2.75" to 2.50" reducer coupling and 2.50" hose clamp.
- c) Check to see that the inside of the **AEM** inlet pipes and air filter are clean and free from any foreign objects and/or obstructions.
- d) Place primary intake pipe into the hose on the throttle body with a 2.50" (**EX**)/ 2.75" (**LX**) hose clamp. The throttle body end is the end with the IAT sensor hole and breather hose nipple.
- e) Thread the supplied washer and bolt through the inlet pipe mounting tab into the factory Intake Resonator mounting bracket. Do no tighten yet. (Fig. 6)
- f) Install the supplied grommet into the IAT sensor hole in the AEM primary intake pipe. Install the IAT sensor into the grommet and plug in the IAT sensor connector. (Fig. 7) Note: You may need to remove the wire harness clip from the mounting bracket on the intake manifold. This will allow enough movement in the wiring harness to plug in the IAT sensor.
- g) Install the supplied 5/8" breather hose from the **AEM** primary inlet pipe to the valve cover. Use the supplied 1" hose clamp on the **AEM** intake pipe nipple and the original clamp on the valve cover nipple. (Fig. 8)
- h) Install the supplied hose onto the primary intake pipe with a hose clamp.
  - i) For Civic **EX**, use the 2.75" to 2.50" reducer coupling with a 2.50" hose clamp.
  - ii) For Civic **LX**, use the 2.75" x 3.00" hose with a 2.75" hose clamp.
- i) Place the secondary intake pipe into the reducer hose using the 2.75" hose clamp. The shorter leg of the "J" bend goes in the coupling. The longer leg of the pipe is for the air filter. (Fig. 9a & 9b)
- j) 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.

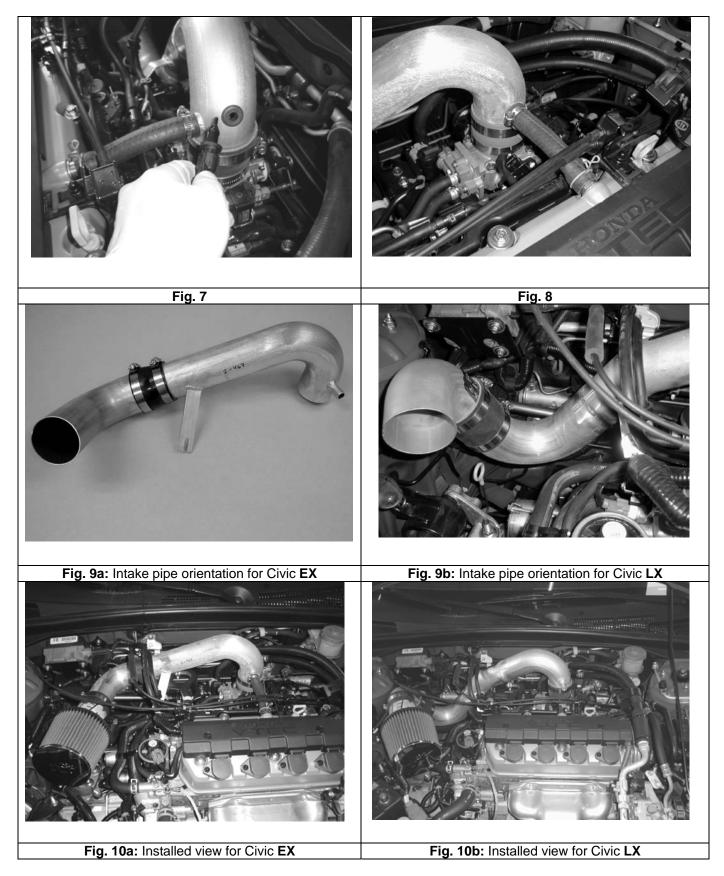
- k) Position the inlet pipes for best fitment. Be sure that the pipes or any other components do not contact any part of the vehicle. Tighten the hose clamps at the throttle body and reducer coupling. Then tighten the bolt on the Intake Resonator mounting bracket.
- I) Check for proper hood clearance. Re-adjust pipes if necessary.

### 4) Re-assemble the vehicle

- a) Inspect the engine bay for any loose tools and check that all fasteners that were moved or removed are properly tight.
- b) Reconnect the battery cables to the fuse box.
- c) Start vehicle and check for proper operation of all the components that were removed.
- d) Note: If vehicle was started without the IAT sensor connected, the "Check Engine" light may come on. If this happens turn the engine off and disconnect the battery for one minute. Reconnect the battery and restart the engine.

# **Reference Diagrams:**





For Technical Inquiries E-Mail Us At tech@aempower.com