



SHORT RAM SYSTEM

Installation Instructions for:
Part Number 22-440
1991-1994 Nissan 240SX

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Instructions Part Number: 10-266
1992-1994 Nissan 240SX KA24DE C.A.R.B. E.O. #D-392-18

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 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 filter element has also been extensively developed. An integral part of all our filter elements is a built-in velocity stack. This velocity stack is specifically engineered to improve the aerodynamic efficiency of the intake system. We have seen airflow gains on a flow bench of 12-15% by using this velocity stack. The air mass flow to the engine is increased because of the increased airflow and reduced inlet temperature, which translates to more power.

QTY.	Part Number	Description
1	2-4401	Inlet Pipe
1	2-632	MAS Adaptor
1	32-3001	Mounting Bracket
1	21-203	3.00" AEM Air Filter & Clamp
1	5-257	2.75" to 2.50" Silicone Reducer
1	5-575	2.75" Hump Hose
1	103-BLO-4020	2.50" Hose Clamp
3	103-BLO-4420	2.75" Hose Clamp
11"	65004	5/8" Breather Hose
10"	65004	5/8" Breather Hose
4	99024.032	1.00" Hose Clamp
4	1-2030	M6 x 1 x 16 Bolt
1	1-3018	M6 Washer
2	444.460.04	M6 Nylock Nut
2	559999	M6 Fender Washer
1	1228599	Rubber Mount
1	10-266	Instructions

Read and understand these instructions BEFORE 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) Disconnect negative battery terminal.
- d) 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 are three breather hoses and a Mass Air Flow Sensor (MAS). Refer to the following diagrams for the identification of these components. **(Fig. 1)**
- b) Unplug the MAS sensor connector.
- c) Disconnect the large upper breather hose from the valve cover.
- d) Disconnect the resonator tube from the underside of the intake tube. This tube is used for noise suppression in the stock intake system and will not be used with the **AEM** Short Ram Air Intake System. **(Fig. 2)**
- e) Disconnect the two breather hoses from the intake tube. Do not lose the hose clamps. **(Fig. 2)**
- f) Release the four clips holding down the air box cover. **(Fig. 3)**
- g) Loosen the hose clamp on the throttle body. Remove the bolt from the radiator fan shroud and the bolt from the radiator support. **(Fig. 4)**
- h) Loosen the hose clamp on the EGR hose. **(Fig. 5)**
- i) Remove the air intake tube, MAS, and air box cover from the vehicle.
- j) Loosen the two bolts that secure the lower air box and duct. **(Fig. 6)**
- k) Without lifting, slide the lower airbox towards the engine to release the rubber isolators. Remove the stock lower air box and duct from the vehicle. **Note: It is not necessary to remove the stock resonator from inside the fenderwell.**
- l) Loosen the four mounting bolts and remove the MAS from the stock air box cover. Loosen the clamp and remove the stock air inlet tube from the MAS.

3) Installing the Short Ram Air Intake System

- a) When installing the **AEM** Air Intake System, DO NOT completely tighten the hose clamps or mounting tab hardware until instructed to do so later in these instructions.
- b) Check to see that the inside of the **AEM** inlet pipe and air filter are clean and free from any obstructions.
- c) Install the supplied rubber mount onto the lower air box mounting bracket. Use the hole toward the front of the car. Tighten the nylock nut from the bottom of the bracket. **(Fig. 7)**
- d) Install the 2.75" hump hose onto the throttle body using a 2.75" hose clamp.
- e) Install one 2.75" hose clamp onto the other end of the hump hose.
- f) Slide the throttle body end of the **AEM** inlet pipe into the coupler on the throttle body. The throttle body end is the end nearest the breather hose nipples on the **AEM** inlet pipe.
- g) Install the original bolt, removed in step 2g, through the bracket on the **AEM** inlet pipe into the radiator support. Do not tighten.
- h) Mount the **AEM** MAS adaptor to the MAS using the four supplied M6 socket head bolts. Position the adaptor so that the EGR nipple on the MAS adaptor faces the rear of the vehicle with the MAS electrical plug oriented toward the engine.

- i) Attach the mounting bracket to the bottom, rear hole on the MAS. Use the supplied M6 washer under the head of the bolt. The bend in the bracket should angle away from the MAS sensor and towards the driver's side of the car. **Do not tighten this screw. (Fig. 8&9)**
- i) Install the reducer coupler onto the end of the **AEM** inlet pipe with a 2.75" hose clamp.
- j) Install the **AEM** air filter onto the MAS adaptor using a 2.75" hose clamp.
- k) Install the MAS into the reducer coupler using a 2.50" hose clamp.
- l) The bracket on the MAS should line up with the rubber mount installed in step 3c.
- m) Thread the remaining washer and nylock nut onto the rubber mount. Do not tighten. **(Fig. 9)**
- n) Connect the two lower breather hoses to the nipples on the **AEM** inlet pipe. **(Fig. 10)**
- o) Replace the upper breather hose with the longer of the two supplied 5/8" hoses and two 1" Hose clamps. **(Fig. 11)**
- p) Replace the EGR hose with the shorter of the two supplied 5/8" hoses and two 1" hose clamps. **(Fig. 12)**

4) Re-assemble the vehicle

- a) Position the pipe for best fitment.
- b) Check that the **AEM** pipe and filter are not touching any part of the vehicle. **(Fig. 13)**
- c) Check for proper hood clearance.
- d) Tighten all hose clamps, mounting bracket bolts/nuts, the nut on the rubber mount, and the MAS mounting bolts.
- e) Re-adjust pipes if necessary.
- f) Re-connect the wiring harness to the MAS.
- g) Inspect the engine bay for any loose tools and check that all fasteners that were moved or removed are properly tight.
- h) Start engine and perform a final inspection before driving the vehicle.

For Technical Inquiries
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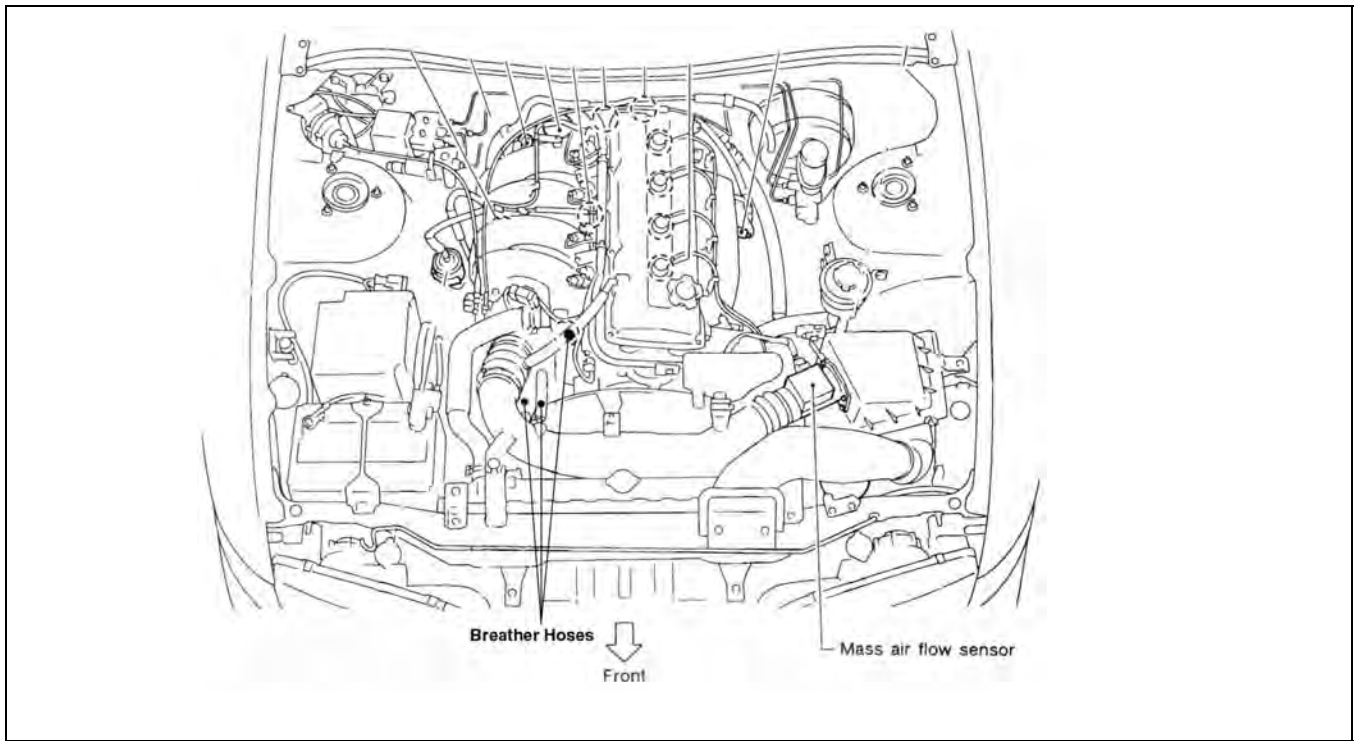


Fig. 1

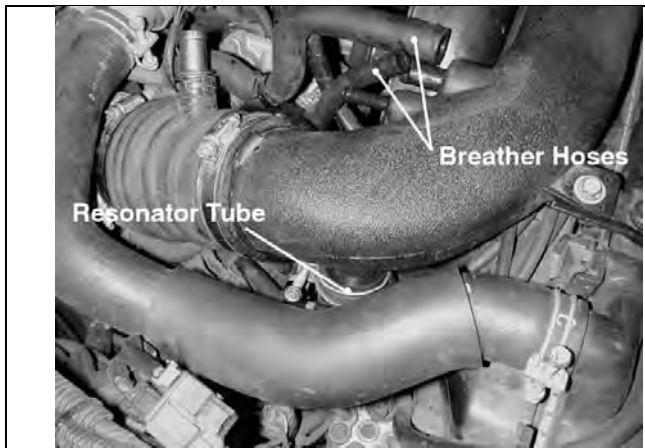


Fig. 2

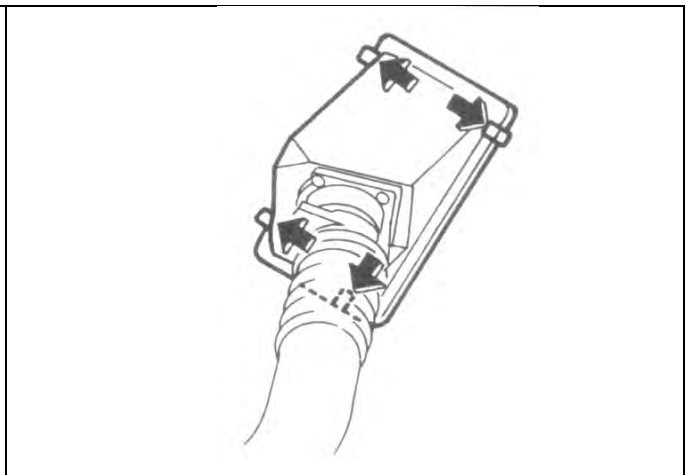


Fig. 3



Fig. 4



Fig. 5

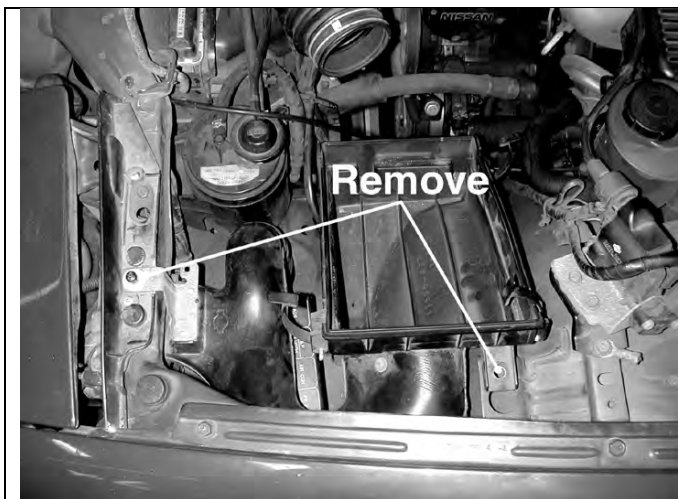


Fig. 6

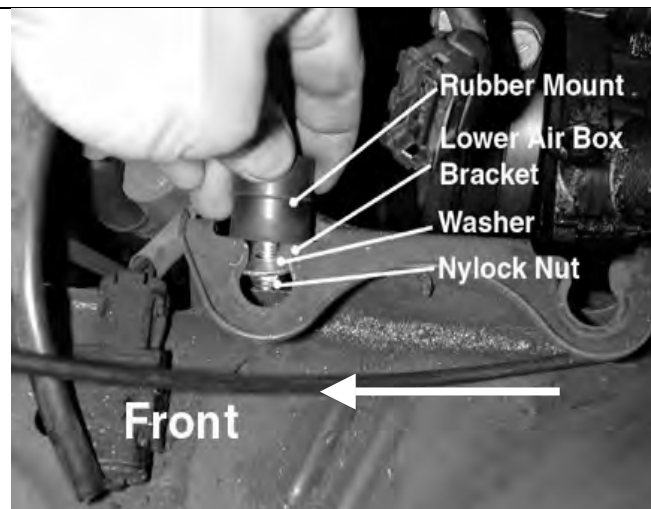


Fig. 7



Fig. 8

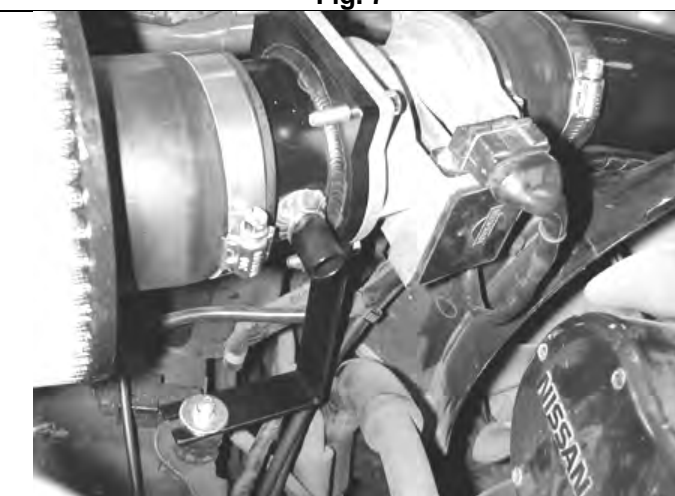


Fig. 9



Fig. 10



Fig. 11



Fig. 12

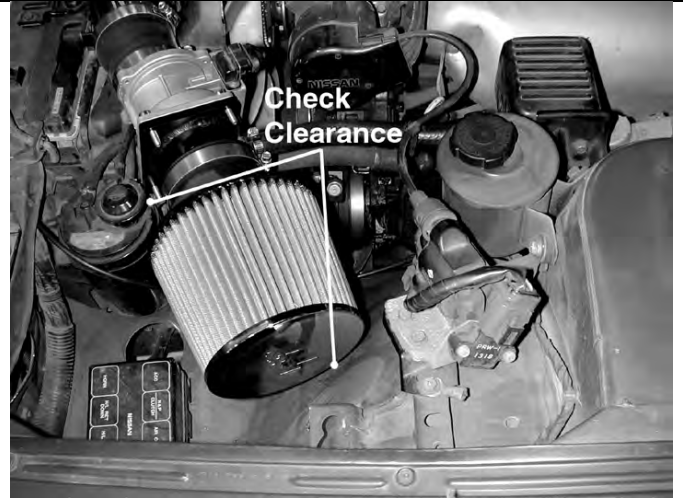


Fig. 13

