

# Ms RAM AIR SYSTEM

## CARBON DUCT INTAKE KIT

### Installation Instructions

FR-1097

TOYOTA FJ CRUISER GSJ15W 1GR-FE

Thank you for buying the GruppeM Ram Air System  
Before installation, verify that you have all of the parts in the Parts List on the right.

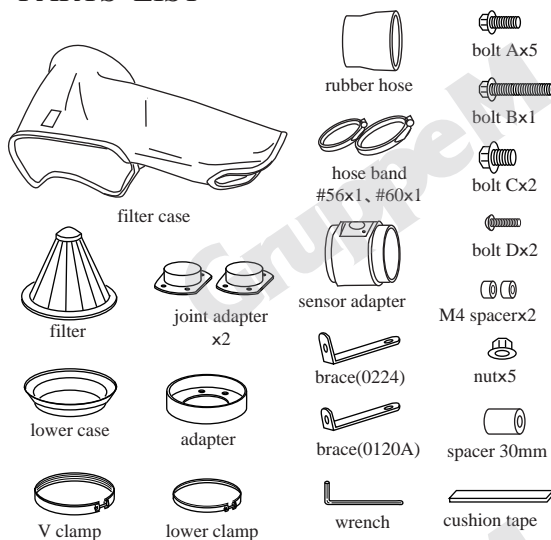


#### CAUTION

- Do not install on a road or other place that could interfere with automobile or pedestrian traffic.
- Park on flat, horizontal ground with the emergency brake on, to prevent the vehicle from rolling.
- Remove the key from the ignition and let the engine cool down completely before beginning installation.
- Wear work clothes suitable for the job. When necessary, wear protective gloves and glasses.
- After installation, regular maintenance is necessary. Periodically check for realignment, clearance, and tightening of all components.
- GruppeM Inc. will not be held responsible for installations to any motor vehicle model other than the one specified.
- Keep these instructions in a safe place after using them.

Speeding and reckless driving are completely unacceptable. Please use this product with care, following all traffic regulations.

#### PARTS LIST

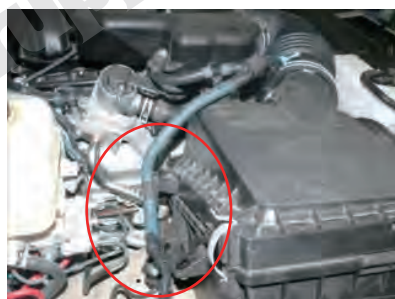


The adapter, lower case, v-clamp and filter are preassembled

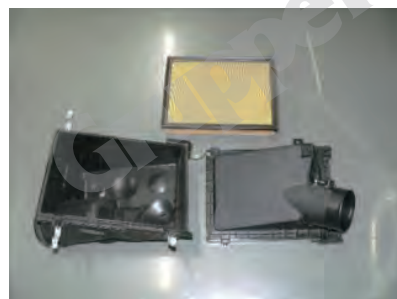
#### Installation of ram air system



The wiring connector of the Airflow sensor is removed and the band of a suction hose is loosened.



The wiring attached to the original case is removed.



An original case is removed.



The picture which removed the original case.  
(An arrow part is a brace fixed hole)



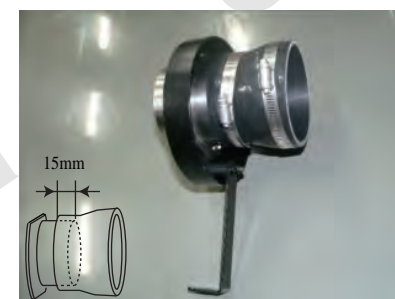
An air mass sensor is removed.



A joint adapter is installed in an adapter list and the back. boltA (M6-20), M6 nut use.



A spacer is inserted into an adapter and brace (0120A) is installed temporarily.  
\* It is cautious of direction of the adapter back and front.



The rubber hose of different is installed in a joint adapter.  
A hose is fitted in a joint adapter about 15mm.



An air mass sensor is installed in a sensor adapter. boltD(M4-12) x2, M4 spacer use.



A sensor adapter is installed in an adapter.



In order to arrange the angle and position of brace, Filter ASSY is once installed in an adapter.  
(A near angle is referring to the picture)



It assembles so that the position of an air mass sensor may be on a back side.



brace0224 is temporarily fixed on a body. boltC (M8-15) use.



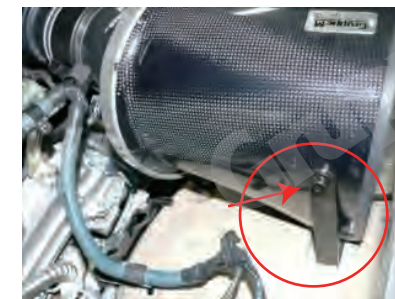
In order to arrange the degree of position angle and position of brace, once, filterASSY is installed and adjusted to a suction hose and the fixed position of brace is arranged.



When the position of brace is arranged, while it has been the angle, a filter case and a filter are removed and brace is fixed to an adapter.



Again, Filter ASSY is installed in a suction hose and it fixes to a body by brace. bolt C (M8-15) use.



The filter case side is also fixed by brace. bolt A (M6-20) use.



The wiring connector of an air mass sensor is installed.

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