



Racing Suction Reloaded Intake Kit

70020-AT017

TOYOTA VITZ

Model: DBA-NCP91

Engine Type: 1NZ-FE

Model Year: 2005/02-

Ver. 080430

NOTICE

This manual assumes that you have and know how to use the tools and equipment necessary to safely perform service operations on your vehicle. This manual assumes that you are familiar with typical automotive systems and basic service and repair procedures. Do not attempt to carry out the operations shown in this manual unless these assumptions are correct. Always have access to a factory repair manual. To avoid injury, follow the safety precautions contained in the factory repair manual.

SAFETY PRECAUTIONS

WARNING

- To prevent electrical damage/burns/fires, always:
 - Disconnect the negative terminal of the battery before beginning installation.
 - When disconnecting wires/connectors, take extra care to avoid breaking/snapping the wires.

CAUTION

- Do not misuse this product.
 - Misuse of this product may lead to engine damage.
 - Misuse of this product may lead to loss of original function.
- Prior to beginning installation, check to make sure that the engine bay temperature has cooled to approximately 40 /104°F
 - Failure to let the engine cool down properly can lead to severe burns.
- Insert clean rags into open piping to prevent waste from entering the pipes.
 - If neglected, waste in the piping can lead to engine damage.

- Check to make sure that all of the parts listed in the Parts List are included in the kit.
- Reference the factory service manual for the vehicle when removing factory parts.
- Be careful when handling this product; avoid dropping or subjecting it to excessive impacts. Failure to do so may result in product damage or improper installation.
- Use the proper tools when tightening nuts and bolts. If over tightened, the bolts will become damaged.
- Keep the removed factory parts in a safe place for ease of re-installation at a later date (if necessary).
- Replace the filter element at regular intervals:
(Recommended) Replace every 3,000~5,000km/2,000-3,200miles or every 3~6 months.
Replacement filter elements are sold separately.
Do not wash the filter elements as the filtration properties will be degraded.
However, there are certain conditions where, depending on dirt buildup, the filter may need to be cleaned/replaced earlier than the above recommended intervals.

- If the vehicle and the product are not maintained properly as mentioned above, the product cannot perform properly, and the airflow meter sensor may not be able to detect the intake air volume accurately; it may lead to engine damage or bad conditions.

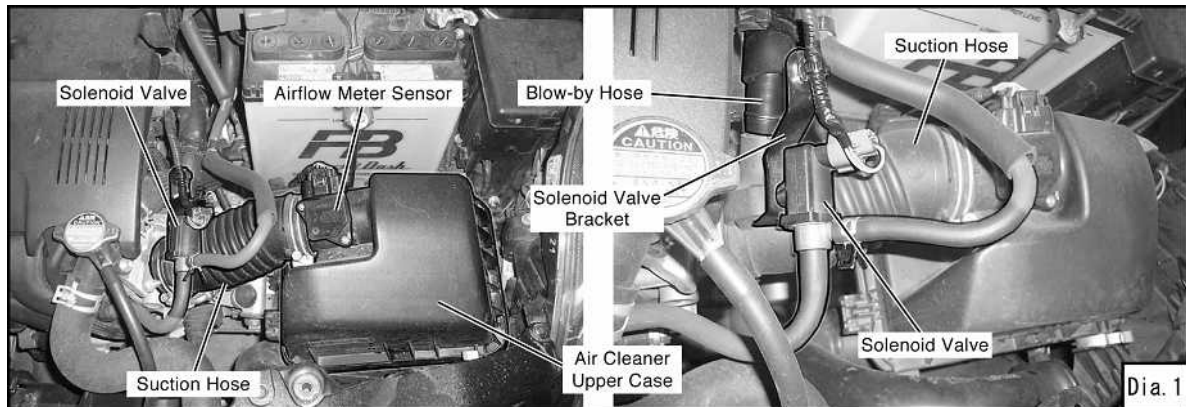
ADVICE

- This product was designed based on and for the factory vehicle; however, additional fuel settings may be necessary depending on vehicle application.
If the airflow meter intake air temperature sensor is dirty (blackened, no visible shine) it can be assumed that the sensor itself is also dirty. Using the automotive parts cleaner, carefully clean the sensor.

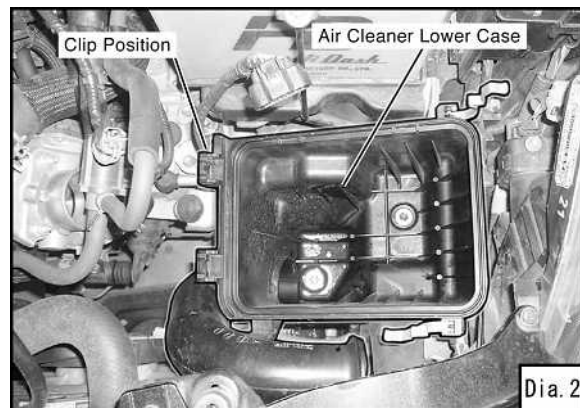
INSTALLATION PROCEDURE

1. REMOVAL OF FACTORY PARTS

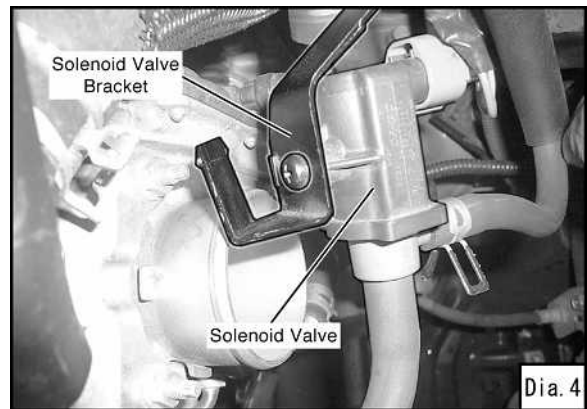
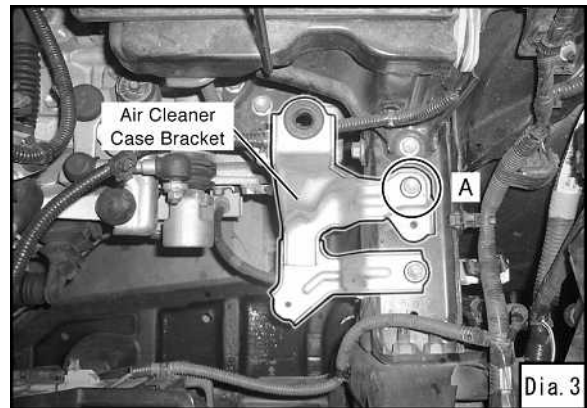
- 1) Disconnect the negative terminal of the vehicle's battery.
- 2) Disconnect the connector from the airflow meter sensor. Also, remove the clip holding the airflow meter harness to the air cleaner upper case. (Dia.1)
- 3) Disconnect the blow-by hose from the suction hose. (Dia.1)
- 4) Remove the solenoid valve with the bracket from the suction hose. It is not necessary to disconnect the hose and the connector. (Dia.1)
- 5) Loosen the hose clamp to remove the air cleaner upper case and the suction hose. (Dia.1)



- 6) Remove the clip holding the harness. (Dia.2)
- 7) Remove 2 bolts to remove the air cleaner lower case. (Dia.2)

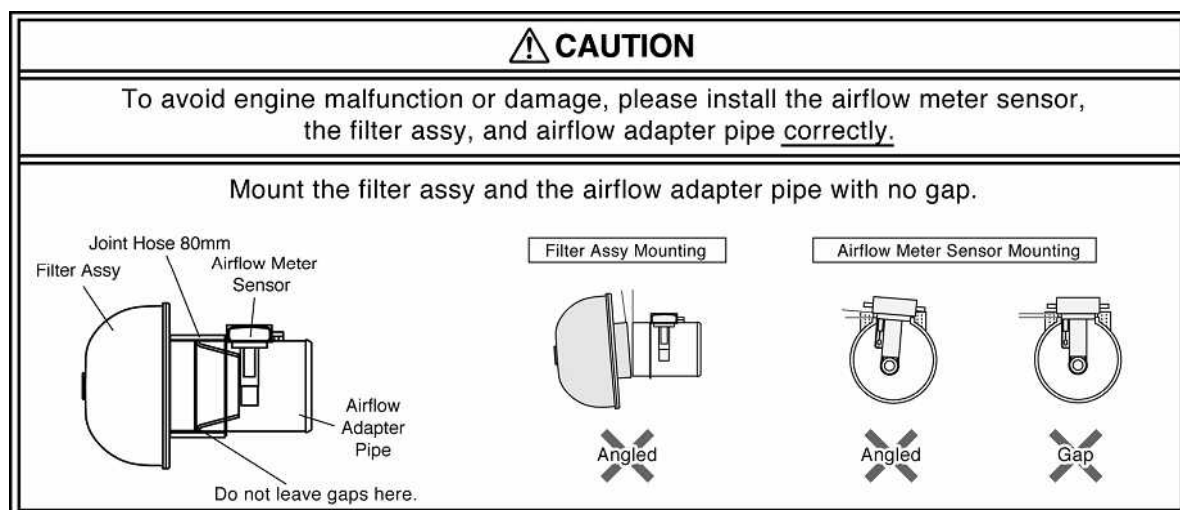
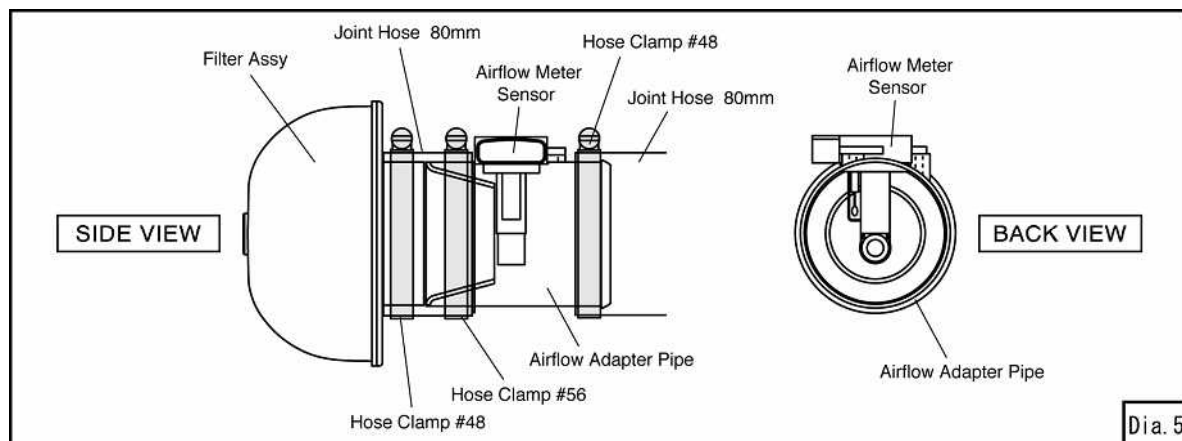


- 8) Remove 2 bolts to remove the air cleaner bracket. (1 bolt will be reused later.) (Dia.3)
- 9) Remove 2 screws to remove the solenoid valve bracket. (Dia.4)

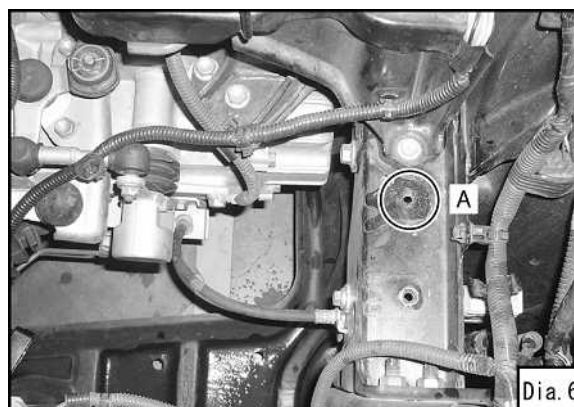


2. INSTALLATION OF THE KIT

- 1) Assemble the components as illustrated in Diagram 5. Ensure that the factory airflow meter sensor's factory O-Ring is seated correctly, while taking caution that it does not get pinched in the airflow adapter pipe. Tighten with the supplied M4 screws. Do not over-tighten. Tightening torque: 2.0~3.0 N-m (0.2~0.3 kg-m). (Dia.5,7)



- 2) Temporarily install the bracket using the factory bolt to section "A" in Diagram 6. (Dia.6, 7)

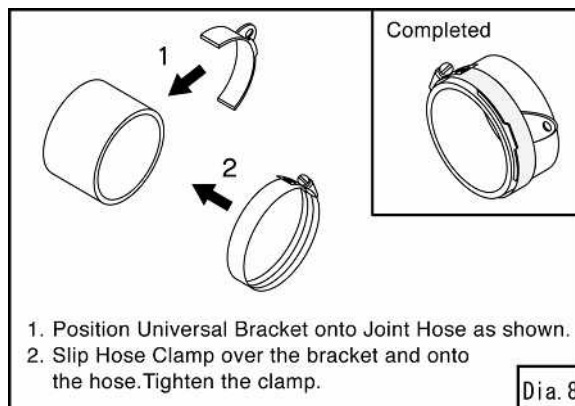


- 4) Position the air cleaner to the vehicle avoiding unnecessary contact with other parts of the vehicle. Once the position is determined, secure the air cleaner to the vehicle using the supplied hose clamps and bolts. Do not over-tighten the clamps and bolts. (Dia.12)

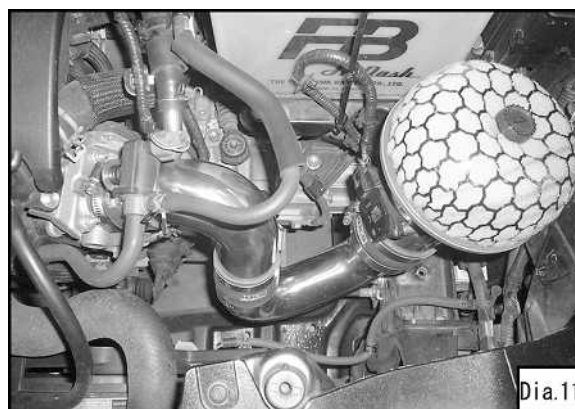
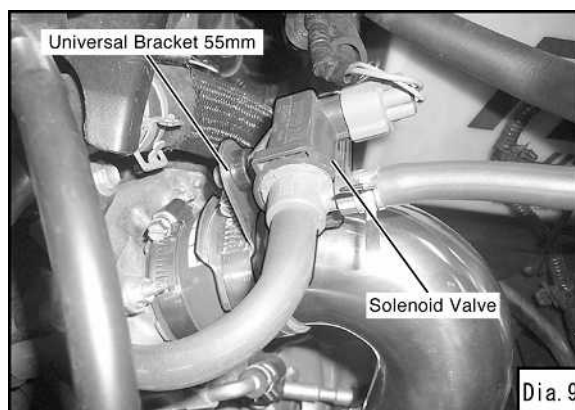
ADVICE:

Use of proper tools can help avoid over-tightening of hose clamps. (Screw drivers are recommended.

Do not use boxed wrenches since they tend to use more force.) If over-tightened, the air cleaner may bend or become damaged. (Tightening torque: 2.0~3.0 N-m {0.2~0.3 kg-m})



- 5) Install the solenoid valve to the 55mm universal bracket using kit parts. Ensure that the connecting hose is not distorted.
- 6) Secure the airflow meter harness with tie wraps. (Dia.10)
- 7) Reconnect the airflow meter sensor connector.
- 8) Reconnect the negative terminal to the vehicle's battery.



Confirmation After Installation

Check the following after the installation process is complete.

(1) Check the following before starting the engine:

- Make sure pipes and hoses are routed and connected correctly.
- Make sure hose clamps are tightened.
- Make sure the negative cable terminal is securely connected to the battery.
- Make sure all bolts and nuts are tightened.
- Make sure all installed components do not come in contact with other parts.

(2) Start the engine and check the following:

- Make sure air is not leaking.
- Make sure the RPM rises smoothly when revving the engine 2-3 times while in neutral.
- Make sure the installed parts are not hitting each other.
- Make sure there are no issues idling.
- Make sure there are no loose parts after the engine is stopped











MAINTENANCE











Proper daily maintenance of this product is necessary in order to maintain the safety, reliability, and function of this product.






Maintenance is the responsibility of the driver/owner.

- If work needs to be performed outside the scope of this manual, consult a professional.
- If the vehicle becomes damaged, have the repairs performed by a professional.
- If you experience abnormal noises, scents, or vibrations from the vehicle while driving, reference the vehicle's Owner's Manual.
- If this product is ever sold, please give this Instruction Manual to the new owner.
- When removing this product from the vehicle, please consult a professional.

PARTS LIST

| No. | Description | Qty | Image | Remarks |
|-----|----------------------|-----|---|--------------|
| 1 | Filter Assembly | 1 |  | 150-80mm |
| 2 | Airflow Adapter Pipe | 1 |  | |
| 3 | Suction Pipe #1 | 1 |  | |
| 4 | Suction Pipe #2 | 1 |  | |
| 5 | Joint Hose | 2 |  | 80mm L=55 |
| 6 | Joint Hose | 1 |  | 60mm L=70 |
| 7 | Joint Hose | 1 |  | 55mm L=55 |
| 8 | Bracket | 1 |  | |
| 9 | Universal Bracket | 1 |  | 80mm |
| 10 | Universal Bracket | 1 |  | 55m |

| No. | Description | Qty | Image | Remarks |
|-----|-------------|-----|---|---------|
| 11 | Hose Clamp | 1 |  | #56 |
| 12 | Hose Clamp | 3 |  | #48 |
| 13 | Hose Clamp | 4 |  | #36 |
| 14 | Bolt | 1 |  | M6-15 |
| 15 | Lock Washer | 1 |  | M6 |
| 16 | Flat Washer | 1 |  | M6 |
| 17 | Flange Nut | 1 |  | M6 |
| 18 | Cap Bolt | 1 |  | M5-15 |
| 19 | Lock Washer | 1 |  | M5 |
| 20 | Flat Washer | 1 |  | M5 |

| No. | Description | Qty | Image | Remarks |
|-----|--------------------|-----|---|---------|
| 21 | Collar | 1 |  | |
| 22 | Screw | 2 |  | M4-6 |
| 23 | Tie Wrap | 5 |  | |
| 24 | Sticker | 1 |  | |
| 25 | Instruction Manual | 1 |  | |
| 26 | | | | |
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