

MAZDA SPEED

PERFORMANCE ACCESSORIES

INSTALLATION INSTRUCTIONS

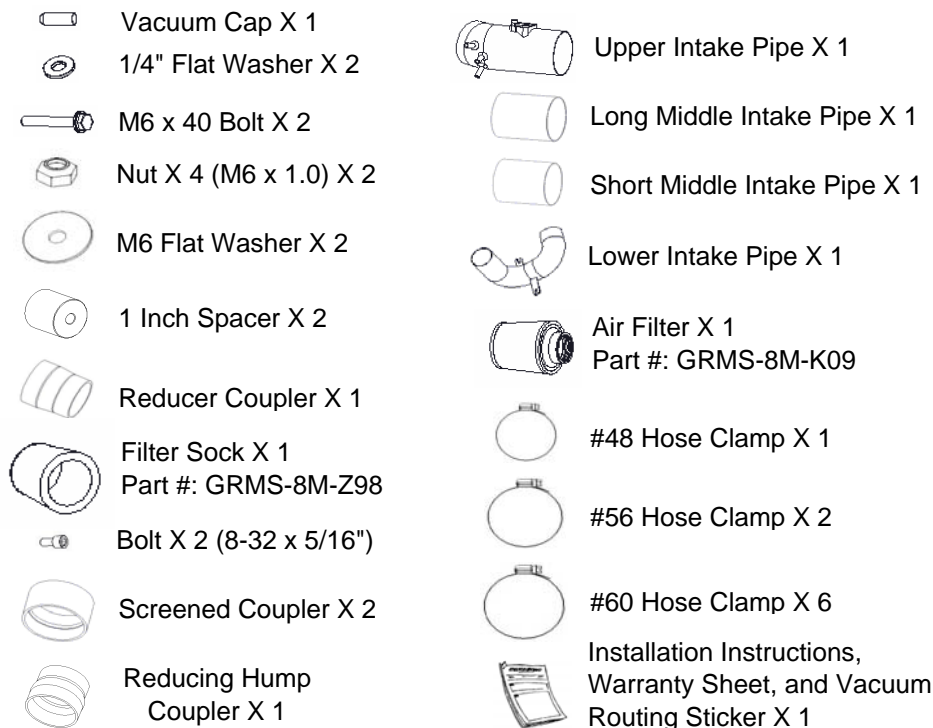
Please check for compliance with local law prior to purchase and installation of this device.

PART NUMBER:
GRMS-8M-K30
CARB #: D-607

INTAKE SYSTEM

APPLICABLE MODELS:
2004-2008 Mazda RX-8
1.3RTR

CONTENTS



TOOLS REQUIRED

8,10,12, &13mm Sockets
Ratchet
6" & 11" Extensions
Phillips Head Screwdriver
Flat Head Screwdriver
10mm Wrench
Safety Glasses

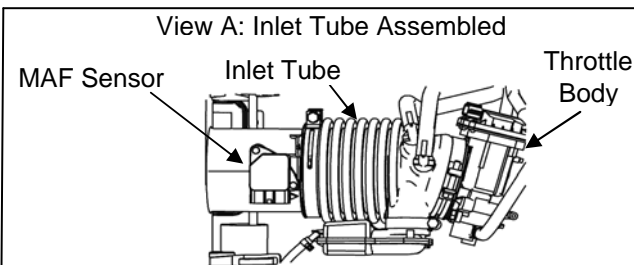
Note: Mazdaspeed Accessories carry a different warranty than Genuine Mazda Accessories. Review the applicable warranty statement with your Mazdaspeed dealer. This product is sold under the Mazdaspeed Green Warranty Statement.

0 PRE INSTALLATION

1. Read entire instruction sheet before proceeding.
2. Run OBD II diagnostics and repair or replace any malfunctioning components before installation.
3. Make sure vehicle is parked on a level surface and set the parking brake.
4. Disconnect both battery terminals.
5. If engine has run within the past two hours let it cool down.
6. Chock the rear wheels, and use properly rated jack stands when lifting the vehicle
7. Wear eye protection.

1 STOCK INTAKE REMOVAL

1. Start by removing the engine cover. Gently lift up at the base then pull the cover towards the front of the car.
2. Remove the 3 vacuum hoses attached to the inlet tube secured to the throttle body (View B, #1).
3. Loosen hose clamps at the throttle body and the air box (View B).
4. Disconnect the vacuum solenoid connector and the vacuum line (View B, #3) at tube underneath air cleaner box. Also, remove vacuum solenoid wire mount and Solenoid. (Solenoid is not used)
5. Disconnect the MAF sensor and the wire mount. Note: Air Cleaner assembly will have to be partially removed in later steps for access to remove the MAF wire mount.
6. Disconnect the vacuum line (View B) from the intake manifold (View B, #8).

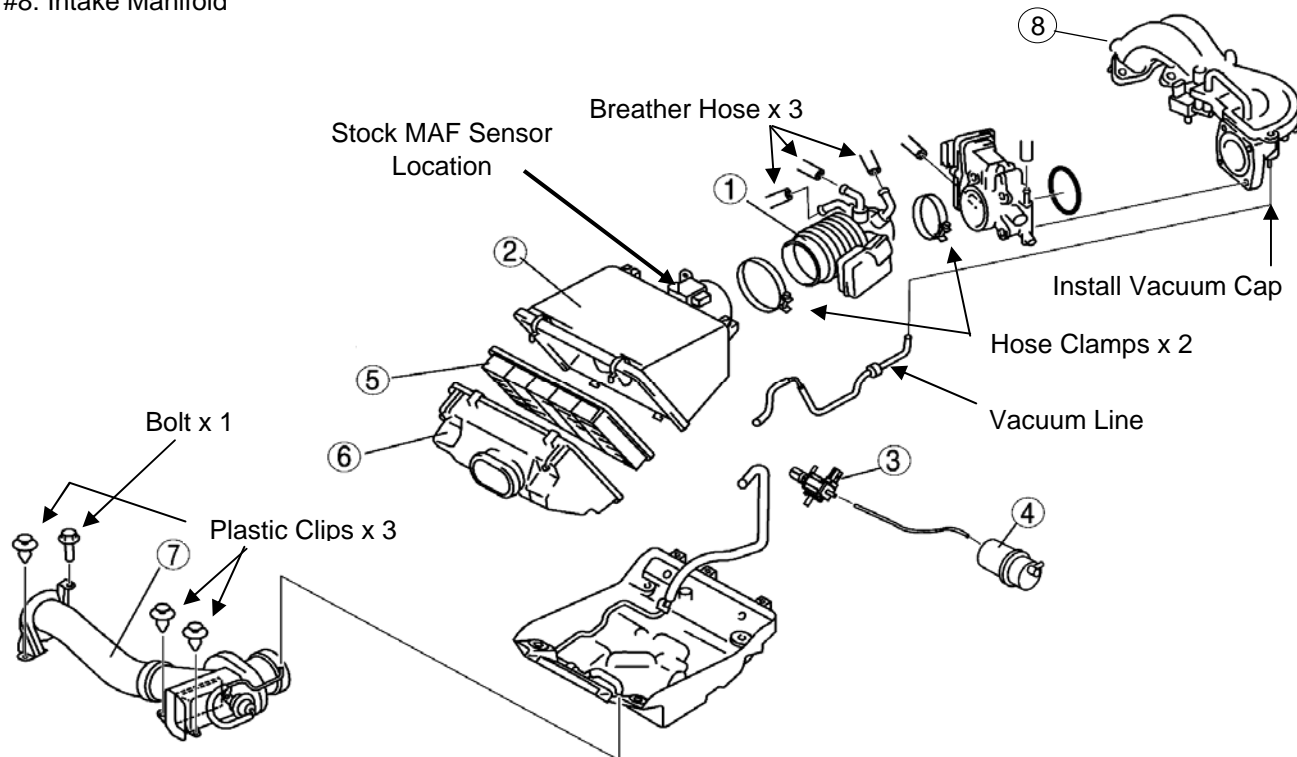


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1**STOCK INTAKE REMOVAL (CONTINUED)**

View B: Stock Air Filter Housing Exploded

- #1: Inlet Air Hose
- #2: Air Filter Housing Lid
- #3: VFAD Solenoid Valve
- #4: Vacuum Chamber
- #5: Air Filter Element
- #6: Lower Air Filter Housing
- #7: Fresh Air Duct
- #8: Intake Manifold



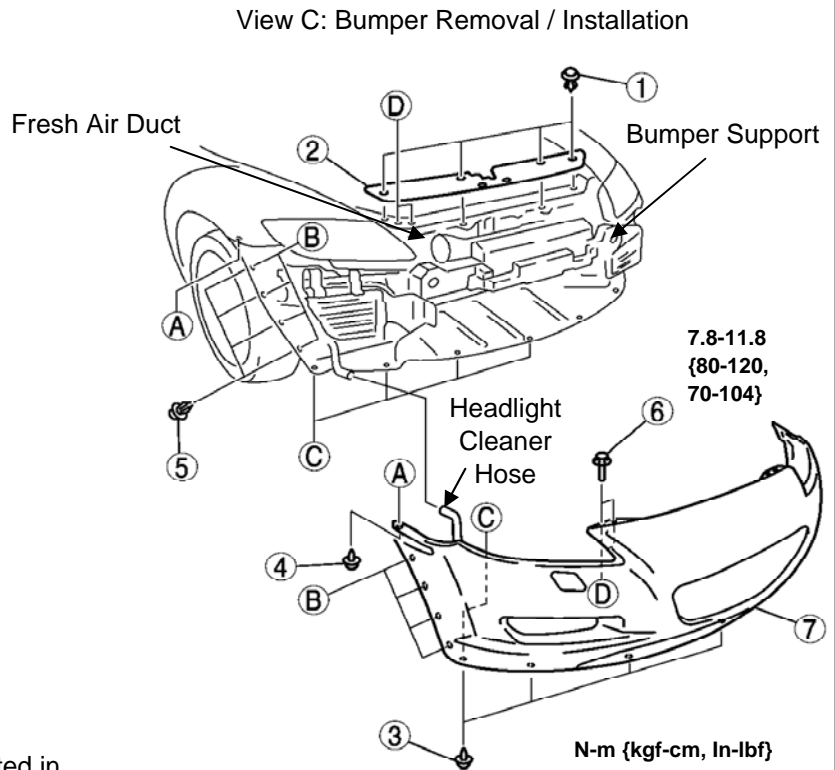
7. Unclasp and remove the vacuum line at Vacuum chamber (View B, #4).
8. Rotate air box assembly up while separating the inlet tube from the air box.
9. Once inlet tube is separated from air box, lift up and remove the complete air box assembly (View B, #2, #5 and #6). Rotate assembly for access to the MAF wire mount and disconnect.
10. Remove inlet tube at throttle body.
11. Remove both front wheels to access the fender liners for bumper removal.
12. Disconnect the front fog light at connectors for vehicles equipped with fog lights.
13. Disconnect the front side marker light connectors.

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STOCK INTAKE REMOVAL (CONTINUED)

Table A for View C: Bumper	
1	Fastener A
2	Seal Plate
3	Screw A
4	Screw B
5	Fastener B & C
6	Bolt
7	Front Bumper



14. Remove the parts in the order indicated in Table A.
15. Remove the fresh air duct and vacuum assembly by removing the three plastic clips and the bolt securing it to the chassis (View B, #7).
16. Remove the fasteners (View D, A) securing the energy-absorbing foam (View D, #2) to the steel bumper support (View D, #1).
17. Remove the fasteners (View D, B) securing the front bumper retainer (View D, #3) between the steel bumper support (View D, #1) and the chassis.
18. Remove the 8 bolts (View D) securing the bumper support to the chassis and remove the bumper support.
19. Remove the stock MAF sensor from the air filter housing lid (View B, #2).

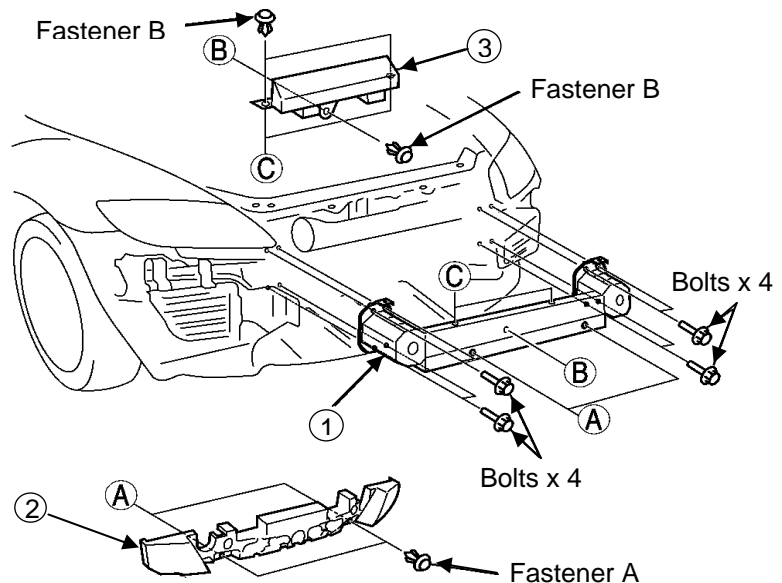
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1 Stock Intake Removal (Continued)

View D: Steel Bumper Support

Bolts
17.7-26.4
{1.81-2.69, 13.1-19.4}
N-m {kgf-cm, ft-lbf}

#1 Steel Bumper Support
#2 Energy-Absorbing Foam
#3 Front Bumper Retainer



2 INSTALLATION OF MAZDASPEED INTAKE

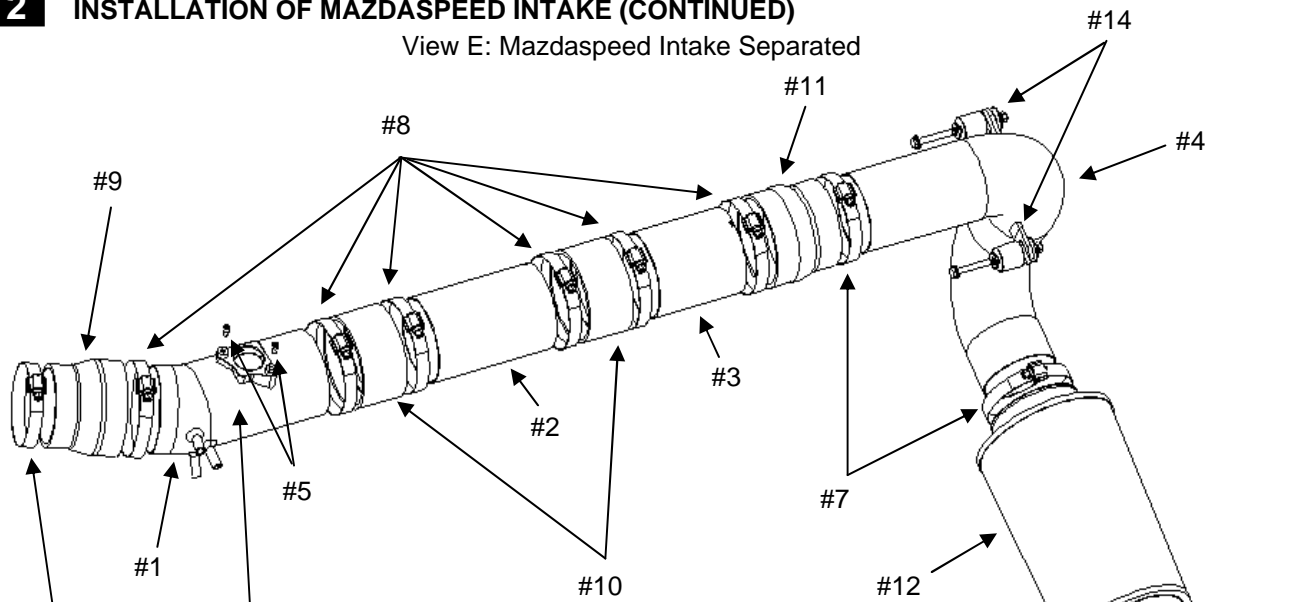
Note: Applicable torque values provided in illustrations.

1. Install the supplied vacuum cap onto the intake manifold where the vacuum line was removed (View B, #8) and secure VFAD connector with tie-wrap.
2. Install the reducing coupler (View E, #9) onto the throttle body and secure using the supplied #48 hose clamp (View E, #6).
3. Install the MAF sensor into the upper intake pipe (View E, #1) and secure using the two supplied 8-32 bolts (View E, #5).
4. Install the upper intake pipe into the reducing coupler installed in step 2.2. Secure using a #60 hose clamp (View E, #8). Be sure the end with the three nipples is towards the throttle body.
5. Plug the MAF sensor into the wiring harness. Connect the three stock hoses to the upper intake pipe nipples in their corresponding locations.
6. Install the first of two screened couplers (View E, #10) onto the end of the upper intake pipe. Use a #60 hose clamp to secure.
7. Slide the long middle intake pipe (View E, #2) into the end of the screened coupler on the upper intake pipe. Secure the pipe using a #60 hose clamp.
8. Install the second of two screened couplers (View E, #10) onto the end of the long middle intake pipe. Use a #60 hose clamp to secure.
9. Slide the short middle intake pipe (View E, #3) into the end of the screened coupler on the long middle intake pipe. Secure the pipe using a #60 hose clamp.
10. Attach and secure the reducing hump coupler (View E, #11) to the end of the short middle intake pipe with a #60 hose clamp. Adjust all three pipes to align with the opening in the chassis.
11. Looking at the front of the vehicle, locate the two small holes on the lower left and right side for the lower inlet pipe mounting supports. From the inside of the chassis insert the two M6 bolts along with two 1/4" washers. Install the 1" spacers onto the bolts (View F).
12. Insert the lower intake pipe (View E, #4) into the end of the reducer hump coupler. Align both brackets with the bolts and spacers from the previous step. Once aligned, check for clearance around the opening and secure the pipe brackets with the M6 fender washers and nuts (View F). Secure the pipe to the reducing hump coupler using a #56 hose clamp (View E, #7).
13. Install the filter sock (View E, #13) over the end of the air filter (View E, #12). The elastic on the filter sock will hold it to the filter.
14. Install the filter on to the end of the lower intake pipe. Push the filter over the pipe until the stop in the filter is reached and install one hose clamp to secure the filter onto the inlet pipe.
15. Reinstall the steel bumper support using the 8 previously removed bolts (See View D). Note: the front bumper retainer will not be reused. Check that the filter is not touching any part of the vehicle.
16. Reinstall the bumper by repeating the steps in Table A starting at step 7 and working back to step 1.
17. Plug in the fog lights (if equipped) and side marker light connectors.
18. Reinstall the plastic splash shields to the chassis and the bumper and reinstall both front wheels.
19. Install the supplied vacuum routing sticker on the radiator support next to the fan belt routing label.

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INSTALLATION OF MAZDASPEED INTAKE (CONTINUED)

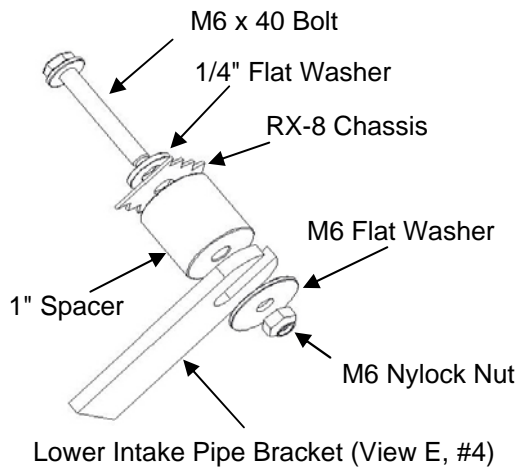
View E: Mazdaspeed Intake Separated



#6 MAF Sensor Location

- #1: Upper Intake Pipe
- #2: Long Middle Intake Pipe
- #3: Short Middle Intake Pipe
- #4: Lower Intake Pipe
- #5: 8-32 MAF Sensor Bolts
- #6: #48 Hose Clamp
- #7: #56 Hose Clamp
- #8: #60 Hose Clamp
- #9: Reducing Coupler
- #10: Screened Coupler
- #11: Reducing Hump Coupler
- #12: Air Filter
- #13: Filter Sock
- #14: See View F

View F: Bracket Assembly



Torque Specs:

8-32 Bolts: (0.8-1.2 N-m, 7.1-10.6 in-lbs)

Hose Clamps: (3-6 N-m, 26.6-53.1 in-lbs)

M6 Bolt/Nut: (6-9 N-m, 53.1-79.7 in-lbs)

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POST INSTALLATION INSPECTION / CLEAN-UP

1. Inspect all connection points.
 - Two aluminum spacers
 - MAF sensor harness and three hoses on upper intake pipe
 - Throttle body coupler
2. Inspect the engine bay for any loose tools and check that all fasteners that were moved or removed are properly tightened, including the wheel and fender liner. Start engine and perform a final inspection before driving the vehicle.
3. Wipe finger prints off of the intake pipe with soft cloth.
4. Return original intake and installation instructions to customer.
5. **Note: Clean your filter every 20,000 miles per the instructions on the included filter cleaning kit.**
6. **Caution: If you anticipate traversing deep water, remove this system and replace it with the original equipment intake system. All warranties are null and void if water is ingested into the intake system.**
7. **Caution: Modification, tampering or removal of any undercarriage or wheel housing mudguard will void all powertrain warranties.**