

M7 AGS-R (R56)



Tools:

T-25 Torx
10mm Wrench
Flathead Screwdriver
Phillips Screwdriver

Estimated Install Time (*Actual time may vary*):
45 minutes – 1.5 Hours

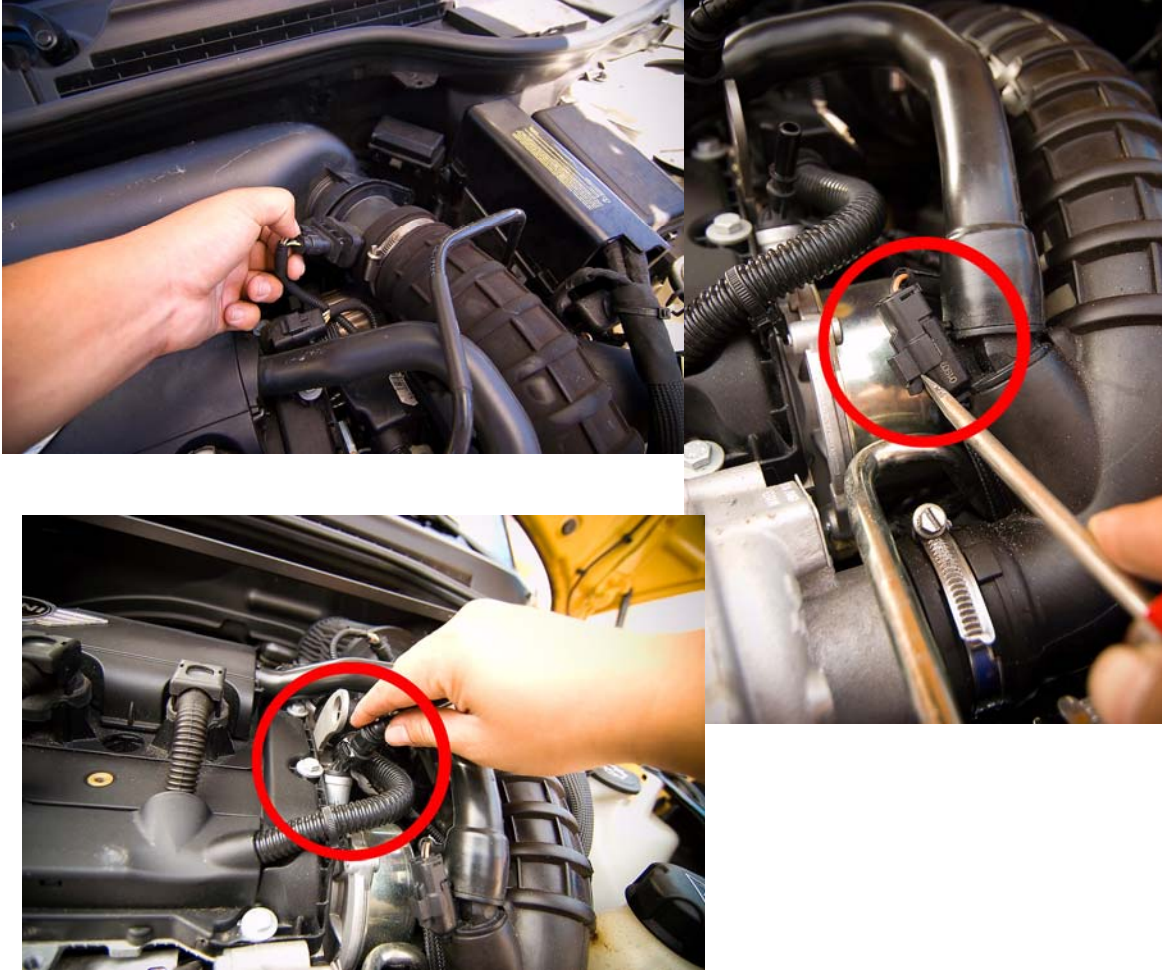
Parts Checklist

- 1 AGS-R Unit (Fiberglass with Black Gel Coat)
- 1 AGS-R Filter Cover (Fiberglass with Black Gel Coat)
- 1 Pre-Oiled Filter
- 3 Sound Ports
- 1 Heatshield (Black Powder Coated)
- 4 Black Plastic Pin Fasteners
- 4 Small Washers
- 2 Heatshield/ AGS-R Bolts (10-32)
- 1 Heatshield Driver Side Bolt (M6x110) [Shorter Bolt]
- 1 Heatshield Passenger Side Bolt (M6x120) [Longer Bolt]
- 3 Large Washers
- 1 Rear Mount Bolt (M4)
- 2 Nuts (1 regular, 1 locknut)

Procedure:

Disconnect the battery.

Disconnect the wiring harnesses on the intake hose and the sensor tubes around the intake hose.





Loosen the hose clamps holding the MAF sensor to the intake hose and the intake hose to the turbo.



Remove the recirculation tube by unlocking the U-shaped lock unit. There are two tabs (one on each side of the lock) that need to be pushed in with a flathead screwdriver. The lock slides up and out of place. When this is removed, the recirculation tube can be pulled out.

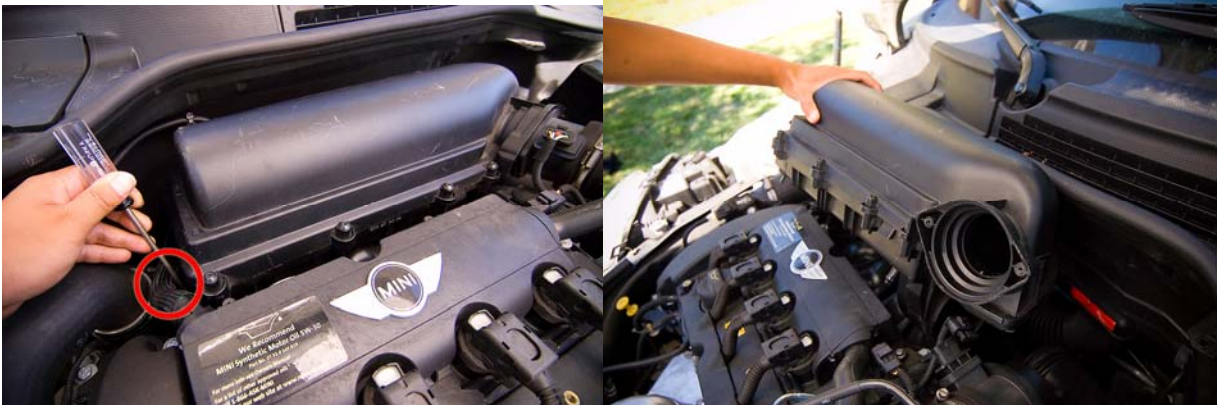


Remove the intake hose. In order to keep the wiring harness safe from chaffing, the MAF sensor has to be slightly rotated when the M7 AGS-R is installed. Cut a similar MAF sensor notch in the hose about $\frac{1}{4}$ of an inch to the left of the original notch. After this has been done, re-install this hose (**do not** reconnect to the MAF sensor at this time).



Remove the tube connected to the valve cover on the passenger side of the car. Pinch the locking ring and pull the tube out. This will help with removal of the stock air box.

Remove the T-25 securing screw holding in the stock airbox. This is located on the passenger side just under the tube you just disconnected. Pull the airbox out of the car. Once the stock airbox is out of the car, remove the MAF sensor from the airbox and set it aside.



Remove the lower intake hose.

Disconnect the sensor tube from the clip by pulling the tube towards the driver's side of the car.

With a flathead screwdriver, release the intake hose from the bezel in the front of the car (near the headlight). When the hose is disconnected, remove it from the car by twisting it counter-clockwise out of place. You will no longer need this hose.



Reconnect the sensor hoses and wiring harness to the intake hose. Keep the MAF sensor's wiring harness disconnected at this time.

Reconnect the recirculation tube on the passenger side of the engine block.

Put a thin layer of white lithium grease onto the intake end of the MAF sensor. Slide this end into the AGS-R.



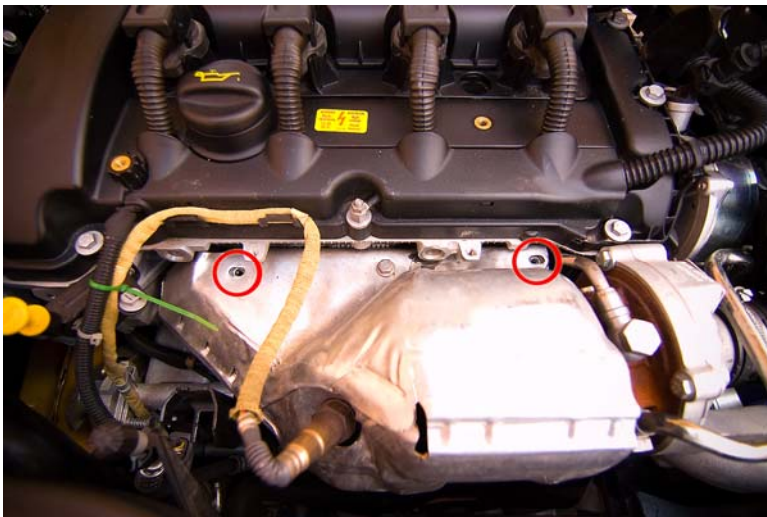
If you have problems lining up the MAF sensor to the bolts of the AGS-R, carefully bore out the attachment holes on the MAF sensor.

Slide the MAF sensor into the AGS-R as far as it will go. Use the supplied 10mm nuts and washers to hold the MAF sensor in place.



Because of a small lip on the intake side of the MAF sensor, the flange will **not** be flush with the AGS-R! Do NOT tighten the nuts down to try and make the flange sit flush with the intake as you may damage the MAF sensor. If you notice the flange bending, the nuts are too tight and must be backed off.

Use the supplied heat shrink tube to cover the engine hook located on the driver's side of the engine block. Place the heat shrink over the hook so that about ¼" of the material is hanging off of the end. With a heat gun or blow dryer, warm up the heat shrink so that it conforms and sticks to the hook.



Before putting the heatshield into place, identify the threaded holes used for attachment (circled in red):

You will be able to see these holes from the sides of the heatshield once it is in place.

Also, take note that the attachment hardware is not identical. One bolt is slightly longer than the other. The longer bolt goes on the passenger side of the heatshield while the shorter bolt attaches to the driver's side. Be sure to use anti-seize on the threads of each bolt.



Remove the paper strip from the double-sided tape found on the bottom of the heatshield.



This tape strip sits on top of the valve cover as seen in the image below.



Try to line up the pre-drilled holes of the heatshield with the threaded holes identified on the previous page.

The slot at the front of the heatshield should be in the same vicinity as the black-capped valve stem located at the front of the engine bay.



You will now determine where to drill the mounting holes for the AGS-R. We will begin with the rear bolt. Thread the bolt through a washer and slide this through the hole on the driver' side of the intake manifold (US spec). Thread another washer onto the bolt to sandwich the manifold. Use the regular nut to hold this in place (see image). You can use blue Loctite to keep this assembly in place.



Put a small glob of white lithium grease on the tip of the bolt. Place the AGS-R over the engine block until it touches the bolt. Carefully lift the AGS-R back out of the engine bay. If you have done this correctly, the AGS-R should have a white mark of grease on the bottom. This indicates where to drill. Use a 1/2" or 3/4" drill bit (you have to account for the bolt coming in at an angle).



Replace the AGS-R into the engine bay again. Let the bolt go through the newly drilled hole but do not lock this in with the nut/ washer yet. Connect the MAF sensor to the intake tube (do not tighten down the clamp).



Lift the AGS-R and place a dab of white lithium grease on each heatshield standoff. Bring the AGS-R down onto the standoffs and lift it again after the two units have made contact. If you have done this correctly, the AGS-R should have two white marks of grease on the bottom. These indicate where to drill.

Remove the AGS-R from the engine bay being careful not to rub off the grease from the bottom. Drill through the indicated points with a 1/4" drill bit.



Reinstall the AGS-R and your newly drilled holes should line up with the heatshield standoffs. Use the supplied bolts and tighten these down to a hand-tight fit. Do not over tighten them as they may cause damage to the AGS-R. Hand tight is fine.

Reconnect the MAF Sensor's wiring harness and tighten down the hose clamp.

Use the third washer and the locknut to hold down the filter end of the AGS-R. Do not attempt to thread the nut all the way down as this may cause damage to the intake.



Removing excess oil from the silicone part of the filter is recommended to prevent the filter from slipping after installation. Wash the silicone part of the filter with a rag, soap, and water. Be sure to wash the silicone part only. Dry this part thoroughly. Slip the filter onto the tube inside of the filter area and tighten the clamp.





Seal the box with the four plastic locking pins. Simply push the pin into the pre-drilled hole until the screw head and base are flush with the body of the AGS-R. You only need to use the Phillips screwdriver to *remove* the screw thus releasing the locking mechanism.

The three sound ports are installed by simply popping them into place. To remove them, remove the lid from the AGS-R and pop them out from the inside of the lid.

Tighten down any clamps that have not been tightened down. Be sure that there are no air leaks along the intake path. Connect any wiring harnesses that are still unplugged. Reconnect the battery. Installation is now complete! Make sure everything is reconnected or tightened down before starting up your car.

If you have questions or need additional technical support, please email techsupport@m7tuning.com or call our office at 562-608-8123, Monday – Friday, 9:00am – 6pm PST.