



PO Box 3785
Mooresville, NC 28117
888-438-5767

M7 Speed High Flow Intake Hose Kit for MINI N18 Engines
Part No. 56-3182XX
Fits all Gen 2 MINI R55S through R61S with N18 Engines



M7 Speed engineers and manufactures the highest quality and best fitting Mini Cooper accessories and performance parts available anywhere on Planet Earth! Please inspect your parts when you receive them to verify everything is included and no damage has happened during shipment. Read these instructions completely BEFORE attempting to install this product. If you are not confident you can do the work described or do not have the tools or skills necessary please contact a local M7 dealer (listed on our website www.m7speed.com) or a local automotive accessory installation center to perform this work. We acknowledge not everything is perfect but we work very hard every day to improve our products and make installations easier. If you have any comments please contact M7 Customer Service directly at 704-663-0094. We encourage and welcome all criticism. Thank you.



**FOR YOUR SAFETY INSTALL THIS PRODUCT ONLY WHEN THE ENGINE IS COLD.
THIS WILL PROTECT YOU FROM INJURY AND DAMAGE TO YOUR ENGINE & COMPONENTS.**

Tools & Supplies Required:

- Heavy Duty Wire Cutters (Side cutters)
- Heat Gun
- Needle Nose Pliers
- Diagonal wire cutters (side cutters)
- Flathead Screwdriver
- Phillips Screwdriver
- MAF sensor cleaner (optional)

Estimated Install Time (Actual time may vary):
30-60 minutes

3/15/2021

www.m7speed.com

Page 1 of 5

Parts Checklist

- ☐ (1) Intake Hose with $\frac{3}{4}$ " straight connector and $\frac{5}{16}$ " 90 degree connector installed
- ☐ (1) #32 Hose Clamp
- ☐ (1) #44 Hose Clamp
- ☐ (1) #8 Euro Hose Clamp
- ☐ (1) #4 Hose Clamp
- ☐ (1) Electronic replicator (large)
- ☐ (1) Electronic replicator (small)
- ☐ (2) $\frac{1}{2}$ " x 2" shrink tube
- ☐ (1) Rubber cap

REMOVAL OF THE FACTORY AIR INTAKE HOSE

1. Remove the metal c-clip holding the PCV hose to the factory OE hose at the PCV heater. Use needle nose pliers or a 90 degree pick tool. Pull the PCV hose off from the connection.
2. Locate the electrical connector and twist it to un-clip it from the holder. Be careful not to damage it.
3. Remove the pinch clamp that fastens the plastic connection fitting to the $\frac{3}{4}$ " PCV hose. Remove the plastic fitting on the end of the PCV hose. Keep the plastic fitting and the c-clip if you want to reinstall the OE intake hose in the future. See Figure #1

Pinch Clamp

C-clip Retainer

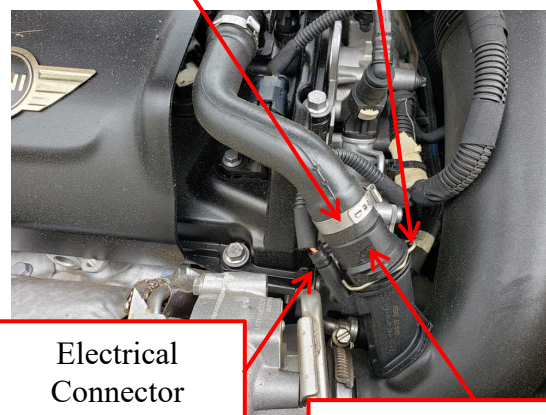


Figure #1:
PCV Hose Clip and Connector

OE PCV hose
fitting. Remove.

If equipped with a secondary block vent hose go to Step #4. If not go to Step #18

4. Remove the small metal c-clip that holds the small vent hose to the side of the factory OE intake hose. Use needle nose pliers or a 90 degree pick tool. Pull the hose off from the connection.
5. Locate the small electrical connector and twist it to un-clip it from the holder. Be careful not to damage it.
6. Remove the $\frac{1}{2}$ " pinch clamp that fastens the plastic connection fitting to the small vent hose. Remove the fitting from the hose and retain it and the c-clip if you want to reinstall the OE intake hose in the future.
7. Loosen the hose clamp connecting the OE intake hose to the MAF housing.
8. Loosen the hose clamp connecting the OE intake hose to the turbo inlet housing.
9. Remove the OE intake hose and retain it for future reinstallation if desired. Be sure to remove the rubber reducer from the turbo housing if it did not come off with the hose.
10. Clean the turbo inlet and MAF sensor hosing to remove any oil and dirt residue.

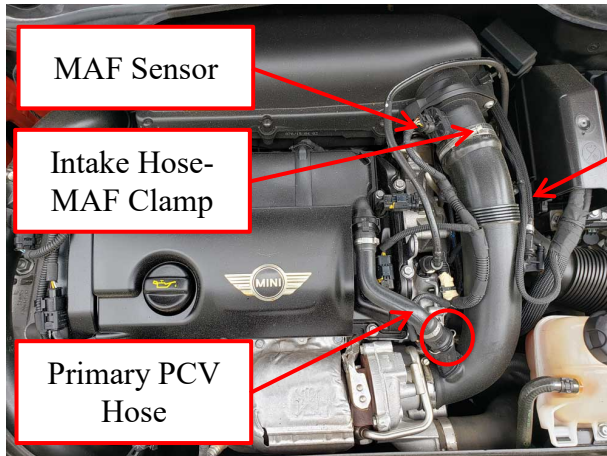


Figure #2: N18 Engine Top View

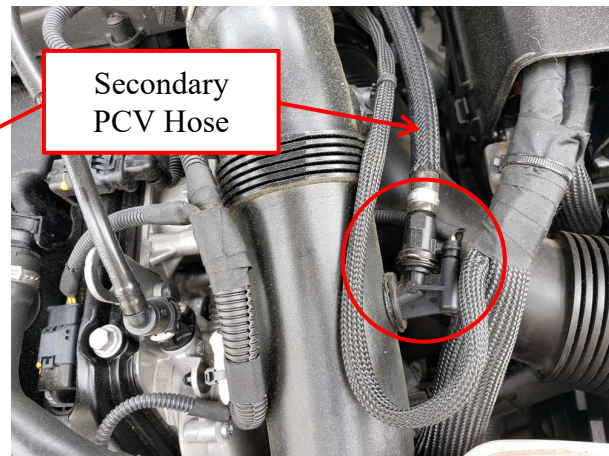


Figure #3: Secondary PCV Hose Clip and Connector (Not all MINIs are equipped with this hose)

PREPARATION FOR INSTALLATION

11. (Optional) This is a good time to clean your MAF sensor using a specially formulated MAF Sensor Cleaner you can buy at any local auto parts store. Remove the MAF sensor from the housing to be able to clean it thoroughly. Note the flow direction arrow on the plastic housing. Be sure to re-install it in this same direction.

INSTALLATION

12. Slide the #44 clamp (3" dia) and #32 clamp (2 1/4" dia) onto the new M7 silicone inlet hose. Install the large end onto the MAF housing and the small end onto the turbo inlet housing. NOTE: The M7 design is a direct fit on to the turbocharger inlet and eliminates the OE reducer bushing so no need to reinstall it.
13. Align the two clamps and tighten. Do not overtighten. This hose is not under positive pressure while in use. Only tighten the clamps enough to seal the connection from any leaks where dirt can enter. Over tightening will damage the hose and mating parts.
14. Place the #8 euro hose clamp (1" dia) over the 3/4" PCV hose (or oil catch can hose if one is installed) and slide the PCV hose onto the 3/4" fitting. Hand tighten the clamp.

15. Locate the electrical connector disconnected in step #2. Slide one piece of ½" black shrink tube over the connector and wire. Plug the **LARGE** electronic replicator into this connector.

If equipped with a secondary engine block vent hose continue to STEP #16. This is a small hose located on the driver's side of the OE Intake Hose. If not go to STEP #18

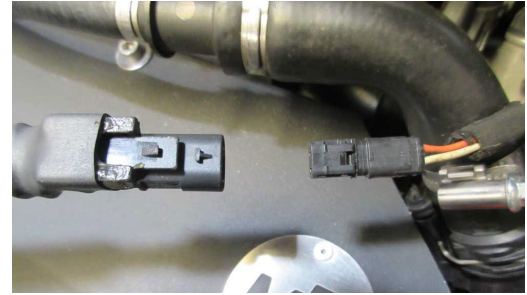


Figure #4: Replicator Connection

16. Place the #4 hose clamp over the ½" secondary PCV hose and slide the hose onto the small 90-degree black plastic fitting located at the mid-point of the M7 hose. Hand tighten the clamp.
17. Locate the electrical connector disconnected in step #5. Slide one piece of ½" black shrink tube over the connector and wire. Plug the **SMALL** electronic replicator into this connector.
18. If your MINI is not equipped with a small secondary PCV vent hose. Install the supplied rubber cap over the small fitting located at the mid-point of the M7 Intake Hose to seal off the port.
19. Start the car and let it run for one minute. Check that the CEL (Check Engine Light) is OFF after one-minute running time. If the CEL is ON do the following;
- Turn the car off.
 - Check that the Small and Large replicators are fully seated into their respective connectors
 - Check that the MAF sensor is installed in the proper airflow direction (airflow towards the turbocharger) and the connector is correctly plugged in.

20. Once the CEL is off slide the heat-shrink tubing over the replicator's connector and the wiring harness connector interface. Using a heat gun shrink the tubing to create a weather-tight and secure connection. Do this for one or two connections depending on how your MINI is equipped.

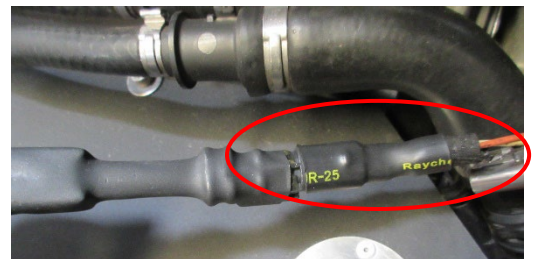


Figure #5: Heat Shrink installed over final connection

21. Tie the replicators to a secure and out of the way location using the supplied wire ties. We recommend attaching the replicators to the PCV hose, oil catch can hose (if equipped) or the factory wiring loom.



CAUTION: DO NOT ATTACH THE LARGE M7 REPLICATOR TO THE MAIN VACUUM LINE. SEE FIGURE #6 BELOW

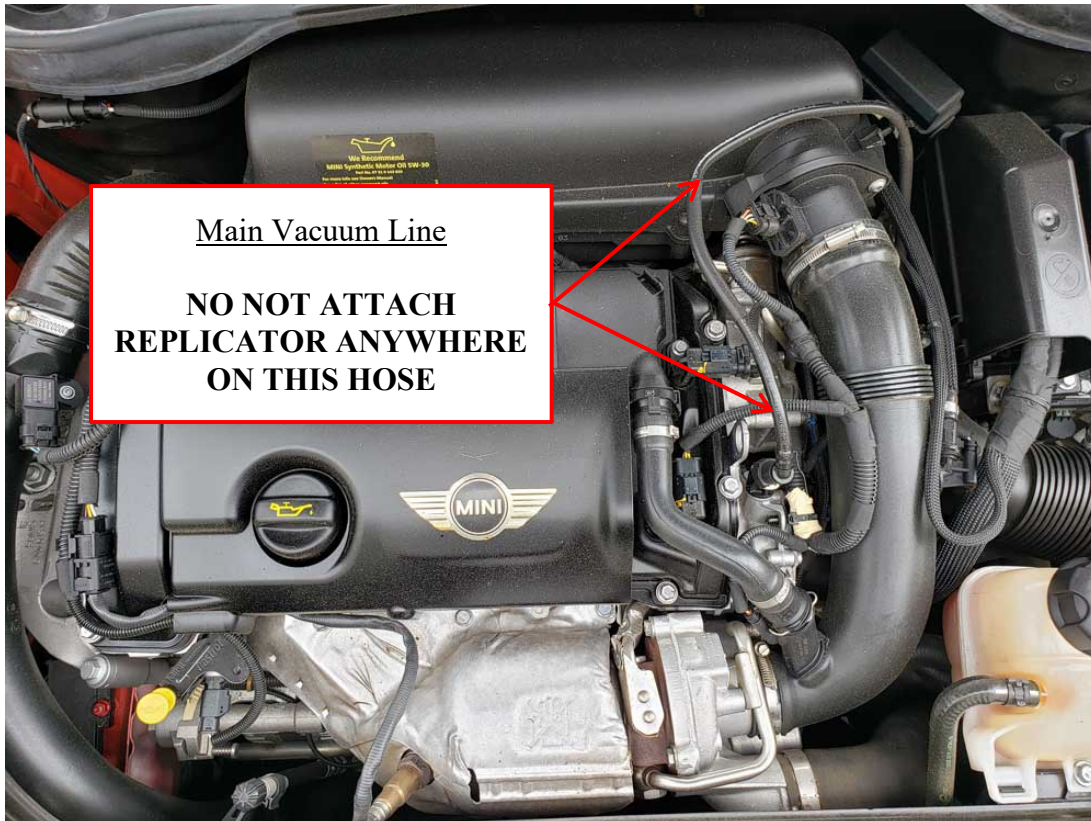


Figure 6

22. **Safety check** | Check that all hardware & clamps are tight, all electrical connections are plugged in and all hoses and necessary parts are installed properly. Verify there is no excessive strain on any electrical wires, which may cause a problem in the future.

Installation Instructions

Part Numbers: 56-3M7101, 102, 103, 60-3M7101, 102, 103

Pre-Intercooler Charge Pipe



M7 Speed engineers and manufactures the highest quality and best fitting MINI Cooper accessories and performance parts available anywhere on Planet Earth! Please inspect your parts when you receive them to verify everything is included and no damage has happened during shipment. Read these instructions completely BEFORE attempting to install this product. If you are not confident you can do the work described or do not have the tools or skills necessary please contact a local M7 dealer (listed on our website www.m7speed.com) or a local MINI repair shop or automotive accessory installation center to perform this work. We acknowledge not everything is perfect but we work very hard every day to improve our products and make installations easier. If you have any comments please contact M7 Customer Service directly at 704-663-0094. We encourage and welcome any and all criticism, comments or product reviews. Thank you.

KIT INCLUDES

- 1x Pre Intercooler Charge Pipe
- 1x #28 Shielded Hose Clamp
- 1x #36 Shielded Hose Clamp

TOOLS & SUPPLIES NEEDED

- T25 male TORX driver
- Flat slotted screwdriver
- 5/16" nut driver or socket.
- 8mm & 10mm socket & ratchet
- Brake clean or similar degreaser/solvent
- Rags



CAUTION:

WHEN WORKING UNDER YOUR CAR ALWAYS USE THE RIGHT EQUIPMENT FOR THE JOB. DON'T BE TEMPTED TO TAKE SHORT CUTS OR USE INAPPROPRIATE ITEMS. NEVER WORK UNDERNEATH A VEHICLE THAT IS ONLY SUPPORTED BY A JACK. THIS MAY CAUSE SEVERE INJURY AND EVEN DEATH.



CAUTION:

SUPPORT YOUR CAR BY USING STABLE AND QUALITY AXLE STANDS THAT ARE IN GOOD CONDITION AND PROPERLY RATED FOR YOUR VEHICLE'S WEIGHT. THIS INSTALLATION IS BEST ACCOMPLISHED USING AN AUTOMOTIVE SERVICE LIFT.

Removal of stock unit:

1. Begin by removing the 8mm bolt that holds the coolant expansion tank to the radiator support on the driver's side of the car.
2. Pull the tank away from the frame and out of the way for the installation process. No need to disconnect the hoses.
3. Loosen the clamp connecting the OE charge pipe to the turbocharger.
4. Halfway down is the charge pipe muffler. Remove the bolt that holds this in place. T25 TORX Bit is required. Move the coolant hose away from the head of the bolt to gain clearance. It is easiest to access the bolt from under the car.
5. Loosen the clamp that connects the charge pipe to the intercooler. Remove the entire charge pipe/muffler assembly from the car.



Figure 1: OE Charge Pipe with Muffler

Installation of M7 Speed Pre-intercooler Charge Pipe:

1. Clean the attachment points at the turbo and the intercooler with a degreaser/solvent to remove any oil residue. This reduces any chance of "blow-off" at the connections.
2. Using the M7 supplied shielded hose clamps, install the M7 Charge Pipe onto the intercooler and the turbo.
3. Tighten down clamps on the turbo and intercooler.
4. Check for adequate clearance between the hose and that nothing rubbing.
5. Re-install the coolant expansion tank to the frame of the car.
6. The installation is now complete

If you have any questions or concerns, don't hesitate to call our office Monday – Friday, 9am-4:30pm Eastern. Or e-mail us info@m7speed.com.

Enjoy the Ride..... Team M7

M7 Speed Cold Side Intercooler Elbow Kit PN 56-33020X Installation Guide



M7 Speed engineers and manufactures the highest quality and best fitting Mini Cooper accessories and performance parts available anywhere on Planet Earth! Please inspect your parts when you receive them to verify everything is included and no damage has happened during shipment. Read these instructions completely **BEFORE** attempting to install this product. If you are not confident you can do the work described or do not have the tools or skills necessary please contact your local Authorized M7 dealer (listed on our website www.m7speed.com) or a local automotive performance center to perform this work. We acknowledge not everything is perfect but we work very hard every day to improve our products and make installations easier. If you have any comments please contact M7 Customer Service directly at 704-663-0094. We encourage and welcome all criticism. Thank you.

Tools/Supplies Needed:

- 7 mm socket and ratchet or nut driver
- 8 mm socket and ratchet or nut driver
- 5/16" socket and ratchet or nut driver
- Straight Blade Screwdriver
- T-25 Torx socket and ratchet or nut driver
- T-27 Torx socket and ratchet or nut driver
- 1/8" hex wrench
- Flathead Screwdriver
- Radiator Hose Removal Toll (Curved hook or pick)
- MAF Cleaner (Optional)
- Foamy window cleaner

Estimated Install Time (Actual time may vary):

- 15 minutes – 45 minutes

Skill Level

- Easy

Parts List

QTY	M7 Part #	DESCRIPTION
1	96-1189	Gen 2 Cold Side Silicone Elbow
1	96-1158	Gen 2 Throttle Body Silicone Elbow
1	96-1190	Connector tube 2.5 OD x 4" Long
1	95-4056	#36 Lined Worm Drive Clamp
2	95-4058	#40 Lined Worm Drive Clamp
1	95-4060	#44 Lined Worm Drive Clamp
1	97-1042	Red Plastic Plug


CAUTION-

FOR YOUR SAFETY INSTALL THIS PRODUCT ONLY WHEN THE ENGINE IS COLD. THIS WILL PREVENT BURNING YOURSELF AND PREVENT ANY DAMAGE TO THE DELICATE PLASTIC PARTS YOU WILL BE WORKING WITH.

Remove the airbox assembly.

If your MINI is equipped with an aftermarket intake kit (not OE part) refer to the manufacturer's instructions for proper removal and installation of that product.

Factory Air Box Removal

1. Disconnect the battery.
2. Disconnect MAF sensor electrical connector: See Figure #1
 - a. The MAF plug is located on the intake hose. Push down on the small tab on the harness side and gently pull the plug out. Do not pry or damage will occur.
3. Loosen the hose clamp connecting the MAF housing to the turbo inlet hose. Figure #2
4. Remove the (2) T-27 screws connecting the MAF housing to the factory intake box. Figure #1
5. Mark the MAF sensor so it is reinstalled in the correct flow direction.
6. Remove the MAF housing from the factory air box and inlet pipe. Set the MAF housing aside in a safe place. The sensor is delicate.
7. (Optional) While your MAF sensor is removed and easily accessible, now is a good time to perform some needed maintenance and clean your MAF sensor. This is easily done using a specially formulated MAF spray cleaner you can buy at any local Autoparts store.
8. Remove the (3) T-25 screws holding the factory intake box cover to the factory base. Figure #3
9. Remove the air box cover and the factory air cleaner element.
10. Fully loosen (1) T-25 screw on the RS (passenger side) of the air box that connects the air box base to the engine intake manifold.
11. Pull the air box base straight up to disconnect it from the engine. It will take some effort to disengage the base from the interference fit rubber grommets but do not pry on it.

CAUTION: The intake manifold is plastic and it will break if too much force is applied. Human force is sufficient. Once the base is free, rotate it approximately 1/8 to 1/4 turn towards the rear of the car while at the same time pulling it apart from the factory fresh air hose. If the three grommets come free from the intake manifold reinstall them now.



Figure #1: MAF Sensor Connector

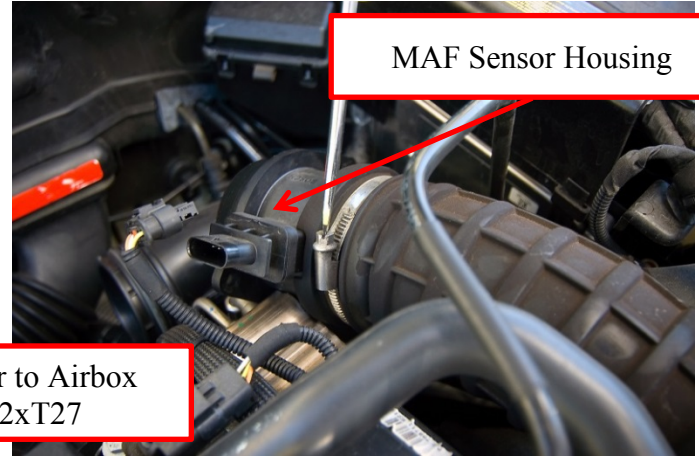


Figure #2: Intake Hose Clamp

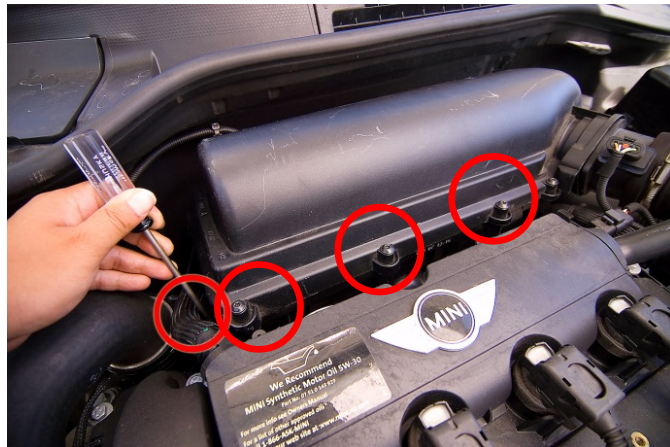


Figure 3: Remove Factory Airbox Cover

12. (Optional) This is a good time to clean your MAF sensor using a specially formulated sensor cleaner you can buy at any local Auto Parts store.



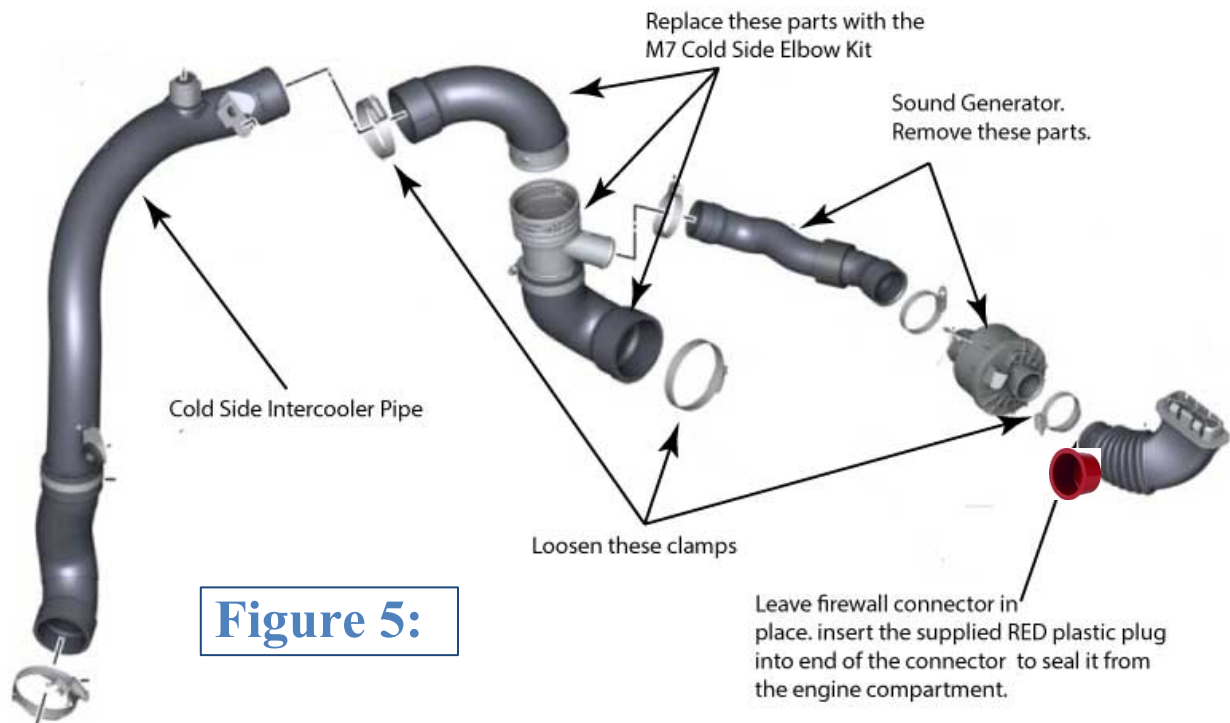
Figure 4: Remove Clamp

NOTE: Some MINIs are equipped with a sound generator that connects between the cold side intake pipe and the firewall. The M7 Speed Cold Side Elbow Kit eliminates this component. If your MINI is not equipped with this component simply bypass any instructions relating to it.

CAUTION. The throttle body and cold pipe are plastic and they will break if too much force is applied to it. **BE CAREFUL!**

SEE FIGURE #5 for steps 13-21

13. Remove the clamp holding the factory elbow to the cold side pipe near the passenger side strut tower.
14. Remove the clamp holding the elbow to the throttle body.
15. If equipped remove the clamp holding the sound generator hose to the firewall connector.
16. Use a hose removal tool (curved hook or pick if one is available) or a twisting motion to break the seal between the OE rubber elbows and the mating pipe and throttle body.



17. Remove the OE elbows and sound generator parts as described in Figure #5. Leave the firewall connector attached to the firewall in place.

Figure 6: Red Plug
Start of engagement
into firewall connector



Figure 7: Red Plug
Fully installed into
firewall connector.



18. Install the M7 Speed Elbow Kit to replace the OE Elbows as follows.

A small amount of foamy window cleaner eases installation.

DO NOT USE ANY OIL OR SOLVANT BASED PRODUCT!

- a. Install the M7 connector tube into the PN 96-1158 elbow.
- b. Place PN 96-1158 elbow with connector tube onto the throttle body. Align it so the connector tube is vertical.
- c. Place one (1) #44 and two (2) #40 clamps over the connector tube. Do not tighten
- d. Then place PN 96-1189 elbow with one #36 clamp onto the connector tube and cold side intercooler pipe.
- e. Align the two elbows so there no stress on the throttle body or cold side tube and the parts are not touching and nearby part.
- f. Make sure the connector tube is equally engaged into the two (2) elbows (approximately 1" into each elbow) and is fully slid onto the throttle body.

19. Position the four (4) clamps as required and tighten using a 5/16" socket or nut driver. **DO NOT OVER TIGHTEN!**

20. Install the supplied RED plastic plug into the sound generator firewall connector. Press firmly until it is fully inserted. It is a tapered fit so no clamp is needed to keep it in place. See Figure #6 & #7

21. Reinstall the intake airbox by reversing the removal steps at the beginning of document.

Enjoy the ride & stay M7 Tuned.....

If you have any questions or concerns, don't hesitate to call our office

Monday – Friday, 9am—4pm EST or e-mail us techsupport@m7speed.com.