

MINI R56 N14/N18

BILLET INTAKE MANIFOLD / INSTALL MANUAL

Notes:

These instructions do not include detailed steps for OEM components removal.

Professional install required.

Tech performing this install is expected to be familiar with Mini Cooper R56 platform.

If you have basic mechanical skills and several varieties of tools, try this at your own risk. When dismantling the vehicle, get compartmented trays to store all removed fasteners.

Fasteners that are not going to be reused will be noted in the instructions.

If you need assistance with this install, feel free to contact us at rmpower.vancouver@gmail.com

Please read all the notes found below, before you proceed with install

Billet Intake Manifold was designed to use OEM sensors, seals, and gaskets

Note: After installing Billet Intake Manifold, Cold air intake suitable for OEM intake manifold will no longer fit on to the same spot. Custom Cold Air Intake required.



Parts included in your order:

1. THROTTLE BODY BOLTS – M6X1X50MM (3 BOLTS)
2. MAP SENSOR BOLT – M6X1X10MM (1 BOLT)
3. PCV ADAPTOR FROM VALVE COVER TO INTAKE MANIFOLD (FOR N14 ENGINE ONLY)
4. FLANGE TO CYLINDERHEAD BOLTS M8X1.25X30MM (5 BOLTS)
5. SILICONE COUPLERS IN SIZE FROM 2.25"-2.5" TO 2.5"-2.75"; 90* CHARGE PIPE 2.5"

(NOTE, SUPPLIED CHARGE PIPE ALSO FITS ALL EXISTING SILICONE COUPLERS FROM MOST AFTERMARKET CHARGE PIPE KITS, LIKE NM ENGINEERING, CTS TURBO, FORGE, ETC.)

CUSTOMER REMAINS TO SUPPLY OEM SEAL FOR THE THROTTLE BODY ([11-61-7-528-341](tel:11-61-7-528-341)) AND OEM SEALS FOR THE FLANGE ([11-61-7-528-340](tel:11-61-7-528-340)); EXISTING SEALS REMOVED FROM OEM INTAKE MANIFOLD ARE POSIBLE TO REUSE IF CURRENTLY FOUND IN GOOD CONDITION (NOT DRY OR CRACKED)



NOTE: TO AVOID COSMETIC WEAR DURING MANIFOLD INSTALL, WE RECOMMEND TAPING PLENUM EDGES AND BACK SIDE OF THE PLENUM WITH MASKING TAPE.

IN ORDER TO BEGIN INSTALL, PLEASE FOLLOW BELLOW STEPS:

1. Disconnect the Battery Ground Cable.

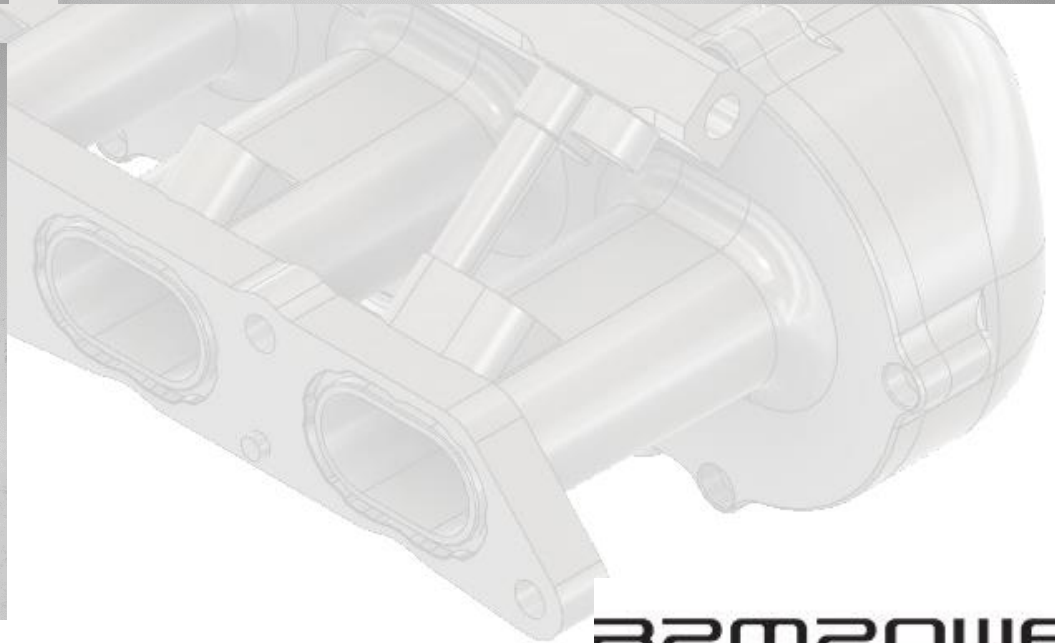
2. Remove EXISTING/OEM COLD AIR INTAKE.

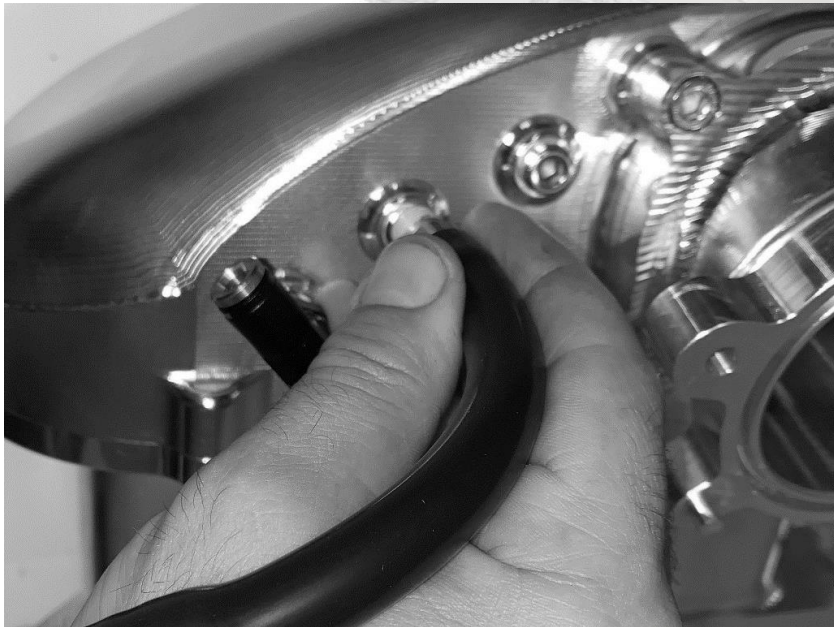
3. Remove OEM INTAKE MANIFOLD.

4. After removing OEM Intake Manifold, REMOVE ALL THE OEM CYLINDER HEAD FLANGE STUDS (M8x1.25MM)

(NOTE: IF YOU WISH TO REUSE OEM STUDS, AT THIS TIME THESE MUST BE REMOVED IN ORDER TO ALLOW NEW BILLET MANIFOLD TO SLIDE IN PLACE, BILLET MANIFOLD HAS GUIDE PINS ON THE CYLINDER HEAD FLANGE SIDE, IT WILL PERFECTLY ALIGN RUNNERS FROM MANIFOLD TO CYLINDER HEAD RUNNERS)

5. Relocate the Vent Valve solenoid (FITTINGS FOUND IN THIS PICTURE ARE JUST FOR ILLUSTRATION, FITTINGS SUPPLIED WITH YOUR ORDER MAY DIFFER)





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6. If you are using **OEM Boost Solenoid**, please relocate it to another spot, be careful not to pull the vacuum lines out of place. A good spot would be to zip tie to fuel rail under intake runner number 2

7. Next steps install **Charge Pipes with Silicone couplers, and hose clamps. Have the hose clamp tightening bolts parallel to Fire Wall**

DO NO TIGHTEN HOSE CLAPMS AT THIS TIME! TEST FIT ALIGMENT STEP!



8. INSTALL NEW FLANGE SEALS OR TRANSFER OVER FROM OEM MANIFOLD, INSTALL THROTTLE BODY, MAP Sensor, NOTE: SOME OF THE AGED EXISTING SEALS FROM THROTTLE BODY OR HEADFLANGE MIGHT BE EXPANDED, WHEN YOU TRANSFER THE SEAL OVER IT MIGHT LOOK LIKE THE SEAL IS TOO LARGE, YOU CAN FIT IT IN WORKING THE SEAL ROTATING IT IN OPOSITE DIRECTION.

9. In this step, TEST FIT THE BILLET MANIFOLD WITH THROTTLE BODY INSTALLED, ALIGNE SILICONE COUPLERS TO FIT THROTTLE BODY, ONCE YOU ARE HAPPY WITH ALL COUPLERS POSITION, REMOVE BILLET MANIFOLD, LEAVE THE COUPLERS IN PLACE, SLIDE THE T.CLAMPS OVER AND TIGHTEN THEM IN ALIGNED POSITION, DO NOT YET TIGHTEN THROTTLE CLAMP!

(FOR N18 ENGINES, ONLY DIFFERENCE IN INSTALL, WE SUPPLY AN ADDITIONAL 10MM FLANGE, ADDITIONAL CLEARANCE FOR MULTI PORT INJECTOR BORE WAS REQUIRED, DUE TO THE DIFFERENCE IN THE CYLINDER HEAD ON N18.)



10. INSTALL BILLET MANIFOLD, INSTALL NEW STAINLESS STEEL BOLTS, TORQUE TO 25NM
11. CONNECT SILICONE COUPLER AT THROTTLE BODY (CLAMP BOLT PARALLEL TO FIRE WALL)
12. On N14 engines, install SUPPLIED PCV adaptor on the valve cover back port and connect ¼" nylon line to quick connect at BILLET MANIFOLD. (NOTE: THIS PCV LINE OPERATES DURING IDLE – SCAVENGING CRANKCASE PRESSURE FROM VALVE COVER/INTERNALLY CONTROLLED BY A

DIAFRAGM, AND DURING PRESSURE/BOOST, THIS LINE WILL BLEED PRESSURE AND CLOSE THE FLAP INSIDE VALVE COVER AND CRANKCASE PRESSURE WILL ESCAPE FROM TURBO SIDE, 1/4"

I.D. NYLON LINE DIAMETER IS SUFFICIENT TO DO THE TASK)

13. Connect wiring to the throttle body and MAP sensor.
14. Manifold has 3 spare 1/8 NPT Vacuum Source for use (Boost gauge, Vacuum source, etc).
If none are needed, 1/8npt plugs are supplied with Manifold.
15. Connect all your existing vacuum sources (gauge, blow off valve, external map sensor, etc.) as well install your custom intake setup. (See blow Fig. for example)
16. Verify your work and double check until you confident with complete install.
17. Connect the battery, start the engine.
18. Double check all the work.