



advanced FLOW engineering

Instruction Manual P/N: 46-20198-B

Make: **BMW** Model: **M3/M4 (F80/F82/F83)** Year: **2015-2017** Engine: **L6-3.0L (tt) S55**



- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot.
- Disconnect the negative battery terminal before proceeding.
- Retain factory parts for future use.

Label	Qty.	Description	Part Number
A	1	Tube, Front	05-60760B
B	1	Tube, Rear	05-60761B
C	2	Trim, Rubber Edge: 1/16" (6" in.)	05-00149
D	2	Coupling, Silicone Straight	05-60782
E	4	Clamp, Spring Loaded T-Bolt: 2-1/2"	03-50560
F	2	O-Ring	03-50558
G	2	Screw, Btn Hd Socket: M6	03-50102
H	2	Plug, Hex Hd Socket: 1/8" NPT	03-50029
I	1	Ball Stud: 10mm	03-50538
J	1	Bracket, Engine Cover	05-60787

Tools Needed: Thread sealant, grease, 7mm, 10mm, 11mm, 13mm sockets, E-8 Socket, Ratchet, Flat head screwdriver, Panel popper, 4mm Allen wrench and 3/16" Allen wrench.

Note: Legal in California for use on race vehicles only. The use of this device on vehicles used on public streets or highways is strictly prohibited in California and others states that have adopted California emission regulations.




Figure A

Refer to Figure A for Steps 1-3

- Step 1: Park vehicle on level ground and engage parking brake.
- Step 2: Remove engine cover by pulling straight up in all four corners.
- Step 3: Remove the battery and brake reservoir covers by using a 10mm socket and turning the three plastic nuts ¼ turn counter-clock wise and removing the plastic push pin on each side.



Figure B

Refer to Figure B for Steps 4-5

Step 4: Remove the 10mm bolt that secures the coolant reservoir onto the strut brace and set to the side.

Step 5: Remove the eight bolts securing the strut brace to the vehicle, using a 13mm socket, and remove the brace from the vehicle.



Figure C

Refer to Figure C for Steps 6-9

- Step 6: Disconnect the MAF sensor from the passenger side air box.
- Step 7: Loosen the clamp between the passenger side air box and the 90-degree tube, using a 7mm socket, and remove the air box from the vehicle.
- Step 8: Loosen the clamp between the 90-degree tube and the turbo inlet tube, using a 7mm socket, and remove the tube from the vehicle.
- Step 9: Remove the 10mm bolt securing the turbo inlet tube to the valve cover and remove the turbo inlet tube.



Figure D

Refer to Figure D for Steps 10-12

Step 10: Unclip the wire loom from the intercooler tube.

Step 11: Remove the bolts securing the plastic intercooler tubes to the turbo using a E-8 socket, or an 8mm socket.

Step 12: Loosen the four intercooler coupling clamps, using a 7mm socket, connecting the intercooler to the intercooler tubes and remove the intercooler tubes from the vehicle.



Refer to Figure E for Steps 13-14

Step 13: Unclip the wire loom from the plastic engine cover and set to the side.

Step 14: Remove the engine cover carefully by pulling up off the 3 mounting points on the front, side and rear of the cover and remove from the vehicle by sliding it forward.



Figure F

Refer to Figure E for Steps 15-17

Step 15: Install the supplied ball stud and trim seal onto the supplied engine cover bracket and tighten ball stud.

Step 16: Remove the 8mm nut securing the ground strap onto the valve cover.

Step 17: Install the engine cover bracket underneath the ground strap and reinstall the 8mm nut removed from the previous step (see photo for direction of bracket).



Figure G

Refer to Figure G for Steps 18-21

Step 18: Install the supplied O-Rings into the grooves on the inside of the aluminum adaptors on the aFe intercooler tubes.

NOTE: Lube the O-rings for the adaptor with a small amount of grease, prior to installation, to prevent the O-ring from tearing.

Step 19: Install supplied plugs into each of the bungs on the aFe intercooler tubes, using an allen wrench, if they will not be used for personal auxiliary sensors.

Step 20: Place the silicone couplings over the end of each of the aFe intercooler tube with one of the supplied clamps on each coupling.

Step 21: Install the remaining clamps onto the intercooler inlets.



Figure H

Refer to Figure H for Steps 22-25

Step 22: Install the shorter tube on the rear turbo and the longer tube onto the front turbo.

Step 23: Once the tubes are installed slide the couplings onto the intercooler.

Step 24: Secure the intercooler tubes to the turbos using the supplied M6x1.0 screws and tighten with an allen wrench.

Step 25: Ensure intercooler tube is not resting on any plastic or metal surfaces then tighten all clamps.



Figure 1

Refer to Figure 1 for Steps 26-30

- Step 26: Install turbo inlet tube from Step 9.
- Step 27: Install intake tube and air box from Steps 7 & 8
- Step 28: Reconnect the sensor from Step 6.
- Step 29: Reinstall strut brace and coolant reservoir bolt from Step 4 & 5.
- Step 30: Reinstall the battery cover, brake reservoir cover, and engine cover. Install is now complete.

NOTE: Check all hardware after 200 miles.



SCORCHER GT Module



P/N: 77-46310

Cold Air Intake System



P/N: 52-76305

Sprint Booster



P/N: 77-16301 (M/T)
77-16302 (A/T)

OE Replacement Filters



P/N: 30-10238 (P5R)
31-10238 (PDS)

Engine Cover



P/N: 79-13003

Twisted Steel Downpipes



P/N: 48-36313 (Race)
48-36312-1 (Street)

Downpipe Back Exhaust



P/N: 49-36323-1C (C/F Tips)
49-36323-1P (Pol. Tips)

Axle-Back Exhaust



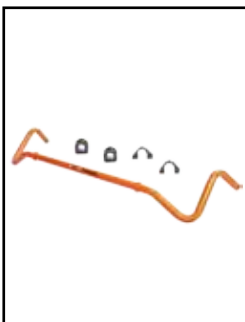
P/N: 49-36324-1C (C/F Tips)
49-36324-1P (Pol. Tips)

Coilovers



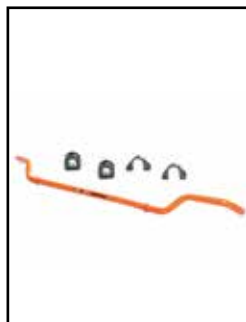
P/N: 430-503001-N

Front Sway Bar



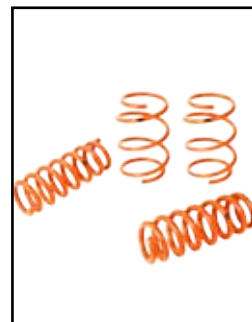
P/N: 440-503001FN

Rear Sway Bar



P/N: 440-503001RN

Lowering Springs



P/N: 410-503001-N