

# GruppeM RAM AIR SYSTEM

CARBON DUCT INTAKE KIT

## Installation Instructions

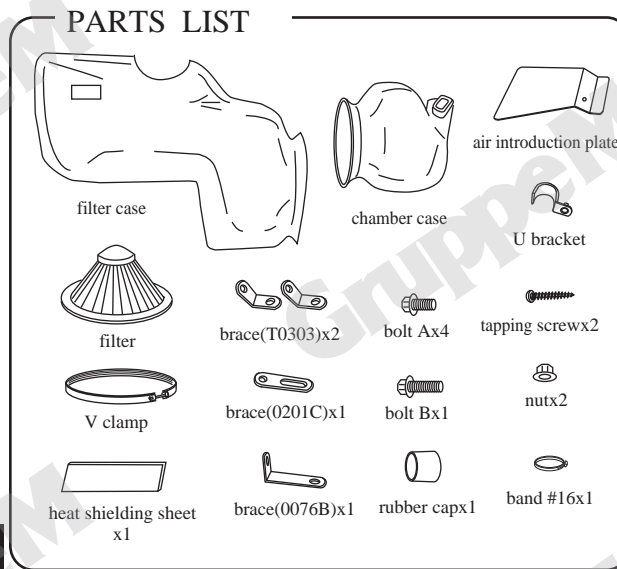
FRI-0342

BMW F30/F31 320d & F32 420d (N47D20C)

Thank you for buying the GruppeM Ram Air System  
Before installation, verify that you have all of the parts in the Parts List on the right.

### CAUTION

- Please read the entire instruction manual before proceeding.
- 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 and our installation manual for future use.
- GruppeM Inc. will not be held responsible for installations to any motor vehicle model other than the one specified.



### Installation of ram air system



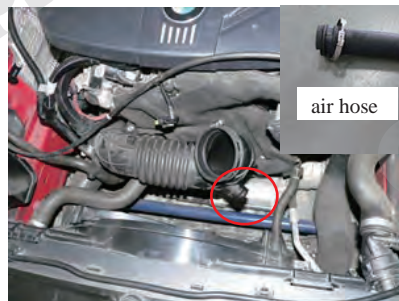
1.Remove the air box assembly.



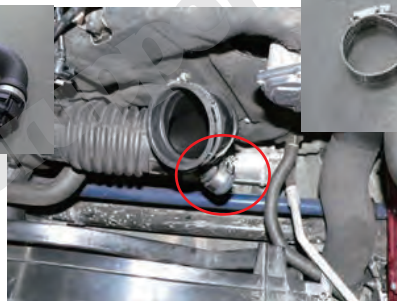
2.Remove MAF (Mass Air) coupler. Loosen coupler and suction hose band. Remove air hose located on the bottom side of the case



3.Remove MAF (mass air sensor) from the air box assembly.



4.Remove air hose from suction hose as shown in picture.



5.Using the supplied rubber cap where the original air hose was located and securely attach using clamp.



6.Assemble to the filter case bracket as shown in picture using included hardware. Please refer to attached picture for reference.



7.Mount assembled brace in step 6 using factory screw to location shown here.



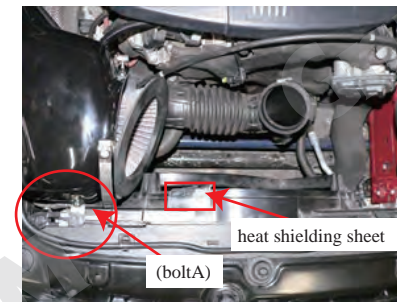
8.Using bolt A attach brace (0076B) to the filter case. (Using bolt A)



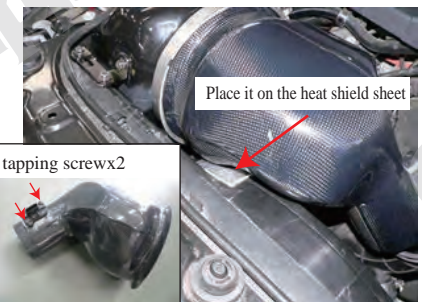
9.Install in engine bay while being careful to avoid air duct guide, engine harness and hood release cable.



10.Mount the air filter case to the body as shown using original screw.



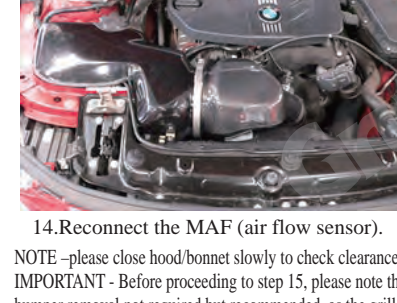
11.Attach the front of the filter case to the brace to location shown here and described in step 7. Apply heat shield in reference to the shown picture.



12.Secure the MAF (air sensor) to the chamber case. Insert (sandwich) the air filter between chamber and air filter case. Secure tightly with attached V clamp. See picture for details.



13.Attach the suction pipe to the chamber case. NOTE – be sure not to over tighten when installing, this could damage or break intake casing



14.Reconnect the MAF (air flow sensor). NOTE –please close hood/bonnet slowly to check clearances IMPORTANT - Before proceeding to step 15, please note that bumper removal not required but recommended, as the grille is difficult to remove and should be done with extreme care to prevent breakage and/or injury. GruppeM is not responsible damages or breakage of any sort or kind.

### Installation of air introduction plate



15.To remove right front grille, simply remove top bolts/screws holding bumper to core support. Pull bumper (at top) away from core support to allow your hands enough freedom to move comfortably without risk of injury to yourself.



16.Install induction plate in front of the radiator.S



17.Place the "U" bracket on the back of the bar running diagonally in front of the radiator and attach to the induction plate using bolt B from the front side.



18.Adjust the induction grille so that fits the original inlet. Next, re-install the grille. Please see the attach picture for details.

19.Installation of the intake system is now complete. We hope you enjoy the power and performance of your new GruppeM intake system. Thank you for your support and choosing GruppeM.