

RAMAIR

**Fitting instructions for
PRK-397-BK**

BMW M5 (F90) with 4.4L Twin-Turbocharged V8 engine



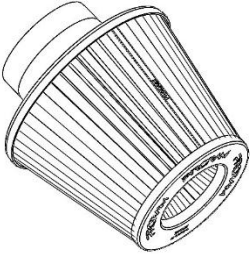
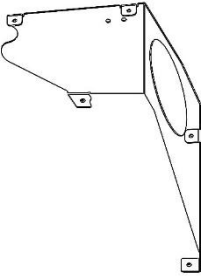
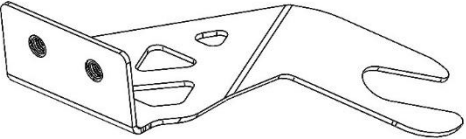
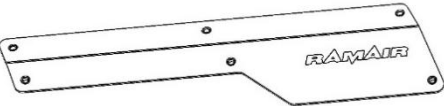
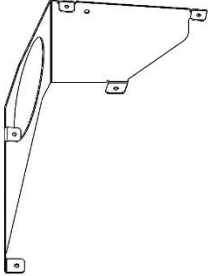
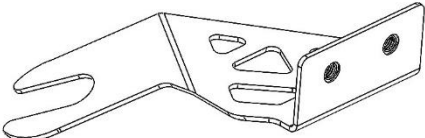
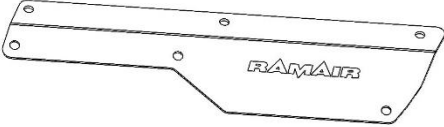
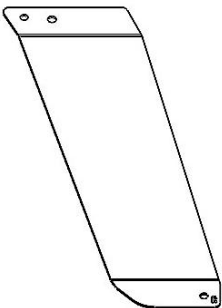
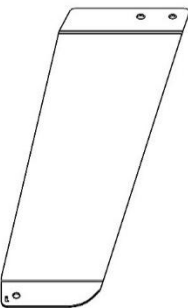
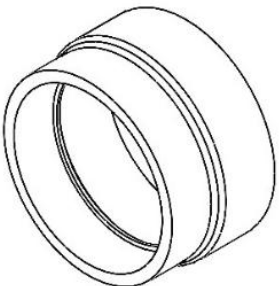
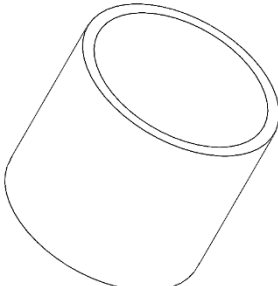
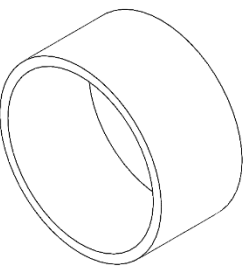
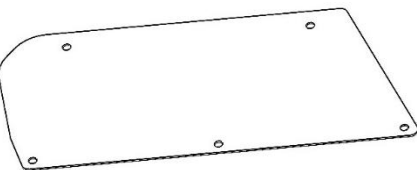
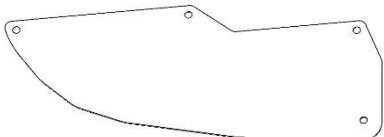
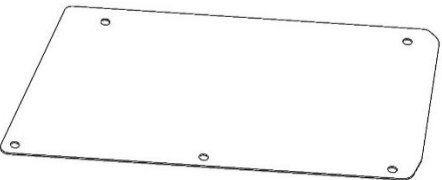
BEFORE STARTING ANY WORK ON THE VEHICLE PLEASE ENSURE THAT THERE ARE NO EXISTING ENGINE MANAGEMENT ISSUES.

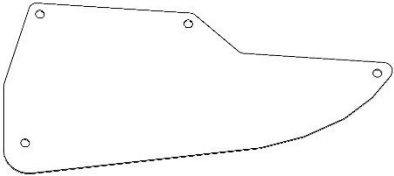
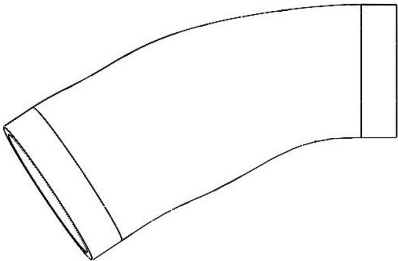
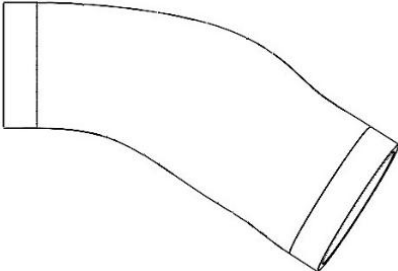
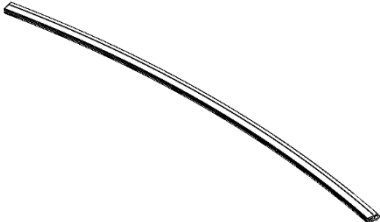
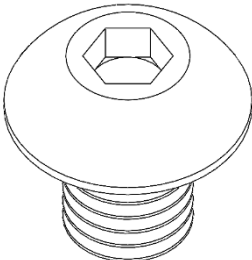
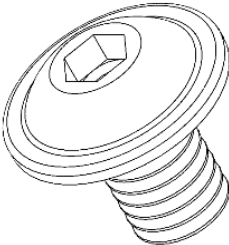
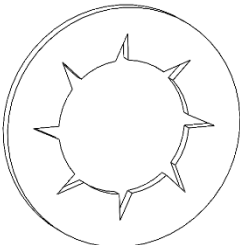
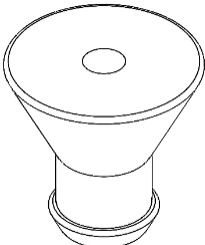
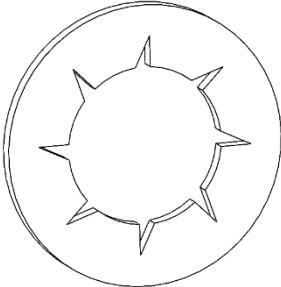
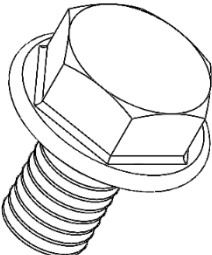
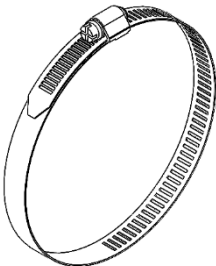
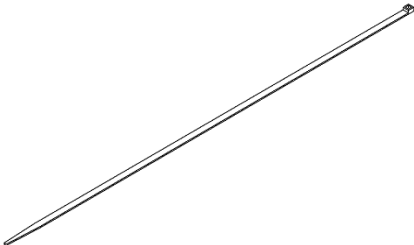
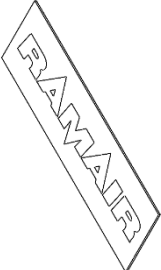
IT IS RECOMMENDED THAT YOU READ AND UNDERSTAND THESE INSTRUCTIONS IN THEIR ENTIRETY BEFORE BEGINNING THE INSTALLATION.

IF YOU ARE AT ALL UNSURE ABOUT ANY ASPECT OF THE INSTALLATION PROCESS, PLEASE CONTACT RAMAIR FILTERS BEFORE PROCEEDING.

IRREVERSIBLE MODIFICATION (CUTTING, GRINDING, BENDING, GLUING, ETC) OF ANY COMPONENT OF THE KIT IS NOT REQUIRED FOR INSTALLATION TO A STANDARD VEHICLE, DOING SO MAY AFFECT YOUR WARRANTY.

ID	QTY	PART NUMBER	DESCRIPTION
A	2	PJ-194-175-90	Pleated Air Filter
B	1	HS-397-B022	Carbon Heatshield Side Assembly RH
C	1	HS-397-B003	Rear Bracket Assembly RH
D	1	HS-397-B004	Lid Plate Assembly RH
E	1	HS-397-B026	Carbon Heatshield Side Assembly LH
F	1	HS-397-B007	Rear Bracket Assembly LH
G	1	HS-397-B008	Lid Plate Assembly LH
H	1	HS-397-C001	Heatshield Base RH
I	1	HS-397-C005	Heatshield Base LH
J	1	RAMSIL-397-C003	Silicone Reducer
K	2	RSC90BK	90mm Silicone Coupler
L	1	RSC80X50BK	80mm Silicone Coupler
M	1	CF-397-C001	Carbon Top RH
N	1	CF-397-C002	Carbon Front RH
O	1	CF-397-C003	Carbon Top LH
P	1	CF-397-C004	Carbon Front LH
Q	1	CF-397-C011	Intake Pipe RH
R	1	CF-397-C012	Intake Pipe LH
S	2	530045-1000MM	1m Edge Trim
FITTING KIT			
T	8	530011	M5x10mm Button Head Bolt
U	18	540002	M4x6mm Button Head Bolt
V	8	530012	M5 Lock Washer
W	2	530114	M6 Metal Foot
X	2	529961	M6 Lock Washer
Y	2	530120	M6x10mm Bolt
Z	4	WD100W2	100mm Hose Clamp
AA	3	WD110W2	110mm Hose Clamp
AB	2	WD090W2	90mm Hose Clamp
AC	2	CABLETIE	Cable Tie
AD	2	STICKER	RAMAIR STICKER
AE	2	ADHESIVE STRIP	Foam Adhesive Strip

 A	 B	 C
 D	 E	 F
 G	 H	 I
 J	 K	 L
 M	 N	 O

 P	 Q	 R
 S	 T	 U
 V	 W	 X
 Y	 Z	 AA
 AB	 AC	 AD

REMOVAL OF OEM INTAKE

01

To start, you may need to remove your engine cover if it covers the intake pipes.

This is done by carefully pulling up on each corner until the rubber mounts release.

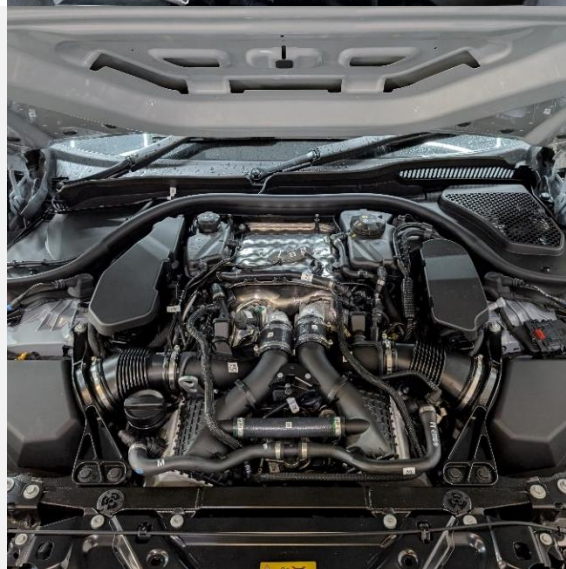
The cover in the photo is the type that does not need removing.



02

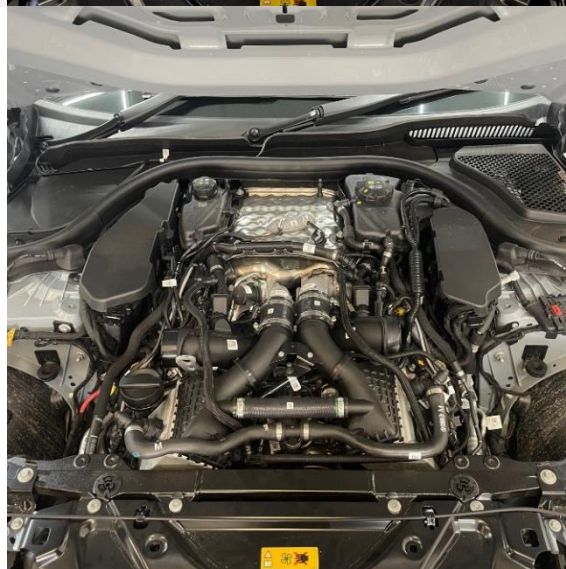
Loosen the hose clamps on each end of the intake hoses and remove all the brace bar bolts.

Note: Some cars have two bolts holding the brace on at the front.



03

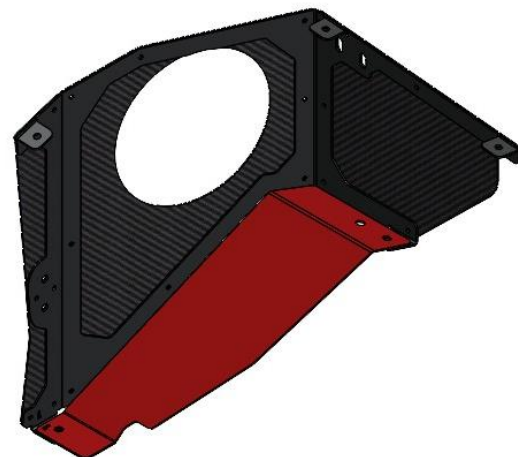
Gently pull back the intake hoses off the intake ends and prise the airboxes upwards off their mounts. Then pull whole assembly (airbox, brace and hoses) out of the engine bay.



KIT ASSEMBLY

04

Assemble the heatshield base to the heatshield side assembly using the screws provided (both LH and RH sides).



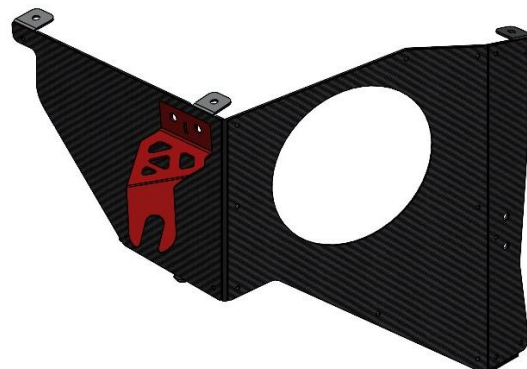
05

Attach the metal foot to the heatshield base as shown (both LH and RH sides).



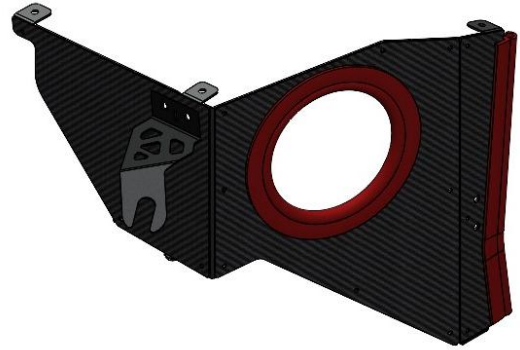
06

Attach the rear bracket to the heatshield side as shown (both LH and RH sides).



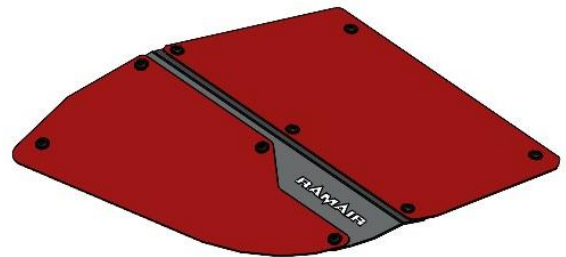
07

Cut the supplied edge trim and apply it to the heatshield as shown (both LH and RH sides).



08

Attach the carbon panels to the metal lid plates as shown. Do not assemble these to the heatshields yet (both LH and RH sides).



KIT INSTALLATION

Please read the below carefully:

The below image instructions will only show installation of the left hand side (looking from inside the car) the right hand side is the same process just mirrored.

09

Lower the preassembled heatshield into place and push down until the lower metal foot locates into the OEM rubber mount.



10

Optional Step

Apply the adhesive foam strip to the inside face of the hole in the brace as seen in the image. Trim to length. Repeat on the other side when you reach this step.



11

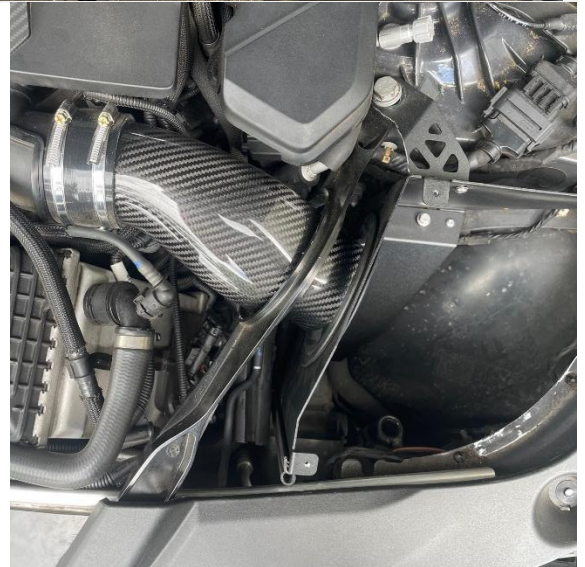
Put the brace bar back into position as the rear heatshield bracket locates on top of this (relocate the mounting bolts but do not tighten).



12

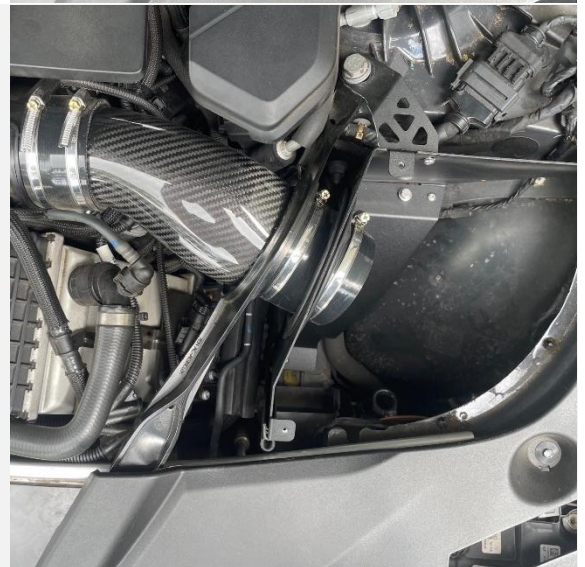
Install the carbon pipe with the 80mm silicone coupler on the intake end.

The right-hand side uses the reducing coupler.



13

Install the larger 90mm silicone coupler at the other end of the carbon pipe. Secure with a hose clamp.



14

Carefully lower the filter into the space and insert it into the silicone and tighten with a hose clamp.

The pipe and filter assembly can be rotated until the desired position is reached.



15

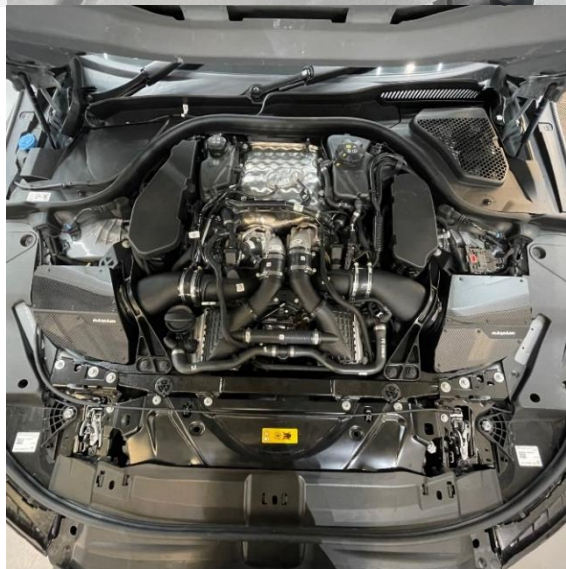
Attach the preassembled carbon to the top of the heat shield with the black screws provided.



16

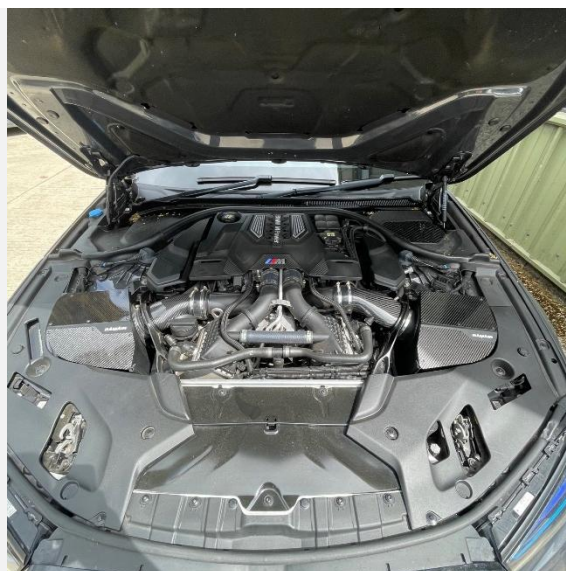
Align the whole heatshield assembly and when happy with the position tighten the rear bracket (brace bolts).

If not done, now install the other side mirroring what you did in each step.



17

To finish, check all hose clamps are tight, and all kit components are secure. Fully tighten the front and rear brace bolts and reinstall the engine cover if applicable.



18

Allow the engine to idle for 5-10 minutes and re-check mounts and clamps once cooled.



19

At normal air filter service intervals, you should remove the air filter for cleaning...

1. Remove the filter from the vehicle.
2. Shake loose any larger debris from the filter.
3. Clean the filter material with cleaning solution or warm soapy water.
4. Allow the filter to air dry naturally, do not use a heater or compressed air.
5. Reinstall the filter.



