



BMW M3/M4 (F80/F82)  
Cat-Back System  
Installation Guide





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<https://xforce.com.au/warranty/>



## Parts List

- ESBMF80VKCS (3" VAREX Cat-Back System)
  - ESBMF80CS1
    - 1x ES-BMF80-C1L – Front LHS Connecting Pipe
    - 1x ES-BMF80-C1R – Front RHS Connecting Pipe
    - 1x ES-BMF80-C2HD – Centre Section w/ Resonator & X-Pipe
    - 1x ES-BMF80-C3L – Rear LHS Connecting Pipe
    - 1x ES-BMF80-C3R – Rear RHS Connecting Pipe
    - 1x ES-BMF80-C3LH – LHS Hanger to replace factory BMW hanger
    - 1x ES-BMF80-DB – Cross Brace
    - 4x Gaskets
    - 4x V-Band Clamps
    - 4x 3" Slip-Joint Clamps
  - ESBMF80VKCS2
    - 1x ES-BMF80-VMKR – 3" VAREX Muffler
    - 4x ES-BMG80-TIPS – 4" Polished Tips
    - 1x VAREX Control Box
    - 1x VAREX Dual Muffler Wiring Kit
    - 2x VAREX Remotes

## Tools & Equipment Required

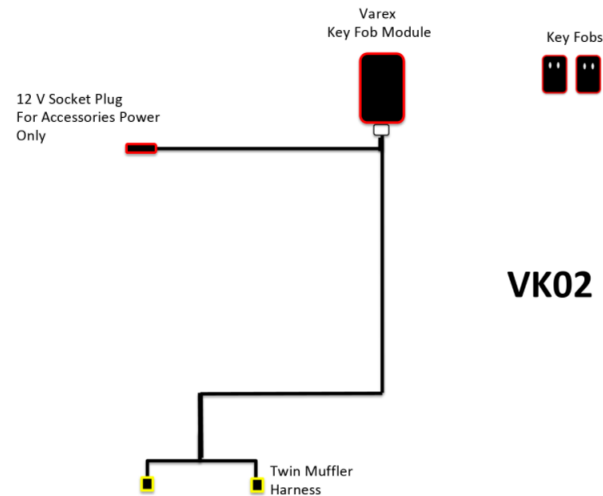
1. Spanners & Sockets
  - 10mm, 12mm, 14mm, 15mm & 16mm
2. 3/8" Ratchet
3. ½" Tension Wrench w/ 14 mm Deep Socket
  - Set to 80 Foot Pounds
4. Allen Keys
5. Torx Bits
6. Extension Bar
7. Pry Bar or Exhaust Hanger Removal Pliers
8. Can of Spray Lubricant
9. O2 Sensor Safe Sealant (Permatex recommended)
10. Rags for Excess Sealant
11. Safety Glasses or Goggles
12. Protective Gloves
13. Safety Boots

READ NOTES ON PAGE 11 FOR TIPS TO INSTALL THE SYSTEM!!



### Important Step (Varex Only!)

Loosely run the wiring for the control box from inside the vehicle to the outside through an open door. Plug the wiring harness into the 12v socket & then into the mufflers and control box, power on the vehicle to test system. Check the operation of all electronics and Varex muffler valve before installation.



**Go to page 15 for Varex installation instruction.**



## Step 1:

XFORCE Recommends using a hoist for installation of our systems.

We also recommend at least 2 people to remove & install.

Raise vehicle on a 2/4 post hoist making sure the hoist arms are in the correct lifting positions (as per the owner's manual) and that yourself or any other persons are underneath the vehicle while the hoist is in motion.

Once the vehicle is at a workable height, engage the hoist safety locks!

Use a Hoist Stand at the rear muffler to make removal easier.







## Step 2:

Unplug the 2x factory valve motors & set plugs aside.

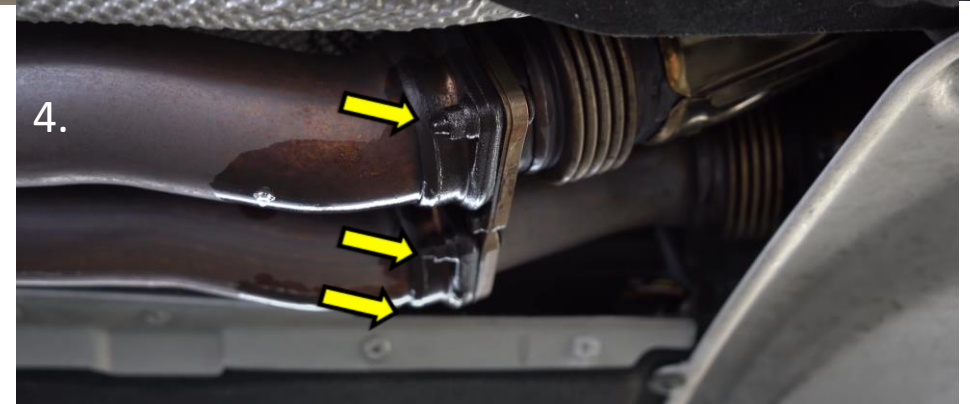
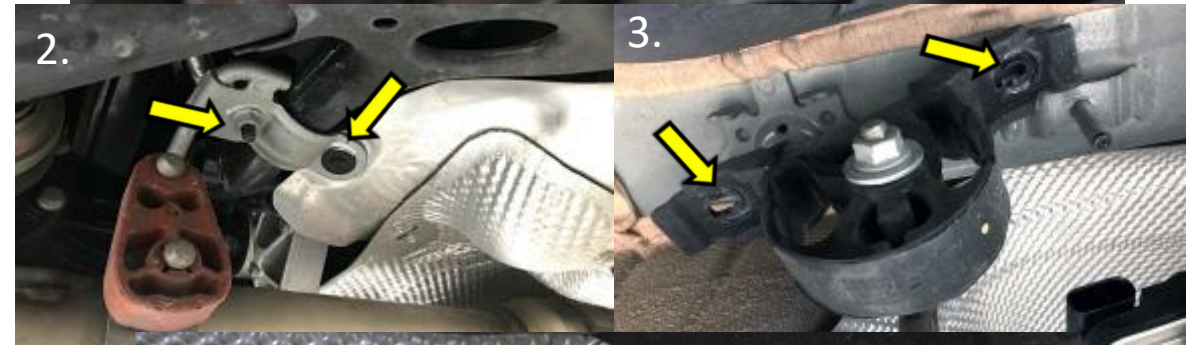
Unbolt factory chassis brace (1).

Unbolt the 2x torx bolt & 4x 15mm nuts from the downpipe flange & remove (4).

Now remove the 2x bolts from each muffler mount (3) from the vehicle (Hoist stand should be used to stabilize exhaust) then unbolt the orange hangers (2) from the vehicle.

For safe removal, slide the front section of the factory system from the vehicle first then remove the rest of the system from vehicle.

NOTE: The factory cat-back system is all one piece so you may need help of a second person to remove this system.

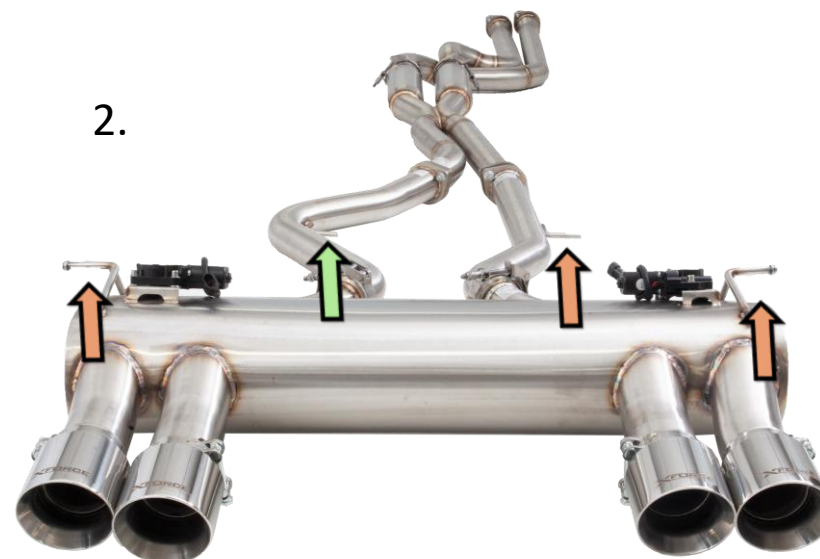
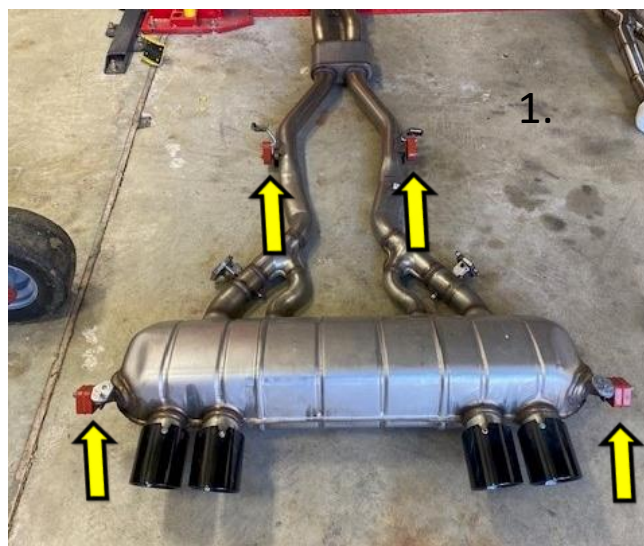




### Step 3:

Transfer the below rubber hanger & brackets from the old system (1) over to the hangers on the new system (2) ready to be fitted to the vehicle.

Fit the supplied LHS hanger (ES-BMF80-C3LH) to the Rear LHS Connecting Pipe (ES-BMF80-C3L) hanger (Green Arrow) using the factory rubber.





## Step 4:

In the following order, leave firm but DO NOT TIGHTEN!

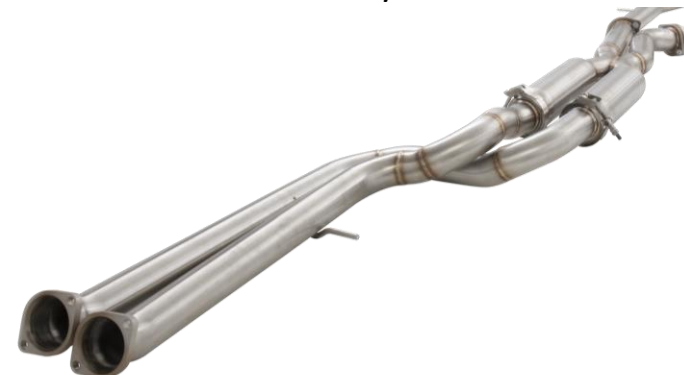
1. On a bench, bolt together the 2x front connecting pipes (ES-BMF80-C1L/R) to the Centre Section (ES-BMF80-C2HD) using the V-Band clamps provided in the kit (Make sure to check LHS & RHS pipes are on the correct sides, use below photo for reference).
2. Now bolt the assembled section to the factory downpipe using the 2x 2-Bolt gaskets provided. Use a Hoist stand under the X-Pipe to stabilize, ready for the next step.
3. Bolt the Varex Muffler to the vehicle using the factory muffler hanger brackets (Hoist stand can be used for easier install).
4. Now fit the rear connecting pipes (ES-BMF80-C3L/R) using the v-band clamps & gaskets provided, making sure check orientation of exhaust compared to photos provided & that the bracket provided in the kit (ES-BMF80-C3LH) is used then bolt brackets to vehicle.
5. Using the cross-brace provided (ES-BMF80-DB), re-install cross brace to vehicle using factory bolts making sure the 2x side braces sit on top of the cross brace (See photos below).

XFORCE recommends using O2 Safe Sealant on all gaskets & slip on surfaces!

Diff Pipes & Mufflers



Centre Section w/ Resonators





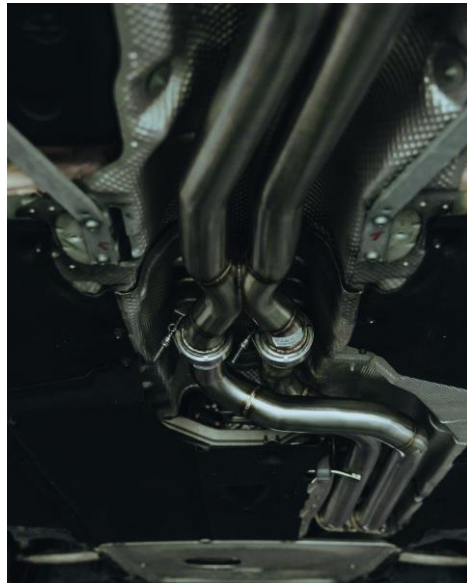


### Step 5:

Check positioning of exhaust & make sure it doesn't hit anywhere that may cause damage or rattle against any part of the vehicle. Also, check tip alignment with the bumper.

Once you are satisfied with positioning, tighten from the rear mufflers forward making sure the alignment is consistent. Remove any hoist stands if used.

Start your car, check for any leaks & enjoy your new XFORCE Performance Exhaust!





### **Step 6:**

Drive vehicle for 10-15mins, testing the Varex valve control (if installed). Return to step 4, retention all nut & bolts and enjoy the driving experience your new XForce System provides.



**GO TO PAGE 11 for Varex Installation**



## NOTES:

- When you first start your vehicle after install of your new XFORCE Performance Exhaust System, they may be some smoke or fumes coming from the system. This is a protective oil-based coating used in the manufacturing of the system. This is not a problem & will disappear within a very short period after the exhaust has reached normal operating temperature.
- When trying to install gaskets with flanges, install one bolt on the flange & hang the gasket on the bolt then feed the other part on.
- When placing slip on clamps into the system, make sure you can access the 14mm nuts to tighten the clamp.
- Muffler hangers do have some adjustment when installing, make sure you are happy with tip placement before tightening bolts up.
  - Use lubricant to make removing & installing rubber on the hangers easier.
  - **Do not use power tools to tighten V-Band clamps!!**





**BMW M3/M4 (F80/82)  
Varex Control Module  
Installation Guide**





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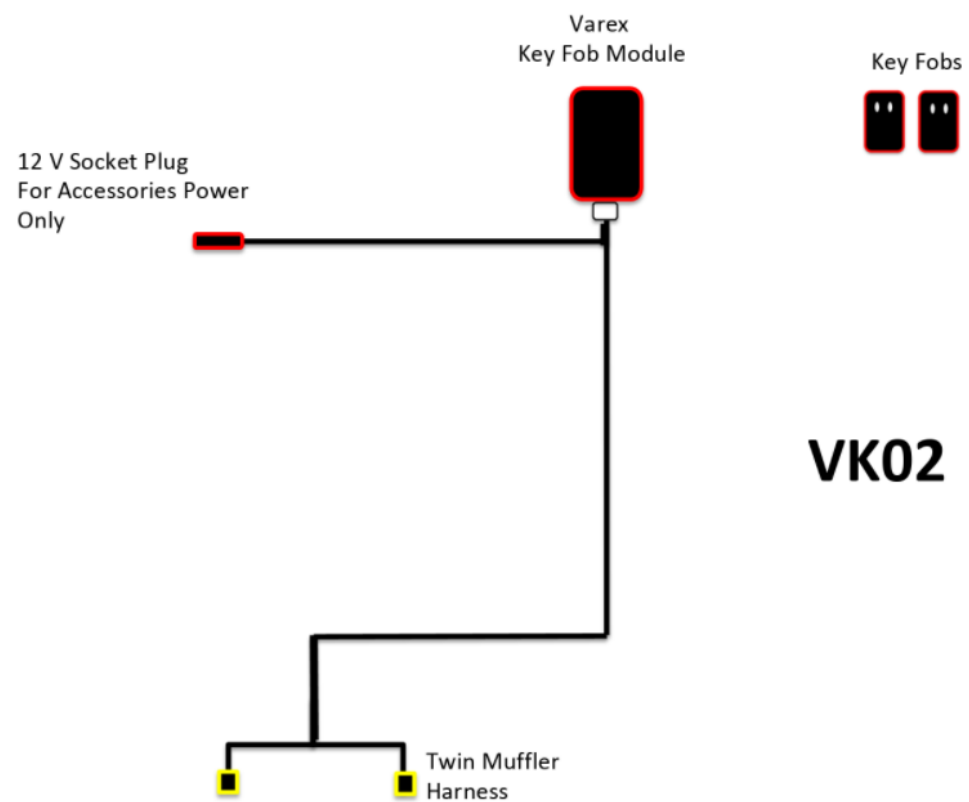
## What's in the box

- 1x Varex Control Module
- 1x Wiring Harness (VK01/VK02)
  - 2x Key Fobs





## Varex Wiring Diagram





### Step 1:

Find a rubber grommet to allow access inside the car to the underside of the car near the Varex Mufflers.

NOTE: We would recommend using a grommet near the spare tire location.

Cut a small hole in the rubber grommet.

Once located & cut, feed both black 2-pin plugs through the rubber grommet from inside the car to the underside of the car and connect the muffler.

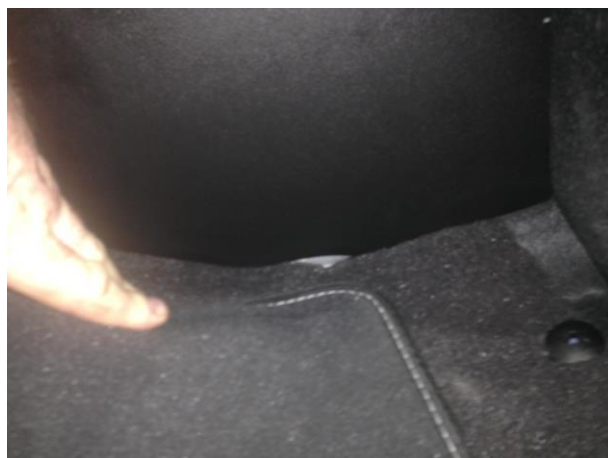




## Step 2:

Feed the white 4-pin & 12v socket to the front of the car.  
Making sure to tuck away wiring under the back seat &  
under any plastic trim till you find a suitable place to store  
the control box.

NOTE: The control box can be stored either in the glove  
box, underneath the passenger seat or the center console  
storage.





### Step 3:

Plug the white 4-pin plug into the control box.

Now feed the 12v plug to your preferred 12v socket is lug in.

Turn on the car on & test the system using the remote (you should see an LED flash as you press the remote buttons).

Button A will close the valve & Button B will open the Varex.

Now enjoy the volume control on your new Varex System!







### NOTES:

- **HARD WIRING:** We do offer a Hard Wiring Kit for your control box (VK16) which is recommended if you do decide to Hardwire your control box. By using this kit, this may bypass the Canbus power restrictor and could result in the control box failing (due to constant power supply) & could also damage electronics in your vehicle.
- XFORCE recommends using the 12v socket provided with your standard wiring kit as this will not affect any vehicle electronics.

