



IPE
Automotive Exhaust system

**Product installation
instructions**

Car model : BMW M5 F90

Version 1

WWW.IPE-fl.com









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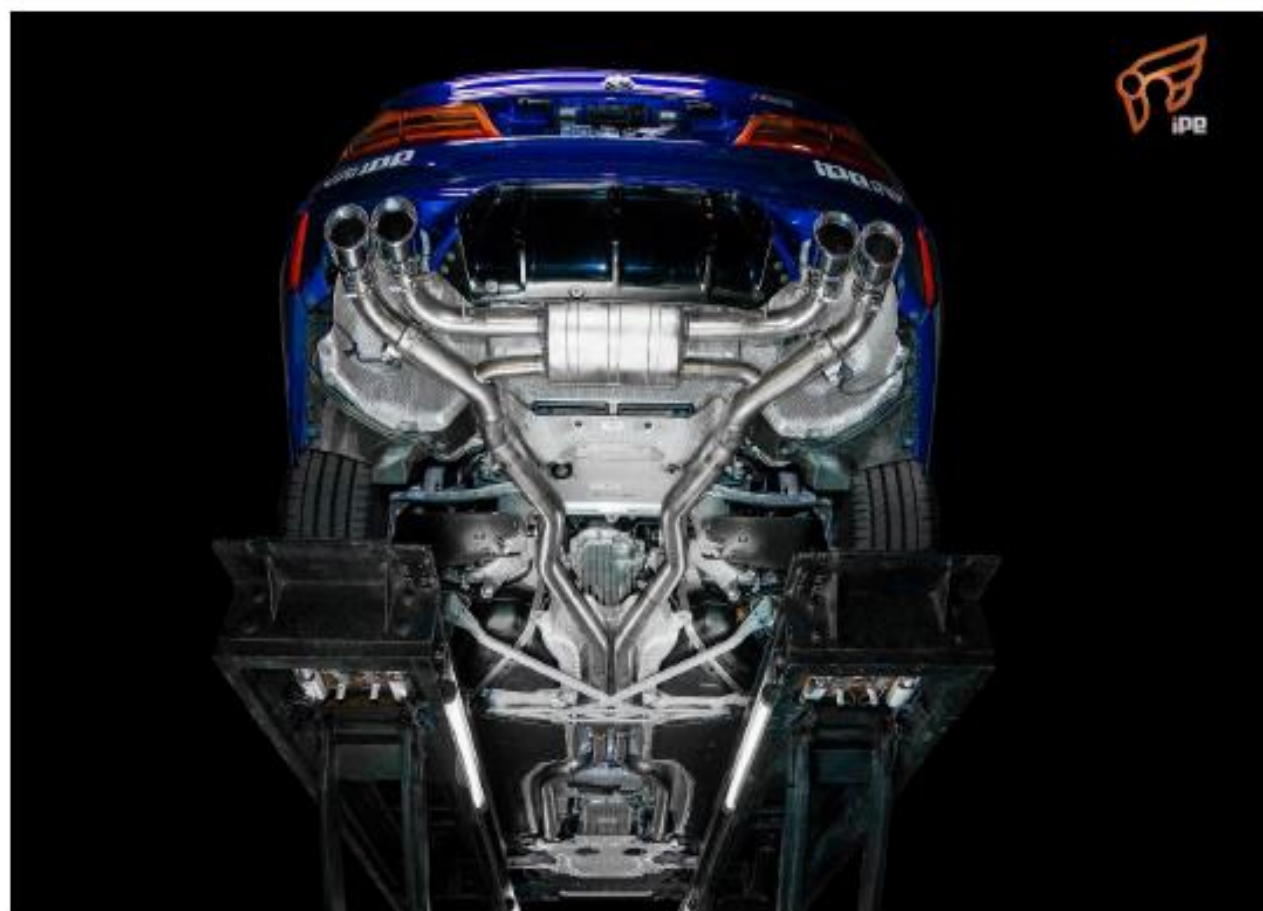
➤ 1. Important Notice

- iPE developed this exhaust according to the improvement of stock . Therefore, there will be no effect of the car from the original manufacturer after installation. There is an inductive power supply function between the car key and the car for many vehicle models. Therefore, the car key should be kept away from the car with a distance of at least five meters to maintain safe conditions.
- The exhaust of a car right after driven is still in a high temperature. Thus, please wear heat insulating gloves to replace the exhaust, or perform the replacement after the temperature lowered to avoid burns.
- For avoiding the generation of resonance, please don't let the valve open too early when setting the valve to open automatically. The opening of the valve is recommended to be set to 60% of gas pedaling. Please refer to page 21 for the explanation of detail setting.
- iPE exhaust is designed according to the stock engine data. In case the engine computer upgraded for increasing horse power, obvious resonance in conjunction with this exhaust could occur. IPE also provide revised exhausts for such vehicles, please contact us for further details.

2. Tools required for operating Procedures

Tools name	Tools Appearance
Rust inhibitor / lubricant	 
Hexagonal bucket	 
Hex Wrench	 
Torque wrench	 

3. Assembly of product appearance



4. Demounting Stock Exhaust

Move the vehicle to the top machine and raise it to the proper position.

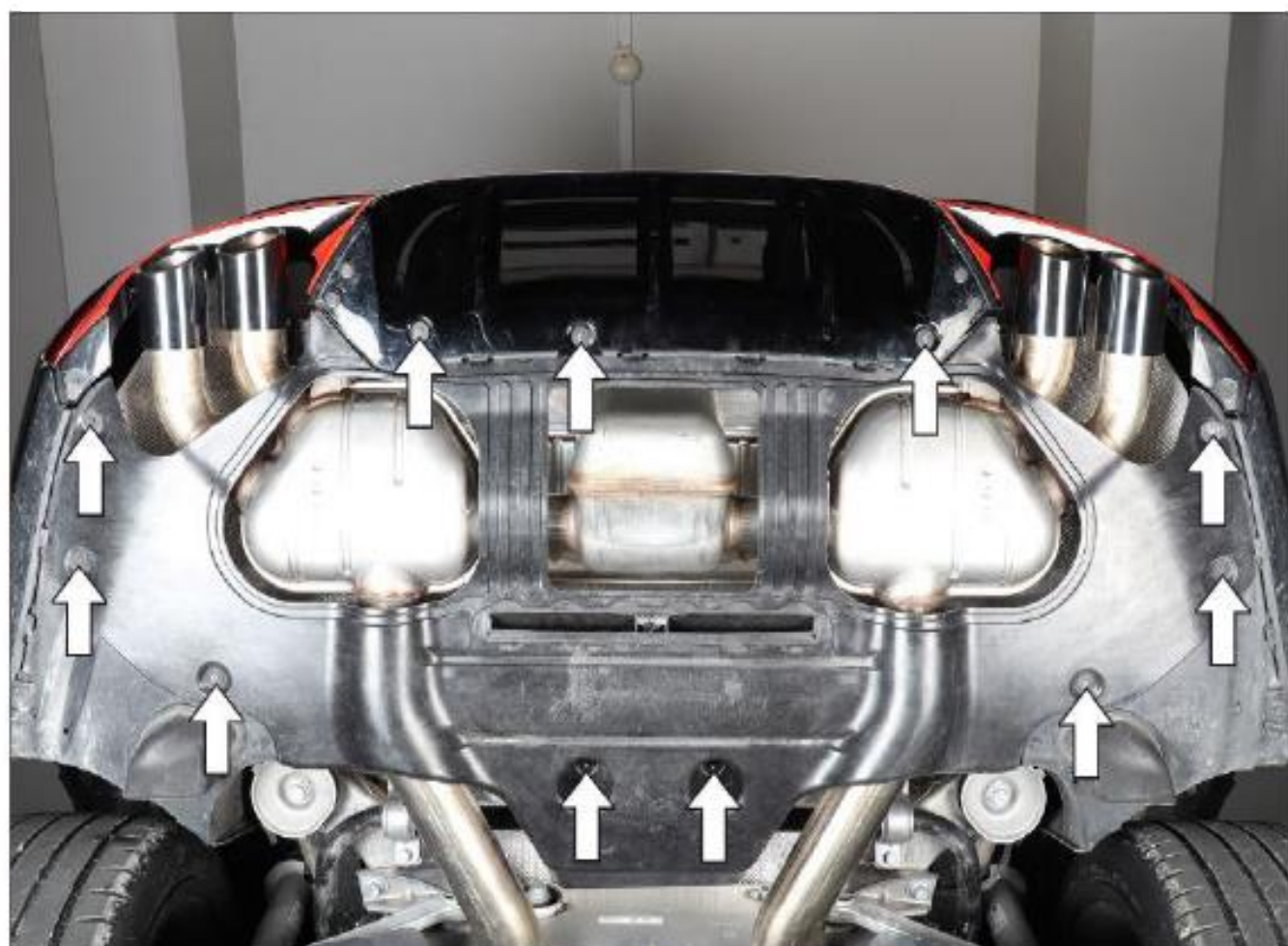
Note: Please stop the vehicle and actually lift the vehicle up. When jacking up,

Keep the clearance around, pay attention to the height to ensure the safety of people and cars!

After the screws are removed, they are placed neatly to avoid confusion during recovery.

Use a lubricant and disassemble if necessary.

1. Remove the plaque fixing screws and remove the plaque (Figure 1).



(Figure 1)

4. Demounting Stock Exhaust

2. Remove the lower lever (Figures 2, 3, 4, 5)

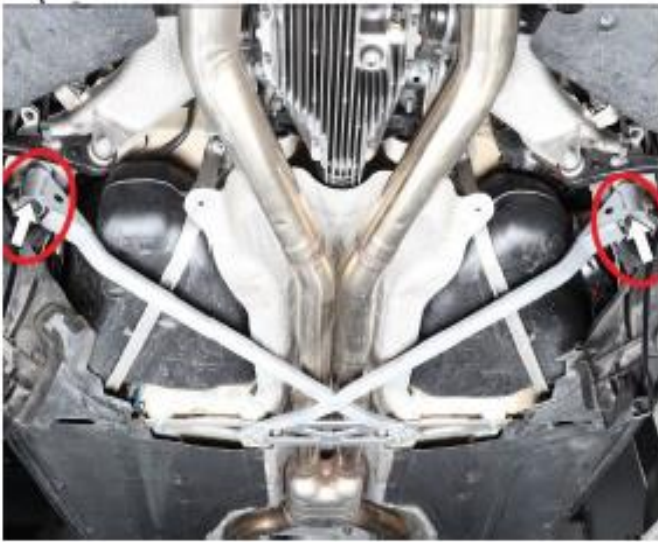


Figure2

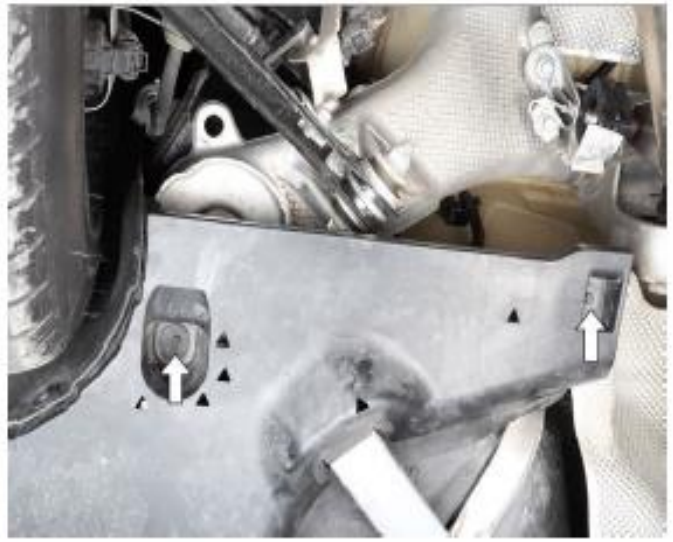


Figure3

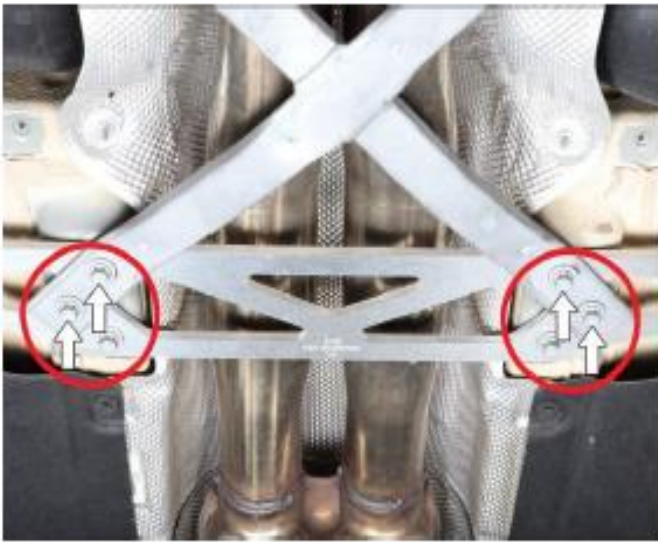


Figure4

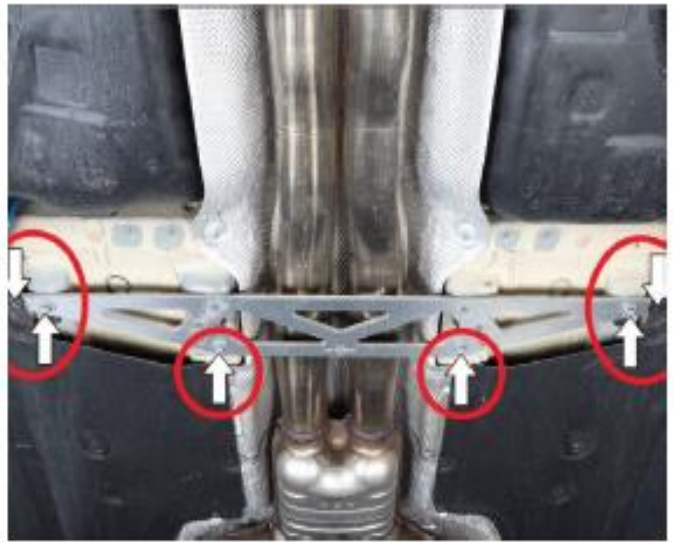


Figure5

3. Loosen the front tube bundle ring (Figure 6)
4. Loosen the left and right lifting lugs in the middle section (Figs. 7 and 8).

Note: After the screws are removed, please place them neatly to avoid confusion during recovery.



Figure6



Figure7



Figure8

5. The motor plug should be removed according to the regulations (Figure 9, 10).

6. Remove the original exhaust pipe by loosening the left and right lifting ears of the rear barrel (Fig. 11, 12).

Note: After the screws are removed, please place them neatly to avoid confusion during recovery.

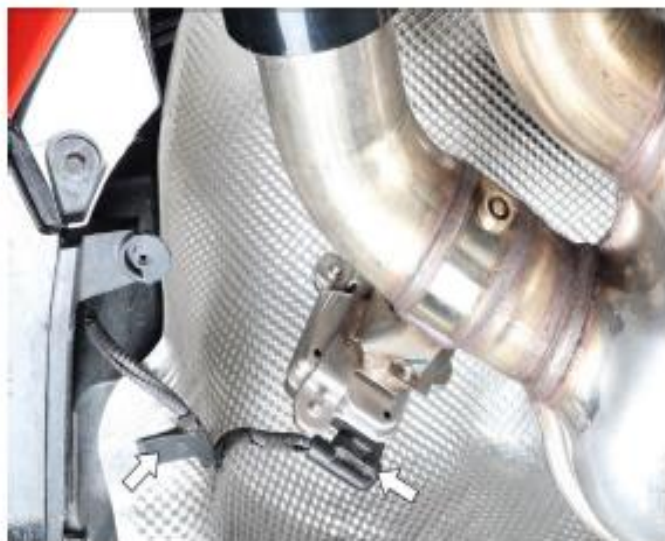


Figure9



Figure10



Figure11



Figure12

7. Remove the engine cover (Figures 13, 14).
8. The front and rear oxygen sensor plugs can be removed first, and the oxygen sensor is removed after the catalyst is removed.
9. Remove the rear section of the media, the lifting eye screws (Fig. 15), and the catalyst beam ring screws (Fig. 16). The rear section of the catalyst can be removed.

Note: Do not use lubricant or rust remover organic solvent when the exhaust pipe has residual temperature!

Use an appropriate tool to remove the oxygen sensor to avoid line damage!



Figure13



Figure14



Figure15



Figure16

10. Remove the front and rear lug screws (Fig. 17, 18), front lug screws, and catalyst collar ring screws (Fig. 19). The rear section of the catalyst can be removed.

Note: Do not use lubricant or rust remover organic solvent when the exhaust pipe has residual temperature!

Use an appropriate tool to remove the oxygen sensor to avoid line damage!



Figure17



Figure18



Figure19

5. Insatll iPE exhaust

1. Position the front section of the iPE catalyst and the lifting lugs and the collars (Figs. 12, 13, and 14).

Note: Lock the screws to the proper torque

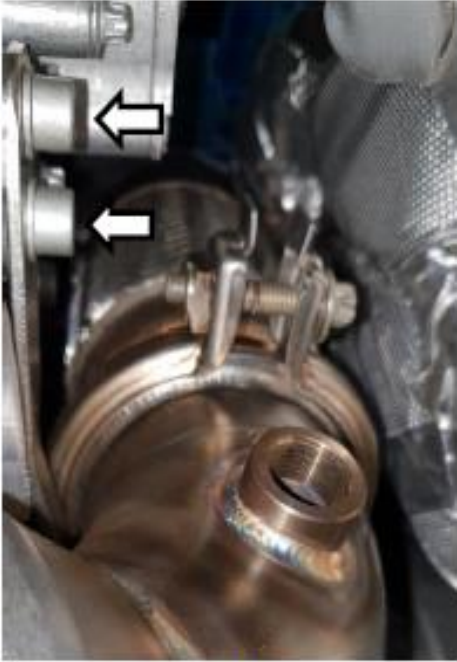


Figure12



Figure13



Figure14

5. Install iPE exhaust

2. Position the rear section of the iPE catalyst and the lifting lugs and collars (Figs. 15, 16, 17, and 18).

3. Install the front and rear oxygen sensor on the catalyst section.

Note: Lock the screws to the proper torque



Figure15



Figure16



Figure17



Figure18

4. Insert the front tube into the catalyst section and do not lock the collar (Figure 19).
5. Install the middle section to the positioning, first do not lock the bundle ring, and install the lower guard plate, the distance between the pipe and the guard plate is 15mm (Figure 20).

Note: Lock the screws to the proper torque

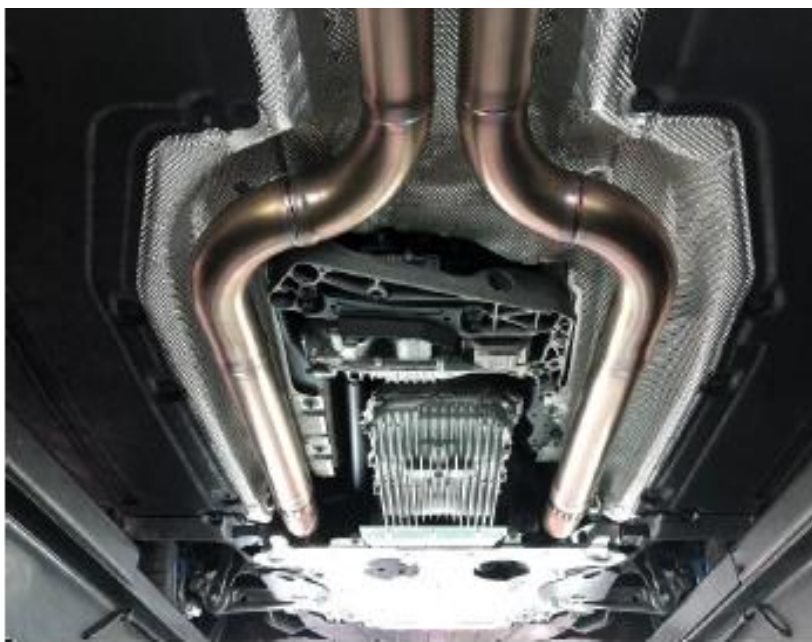


Figure19



Figure20

6. Remove the original motor, install it on the iPE exhaust pipe, and attach the attached spring to the shaft (Figure 21).

7. When the motor is installed, it needs to be rotated clockwise before the screw is locked (Fig. 22, 23).

Note: Lock the screws to the proper torque, the motor lock hole needs to be concentric with the bracket before locking it



Figure21



Figure22



Figure23

8. Install the barrel to the position (Figure 23).
9. Adjust the height of the middle section and the guard plate and lock it.
10. Finally, lock the tail tube and adjust the gap between the rod and the rod.
11. Return the lower cover.

Note: Lock the screws to the proper torque

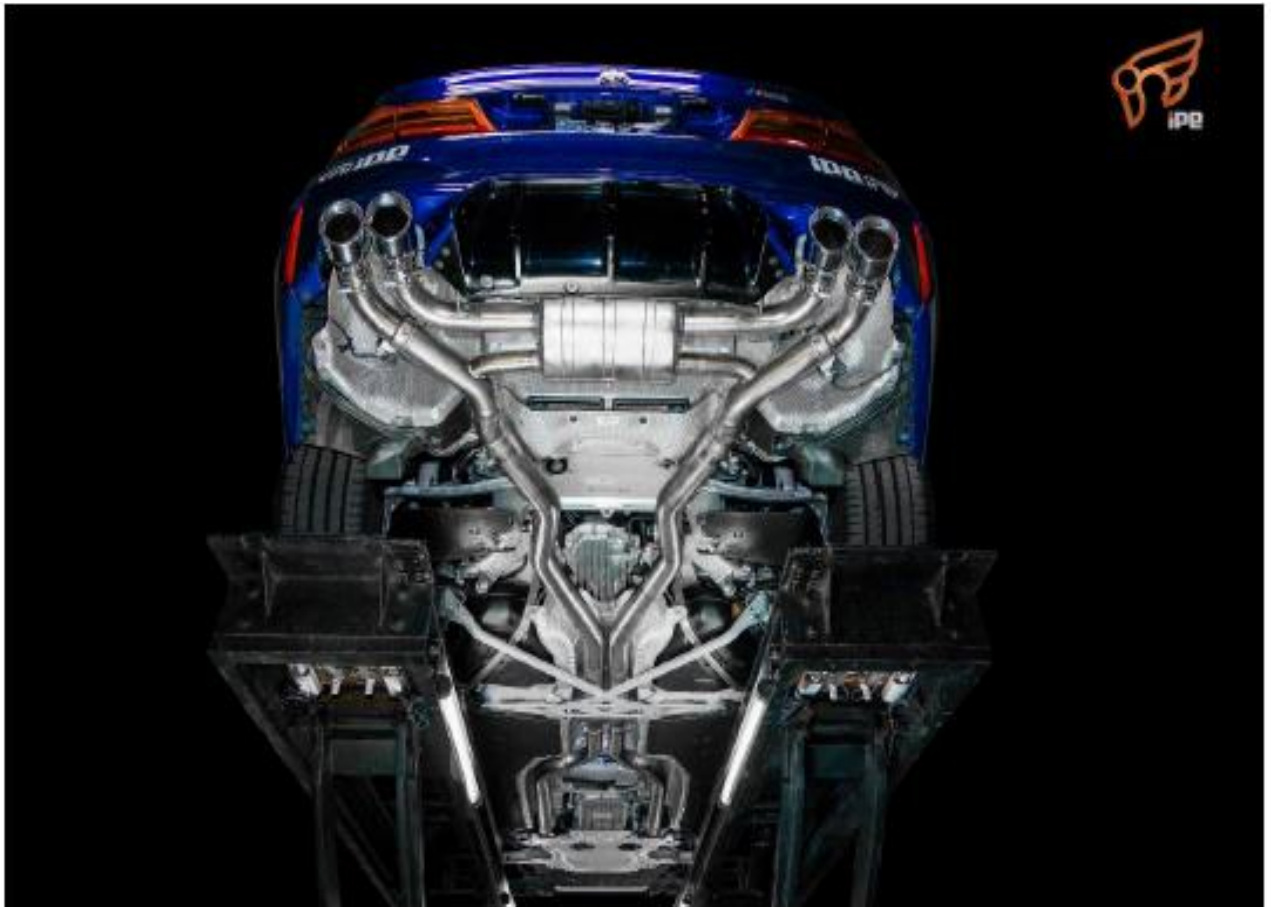


Figure23