



iPE Exhaust

Automotive exhaust system engineering

M2 Competition (F87N)

Product installation instructions

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Foreword

The document is about the installation process of IPE exhaust pipe and the related settings and operation.

Important Notices

The exhaust system is improved by IPE according to the exhaust system of the original car manufacturer; thus, it will be the same with the exhaust system of the original car manufacturer after installed on the car. The car key of some car models have sensing launch function; therefore, it is suggested that car key should be away from the car at least 5 meters when installing the exhaust system.

The exhaust pipe of the car may have high temperature, please wear heat insulation gloves before replacing it or wait until the temperature of the exhaust pipes reduces to prevent from injuries. Please do not make the valves open too early in order to prevent from resonance. It is advised to set the valves to open until the accelerator is pressed to 60%. Please refer to Page 21 for the information about the detailed settings.

IPE exhaust pipe are designed according to the data of original car manufacturer. If the car engine is upgraded to increase its horse power, resonance may take place on IPE exhaust pipes. Please contact IPE to solve the problem.

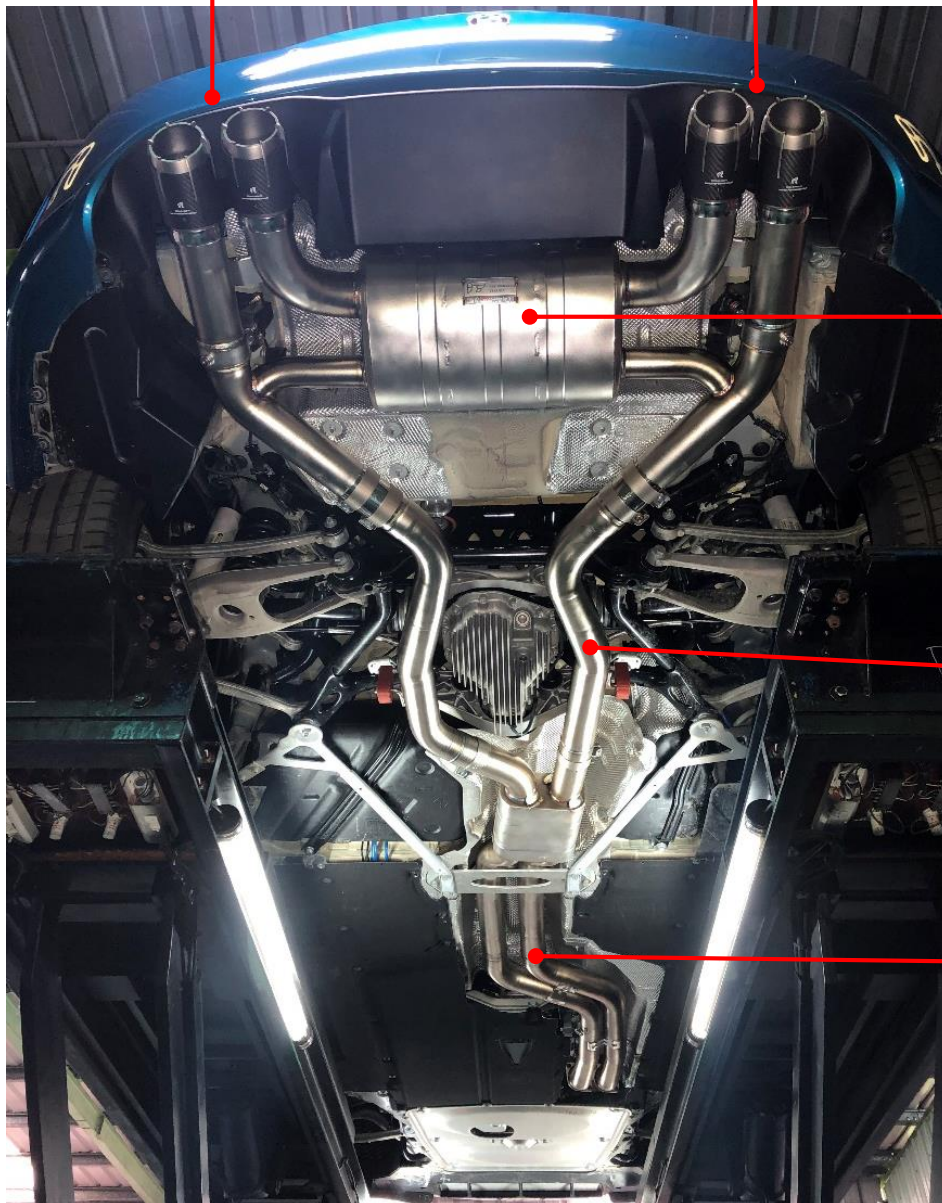
iPE F87-M2 Competition

Product assembly appearance



Down pipe

Tips



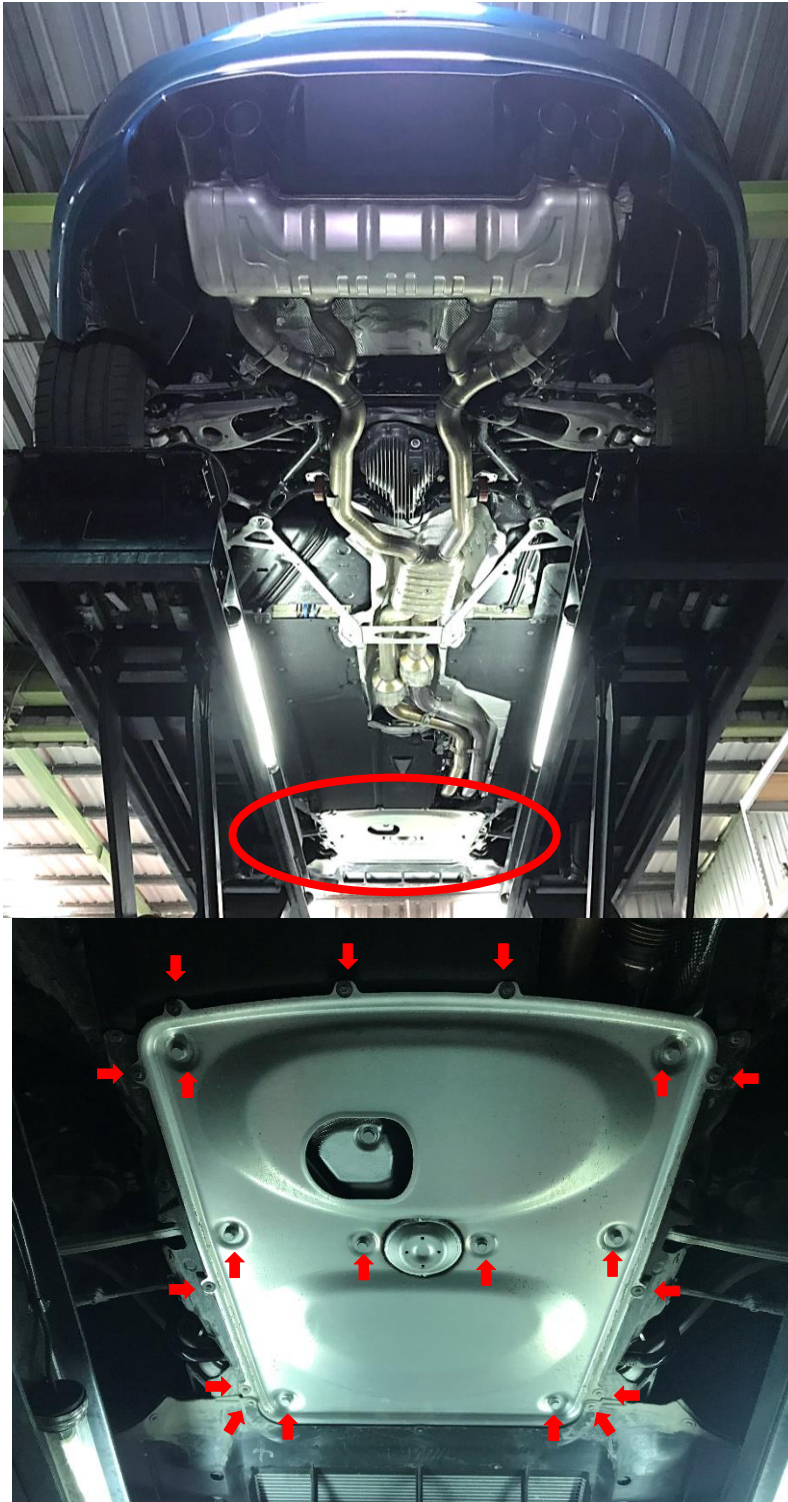
Muffler

Muffler linking pipe

Midpipe

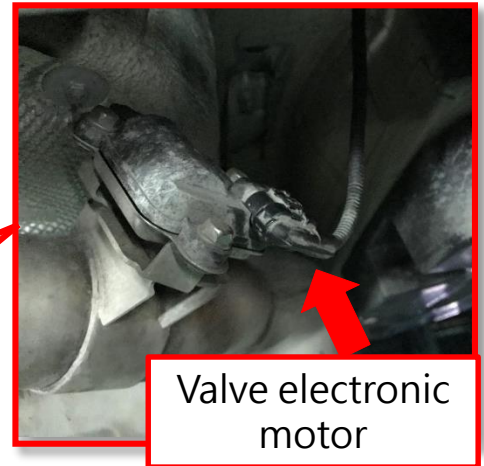
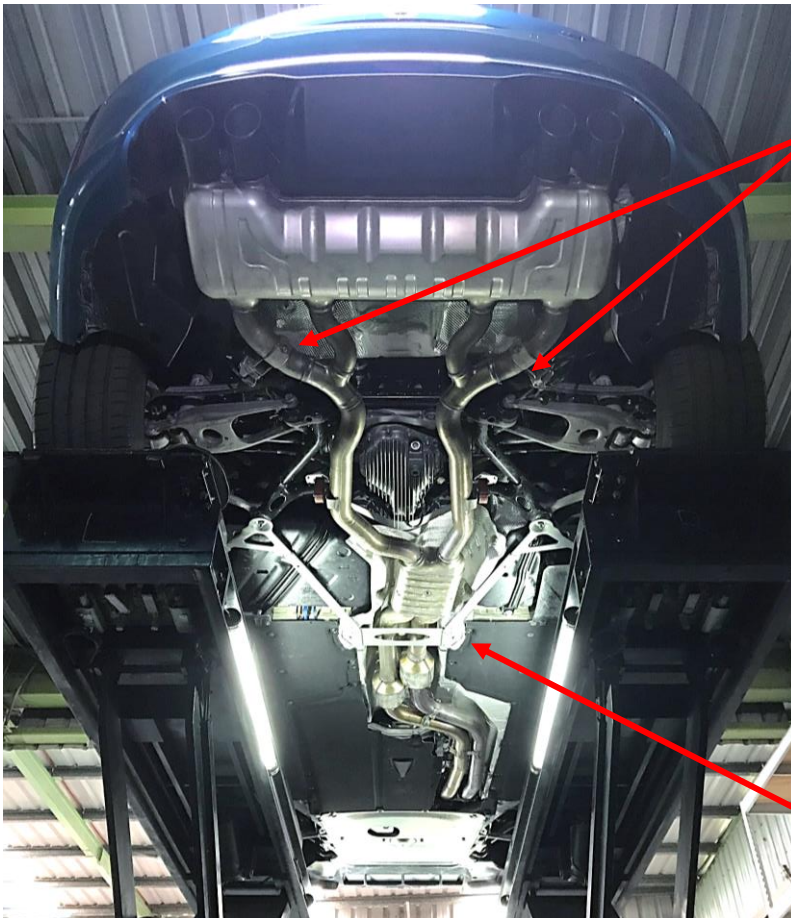
(1) Steps and related key points for dismantling the original exhaust

1. Remove the lower guard (Figure 1)



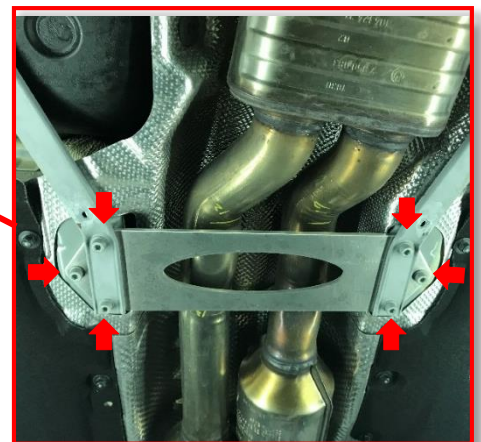
(Figure 1)

2. Remove the original electronic valve plug (Figure 2) and the chassis lever (Figure 3)



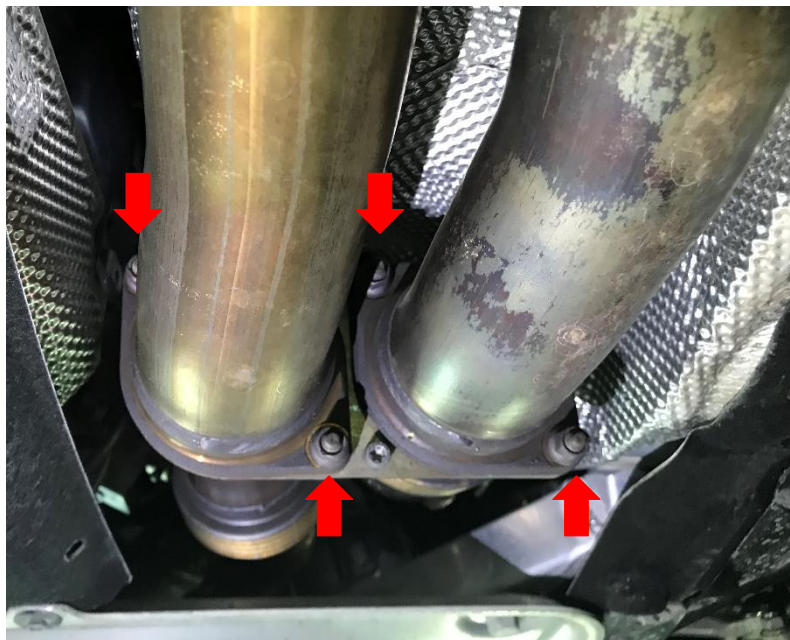
Valve electronic motor

(Figure 2)



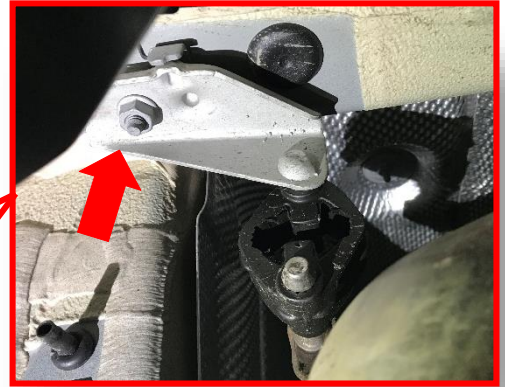
(Figure 3)

3. Remove the iron head screws at the rear of the catalyst section (Figure 4)

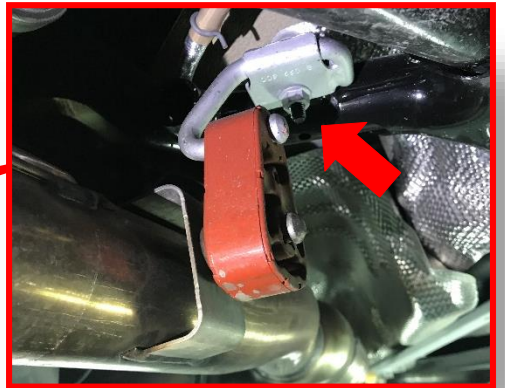


(Figure 4)

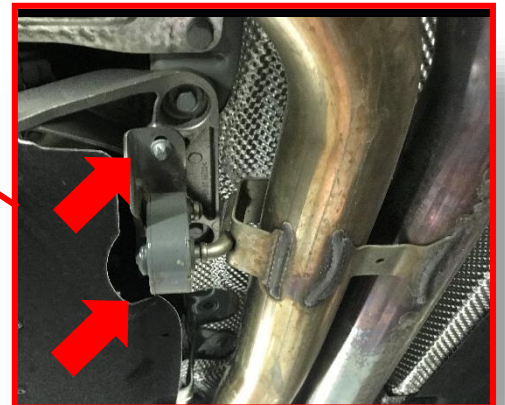
4. Remove the front (Fig. 7), middle (Fig. 6), and rear (Fig. 5) section lug screws, then remove the original exhaust pipe.



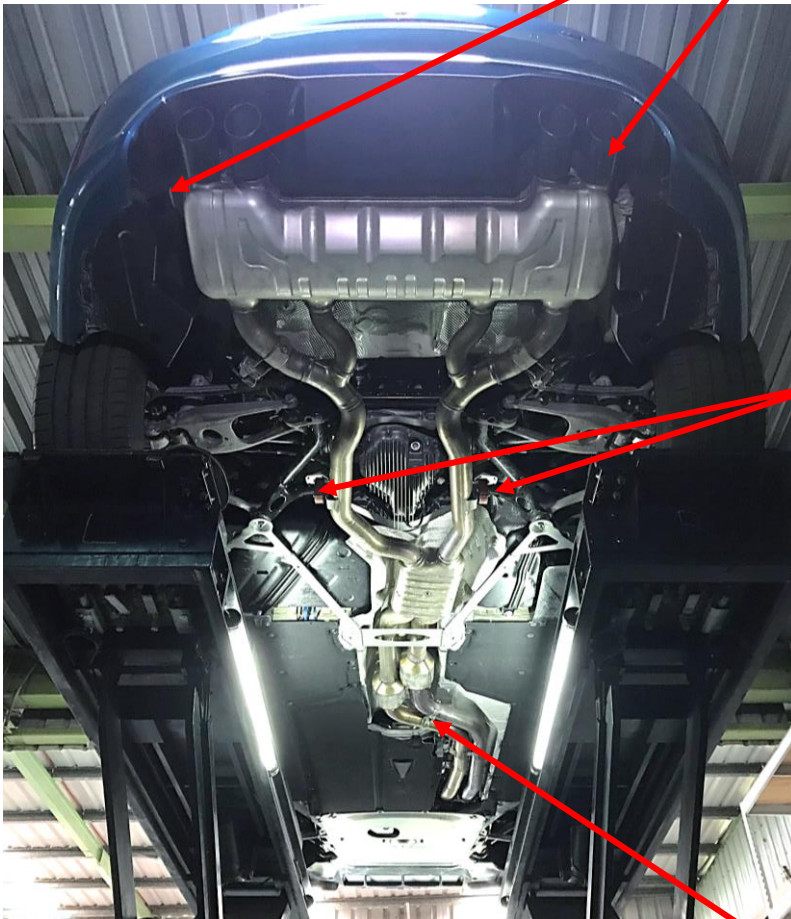
(Figure 5)



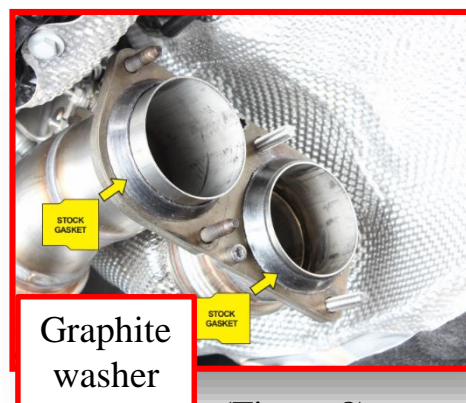
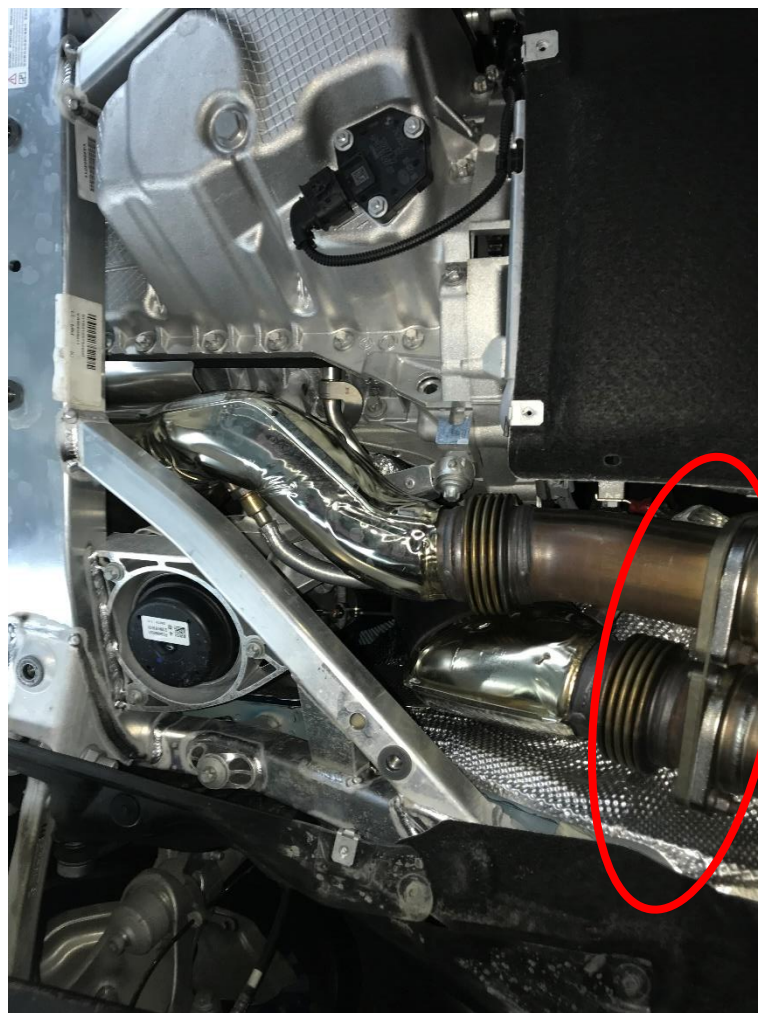
(Figure 6)



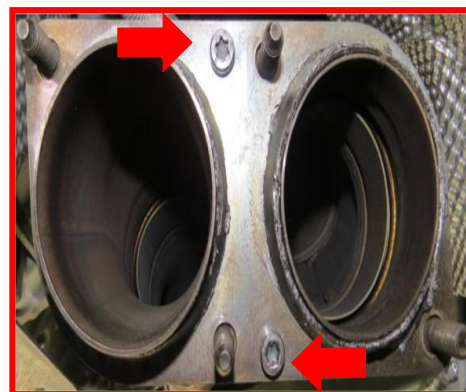
(Figure 7)



5. Remove the graphite washers at the rear of the left and right catalyst segments (Figure 8).
6. Remove the screws on the rear head of the left and right contact segments (Figure 9).
7. Remove the fixing piece and the rear iron head on the left side of the original catalyst (Figure 11)



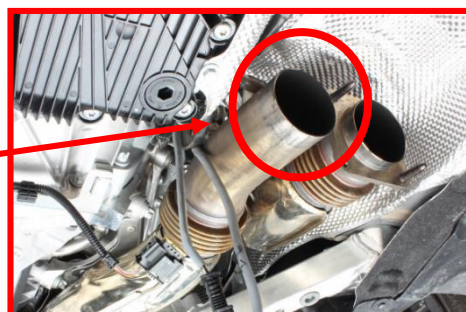
(Figure 8)



(Figure 9)



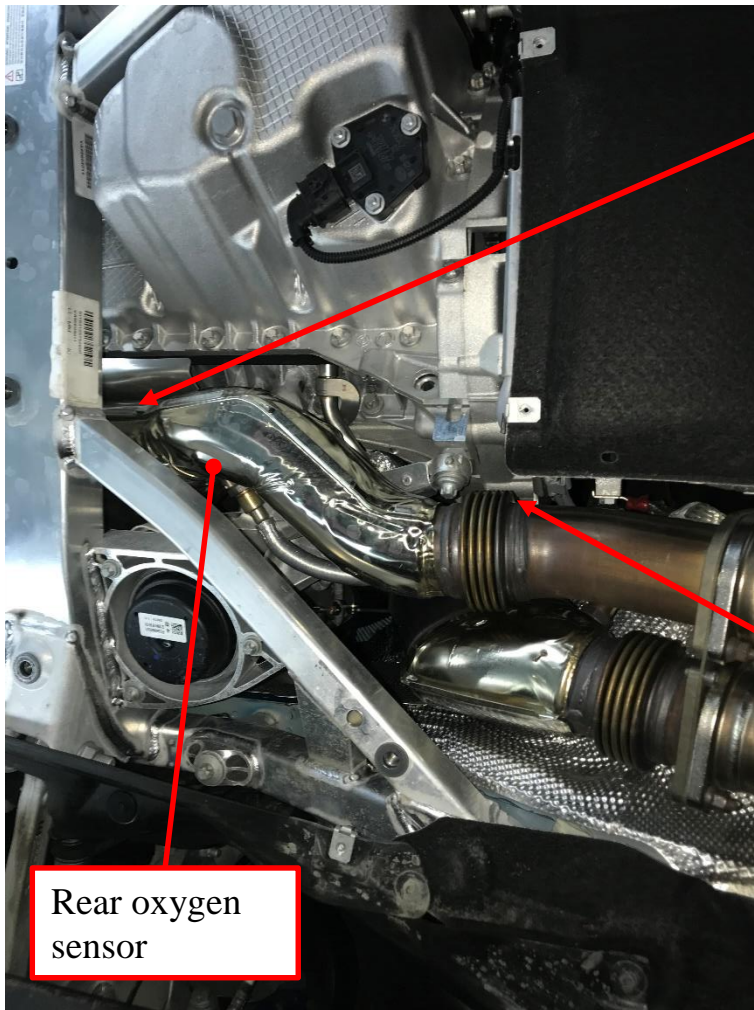
(Figure 11)



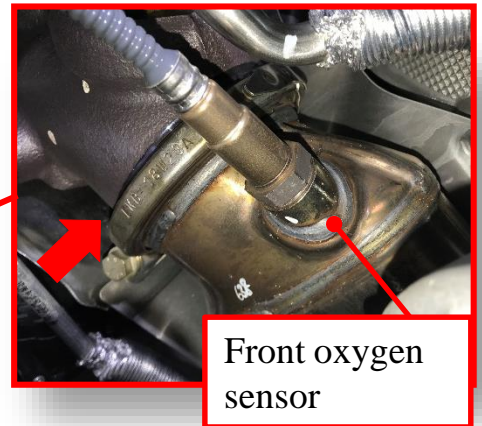
(Figure 10) ⁸

8. First remove the oxygen sensor in front of the left catalyst section, then remove the fixing ring (Fig. 12) and the lifting eye (Fig. 13), pull the catalyst section backwards, and then remove the oxygen sensor.

Remove the original left catalyst segment

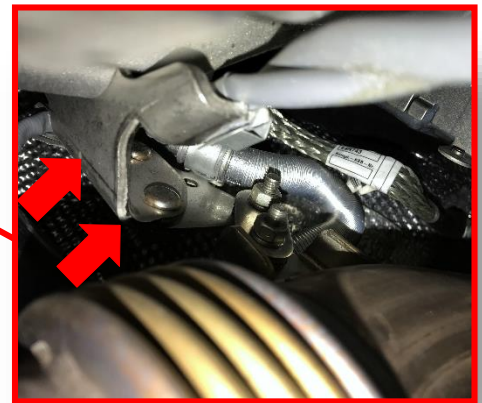


Rear oxygen
sensor



Front oxygen
sensor

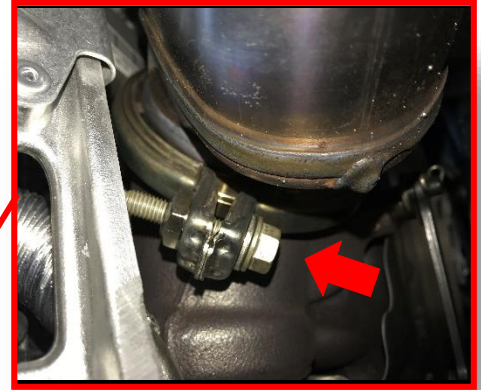
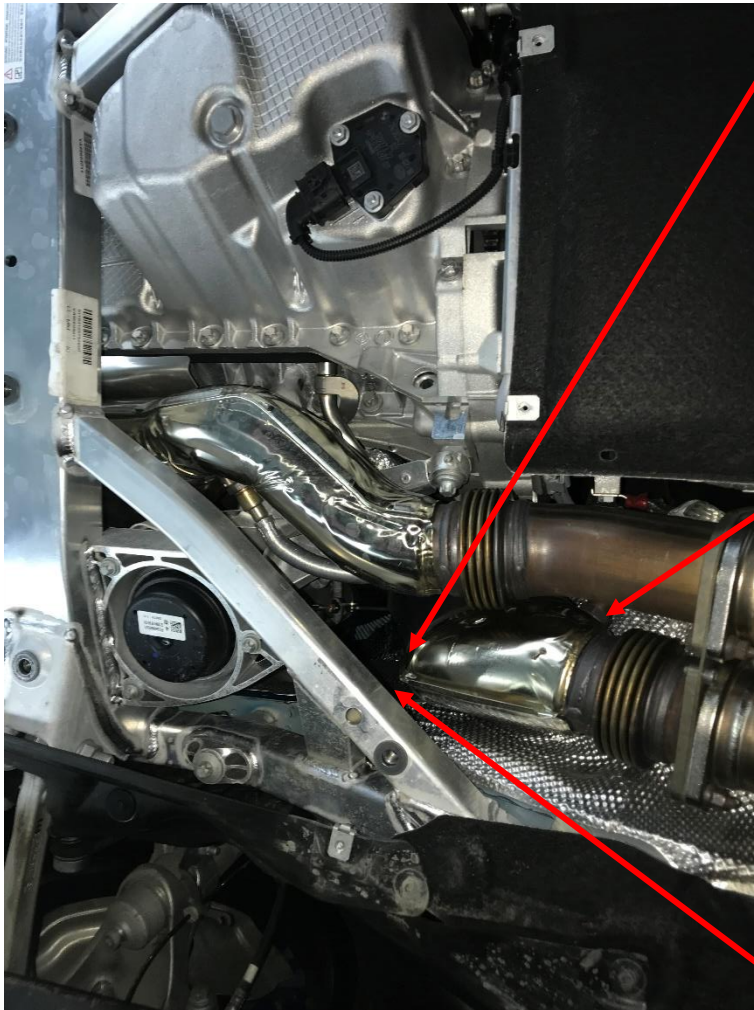
(Figure 12)



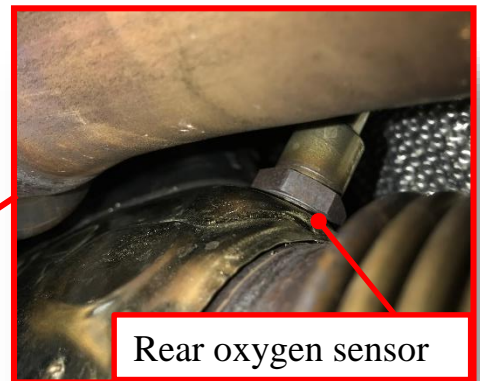
(Figure 13)

9. Remove the oxygen sensor from the rear of the right catalyst section (Figure 15), then remove the retaining ring (Figure 14), pull out the catalyst section and remove the front oxygen sensor (Figure 16).

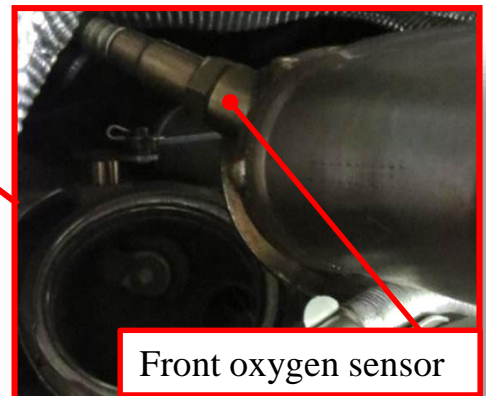
Then the original catalyst segment can then be removed



(Figure 14)



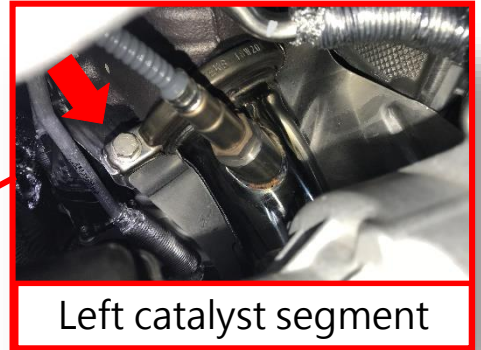
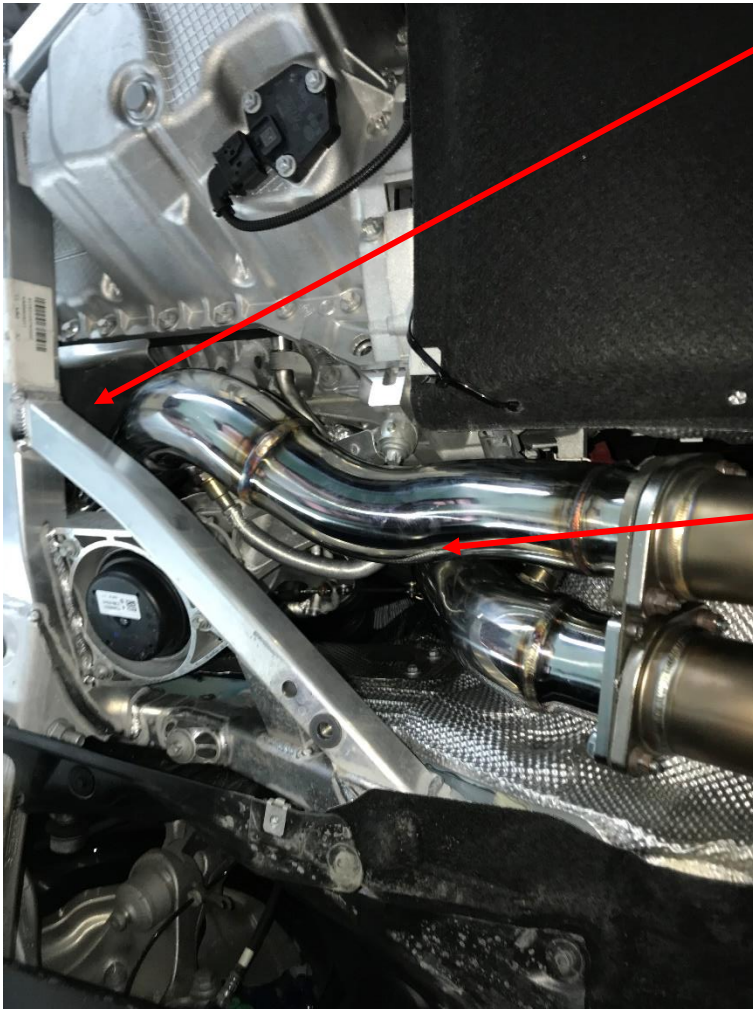
(Figure 15)



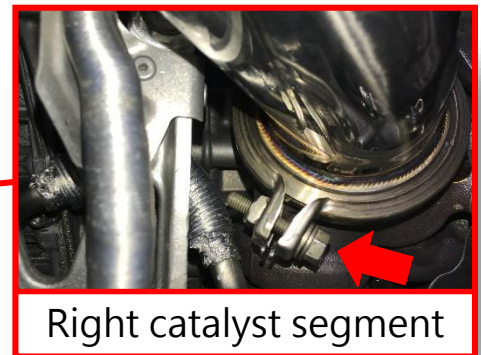
(Figure 16) 10

(2) Steps and related key points for installing the iPE exhaust pipe

1. After the oxygen sensor is installed, install the catalyst segment retaining ring without locking (Fig. 17, 18).

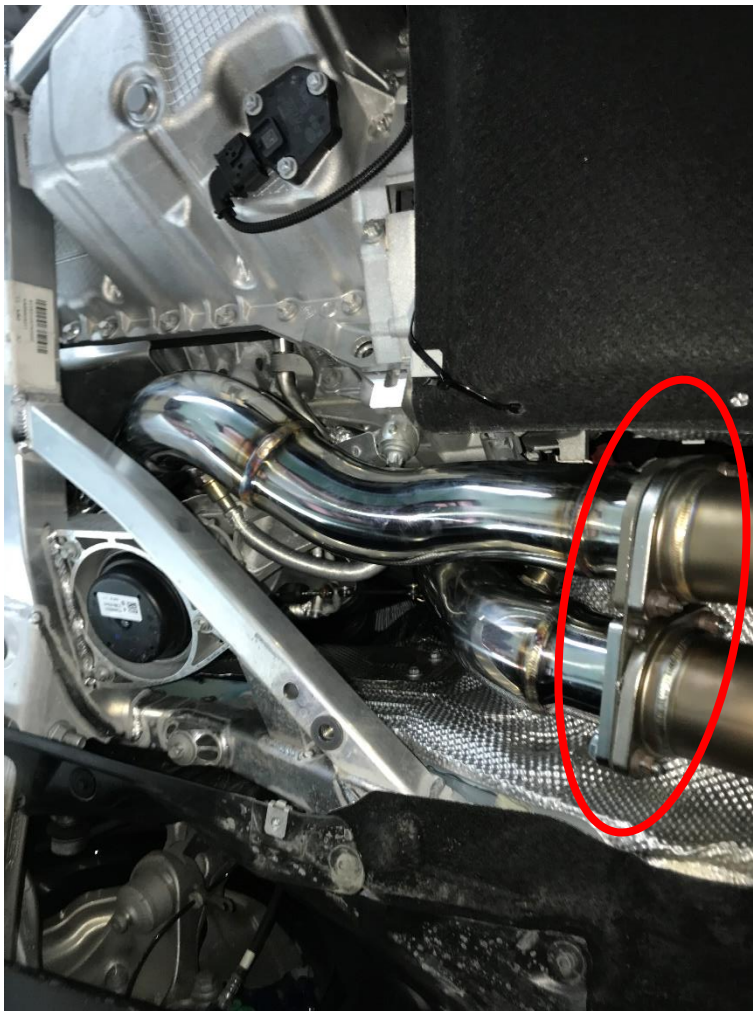


(Figure 17)

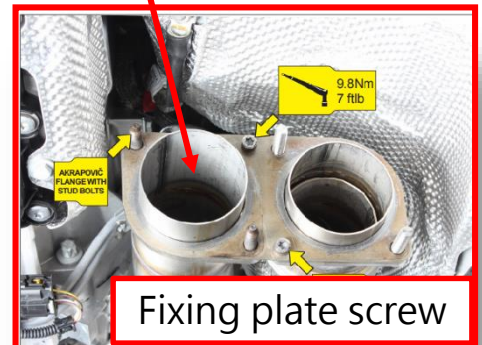


(Figure 18)

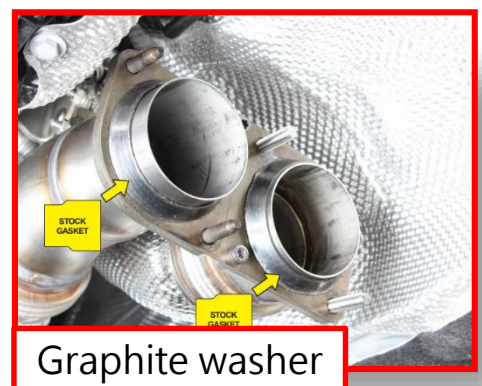
2. Install the iron head at the rear of the original catalyst section to the left IPE catalyst section (Figure 19)
3. Lock the original fixing piece and screw (Fig. 20)
4. Finally put on the original graphite washer (Figure 21)



(Figure 19)



(Figure 20)



(Figure 21) 12

5. Remove the original BMW motor electronic motor and install it to the IPE exhaust pipe.



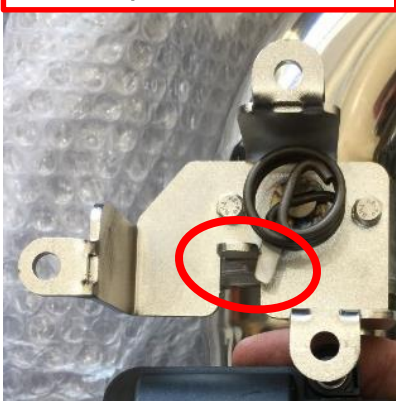
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6. The valve needs to be at the gear position and install the special spring with IPE with electronic motor (Fig. 22, 23)

7. After the motor is snapped into the spring, rotate the clock to the hole in the bracket to concentrically lock the screw (Fig. 24), increase the spring preload to improve the stability of the electronic valve.



Gear position (on))



(Figure 22)

IPE electronic motor special spring



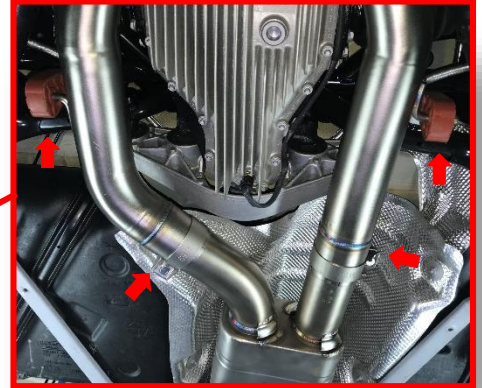
(Figure 23)

Clockwise rotation



(Figure 24)

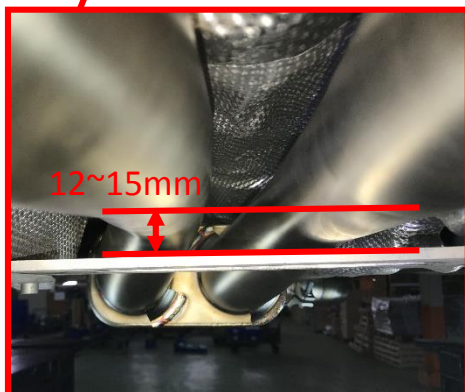
7. Lock the connecting iron head and the lug seat of the front section and the catalyst section (Fig. 26)
8. Lock the middle section and the muffler linking pipe to the hanging lug. After loading the bundle, do not lock it first (Fig. 25).
9. Put the exhaust pipe and the tie rod between 12~15mm (Fig. 28), and put down the exhaust pipe after installation.



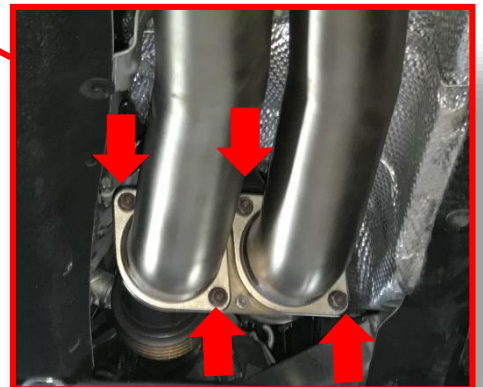
(Figure 25)



(Figure 26)

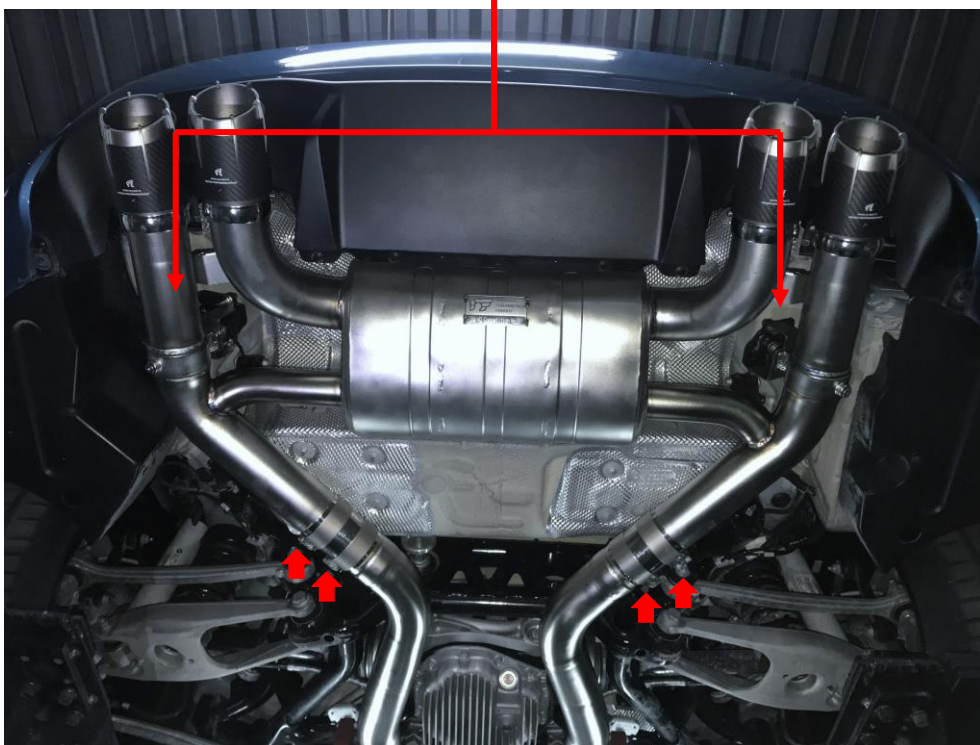
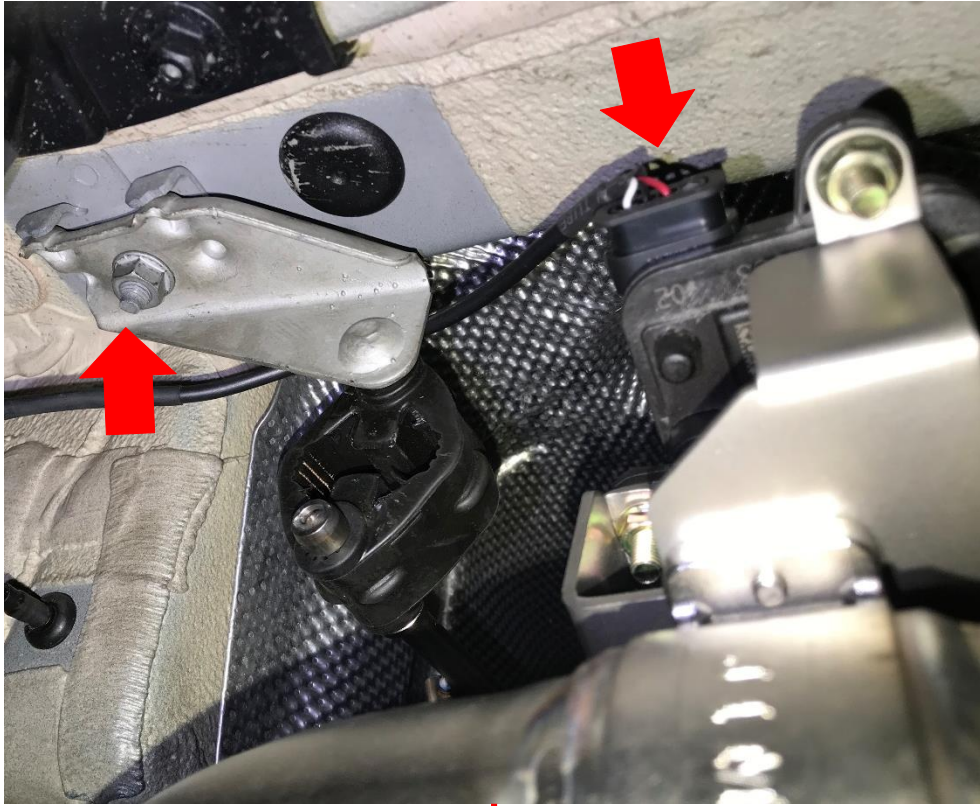


(Figure 28)



(Figure 27)

9. Lock the barrel lug. Then put on the slip ring and do not lock it first.
10. Install the electronic motor extension cable, fix it, and then replace the plug



11. Adjust the height of the muffler outlet and the rear bumper by 90mm, and then lock the sleeve loop
12. After installing the tail tube, confirm that the gap between the exhaust pipe and each chassis is at least 10~15mm, then adjust the exhaust pipe backward from the front catalyst section to position, lock the bundle ring, and finally lock the lower guard plate (Reference page 4)



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Remark: Switch from Efficient mode (valve off) to Sport+ mode, the valve will open after stepping on the throttle

