



iPE Exhaust

Automotive exhaust system engineering

Mercedes-Benz

GLC250/GLC300(X253)

Product installation instruction

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1.Important information

iPE developed exhaust systems based on the OEM exhaust to avoid issue with installation. Modern car keys and the vehicle itself have an inductive power transmission function, we suggest to keep the car key at least 5 meters away from the vehicle for safety purpose. Please wear insulated gloves to replace the exhaust pipe when hot, or replace it after cool down to avoid burns.

When setting the valve to open automatically, please do not let the valve open prematurely to avoid resonance; it is recommended to set the timing of valve opening to 60% of the throttle. For detailed setting options, please refer to the control box setting page.

The iPE exhaust system is an evolution designed based on OEM spec. If the vehicle has ECU tuning, there may be possible resonance from the exhaust system. If you have any questions about this installation instruction, please contact your local iPE dealer or email us at info@ipe-f1.com

2. Tools required for the installation

| Tool name | Tool appearance |
|---------------------------------------|-------------------------------------------------------------------------------------|
| Rust inhibitor / lubricant |  |
| Hexagon socket |  |
| Hexagon wrench |  |
| Torque wrench |  |

3. Mercedes-Benz GLC250/300(X253) product assembly



4. Steps to remove the original exhaust and related key point

Lift up the vehicle to the working position.

1. Remove the clamps and bushes at the connection point between the rear muffler and the mid pipe. (Fig.1)
2. Remove the muffler.



Fig. 1

Warning: Park to position before lifting up, clear the surrounding area and pay attention to the height to ensure the safety of people and vehicles!

After the screws are removed, placed neatly to avoid confusion during reinstall, lubricant for disassemble might be necessary.

3. Remove transmission lower guard.

4. Remove the front pipe clamps.

✂ After the screws are removed, placed neatly to avoid confusion during reinstall.

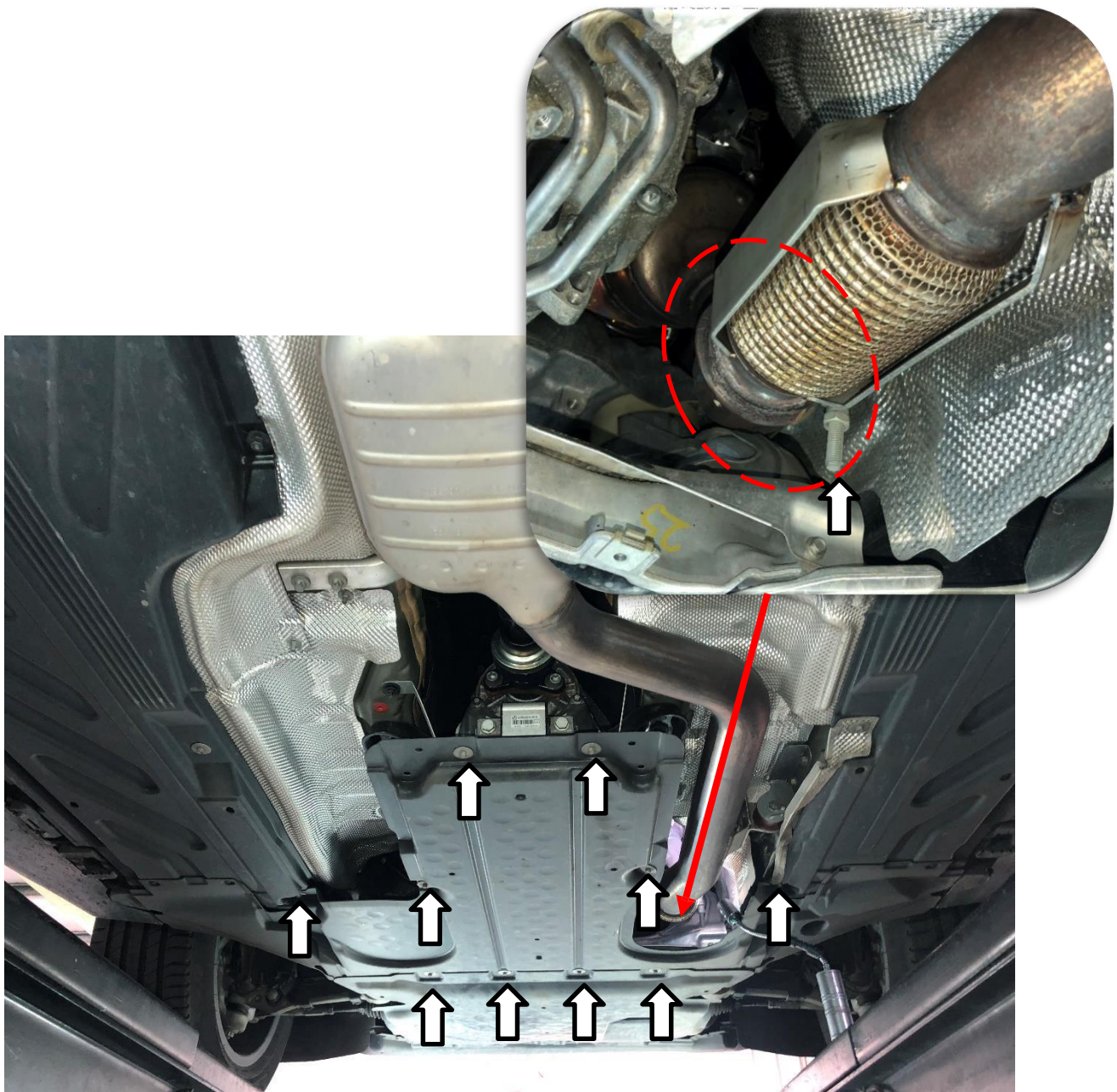


Fig.2

5. Dismantle the front and rear of the mid pipe and the original mid pipe will be removed.



Fig.3

6. Remove the engine cover and the air filter assembly.
7. Unplug the two front and rear oxygen sensor plugs, and remove the oxygen sensor after removing the cat pipe.



Fig.4

8. Remove the cat pipe clamps. (Fig.5)

9. Remove the lower support fixed screw. (Fig.6)

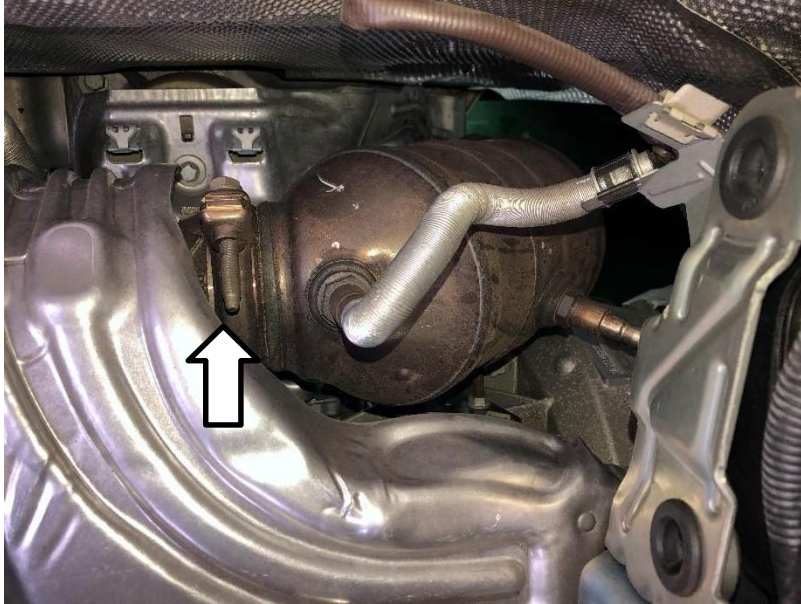


Fig.5



Fig.6

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

Warning: do not use lubricant or rust remover organic solvent when the exhaust has high temperature!

5. Steps and focused points for installing the iPE exhaust

1. First, install the front and rear oxygen sensor in cat pipe.
2. Lock the support fixed screw on cat pipe (Fig.7), then tighten the clamps. (Fig.8)

Warning: lock these screws with proper torque setting.



Fig. 7

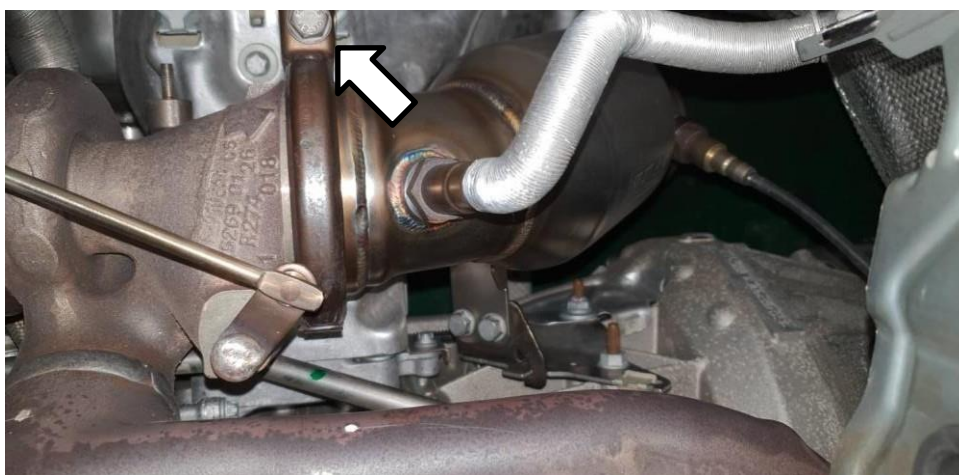


Fig. 8

3. Insert the front pipe into the cat pipe, lock the bush screws without tighten clamp.

Warning: lock these screws with proper torque setting.

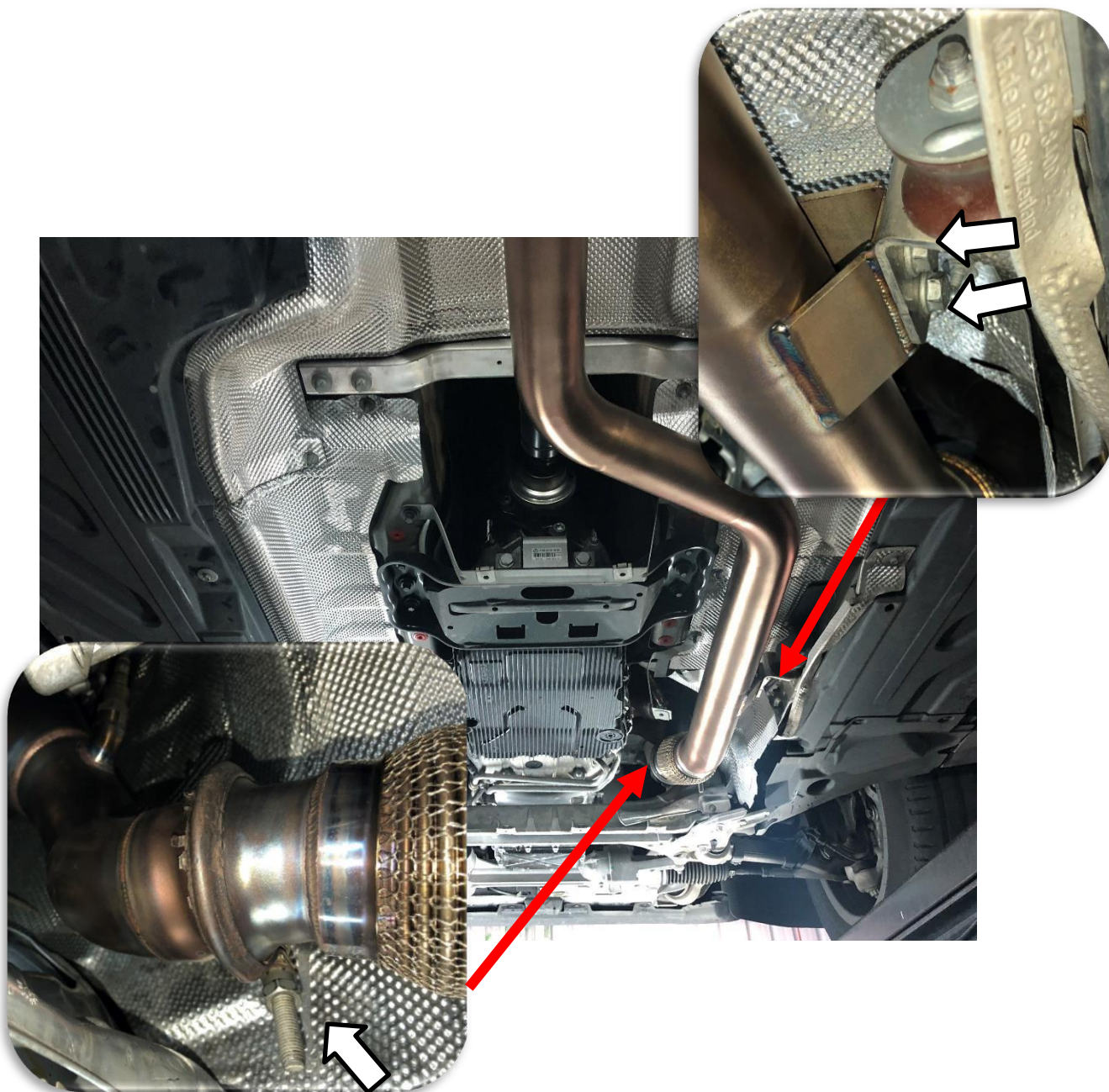


Fig. 9

4. Insert the mid pipe into the front pipe then fix the bush to the support without locking.

Warning: lock these screws with proper torque setting.

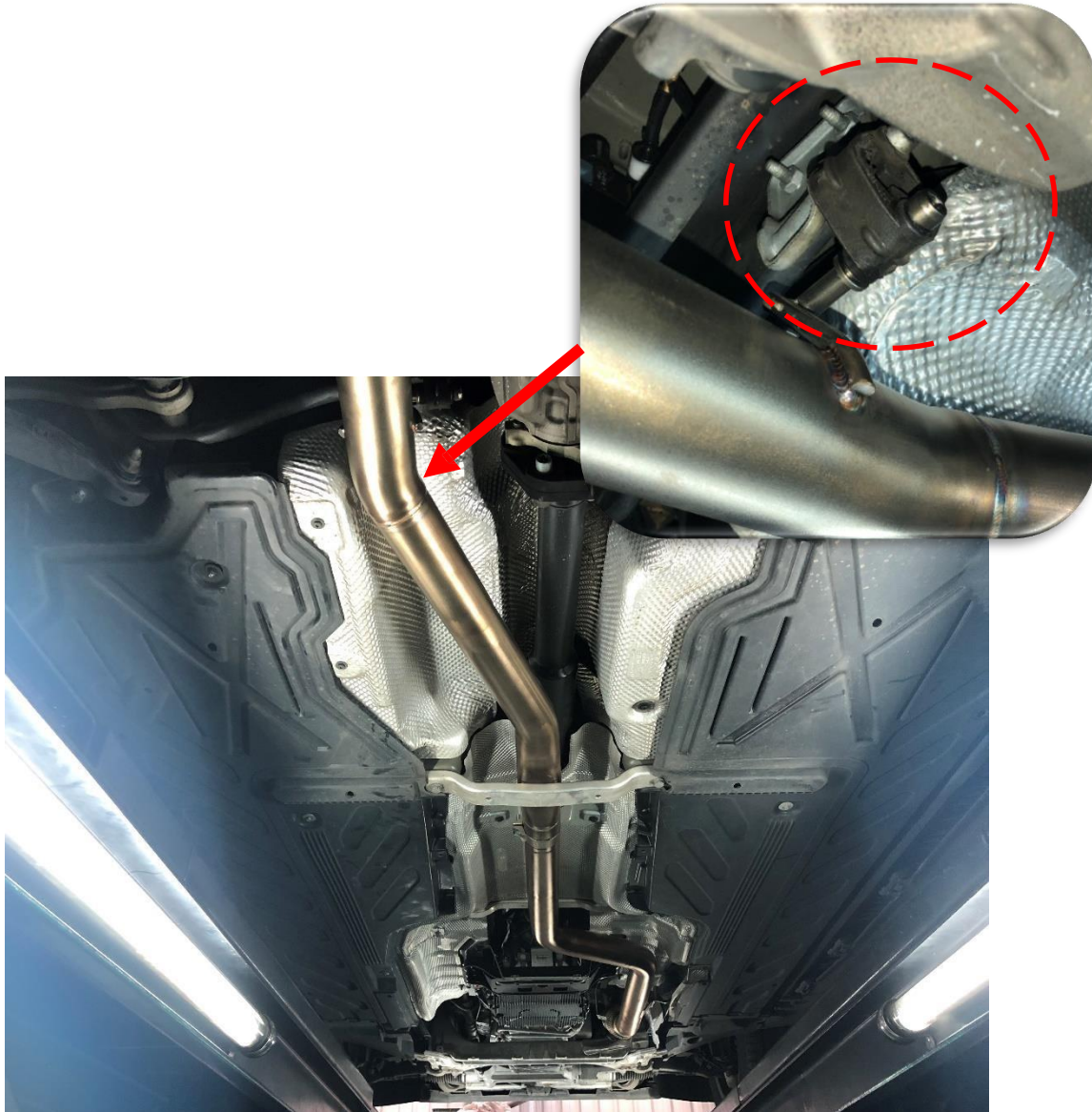


Fig. 10

5. Insert the muffler into the mid pipe then install the left and right bushes of muffler.
6. Install left and right tips.

Warning: lock these screws with proper torque setting.

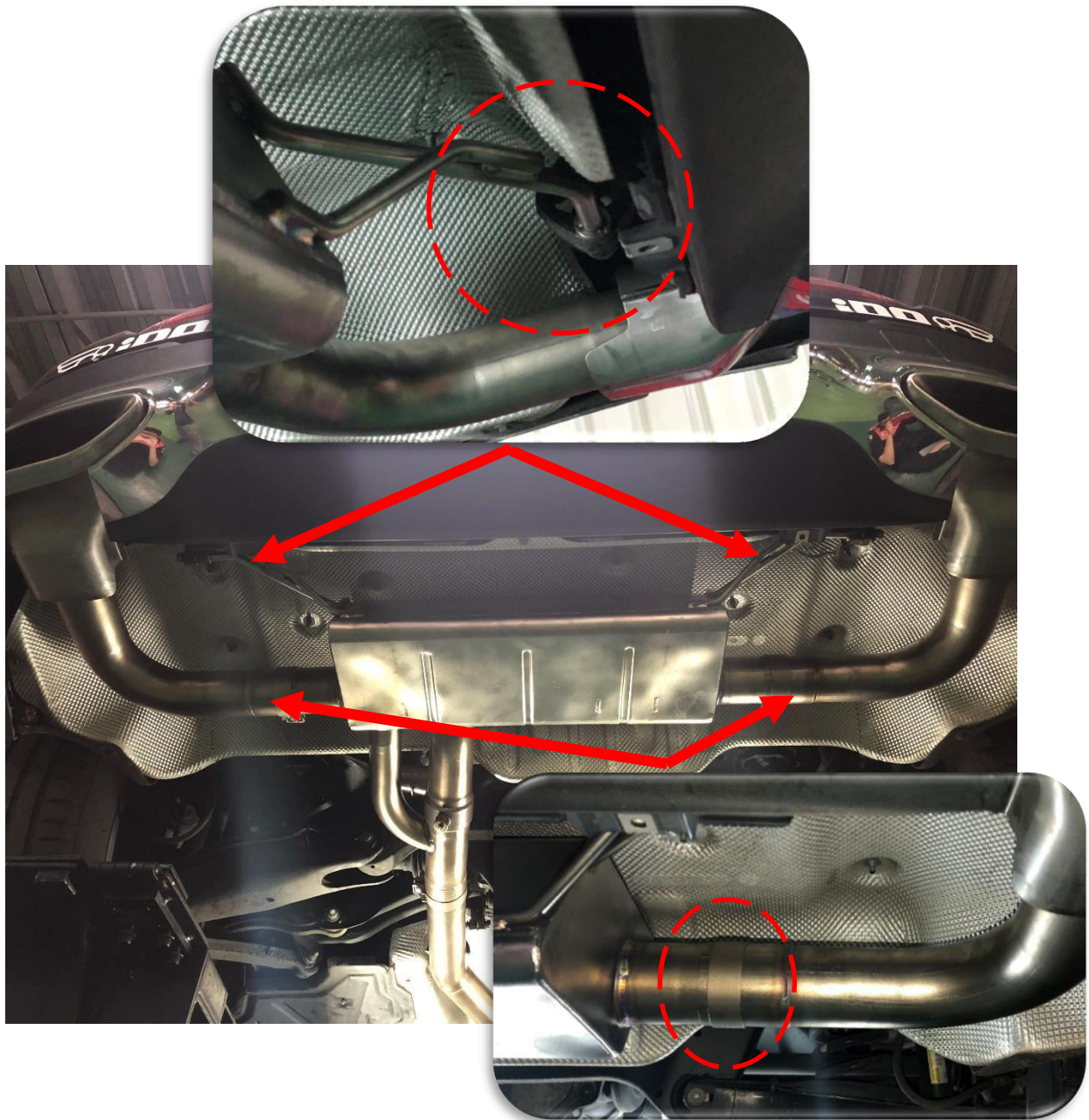


Fig. 11

7. Make sure that the gap between the exhaust and chassis is at least 15mm, and tighten the clamp.

Warning: lock these screws with proper torque setting.

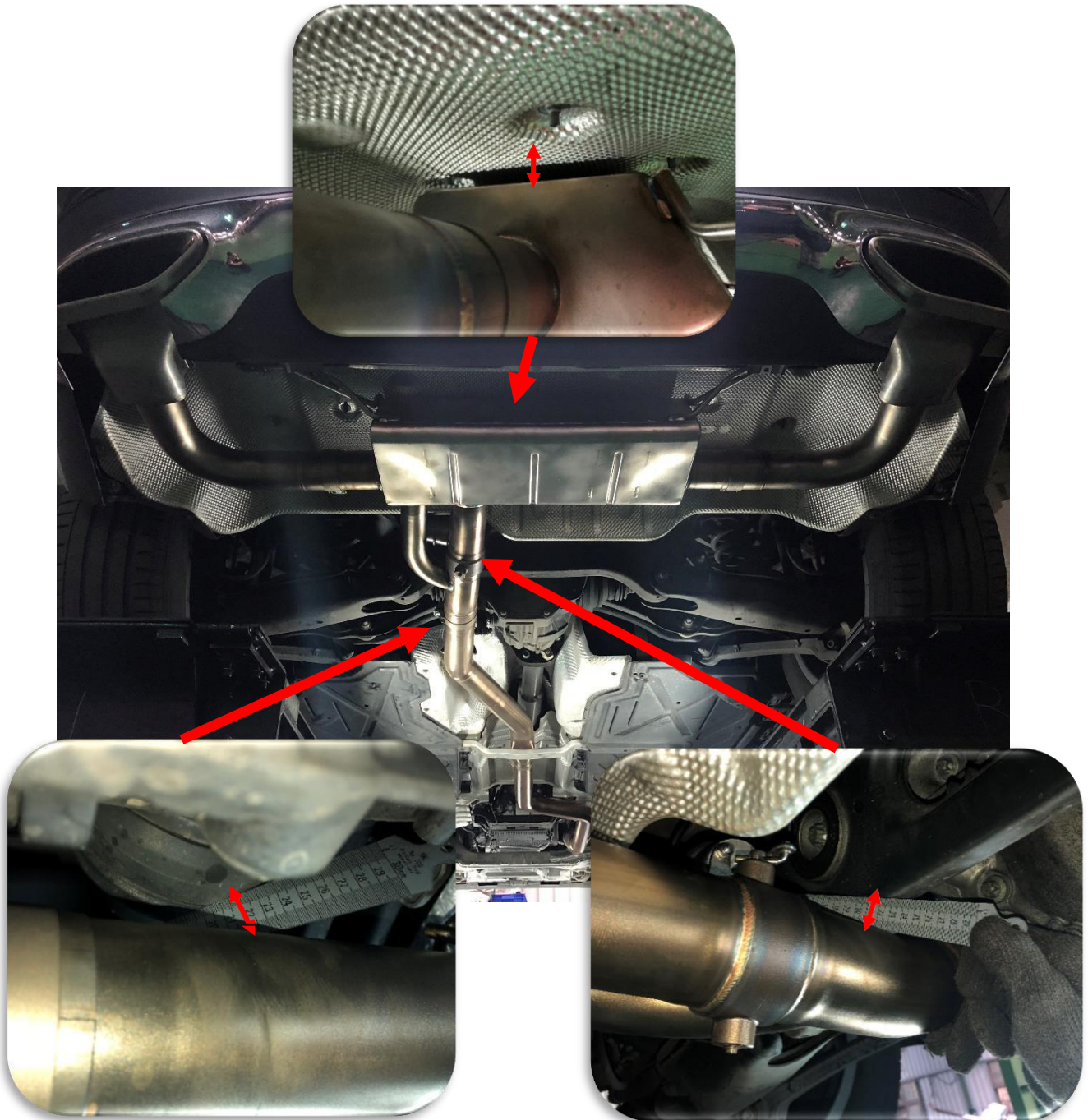
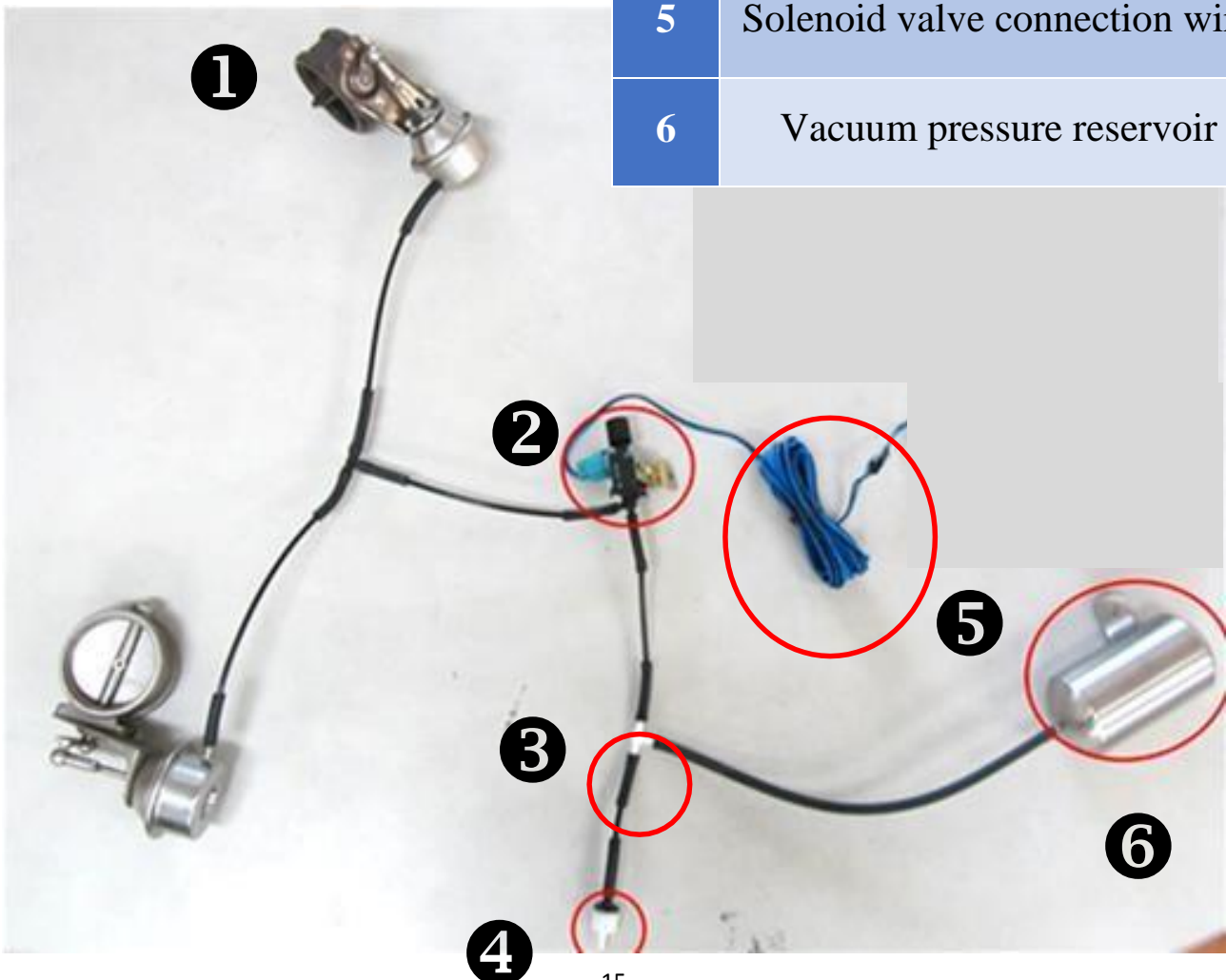


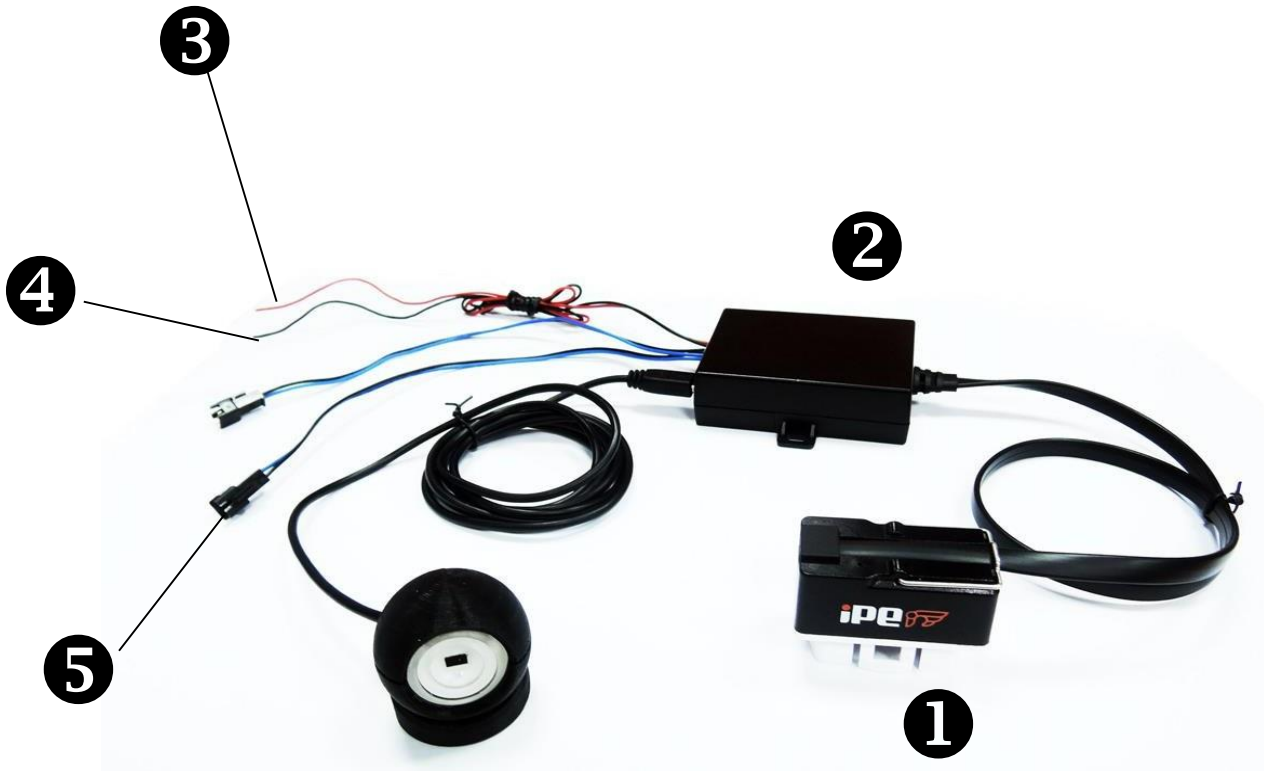
Fig. 12

6. Steps and focused points for installing the OBDII

※ The number of exhaust valves must be based on the actual exhaust pipe design.

| No. | Product |
|-----|--------------------------------|
| 1 | Exhaust valve |
| 2 | Vacuum solenoid valve |
| 3 | Three-way connector |
| 4 | One way valve |
| 5 | Solenoid valve connection wire |
| 6 | Vacuum pressure reservoir |





| No | Product | No | Product |
|----|---------------------------|----|-----------------------------|
| 1 | OBDII connector | 4 | Black (negative) |
| 2 | Solenoid valve controller | 5 | Blue black (solenoid valve) |
| 3 | Red (ACC positive) | | |

1. Install the power cord of the host to the fuse box beside the instrument panel. (Fig.14)

Warning: Make sure the positive and negative are correct to prevent the circuit from burning out.

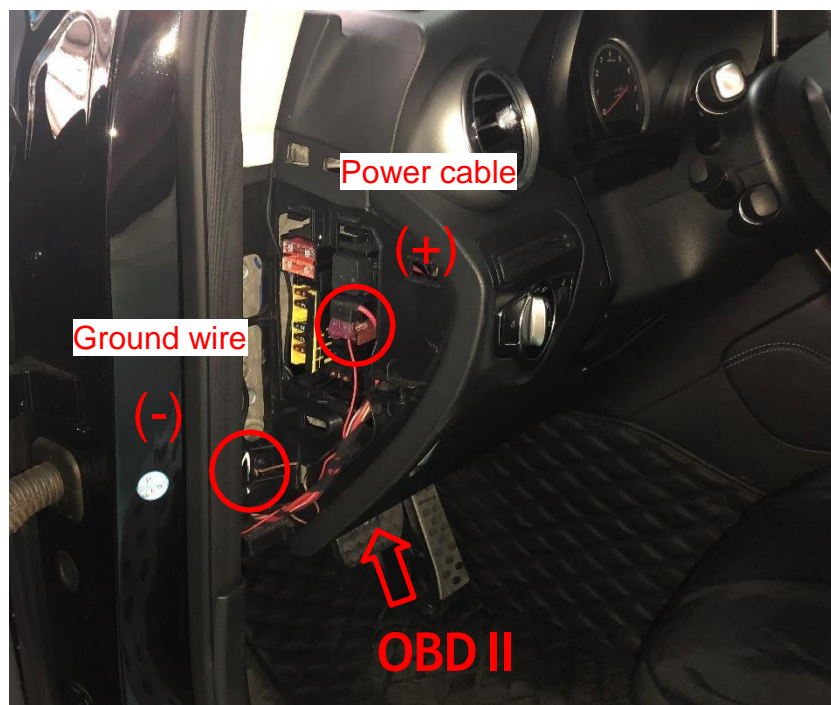


Fig. 13

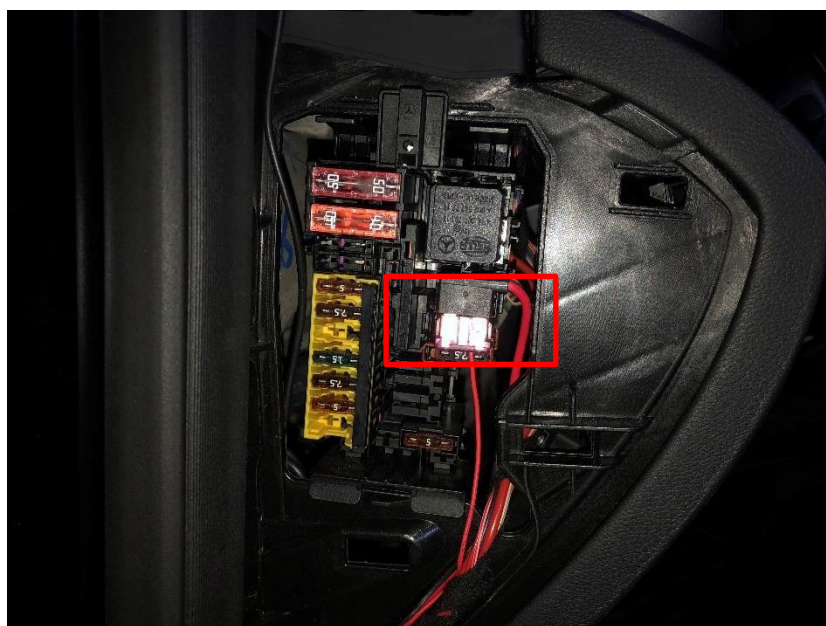


Fig. 14

2. Install the vacuum pressure reservoir (Fig.16), one way valve, solenoid valve (Fig.17) fixed to the upper car beam of differential. (Fig.15)

Warning: The wires and vacuum tubes must be fixed to avoid damage caused by rotating of the transmission shaft.

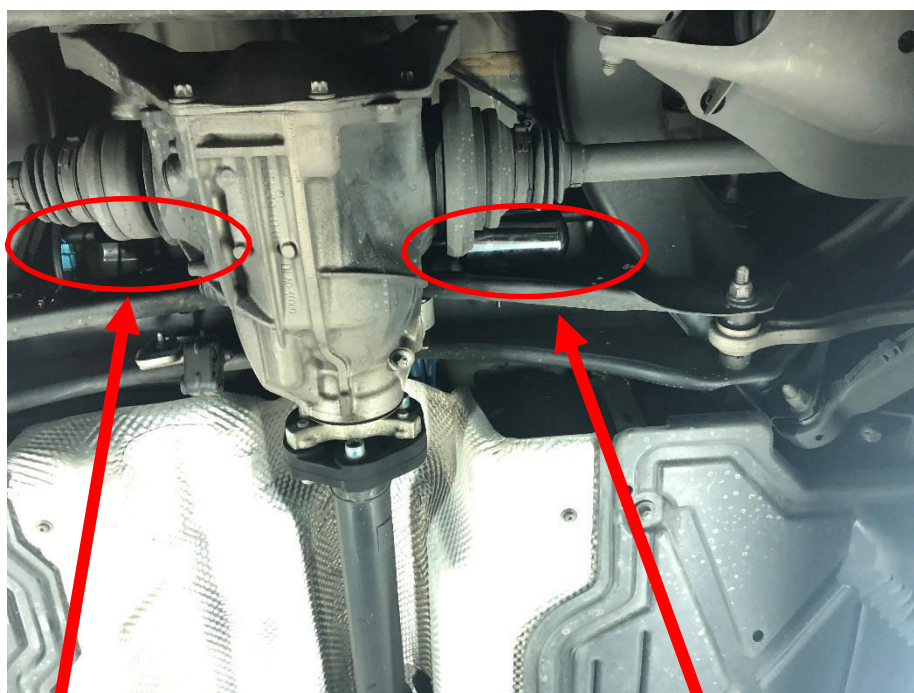


Fig. 15



Fig. 16



Fig. 17

3. Remove the original vacuum tube and use a three-way to connect the vacuum source (Fig.19), The solenoid valve control wires (blue and black) are led out by the seal ring of the wire group (Fig. 20) and connected to the check valve.
4. Install engine cover, air filter assembly and lower guard.(Please refer to pages 7 and 9)

Warning: The wires and vacuum tubes must be fixed to avoid damage.

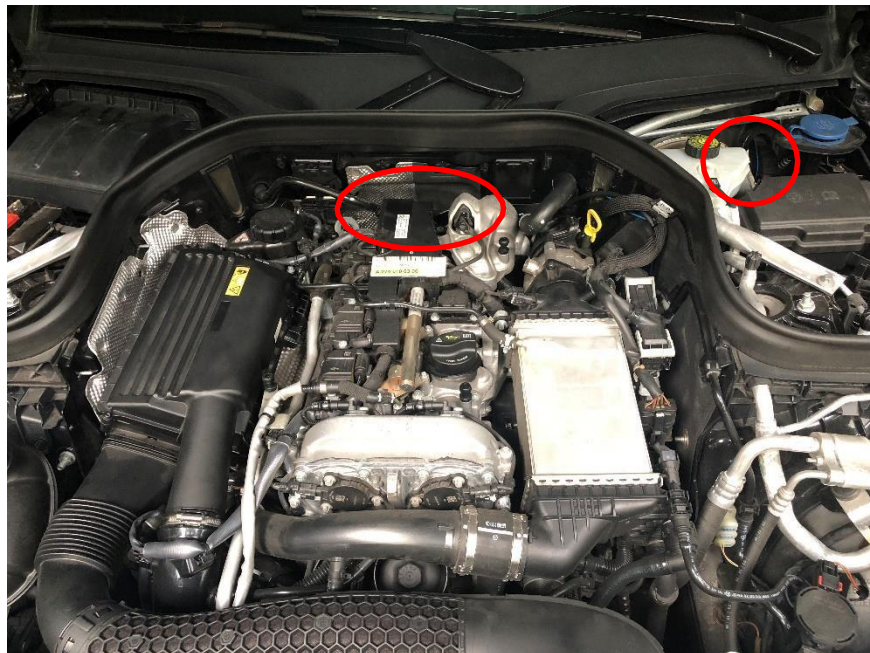


Fig. 18



Fig. 19



Fig. 20