



IPE

Automotive Exhaust system

Product installation instructions

Car model : VW GOLF GTI 7

Version 1

WWW.IPE-f1.com

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.

Tools for the installation



Star sleeve
E10 、 E14



Outer hex wrench
13mm 、 14mm
16mm



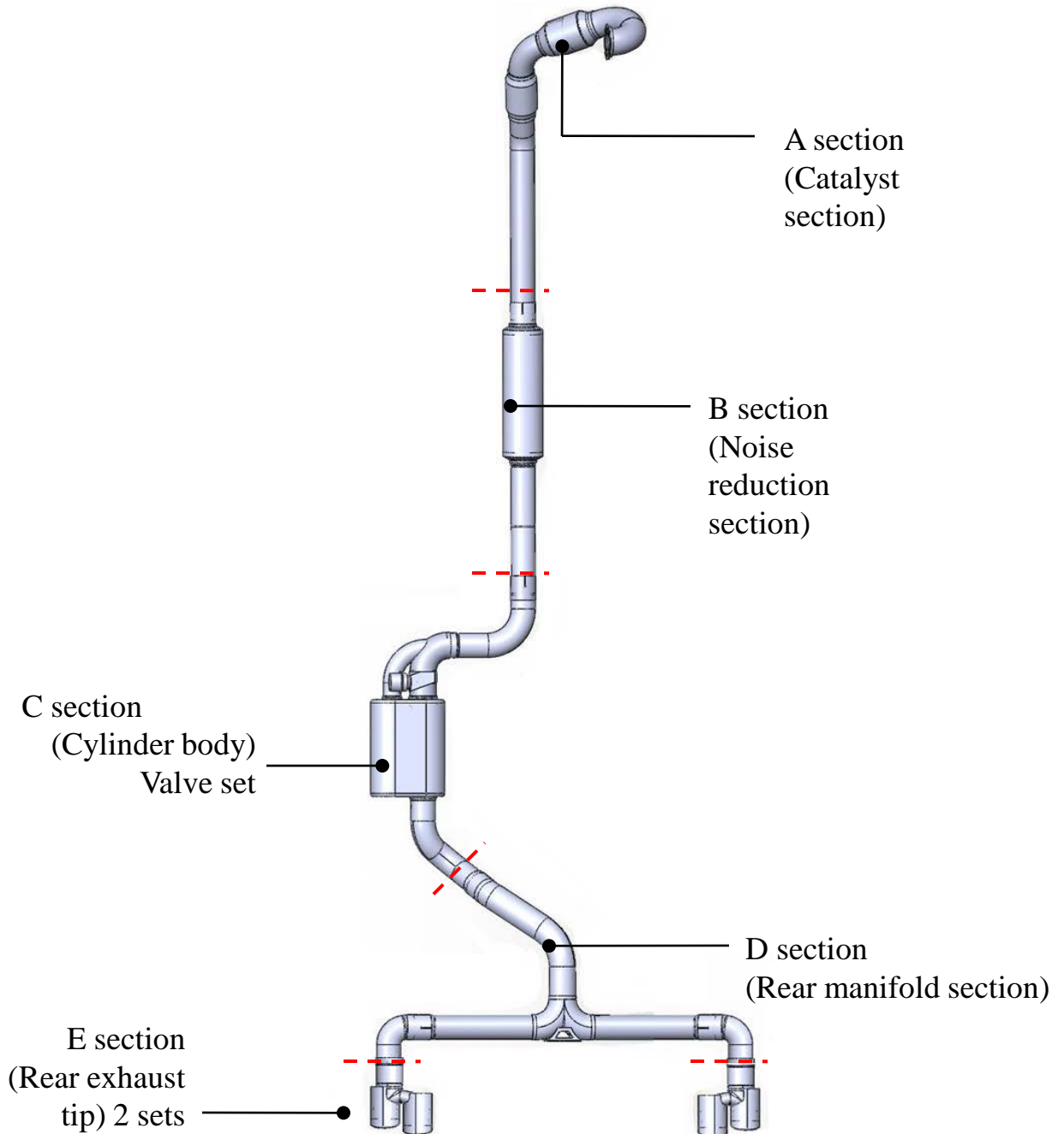
torque wrench



Rust Preventive spray



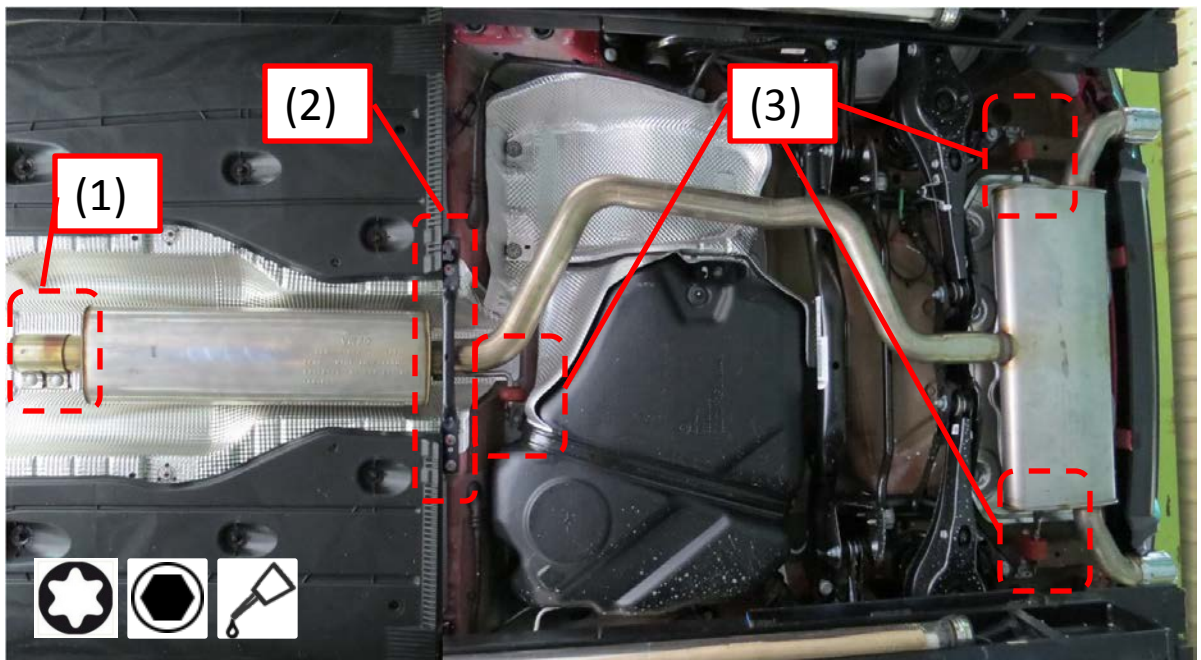
IPE VW MK7 product assembly appearance



The steps and important notices of disassembling the original exhaust pipe

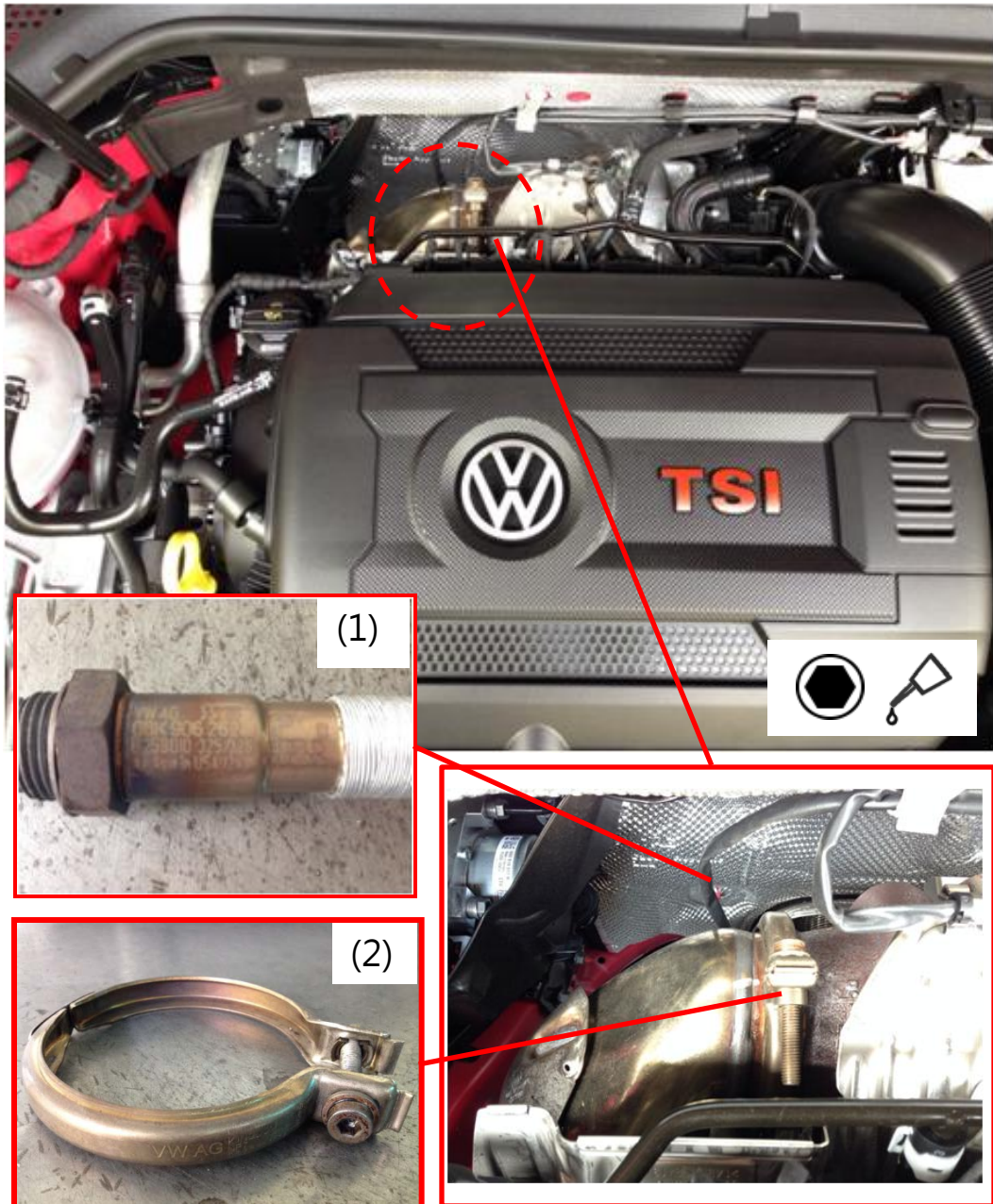
1. Disassemble the rear section of the exhaust pipe.

- (1) Disassemble the tubular ring.
- (2) Disassemble the protection bar.
- (3) Disassemble the middle and rear lifting lugs.



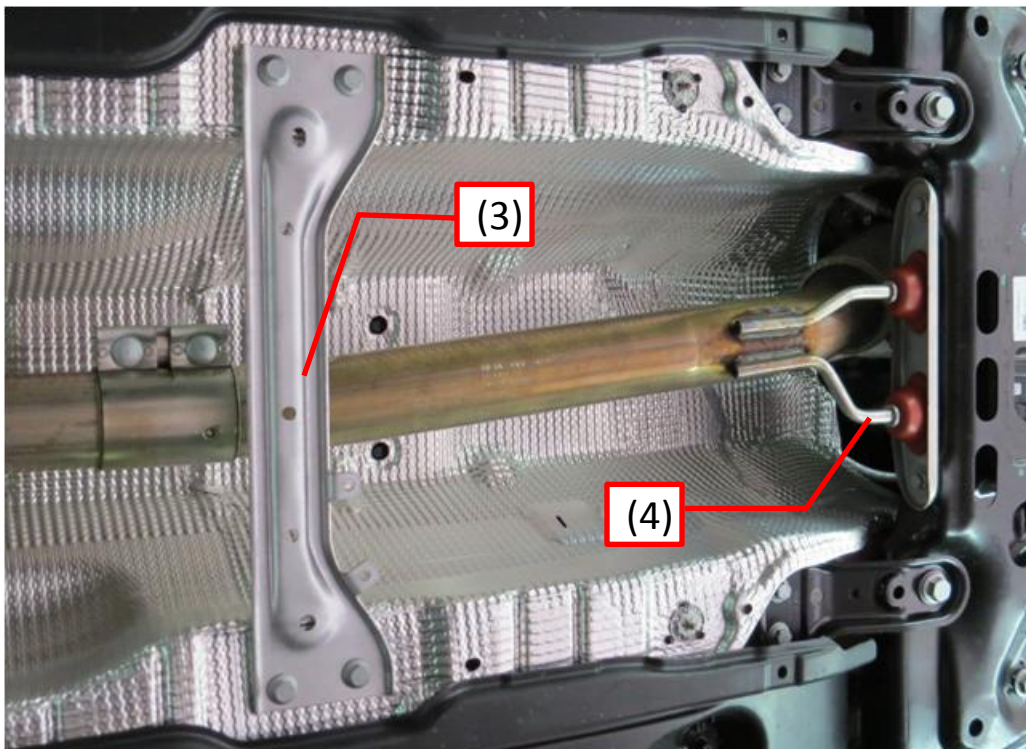
2. Disassemble the front section of the exhaust pipe.

- (1) Disassemble the oxygen sensor.
- (2) Disassemble the tubular ring.



(3) Disassemble the protection bar.

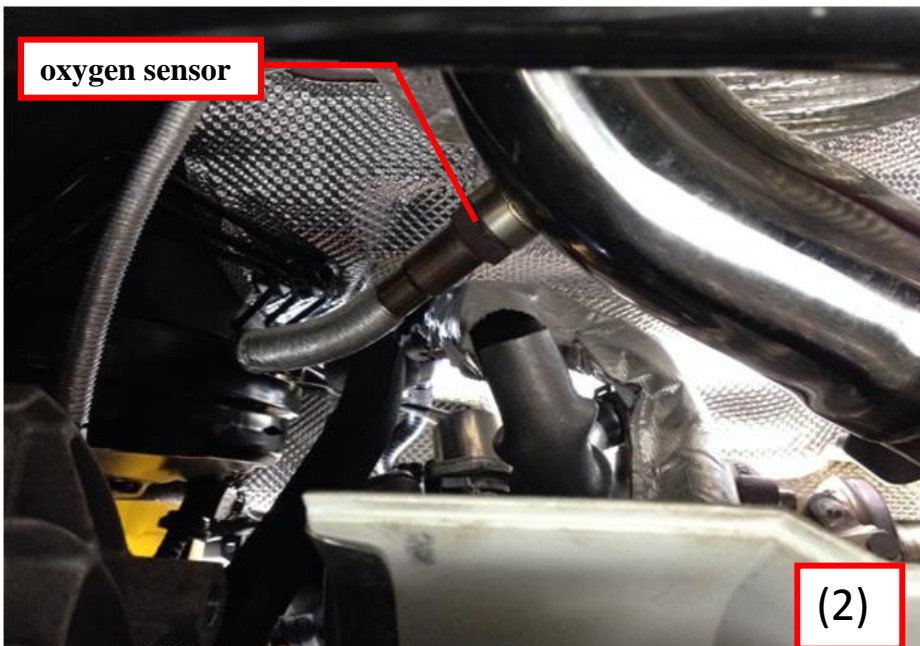
(4) Disassemble the lifting lug holder at the front end.



The steps and important notices of installing IPE exhaust pipe

1. Install the A section of the exhaust pipe

- (1) Install the A section of the exhaust pipe according to the inverse order of disassembling it.
- (2) Install the oxygen sensor
- (3) Fix the lifting lug holder

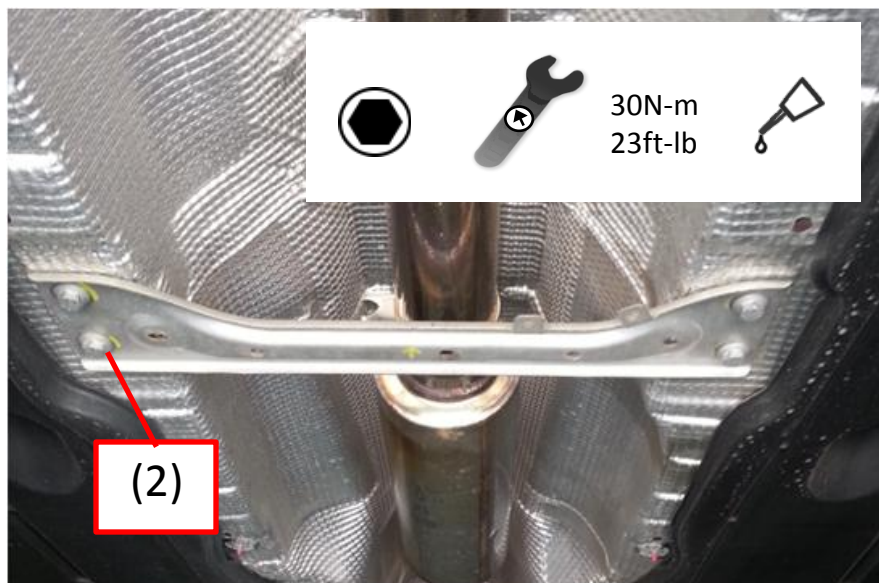
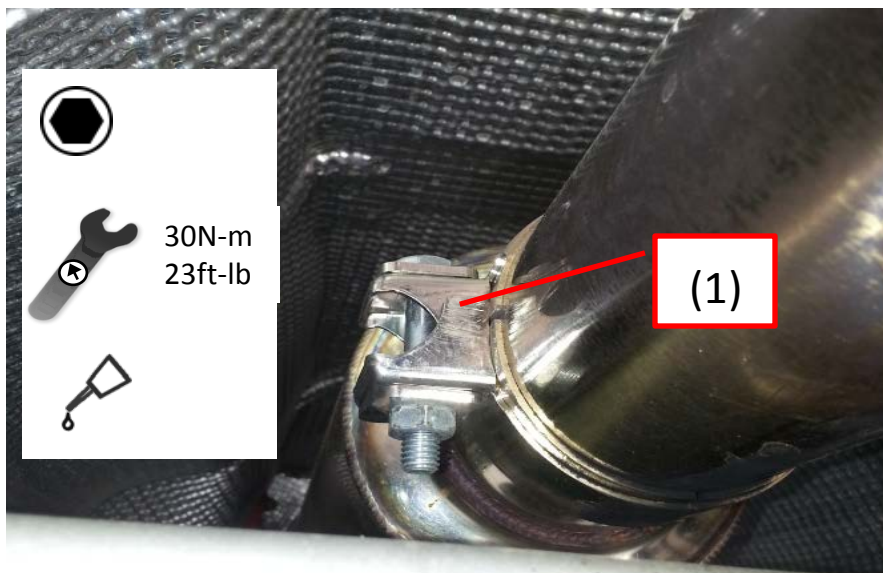


30N-m
23ft-lb



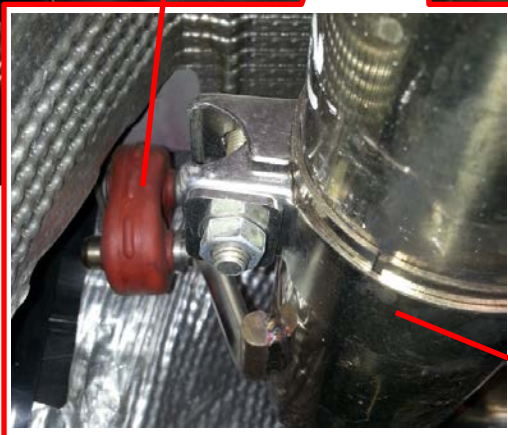
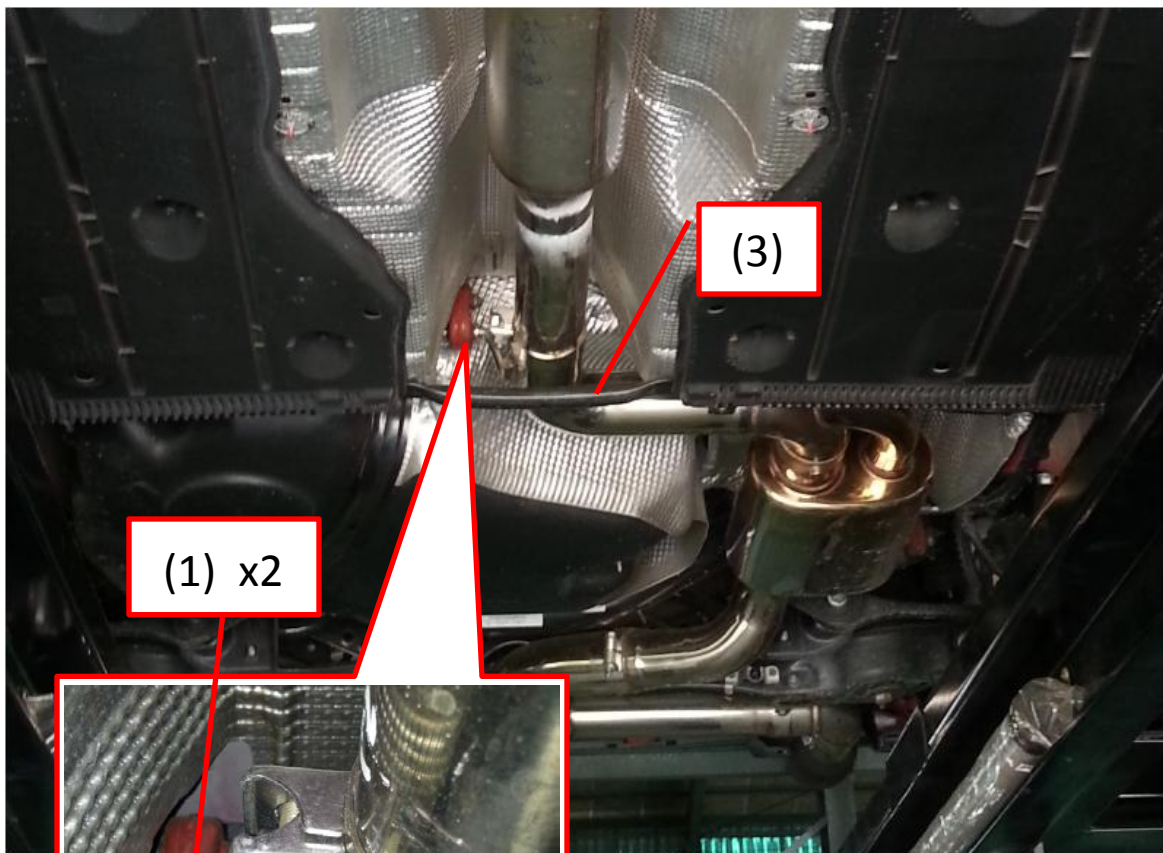
2. Install the B section of the exhaust pipe.

- (1) Connect the A section to the B section
(Overlapping depth is about 50mm), and fix it with the tubular ring.
- (2) Install the lower protection bar.



3. Install the C section of the exhaust pipe (Cylinder body)

- (1) Fix the cylinder body lifting lug on the car body.
- (2) Connect the tubular ring to the B section and fix them.
- (3) Install the lower protection bar.1



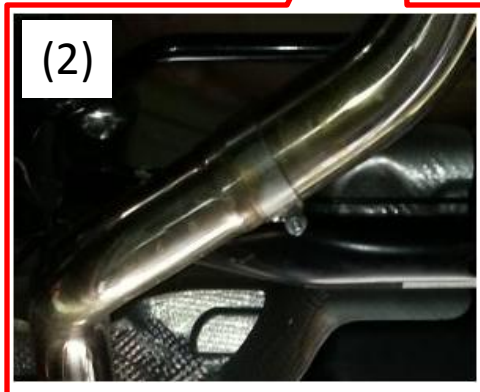
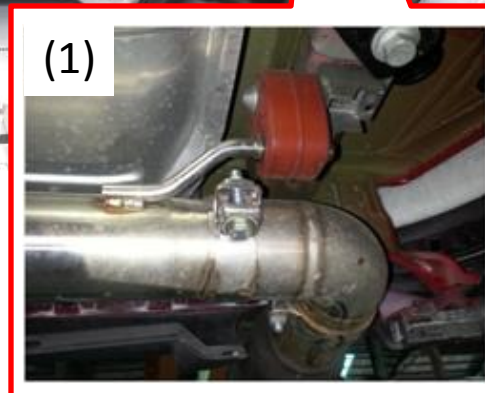
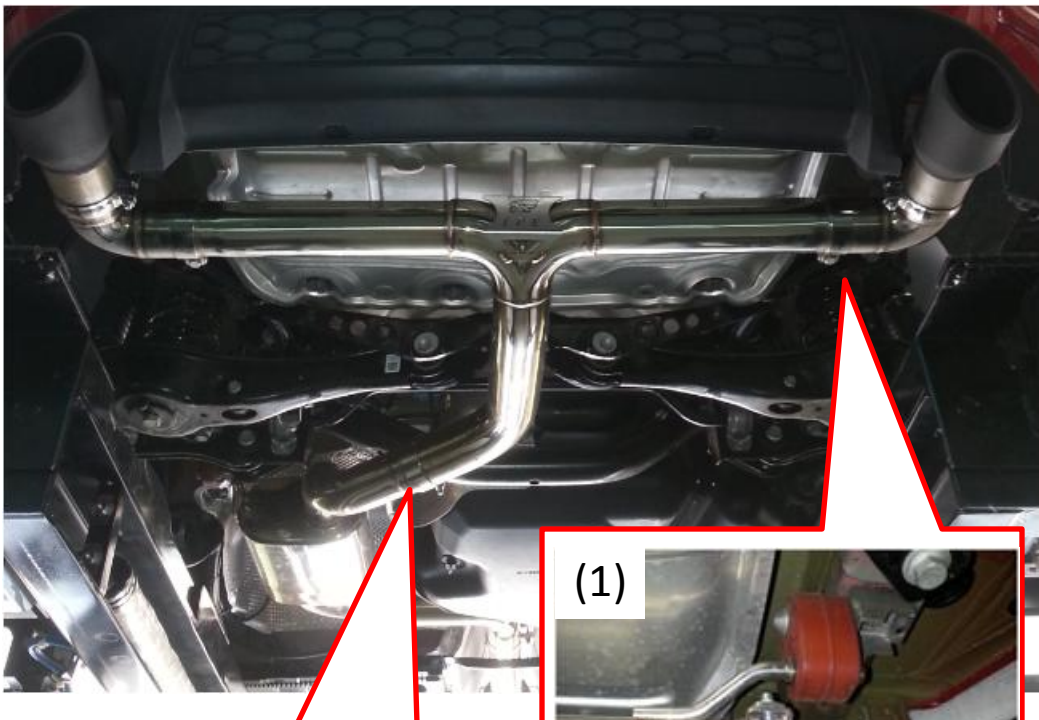
(2)



30N-m
23ft-lb

4. Install the D section-Double outlet exhaust pipe

- (1) Fix the lifting lug on the car body.
- (2) Connect and fix the D section to the C section by the tubular ring.



30N-m
23ft-lb



5. Install the E section-rear exhaust tip

- (1) Connect the E section to the D section by the tubular ring (2 sides).



30N-m
23ft-lb

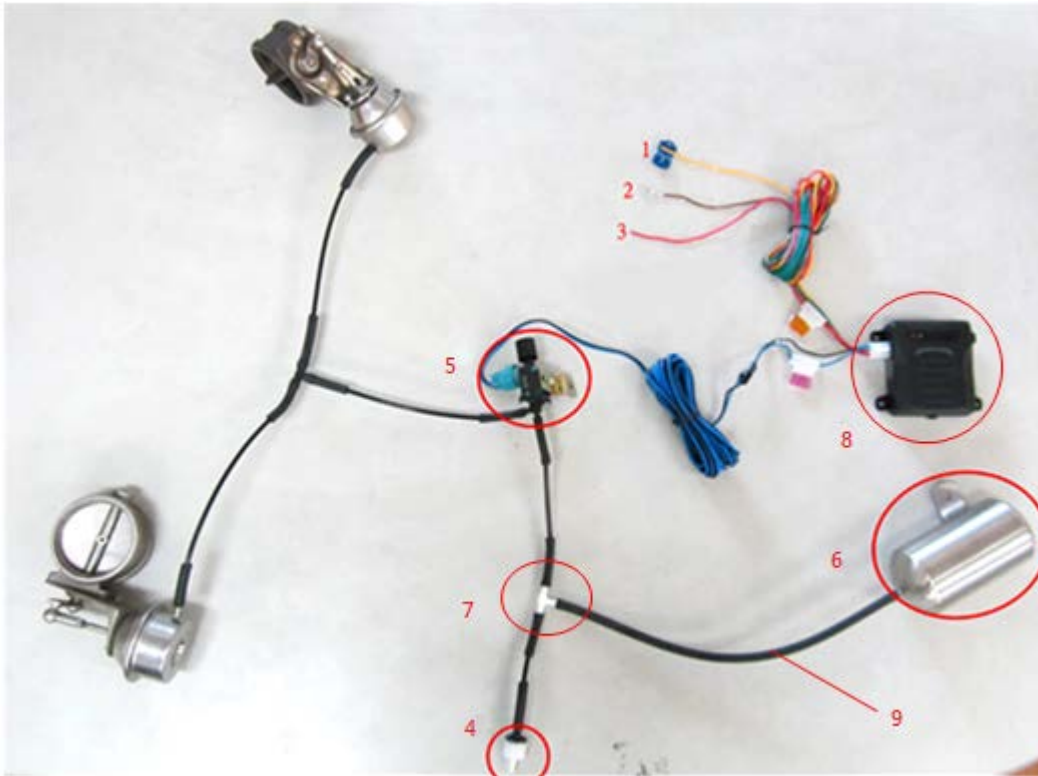


※ Note : When installing the exhaust pipe, please spare some space (about 2-3 cm) between the exhaust pipe and the car body.

The description of wiring and settings

All control components and their corresponding connections are shown in the following figure.

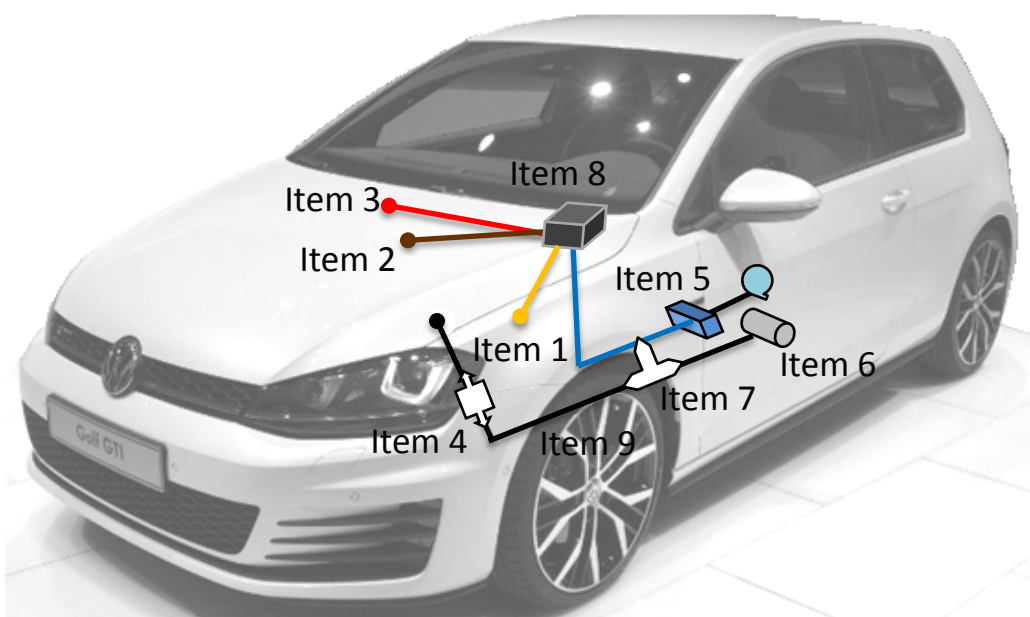
※ The position and quantity of the exhaust valves are subject to the practical design of the exhaust pipe .



Number	Name of component	Number	Name of component
1	Yellow wire/accelerator signal wire	6	Vacuum pressure tank
2	Brown wire/ground wire	7	Tee joint(x2)
3	Red wire/power wire	8	Controller
4	One-way valve	9	Pressure wire
5	Electromagnetic control valve		

The schematic view of the distribution of the components of the valve control box

Please install the electrical signal junctions according to the instructions, but users can install other components according to the car conditions.

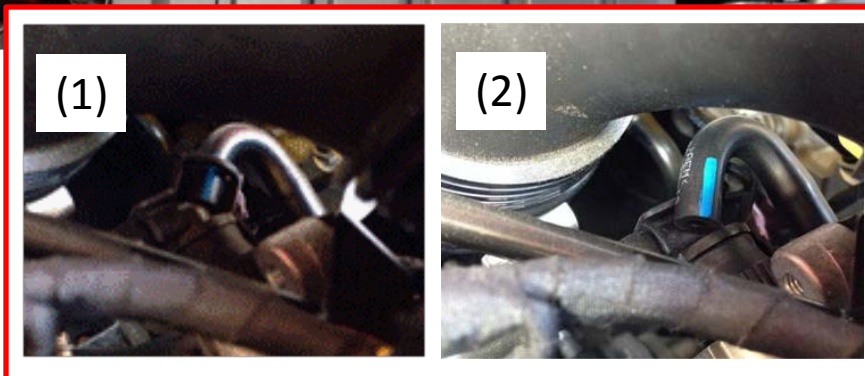
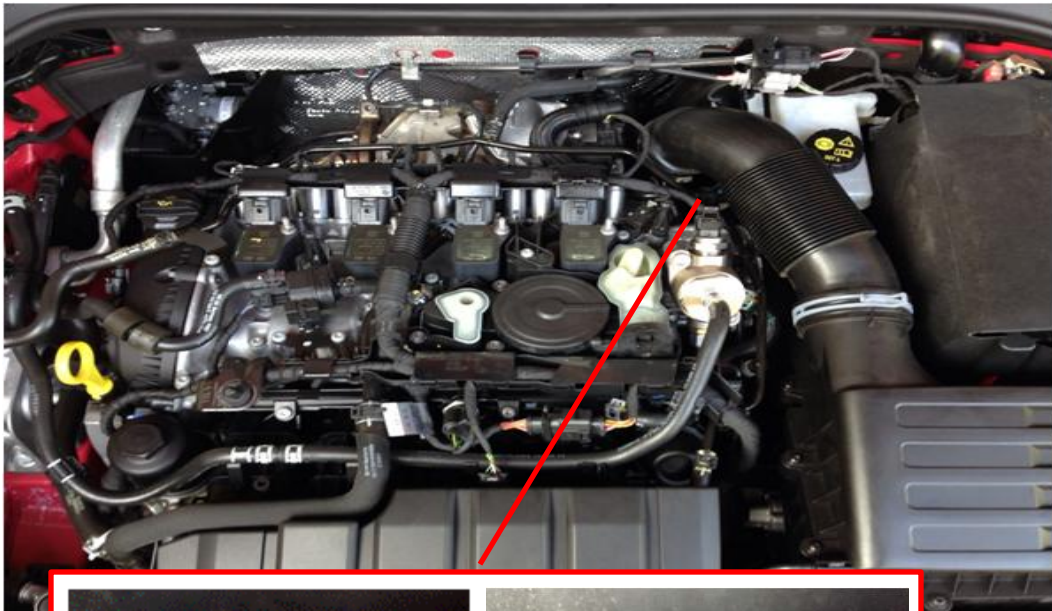


The installation steps and important notices of the IPE valve control components

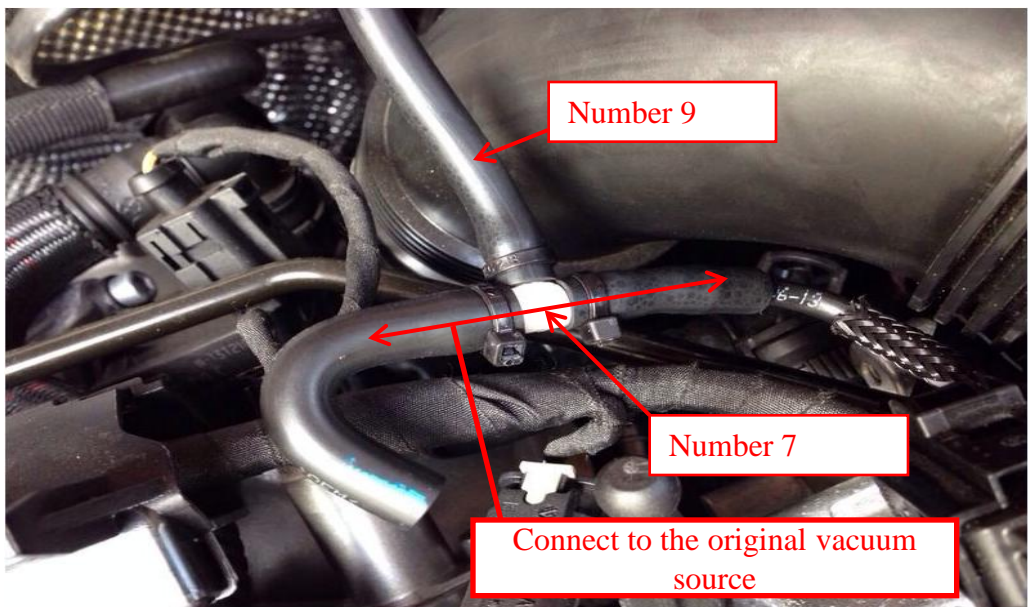
1. Install the vacuum accessories

※ Please make sure all junction ends of the vacuum tube are completely fixed by cable ties.

- (1) Find the vacuum source.
- (2) Disassemble the original vacuum tube.

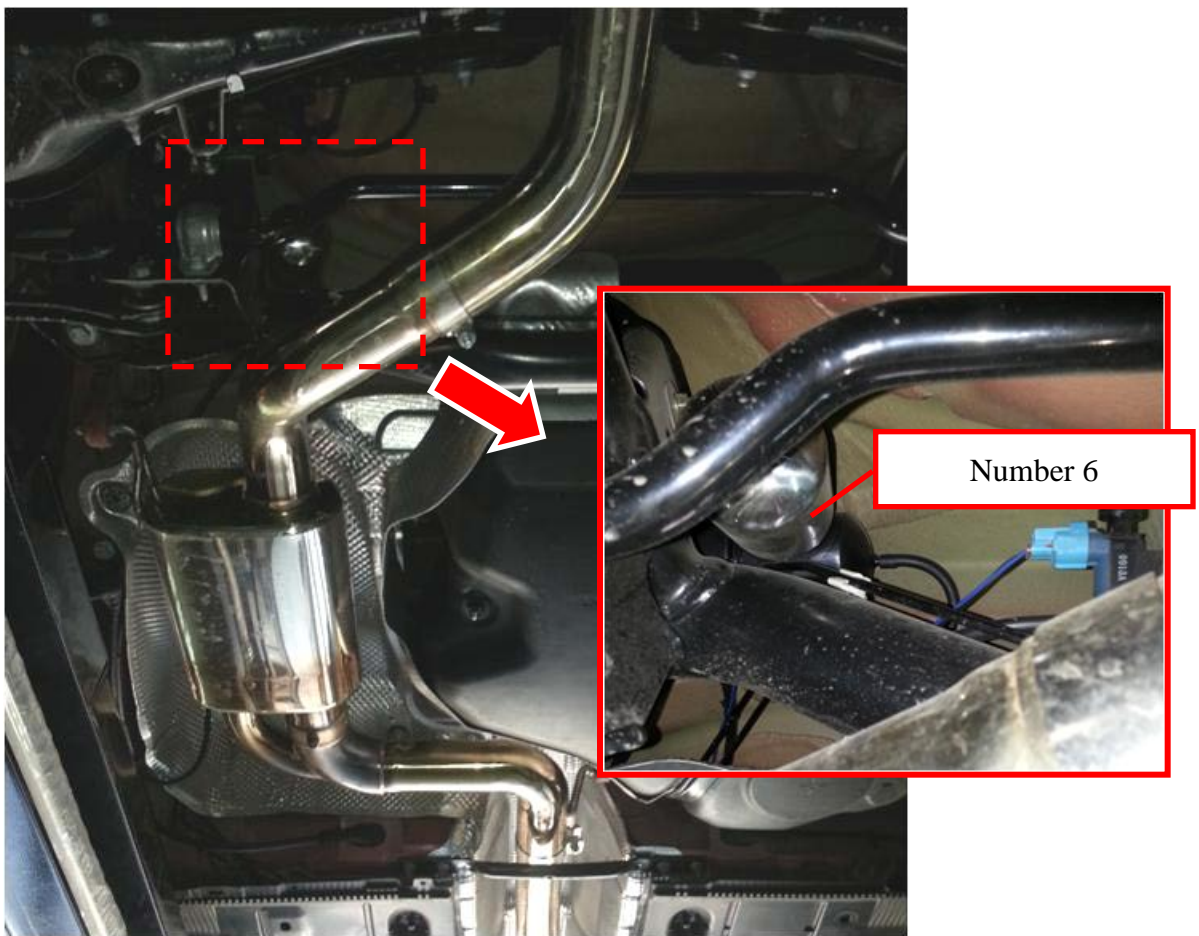


- (3) Disassemble the original vacuum tube and install the tee tube (number 7) and pressure tube (number 9) provided by IPE and then connect them according to the following figure. Please pull other pressure tubes to be in the vicinity of the predetermined position for the pressure tank (number 6).



Please connect the one-way valve (number 9) behind the pressure tube (number 9).

- (4) Search a proper place to install the vacuum pressure tank (number 6) around the valve of the cylinder body.

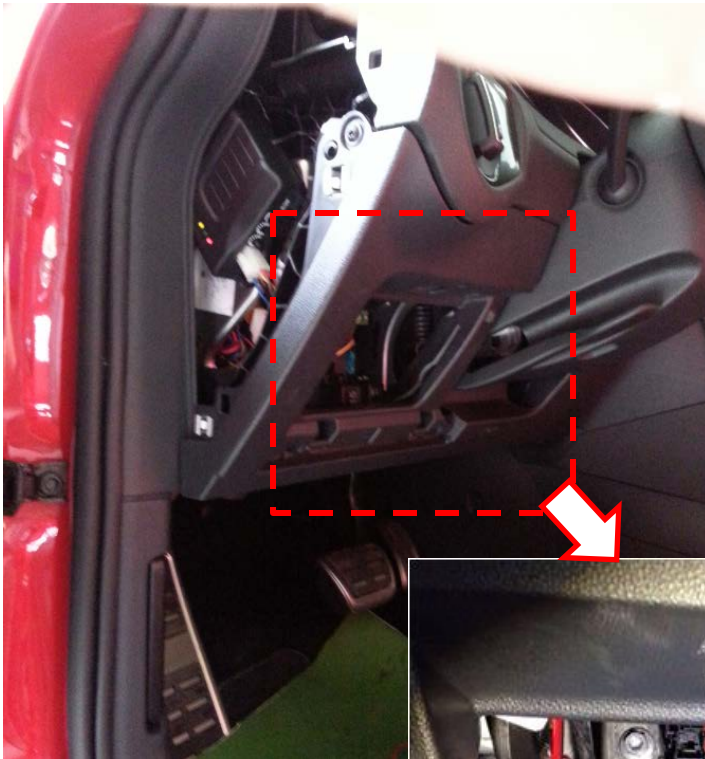


(5) Connect the vacuum pipeline of the exhaust valve.

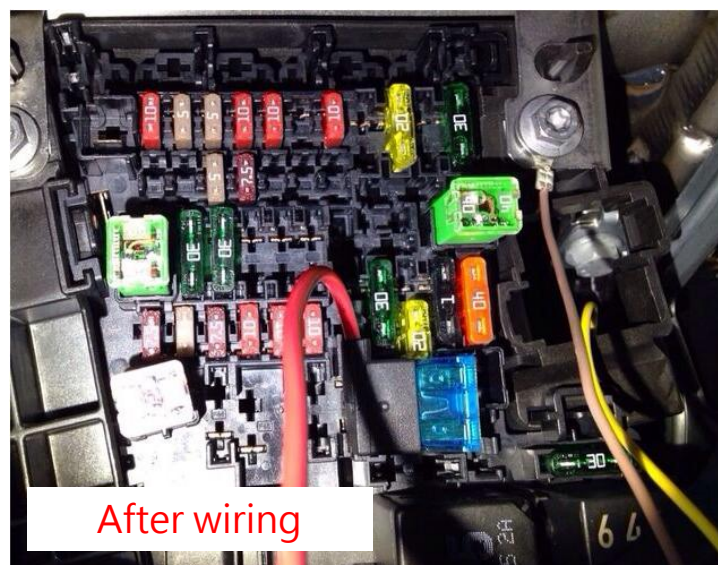


2. Install the circuit of the control box.

- (1) Find the fuse box in front of the driver seat (about at your left knee).



- (2) Find out the No.47 (15A) +15 positive electricity (key on results in positive electricity, key off will not result in positive electricity) wire. The power supply point related to the key control is a choice.
- (3) Find the ground point and connect the brown wire to the ground point.



- (4) Find the accelerator signal wire (white blue wire) around the accelerator pedal and connect it to the yellow wire (number 1) of the control box.



- (5) Connect the electromagnetic valve power wire (blue black/dual wire) of the control box to the electromagnetic valve (number 6).



~ The installation of the valve control box is finished. ~

3. The setting instructions of the valve control value

Set the accelerator pedal voltage; the voltage is corresponding to the action that the exhaust valve opens. Calculation formula : $V3 = (V2 - V1) \times 0.6 + V1$ (Suggested accelerator depth is 60%) + V1

