



Innotech Performance  
Exhaust

# Installation Manual

For Brand & Make :  
Volkswagen GOLF R MK7

Version 1

Date : 2015/03/26

[WWW.IPE-f1.com](http://WWW.IPE-f1.com)

## Preface

This document contains installation instruction for fitment of IPE exhaust system, with related settings and operation.

### Important Message

IPE developed this exhaust system as an improvement to the original system, Therefore, there will be no difference from the original vendor after installation. In many vehicle model, there is an inductive power supply function between the car key and the car. For safety, the car key should be kept away from the vehicle with a distance of at least five meter.

The exhaust on a car immediately after being driven still has a high temperature. For safety, please wear heat insulating gloves when replacing the exhaust, or wait until the temperature has decreased to avoid burns.

When the valve is set to open automatically, do not let the valve open too early to prevent resonance generation. The opening of the valve is recommended to be set to 60% of throttle position

IPE exhaust has been designed according to the engine data of the original vendor. If the horse power of the engine is increased through a computer upgrade, obvious resonance in conjunction with this exhaust could occur. IPE can also provide modified exhausts for such vehicles. Please contact us for further details.

# Tool needed

Star groove wrench E10



Star groove wrench  
T45 T60



Allen Wrench



Outer hexagonal  
wrench  
8mm 、 10mm  
13mm 、 15mm



Lubricant/Rust  
remover



Torque wrench



Torque Wrench



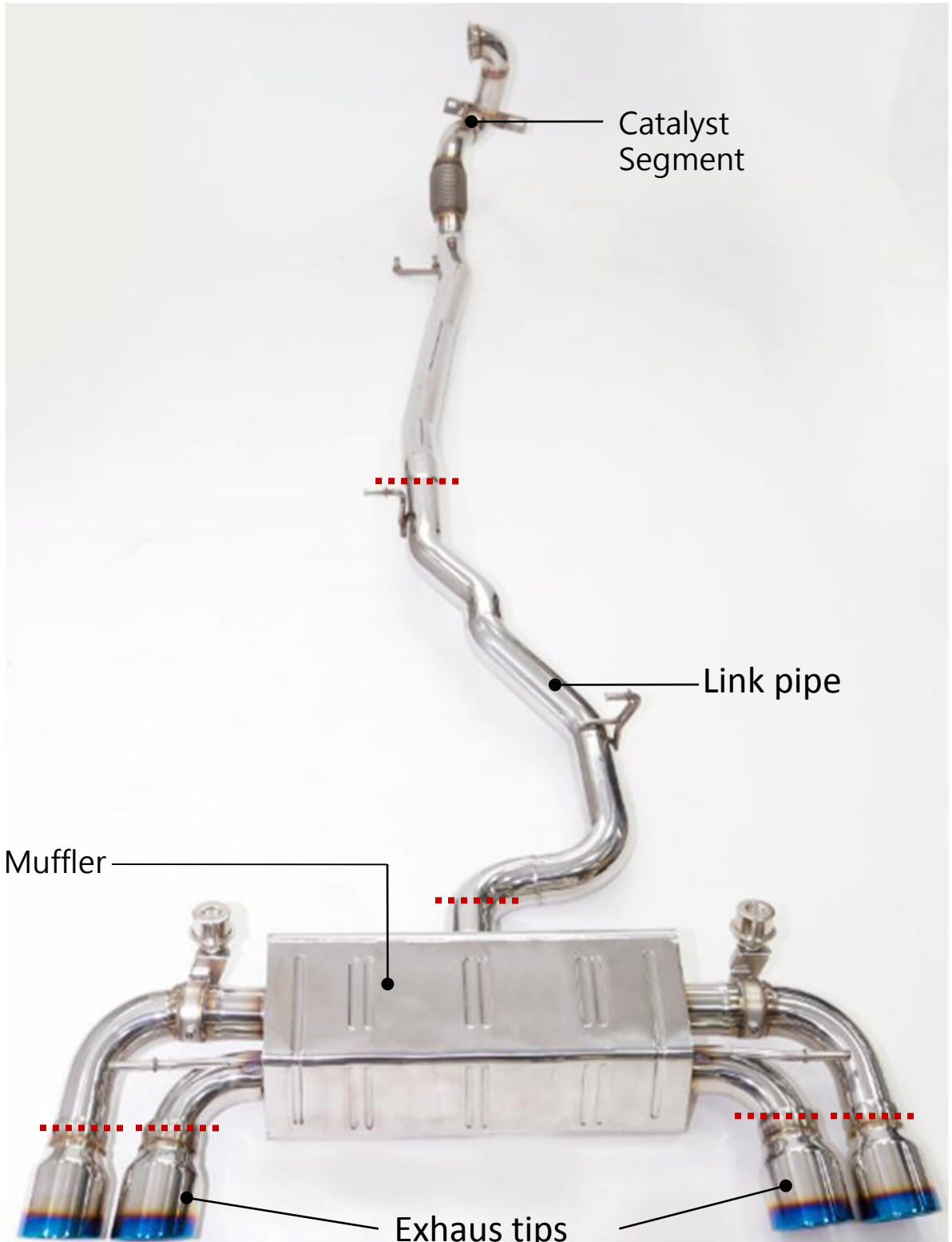
Transmission jack



# iPE GOLF R MK7 Exhaust

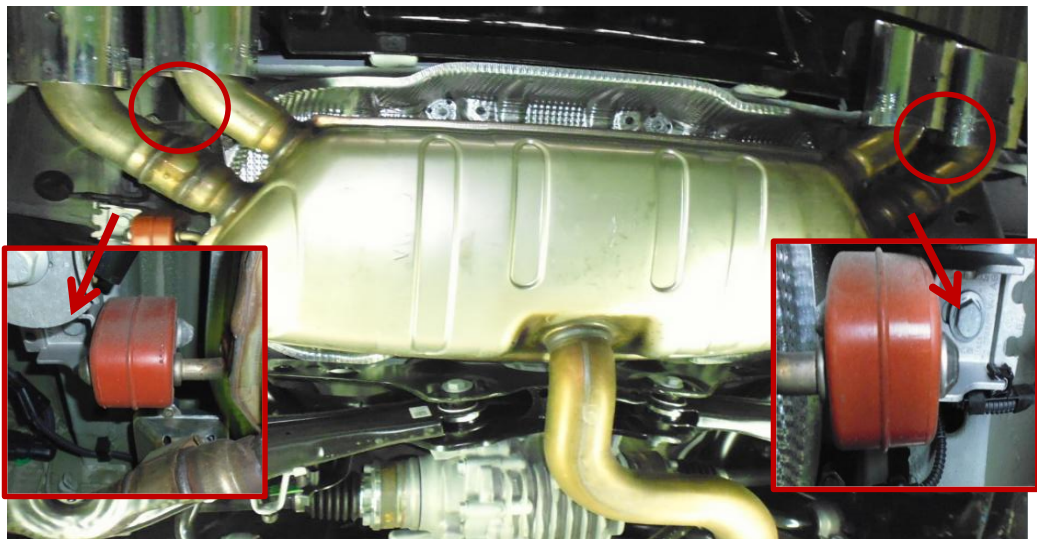


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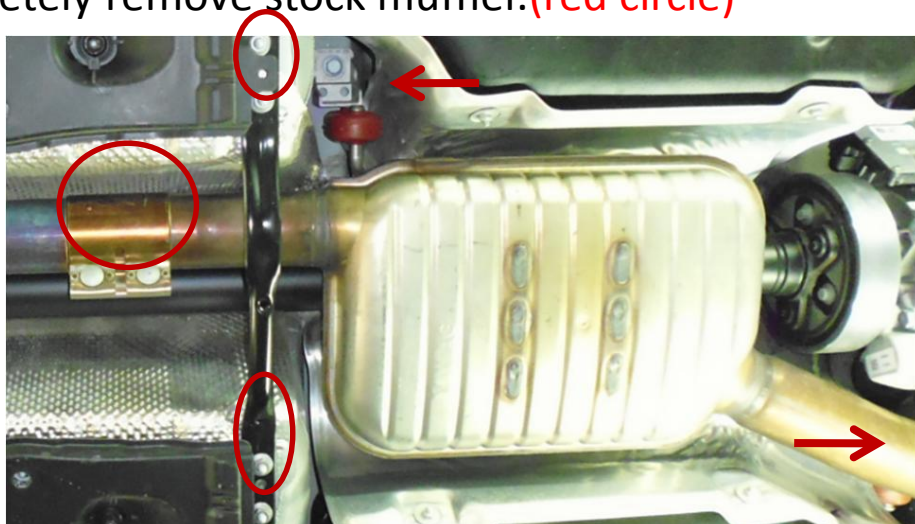


## 1、 Stock exhaust demount & important notes

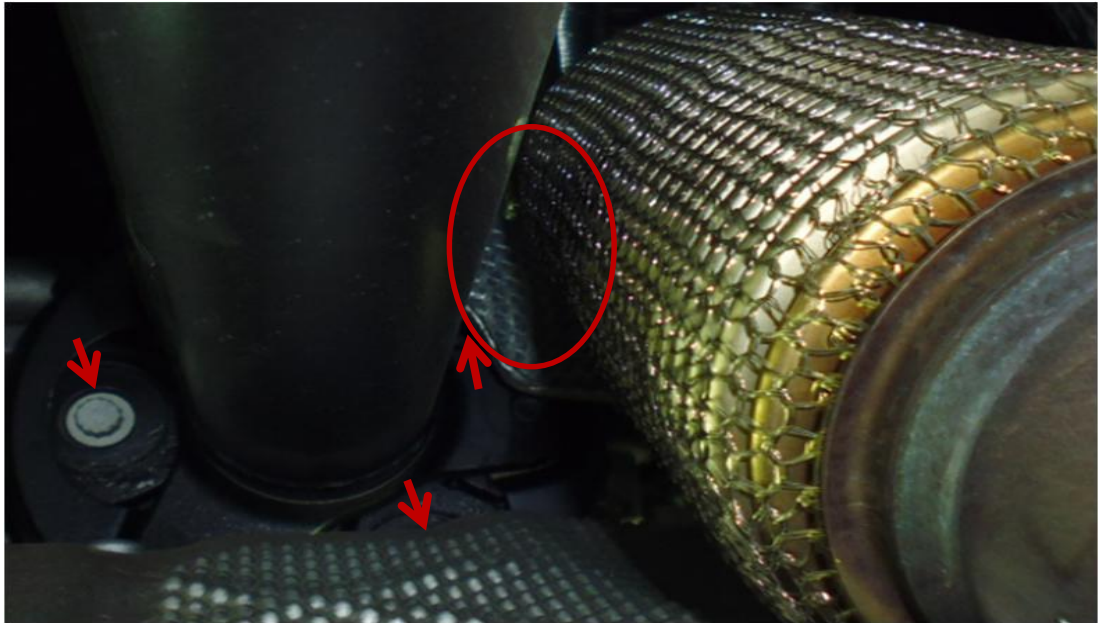
1. Remove the stock valve plug (red arrow)
2. Use Transmission jack to support muffler and use 13mm Outer hexagonal wrench to remove both hangar seats beside the muffler. (red arrow)



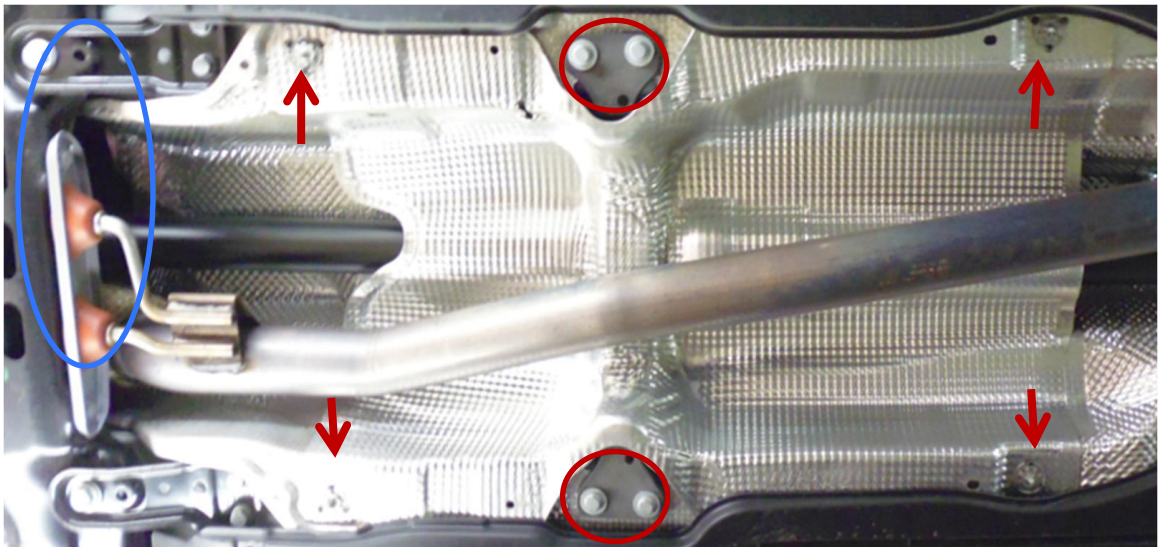
3. Use 13mm Outer hexagonal wrench to remove stock sliding bush. (big red circle)
4. To remove both left and right side hangar seat for completely remove stock muffler. (red circle)



5. Use H8 Allen Wrench to remove drive shaft lid **ipe**  
(Red arrow in diagram) WWW.IPE-f1.com
6. Use ring spanner to remove drive shaft (red circle)



7. Remove aluminum heat shield
8. Use 13mm Outer hexagonal wrench to disassemble drive shaft bolts (red circle) and exhaust hangar (blue circle)



10. Use H6 Allen Wrench to remove turbo side band clamp  
(1-5 diagram).

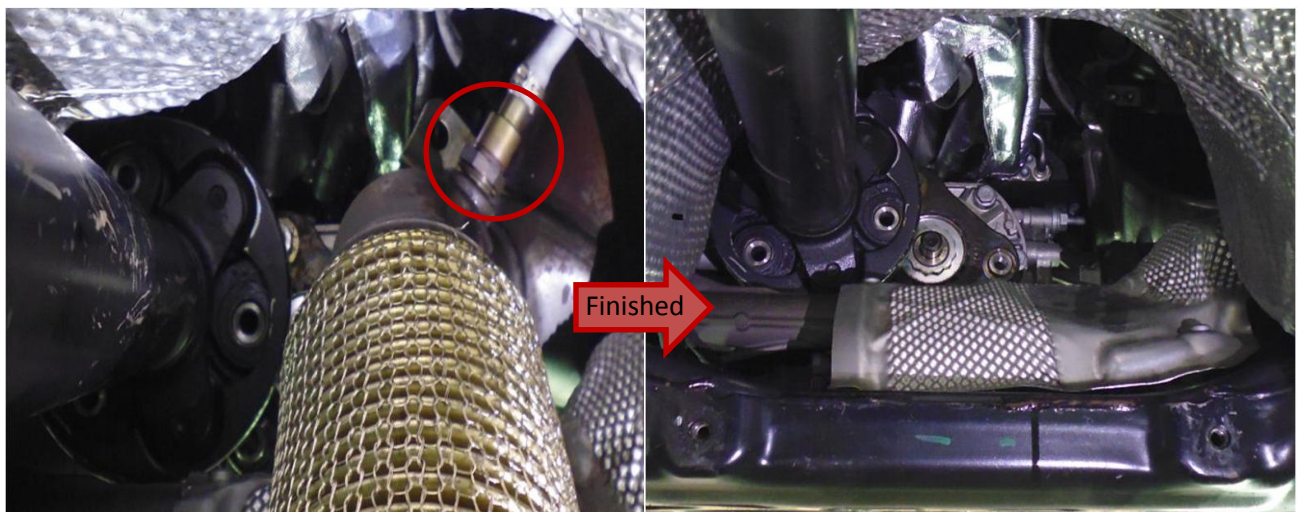
11. Use 13mm Outer hexagonal wrench to remove two  
mount aside the stock catalyst(1-6 diagram).



1-5

1-6

12. Disassemble O2 sensor by 22mm Outer hexagonal  
wrench(1-7 red circle), and move drive shaft to other side  
13. Remove stock catalyst from the down side.



1-7

1-8

## 二、 iPE exhaust installation and notes

1. To assemble IPE exhaust and O2 sensor(2-1 red arrow).
2. Move back drive shaft and use M10 12 ring spanner to assemble back(2-1 red circle) ◦
3. Use 13 mm Outer hexagonal wrench to assemble drive shaft and heat shield back (2-1 blue circle).

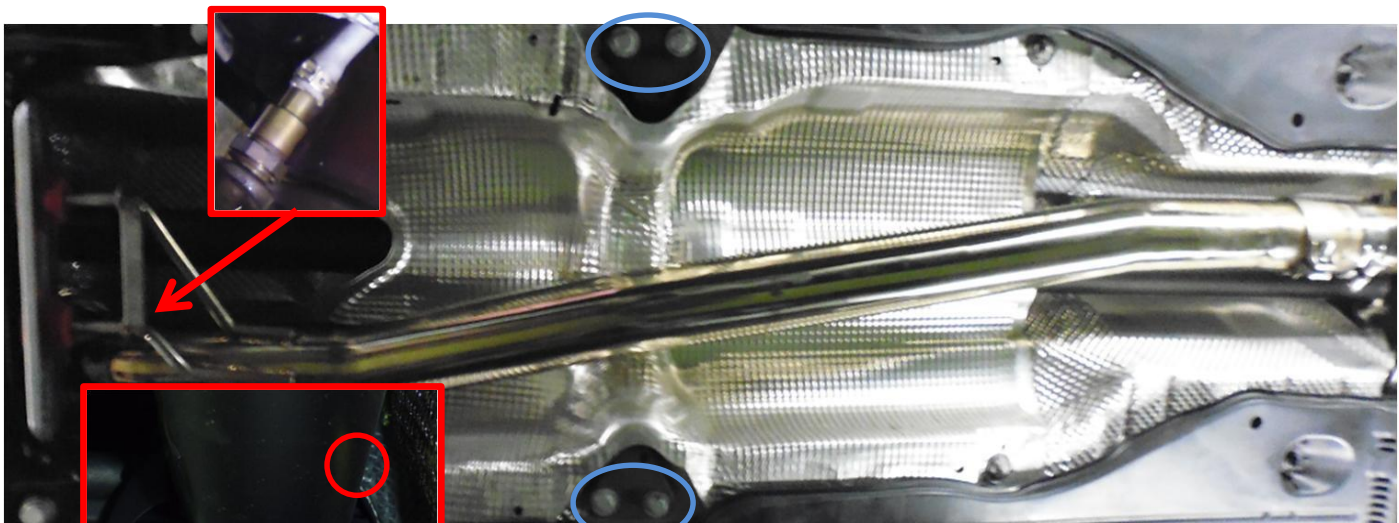


Diagram 2-1

4. Use H6 Allen Wrench to assemble turbo side band clamp
5. Use 13mm Outer hexagonal wrench to assemble bot side screws of catalyst (red arrow).



Diagram 2-2

※ notice : when installing exhaust , better keep at least 15mm gap between car body and exhaust. Adjust auto chassis heat shield if necessary.



- 6. Use 13mm outer hex wrench to secure mid-silencer (2-3 red circle).
- 7. Use 13mm outer hex wrench to secure fixed beam(2-3 blue circle).

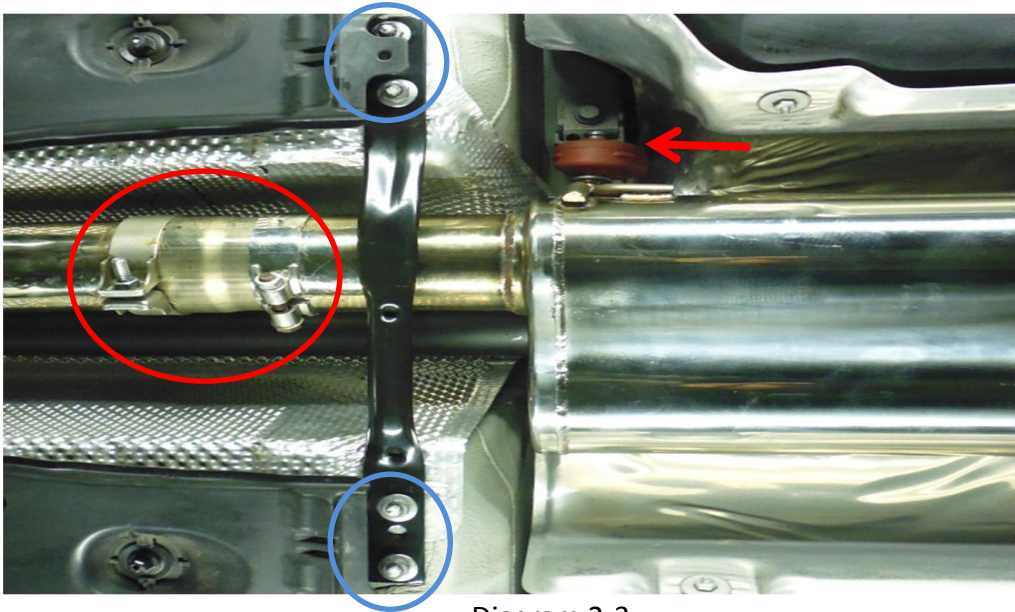


Diagram 2-3

- 8. Use 13mm outer hex wrench to remove stock muffler hangar, replaced by IPE hangar by 13mm outer hex wrench (2-4 red arrow).
- 9. Secure link pipe on muffler intake side by 13mm outer hex wrench(2-4 red circle).

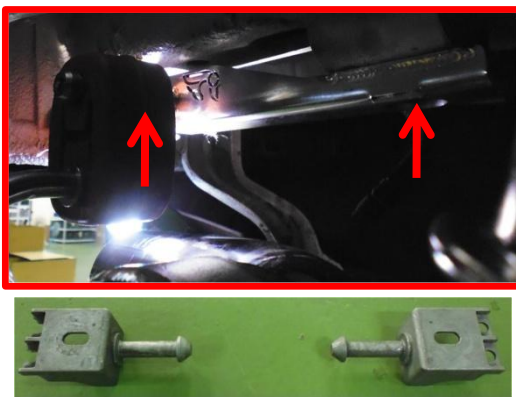


Diagram 2-4

10. Secure IPE exhaust tips by 13mm outer hex wrench(2-5 red arrow)

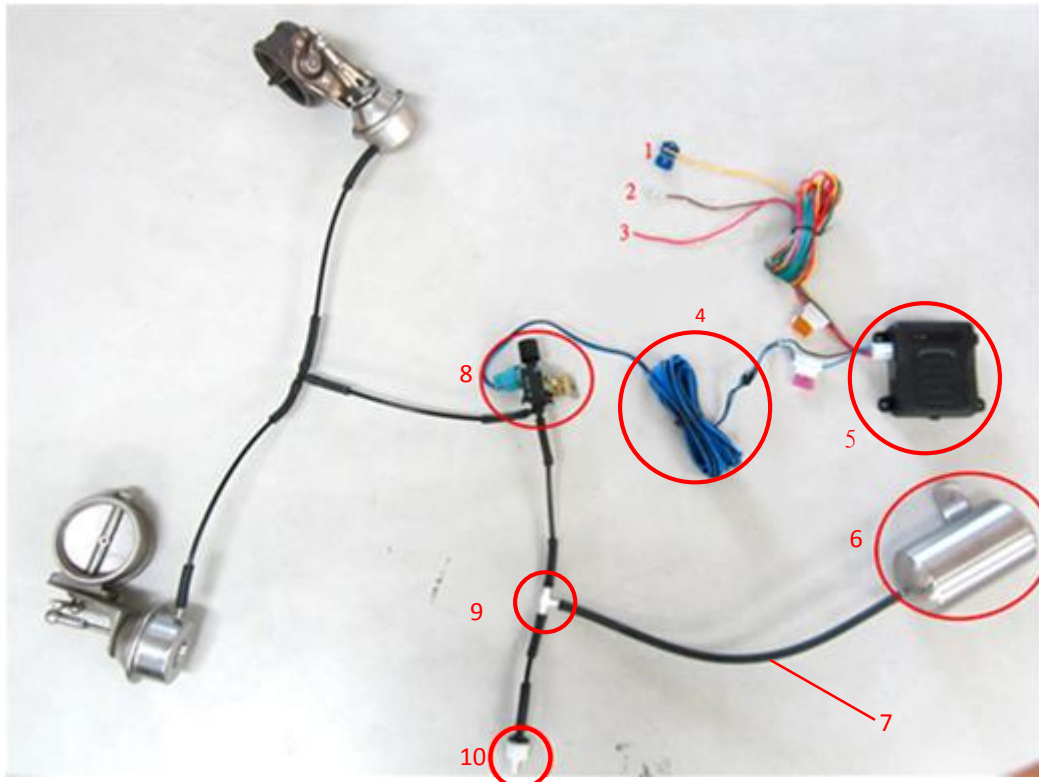


Diagram 2-5

※ Keep about 10mm-15mm gap between exhaust tips and rear diffuser. (the 2-5 red arrow position, can be slightly adjusted, but do not do it too much).

### 3、iPE Valve control unit installation

#### Control unit components and connecting points

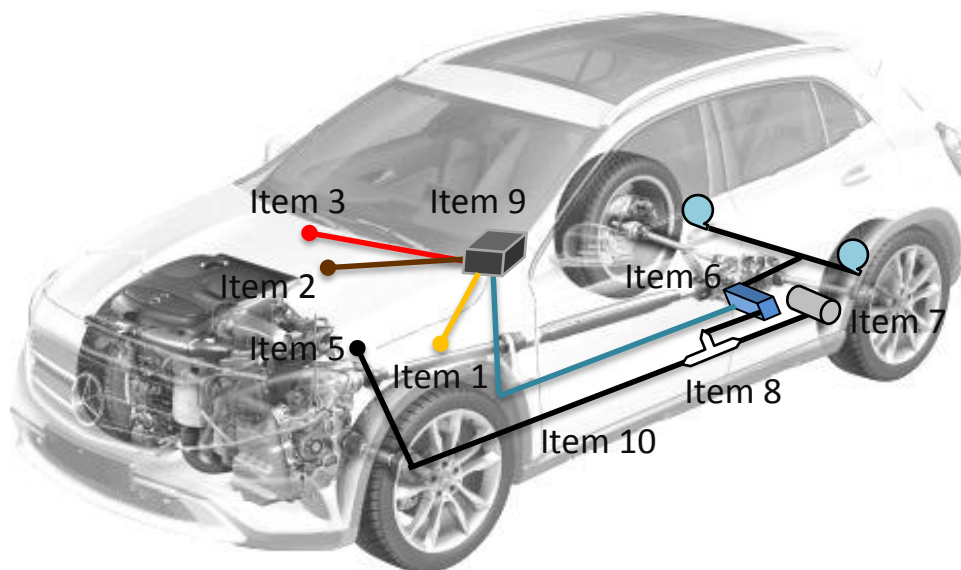


#	Description	#	Description
1	Yellow wire / Gas paddle signal wire	6	Vacuum canister
2	Brown wire / Ground wire	7	Vacuum hose
3	Red wire / power wire	8	Electromagnetic valve
4	Black blue wire / electromagnetic valve wire	9	3 way connector
5	Valvetronic control box	10	Check valve

Table 3-1

## Valvetronic control unit element distribution diagram

Power connection should follow instruction in this manual. Other hardware component could be connected according to individual vehicle specification



1. Find out vacuum unit(3-1 red circle).
2. Remove stock vacuum unit, then connect 3 way connector(3-1 red arrow).

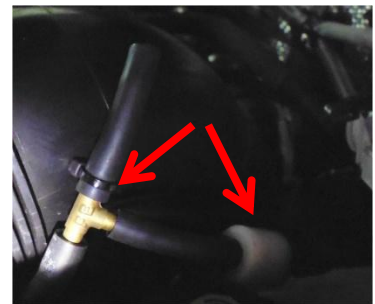
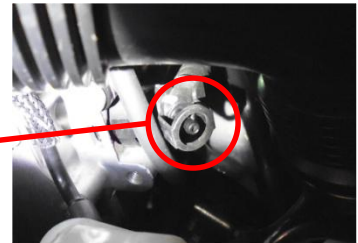


Diagram 3-1

3. Secure electronic magnetic valve and vacuum canister behind both sides of differential mechanism(3-2 red circle).

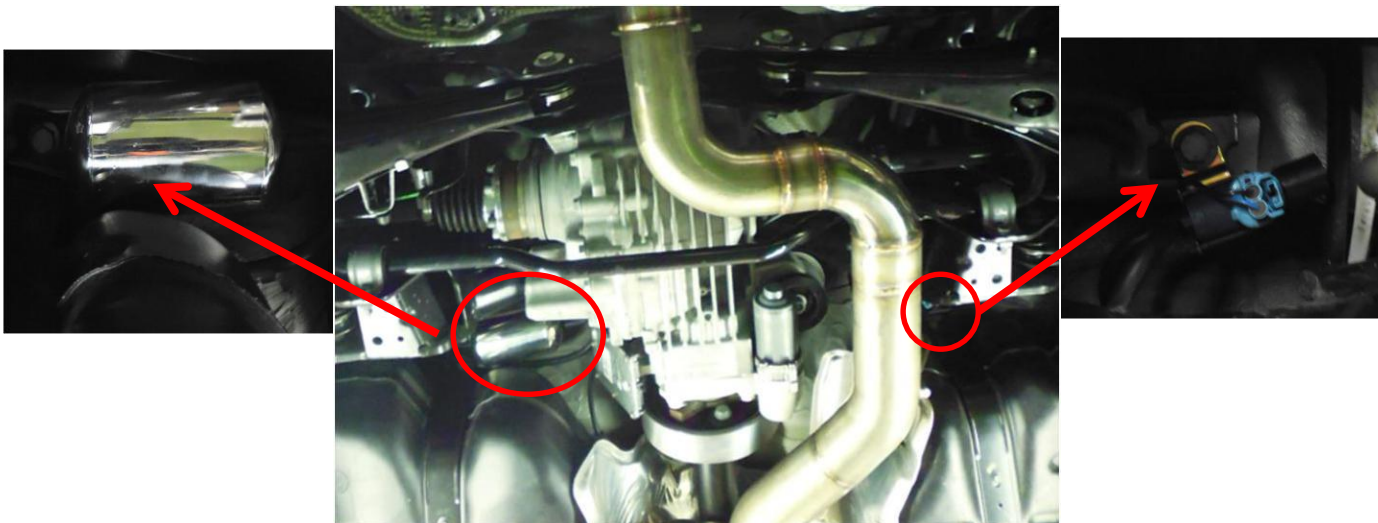


Diagram 3-2

3. Electronic magnetic valve wire alongside the car chassis into reserved hole of steering column into operator seat(3-3 red circle).



Diagram 3-3

4. According to table 3-1, no.1 yellow wire, connect with white blue gas paddle signal wire #4(red arrow).

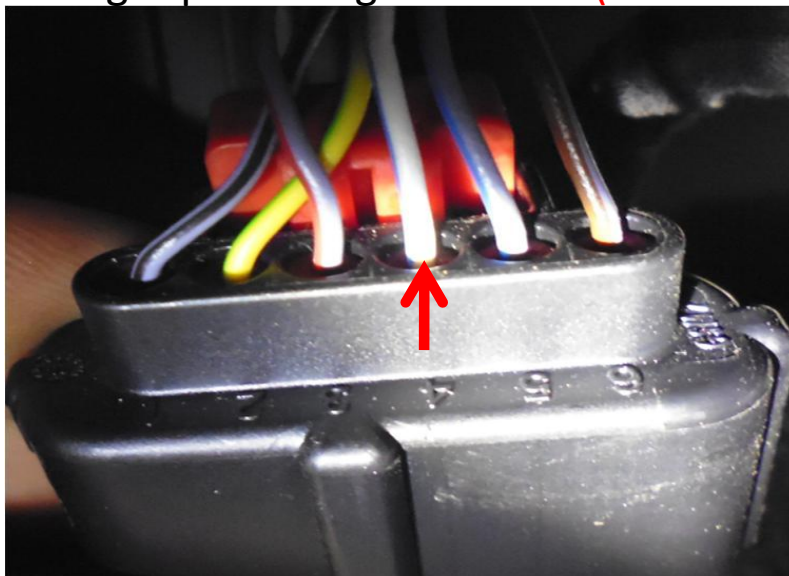


Diagram 3-4

5. Look Table 3-1, #3 red wire, connect to bottom left of operator seat(3-5 red circle).

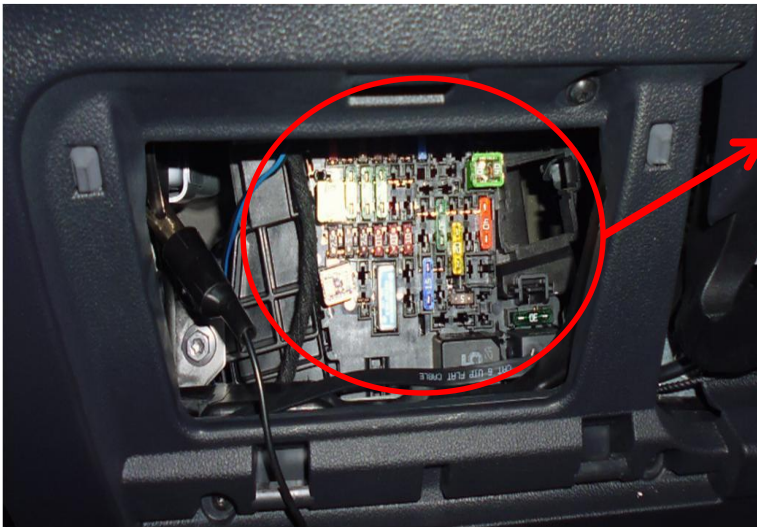
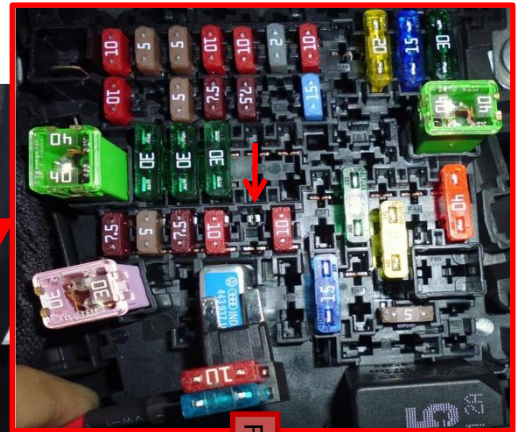
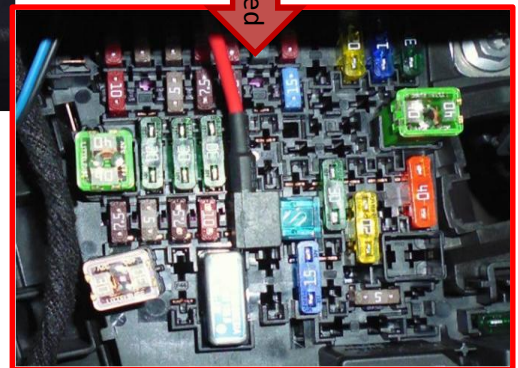


Diagram 3-5



Finished



6. Look table 3-1, #2 brown wire, connect to the screw on the left side of fuse wire(3-6 red circle)

