

Innotech Performance
Exhaust
Vehicle exhaust system
technology

## Product Installation Manual

Applicable model: Mercedes Mercedes Benz CLS63

WWW.IPE-f1.com

Version 2

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#### **Preface**

This document explains installation procedures that relates setting and operation methods for the exhaust sold by IPE.

#### **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.



#### Installation Processes:

The product for Benz CLS63 include three import step. This product install more fast and smoothly job that we suggest two mechanics to do installation job.

	Working Content	Estimated time
1	Remove stock exhaust	2.5 hour
2	Install IPE exhaust system	2.5 hour
3	Install control box and wire set.	2 hour
Total time		7 hour



## 操作過程中所需的工具



Hex Wrench 6mm





Star grove wrench E10 \ E12 \ E14





Open end hexagonal wrench



12mm \ 13mm

15mm \ 22mm



**Torque wrench** 



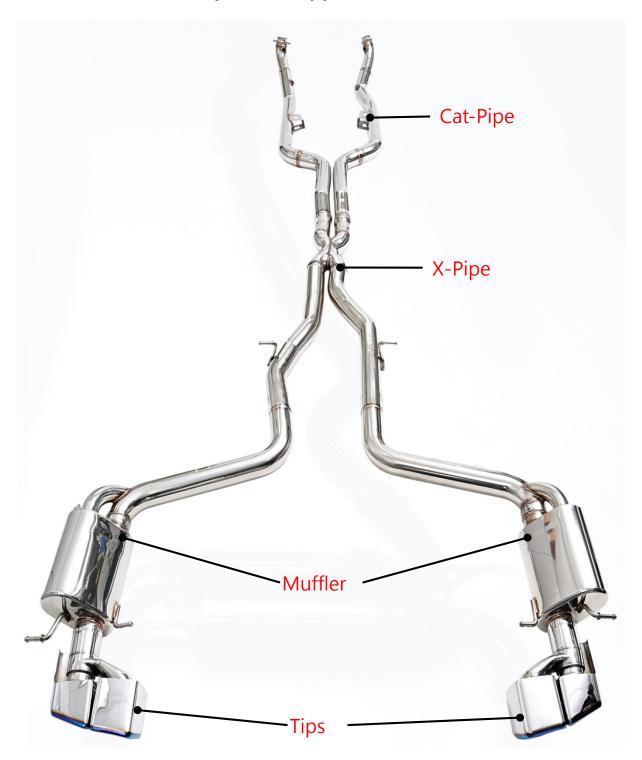


Anti-rusting oil





## iPE CLS 63 Assembly of product appearance





# Step 1: Removal of the original exhaust pipe

The procedure of low protection spoiler dismantling

1.Demounting mid-pipe clamp by 13mm wrench(pic1-1 red circle 2.Demounting muffler lug(pic 1-1 arrow.)

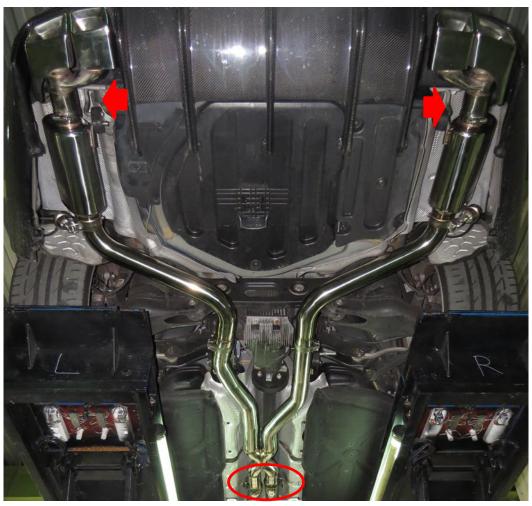


圖1-1

## Removing catalytic converter section

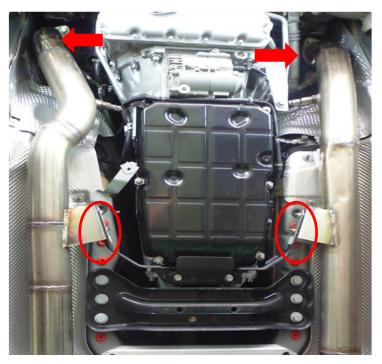


3. Demount rear O2 sensors by 22mm wrench Pic.1-2Red Arrow



Pic 1-2

- 3. Remove header by 13mm wrench Pic.1-3Red Arrow
- 4. Remove casing support by 10mm wrench Pic.1-3Red circle



Pic 1-3

~Above stock exhaust demounting completed ~

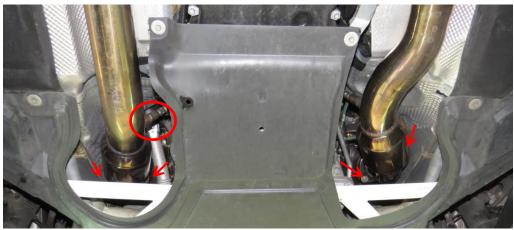
## Procedures and related points of iPE



#### **Exhaust installation**

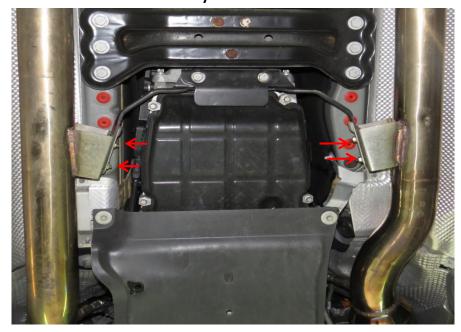
#### Procedures for header

- 1. Fasten clamp by 13mm wrench. Pic.2-2 Red Arrow
- 2. Fasten rear O2 sensor by 22mm wrench pic 2-1 Red Circle



Pic 2-1

3. Mount fixation by 10mm wrench Pic.2-2 Red Arrow

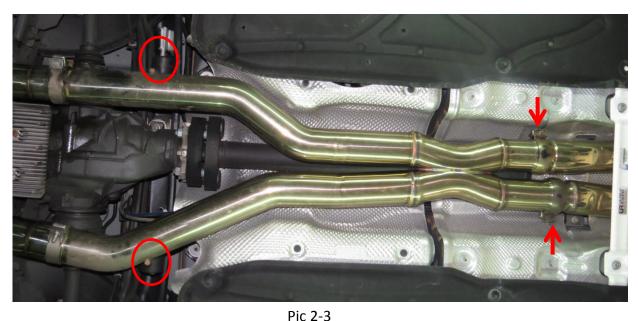


Pic 2-2

## Procedures for X-Pipe

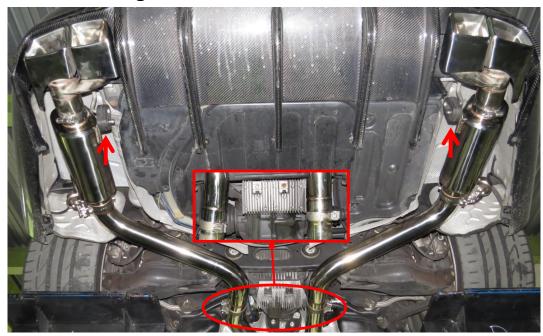


- 4. Mount hanger pic 2-3 Red Circle
- 5. Mount header and fasten clamp by 12mm wrench pic 2-3 Red Arrow



Procedures for mufflers

- 6. . Use 13mm outer hexagonal wrench to install the muffler to fixation pic 2-4Red Circle
- 7. Fix muffle hangers Pic2-4 Red Arrow





## Tips installation Process

8. Putting on tips and adjusting the space about 10mm, then locking with 13mm wrench Pic 2-5 red narrow





Pic 2-5

It's required to confirm whether the tips gap greater than 5mm. Adjustment method begins at step 6.

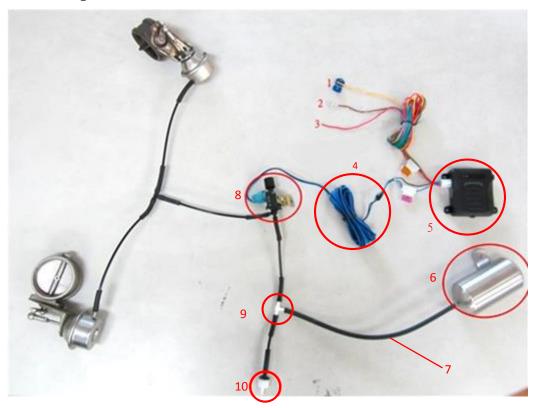


~ iPE exhaust installation work has been completed ~



## iPE Valve control unit installation

Pic 3-1shows the diagram of all control components and the corresponding connections. The description for related part names is listed in Table 3-1.



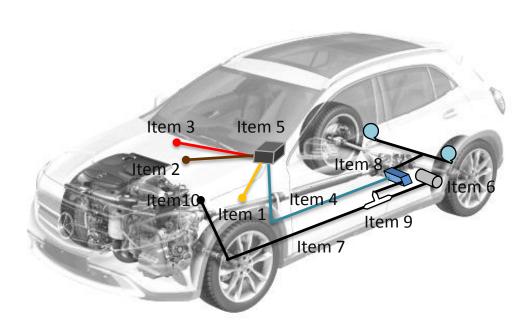
Pic 3-1

No.	Item	No.	Item
1	Yellow wire / Gas paddle pressing signal wire	6	Vacuum tank
2	Brown wire / Ground wire	7	Vacuum hose
3	Red wire / B+ wire	8	Valvetronic solenoid valve
4	Blue Wire/ electromagnetic valve wire	9	Three-way branch
5	Valvetronic control box	10	One-way valve



## 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.



## Control Box Line Installation Process



1. Opening the top of the engine compartment fuse box and connecting the red line(+) table 3-1 no. 3 across 15A fuse Pic 3-2 red narrow





Pic 3-2

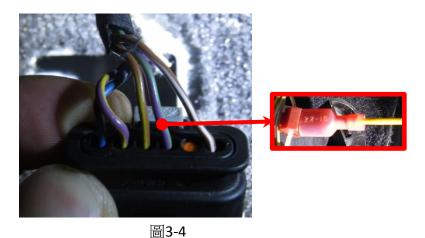
Suggesting to use multimeter to recognized in the key ON energized the fuse

2. Using 10mm outer hexagonal wrench to lock brown line(-) table3-1 no.2 on negative electrode Pic 3-3 red narrow





3.After dismantling accelerator pedal plug, connecting yellow line table3-1 no.1 to accelerator pedal signal 4(yellow & black line) pic 3-4



## Procedure of vacuum source

4. Use three way solenoid connect the vacuum source to the reservoir pressure and electromagnetic valve.(pic 3-5)

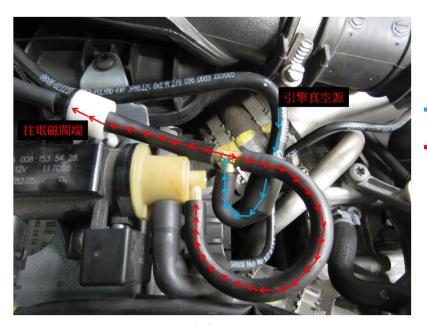


圖3-5

Original vacuum lin

IPE extra vacuum lir



#### 8.Pulling Solenoid valve control line table 3-1 no.4 from the engine compartment inside the car Pic 3-6 red circle $\,^\circ$





Pic 3-6