



iPE Exhaust

Automotive exhaust system engineering

Porsche

991 S & 4S

Product installation instruction

Version:1

2015/06/15

WWW.IPE-f1.com

Introduction

This document is used to explain the installation process of the exhaust pipe by iPE, settings and operation methods. Include five processes, and the time required for the process shown in Table 1-1. Time required is based on an experienced technician with an assistant.

Table 1-1

No.	Content	Estimated time
1	Remove the original exhaust pipe	2hrs
2	Install the iPE exhaust system	2hrs
Total		4hrs

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

Tools for the installation



Star socket

T 30 · T 25



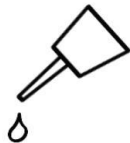
Outer hex wrench

10mm · 12mm

13mm



Torque wrench

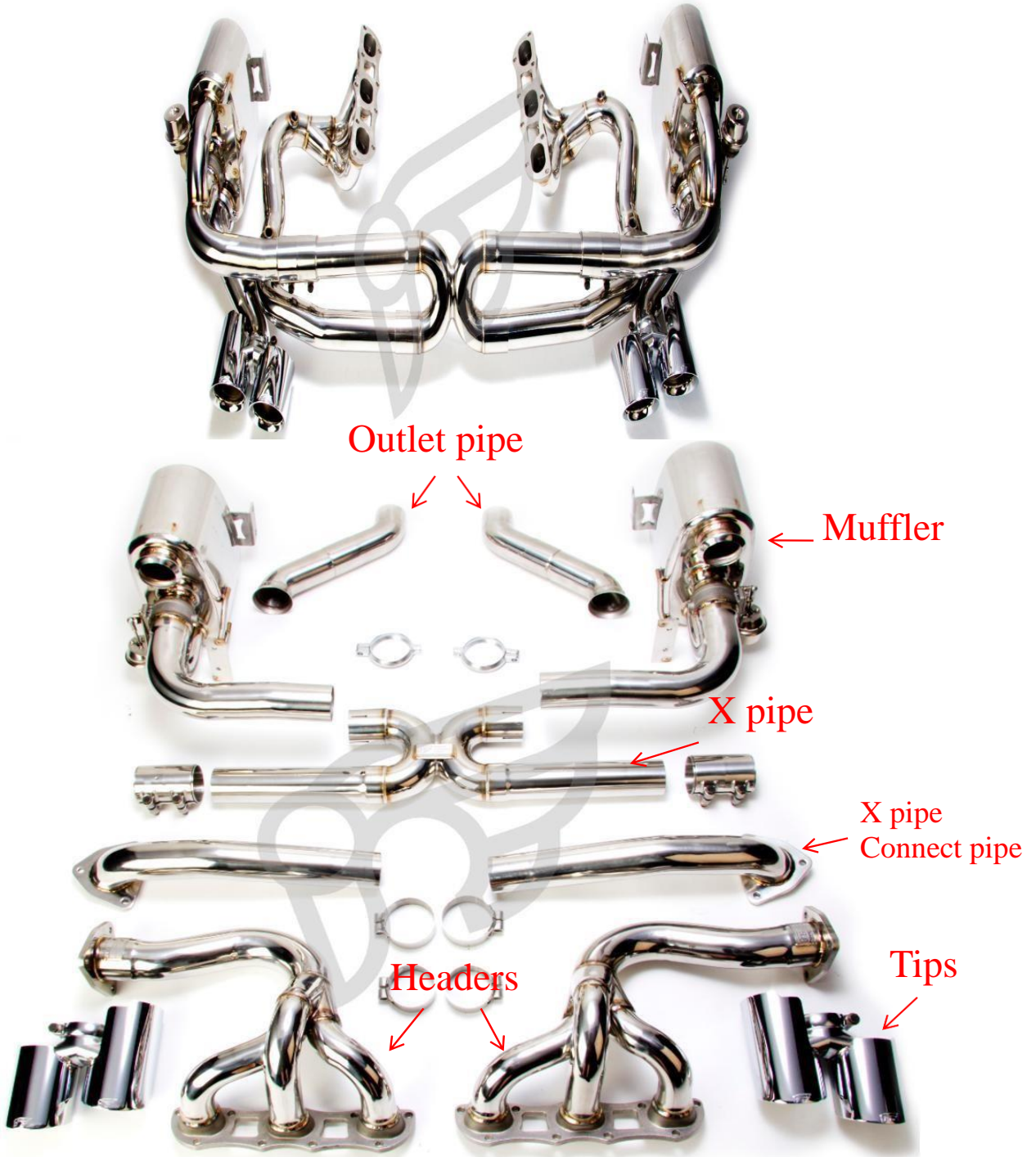


Rust Preventive spray



Porsche 911 S

Product assembly appearance



(1) Remove the original exhaust pipe

Cat pipe remove process

1. Remove the left and right oxygen sensors of the header exhaust by using 13mm, 22mm wrench and E14 star wrench. The wrench removes the red circle. (Fig1-1, 1-2)

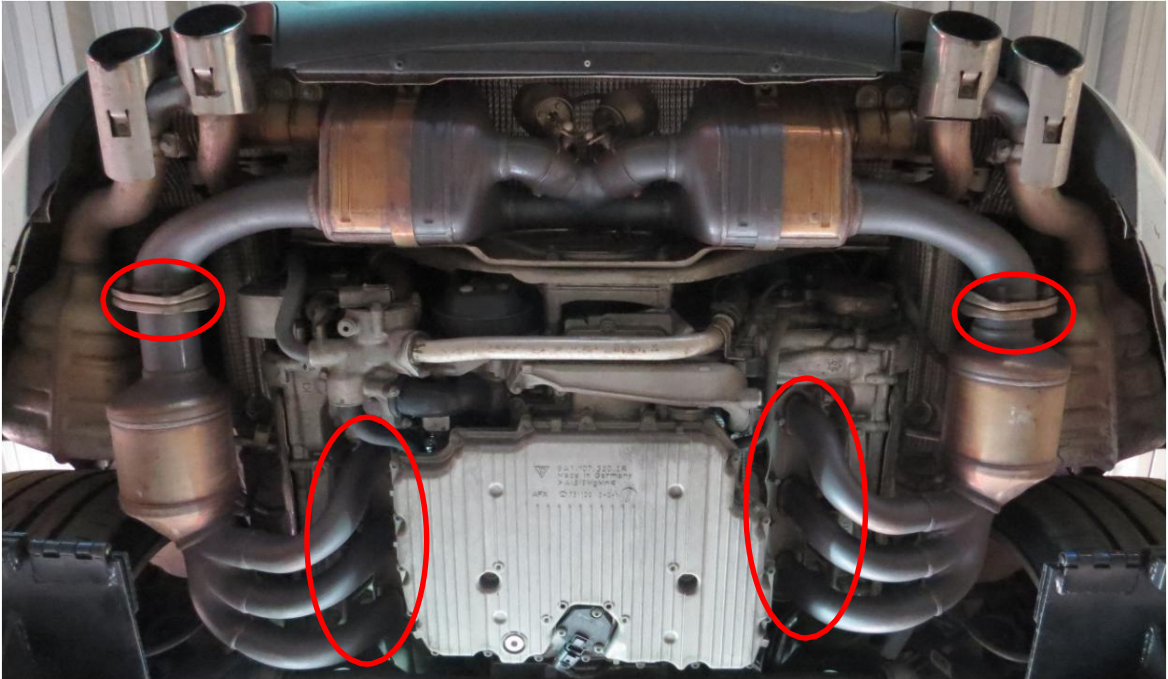


Fig 1-1

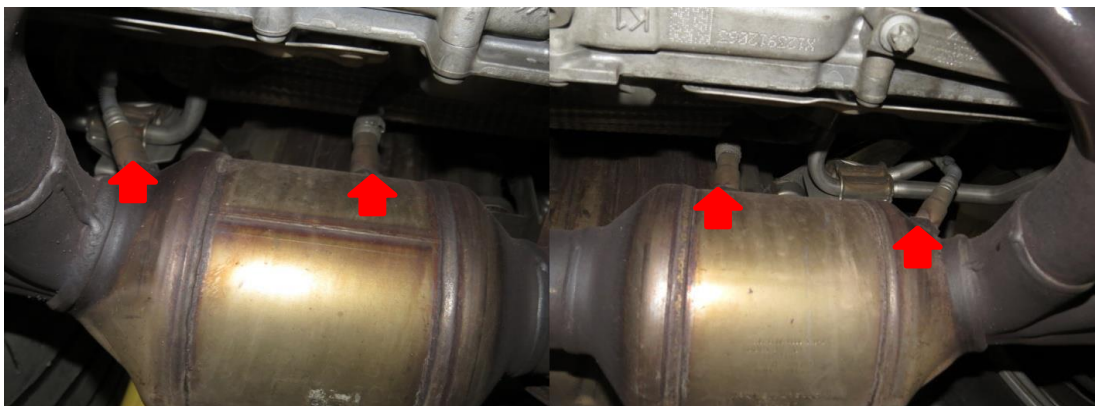


Fig 1-2

X pipe move process

2. Use the E14 star wrench to remove the left and right tips. (Fig1-3)

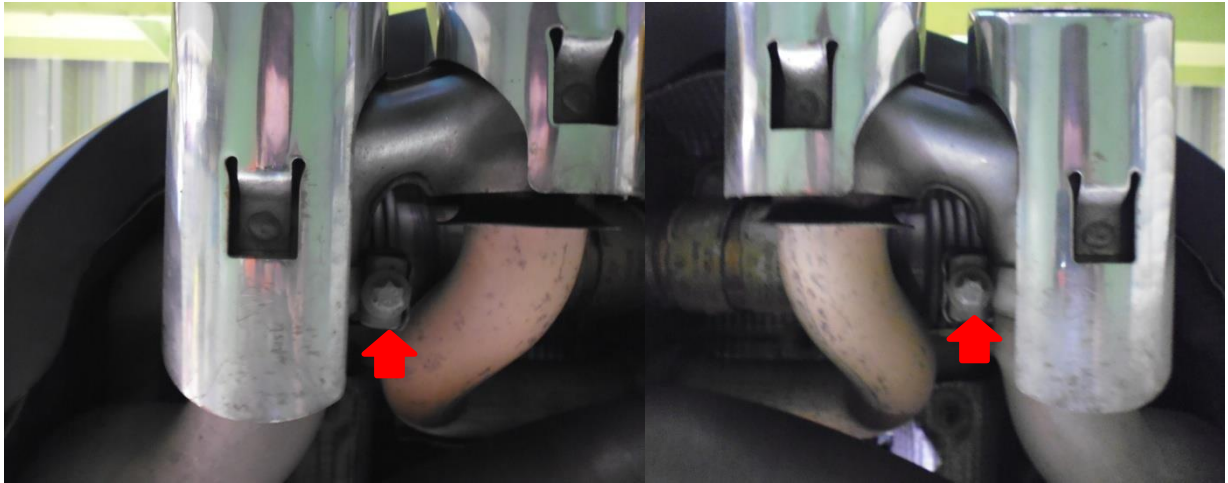


Fig 1-3

3. Use the 13mm wrench to remove the left and right sliding bushes of the muffler. (Fig1-4)
4. Remove the original vacuum source from the red circle. (Fig1-4)

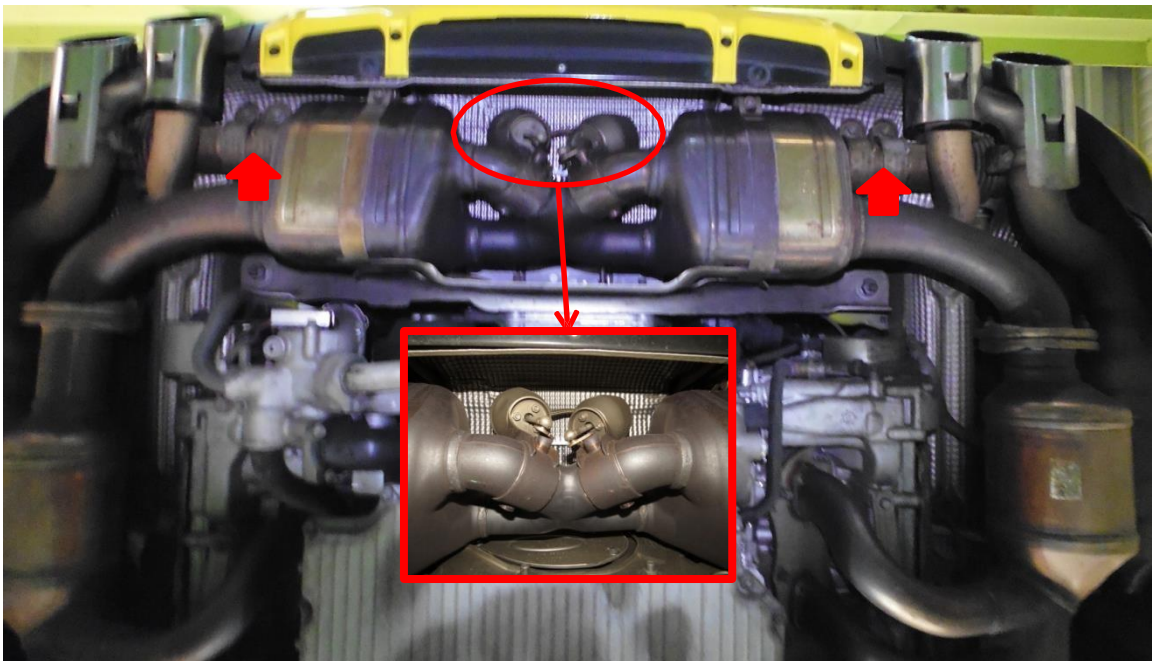


Fig 1-4

5. Use the 6mm hex wrench to loosen the left and right clamps on the muffler. (Fig1-5)
6. The muffler can be removed after moving the clamps out of the fixed rack. (Fig1-6)



Fig 1-5

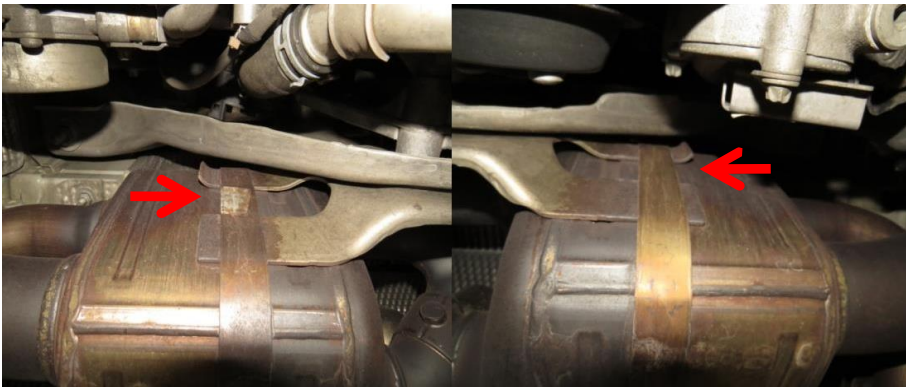


Fig 1-6

7. Use the 13mm hex wrench to remove the left and right muffler fixed rack. (Fig1-7)

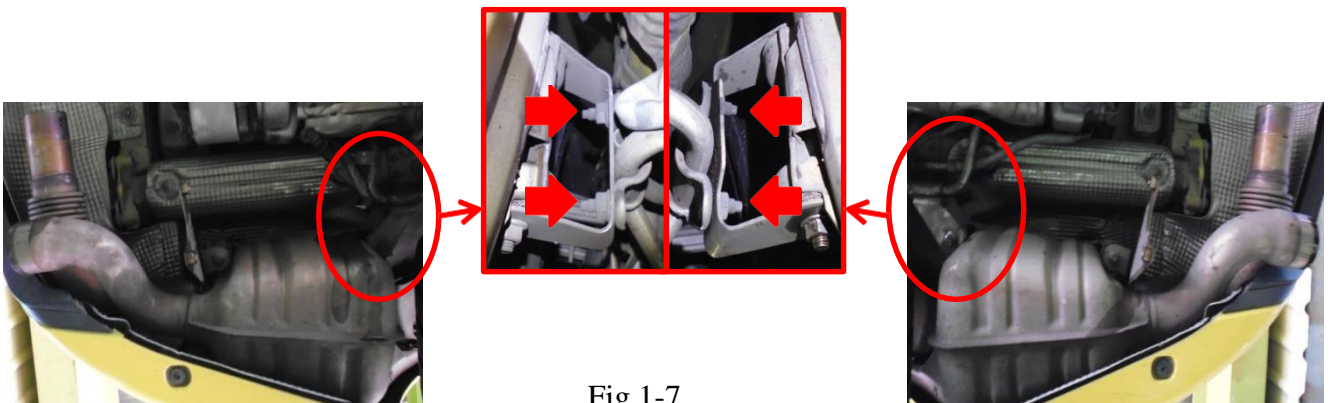


Fig 1-7

~ Completed the original exhaust pipe removal~

(2) Install the iPE exhaust system

Muffler install process

1. Assemble the left and right muffler parts on the ground first where showed in red circles. (Fig2-1)

※ The screws and screw shafts of accessories will continue to use the OEM※

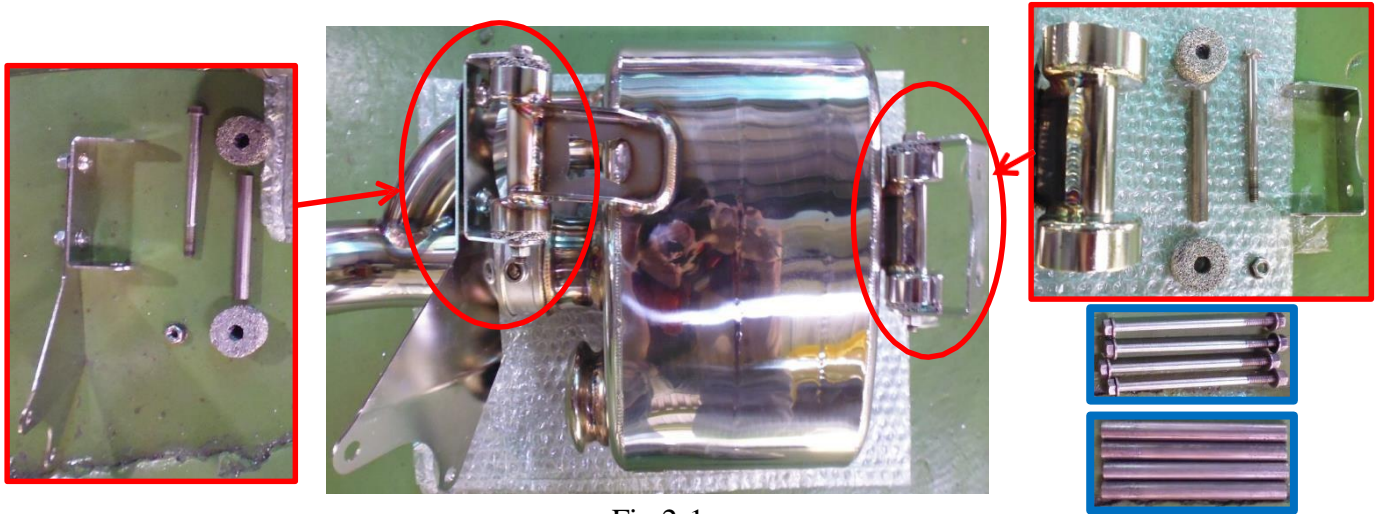


Fig 2-1

2. Use 13mm wrench to lock the left and right muffler fixed rack. (Fig2-2)

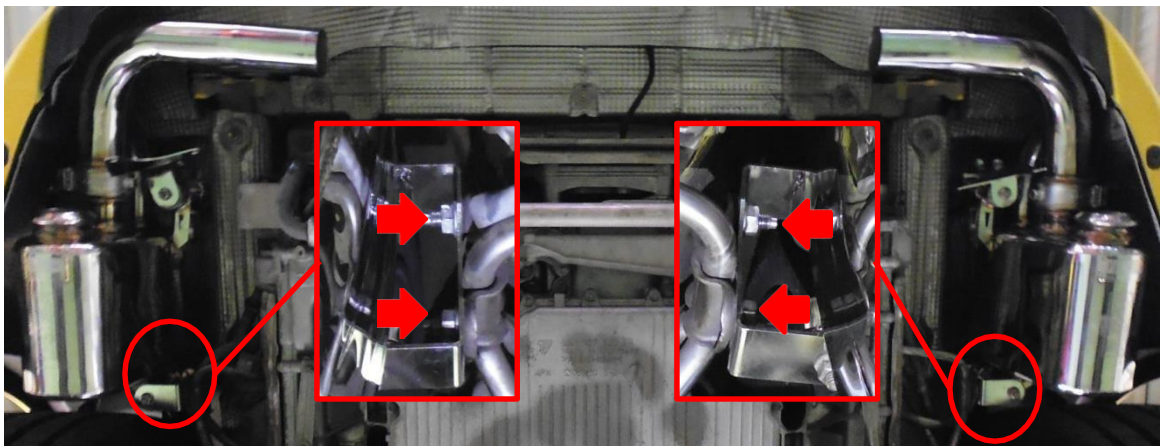


Fig 2-2

Headers install process

3. Use the E14 star wrench to lock the left and right headers exhaust. (Fig2-3)
4. Lock the front and rear oxygen sensor with 22mm wrench. (Fig2-3)

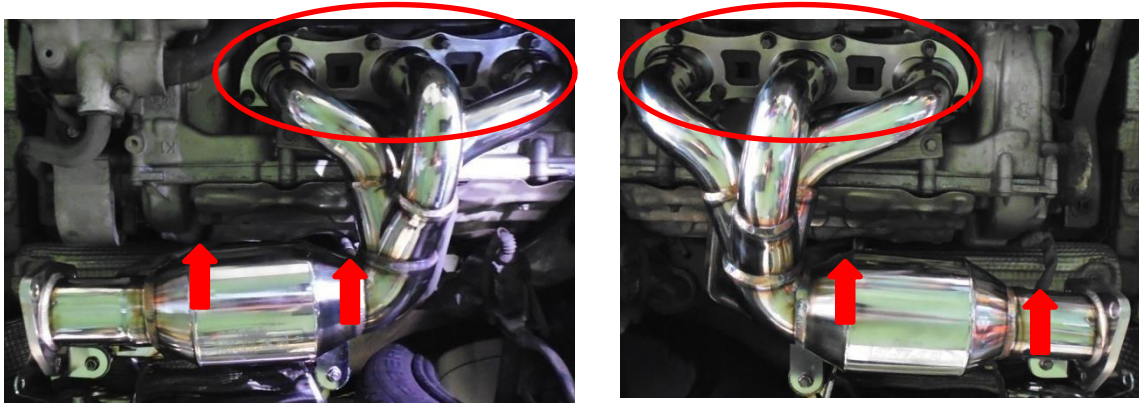


Fig 2-3

X pipe install process

5. Fix the X pipe and the muffler with sliding bushes and lock it with a 13mm wrench. (Fig2-4)

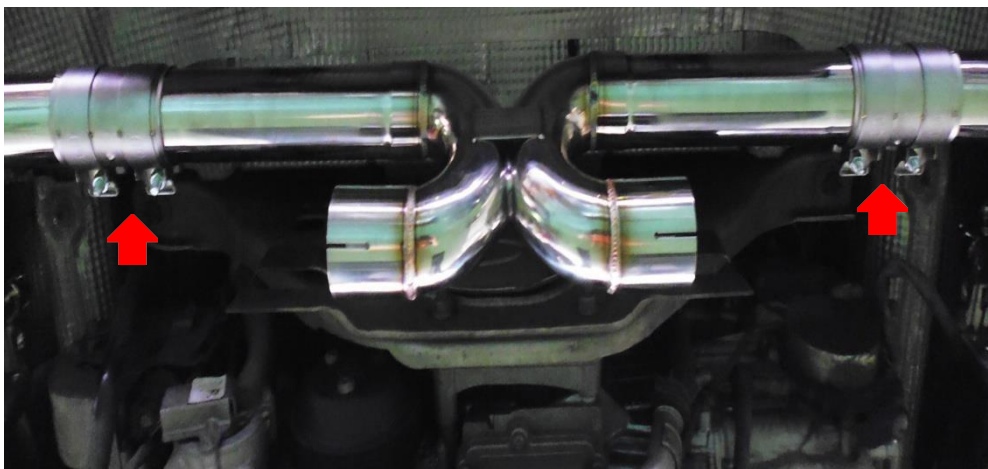


Fig 2-4

6. Lock the muffler using a 13mm hex wrench and install the muffler fixed rack. (Fig2-5)
7. Use a 13mm hex wrench to lock the clamps. (Fig2-5)

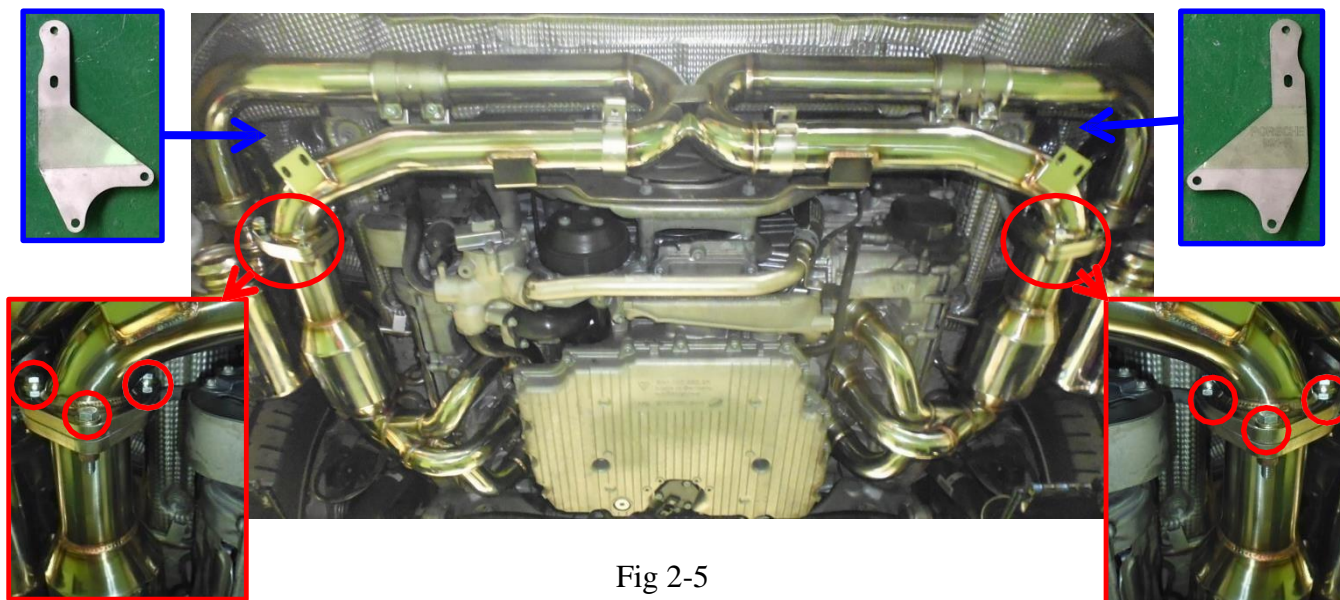


Fig 2-5

8. Install the tips and fix it with 6mm hexagon wrench. (Fig2-6)
9. Use a 13mm hex wrench to lock the clamps.(Fig2-6)

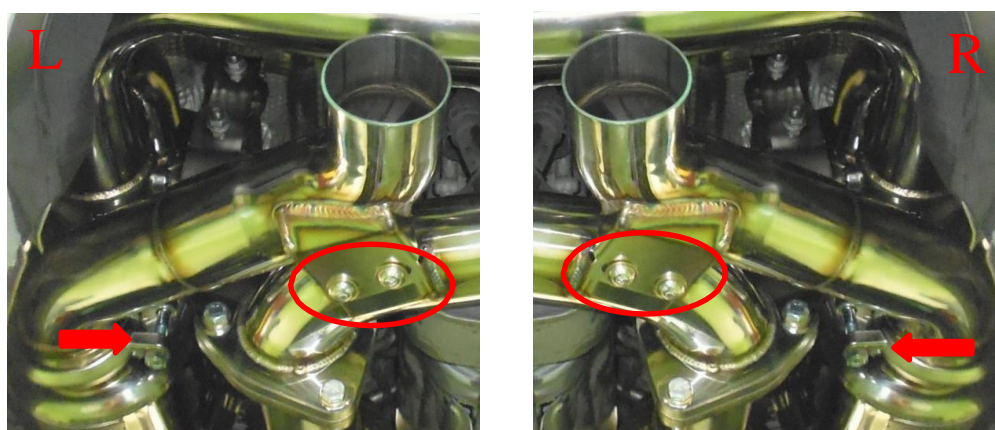


Fig 2-6

※ The tips fixing piece needs to be located at the red circle in figure 2-6, and the left and right are not shared ※

10. Lock the X pipe fixing clamps with 13mm hex wrench. (Fig2-7)

- ※ The X pipe can be attached to the original bracket and fixed with clamps ※
- ※ The X pipe position must be compared with the center position before locking. ※

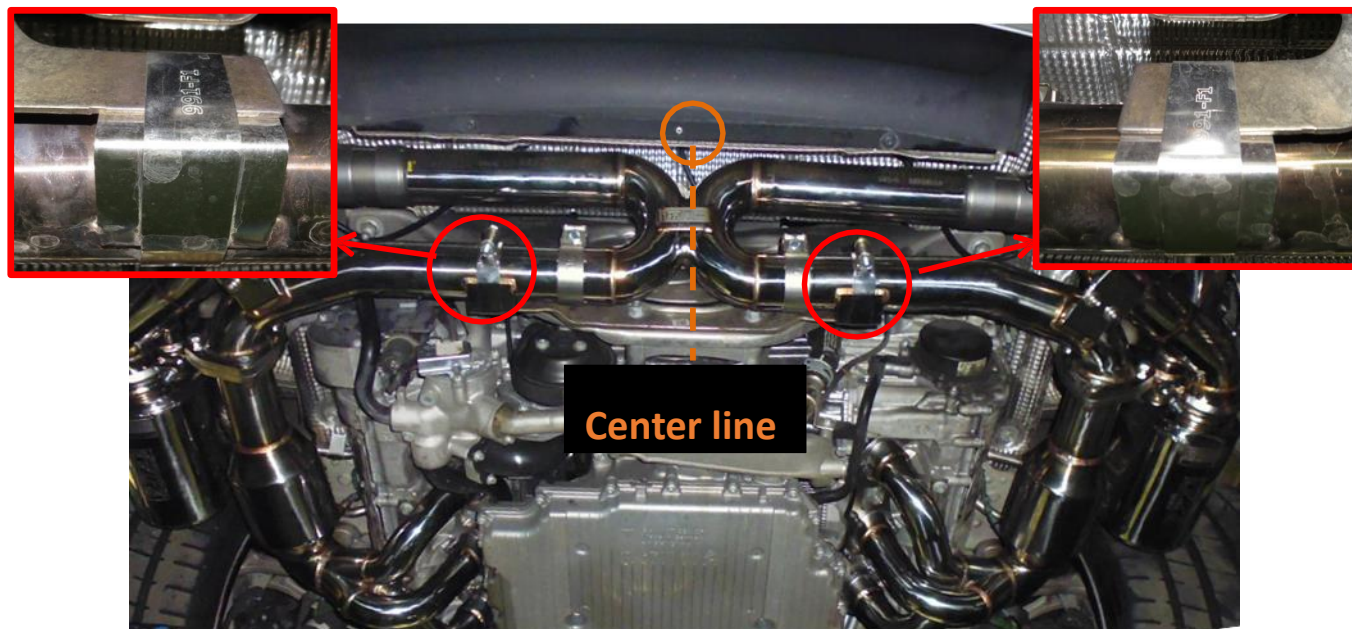


Fig 2-7

11. Install the tips and lock it with 13mm hex wrench. (Fig2-8)

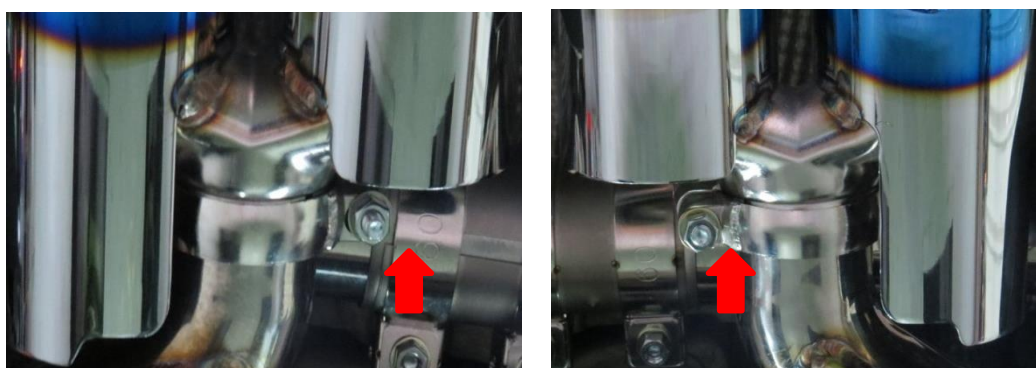


Fig 2-8

12. The original vacuum tube is connected to the left and right valves using a three-way connector. (Fig2-9)

The vacuum tube must be careful not to be too close to the exhaust pipe to avoid hardening and cracking. It can be extended from the inside of the original aluminum partition to the left and right valves. Each interface must be fixed with a strap to avoid vacuum leakage.

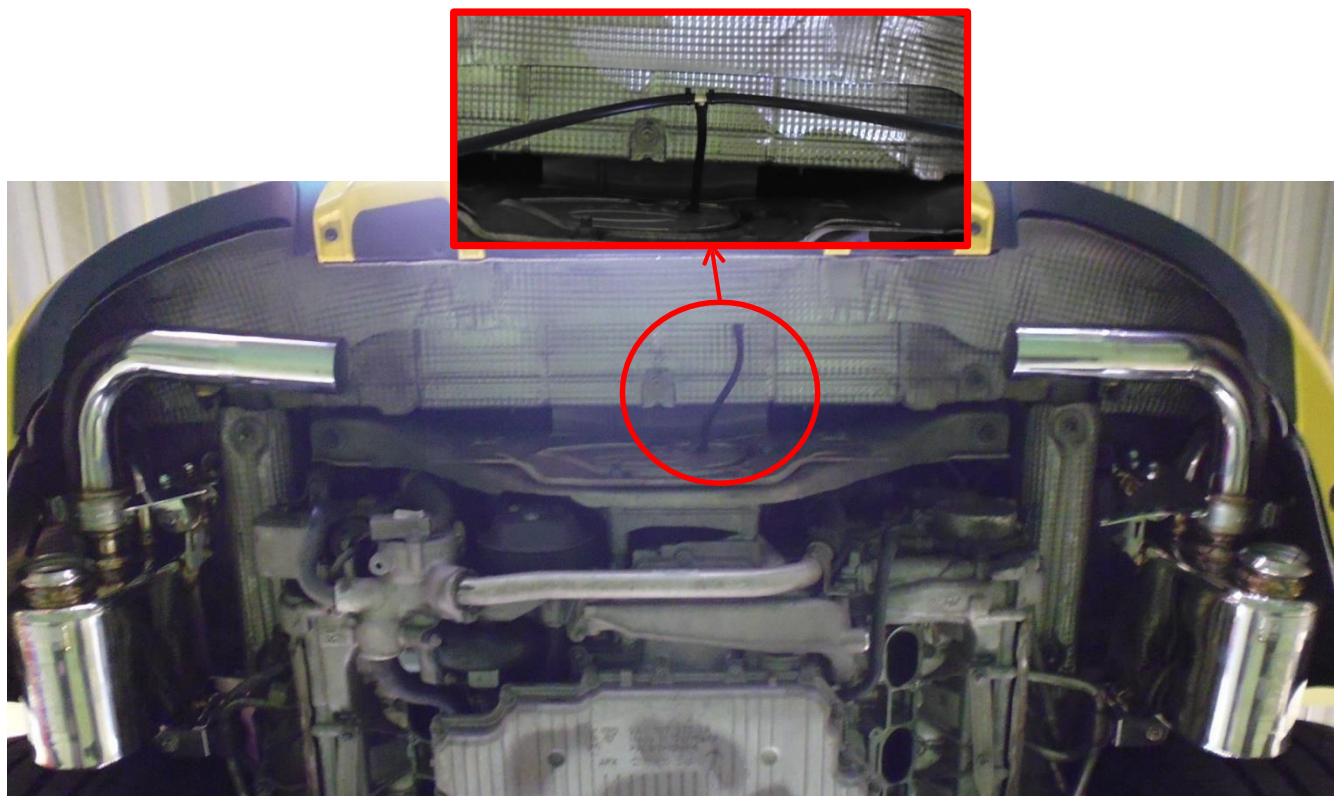


Fig 2-9

~ Completed the iPE exhaust pipe install~