



## INSTALLATION MANUAL

Installation must be done by a professional.

Read this manual prior to the installation.

Always have access to this manual as well as a factory service manual.

※ Make sure the vehicle is applicable to this kit.

PRODUCT NAME	GT2 SUPERCHARGER SYSTEM
PURPOSE	AUTOMOBILE PARTS
PART NUMBER	12001-KT004A With Flash Editor ※Only for Manual Transmission Vehicles 12001-KT004 Without Flash Editor
MANUAL NUMBER	E04215-A40053-00
APPLICATION	12001-KT004A ・ SCION FR-S & SUBARU BRZ Manual Transmission Vehicles 2012~2014/early ※Applicable vehicle's year depends on the ECU ID compatible with Flash Editor. 12001-KT004 ・ SCION FR-S & TOYOTA 86 & SUBARU BRZ 2012~
ENGINE	FA20
REMARKS	<ul style="list-style-type: none"> <li>○ HKS will not be responsible for any and all damages to the vehicle's engine or other supplemental devices through the use of this product.</li> <li>○ Modifications of the radiator support, alternator bracket, oil, oil level gauge's boss attached to the front chain cover, etc. are required.</li> <li>○ The data preset to Flash Editor is for manual transmission vehicles. The data is not compatible with automatic transmission vehicles. (12001-KT004A) Data of Flash Editor has been made based on the use of 91 octane pump gas. To use with Flash Editor, the factory data of the exhaust systems are as follows Page 4 and 5.</li> <li>○ In order to confirm the corresponding ID of the Flash Editor, please visit <a href="https://www.hksusa.com/products/12001/KT004A/3386">https://www.hksusa.com/products/12001/KT004A/3386</a> (12001-KT004A)</li> <li>○ Fuel and ignition settings are required. If neglected, the engine may be damaged. (12001-KT004)</li> <li>○ Engine oil's viscosity must be higher than 40.</li> </ul>

### REVISION OF MANUAL

Rev. Number	Date	Details
3-3.01	2018/4	1 <sup>st</sup> Edition
3-3.02	2019/6	2 <sup>nd</sup> Edition
3-3.03	2023/6	3 <sup>rd</sup> Edition
3-3.04	2025/3	4 <sup>th</sup> Edition

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## NOTICE

Thank you for purchasing HKS GT2 SUPERCHARGER SYSTEM. This manual assumes that you have and know how to use the tools and equipment necessary to safely perform service operations on your vehicle. This manual assumes that you are familiar with typical automotive systems and basic service and repair procedures. Do not attempt to carry out the operations shown in this manual unless these assumptions are correct. Always have access to a factory service manual. To avoid injury, follow the safety precautions contained in the factory service manual.

## ATTENTION

- This manual indicates items you need to pay attention to in order to install this product safely and lists precautions to avoid any possible damage and/or accidents.
- This product is an automobile part. Do not use for any other purposes.
- HKS will not be responsible for any damage caused by incorrect installation and/or use, or use after modification and/or dismantling of this product.
- This product was designed for installation on a specific factory vehicle.
- The specifications of this product are subject to change without notice.
- The instructions are subject to change without notice. Make sure to refer to the most recent instructions.

## SAFETY PRECAUTIONS

The following precautions for use of this product are to prevent possible accidents and/or injuries and for proper use.



**WARNING** Indicates risk of serious injury and/or possible death.



**CAUTION** Indicates risk of serious injury and/or possible property damage (i.e. vehicle damage from use of this product.).

# PARTS LIST

No.1

No.	Part Name	QT	Description
1	GT2 Supercharger	1	GT2-7040L
2	Supercharger Pulley	1	OD110-6PK
3	Supercharger Bracket No.1	1	Steel Plate
4	Supercharger Bracket No.2	1	Cast
5	Supercharger Bracket Spacer No.1	2	OD16×ID6×L36.2
6	Supercharger Bracket Spacer No.2	1	OD20×ID8×L52.3
7	Supercharger Bracket Spacer No.3	1	OD16×ID8×L82.8
8	Supercharger Bracket Spacer No.4	1	OD23×ID10×L10.6
9	V-Ribbed Belt	1	6PK2160
10	Intercooler	1	
11	Suction Pipe	1	
12	Suction Pipe Gasket	1	
13	Intercooler Inlet Pipe	1	
14	Intercooler Outlet Pipe No.1	1	
15	Intercooler Outlet Pipe No.2	1	
16	Blow-off Valve	1	includes 2 cap bolts M6 L=45
17	Blow-off Valve Gasket	1	
18	Traction Fluid	1	
19	Traction Fluid Tank	1	
20	Traction Fluid Filter	1	
21	Traction Fluid Cooler	1	
22	Intercooler Bracket No.1	1	
23	Intercooler Bracket No.2	1	
24	Intercooler Inlet Pipe Bracket	1	
25	Traction Fluid Filter Bracket	1	
26	Traction Fluid Cooler Bracket No.1	1	
27	Traction Fluid Cooler Bracket No.2	1	
28	Silicone Hose ID75 L83	1	2017~ Model
29	Silicone Hose ID75 L60	1	~2016 Model
30	Silicone Hose ID75 L55	1	
31	Silicone Hose ID60 L70	3	
32	Silicone Hose ID55 L43	1	
33	Silicone Hose ID50-ID60	1	
34	Silicone Hose ID22	1	
35	Silicone Hose ID12-ID18	1	
36	Traction Fluid Hose ID9	1	L600
37	Traction Fluid Hose ID8	1	L2000
38	Hose ID10	1	L200
39	Hose ID4	1	L1000

# PARTS LIST

No.2

No.	Part Name	QT	Description
40	Corrugated Tube ID15	1	L2000
41	Corrugated Tube ID10	1	L70
42	Oil Level Gauge Clamp	1	
43	Joint Pipe OD12	1	
44	T-fitting OD10-OD4-OD10	1	
45	Spacer T=5	1	
46	Insulator Rubber	1	
47	Rubber Cap ID50	1	
48	Rubber Cap ID16	1	
49	Hose Clamp #48	4	
50	Hose Clamp #40	7	
51	Hose Clamp #36	3	
52	Hose Clamp ID26.0	2	Mark 260
53	Hose Clamp ID23.0	1	Mark 230
54	Hose Clamp ID18.0	2	Mark 180
55	Hose Clamp ID15.5	6	Mark 155
56	Hose Clamp ID14.5	2	Mark 145
57	Hose Clamp ID13.8	1	Mark 138
58	Hose Clamp ID13.0	6	Mark 130
59	Hose Clamp ID11.5	3	Mark 115
60	Hose Clamp ID6.8	2	Mark 68
61	Cap Bolt M10 L50	1	
62	Cap Bolt M10 L45	1	
63	Cap Bolt M8 L125	1	
64	Cap Bolt M8 L115	1	
65	Cap Bolt M8 L90	1	
66	Cap Bolt M8 L20	6	
67	Cap Bolt M6 L55	2	
68	Cap Bolt M6 L18	2	
69	Dish Bolt M8 L35	3	
70	Hexagon Bolt M8 L25	1	
71	Hexagon Bolt M8 L20	5	
72	Hexagon Bolt M6 L20	2	
73	Flange Bolt M6 L18	3	
74	Low Head Cap Bolt M6 L12	5	
75	Flat Washer M8	10	
76	Flat Washer M6 Major Dia.	4	
77	Flange Nut M8	4	
78	Flange Nut M6	2	

# PARTS LIST

No.3

No.	Part Name	QT	Description
79	Tie Wrap (M)	9	
80	Flash Editor	1	Included only with 12001-KT004A
81	Installation Manual	1	
82	Instruction Manual	1	

## REQUIRED PARTS LIST 12001-KT004A (In order to use the data of Flash Editor)

・ Vehicles using the custom data can use the item with "●" or "○" on the installed parts list below:

●: Required parts to use the custom data

○: Usable parts to use the custom data

×: Prohibited parts to use the custom data

	Parts installed		HKS S/C	
	Product Name	Code No.	RON91	E85
Intake Parts	GT2 S/C SYSTEM ZN6/ZC6 FA20 USA	12001-KT004A	●	●
	GT2 S/C SYSTEM Pro FR-S	12001-KT004	(Any one)	(Any one)
	Pulley Up Grade Kit	12002-KK001	×	●
	AIR INTAKE DUCT ZN6/ZC6 FA20	70999-AT002	○	○
	Premium Suction ZN6/ZC6 FA20	70018-AT006	×	×
	Super Air Filter TOYOTA type20	70017-AT120	×	×
	RACING SUCTION ZN6/ZC6 86/BRZ FA20	70020-AT115	×	×
	Dry Carbon Suction Kit ZN6/ZC6 FA20	70026-AT001	×	×
Exhaust Parts Muffler	LEGAMAX Premium ZN6 (MAIN)	32018-AT039	● (Any one)	● (Any one)
	LEGAMAX Premium ZN6 (MAIN + CP)	32018-AT040		
	LEGAMAX Sports S-Tail ZN6/ZC6	32018-AT041		
	LEGAMAX Sports S-Tail Ti ZN6/ZC6	32018-AT041V		
	Hi-Power SPEC-L II ZN6/ZC6 FA20	32016-AT123		
	Hi-Power Muffler SPEC-L Scion FR-S	32016-BT001		
	Hi-Power Single Racing Version FR-S	32016-BT002		
	Hi-Power Single Racing Version2 FR-S	32016-BT003		

	Parts installed		HKS S/C	
	Product Name	Code No.	RON91	E85
Exhaust Parts  Manifold	SUPER MANIFOLD W/ CATA R-SPEC ZN6/ZC6	33005-AT006	● (Any one)	● (Any one)
	SUS EXHAUST MANIFOLD Scion FR-S & SUS FRONT PIPE Scion FR-S	33002-BT001		
		33004-BT002		
Cooling Parts	S Type O/C KIT ZN6/ZC6 for S/C BLK	15004-AT111	○	○
Spark Plug	SUPER FIRE RACING M50HL	50003-M50HL	●	●
Fuel Parts	Deatsch Werks Fuel Injector 700cc ※Not HKS Product	16U-02-0700-4 ※Not HKS Product	×	●
	Deatsch Werks Fuel Pump ※Not HKS Product	9-651-1010 ※Not HKS Product	×	●

## 1.INSTALLATION OF Flash Editor (ONLY 12001-KT004A)

PARTS LIST			
	No.	Part Name	QT
	P80	Flash Editor	1

(1) Install the data referring to the installation manual attached to Flash Editor.

- P80 Flash Editor x1

### CAUTION

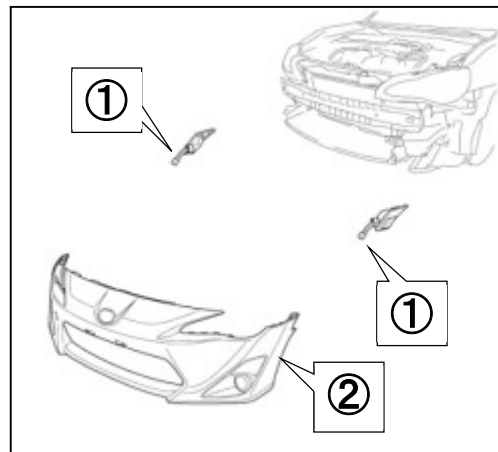
If the installation of Flash Editor is not successful, Flash Editor might not correspond to the ECU ID of the vehicle.  
In that case, you need to use the other setting tool.  
When mounting the Supercharger without ECU setting, there is a risk of damage to the engine.

## 2.REMOVAL OF FACTORY PARTS

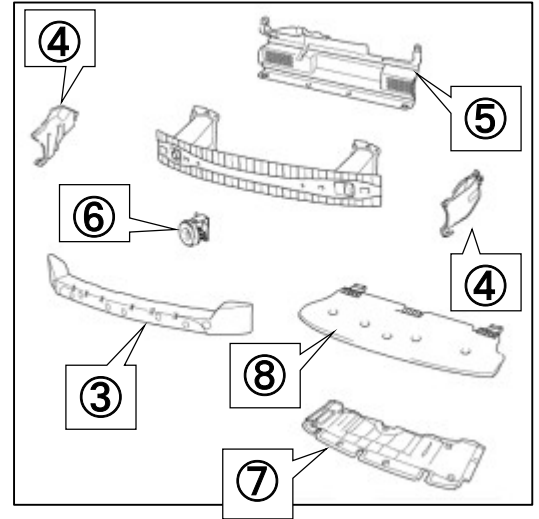
Refer to this instruction manual and the factory service manual to remove the factory parts.

PARTS LIST			
Refer to the parts list on page 3.	No.	Part Name	QT
	P48	Rubber Cap ID16	1

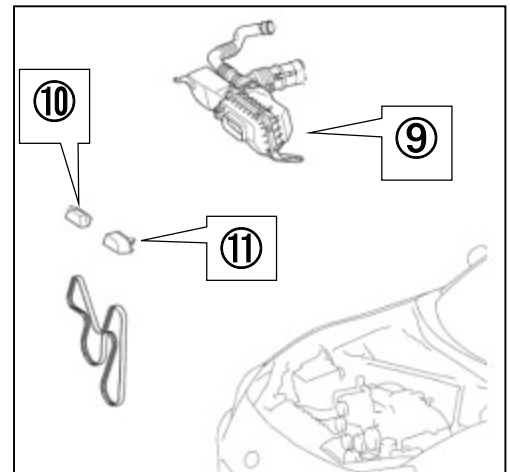
- (1) Disconnect the cable from the battery.
- (2) Remove the engine under cover. (Keep it for later use.)
- (3) Remove ①side turn signal lights from both sides. (Keep them for later user.)
- (4) Remove ②front bumper. (Keep it for later use.)



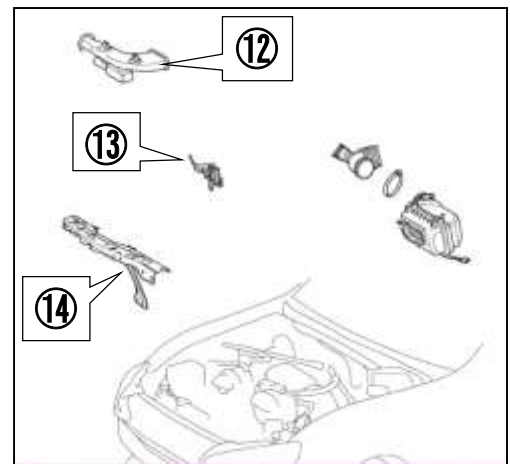
- (5) Remove ③ front bumper energy absorber. (Keep it for later use.)
- (6) Remove ④ front bumper reinforcement plate from both sides.
- (7) Remove ⑤ radiator cover plate.
- (8) Remove ⑥ horn. (Keep it for later use.)
- (9) Remove ⑦ front bumper cover LWR. (Keep it for later use.)
- (10) Remove ⑧ front bumper bracket. (Keep it for later use.)
- (11) Remove ⑨ air cleaner case. (Keep it for later use.)



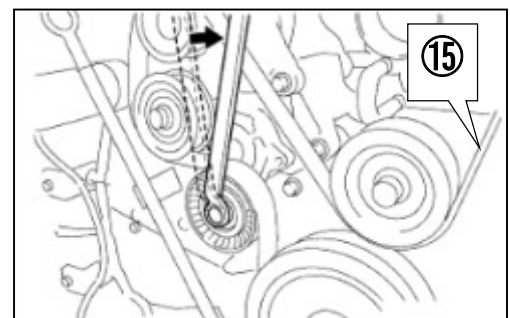
- (12) Remove ⑩ belt cover.
- (13) Remove ⑪ belt cover. (Keep it for later use.)



- (14) Remove ⑫ air cleaner duct. (Keep it for later use.)
- (15) Remove ⑬ hood lock from the radiator support. (Keep it for later use.)
- (16) Remove ⑭ radiator support. (Keep it for later use.)



- (17) Hold the tensioner pulley with a tool and rotate the tensioner to the right to lower the tension. Remove ⑮ belt.
- (18) Remove ⑯ oil level gauge. (Keep it for later use.)

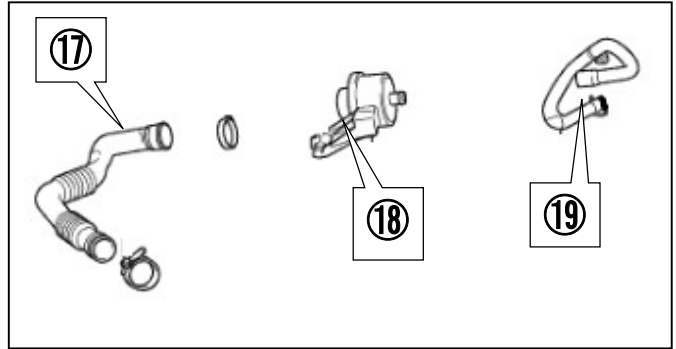




(19) Remove ①⑦ air cleaner duct, ①⑧ chamber, and ①⑨ hose.

(20) Install Rubber Cap ID16 to the position ①⑨ hose was removed.

- P48 Rubber Cap ID16 x1

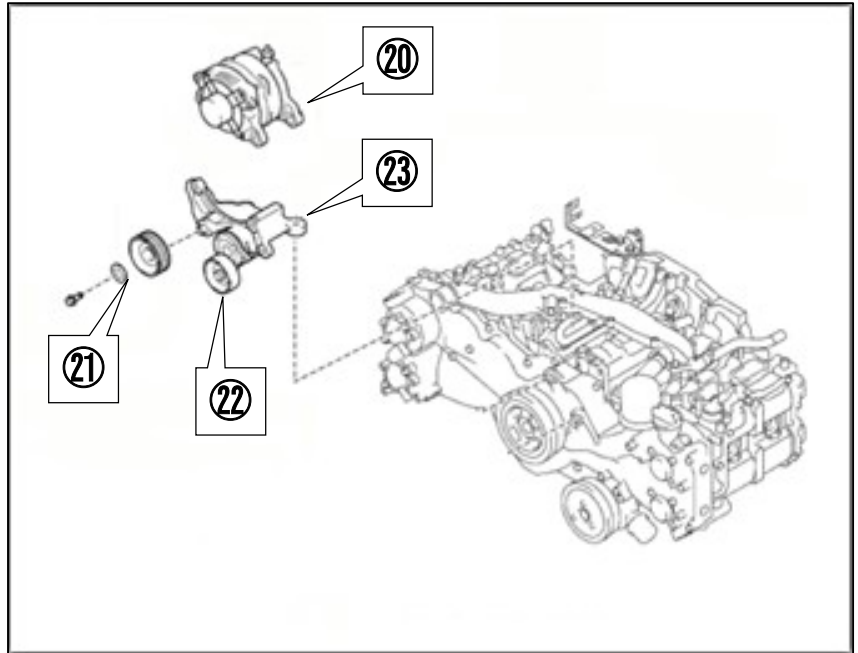


(21) Remove ②⑩ alternator. (Keep it for later use.)

(22) Remove ②⑪ idler pulley.

(23) Remove ②⑫ auto tensioner. (Keep it for later use.)

(24) Remove ②⑬ alternator bracket. (Keep it for later use.)

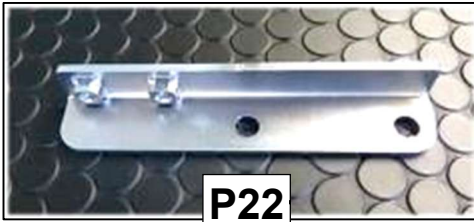


(25) Remove ②⑭ horn. (Keep it for later use.)

(26) Remove ②⑮ outside temperature sensor. (Keep it for later use.)



### 3. MODIFICATION & RELOCATION OF FACTORY PARTS

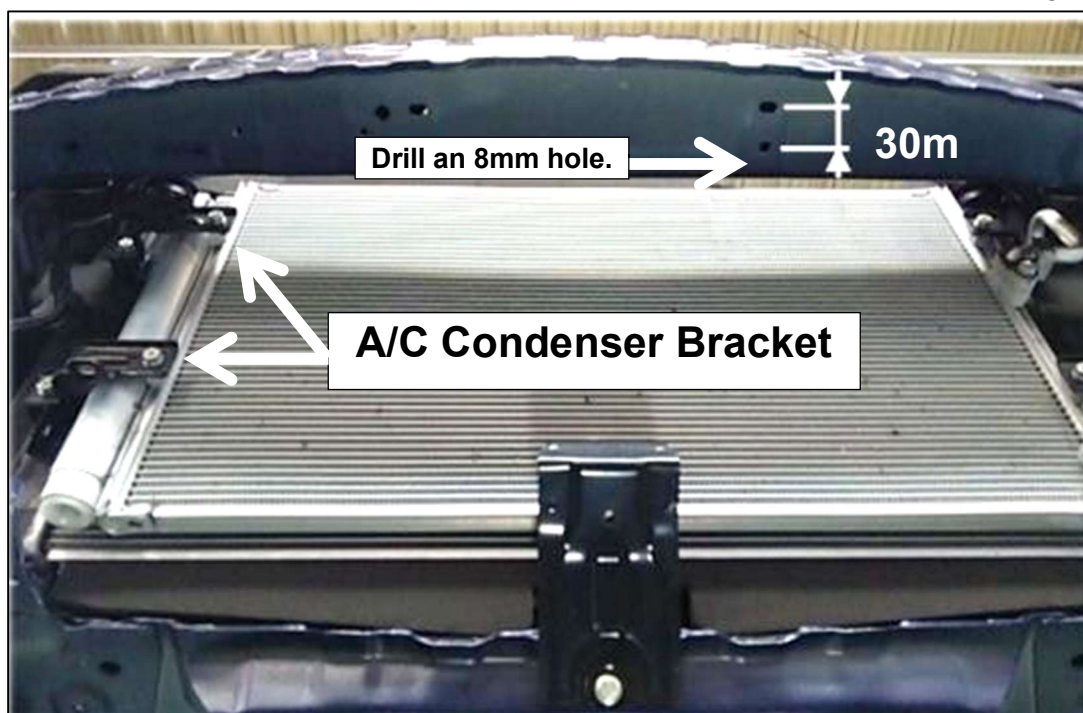
PARTS LIST			
	No.	Part Name	QT
	P22	Intercooler Bracket No.1	1
	P41	Corrugated Tube ID10	1
	P47	Rubber Cap ID50	1
	P54	Hose Clamp ID18.0	1
	P57	Hose Clamp ID13.8	1
	P58	Hose Clamp ID13.0	1
	P59	Hose Clamp ID11.5	3
	P68	Cap Bolt M6 L=18	2
	P76	Flat Washer M6 Major Dia.	2
	P79	Tie Wrap (M)	2

(1) Remove the A/C condenser bracket on the upper right side. Cut off the shaded area of the bracket shown in the diagram on the right.

(2) Reinstall the A/C condenser bracket modified in 3. (1) to the original position.



(3) Drill an 8mm hole in the front bumper reinforcement in the position indicated in the diagram below.

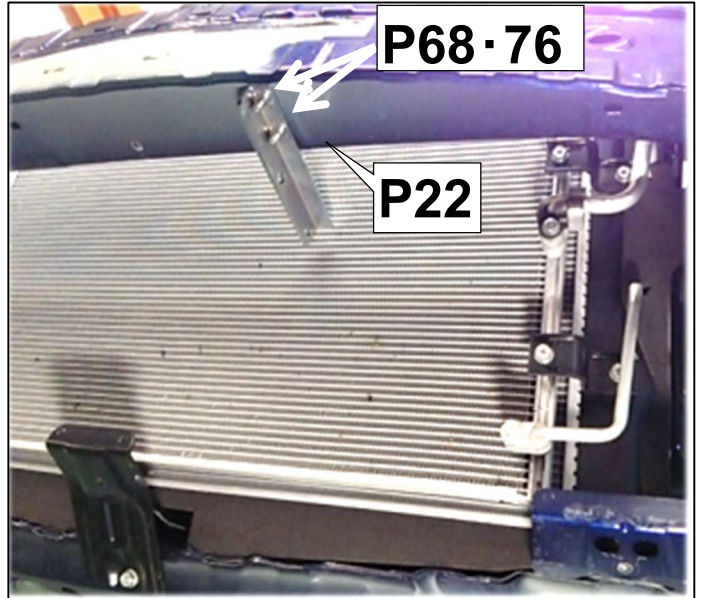
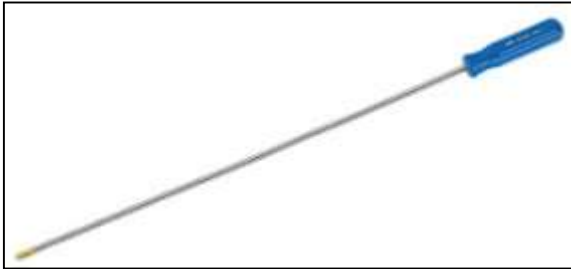


(4) Temporarily install Intercooler Bracket No.1 to the hole made in 3.(3).

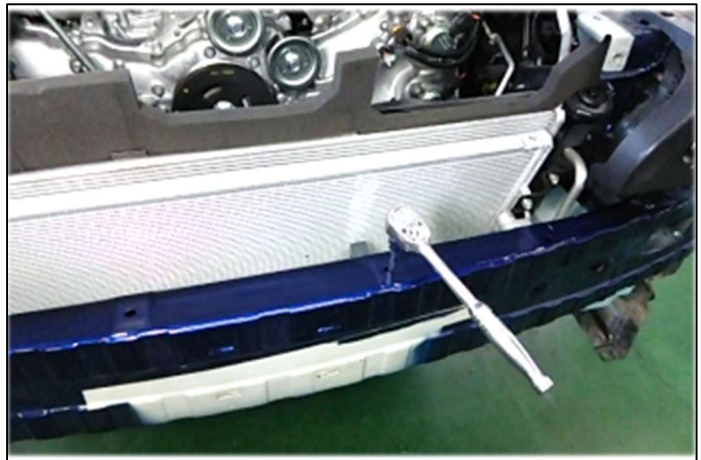
- P22 Intercooler Bracket No.1 x1
- P68 Cap Bolt M6 L=18 x2
- P76 Flat Washer M6 Major Dia . x2

**NOTE**

- For easier installation, use a magnet hand or something similar.
- For easier installation, insert a ball point hexagon wrench from the upper side of the front bumper reinforcement.



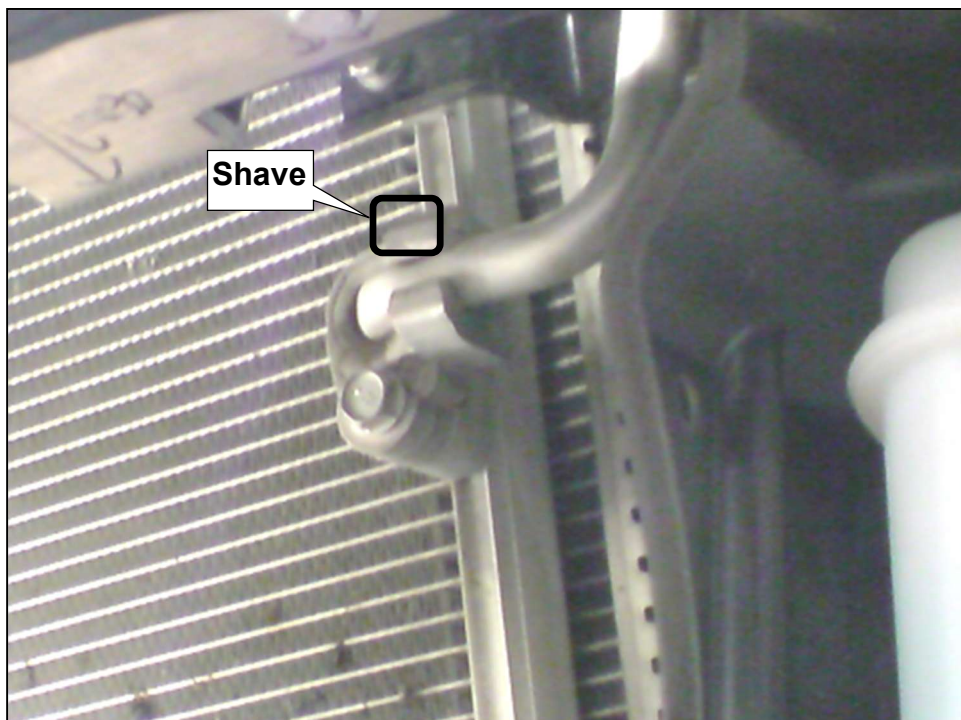
(5) Put the cut with scissors in the position shown in the illustration of the sponge.



(6) Shave 2mm of the pipe clamp on the A/C condenser of the passenger's side as shown below.

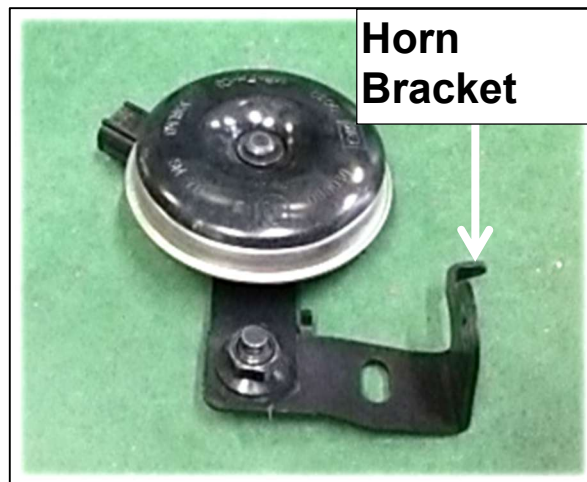
**NOTE**

- ✧ This must be done so the condenser does not come in contact with the traction fluid cooler.

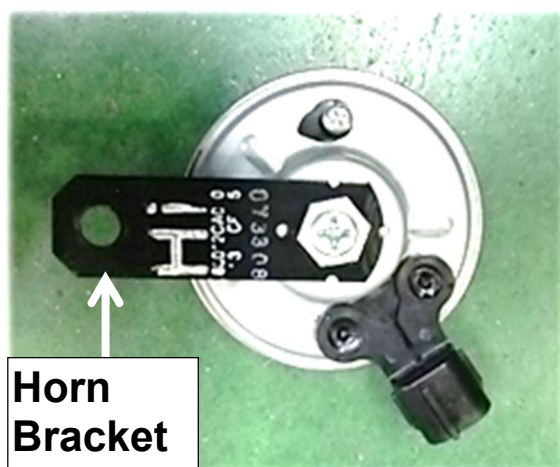




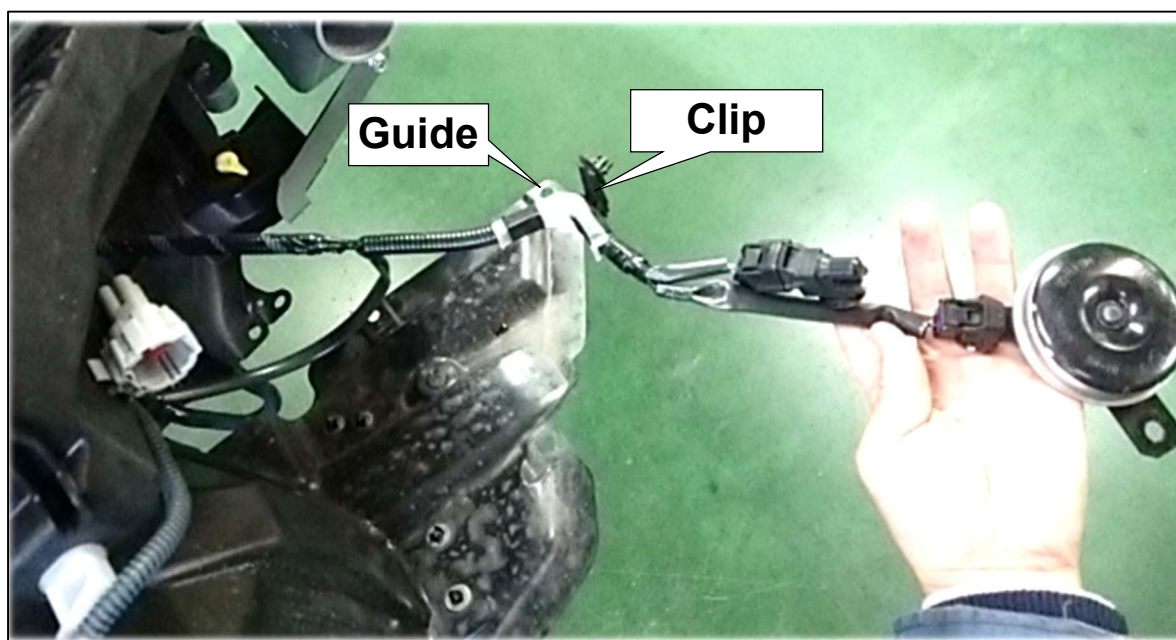
(7) Remove the bracket from ⑥horn removed in 2.(8).



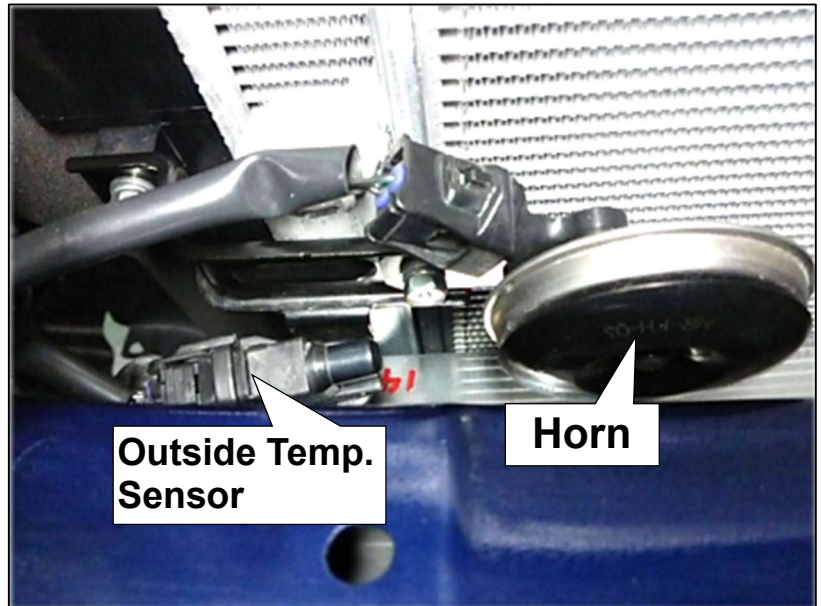
(8) Rotate the horn bracket to the position shown in the diagrams below.



(9) Remove the plastic guide and clip from the horn and outside temperature sensor.



- (10) Install the outside temperature sensor and horn to the A/C condenser bracket install in 3.(2).

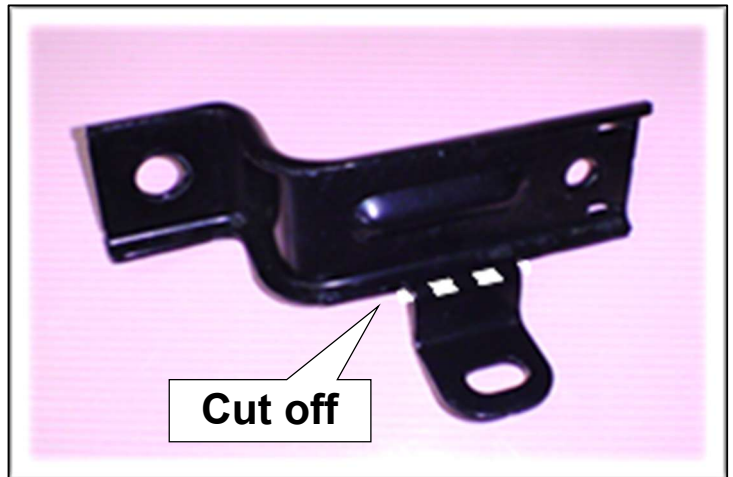


- (11) Cut off the portion of the A/C condenser bracket on the lower right side along the dotted line shown in the diagram on the right.

**NOTE**

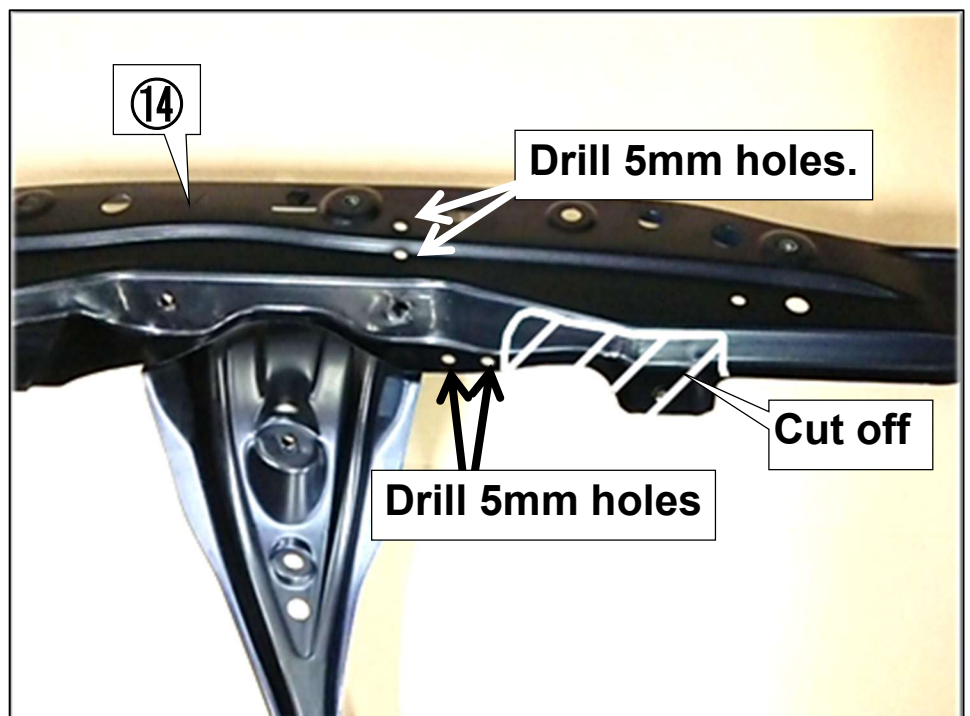
- ✧ This modification must be done so the bracket does not come in contact with the intercooler.

- (12) Reinstall the A/C condenser bracket to the original position.



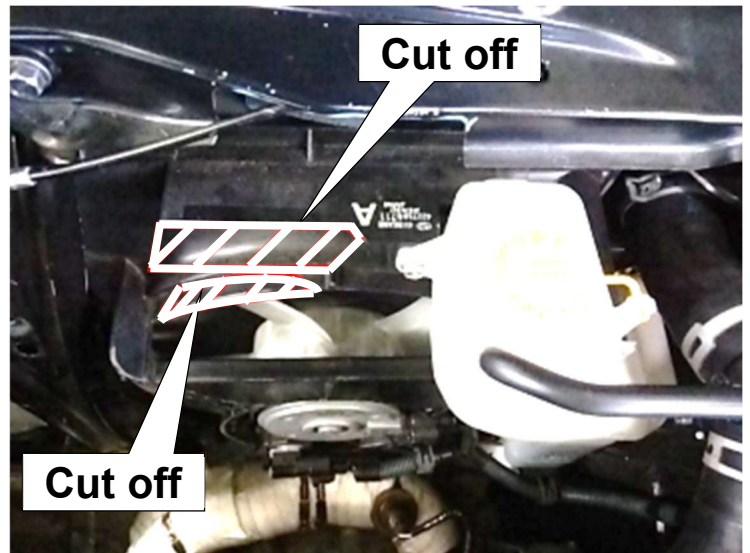
- (13) Cut off the shaded area of the ⑭ radiator support removed in 2.(16) shown in the diagram on the right.

- (14) Drill 4 of 5mm hole in ⑭ radiator support in the positions shown in the diagram on the right.





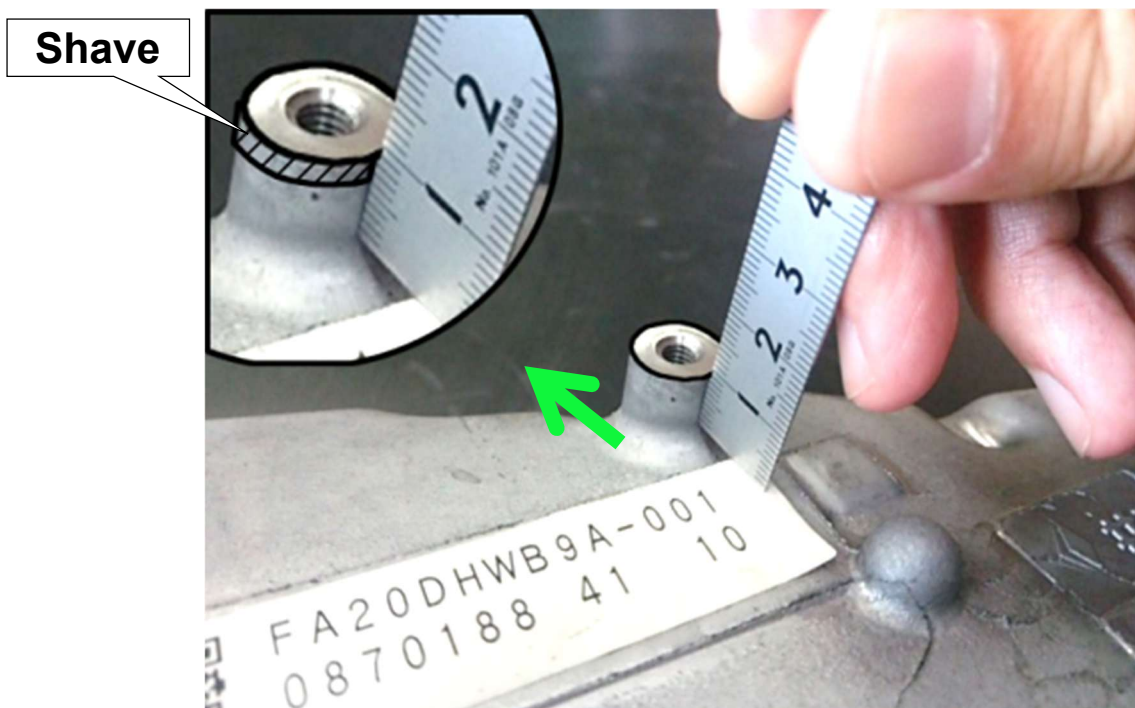
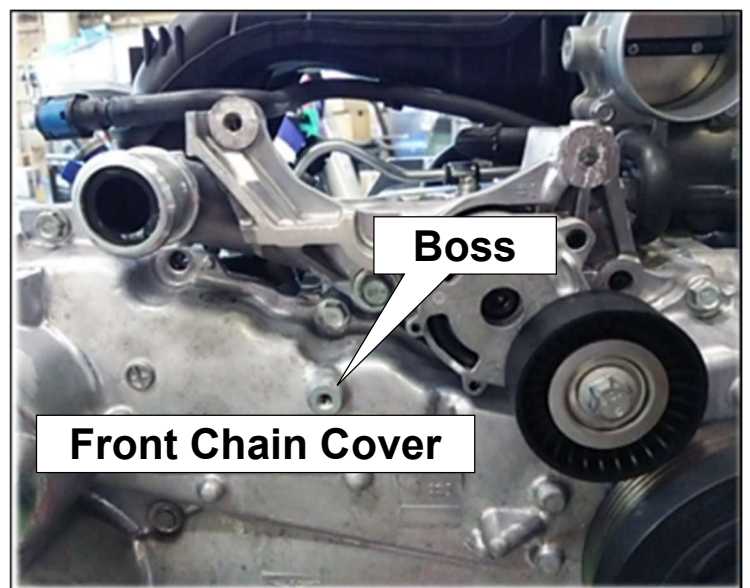
(15) Cut off the shaded portions of the electric fan shown in the diagram on the right.



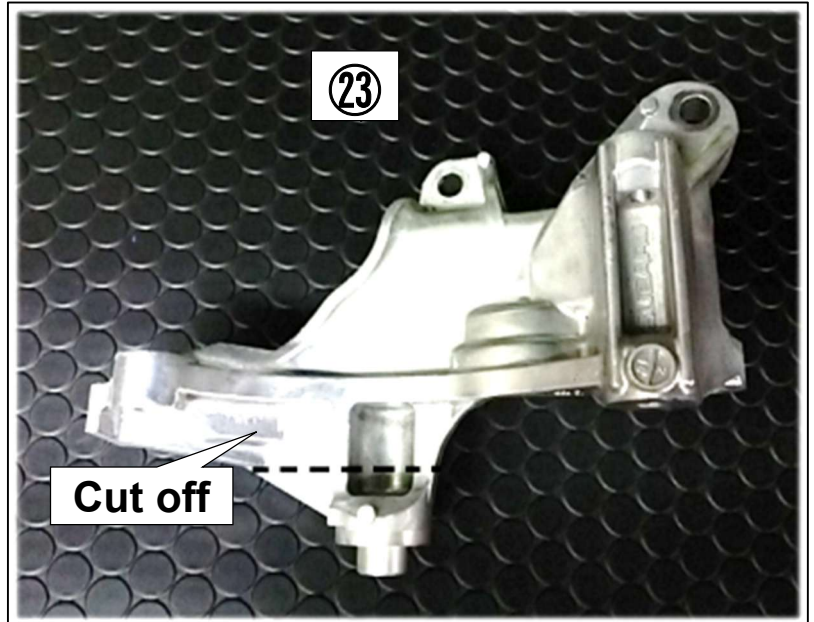
(16) Shave the boss installing the front chain cover's oil level gauge by 4mm so the height becomes 5mm.

**NOTE**

- ✧ This process is to prevent the supercharger pulley from coming into contact with the boss.
- ✧ Use a belt sander or grinder to allow ease of work.
- ✧ Cover other parts with a cloth to prevent any debris and/or foreign objects from entering into inside the throttle or any other parts of the vehicle.



- (17) Cut off the portion of the idler pulley installing part of ②③ alternator bracket removed in 2.(24) along the dotted line shown in the diagram on the right.



- (18) Install ②③ alternator bracket modified in 3.(17) to the engine.

- (19) Remove one M10 bolt from ②③ alternator bracket installed in 3.(18) referring to the diagram on the right.

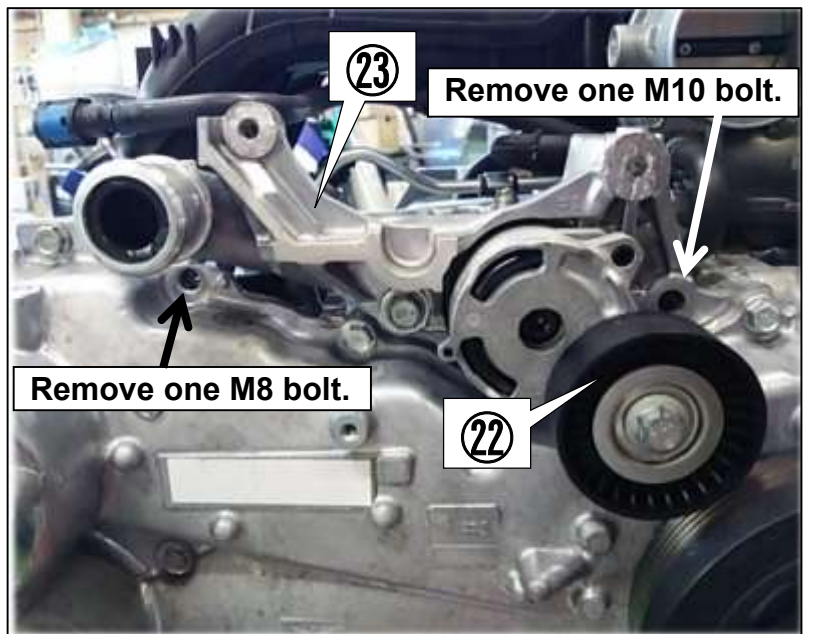
**NOTE**

- ✧ Supercharger Bracket will be installed in this position later.

- (20) Remove one M8 bolt securing the timing chain cover referring to the diagram on the right.

**NOTE**

- ✧ Supercharger Bracket will be installed in this position later.



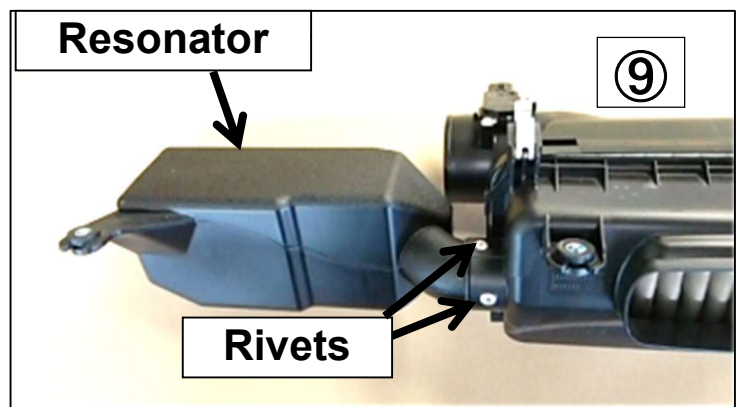
- (21) Install ②② auto tensioner removed in 2.(23) to ②③ alternator bracket.

- (22) Temporarily install ②① alternator removed in 2.(21) to ②③ alternator bracket.

- (23) Remove the resonator from ⑨ air cleaner case removed in 2.(11).

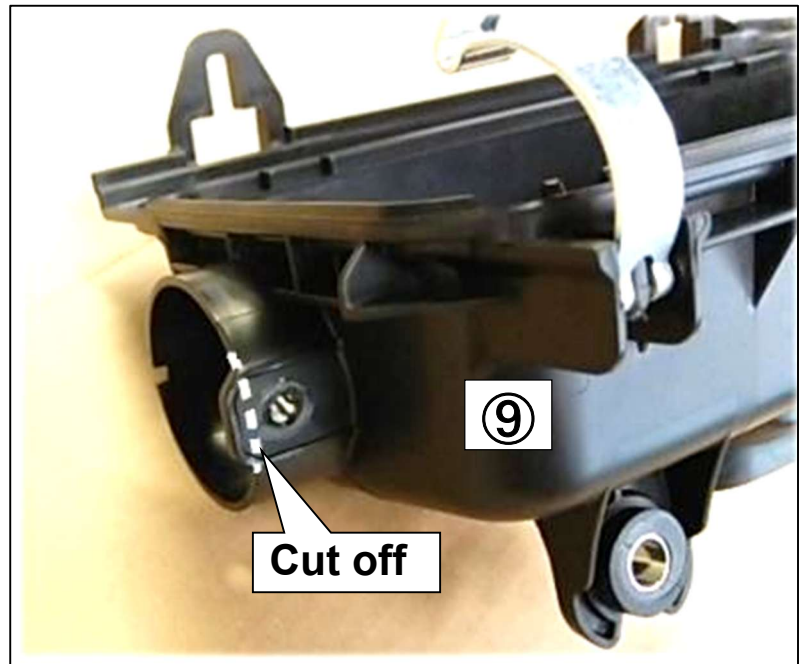
**NOTE**

- ✧ Remove 2 rivets using a drill.



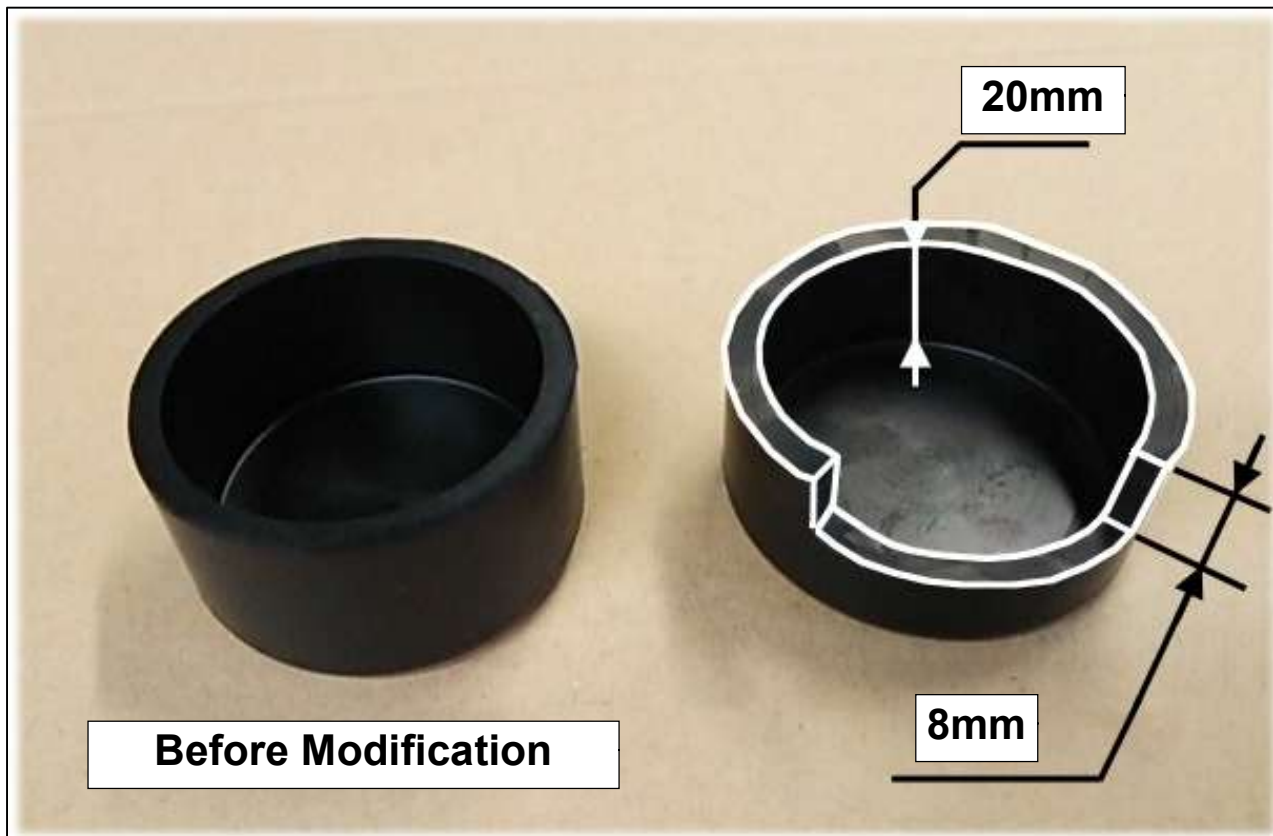
※For the MT vehicle ~2016 model (Early Model) and the AT vehicle (Late Model)

(24) Cut off the portion of ⑨ air cleaner case modified in 3.(23) along the dotted line shown in the diagram on the right.



(25) Cut the Rubber Cap ID50 as shown in the diagram below.

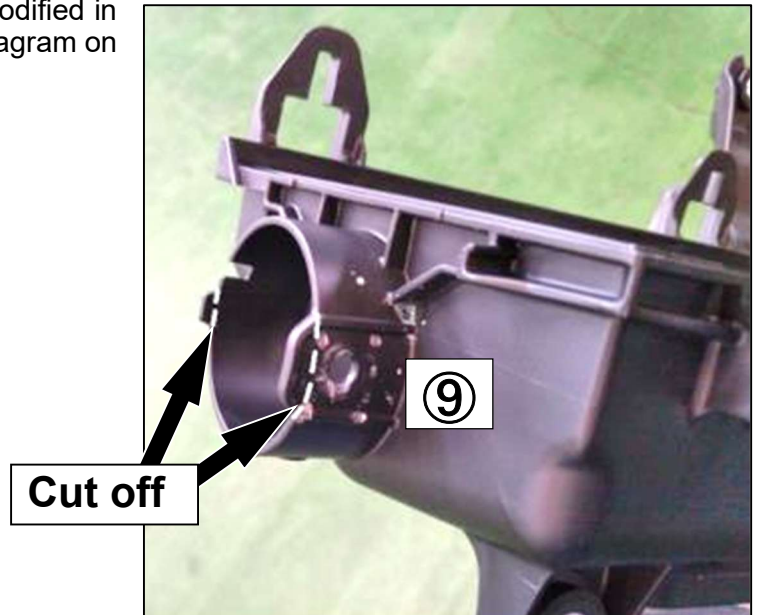
- P47 Rubber Cap ID50 x1





※For the MT vehicle model registered as of August, 2016 (Late Model)

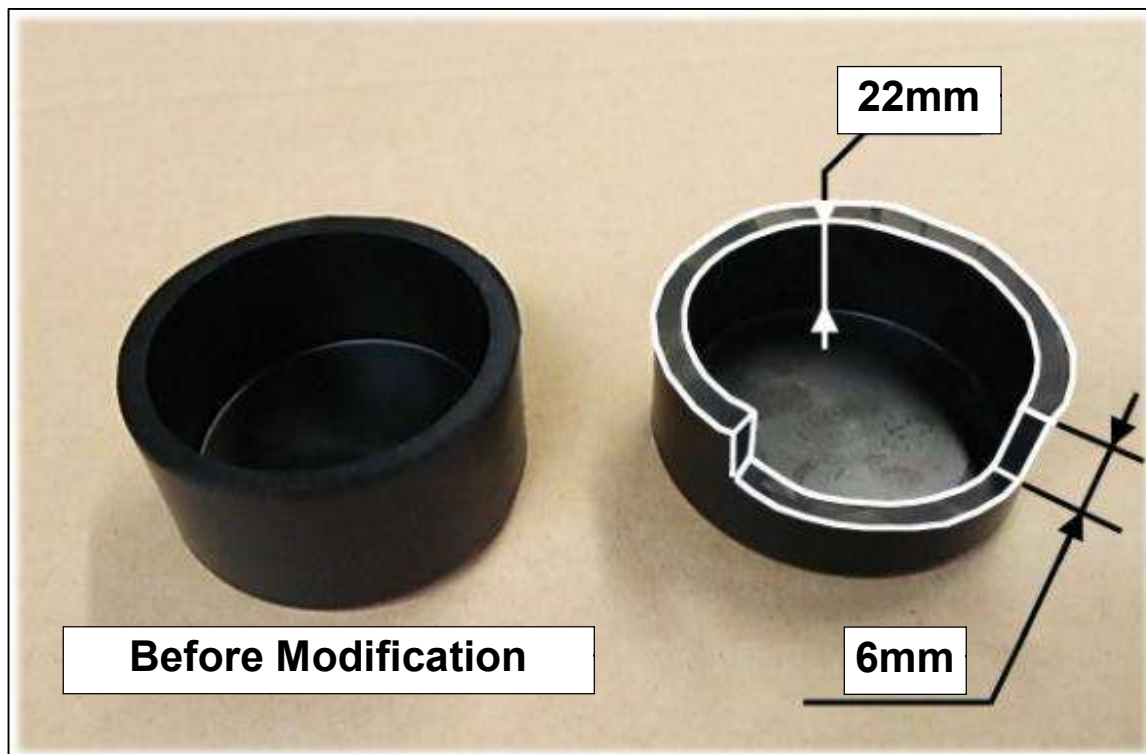
- (26) Cut off the portion of ⑨air cleaner case modified in 3.(23) along the dotted line shown in the diagram on the right.



※For the MT vehicle model registered as of August, 2016 (Late Model)

- (27) Cut the Rubber Cap ID50 as shown in the diagram below.

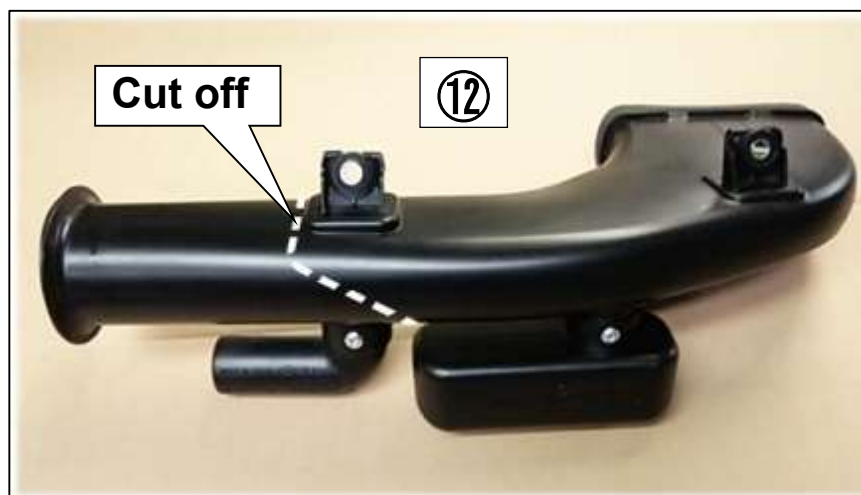
- P47 Rubber Cap ID50 x1



- (28) Install the Rubber Cap 50mm modified in 3.(25) or 3.(27) to the position of the air cleaner where the resonator was removed in 3.(23).



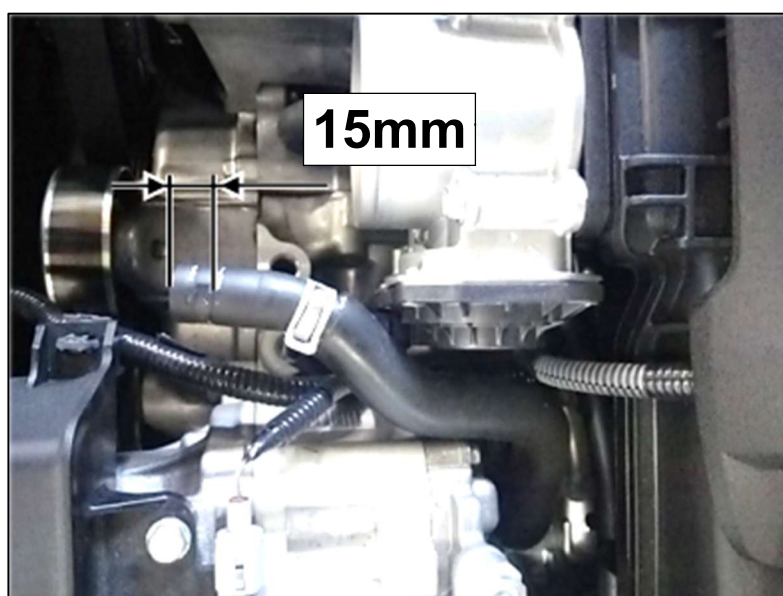
(29) Cut off ⑫ air cleaner duct removed in 2.(14) along the dotted line shown in the diagram below.



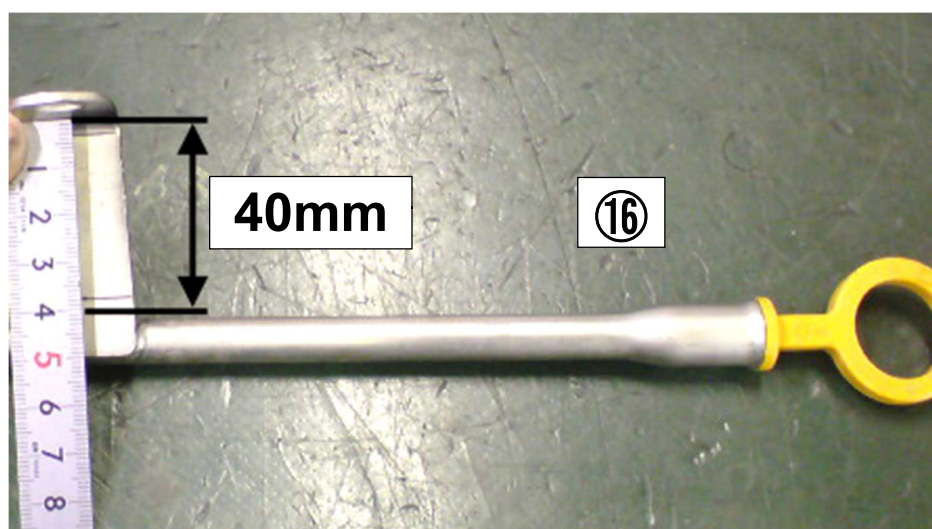
**NOTE**

✧ If you use “HKS AIR INTAKE DUCT ZN6/ZC6 FA20 P/N70999-AT002”, this step does not need.

(30) Cut the blow-by hose at 15mm from the end as shown in the diagram below.



(31) Cut off ⑯ oil level gauge bracket removed in 2.(18) at 40mm from the part's side as shown in the diagram below.



- (32) Remove the installation bolt from the A/C compressor. Move the compressor slightly so there is adequate space for installation function under the intake manifold.

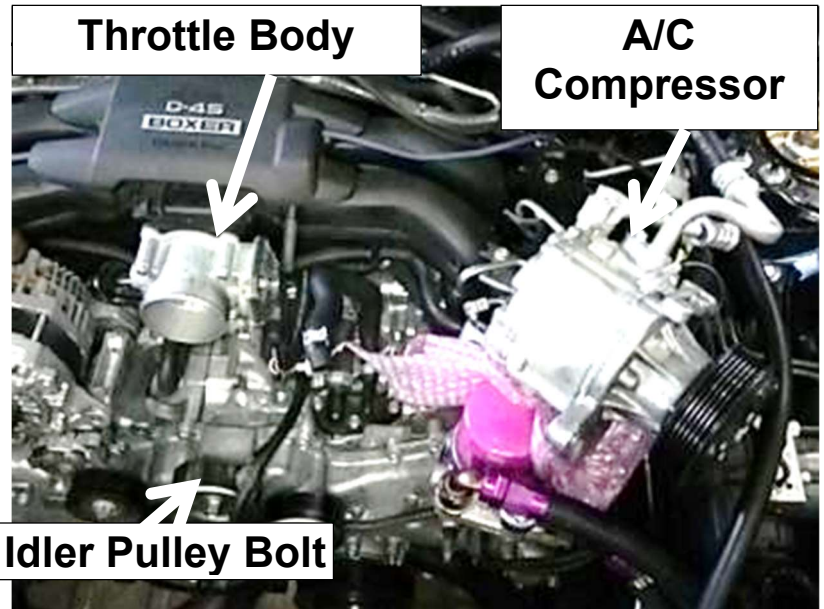
**NOTE**

- ✧ Do not disconnect the piping.

- (33) Remove the installation bolt from the throttle body. Move the throttle body slightly so there is adequate space for installation function under the intake manifold.

**NOTE**

- ✧ Do not disconnect the water piping.



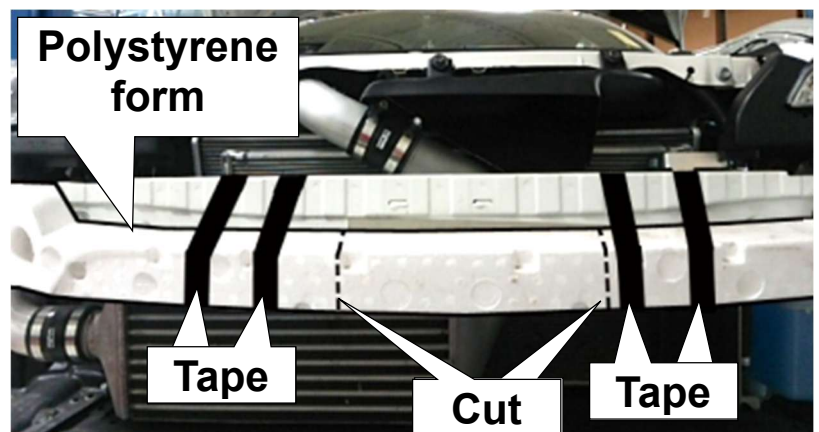
- (34) Loosen the Idler Pulley Bolt.

**NOTE**

- ✧ Make sure not to remove the bolt even though the bolt will be replaced later. If the bolt is completely removed, the idler pulley may be fallen off.

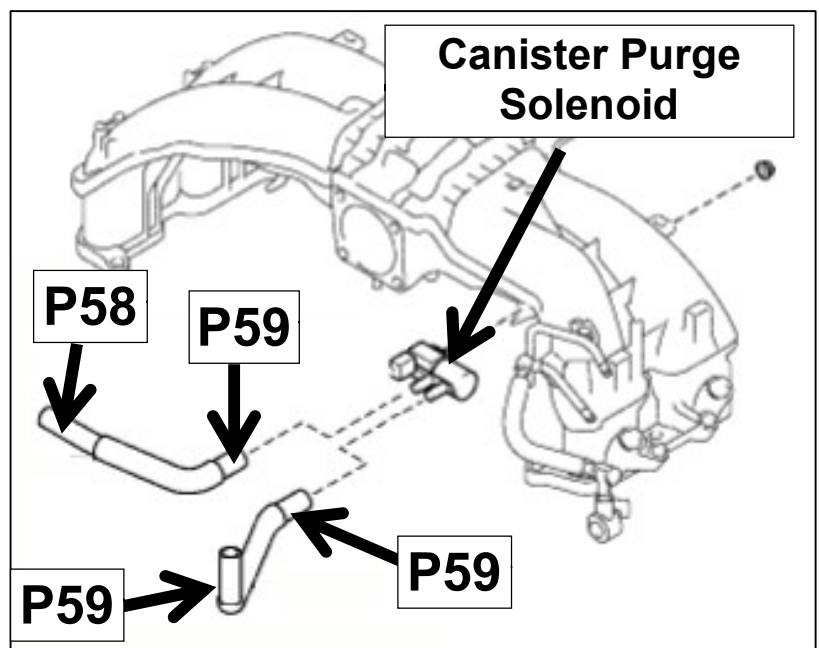
- (35) Cut the polystyrene form to make the air intake space.

- (36) Fix the polystyrene form with tape.



- (37) Remove the canister purge solenoid from the intake manifold. Install the Hose Clamps as shown in the diagram on the right.

- P58 Hose Clamp ID13.0 x 1
- P59 Hose Clamp ID11.5 x 3

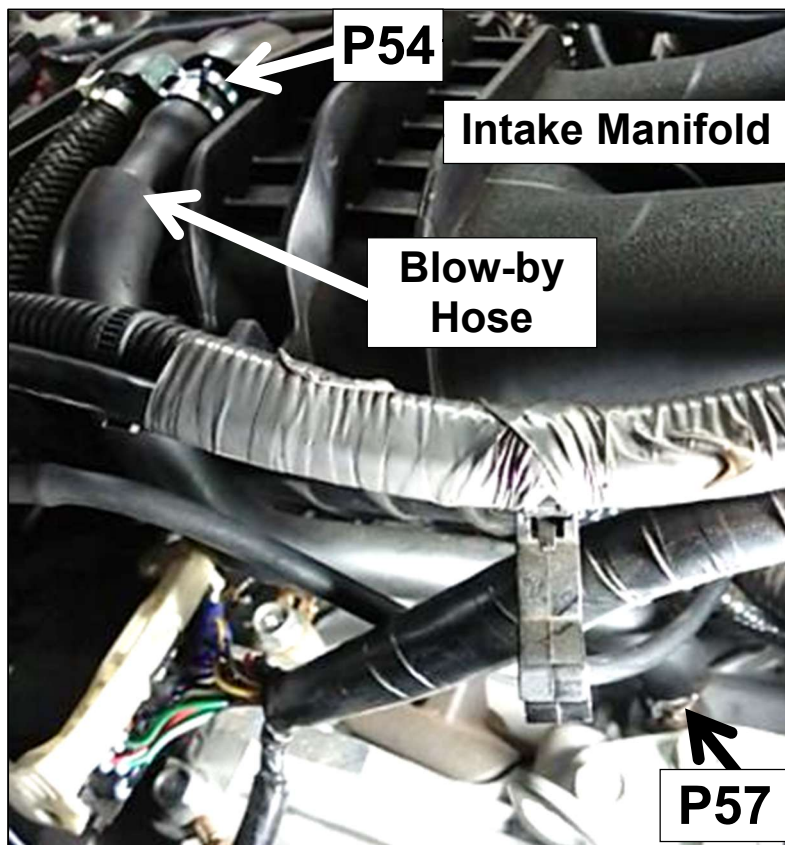


- (38) Reinstall the canister purge solenoid. Place the throttle body and A/C compressor back in place.



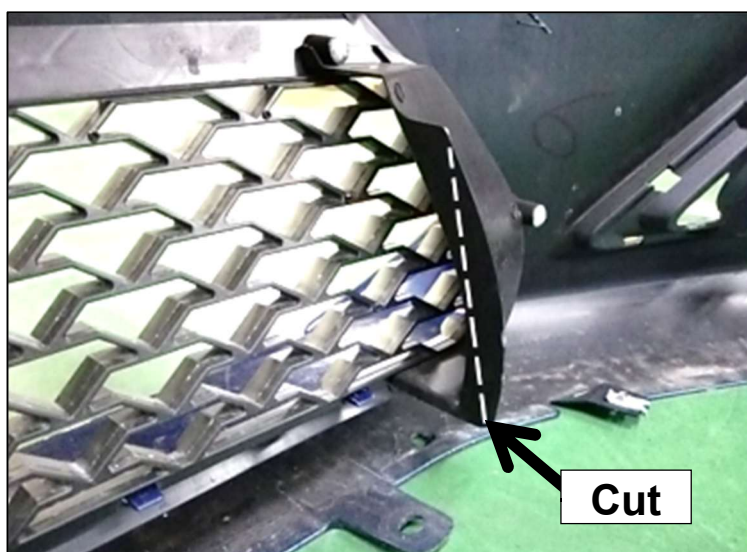
(39) Install the Hose Clamps to the blow-by hose.

- P54 Hose Clamp ID18.0 x 1
- P57 Hose Clamp ID13.8 x 1



※For the vehicle ~2016 model (Early Model)

(40) Cut the front bumper removed in 2.(4) along the dotted line shown in the diagram on the right.



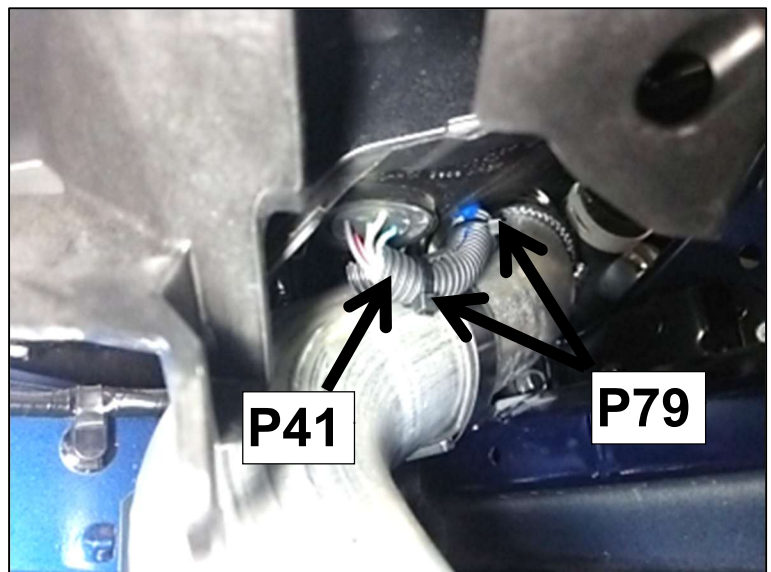
※For the vehicle 2017～ model (Late Model)

(41) Cut the right air guide inside the front bumper that was removed in 2.(4) at the position indicated in the diagram on the right to avoid unnecessary contact with the intercooler.



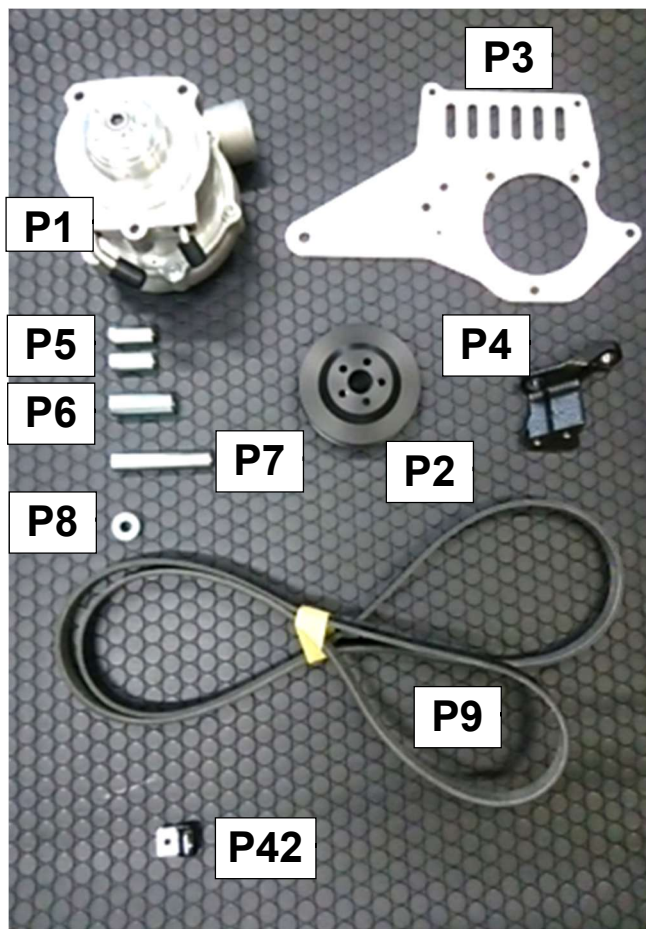
(42) Install the Corrugated Tube ID10 to the harness under the right side of the head light using the Tie Wraps (M).

- P41 Corrugated Tube ID10 x1
- P79 Tie Wrap (M) x2



## 4. INSTALLATION OF GT2 SUPERCHARGER

PARTS LIST



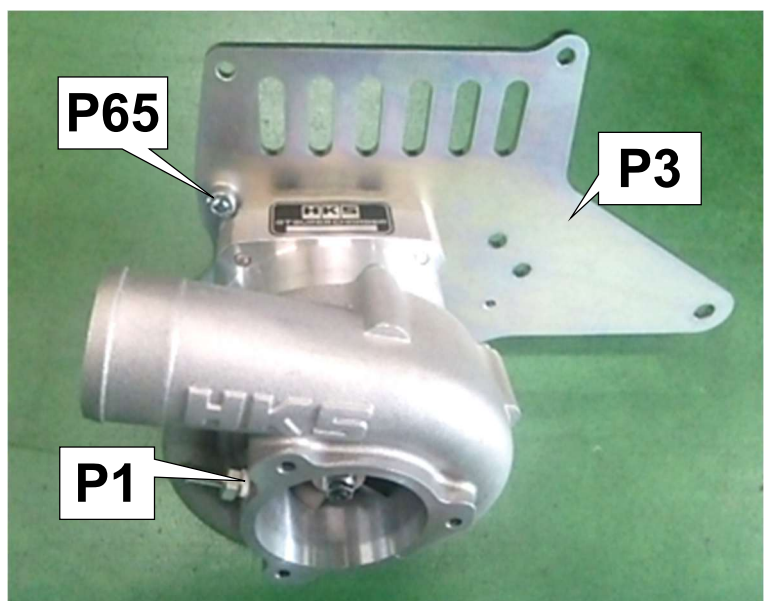
No.	Part Name	QT
P1	GT2 Supercharger	1
P2	Supercharger Pulley	1
P3	Supercharger Bracket No.1	1
P4	Supercharger Bracket No.2	1
P5	Supercharger Bracket Spacer No.1	2
P6	Supercharger Bracket Spacer No.2	1
P7	Supercharger Bracket Spacer No.3	1
P8	Supercharger Bracket Spacer No.4	1
P9	V-ribbed Belt	1
P42	Oil Level Gauge Clamp	1
P61	Cap Bolt M10 L50	1
P62	Cap Bolt M10 L45	1
P63	Cap Bolt M8 L125	1
P64	Cap Bolt M8 L115	1
P65	Cap Bolt M8 L90	1
P66	Cap Bolt M8 L20	2
P67	Cap Bolt M6 L55	2
P69	Dish Bolt M8 L35	3
P74	Low Head Cap Bolt M6 L12	5

(1) Temporarily install the Cap Bolt M8 L90 to the Supercharger Bracket.

- P3 Supercharger Bracket No.1 x1
- P65 Cap Bolt M8 L90 x1

### NOTE

- ✧ The Cap Bolt M8 L90 cannot be installed after GT2 Supercharger is installed to the Supercharger Bracket.



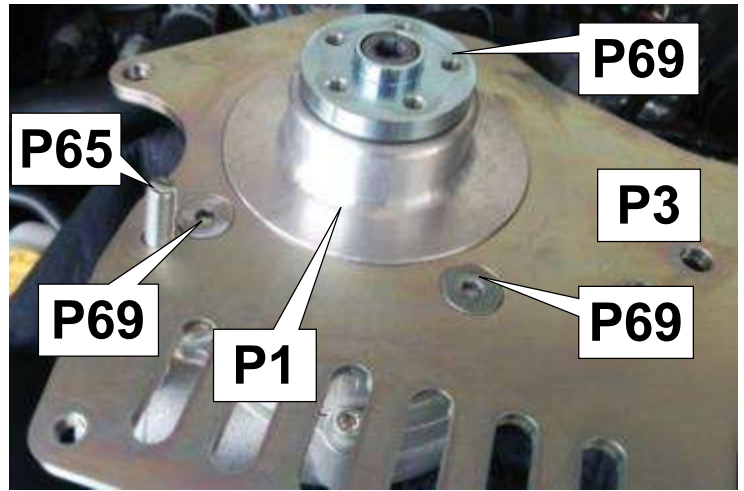


(2) Install the GT2 Supercharger to the Supercharger Bracket No.1.

- P1 GT2 Supercharger x1
- P3 Supercharger Bracket No.1 x1
- P69 Dish Bolt M8 L35 x3

**NOTE**

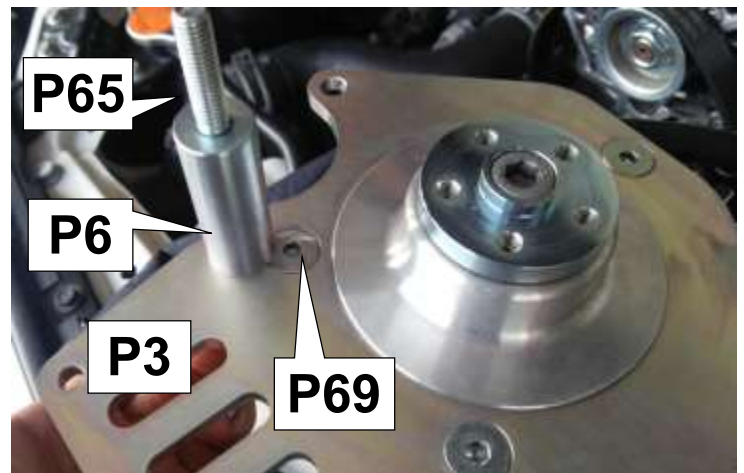
- ✧ Make sure the Cap Bolt M8 L90 temporarily installed in (1) moves freely.



**⚠ CAUTION**

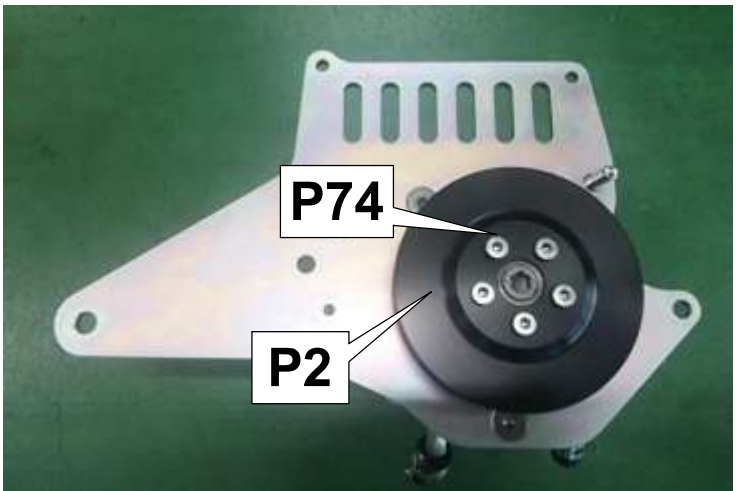
If the head of Dish Bolt M8 L35(P69) is projecting, the seating surface of the Supercharger Bracket Spacer No.2(P6) will be incorrect.

In that case, please shave so as not to protrude the head of Dish Bolt M8 L35(P69).



(3) Install the Pulley to the GT2 Supercharger

- P2 Supercharger Pulley x1
- P74 Low Head Cap Bolt M6 L12 x5



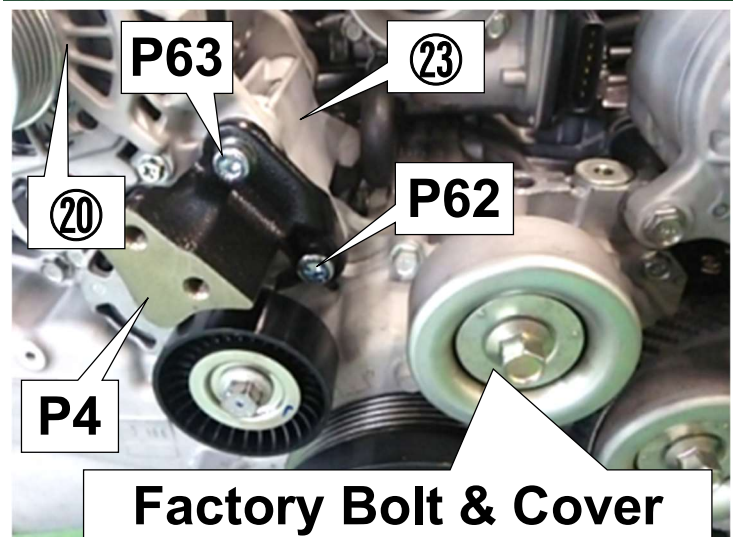
(4) Install Supercharger Bracket No.2 to ②① alternator and ②③ alternator bracket.

- P4 Supercharger Bracket No.2 x1
- P62 Cap Bolt M10 L45 x1
- P63 Cap Bolt M8 L125 x1

(5) Remove the Idler Pulley Bolt loosened in 3. (34).

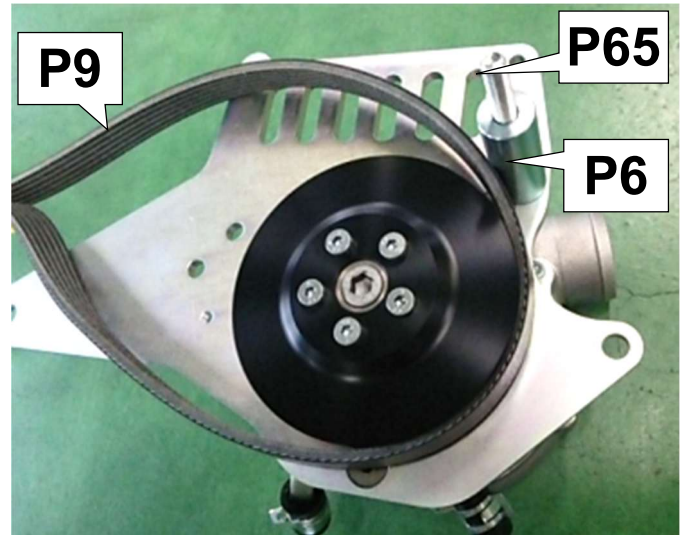
**NOTE**

- ✧ Reuse the cover between the bolt and pulley.
- ✧ Make sure not to drop the idler pulley.



(6) Wrap the V-ribbed Belt around the Supercharger Pulley.

- P9 V-ribbed Belt x1

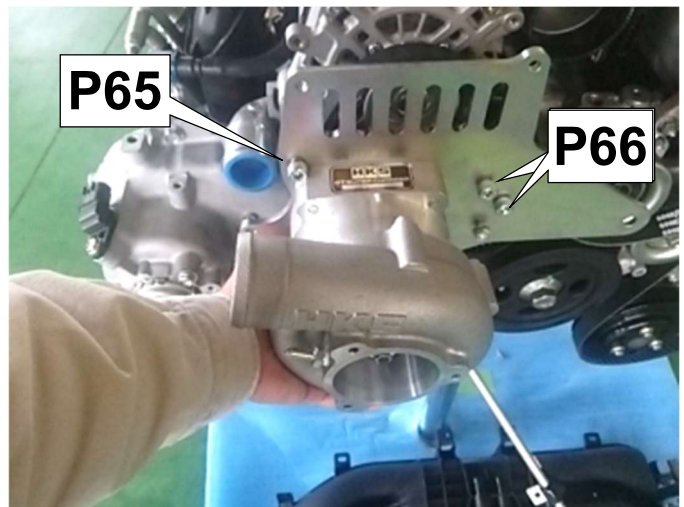


(7) Temporarily install the Supercharger Bracket Spacer No.2 to Cap Bolt M8 L90.

- P6 Supercharger Bracket Spacer No.2 (OD20×ID8×L52.3) x1

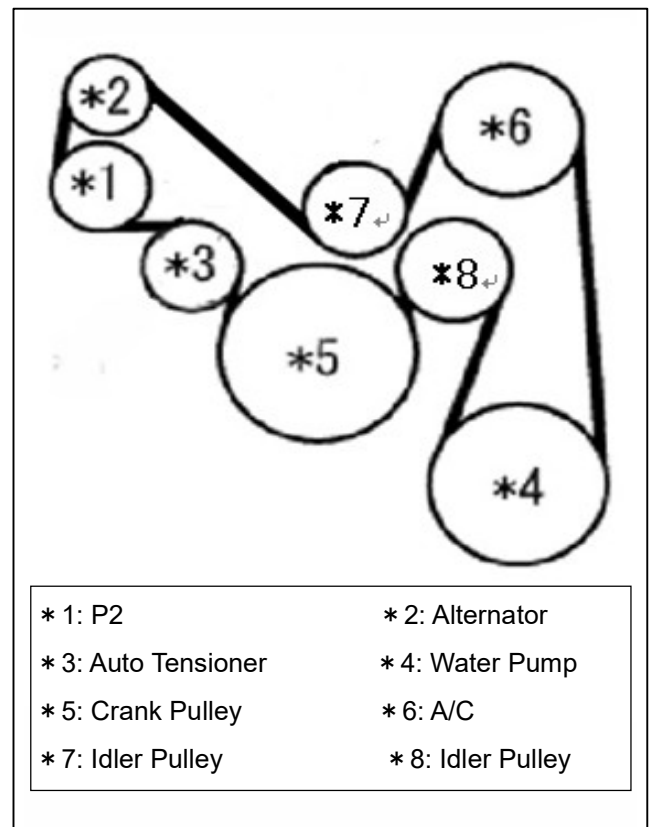
(8) Temporarily install the Supercharger Bracket No.1 to the engine and Supercharger Bracket No.2 using the Cap Bolt M8 L20 and Cap Bolt M8 L90.

- P65 Cap Bolt M8 L90 x1
- P66 Cap Bolt M8 L20 x2



#### NOTE

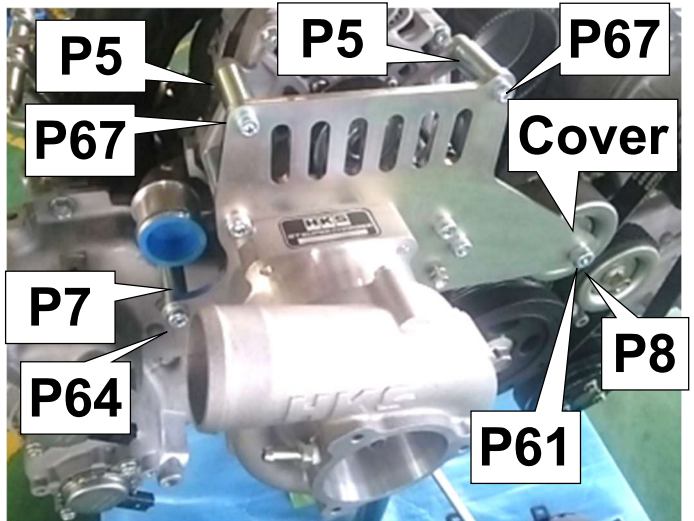
- ✧ Make sure not to drop the idler pulley.
- ✧ Temporarily tighten the Cap Bolt only by or 3-4 threads. If it is completely tightened, Supercharger Bracket Spacers cannot be installed.
- ✧ Temporarily install the belt to \*2:Alternator, \*3:Auto Tensioner, and \*7:Idler since the V-ribbed Belt cannot be installed after the Supercharger is installed to the engine.





(9) Temporarily install the Supercharger Bracket Spacer No.1, No.3, and No.4.

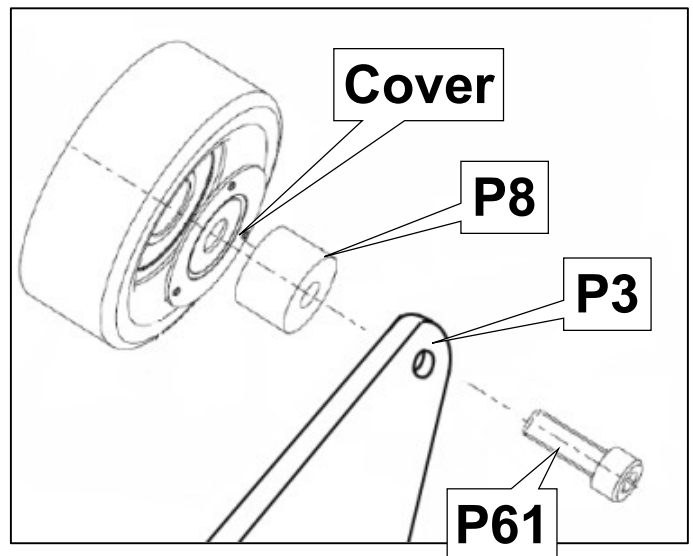
- P5 Supercharger Bracket Spacer No.1 (OD16×ID6×L36.2) x2
- P7 Supercharger Bracket Spacer No.3 (OD16×ID8×L82.8) x1
- P8 Supercharger Bracket Spacer No.4 (OD23×ID10×L10.6) x1
- P61 Cap Bolt M10 L50 x1
- P64 Cap Bolt M8 L115 X1
- P67 Cap Bolt M6 L55 X2



**NOTE**

- ✧ Insert the cover between the Supercharger Bracket No.4 and Idler Pulley.

(10) Tighten each Cap Bolt little by little, and tighten the Supercharger Bracket No.1 completely.



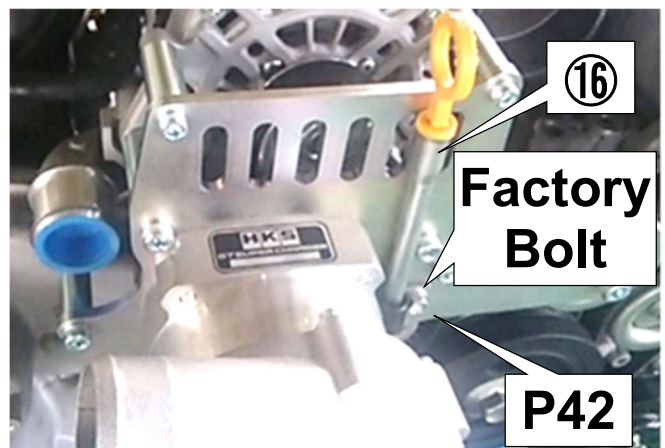
(11) Install the V-ribbed belt.

**CAUTION**

- Make sure the V-ribbed belt is installed properly. Improper installation may cause damage to the belt when the engine is started.
- Rotate the crank pulley so the belt is positioned properly.

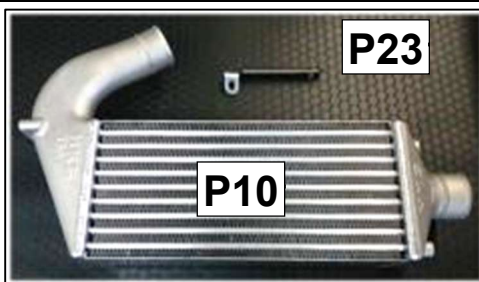
(12) Install ⑯oil level gauge modified in 3.(31) to the Supercharger Bracket and engine using the Oil Level Gauge Clamp.

- P42 Oil Level Gauge Clamp x1



## 5. INSTALLATION OF INTERCOOLER

### PARTS LIST

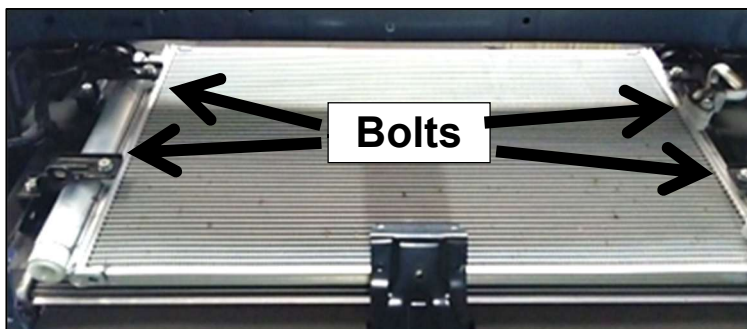


No.	Part Name	QT
P10	Intercooler	1
P23	Intercooler Bracket No.2	1
P66	Cap Bolt M8 L20	4
P75	Flat Washer M8	4
P77	Flange Nut M8	1

- (1) Loosen 4 installation bolts of the A/C condenser.

#### NOTE

- ✧ The clearance between the A/C condenser and front bumper reinforcement can be wider so installation of the intercooler is easier.

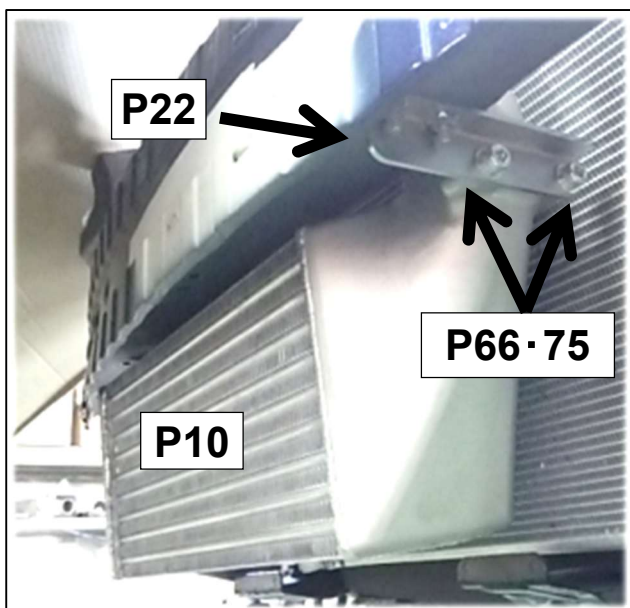


- (2) Temporarily install the intercooler to the vehicle.

- P10 Intercooler x1
- P23 Intercooler Bracket No.2 x1
- P66 Cap Bolt M8 L20 x4
- P75 Flat Washer M8 x4
- P77 Flange Nut M8 x1

#### NOTE

- ✧ Push the A/C condenser to rearward of the vehicle to widen the clearance; then, install the intercooler.

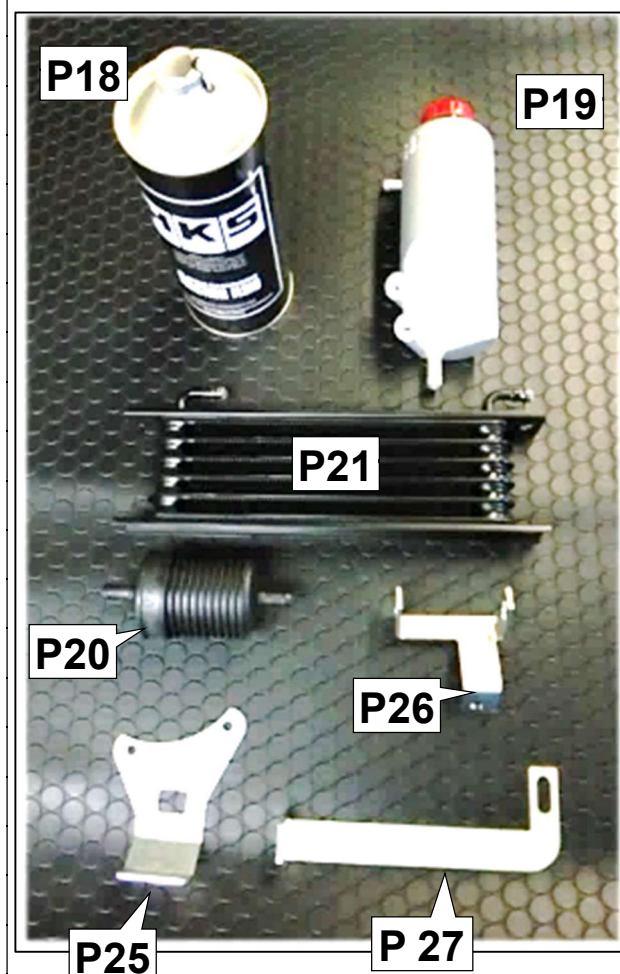


- (3) Make sure the intercooler does not come in contact with any other parts of the vehicle. Tighten all bolts.

- (4) Tighten the installation bolts of the condenser.

## 6. INSTALLATION OF TRACTION FLUID TANK

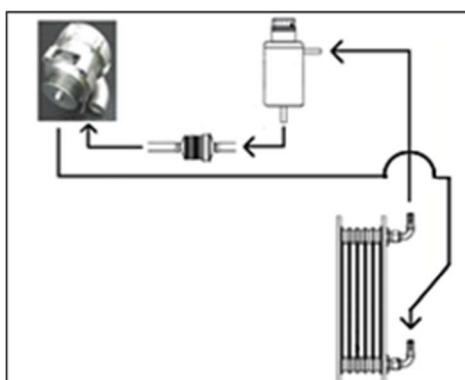
PARTS LIST



No.	Part Name	QT
P18	Traction Fluid	1
P19	Traction Fluid Tank	1
P20	Traction Fluid Filter	1
P21	Traction Fluid Cooler	1
P25	Traction Fluid Filter Bracket	1
P26	Traction Fluid Cooler Bracket No.1	1
P27	Traction Fluid Cooler Bracket No.2	1
P32	Silicone Hose ID55 L43	1
P36	Traction Fluid Hose ID9	1
P37	Traction Fluid Hose ID8	1
P40	Corrugated Tube ID15	1
P51	Hose Clamp #36	1
P55	Hose Clamp ID15.5	4
P58	Hose Clamp ID13.0	4
P71	Hexagon Bolt M8 L20	5
P72	Hexagon Bolt M6 L20	2
P75	Flat Washer M8	5
P76	Flat Washer M6 Major Dia.	2
P77	Flange Nut M8	3
P78	Flange Nut M6	2
P79	Tie Wrap (M)	5

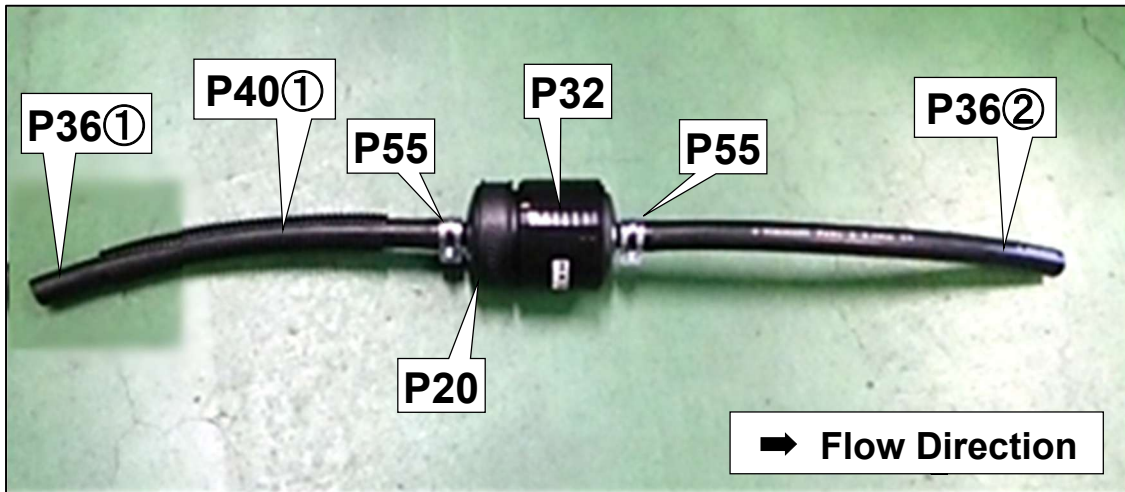
### NOTE

- ✧ The Supercharger unit is made with precision components. If any foreign objects should become mixed with the traction fluid, the Supercharger may become damaged. Make sure the hoses and/or fitting ends are covered to prevent foreign objects from getting inside the hoses, tank and/or cooler.
- ✧ Refer to the diagram below for connecting the traction fluid tank, cooler, and supercharger. Make sure to connect all parts properly.





- (1) Cut the Traction Fluid Hose ID9 to ①200mm and ②260mm.
  - P36 Traction Fluid Hose ID9 x1
- (2) Cut the Corrugated Tube ID15 to ①130mm, ②870mm, and ③690mm.
  - P40 Corrugated Tube ID15 x1
- (3) Cut the Traction Fluid Hose ID8 to ①940mm and ②750mm.
  - P37 Traction Fluid Hose ID8 x1
- (4) Install the Silicone Hose ID55 L43 to the Traction Fluid Filter.
  - P20 Traction Fluid Filter x1
  - P32 Silicone Hose ID55 L43 x1



- (5) Install the Traction Fluid Hose ID9 ① and ② to the Traction Fluid Filter using the provided Hose Clamp ID15.5.
  - P55 Hose Clamp ID15.5 x2

**NOTE**

- ✧ Make sure to install the traction fluid filter in the correct direction. The arrow on the filter indicates the direction.

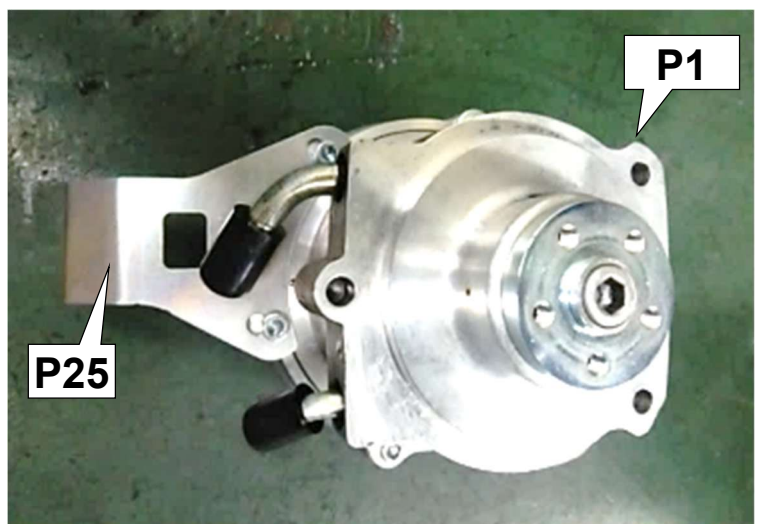
- (6) Install the Corrugated Tube ID15 ① to the Traction Fluid Hose ID9 ①.

- (7) Remove 2 of M6 bolts securing the GT2 Supercharger's compressor. Install the Traction Fluid Filter Bracket.

- P25 Traction Fluid Bracket x1

**NOTE**

- ✧ Do not use the major diameter washer securing the compressor housing.

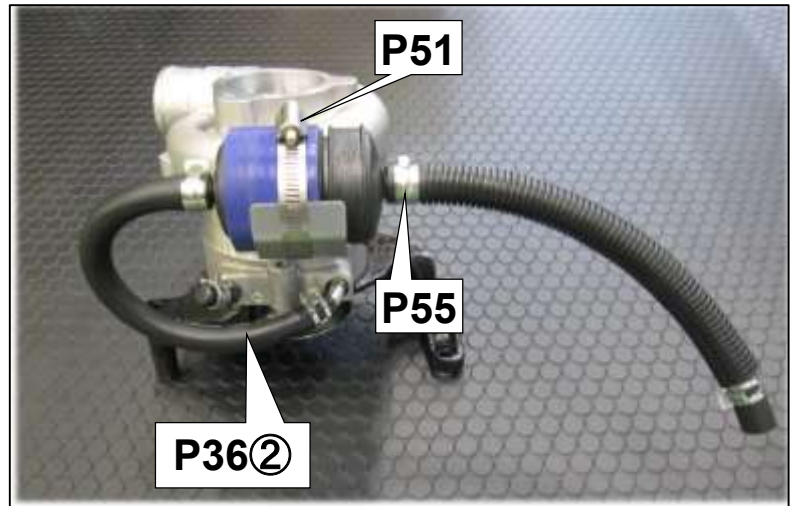


(8) Install the Traction Fluid Filter to the Traction Fluid Filter Bracket.

- P51 Hose Clamp #36 x1

(9) Install the Traction Fluid Hose ID9 ② to the GT2 Supercharger.

- P55 Hose Clamp ID15.5 x1



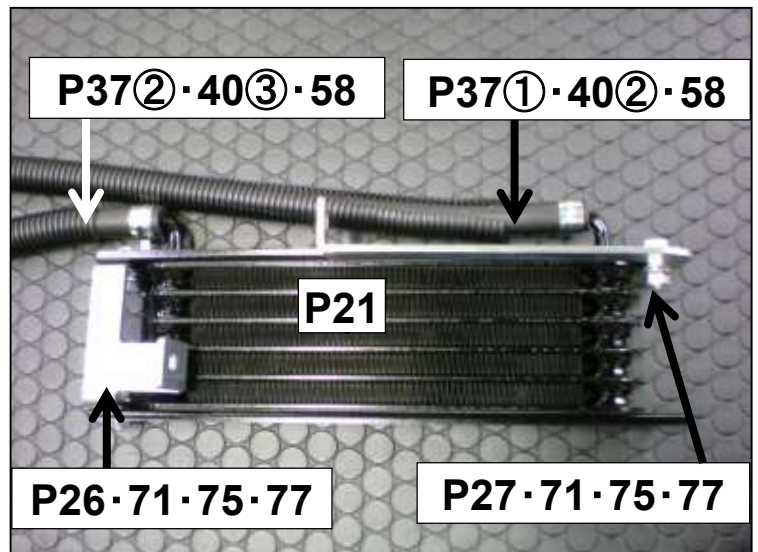
(10) Install the Traction Fluid Hose ID8 ① and ② to the Traction Fluid Cooler.

- P58 Hose Clamp ID13.0 x2

(11) Install the Corrugated Tube ID15 ② and ③ to the Traction Fluid Hose ID8 ① and ②.

(12) Temporarily install the Traction Fluid Bracket to the Traction Fluid Cooler using the following provided parts.

- P21 Traction Fluid Cooler x1
- P26 Traction Fluid Cooler Bracket No.1 x1
- P27 Traction Fluid Cooler Bracket No.2 x1
- P71 Hexagon Bolt M8 L20 x3
- P75 Flat Washer M8 x3
- P77 Flange Nut M8 x3



(13) Temporarily install the Traction Fluid Cooler Bracket No.2 to the front bumper reinforcement using the following provided parts.

- P72 Hexagon Bolt M6 L20 x1
- P76 Flat Washer M6 M. Dia. x1
- P78 Flange Nut M6 x1





(14) Temporarily install the Traction Fluid Cooler Bracket No.1 to the front bumper reinforcement using the following provided parts.

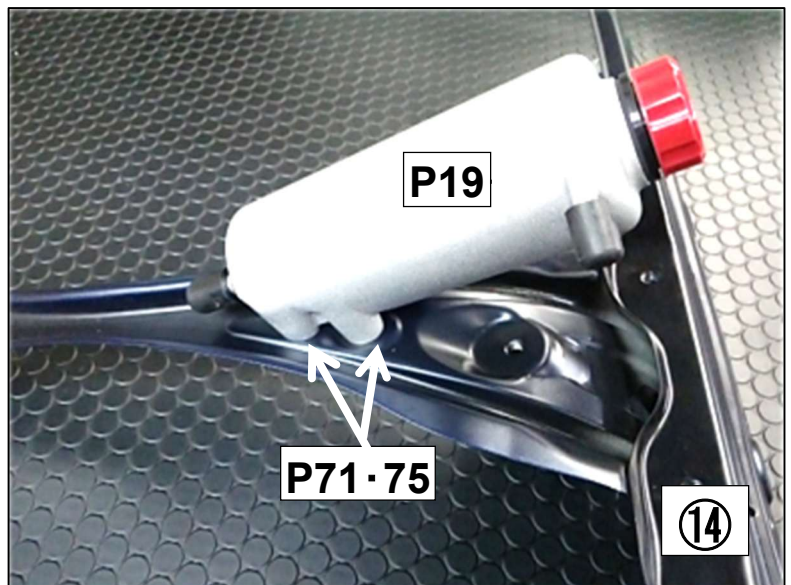
- P72 Hexagon Bolt M6 L20 x1
- P76 Flat Washer M6 M. Dia. x1
- P78 Flange Nut M6 x1

(15) Make sure the installed parts do not come in contact with any other parts of the vehicle. Tighten all bolts temporarily installed in (12), (13), and (14).



(16) Install the Traction Fluid Tank to the ⑭ radiator support modified in 3.(14) using the following provided parts.

- P19 Traction Fluid Tank x1
- P71 Hexagon Bolt M8 L20 x2
- P75 Flat Washer M8 x2



(17) Route the Traction Fluid Hose ID8② through the radiator support as shown in the diagram on the right. Temporarily install the radiator support to the vehicle.

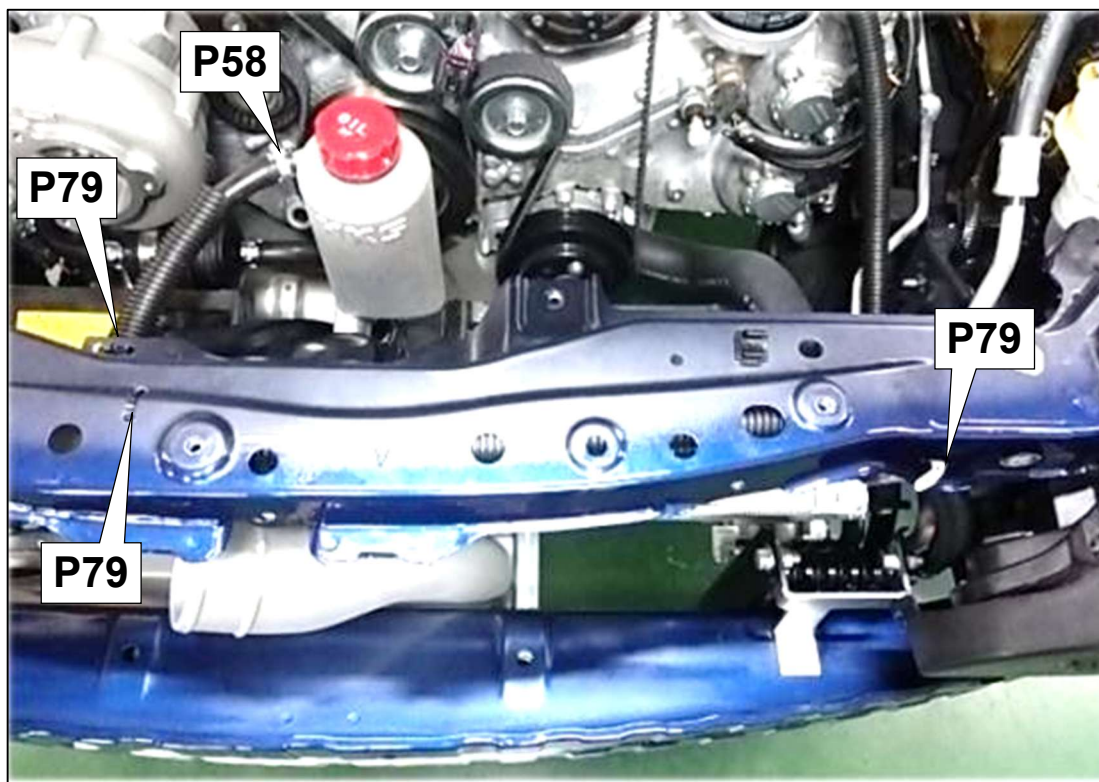
**NOTE**

- ✧ For easier installation of the intercooler pipe, uplift the radiator support. Tighten bolts after installing the intercooler pipe.
- ✧ Route the hose inside of the radiator support.



(18) Install the Traction Fluid Hose ID8 ② to the attachment on the upper side of the Traction Fluid Tank.

- P58 Hose Clamp ID13.0 x1



(19) Secure the Traction Fluid Hose ID8 ② to the Radiator Support in the position shown in the diagram above using the provided Tie Wraps (M). Pass the Tie Wraps through the holes made in 3.(14) and ones originally existed.

- P79 Tie Wrap (M) x3

(20) Install the Traction Fluid Hose ID9 ① to the attachment on the lower side of the Traction Fluid Tank.

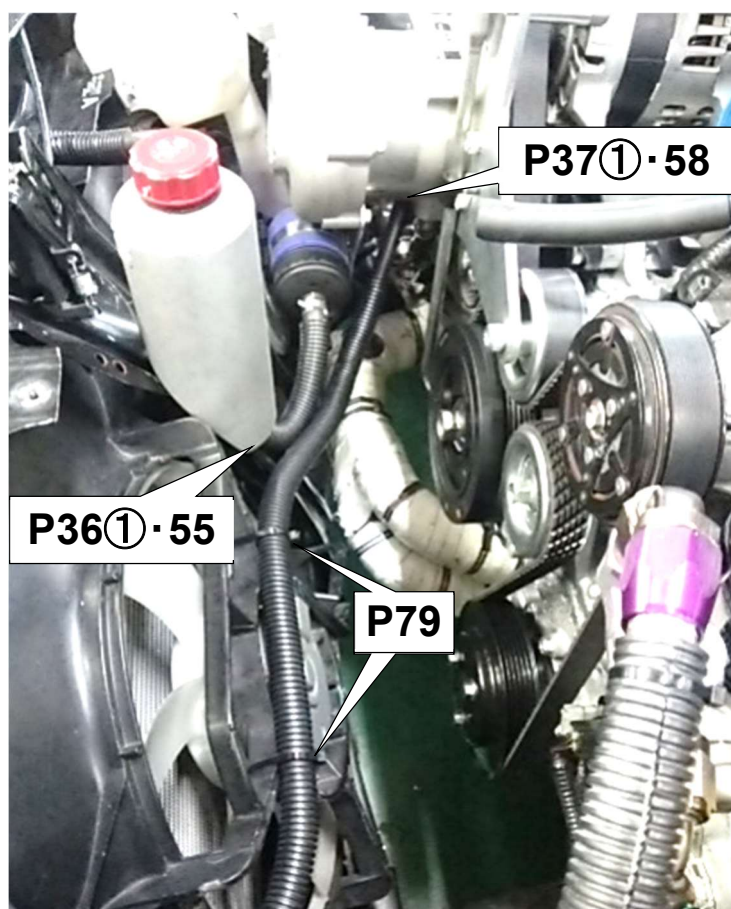
- P55 Hose Clamp ID15.5 x 1

(21) Install the Traction Fluid Hose ID8 ① to the GT2 Supercharger.

- P58 Hose Clamp ID13.0 x 1

(22) Secure the Traction Fluid Hose ID8 ① to the radiator fan shroud using the provided Tie Wraps (M).

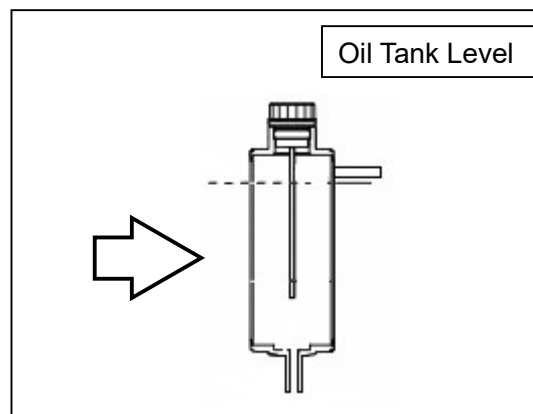
- P79 Tie Wrap (M) x 2





(23) Make sure there are no foreign objects in the Traction Fluid Tank. Add the Traction Fluid up to the dotted line in the diagram. Close the cap properly and securely.

- P18 Traction Fluid x1



## 7. INSTALLATION OF SUCTION PIPE

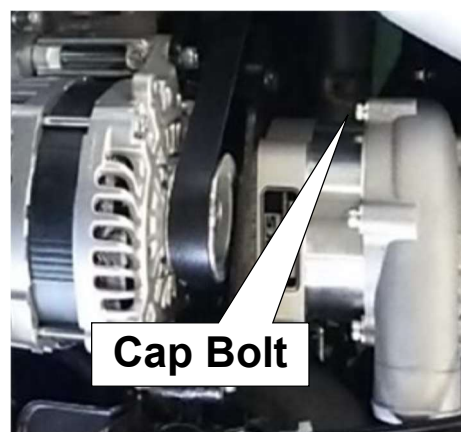
PARTS LIST			
	No.	Part Name	QT
	P11	Suction Pipe	1
	P12	Suction Pipe Gasket	1
	P28	Silicone Hose ID75 L83	1
	P29	Silicone Hose ID75 L60	1
	P35	Silicone Hose ID12-ID18	1
	P43	Joint Pipe OD12	1
	P49	Hose Clamp #48	2
	P53	Hose Clamp ID23.0	1
	P54	Hose Clamp ID18.0	1
	P73	Flange Bolt M6 L18	3

(1) Temporarily install the air cleaner case modified in 3. (23) to the vehicle.

(2) Loosen the six M6 cap bolts that secure the compressor housing.

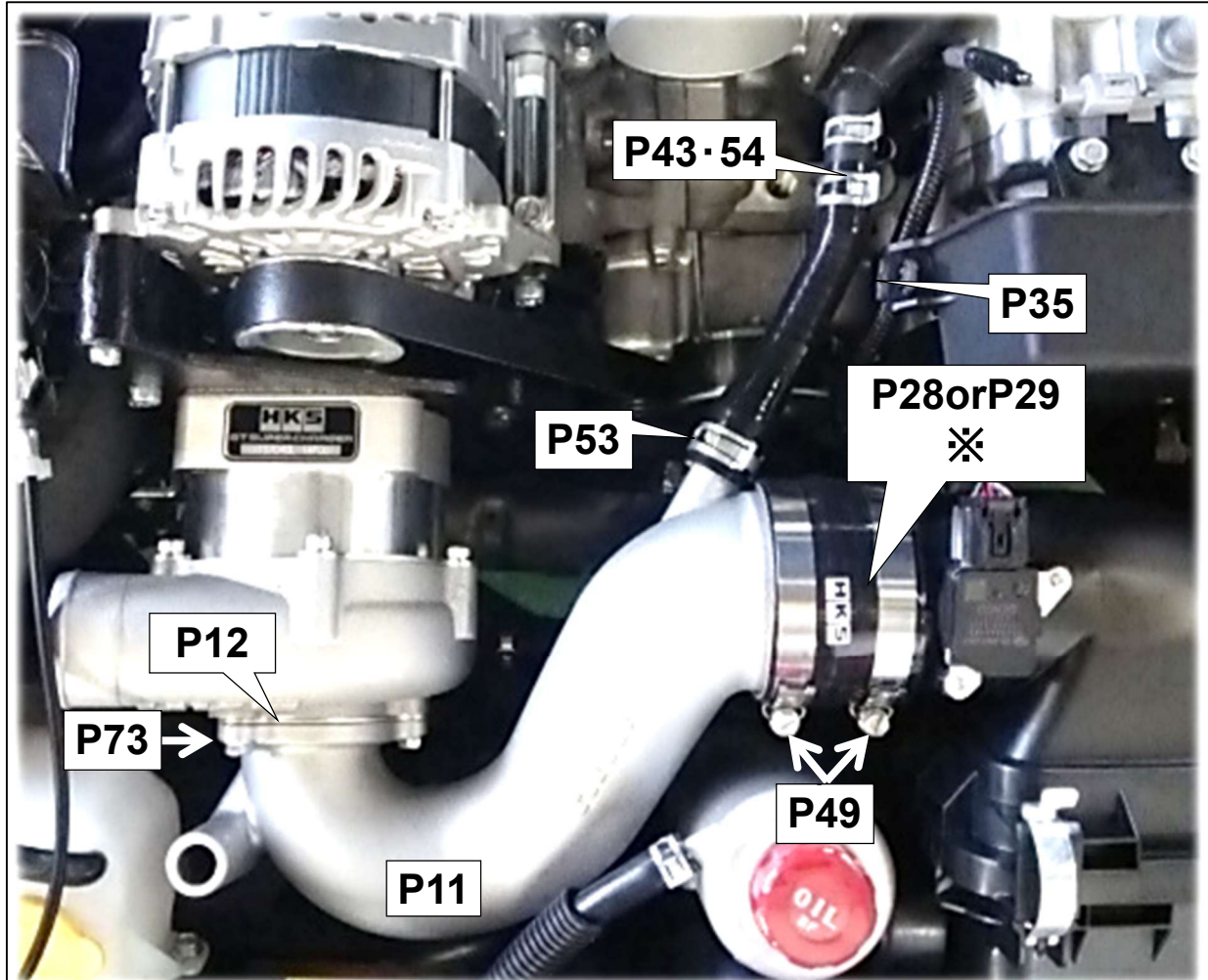
### NOTE

- ✧ In the next process, adjust the angle of the compressor housing.





- (3) Adjust the angle of the compressor housing, and install the Suction Pipe to the GT2 Supercharger and air cleaner case.
- P11 Suction Pipe x 1
  - P12 Suction Pipe Gasket x 1
  - P28 Silicone Hose ID75 L83 x 1※For a MT vehicle 2017~ model
  - P29 Silicone Hose ID75 L60 x 1※For a MT vehicle ~2016 model
  - P49 Hose Clamp #48 x 2
  - P73 Flange Bolt M6 L18 x 3



- (4) Fix the six M6 cap bolts that secure the compressor housing.
- (5) Install the Silicone Hose ID12-ID18 to the Suction Pipe and Blow-by Hose.
- P35 Silicone Hose ID12-ID18 x1
  - P43 Joint Pipe OD12 x1
  - P53 Hose Clamp ID23.0 x1
  - P54 Hose Clamp ID18.0 x1
- (6) Connect the airflow meter connector.
- (7) Tighten the bolts on the air cleaner case.

## 8. INSTALLATION OF INTERCOOLER PIPES

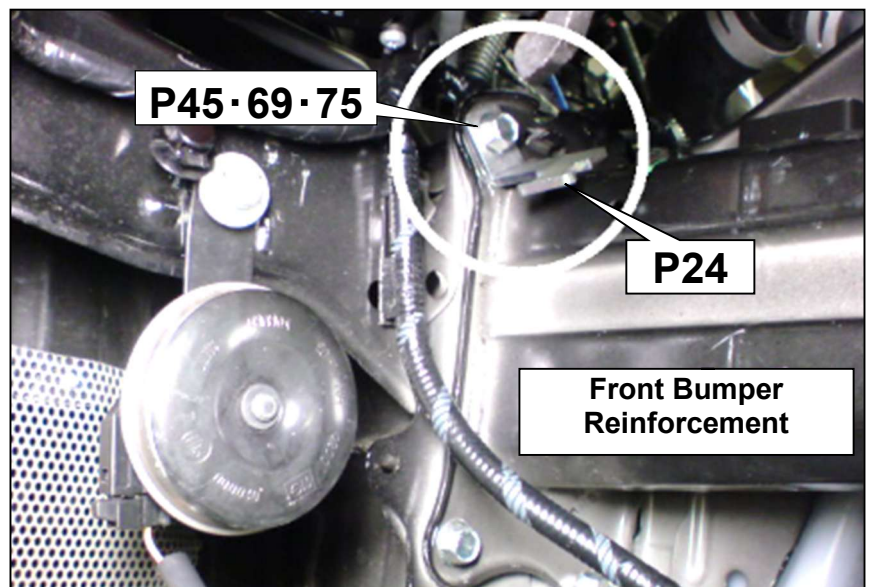
PARTS LIST			
No.	Part Name	QT	
P13	Intercooler Inlet Pipe	1	
P14	Intercooler Outlet Pipe No.1	1	
P15	Intercooler Outlet Pipe No.2	1	
P24	Intercooler Inlet Pipe Bracket	1	
P30	Silicone Hose ID75 L55	1	
P31	Silicone Hose ID60 L70	3	
P33	Silicone Hose ID50-ID60	1	
P45	Spacer T=5	1	
P46	Insulator Rubber	1	
P49	Hose Clamp #48	2	
P50	Hose Clamp #40	7	
P51	Hose Clamp #36	2	
P70	Hexagon Bolt M8 L25	1	
P75	Flat Washer M8	1	

(1) Temporarily install the Intercooler Inlet Pipe Bracket No.1 to the front bumper reinforcement in the position shown in the diagram on the right.

- P24 I/C Inlet Pipe Bracket x1
- P45 Spacer T=5 x1
- P70 Hex Bolt M8 L25 x1
- P75 Flat Washer M8 x1

### NOTE

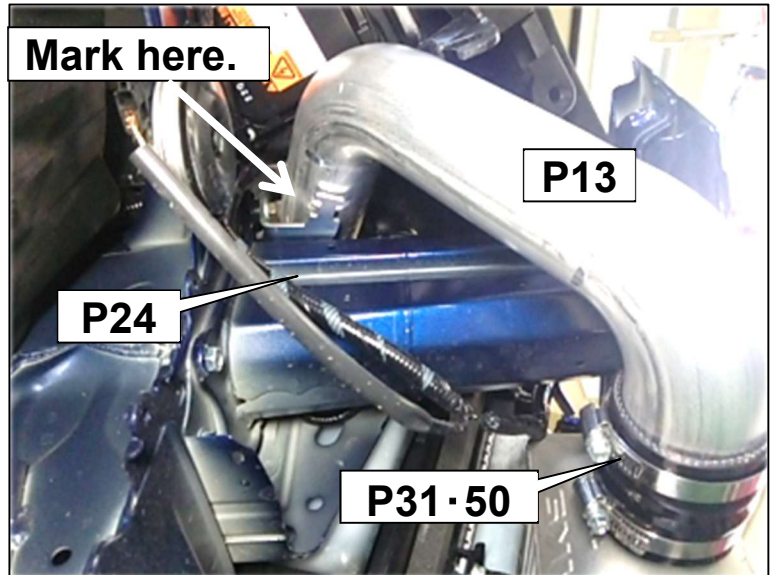
- ✧ Insert the Spacer T=5 between the Intercooler Inlet Pipe Bracket and vehicle.



- (2) Temporarily install the Intercooler Inlet Pipe to the Intercooler.

- P13 Intercooler Inlet Pipe x1
- P31 Silicone Hose ID60 L70 x1
- P50 Hose Clamp #40 x2

- (3) Mark the position where the Intercooler Inlet Pipe secures to the Intercooler Inlet Pipe Bracket. Remove the Intercooler Inlet Pipe.

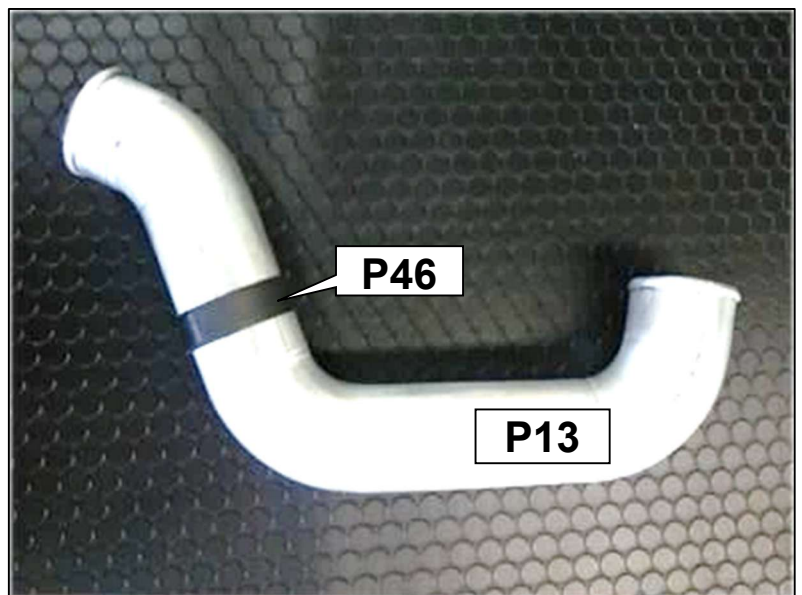


- (4) Install the Insulator Rubber to the Intercooler Inlet Pipe.

- P46 Insulator Rubber x1

**NOTE**

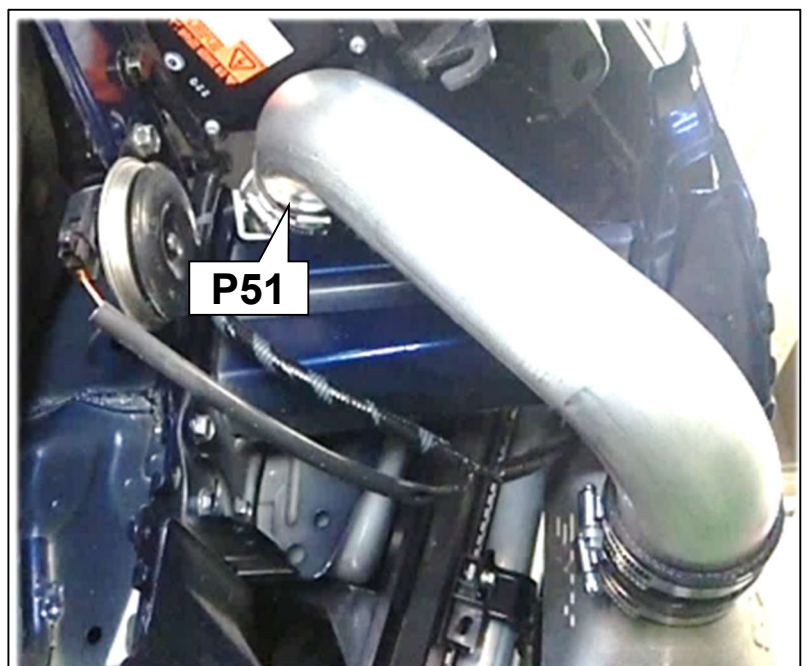
- ✧ For easier installation of the rubber, temporarily secure the rubber with tape.



- (5) Tighten the bolt on the Intercooler Inlet Pipe Bracket.

- (6) Install the Intercooler Inlet Pipe to the Intercooler and secure the pipe to the Intercooler Inlet Pipe Bracket using the provided Hose Clamp #36.

- P51 Hose Clamp #36 x1





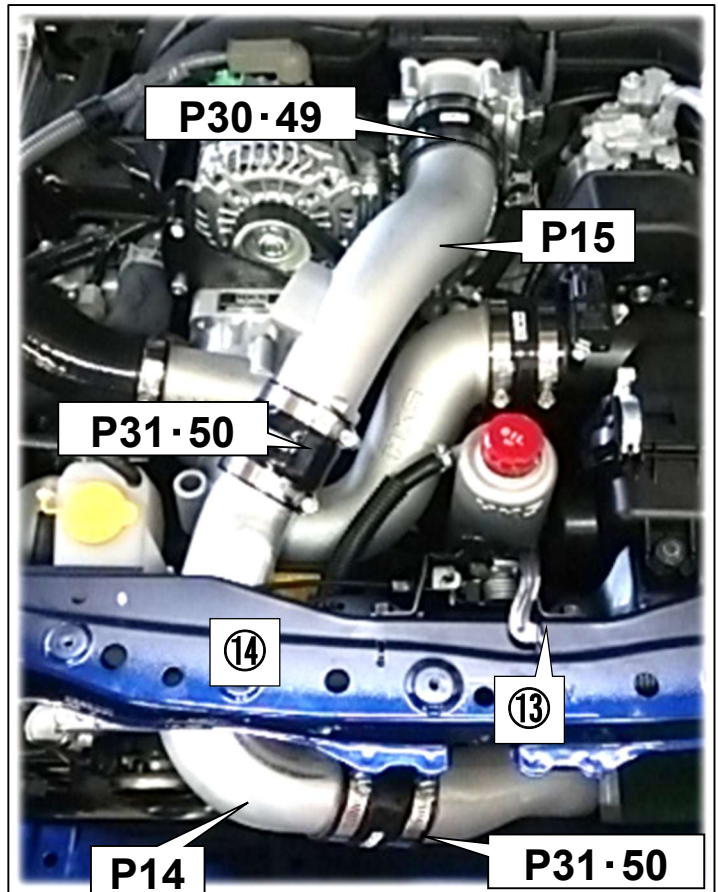
(7) Install the Silicone Hose ID50-ID60 to the GT2 Supercharger and Intercooler Inlet Pipe.

- P33 Silicone Hose ID50-ID60 x1
- P50 Hose Clamp #40 x1
- P51 Hose Clamp #36 x1



(8) Install the Intercooler Outlet Pipe No1 and No.2 to the Intercooler and throttle.

- P14 I/C Outlet Pipe No.1 x1
- P15 I/C Outlet Pipe No.2 x1
- P30 Silicone Hose ID75 L55 x1
- P31 Silicone Hose ID60 L70 x2
- P49 Hose Clamp #48 x2
- P50 Hose Clamp #40 x4




(9) Install ⑭ radiator support to the vehicle.

(10) Install ⑬ hood lock to the vehicle.

## 9. INSTALLATION OF BLOW-OFF VALVE

### PARTS LIST

	No.	Part Name	QT
	P16	Blow-off Valve	1
	P17	Blow-off Valve Gasket	1
	P34	Silicone Hose ID22	1
	P38	Hose ID10	1
	P39	Hose ID4	1
	P44	T-fitting OD10-OD4-OD10	1
	P52	Hose Clamp ID26.0	2
	P55	Hose Clamp ID15.5	2
	P56	Hose Clamp ID14.5	2
	P58	Hose Clamp ID13.0	1
	P60	Hose Clamp ID6.8	2
	P79	Tie Wrap (M)	2

(1) Install the Blow-off Valve to the Intercooler Outlet Pipe No.2.

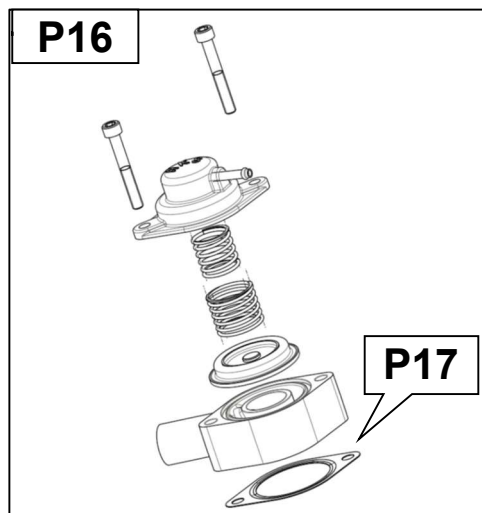
- P16 Blow-off Valve x1
- P17 Blow-off Valve Gasket x1



### Caution

- Be sure to install the blow-off valve with the two bolts provided. If other bolts are used, the blow-off valve cannot be installed correctly and may cause air leakage or damage to the blow-off valve.

P16



P17

(2) Install the Silicone Hose ID22 to the Blow-off Valve and Suction Pipe.

- P34 Silicone Hose ID22 x1
- P52 Hose Clamp ID26.0 x2

### NOTE

- ✧ Install the shorter straight side of the Silicone Hose ID22 to the Suction Pipe.

(3) Cut the Hose ID4 to 650mm in length.

- P39 Hose ID4 L1000 x1

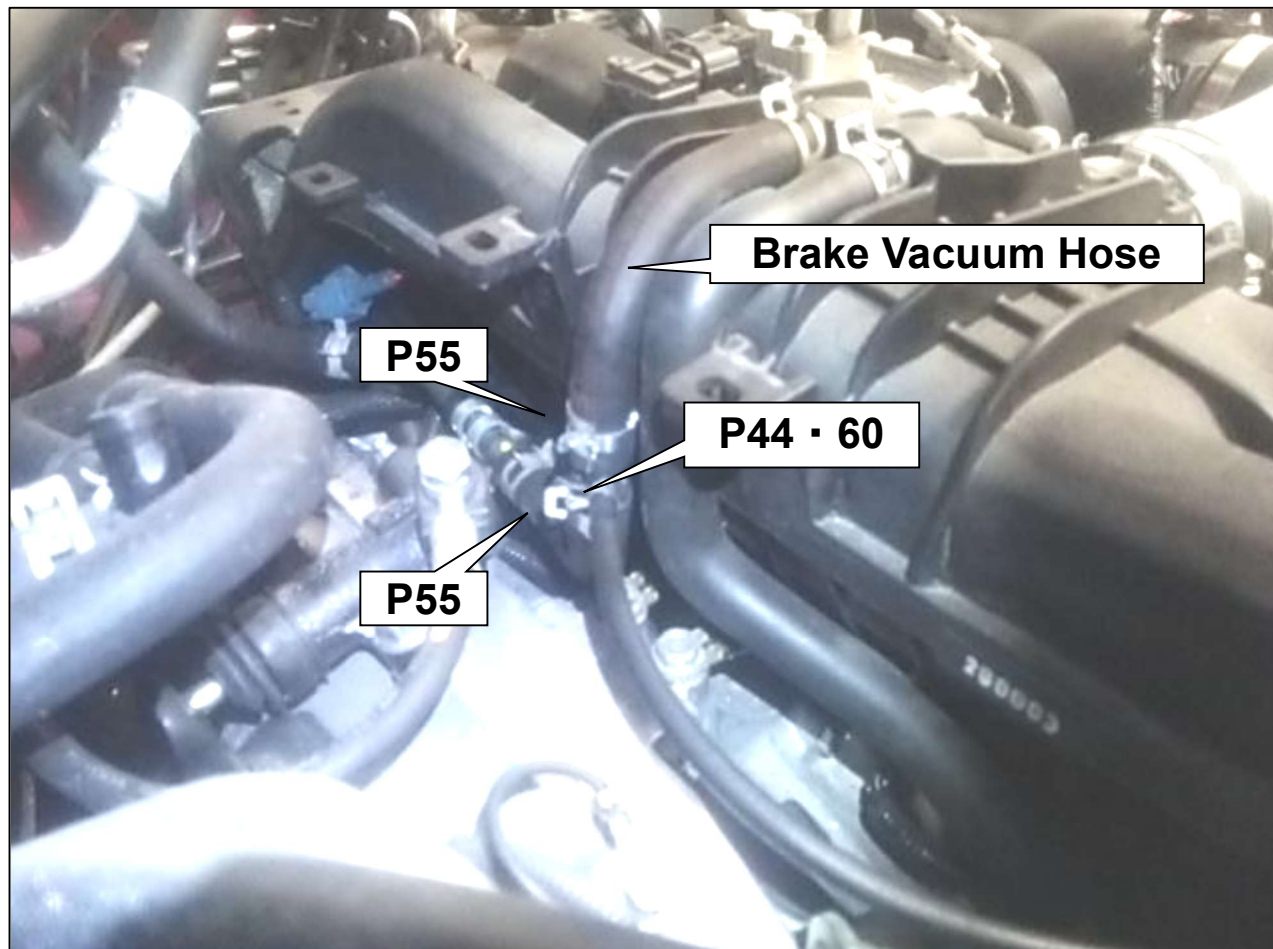
P34-52



### For a Manual Transmission Vehicle:

(4) Install the Hose ID4 cut in 9.(3)to the T-fitting OD10-OD4-OD10.

- P44 T-fitting OD10-OD4-OD10 x1
- P60 Hose Clamp ID6.8 x1



(5) Cut the brake vacuum hose and install the T-fitting OD10-OD4-OD10 to the brake vacuum hose.

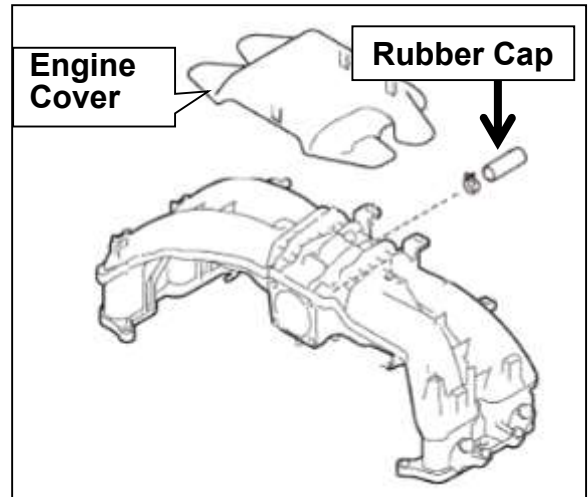
- P55 Hose Clamp ID15.5 x2



## For an Automatic Transmission Vehicle:

(6) Remove the engine cover.

(7) Remove the rubber cap.

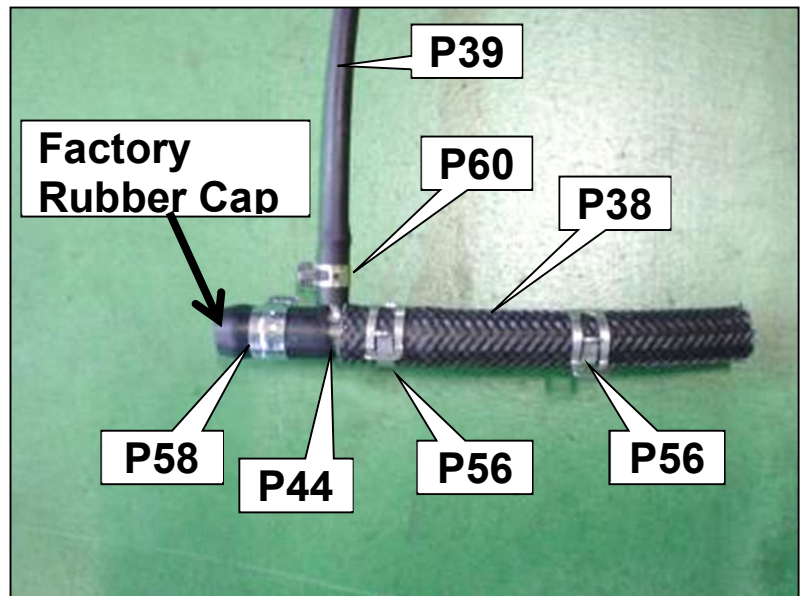


(8) Cut the Hose ID10 to 115mm in length.

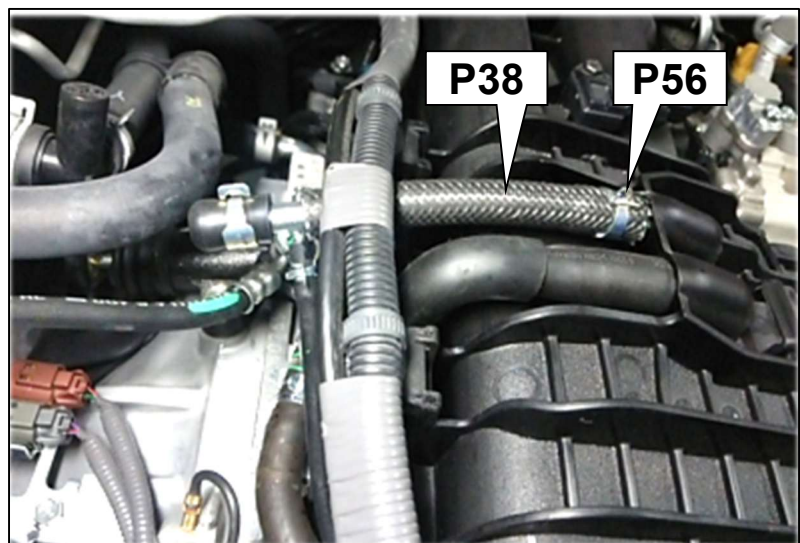
- P38 Hose ID10 x1

(9) Install the 650mm Hose ID4, rubber cap removed in 9.(7), and 115mm Hose ID10 to the T-fitting OD10-OD4-OD10.

- P44 T-fitting OD10-OD4-OD10 x 1
- P56 Hose Clamp ID14.5 x2
- P58 Hose Clamp ID13.0 x1
- P60 Hose Clamp ID6.8 x1



(10) Install the Hose ID10 to the intake manifold.



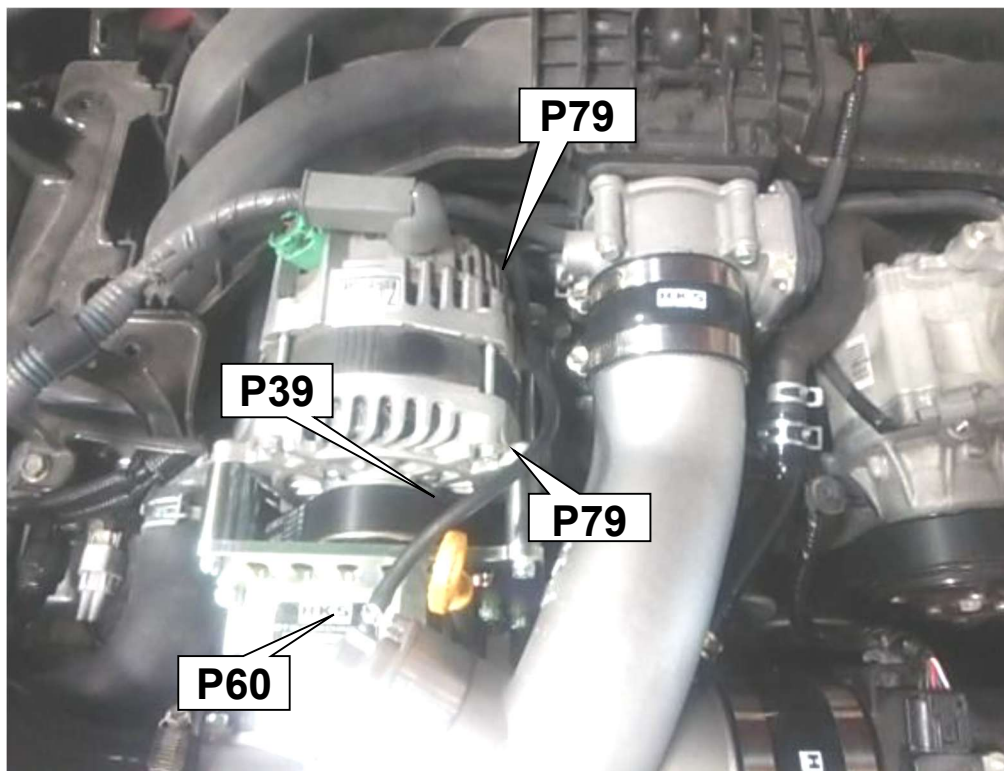
**The following procedures are for both manual and automatic transmission vehicles:**

(11) Install the Hose ID4 to the Blow-off Valve.

- P60 Hose Clamp ID6.8 x1

**NOTE**

- ✧ Route the Hose ID4 under the intake manifold.

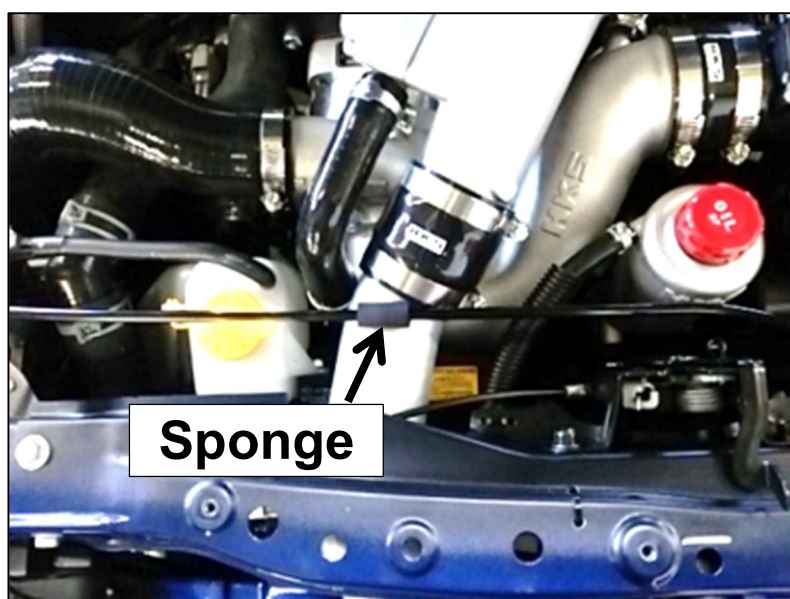


(12) Secure the Hose ID4 to the alternator using the provided Tie Wraps.

- P79 Tie Wrap (M) x2

(13) Reinstall the engine cover to the engine.

(14) Relocate the sponge of the hood support rod to the position shown in the diagram on the right.





## **10. REINSTALLATION OF FACTORY PARTS**

- (1) Reinstall ⑪belt cover.
- (2) Reinstall ⑫air cleaner duct.
- (3) Reinstall ⑧front bumper bracket.
- (4) Reinstall ⑦front bumper cover LWR.
- (5) Reinstall ③front bumper energy absorber.
- (6) Reinstall ②front bumper.
- (7) Reinstall ①left and right side turn signal lights.
- (8) Reinstall the engine under cover.
- (9) Reconnect the negative terminal to the battery.

## 11. CONFIRMATION AFTER INSTALLATION & FILLING TRACTION FLUID

Check the following after the installation process is complete.

(1) Check off the following before starting the engine:

	Items to confirm:	Check
1	The Traction Fluid Piping is done correctly.	
2	No installed parts are getting in contact with each other.	
3	Make sure the harness is not pinched at any point.	
4	Make sure all bolts (especially the pulley bolts) are tightened properly.	
5	Make sure the belt is properly aligned with the grooves of the pulley.	
6	The Traction Fluid in the tank reaches to the bottom part of the return pipe.	
7	All the pipes and hoses are installed correctly.	
8	No hoses are kinked or excessively bent.	
9	The hose band is secured properly.	
10	All the bolts and nuts are securely tightened.	
11	All the installed parts are secured properly.	
12	The Cable Terminal is securely connected to the negative terminal of the Battery.	
13	The engine oil reaches between H-L of the level gauge.	

(2) Prepare Traction Fluid in a beaker or small container, open the oil cap and start the engine.

(3) Immediately after starting the engine, perform the following:

- Check to make sure that the oil level starts to decline, and then increase again.
- Add oil from a beaker or small container, so that the Oil Tank level does not get empty. Also make sure that the Oil Tank does not overflow.  
※There may be some unusual or unpleasant noises emanating from the Supercharger after starting the engine. This is normal, and this noise will go away after the Traction Fluid warms up (approximately 2-3 minutes).

(4) Start the engine and perform the following checks after the engine reaches normal operating temperature:

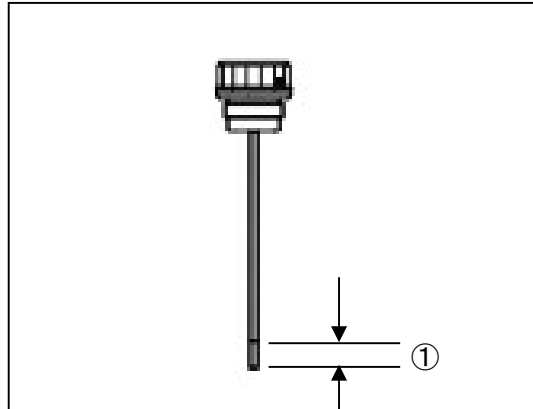
### NOTE

Do not raise the engine RPM while the engine is warming up; let it idle.

	Items to confirm	Check
1	The Traction Fluid is returning to the Traction Fluid Tank.	
2	No leakage of the Traction Fluid, Cooling Water, and/or Air from any parts.	
3	Make sure there is no excessive stress on any harnesses or hoses.	
4	Make sure the installed parts do not come in contact with any other parts.	

- (5) After verifying the above items, raise and keep the RPM stable at 2000RPM for 10 seconds. Immediately shut off the engine and check the Traction Fluid level. The level needs to be at level ① indicated in diagram below. If it is lower, add Traction Fluid as necessary.

**\*If there is excess Traction Fluid remaining in the bottle, replace the cap on the bottle and store in a safe location. Always store excess Traction Fluid in the original bottle to avoid damage to the bottle and/or degradation of the fluid.**



- (6) Put the oil tank cap back on.

**The installation process is now complete**


- ※ **After driving a while and stop the engine when the engine room is at high temperature, the belt may make squeaking noises. This is caused by the factory auto-tensioner's adjustment function; this is normal.**



## 12. 1<sup>ST</sup> MONTH INSPECTION

○ Within 40 days of installation, it is recommended to consult your installer/retailer for the following 1<sup>st</sup> month inspection:

Entry Method	No Issue	<input checked="" type="checkbox"/>	Replace	×	Adjust	A	Tighten	T
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	Inspection Item	
1	<u>Inspection of the GT2 Supercharger Unit</u>	
	<div style="border: 1px solid black; padding: 10px; text-align: center;">  <b>WARNING</b> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <ul style="list-style-type: none"> <li>• When checking operation of the unit, avoid touching any moving belts, even clothing.</li> <li>• Touching these moving belts can lead to severe injury and damage.</li> </ul> </div>	
	Compare the current operating sound against initial installation, check for increased sound levels or unusual noises.	<input type="checkbox"/>
	Compare the sound of the air cleaner against initial installation, check for increased intake sound levels or unusual noises.	<input type="checkbox"/>
2	Check Traction Fluid level for unusually high Traction Fluid consumption. (Fluid level surface is not touching the Fluid level gauge)	<input type="checkbox"/>
	<u>Inspection of the Traction Fluid Piping</u>	
	Check for Traction Fluid leaking from the piping, loose hose clamps.	<input type="checkbox"/>
	Locations:      • Connection point to the GT2 Supercharger.	<input type="checkbox"/>
	• Connection point to the Traction Fluid Cooler.	<input type="checkbox"/>
	• Connection point to the Traction Fluid Tank.	<input type="checkbox"/>
	• Connection point to the Traction Fluid Filter.	<input type="checkbox"/>
3	Signs of damage due to rubbing of the Traction Fluid Hose to other parts.	<input type="checkbox"/>
	Cracks or breaks in the Traction Fluid Hose.	<input type="checkbox"/>
4	If the Traction Fluid filled to the marking level on the Fluid level gauge.	<input type="checkbox"/>
	<u>Belt Inspection</u>	
3	Check if belt's tension is within the Auto-tensioner's adjusting range.	<input type="checkbox"/>
	Cracks or breaks in the belts.	<input type="checkbox"/>
4	<u>Bolt Tightening</u>	
	Check if GT2 Supercharger mounting bolt is tightened.	<input type="checkbox"/>
5	Check if pulley mounting bolts are properly tightened.	<input type="checkbox"/>
	<u>Other</u>	
	Check all mounted parts for interference with other parts.	<input type="checkbox"/>
	Locations:      • Belt and surrounding parts.	<input type="checkbox"/>
	• Piping and surrounding parts.	<input type="checkbox"/>
5	• Blow-off Valve Hose and surrounding parts.	<input type="checkbox"/>
	Check if hose bands are properly tightened.	<input type="checkbox"/>
5	Check if engine oil level is between H-L.	<input type="checkbox"/>

## 13. MAINTENANCE

○The Traction Fluid is exclusively for our GT2 Supercharger. Never use any Traction Fluid other than those specified by us. Using non-designated Traction Fluid, Engine Oil, Transmission Oil, or any other oils may damage the internal parts of the GT2 Supercharger.



### CAUTION

- Periodically check Traction Fluid levels prior to driving the vehicle. If the oil level is too low, add Traction Fluid as necessary.

○Use the part number below to order additional Traction Fluid:

PRODUCT NAME	PART No.
GT S/C TRACTION FLUID I	12002-AK029

※If the GT2 Supercharger System is used in an area minus 20°C, use the following Traction Fluid(Sold separately):

PRODUCT NAME	PART No.
GT S/C TRACTION FLUID II	12002-AK030

○Replace the Traction Fluid Filter after 5 years or 70,000 km after installation of the HKS GT2 Supercharger.

Use the part number below to order the Traction Fluid Filter:

PRODUCT NAME	PART No.
Traction Fluid Filter	12002-AK015

○The V-ribbed Belt is a “wear and tear” part. Check if there are no cracks, fissures, or chippings at the inspection before driving.

Replace it if any cracks, fissures, or chippings are found. Never use any V-ribbed Belt other than the specified one. Using non-designated belts may cause noise from the V-ribbed Belt when starting the engine and/or at idle.

Use the part number below to order the V-ribbed Belt:

PRODUCT NAME	PART No.
V-ribbed Belt 6PK2160	12002-KK003

○Check the Bellofram of the Blow-off Valve every 6 months. Bellofram are “wear and tear” items. Replace if any cracks or tears were found.

Use the part number below to order the Bellofram:

PRODUCT NAME	PART No.
Bellofram	12002-AK040

## 14. TROUBLE SHOOTING

- If this product does not perform properly, check all wiring and connections referring to the following before contacting your dealer.

Symptoms	Cause	Checking Items•Measures
<ul style="list-style-type: none"> <li>● Belt squeals when engine starts.</li> </ul>	—	<ul style="list-style-type: none"> <li>● It is normal. Engine squeals a few times when it's started.</li> </ul>
<ul style="list-style-type: none"> <li>● Belt squeals for a few seconds when engine starts.</li> <li>● Engine output feels weak.</li> <li>● At wide open throttle the boost starts to decrease at a certain RPM while engine RPM is increasing.</li> </ul>	Low belt tension.	<ul style="list-style-type: none"> <li>● If the belt tension does not reach the required spec, replace with a new belt.</li> <li>● Replace the auto-tensioner with a new belt after 50,000km.</li> </ul>
<ul style="list-style-type: none"> <li>● Engine output feels weak.</li> <li>● At wide open throttle the boost starts to decrease at a certain RPM while engine RPM is increasing.</li> </ul>	Air filter worn out.	<ul style="list-style-type: none"> <li>● Replace the filter element depending on dirt buildup.</li> <li>● If Factory Filter was used for more than 10,000km, replace the filter element. (Replace the element even it's used less than 10,000km depending on the filter condition.)</li> </ul>
<ul style="list-style-type: none"> <li>● Belt squeals when revving engine at high RPM.</li> </ul>	This symptom does not always show malfunction.	<ul style="list-style-type: none"> <li>● If the boost pressure does not drop at a certain engine RPM while driving, it is normal.</li> <li>● Usually engine RPM increases rapidly at revving; the belt may be more slippery. Especially with a cold engine, belt tension is low and slippery.</li> </ul>
<ul style="list-style-type: none"> <li>● Drivability becomes unstable while driving.</li> </ul>	Inadequate piping.	<ul style="list-style-type: none"> <li>● Inspect the piping for air leaks.</li> <li>● Inspect the Bellofram of the Blow-off Valve.</li> </ul>

## 15. IF BELT BREAKS

- Park the vehicle in a safe place to check if the car is still drivable. Check for any damage caused by the torn belt such as oil leak, coolant leak, damaged harness, and etc.
- Do not drive the vehicle if the belt is damaged since the water pump is operated by the belt.
- Move the vehicle to a safe place and replace the belt with a brand new one. Repair any problems that may have caused the belt to break.







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