GReddy INTAKE MANIFOLD JZA80

Toyota Supra RZ [2JZ−GTE]

Instruction Manual

- **This product should be installed by a trained professional.**
- **Read the entire manual carefully before installation.**
- **Verify from the parts list that all parts are included.**

Make	Model	Chassis	Engine	Years
Toyota	Supra RZ RZ−S	JZA80	2JZ−GTE	93. 5〜97. 8

○Tank Volume: 4500㎤. (2.2 times larger than stock)
○Made for 90φ Nissan Throttle Body.(not included in kit)
○Stock ECU can be used with the use of the TPS Adapter. (sold separate)
(ECU tuning will be required)
○Chassis and intercooler piping modification may be required in order to properly route the piping.
(Piping Kit sold separate)
○ETCS(Traction Control)and cruise control are not compatible.
○Required modifications:
- Battery relocation
- Window washer tank relocation and upgrade
- Throttle cable upgrade

(Parts not included with kit)

The following parts are necessary for installation:

«Additional OEM parts»

Part Name	Part Number	Quantity	Notes
【Toyota Genuine Parts】			
Throttle Cable Assy	78180-13030	1	Corolla NZE121
【Nissan Genuine Parts】			
Throttle Body	16119-61U10	1	HG50 Infiniti Q45 TPS included
Throttle Body Gasket	16175-61U00	1	HG50 Infiniti Q45

«Unusable Parts»

Part Name	Part Number	Quantity	Notes
Air Intake Manifold two Intake Manifold Gasket	17176-46030	1	
ISCV Gasket	22278-46010	1	

«Optional Parts»

Part Name	Part Number	Quantity	Notes
【Suzuki OEM parts】			
Window Washer Tank	38450-67011	1	
【Commercial Items & Universal Parts】			
Battery Relocation kit		1	
Electrical Wire（at least 5φ） Wire Connectors			Fuse Box Relocation Fuse Box Relocation
Universal mounting brackets			Washer Tank Mounting
Lead Wire			Washer Harness Extension

«GReddy Optional Parts»

○ GReddy Intake Manifold Piping Set JZA80

Piping kit from the intercooler outlet to the 90φ throttle body.

GReddy Intercooler KIT R-SPL TYPE25（4 row）、R－SPL HG TYPE23（3 row）fit this part (other than the aforementioned intercoolers, custom piping may be necessary).

○ GReddy Intake Manifold Throttle Position Sensor Adapter JZA80

Since the characteristics of the JZA80 and Nissan Sensor are different, the TPS adapter is required in order to use the JZA80 sensor on the Nissan throttle body. The TPS will have to be re-set and wire modification is required to use the JZA80 sensor on the Nissan throttle body.

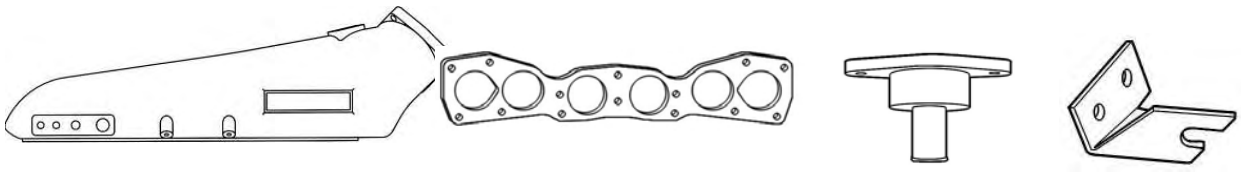
Important

1. **Disconnect the negative terminal from the battery.**
2. **Relieve fuel pressure, disconnect the gas cap and loosen the fuel pressure regulator. Have a rag handy to soak up fuel. Always wear eye protection to avoid any fuel that might spray.**
3. **Use caution when handling hoses to prevent fuel and water leaks.**
4. **Please refer to the vehicle specific manufacturer repair manual for instructions on OEM part removal and disassembly.**
   - Label each part for reassembly, cover open ports to the engine to prevent debris from entering.
   - Parts that are reused should be sufficiently cleaned and inspected for wear before reassembly.
5. **Notes before Installation**
   - Clean and inspect all parts of dust and debris.
   - Use new gaskets.
   - Refer to the repair manual for torque specifications for all nuts and bolts.

1. Parts List

1. GReddy Intake Manifold							1
2. Adapter Flange							1
3. ISCV Adapter							1
4. Throttle Cable Bracket							1
5. Sensor Bracket							1
6. Oil Level Guage Bracket							1
7. ISCV Bracket							1
8. Fuse Box Relocation Bracket							1set
9. Power Steering Reserve Tank Relocation Bracket							1
10. Intake Manifold Bracket							1
11. Hose Clamp	Tridon#6						6
12. 〃	Tridon#8						2
13. 〃	Tridon#12						4
14. 〃	Tridon#40						2
15. Hose Union	5φ－1/8PT						2
16. 〃	6φ－1/8PT						1
17. 〃	18φ－P1.5						1
18 〃	5φ－6φ						1
19. Unrestricted Union	5φ－1/8PT						1
20. 〃	8φ－1/8PT						1
21. Plug Union	1/8PT						2
22. Vacuum Hose	5φ×1000㎜						1
23. Oil Resistant Hose	8φ×1500㎜						1
24. 〃	12φ×500㎜						1
25. 〃	19φ×500㎜						1
26. Rubber Plug Cap	4φ						2
27. Angled Rubber Hose	18φ						1
28. Intake Manifold Gasket							1
29. M6×15㎜	P1.0	SUS bolt	B	S/W	F/W	－	8
30. M6	P1.0	SUS bolt	－	S/W	－	N	4
31. M8×15㎜	P1.0	SUS bolt	B	S/W	F/W	－	1
32. M8×30㎜	P1.25	SUS stud bolt	B	S/W	－	N	7
33. M8×40㎜	P1.25	SUS CAP bolt	B	S/W	F/W	－	4
34. M8×20㎜	P1.25	Hex CAP bolt	B	－	－	－	7
35. Emblem							1
36. Zip Tie	150㎜						16

Parts List Images



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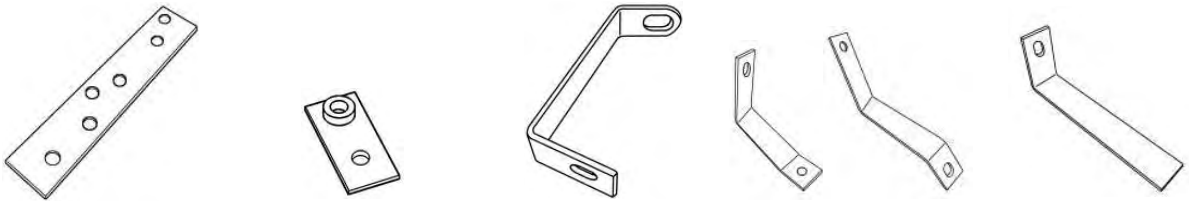
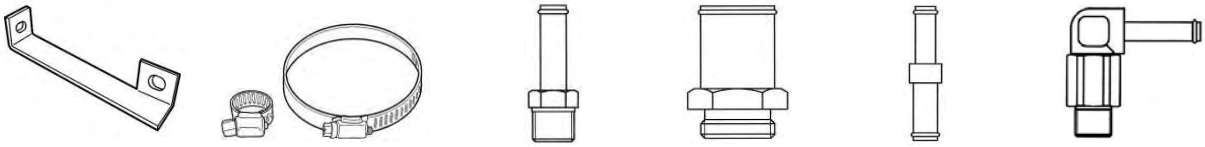
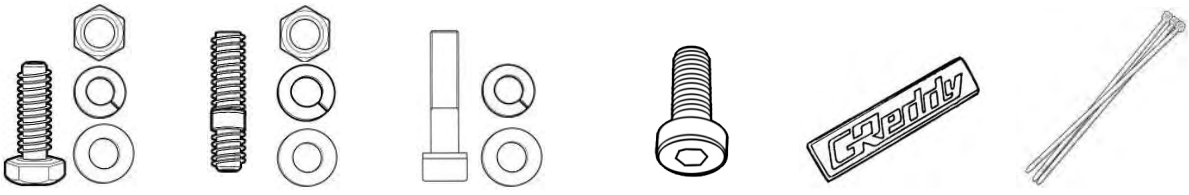


5　6　7　8　9



10　11～14　15, 16　17　18　19, 20

21　22, 23　24, 25　26　27　28



29～31　32　33　34　35　36

2. OEM Parts Removal

Refer to the vehicle specific manufacturers repair manual for a detailed description of OEM parts removal.

2－1 OEM Intake Manifold Removal

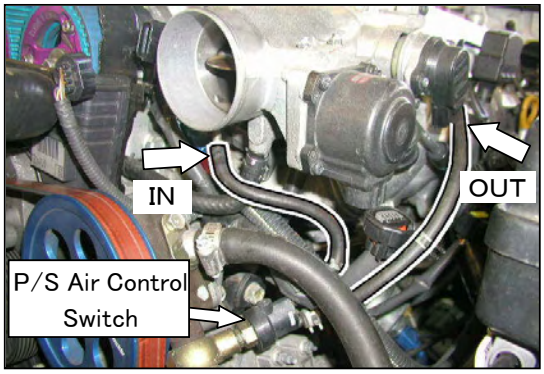
(1) Relieve fuel pressure from the fuel delivery system.

(2) Remove the battery and battery tray.

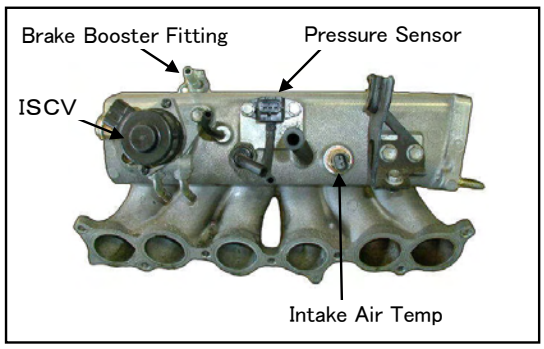
(3) Remove the throttle body and upper portion of the intake manifold according to the repair manual specifications.

※Be sure to mark the vacuum hoses on the throttle body IN and OUT before removal for easier reassembly.

※Do not remove the lower Intake Manifold.



(4) Remove the Intake Air Temp sensor, ISCV with check valve, Brake booster fitting, and pressure sensor.

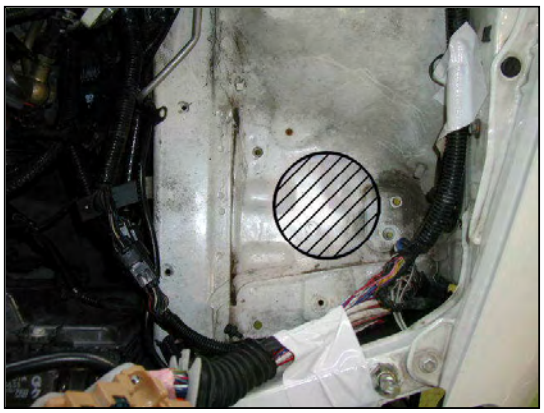


3. GReddy Intake Manifold Installation

3－1 Chassis Modification

When the optional JZA80 intake manifold piping is used, refer to the instruction manual from the piping set and refer to step one.

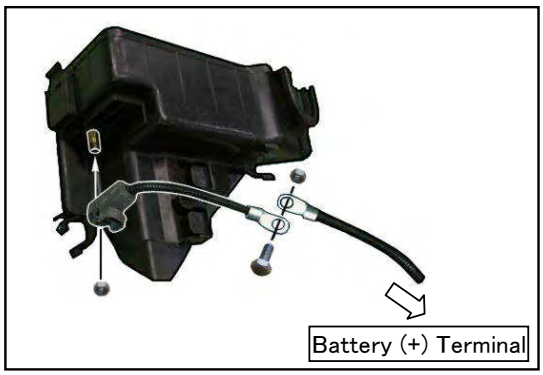
(1) Remove the washer tank, and cut a hole where the battery used to be so the piping can pass through.



3－2 Fuse Box Relocation

(1) Remove the headlight harness protector from the fuse box.

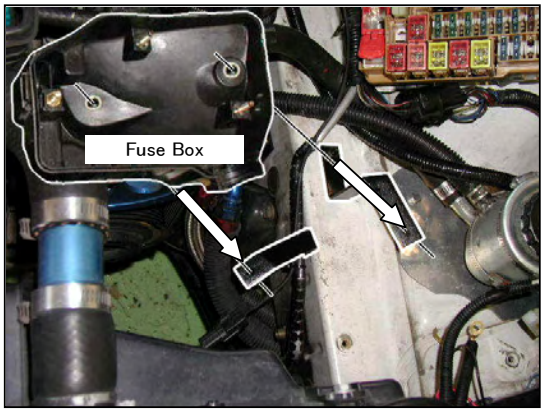
(2) Use the provided bracket to relocate the fuse box to the opposite side of the radiator shroud. Extend the fuse + wire.



> ⚠ Please use thicker cable than stock when extending the (+) cable. Also use terminal connectors instead of soldering, as high current can cause the solder to melt.

※Install the elongated bolt hole side of the bracket to the frame using the provided M6x15mm bolt. Install the round bolt hole side to the fuse box using the stock bolt and provided nut.

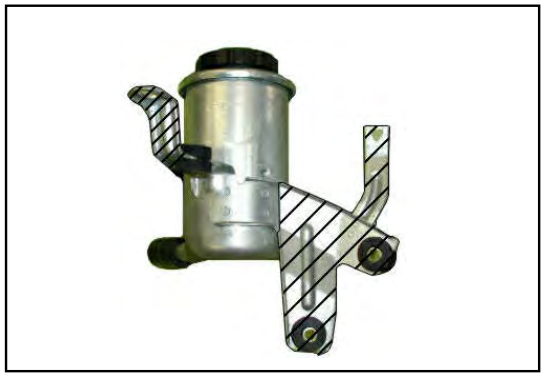
〈Parts used 8, 29, 30〉



(3) Install the fuse Assy to the case, cut the harness tubing to match the harness length and wrap the harness with electrical tape.

3－3 Power Steering Tank Relocation

(1) Cut the shaded areas from the power steering tank for relocation.



※Paint all raw metal after cuts have been made to prevent rusting.

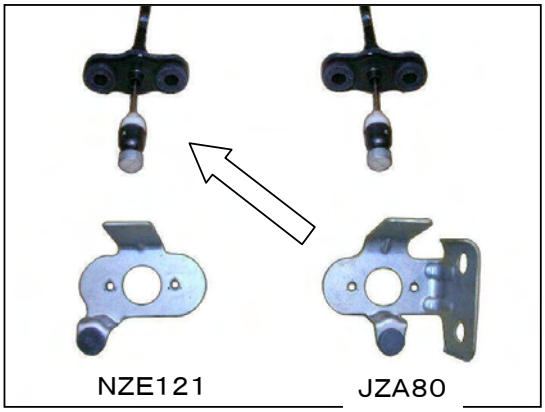
(2) Install the power steering tank on the fuse box side using the provided bracket and secure the hoses with the provided hose clamps.

〈Parts used 9, 12, 13, 14, 24, 25, 29〉

3－4 Throttle Cable Installation

（1） Remove the throttle cable from the vehicle and remove the JZA80 bracket. Use the NZE121 throttle cable on the JZA80 bracket.

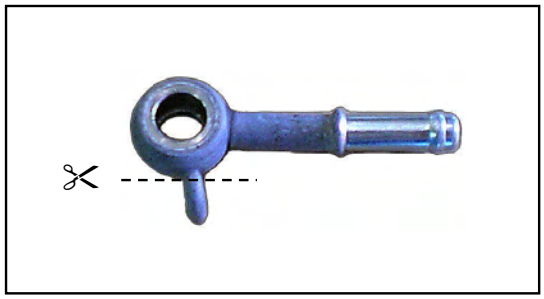
Part Description	Part Number
Toyota Genuine Throttle Cable assembly （NZE121）	78180－13030



※Replacement of the bracket is needed because the throttle pedal stopper position has changed.

3－5 GReddy Intake Manifold Attachment

（1） Cut the positioning pin on the brake booster banjo fitting as shown.



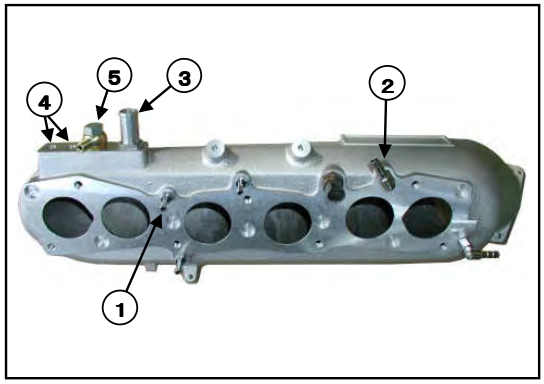
（2） GReddy Installation of the Hose Unions

① (Fuel Pressure Regulator) ･･･5φ－1/8PT
② (Blow-by) ･･･ 8φ－1/8PT
③ (ISCV) ･･･ 18φ－M18
④ (etc. vacuum ports)
⑤ (Brake booster)･･･ OE Banjo

※1/8PT Use Teflon tape around the threads.

※④The etc. vacuum ports can be used for boost gauges, boost controllers, etc. If the ports are not used, please plug the ports with 1/8PT caps.

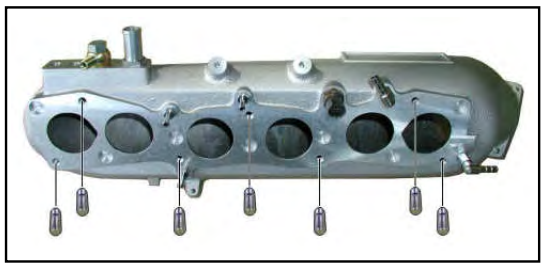
〈Parts used 1, 15, 17, 20, 21〉



（3） Install the stud bolts onto the Intake manifold.

※Apply a small quantity of liquid gasket to the threaded portion on the short side of the studs, then install into the manifold.

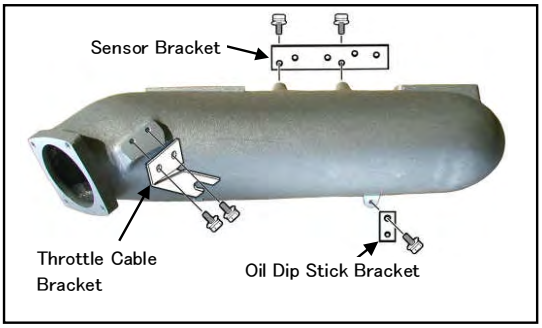
〈Parts used 32〉



(4) For each bracket on the Intake Manifold, use the provided M6 x 15 bolts.

※Install the oil dip stick bracket with the nut on the opposite side.

〈Parts used 4, 5, 6, 29〉



(5) Install the Sensor on the Intake Manifold.

Ⓐ・・・ Air Intake Sensor

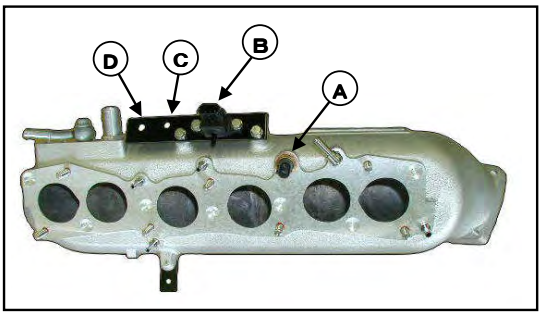
Ⓑ・・・ OEM boost pressure sensor

Ⓒ・・・ Not used

Ⓓ・・・ Not used

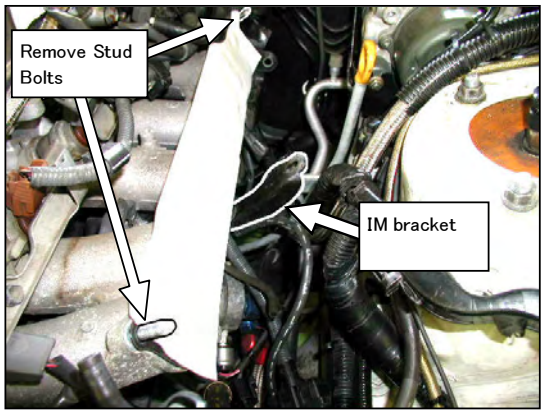
※Using the OEM bolts and nuts, install the boost pressure sensor.

〈Parts used 30〉



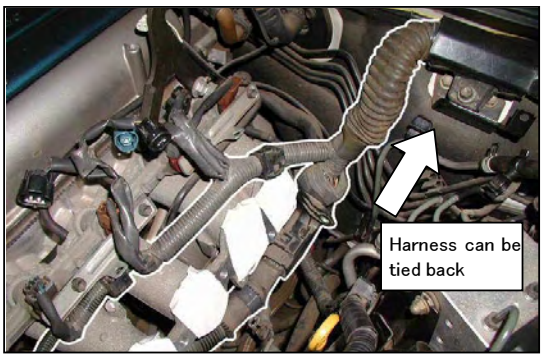
3−6 GReddy Intake Manifold Installation

(1) Remove the lower intake manifold stud bolts, then remove the OEM Intake manifold bracket as shown.



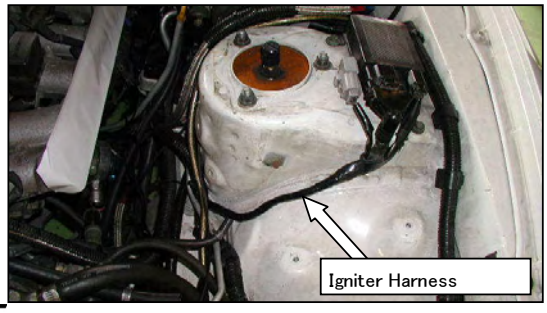
(2) Remove the bolts and clamps holding the engine wiring harness in place, so that it can be zip tied out of the way.

〈Parts used 36〉



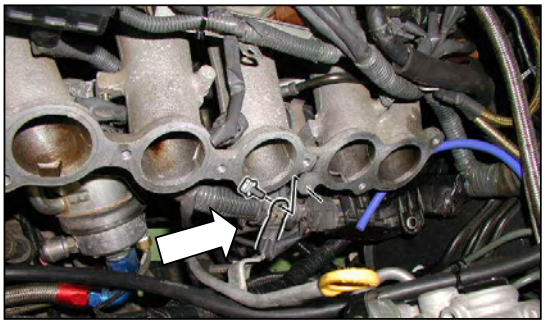
(3) Remove the harness cover of the igniter and cover it with electrical tape, then zip tie it to a safe position along the chassis.

〈Parts used 36〉

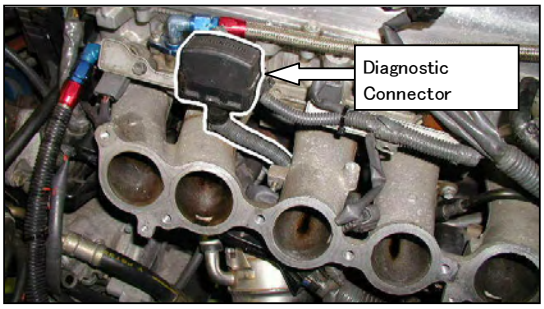


(4) On the intake manifold, install the engine wiring harness grounding terminal from the opposite side of the lower intake manifold.

※OEM bolts are used, verify that the screw has not protruded to the other side.



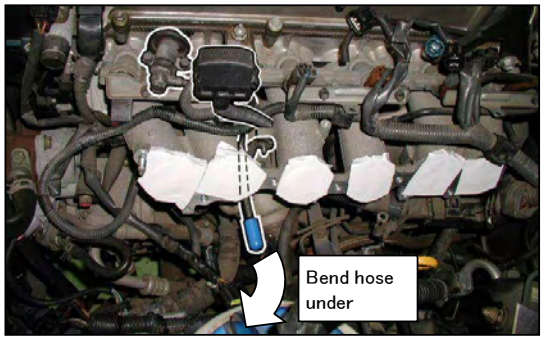
(5) In order to remove the fuel return tube, insert the diagnostic connector harness between the intake manifold #2 & #3 runners.



(6) To install the fuel return hose without crushing it, bend the hose under as shown.

※Do not install the fuel return hose bracket from the intake manifold.

Note Inspect the hose for cracking or damage, fuel leaks are a fire hazard.



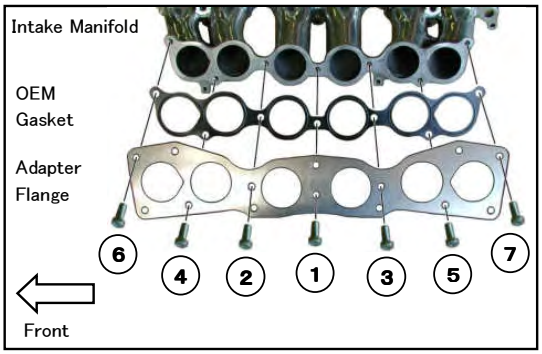
(7) Use the hex bolts to install the adapter flange and the new OEM gasket to the lower intake manifold.

※Apply liquid gasket to both sides of the OEM gasket evenly.

※Apply a small quantity of thread locker to the bolts, torque the bolts to the specified amount in the order depicted by the numbers circled.

Torque specs: 19. 1N·m(195kgf·cm)

<Parts used 2, 34>



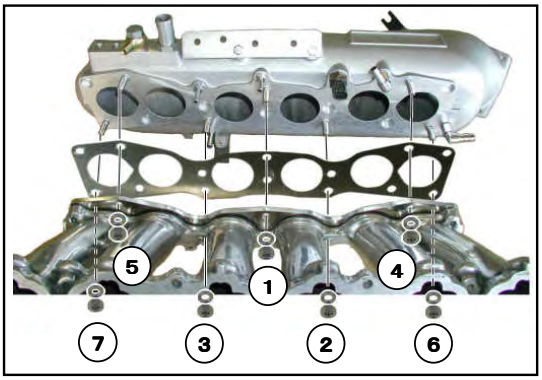
(8) Using the gasket between the manifold and the adapter, attach the manifold to the adapter with the provided nuts.

※Apply silicone sealant to both sides of the gasket.

※Torque the nuts to the specified specifications in the order shown in the diagram.

Torque Specs: 19. 1N·m(195kgf·cm)

<Parts used 28, 32>



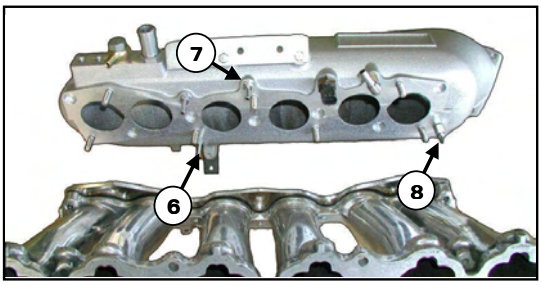
(9) Install the remaining hose union in the Intake Manifold.

⑥ (Canister Purge VSV)・・・Unrestricted 5φ－1/8PT

⑦ (Boost pressure sensor) ・・・ 5φ－1/8PT

⑧ (+-) ・・・ 6φ－1/8PT

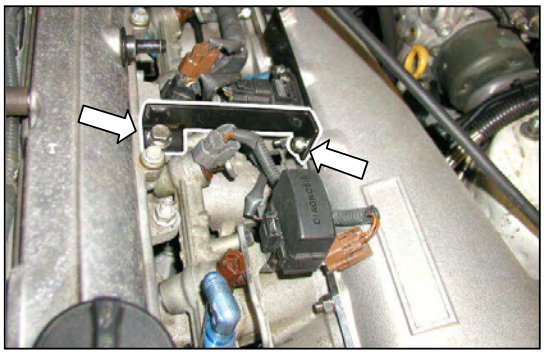
〈Parts used 15, 16, 19〉



(10) Attach the Intake manifold to the engine using the provided bracket.

※Attach the bracket as shown and use the M8x15 bolt on the engine side.

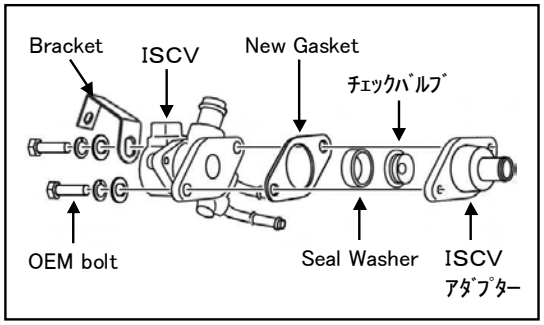
〈Parts used 10, 31〉



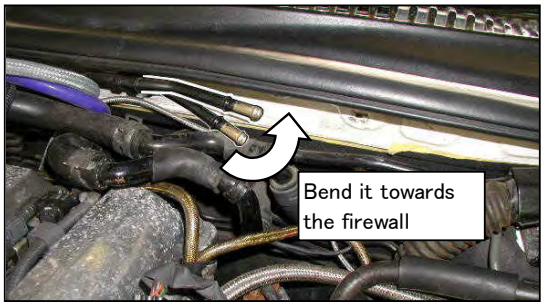
3－7 ISCV Installation

(1) Attach the ISCV bracket to the ISCV adapter using the OEM bolt. Assemble the ISCV assembly as shown.

〈Parts used 3, 7〉

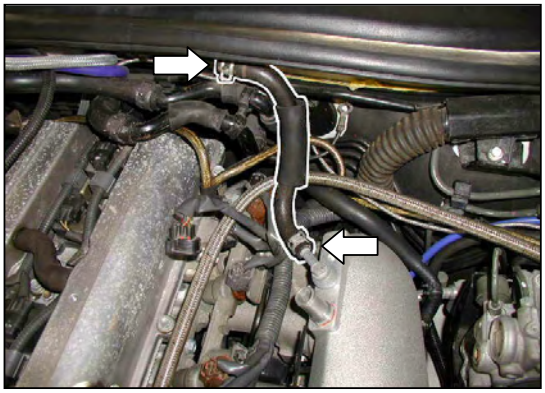


(2) Bend the brake booster line up towards the firewall.



(3) Connect the brake booster hose to the Intake Manifold as shown.

※Use the OE hose clamp.



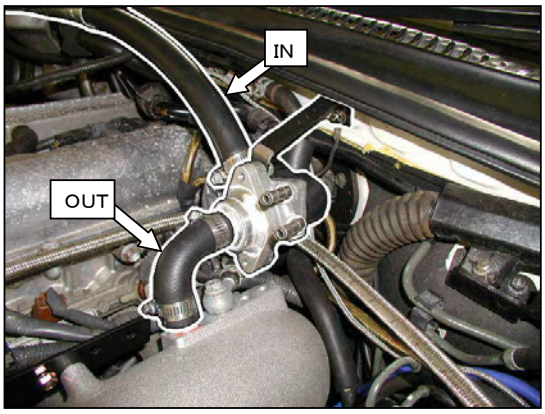
(4) Attach the ISCV using the provided bracket, connect the Inlet and Outlet hoses and secure with clamps.

Inlet: Connect the hose to the ISCV using clamps.

Outlet: Use the angled hose with clamps to attach the ISCV to the intake manifold.

※Use the clamps from the turbo kit on the IN side and the clamps from the Intake Manifold kit on the OUT side.

※For vehicles without the GReddy turbo kit, use a 19φ hose to connect the suction pipe to the ISCV.



〈Parts used 13, 27〉

3－8 Air Hose Piping

※Cut the provided hose。

(1) Connect the hose fittings to the flange side of the intake manifold.

ⓐ :Intake Manifold OEM boost pressure sensor

OEM Vacuum hose 90㎜

ⓑ :Intake Manifold Fuel pressure regulator

5φVacuum Hose 400㎜

ⓒ :Canister Purge VSV~Intake Manifold.

5φVacuum hose 100㎜

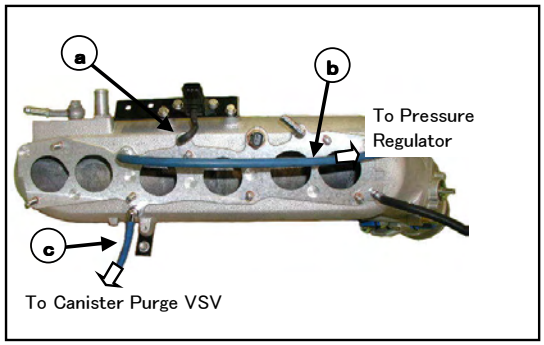
ⓓ :Canister~Canister purge VSV

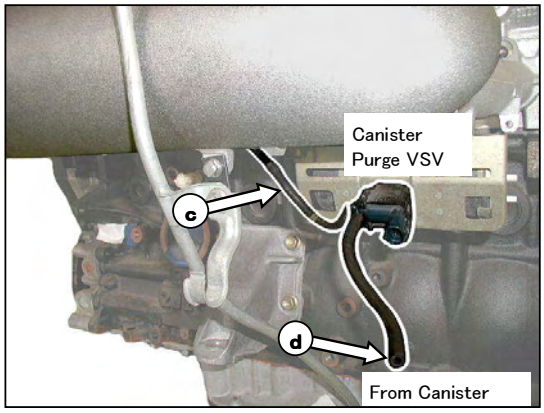
OEM canister hose and OEM canister purge VSV

Connect the hose using the 5φ－6φunion.

※Tie off each end with zip ties to secure the hoses.

〈Parts used 18, 22, 36〉



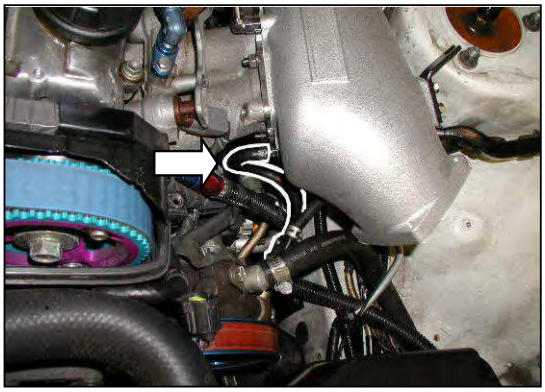


(2) Connect the shorter of the two powersteering air control switch hoses to the switch OUT side and connect the other side of the hose to the manifold.

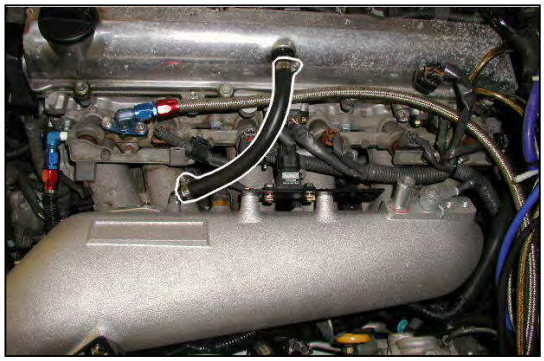
※Install the long OEM hose on the IN side of the switch.

※Use the OEM hose clamps.

※If the IN and OUT hoses of the power steering air control switch are reversed, the engine rpm could raise at vacuum.



(3) PCV Valve~ Connect the Intake manifold to the PCV Valve with the 8φ oil-resistant hose. Secure the hose with a hose clamps.



PCV Valve~ Intake Manifold

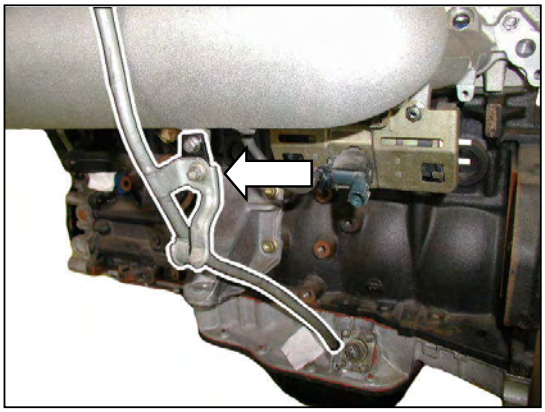
8φ Oil Resistant Hose 220㎜

〈Parts used 11, 23〉

(4) Connect the VSV coupler to each sensor.

(5) Secure the oil dip stick to the Intake manifold.

※Use OEM hardware.



3－9 Throttle Body Installation

Part Description	Part Number
Nissan Genuine Throttle Body (for Infiniti Q45)	16119－61U10
Nissan Genuine Throttle Body Gasket	16175－61U00

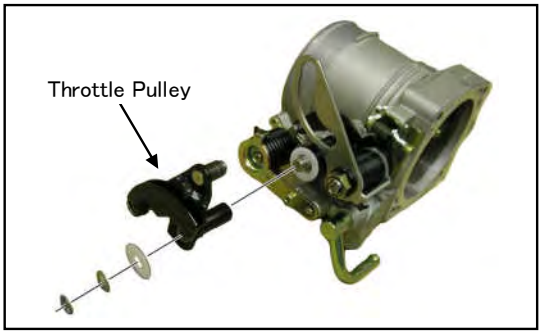
When the throttle position sensor adapter is used (sold separately), in order to install, refer to the attached instruction manual section 2-1.

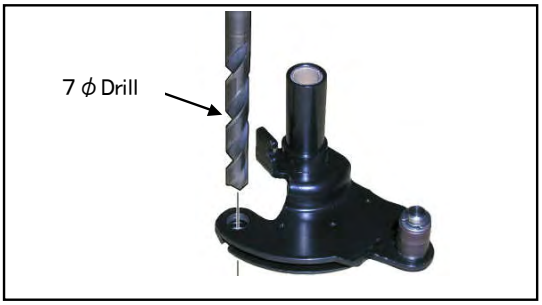
(1) Remove the throttle pulley from the Nissan 90φ throttle body, drill the hole out wide with a 7φ drill, then reattach the pulley.

※Be sure to drill from the back side of the pulley, since there is a possibility of the blade snagging the notch on the pulley.

※After the attachment is completed, move it by hand, and verify that it fully opens and closes smoothly.

※Be sure to paint any surfaces with raw metal to prevent rusting.

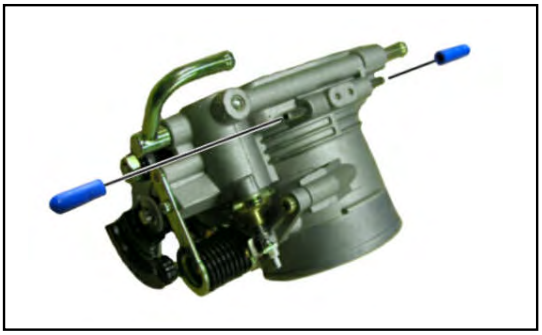




(2) Install the 4φ rubber plug caps on the 4φ ports of the throttle body as shown.

※Use zip ties to prevent these from detaching.

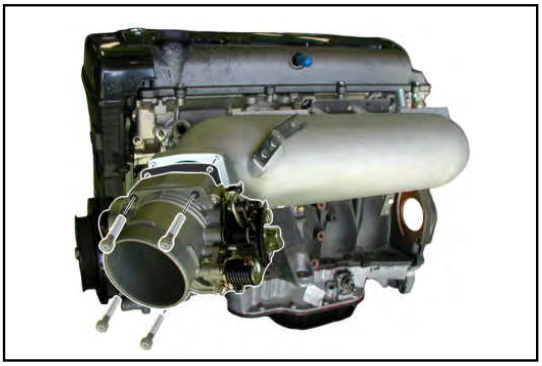
〈Parts used 26, 36〉



(3) Install the Nissan 90φ throttle body to the intake manifold using the OEM 90φ throttle body gasket using the provided hex bolts.

Torque specs: 19. 1N·m(195kgf·cm)

〈Parts used 33〉



(4) Connect the 8φoil resistant hoses as directed.

Engine~ Throttle ・・・ 290mm

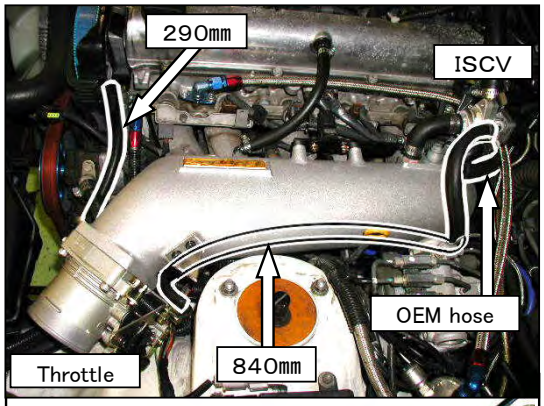
Throttle~ ISCV ・・・ 840mm

ISCV~ Engine ・・・ OEM hose

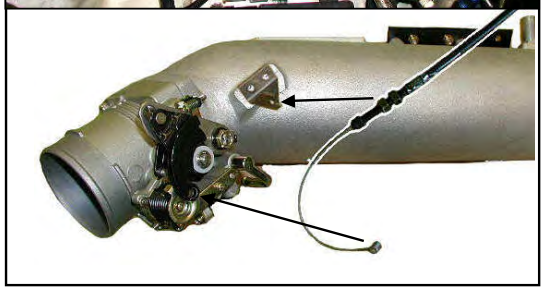
※Throttle~ ISCV hose passes under the Intake Manifold.

※Use the OEM hose clamps for the OEM hoses.

〈Parts used 11, 23〉

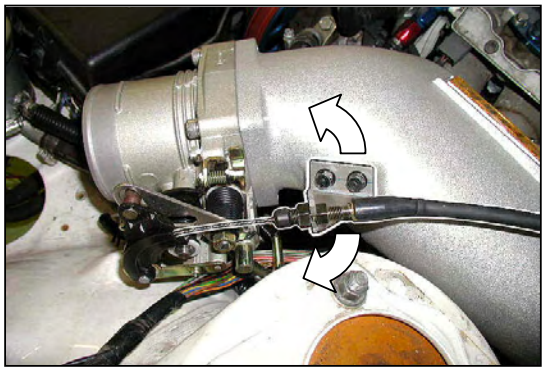


(5) Install the throttle cable on the throttle pulley, and secure the throttle cable bracket.



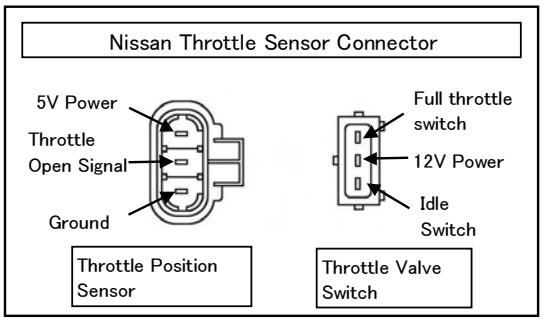
(6) Adjust the play on the throttle cable according to the manufacturer specs in the repair manual.

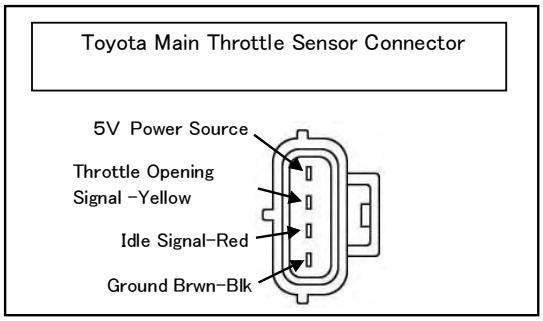
※Check the throttle plate movement to make sure it is able to fully open and close with pedal movement.



(7) Connect the throttle sensor harness, then zip tie the throttle cable, sub throttle sensor harness, and throttle motor harness.

〈Parts used 36〉

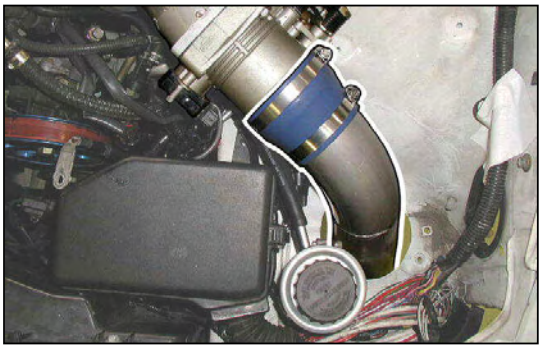




3－10 Intercooler~ Throttle Piping

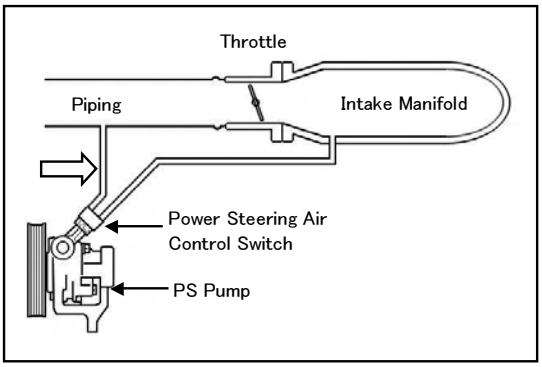
When the intake manifold piping set is used (sold separately), refer to the instruction manual attachment, section 2-2 for the intercooler – throttle piping..

(1) Install the piping from the intercooler to the throttle body through the previously cut hole.



(2) After installing the piping to the throttle body, connect a 6φ hose from the fitting on the pipe connected to the throttle body, to the IN side of the power steering idle up switch.

(3) Extend the wiring of the washer tank motor if the washer tank is relocated.



3－11 Engine Starting

(1) Fill the Power Steering Fluid.

(2) Fill the coolant if needed.

(3) After verifying that all hoses and wiring are fine, connect the negative terminal back on the battery.

(4) Upon turning the IGN switch to the ON position, you measure the throttle sensor output voltage and the voltage has gone out of range, adjust the throttle sensor.

If the throttle position sensor adapter is used (sold separately), refer to the attached instruction manual, section 2-3 for proper throttle position sensor adjustment.

(5) After starting the engine, inspect the area for any air leaks, strange noises, etc.

(6) Install the emblem onto the Intake Manifold.

〈Parts used 34〉

This completes the Intake Manifold installation.

Throttle Adjustment

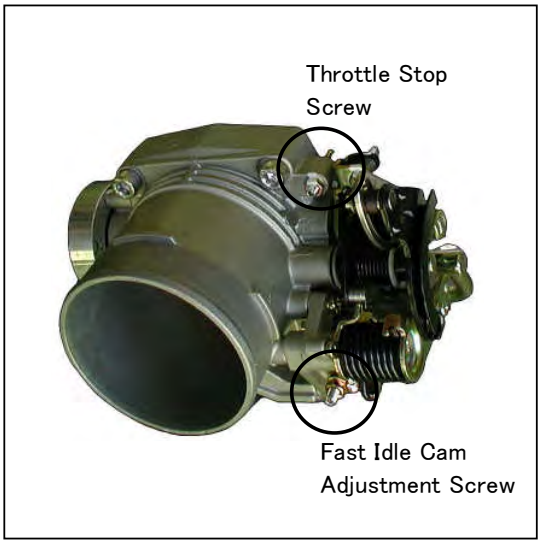
○ Adjustment is necessary since the new throttle bodies are set universally from the factory.

・Before starting the engine, tighten the first idle cam adjustment screw. Adjust the throttle position sensor position when the throttle valve linkage touches the throttle stop screw.

※Do not adjust the throttle stopper screw.

・When the engine is cold, adjust the fast idle cam adjustment screw until the desired fast idle RPM is achieved.

・After the engine is warmed up and settles at the desired rpm level, verify that the throttle valve linkage has hit the throttle stop screw.

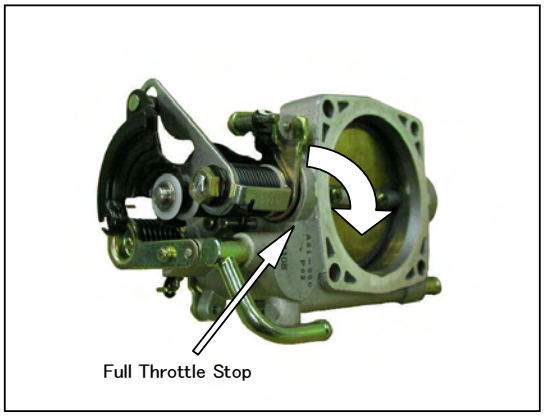


Throttle Cable Adjustment

○ Open the throttle to the max open position and adjust the throttle stopper to where there is no clearance between the throttle lever and stopper.

○ Depress the accelerator pedal to check throttle cable play. If the throttle is not fully opened when pedal is fully depressed, adjust throttle cable as necessary.

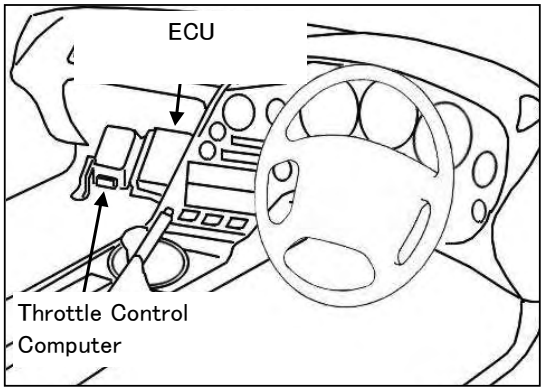
・Do not adjust the throttle cable too tight. It may cause the throttle to become damaged by becoming stretched.



SLIP CONT OFF / Warning Indicator

○ It is normal for the SLIP CONT OFF light on the dashboard to blink, due to the removal of the ETCS system.

The warning indicator light can be removed by disconnecting the harness connector from the throttle control computer.



Precaution

○ This intake manifold is designed to be used with the included gasket. Improper installation may cause vacuum leaks. When removing and re-installing the intake manifold, please be sure to use a new gasket that is made specifically for this kit.