

# *GReddy Turbo Kit*

2009 Nissan 370Z (VQ37VHR)  
Twin TD06-20G 8cm<sup>2</sup>

Tuner Edition

Custom Tuning is Required for this Turbo Kit

***GReddy***

2009 Nissan 370Z (VQ37VHR) Twin TD06-20G 8cm<sup>2</sup>

## Installation Manual

Completely read this Installation Manual before installing.

Application:

Make	Model	Chassis	Year
Nissan	370Z	Z34	2009

- **Custom Tuning is Required for this Turbo kit**
- This *GReddy Turbo Kit* is designed only for the vehicles specified above.
- Premium grade gasoline (91 octane or higher) is required with this Kit.

## Important

- This installation should only be performed by a professional who is familiar with the automobile's mechanical, electrical and fuel management systems.
- If installed by an untrained person, it may cause damage to the kit as well as the vehicle.
- GReddy Performance Products Inc. is not responsible for any damage to the vehicle's electrical system caused by improper installation.
- Make sure to follow the instruction and pay attention to the "Important", "Warning!" and "Caution!" notice through out the instruction.
- Improper installation can be **dangerous!** Please make sure to inspect the installation before operating the vehicle.
- Call your GReddy Authorized dealer or GReddy Performance Products if there are any problems or questions regarding this product.

## Parts List

1. Turbocharger	TD06 SH—20G 8cm <sup>2</sup>	(Right Side)	1
2. Turbocharger	TD06 SH—20G 8cm <sup>2</sup>	(Left Side)	1
3. Intercooler	Type29		1
4. Waste gate (GReddy/TAIL)	0.4bar		2
5. Exhaust Manifold (Right Side)		Ductile Iron Cast	1
6. Exhaust Manifold (Left Side)		Ductile Iron Cast	1
7. Down Pipe (Right Side)		(SUS 60φ)	1
8. Down Pipe (Left Side)		(SUS 60φ)	1
9. Waste gate Inlet Pipe (Right Side)		(SUS42.7φ)	1
10. Waste gate Inlet Pipe (Left Side)		(SUS42.7φ)	1
11. Waste gate Open pipe (Right Side)		(SUS42.7φ)	1
12. Waste gate Open pipe (Left Side)		(SUS42.7φ)	1
13. Waste gate Bracket (Right Side)			1
14. Waste gate Bracket (Left Side)			1
15. Waste gate Bracket (Center)			1
16. Compression Pipe	<b>C-1</b>	(50φ Aluminum)	1
17. "	<b>C-2</b>	(50φ Aluminum)	1
18. "	<b>C-3</b>	(50φ Aluminum)	1
19. "	<b>C-4</b>	(60φ Aluminum)	1
20. "	<b>C-5</b>	(70φ Aluminum)	1
21. "	<b>C-6</b>	(50φ Aluminum)	1
22. "	<b>C-7</b>	(50φ Aluminum)	1
23. "	<b>C-8</b>	(60φ Aluminum)	1
24. "	<b>C-9</b>	(70φ Aluminum)	1
25. Suction Pipe	<b>S-1</b>	(60φ Aluminum)	1
26. "	<b>S-2</b>	(60φ Aluminum)	1
27. "	<b>S-3</b>	(60φ Aluminum)	1
28. "	<b>S-4</b>	(60φ Aluminum)	1
29. AIRINX	AY-SB (Blue)		2
30. AIRINX	Hose Adapter S60		2

31.	Oil Pressure Hose	SUS (R=600mm, L=800mm)		1Set
32.	Oil Pressure Union Fitting	3-Way Fitting		2
33.	"	1/8PT-1/8PT	Straight	2
34.	"	1/8PT-1/8PF	Straight	1
35.	"	1/8PT-1/8PF	Male to Male 90°	1
36.	Oil Pressure Banjo Fitting	Male and Female (small)		2
37.	Copper Washer	10φ	(t=1.0) 10.5×18×1.0	4
38.	Oil Return Flange Pipe	Right	16φ (Turbo)	1
39.	Oil Return Flange Pipe	Left	16φ (Turbo)	1
40.	Oil Return Flange Pipe	Right	16φ (Oil Pan)	1
41.	Oil Return Flange Pipe	Left	16φ (Oil Pan)	1
42.	Oil pan	(Aluminum Cast)		1
43.	Vacuum Hose	6φ × 2000mm	(Blue)	1
44.	"	15φ × 1060mm	(•Oil return230 mm、270 mm、•Blow By 250 mm、•Water Line310 mm)	1
45.	Silicone Hose	50φ × 70mm	Straight	5
46.	"	60φ × 70mm	Straight	4
47.	"	70φ × 70mm	Straight	2
48.	"	50φ - 60φ	Reducer	2
49.	"	60φ - 70φ	Reducer	2
50.	"	60φ - 80φ	Reducer	2
51.	"	16φ	#10	8
52.	"	50φ	#32	12
53.	"	60φ	#36	14
54.	"	70φ	#44	6
55.	"	80φ	#48	2
56.	Aluminum Spacer	t=8mm	(Compression Pipe)	2
57.	"	t=20mm	(Washer Tank Bracket)	1
58.	"	16φ	(S-2 Blow By)	1

59.	Check Valve	(Nissan factory 47478-51E00)							1
60.	Water Line Suction Connector								1
61.	Tube Clamp								1
62.	Washer Tank								1
63.	"	Bracket		<b>A·B·C</b>					1 set
64.	"	Water Feed Tube							1
65.	"	Extension Harness							1 set
66.	"	Union Fitting							1
67.	Exhaust Manifold Gasket	(Nissan Factory part #14036-AG010)							1 set
68.	Turbo gasket	TD06 IN							2
69.	"	TD06 OUT							2
70.	Exhaust Gasket	60ΦOval							2
71.	Oil Return Gasket	TD Small							4
72.	TIAL W/G Gasket								2
73.	Thermo Cloth	100mm × 1000mm							5
74.	Frame Guard								1
75.	Three way Fitting	10φ-6φ-10φ							1
76.	"	6φ-6φ-6φ							1
77.	Zip Ties	150mm							15
78.	M6 × 15mm	Stainless	P=1.0	B	S/W	F/W	-	(C-6·S-2·S-4)	12
79.	M6 × 25mm	Stainless	P=1.0	B	S/W	F/W	-	(C-4·C-8)	2
80.	M6 × 30mm	Stainless	P=1.0	B	S/W	F/W	-	(W/T)	1
81.	M8 × 15mm	Stainless	P=1.25	B	S/W	F/W	N	(I/C Lower)	1
82.	M8 × 25mm	Stainless	P=1.25	B	S/W	-	-	(W/G OUT)	6
83.	M8 × 25mm	Stainless	P=1.25	B	S/W	F/W	N	(W/G Bracket)	4
84.	M8	Stainless	P=1.25	-	S/W	F/W	B	(I/C Upper)	2
85.	M8 × 30mm	Stainless Stud	P=1.25-1.25	B	S/W	-	N	(TB IN OUT·WG IN)	20
86.	M10 × 35mm	Stainless Stud	P=1.25-1.25	B	S/W	-	N	(Exhaust Manifold)	12
87.	M10 × 35mm	Stainless	P=1.25	B	S/W	F/W	N	(Exhaust)	4
88.	Oil pan Bolt set								1

**Parts List**



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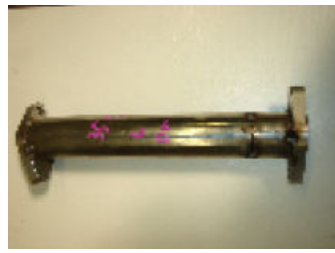
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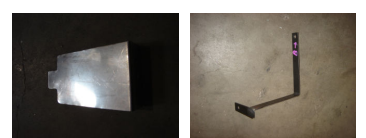
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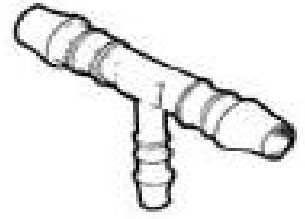
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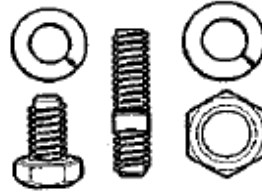
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## 2. Removal of Stock Parts

**When removing the stock parts, make sure you read over the factory repair manual for proper procedures.**

2-1 Disconnect the negative terminal of the battery.

2-2 Remove the undercarriage cover.

2-3 Drain the engine oil, coolant and power steering fluid.

2-4 Disconnect the air flow meter.

2-5 Remove the air cleaner assembly with airflow meter, intake tube, and breather hose.

2-6 Remove the top radiator hose and the water pipe (located above the right exhaust manifold).

2-7 Disconnect the primary and secondary O2 sensor and remove the exhaust manifold and catalytic converter.

2-8 Remove the exhaust manifolds.

2-9 Remove oil pan (refer to the factory service manual for detail instructions for removing the oil pan.)

2-10 Remove the upper intake manifold collector, fuel rail assembly with injectors and regulator.

2-11 Remove the front bumper.

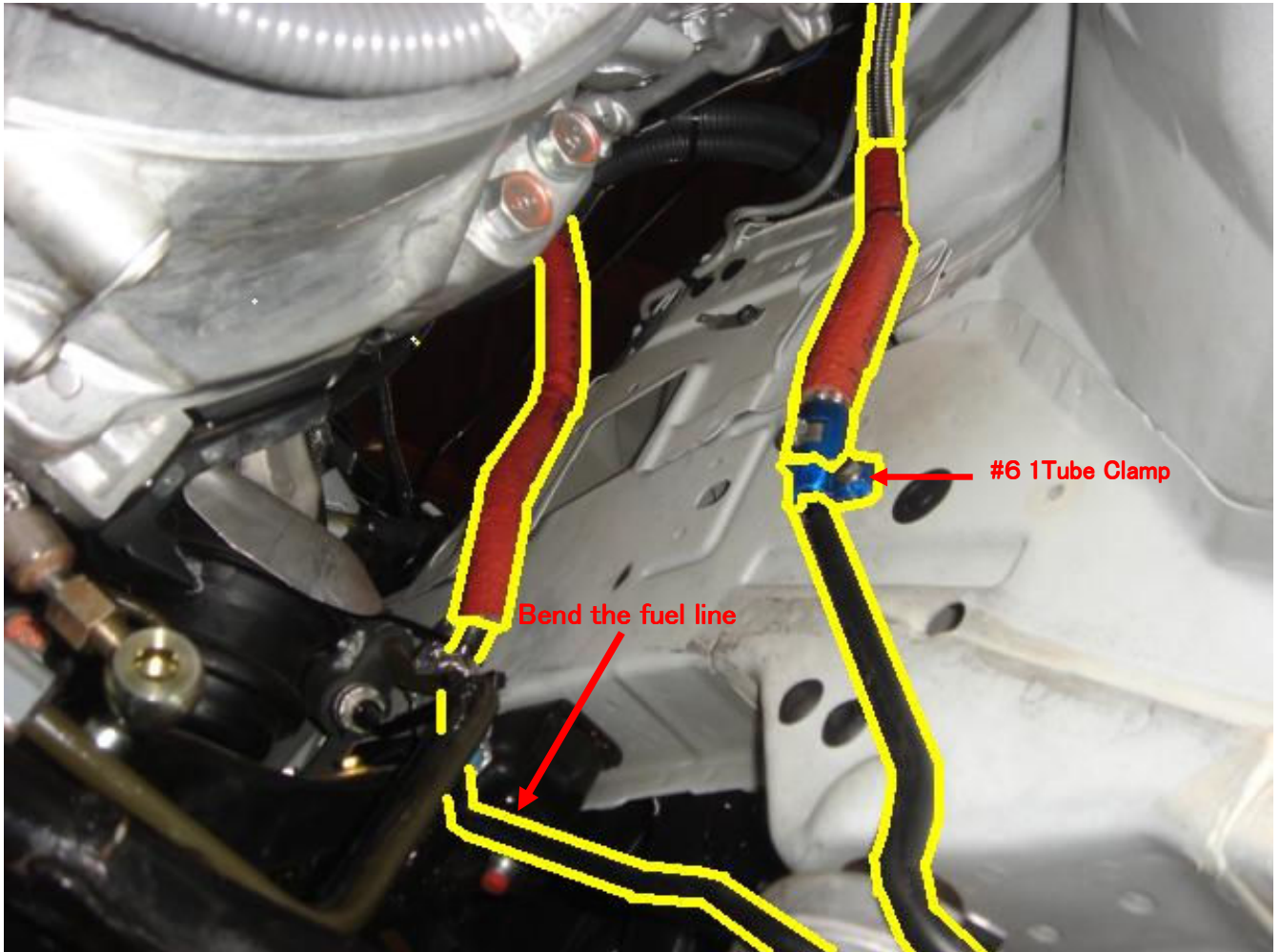
2-12 Remove the bumper reinforcement.

2-13 Remove the left and the right side horns.

### 3. Turbo Kit Installation

#### 3-1 Thermo Cloth Installation

- Remove the bracket securing the fuel line right below the right side shock tower and disconnect the fuel line. Wrap the fuel and evap line using safety wire. Cover the fuel and evap line using frame guard. Reconnect the fuel and evap line. Modify the fuel and evap line as shown.



(Parts used #73, 74)

(This picture shows the turbo already installed)

#### Important!

- Make sure that the fuel line is secured away from the turbine housing when the turbo is installed. Some bending of the lines is necessary to achieve proper clearance.
- Make sure the lines are properly wrapped twice.
- Make sure to use safety wire to wrap the thermo cloth. Zip ties will melt from the heat and eventually will come off.
- Make sure that the fuel line connector is properly clicked in all the way.
- GReddy Performance Products, Inc. will not be responsible for any damage caused due to improper installation.

**GReddy**

**Caution!**

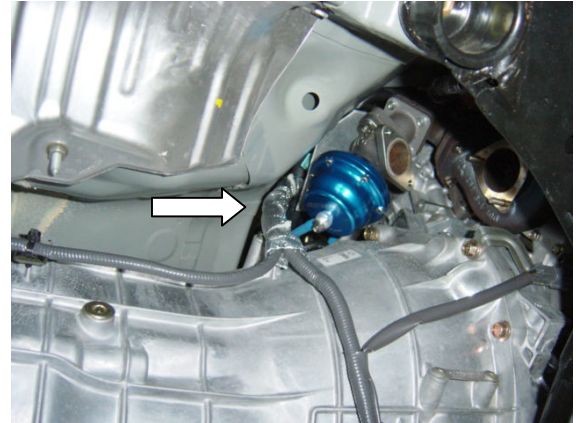
- Make sure to check and double check this step. This is the most important step in this install.
- Without proper clearance and thermo wrapping the fuel lines, the fuel line connector can melt from heat and may catch on fire.
- Wrap the Starter and the Main Engine harness right above the transmission bell housing.

**Important!**

Make sure that the main engine harness is properly wrapped and secured away from the manifold and the wastegate when they are installed.

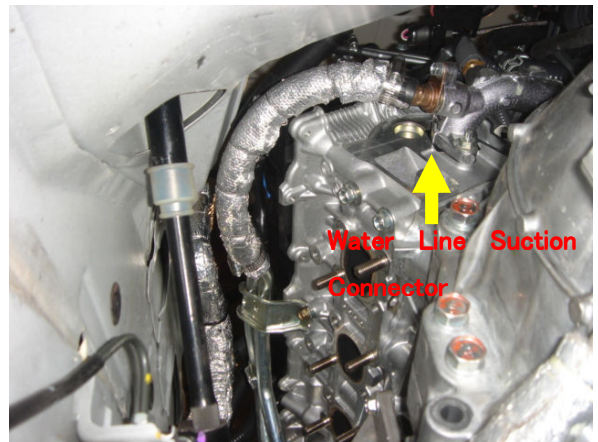
**Caution!**

Without proper clearance and thermo wrapping the harness, it melt and cause a short in the electrical system or may catch on fire.



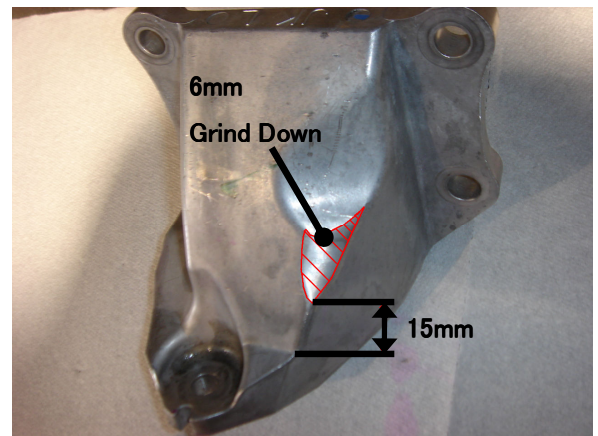
**3-2 Water Line Suction Connector Installation**

1. Remove the factory water tube and Install the water line suction connector.
2. Cut the Acryl hose 15Φ to 310mm and Install it between the Suction connector and the water tube.  
(Parts used #44, 60, 73)



**3-3 Modification the Engine Mount**

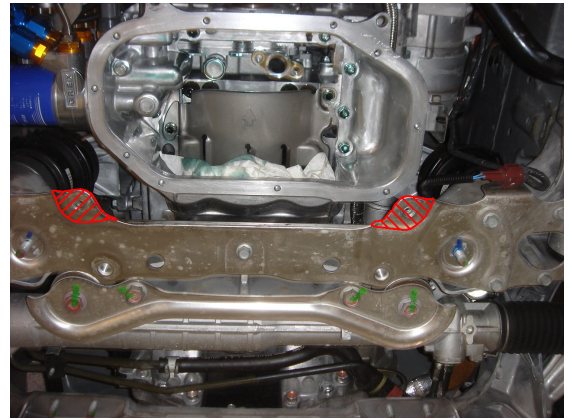
1. Remove the Engine Mount, and Shave the Engine Mount as shown in the marked area.
2. Re Install the Engine Mount.





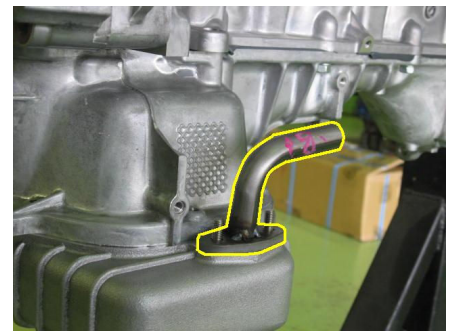
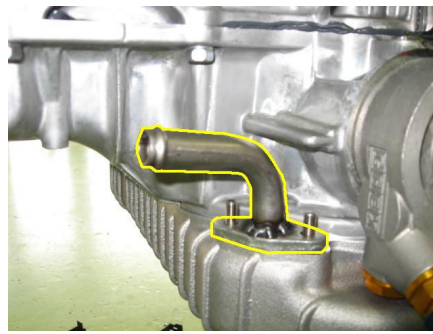
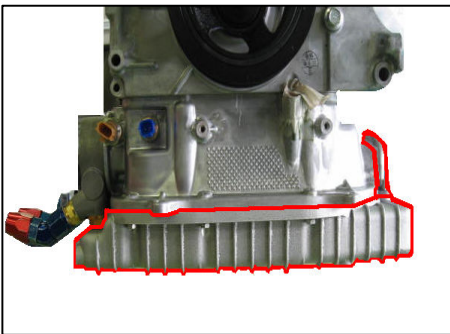
### 3-4 Oil Pan Installation

1., Remove the Front member cover and Shave the Front member cover as shown in the marked area.



2. Remove the Oil Strainer, and reinstall with Oil Strainer Extension Adapter.
3. Install the Oil pan with a silicone sealant. and Install the oil return pipe as shown.
4. Reinstall the Front member cover.

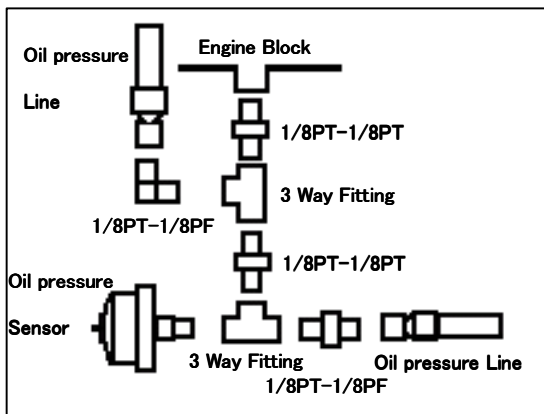
(Part Used #40, 41, 42, 88)



### 3-5 Oil Pressure Line Installation

Install the oil pressure line to engine block using provided fittings.

(Part Used #31, 32, 33, 34, 35)

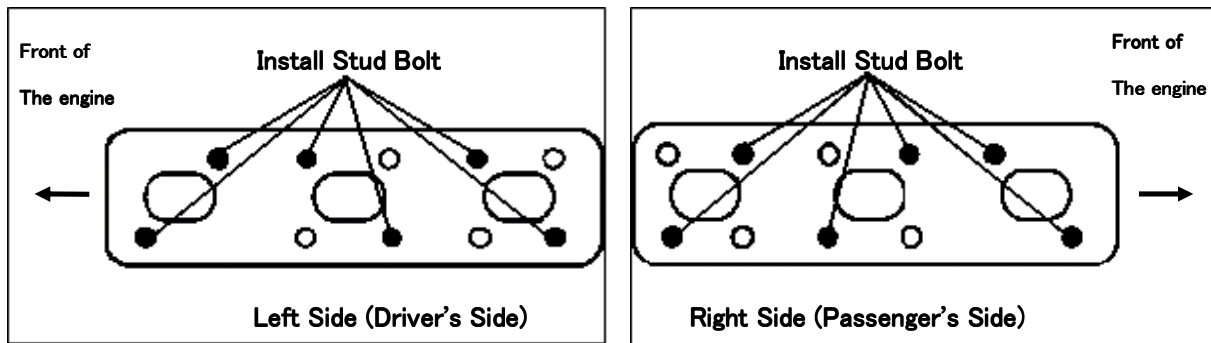


※ 600mm line is for the right side and 800mm line is for the left side.

### 3-6 Exhaust Manifold Installation

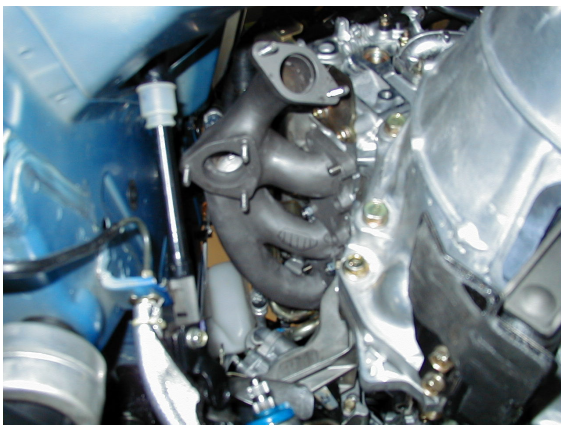
1. Remove all factory exhaust manifold stud bolt off from the cylinder head. Install the provided M10 x 35mm stud bolts on to the cylinder head as shown.

(Part Used #86)



2. Install the Exhaust Manifold using provided gasket and hardware.

(Part Used #5, 6, 67, 86)



Left Side (Driver's Side)



Right Side (Passenger's Side)



### 3-7 Turbocharger Installation

- Install the turbocharger on to the exhaust manifold installed in the previous step.
- \* For the left side, remove the steering shaft joint before installing the turbo.
- \* For the left side, remove starter harness and harness bracket.
- For the left side, remove the bolts holding the starter, and lower the starter before installing the turbo



(Part Used #1, 2, 36, 37, 68, 85)



- After the turbo installation, double check the fuel line clearance by the turbo and the manifold on passenger side.
- Connect the oil pressure line to the turbo using the provided hardware.

### 3-8 Starter Harness Modification

- \* Wrap the starter harness with the thermo cloth.
- \* Reinstall the starter harness as shown.

(Part Used #73)



### 3-9 Oil Return Pipe Installation

Install the oil return pipes using the provided gaskets and hardware. Cut the provided 15Ø hose to the needed length. Then install between the oil return pipe and the oil pan as shown.

(Part Used #38, 39, 71, 78)



Left Side (Driver's Side)



Right Side (Passenger's Side)

### 3-10 Down Pipe Installation

Install the down pipe using the provided gaskets and hardware as shown.

(Part Used #7, 8, 69, 85)



### 3-11 Exhaust System Installation

Install the exhaust system using the provided gaskets and hardware as shown.

(Part Used #70, 87)





### 3-12 Waste Gate Installation

Install the provided banjo fitting on to the bottom port of the waste gate. (top port is used for boost controller) Install the waste gate and waste gate inlet pipe using the provided gaskets and hardware as shown.

(Part Used #4, 9,

10, 85)



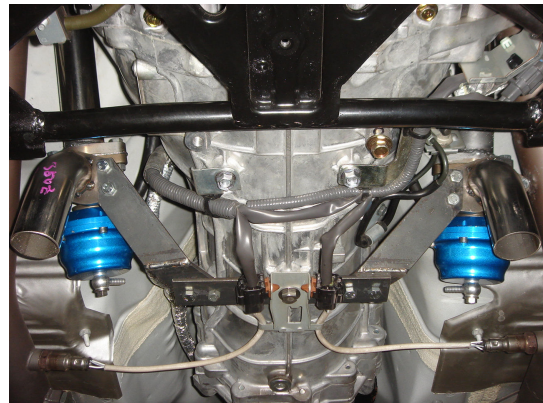
Left Side (Driver' s Side)



Right Side (Passenger' s Side)

- Recheck the clearance between the waste gate and the main engine harness on the right side (passenger side). Verify that there is enough clearance to avoid direct contact from heat to avoid any possible damage.
- Install the waste gate open pipe and waste gate bracket using the provided gaskets and hardware as shown.

(Part Used #11, 12, 13, 14, 15, 82, 83)

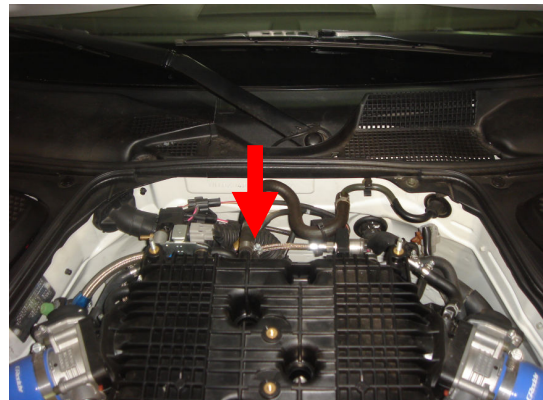


### 3-13 Waste Gate Vacuum Line installation

Cut the master power vacuum hose by the intake manifold and install the 3way fitting. Connect the 6Φ side to the waste gate fitting with the provided 6Φ Hose.

\*Secure all the vacuum hose with zip ties to prevent the hose from coming off the fitting.

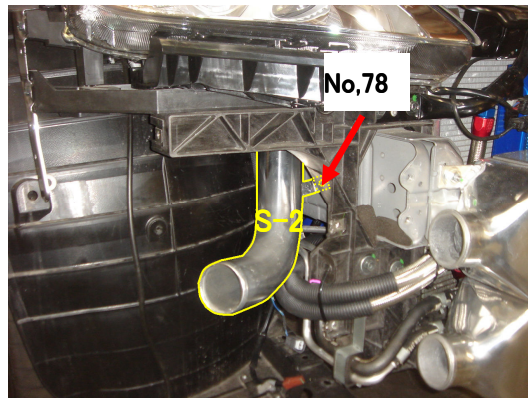
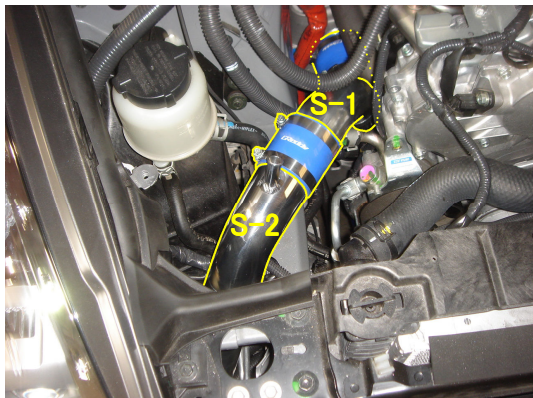
(Part Used #43, 75, 76, 77)



### 3-14 Intake Piping Installation

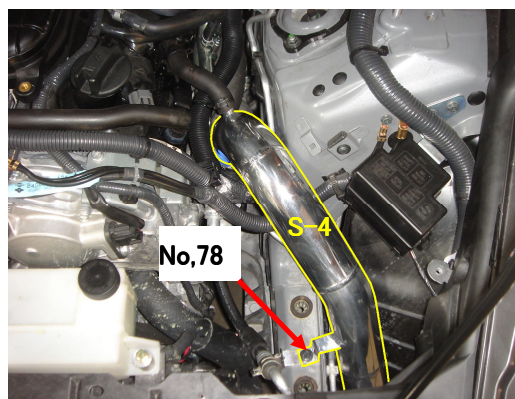
1. Install the Airinx Air Filter to the intake pipe S-1•S-2 as shown.

(Part Used #25, 26, 46, 50, 53, 55, 78)



2. Install the Airinx Air Filter to the intake pipe S-3•S-4 as shown.

(Part Used #27, 28, 46, 50, 53, 55, 78)

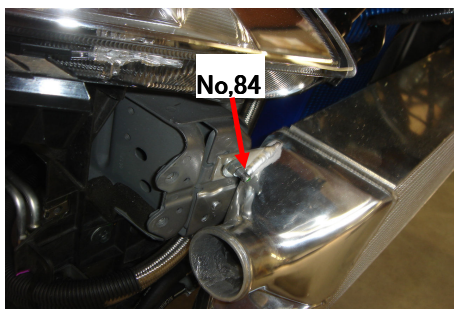


### 3-15 Intercooler Core Installation

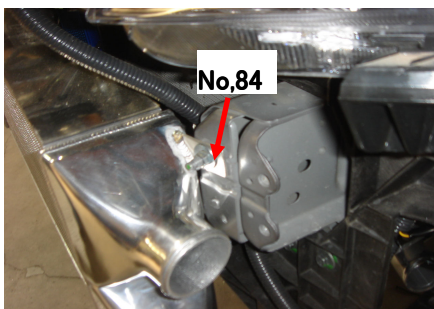
Mount the intercooler core as shown.

(Parts Used #3, 59, 92)

Upper Right



Upper left



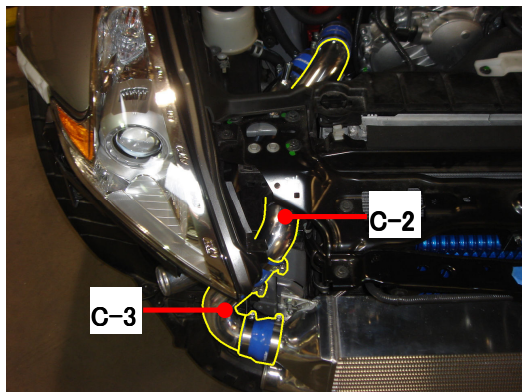
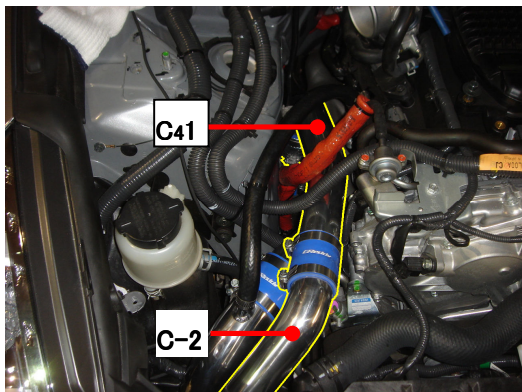
Bottom



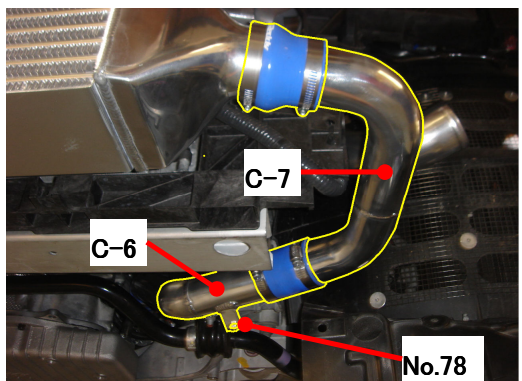


### 3-13 Compression Pipe Installation

1. Install the Compression pipe C-1~C-3 between Turbine Out (passenger side) and intercooler in-let as shown.  
(Parts Used #16, 17, 18, 45, 48, 52, 53)

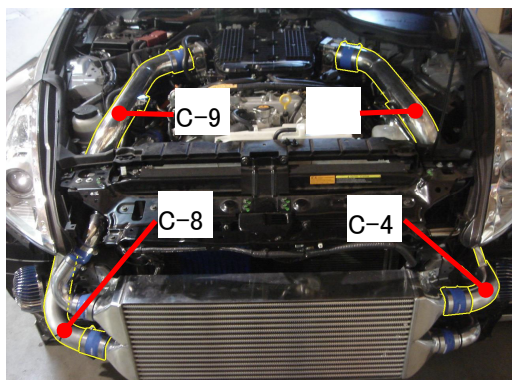


2. Install the Compression pipe C-6~C-7 between Turbine Out (Driver side) and intercooler in-let as shown.  
(Parts Used #21, 22, 45, 48, 52, 53, 78)



3. Install the Compression pipe C-4 and C-5 from intercooler outlet to the throttle body as shown.
4. Install the Compression pipe C-8 and C-9 from intercooler outlet to the throttle body as shown.

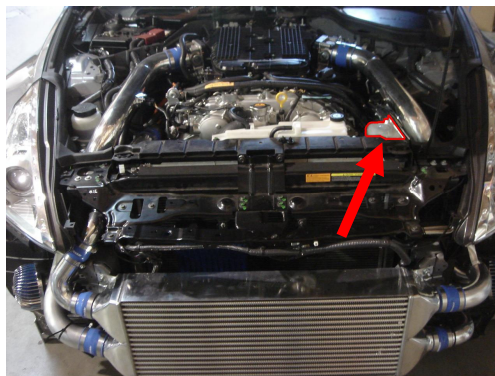
(Parts Used #16~23, 44~48, 54~56, 85)



### 3-16 Washer Tank Installation

- 1) Uninstall the window washer fluid pump from the factory washer tank and reinstall it on to the provided tank.
- 2) Mount the window washer fluid tank using provided hardware as shown.

(Parts Used #69~70, 86, 89)



### 3-18 Starting the Engine

1. Refill the engine oil to factory spec. We recommend 100% Synthetic GReddy Oil or Mobil 1 Oil.
2. Check all the hoses and wires connection, then reconnect the negative side of the battery.
3. Turn the ignition to "ON" position (engine off) 2-3 times to get fuel pressure. Then, check the injectors and the fuel rail for any fuel leaks.

**\* Repair any fuel leaks before starting the engine. Starting the engine with a fuel leak can cause fire in the engine compartment and can be very dangerous.**

4. Remove the ECM fuse and crank the engine to get oil pressure to the turbo, this will prime the turbos. (Until the oil light on the dash turns off) Check for any oil leaks, then reinstall the fuse and start the engine.
5. While idling, check for any oil, coolant, or air leaks.



### 3-19 Front Bumper Modification

Trim the inside of the grill and any area that would make contact to the intercooler core.



After inspection, reinstall the under carriage cover and other stock parts that were removed.

This completes the Turbo Kit installation.

#### **Important!**

- **GReddy Performance Products, Inc. is not responsible for any engine damage caused by over boosting (increased boost), modification to the kit, and/or misuse of the product. NO WARRANTY is offered.**
- **Due to lack of control over proper installation and use of this product, NO WARRANTY is offered for this kit.**