

GRReddy®

GRReddy Turbo Kit

Toyota MR2 SW20 (3S-GT)

T67 25G Kit



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T67 25G Kit

Installation Manual

Please read the entire manual before installing this kit.

Application:

Make	Model	Chassis	Year
Toyota	MR2	SW20	90 -96

- This **GReddy Turbo Kit** is designed only for the vehicles specified above.
- This **GReddy Turbo Kit** is a complete bolt on replacement and once installed it is ready for use. For optimum performance it is highly recommend to also install the **GReddy Type-S Blow-off Valve**, the **GReddy Pipe Set**, the **GReddy Airinx Kit** and especially the **GReddy Intercooler Kit** for Toyota MR2.

MR2 T67 Turbo Kit

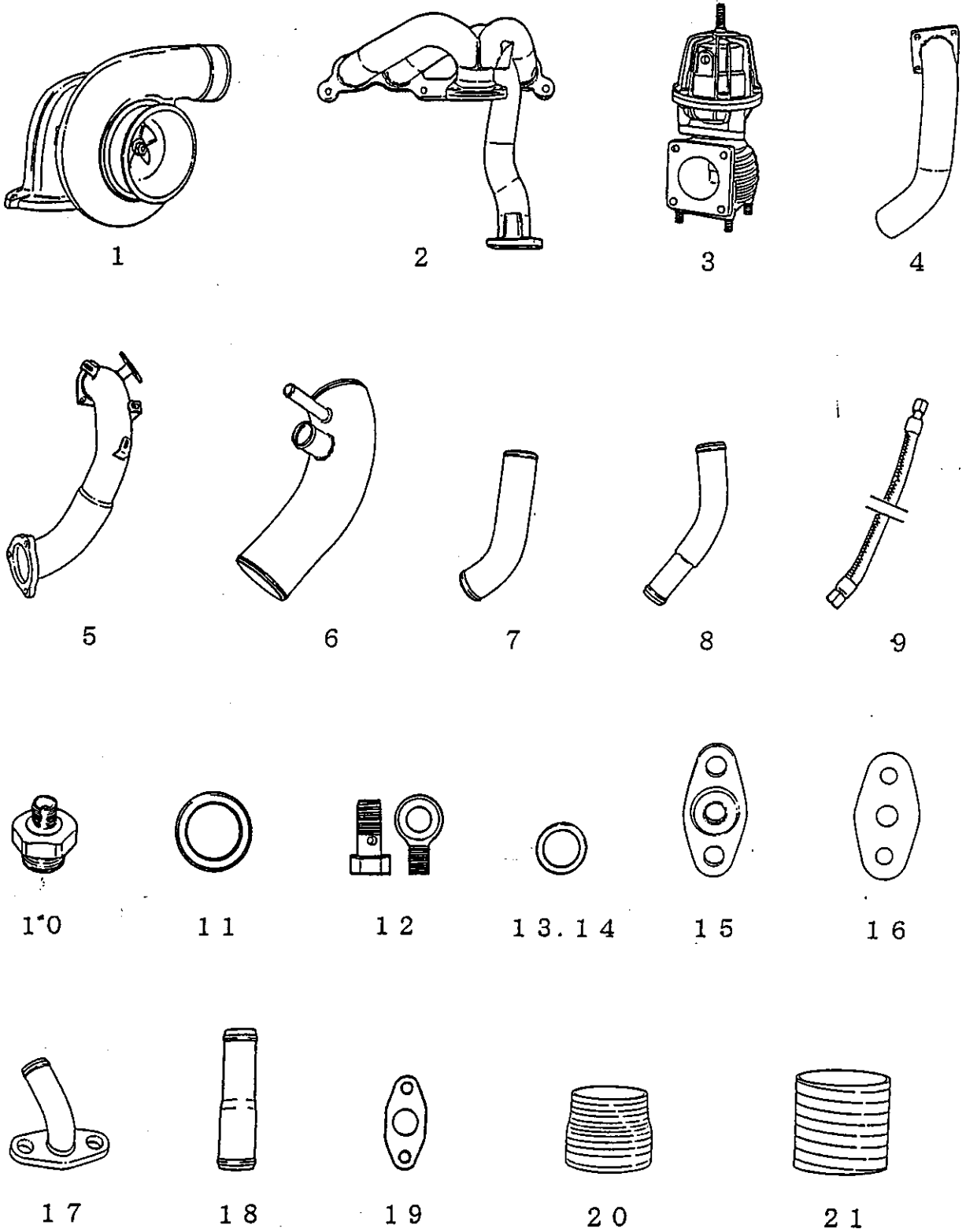
1. Parts List

1. T67 25G 8cm ₂	1
2. GReddy (SUS 42Ø) Exhaust Manifold	1
3. GReddy Type R Wastegate	1
4. Wastegate Dump Pipe 50Ø	1
5. Down Pipe 60Ø - 70Ø	1
6. Suction Tube 80Ø	1
7. Air Bypass Tube 28Ø	1
8. Blow - By Tube 19Ø	1
9. Oil Pressure Hose SUS 400mm	1
10. Cylinder Block Union M18 P=1.5 - 1/8 PF	1
11. Copper Washer 18Ø	1
12. Banjo Union	1 set
13. Copper Washer 10Ø t=1.0	1
14. Copper Washer 10Ø t=2.5	1
15. Turbo Alumi. Flange	1
16. Turbo Alumi. Flange Gasket	1
17. Oil Return Flange Tube 19Ø	1
18. Oil Return Tube 19Ø - 22Ø	1
19. Oil Return Tube Gasket for T67	1
20. Silicon Hose Reducer 60Ø - 65Ø	1
21. Silicon Hose 80Øx80mm	1
22. Rubber Hose 5Øx1000mm	1
23. Rubber Hose 19Øx230mm	1
24. Rubber Hose 28Øx50mm	1
25. Rubber Hose 80Ø - 100Ø	1
26. Rubber Space Hose 55Øx30mm	1
27. Hose Band 19Ø #12	3
28. Hose Band 28Ø #16	2
29. Hose Band 60Ø #36	1
30. Hose Band 65Ø #40	1
31. Hose Band 80Ø #48	3
32. Hose Band 100Ø #64	1

33. Air Press Hose 600mm							2
34. Hose Union 90° 1/8PT – 1/8PF							1
35. Hose Union 5Ø							2
36. Rubber Cap 6Ø							1
37. Plug 10Ø							2
38. Exhaust Manifold Head Flange Gasket							1set
39. Gasket T67 IN							1
40. Gasket T67 OUT							1
41. Downpipe Gasket							1
42. Wastegate Bracket							1
43. Down Pipe Bracket							1
44. Heat Shield Bracket							1
45. Heat Shield							1
46. Thermo Wrap							1
47. Tie Wrap 150mm							10
48. 8mm x 15mm	P = 1.25	B	S/W	FW	--		5
49. 8mm x 20mm	P = 1.25	B	S/W	---	--		2
50. 8mm x 25mm	P = 1.25	B	S/W	FW	N		2
51. 8mm x 30mm	P = 1.25	B	S/W	FW	N		6
52. 10mm	P = 1.25	--	S/W	FW	N		6
53. 8mm x 15mm	P = 1.25	B	S/W	FW	--		2
54. 10mm x 40mm	P = 1.25	B	S/W	FW	N		3

MR2 T67 Turbo Kit

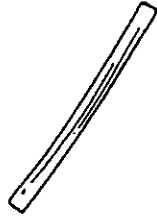
1. Parts List



1. Parts List



2 2



2 3



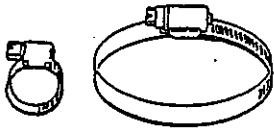
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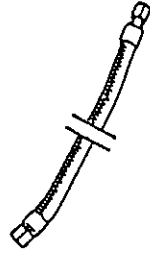
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2 6



2 7 ~ 3 2



3 3



3 4



3 5



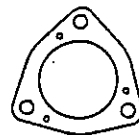
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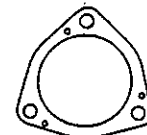
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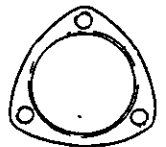
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3 9



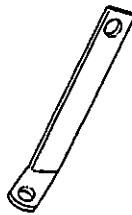
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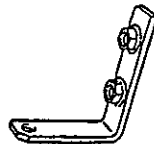
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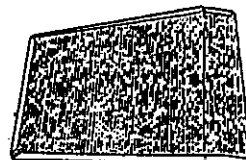
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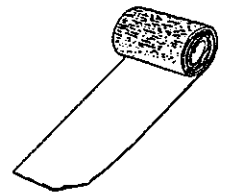
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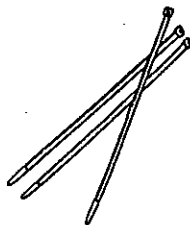
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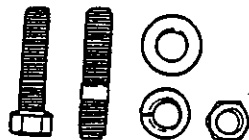
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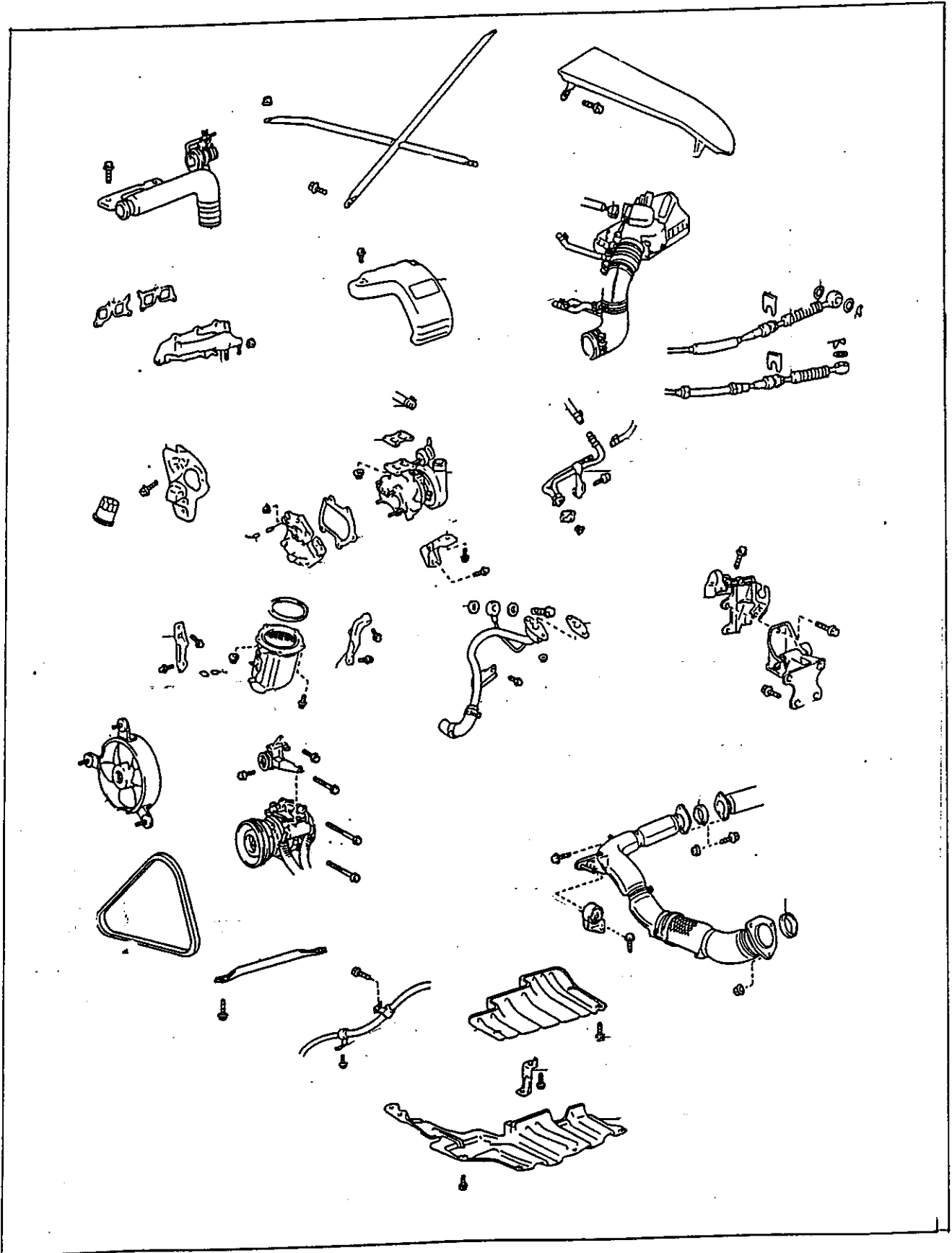


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4 8 ~ 5 4

2. Parts Removal



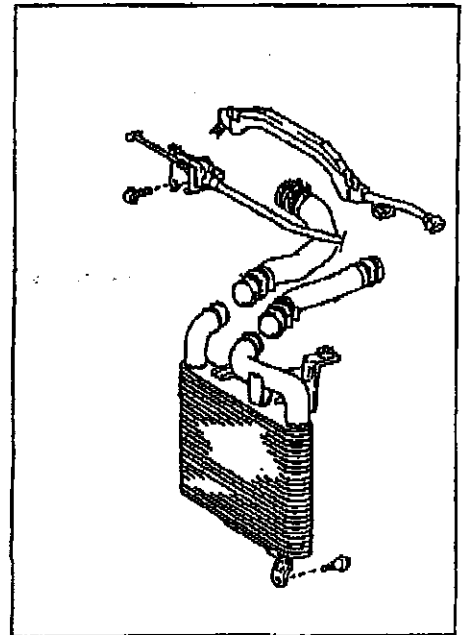
2. Removal of Stock Parts

2- 1.1 Stock parts Removal Procedure

- Disconnect negative terminal of the battery.
- Drain oil and coolant.

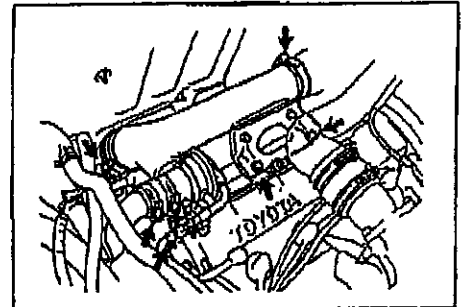
2- 1.2 Remove the factory turbocharger.

- Remove the engine undercover No. 2
- Remove the engine undercover No. 1 and brackets.
- Drain the coolant
- Remove the rear suspension upper brace
- Remove the engine hood side panels L&R



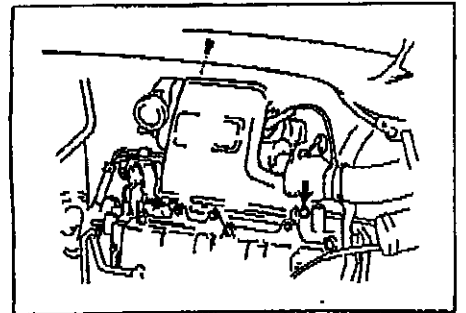
2- 2.3 Remove the air tube with air bypass valve.

- Remove the hoses from the air bypass valve
- Loosen the hose clamps
- Remove the air tube No. 4 with air bypass valve by removing 12 bolts off from the bracket



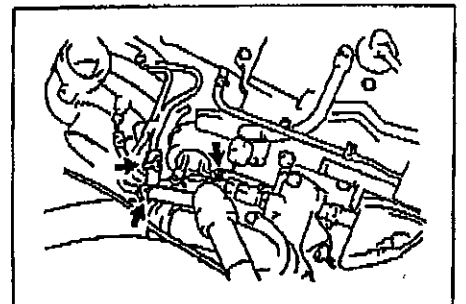
2- 2.4 Disconnect the O2 sensor and the exhaust temp sensor.

- Remove the turbo insulator No.1



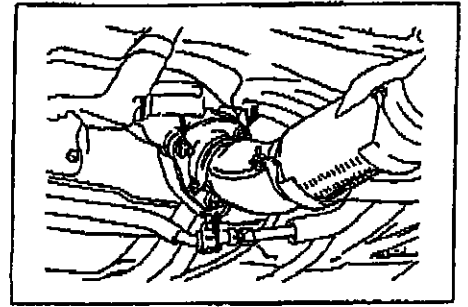
2- 2.5 Removal of the water hoses and vacuum hoses.

- Remove the turbocharger water hoses
- Remove the vacuum hose off the actuator

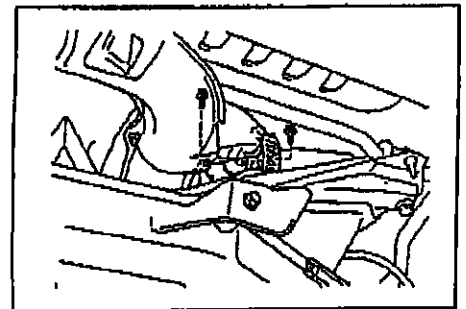
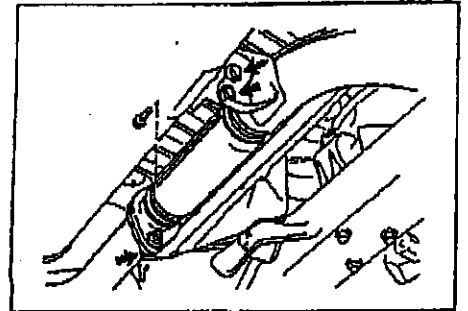


2- 2.6 Removal of the exhaust down pipe

- Loosen the 3 bolts and remove the manifold converter and exhaust down pipe.

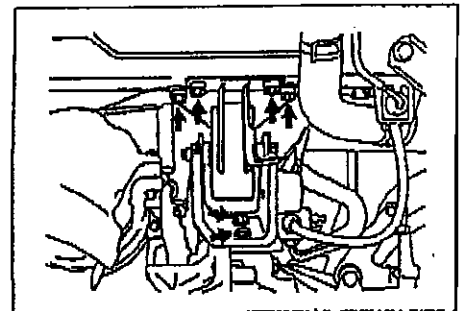


- Remove the exhaust stopper bracket
- Remove the exhaust down pipe



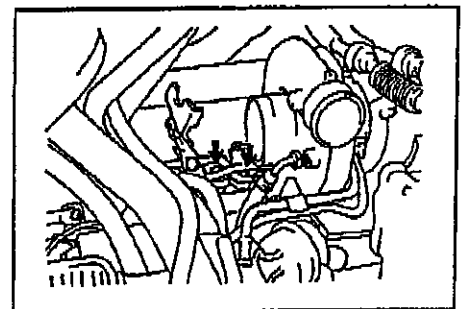
2- 2.7 Front engine mount removal

- Remove the front engine mount with the bracket

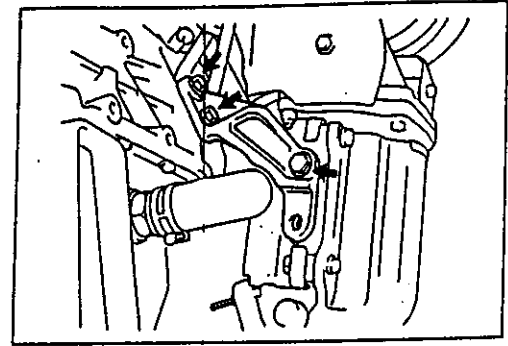


2- 2.8 Remove the clutch release cylinder with shift control cable

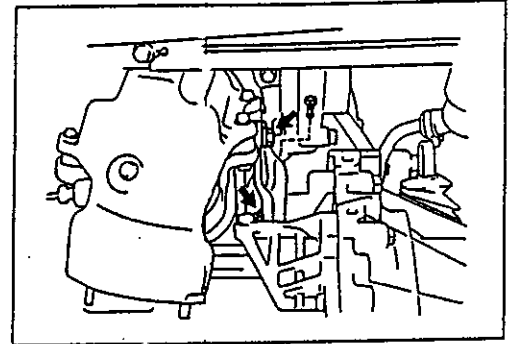
- Remove the cooling fan
- Remove the A/C pulley belt



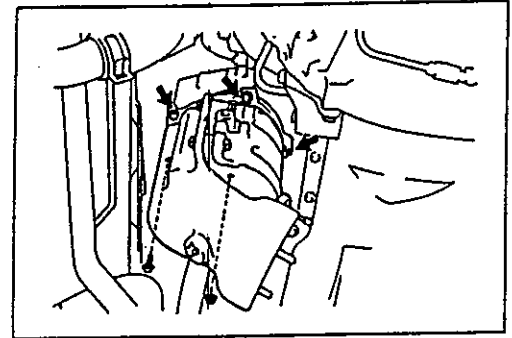
- Remove the manifold bracket No. 1



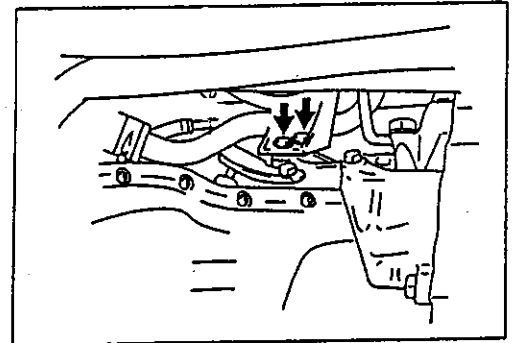
- Remove the manifold bracket No. 2



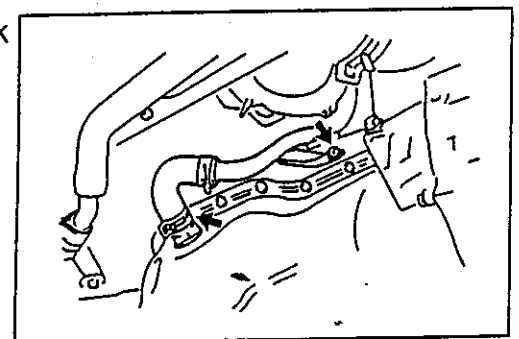
- Remove the catalytic converter



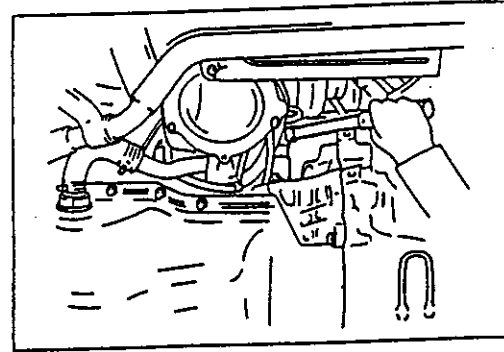
- Remove the turbocharger bracket



- Remove the oil outlet hose off from the oil pan
- Remove the turbo oil pipe No.1 off from the block

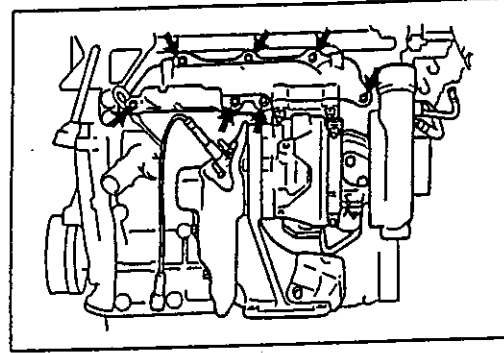


- Use 27mm socket wrench and remove the union bolt and two gasket



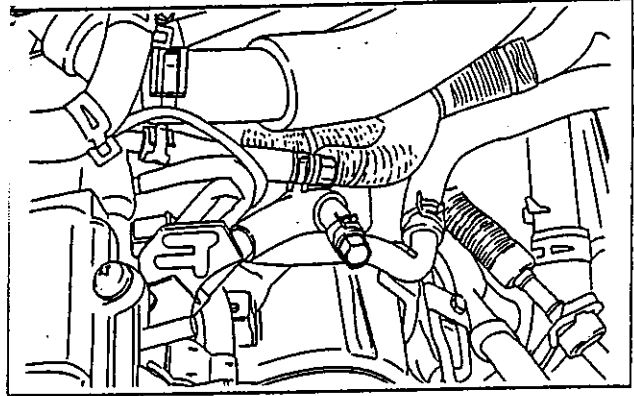
2- 2.9 Remove the exhaust manifold with the turbocharger

- Remove the O2 sensor and heat insulator off from the turbocharger assembly

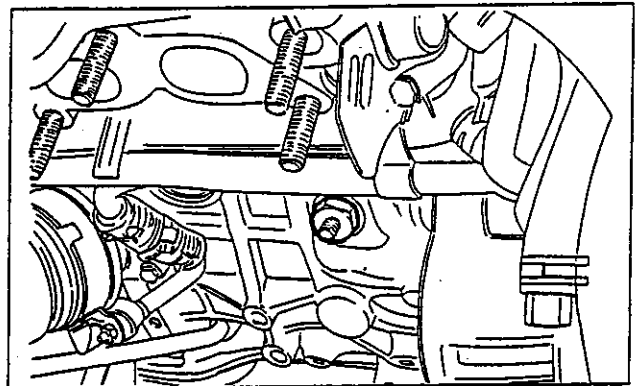


3. GReddy Turbo Kit Installation

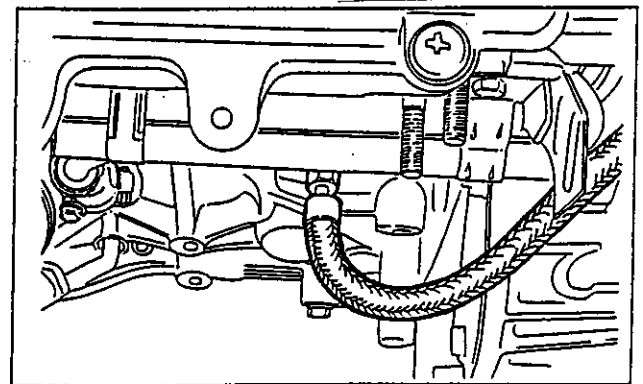
- 3-1 Plugging the water and vacuum line hoses.
1. Plug the turbo water line with 10Ø plug union.
(part # 37)
 2. Plug the factory turbo actuator vacuum line with 6Ø rubber plug.
(parts #36,47)



- 3-2 Wrap the thremo wrap around the plugged water lines. Also wrap any necessary wires in high heat areas.
(part #46)

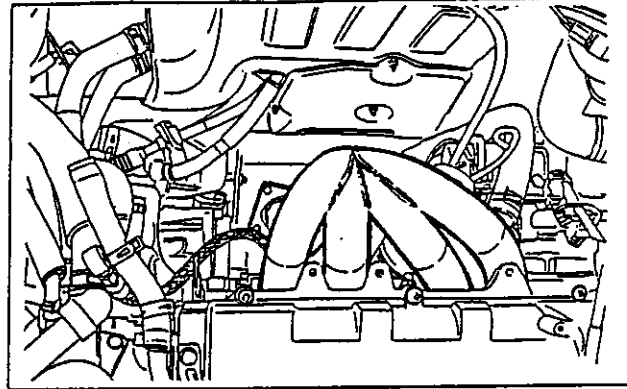


- 3-3 Installation of the oil feed system
1. Install the oil pressure union to the block with copper washers.
(parts #10,11)
 2. Install the oil pressure line to the oil pressure union
(part #9)



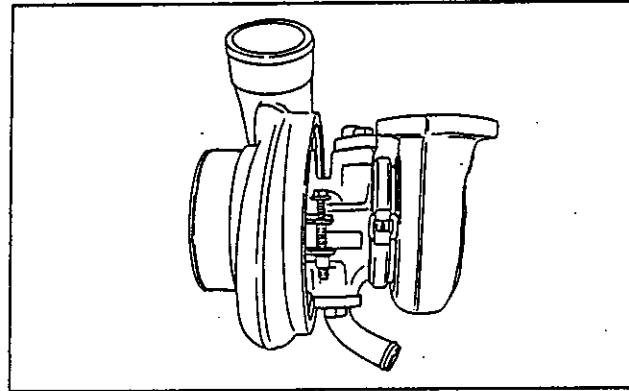
3-4 Exhaust manifold installation

1. Install the stud bolts to the turbo flange on the exhaust manifold (parts #2,51)
2. Install the exhaust manifold with gaskets onto the engine. (part #38,52)

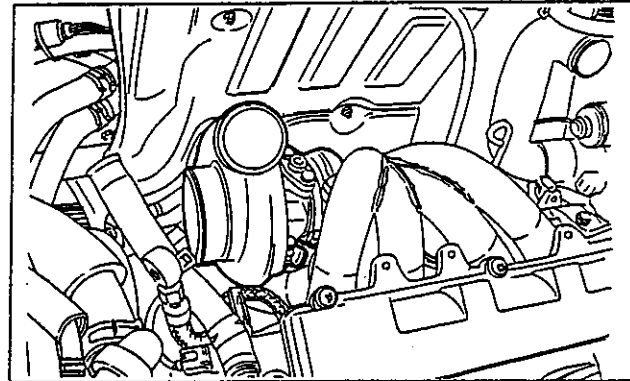


3-5 Turbocharger installation

1. Install the oil pressure alum. flange and oil return flange tube in gasket to the turbocharger. (parts #1,15,16,17,19,49,53)

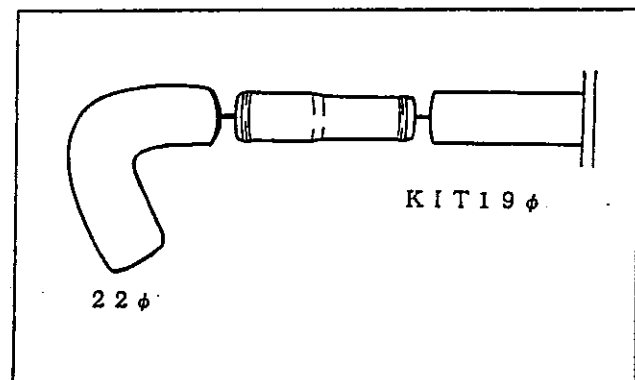


2. Bolt the turbocharger to the exhaust manifold. (parts #39,51)

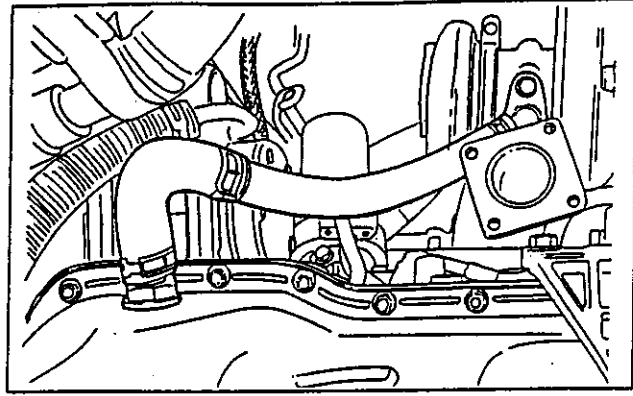


3-6 Oil return installation

1. Install the oil return hose to the turbo side as shown. Wrap the 19Ø hose with thermo wrap. (parts #23,27,46)

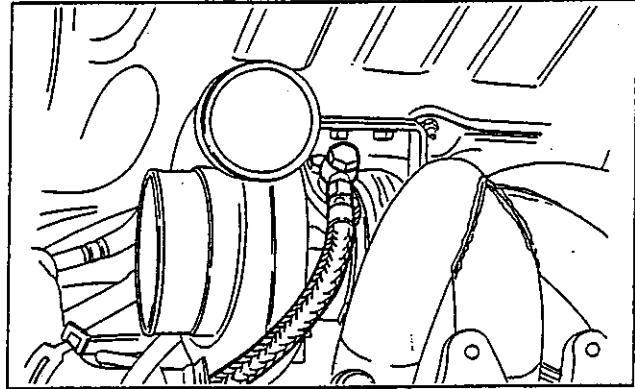


2. Connect the 22Ø oil return hose to the oil pan.
(parts #18,27)

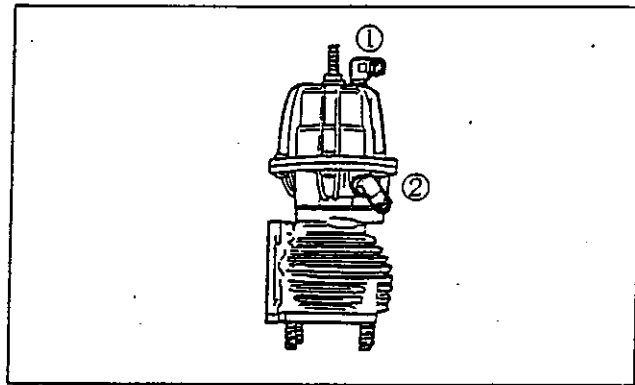


- 3-7 Install the oil pressure hose to the turbocharger using the banjo bolt as shown.
(parts #12,13,14)

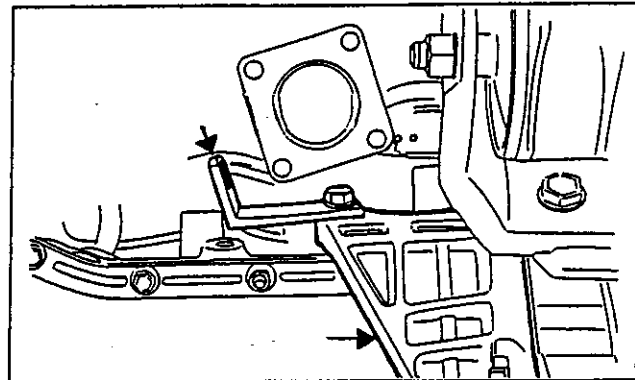
Be sure to keep the oil line away from the exhaust manifold.



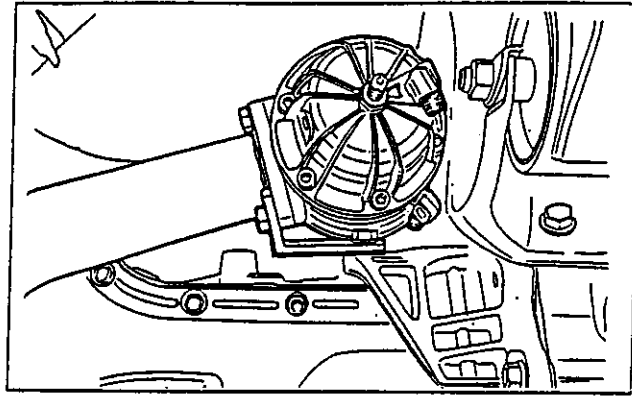
- 3-8 Wastegate installation
 1. Install the 90° threaded fitting included in the wastegate box in position 1.
(parts #3,34)
 2. Install the 90° hose union in position 2.
as seen in the picture.
(parts #42)



3. Install the wastegate bracket as shown.
Use the factory bolt.
(part #4)

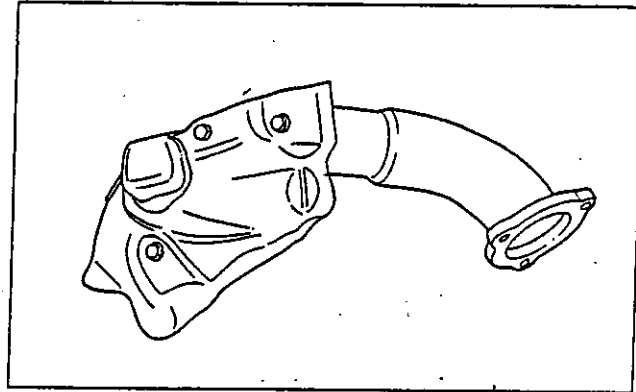


4. Install the wastegate using gasket
5. Install the wastegate dump pipe to the wastegate and secure to the bracket as shown.

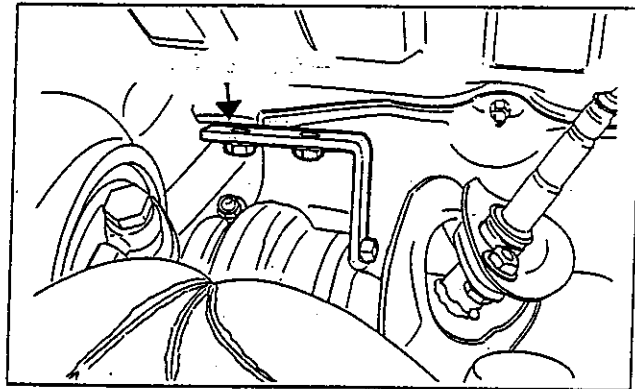


3-9 Down pipe installation

1. Install the factory heat shield to the down pipe
(parts #5,48)

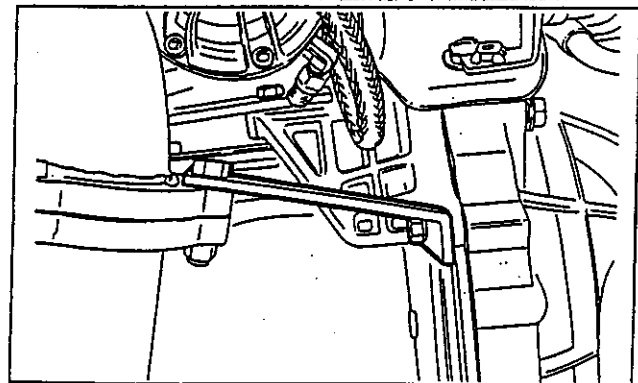


2. Install stud bolts to the turbocharger and install the down pipe with the gasket. At the same time, install the heat shield bracket as shown.
(parts #40,41,44,51,54)



3. Install the down pipe bracket as shown. Use factory bolts and exhaust bolts.
(part #54)

4. Install the O2 sensor. Use a new gasket.
(parts #46,50)



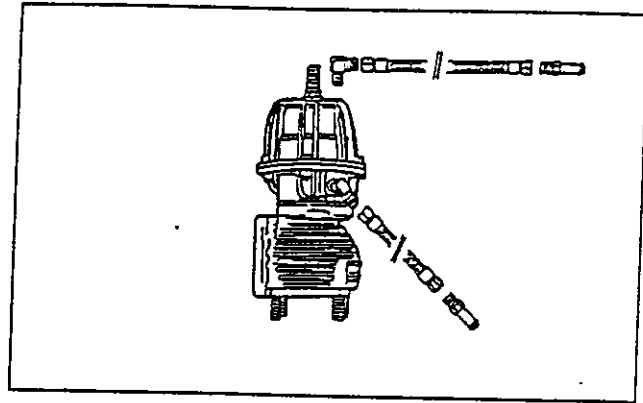
3-10 Wastegate hose connections

1. Install the air pressure hose and hose union to the bottom port on the wastegate and connect it to the intake manifold.
2. Leave the top port open, if not using a boost controller.

(parts #22,33,35)

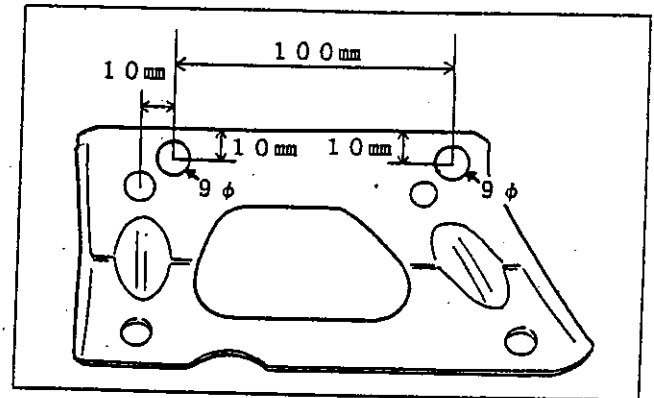
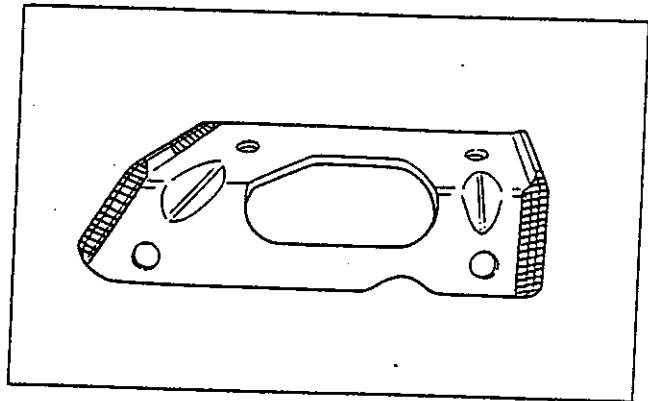
****If you are using a boost controller connect the top port of the wastegate as per TVVC or PProfec Instructions.***

Be sure to route the air pressure lines, so it doesn't touch the exhaust manifold.



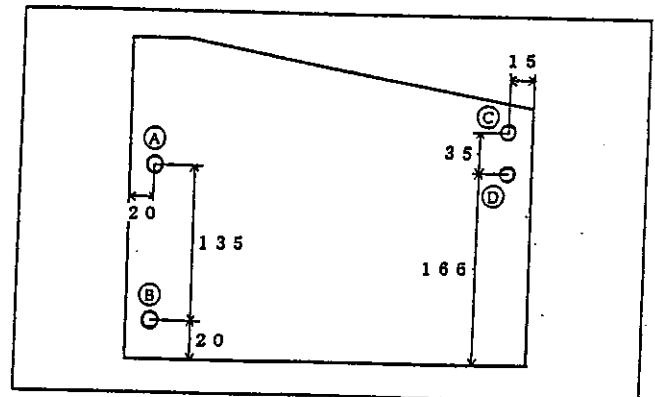
3-11 Factory air tube bracket modification

1. Modify the factory air tube bracket as shown. Cut the shaded
2. Drill holes in the bracket as shown. (9mm holes)

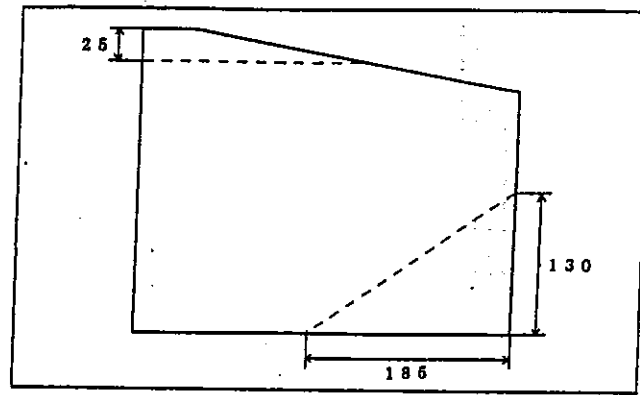


3-12 Heat shield modification

1. Drill 9mm holes to the provided heat shield as shown. (part #45)

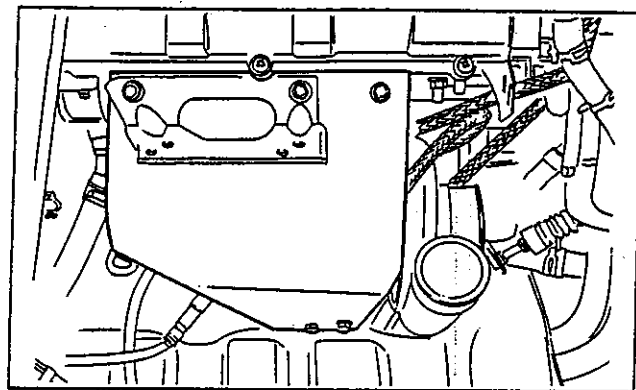


2. Fold over the heat shield as shown by the dotted lines.

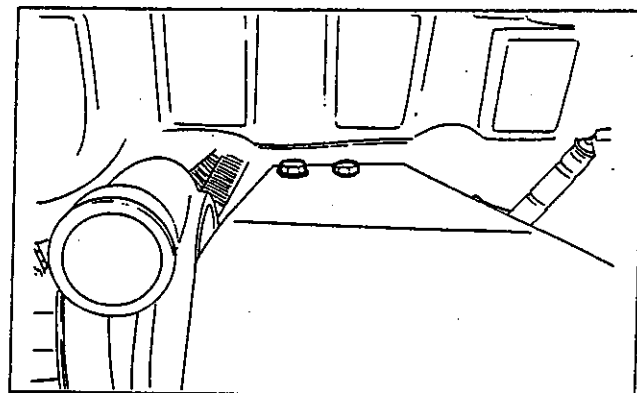


3-13 Heat shield installation

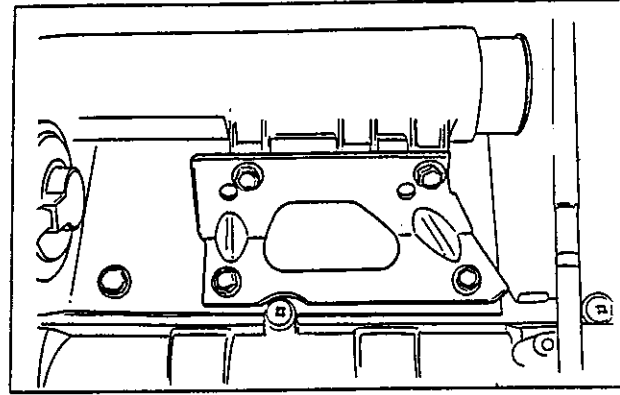
1. Install the heat shield as shown.



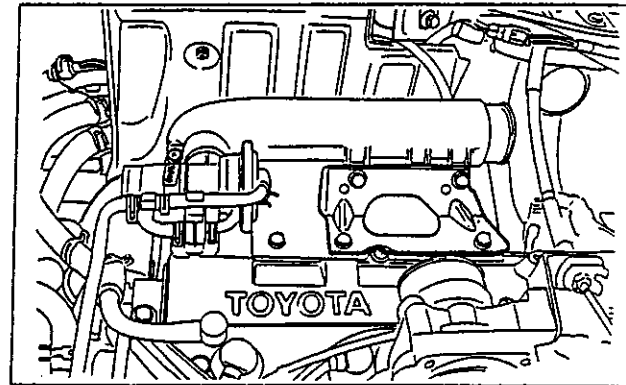
2. Secure the heat shield to the bracket bracket from step 3-8 (part #44)



- 3-14 Installation of the charge pipes
1. Install the rubber spacer hose to the factory air tube no.4 (turboside) (part #26)

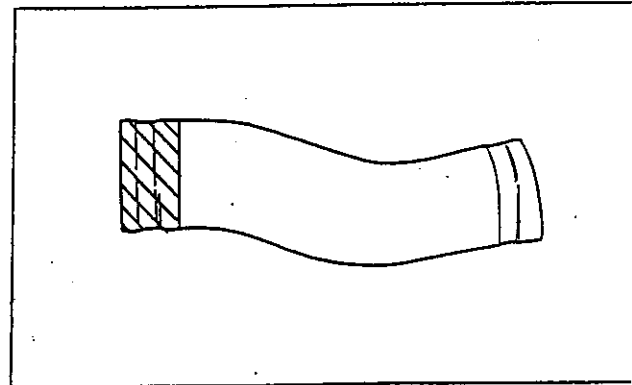


2. Connect the turbo to the air tube no.4 with the provided silicon hose and hose bands. (parts #20,29,30)

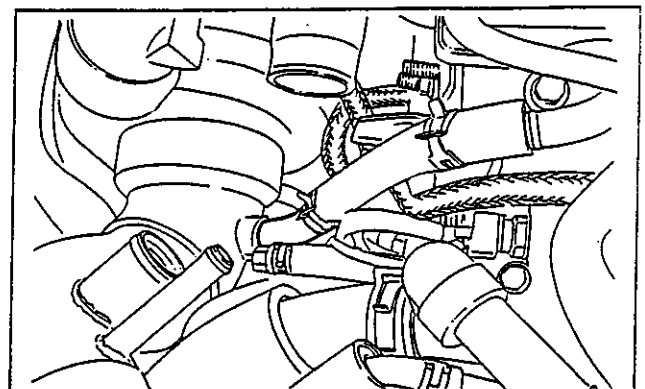


3. Connect all vacuum hoses to the air bypass valve.

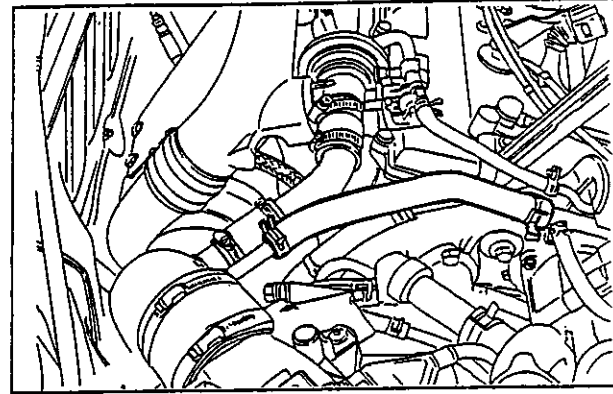
4. Cut the factory air intake rubber hose 10mm off from the larger side as shown. Install the modified hose between the air tube no.4 and the intercooler.



- 3-15 Suction pipe installation
1. Install the suction pipe using the 80Ø-100Ø reducer hose. (parts #6,21,25,31,32)



2. Install the blow by tube to the 80Ø-100Ø reducer hose as shown.
(parts #8,27)
3. Install the air by pass tube and idle control line to the suction pipe.
(parts #7,24,28)



3-16 Before you start the engine.

1. Refill the engine coolant to factory spec.
2. Reconnect the (-) neg terminal of the battery
3. Build up oil pressure by cranking the engine with the ignition coil disconnected.
4. Reconnect the coil and start the engine. Check for oil, coolant, and air leaks at idle.
5. Be sure to fix all leaks. Then install the engine undercover.
6. Reinstall the rear suspension upper brace and hood panel.

This concludes the installation.