

***GR*Reddy®**

***GR*Reddy Intercooler Kit**

Toyota MR-2 Turbo (SW-20)



Toyota MR-2 (SW-20)

Installation Manual

Please read the entire manual before installing this kit.

Application:

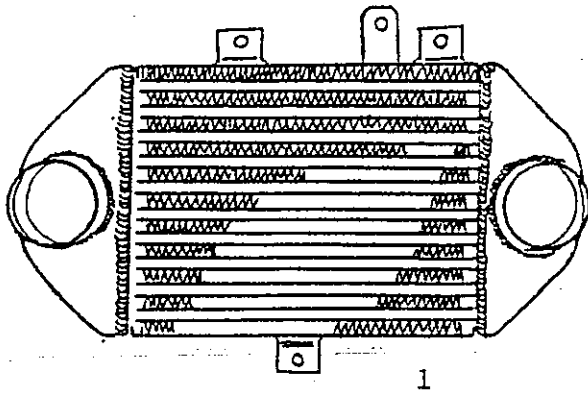
Make	Model	Chassis	Year
Toyota	MR-2	SW-20	90 ~ 93

- This **GReddy Intercooler Kit** is designed only for the vehicles specified above with stock turbo or the **GReddy Turbo Upgrade**.

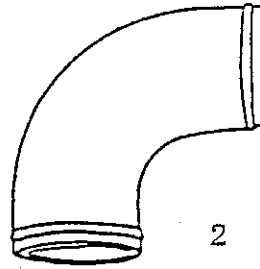
MR-2 (SW-20) Intercooler Kit

1. Parts List

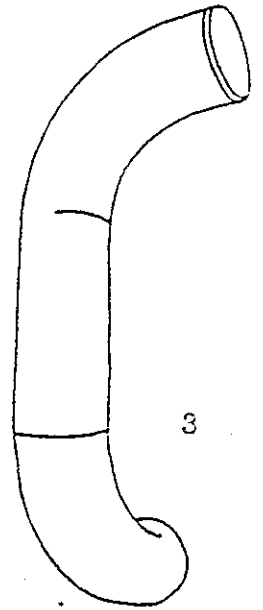
1. Intercooler	1
2. Intercooler Tubes I-1 60O-90 -35R Aluminum elbow S13-5	1
3. Intercooler Tubes I-2 60O Steel	1
4. Intercooler Tubes I-3 60O-70 Aluminum Elbow No.17	1
5. Intercooler Tubes I-4 60O Steel	1
6. Rubber Hose with cloth 60OX70mm Straight	4
7. Rubber Hose 54O-60O (reducer type)	1
8. Rubber Hose 60O-65O (reducer type)	1
9. Hose Clamp 54O-60O tridon 36#	11
10. Hose Clamp 65O tridon 40#	1
11. Duct Plate	1
12. Sponge Tape	1
13. Tie Wraps 200mm	10
14. Heat Resistant Cloth 100mmX400mm	1
15. 6mmX25mm P=1.0 Steel Stud B -- -- N	3
16. 6mm P=1.0 Steel Stud -- -- -- N	3



1



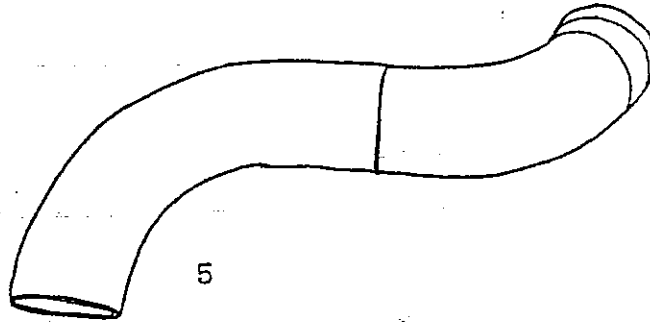
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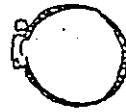
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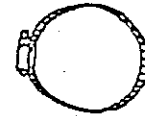
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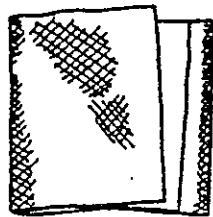
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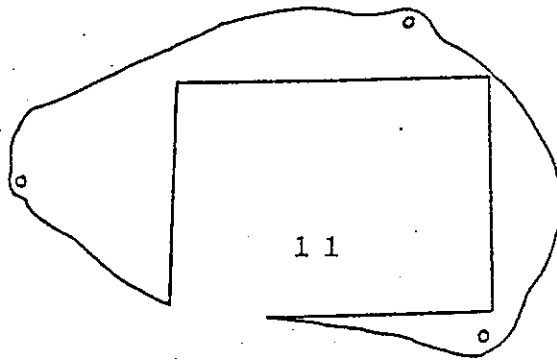
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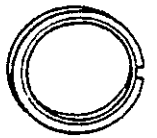
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16



11



12

2. Removal Of The Stock Parts

2-1 Please see the next page for reference.

2-2 Stock parts listed below will not be used again.

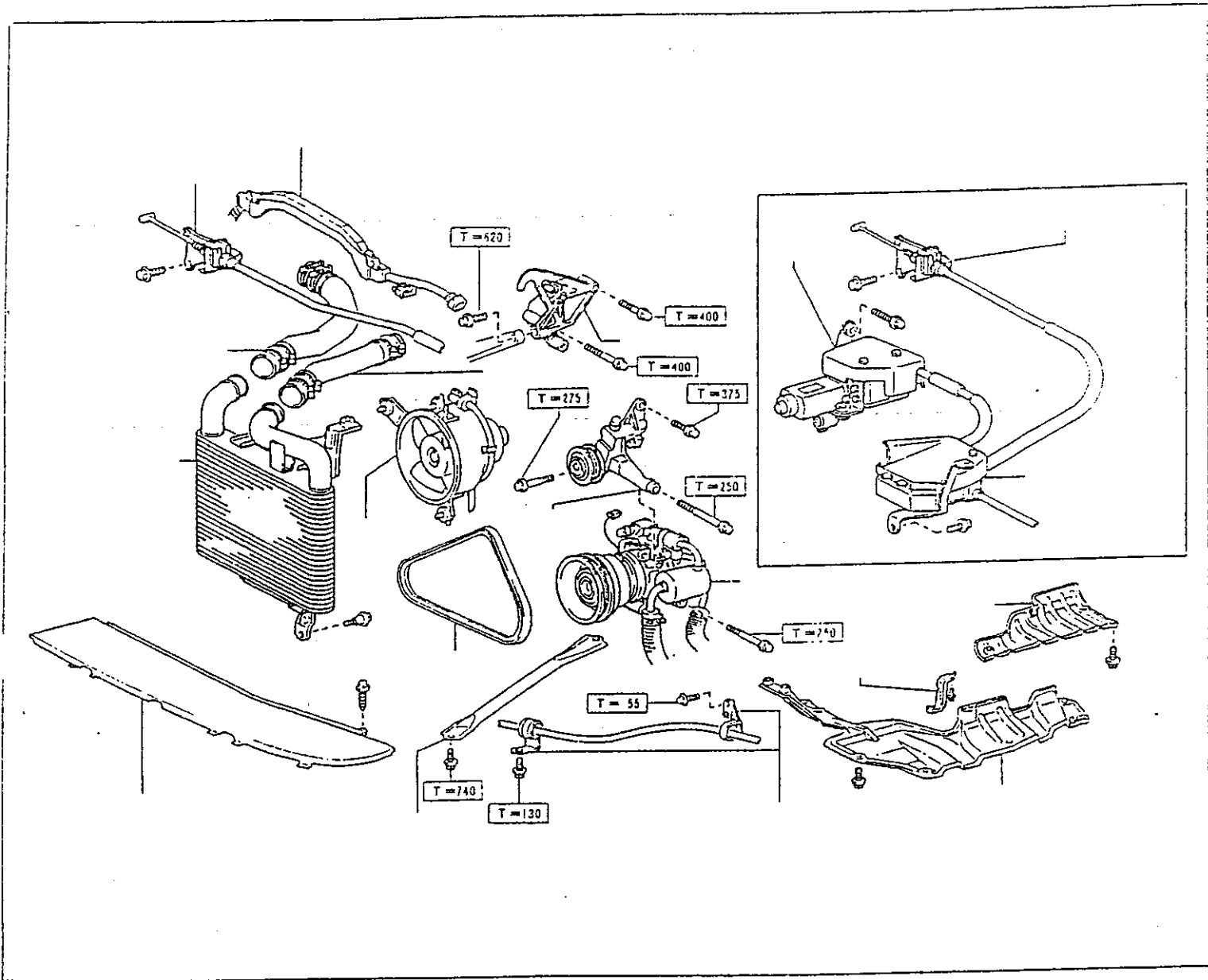
- * Stock Intercooler assembly**
- * Intake air connector No. 1, 2**
- * Intake air connector No. 1, 2 Rubber hose**
- * Intake air connector No. 1, 2 Hose clamp**
- * Intercooler duct**

2-3 After removing the stock intercooler, the stock parts listed below will be installed before installing the GReddy Intercooler kit.

- * Air conditioning compressor**
- * Idle pulley**
- * Bracket**
- * Air conditioning belt**
- * Engine hanger**
- * Accelerator cable**
- * Link assembly**
- * Engine under cover**

2-4 Engine room cooling fan will be installed to the GReddy Intercooler. Engine hood side panel, and rear suspension upper brace will be installed after the GReddy Intercooler kit was installed.

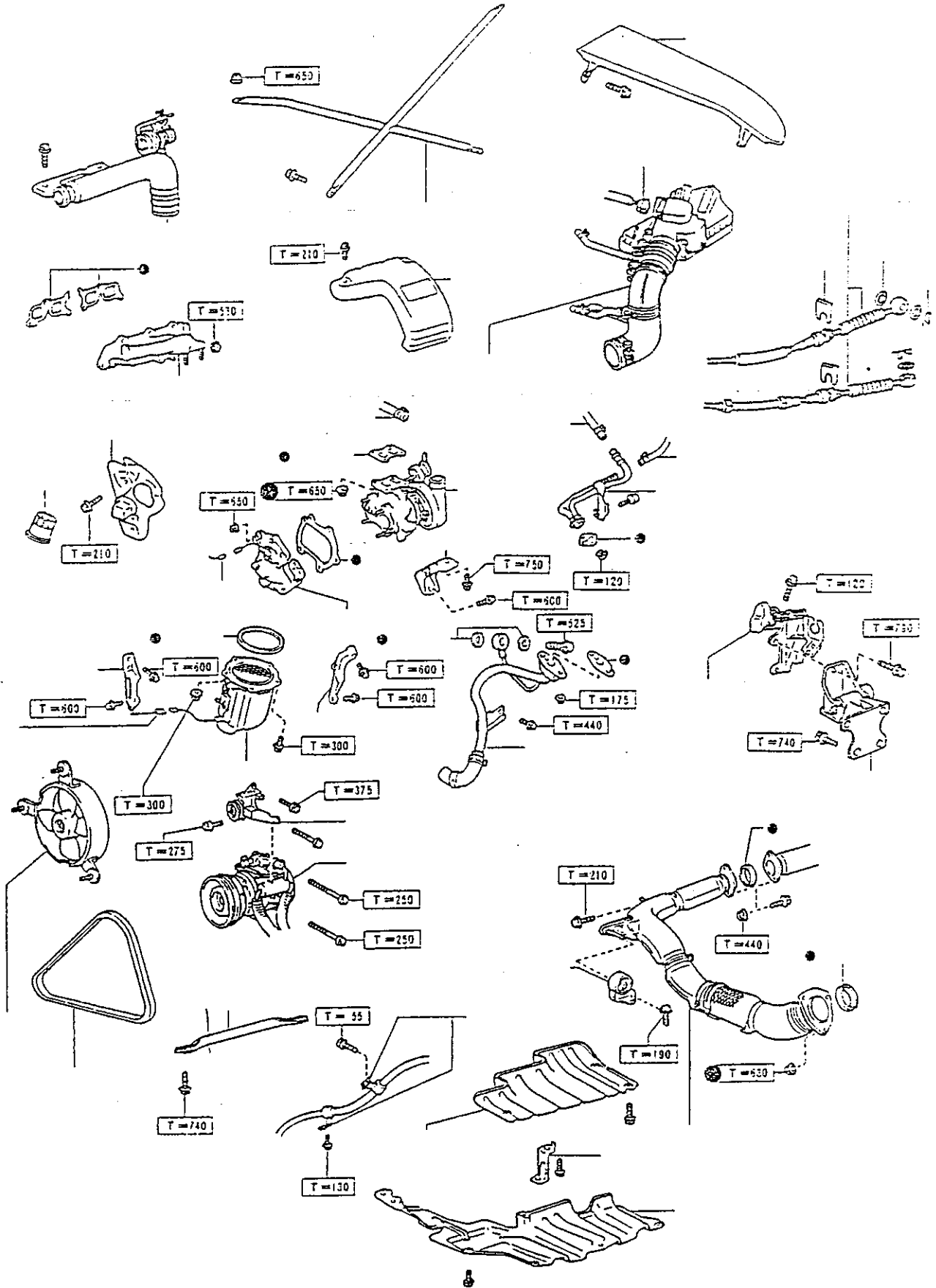
Removal Diagram Of The Stock Intercooler



Removal of the stock Intercooler

1. Remove the engine under cover No.2
2. Remove the engine under cover No.1 and the under cover bracket
3. Remove the engine hood side panel RH
4. Remove the accelerator cable and the bracket.
5. Remove the intake air connector No.1 and 2
6. Remove the speed control actuator and the accelerator link
7. Remove the engine room cooling fan.
8. Remove the air conditioning serpentine belt.

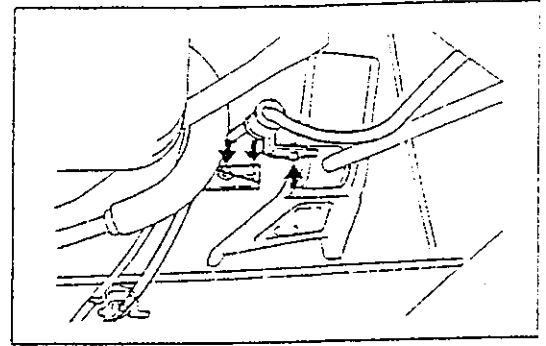
Removal Diagram Of The Turbo Charger.



Removal Of The Stock Intercooler

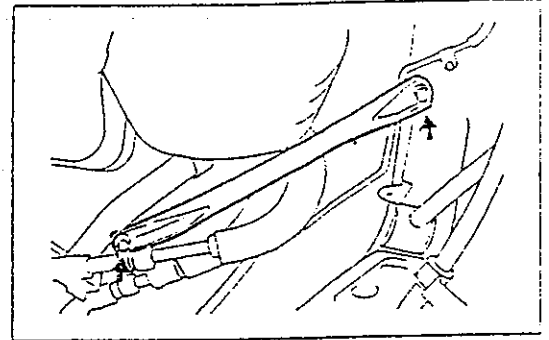
9. Disconnecting the clamp for the parking brake cable No.2

(1) Remove three bolts as shown and disconnect two cables clamps from the body.



10. Removing rear suspension lower brace RH

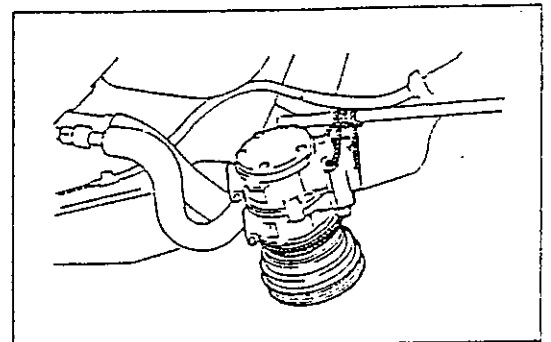
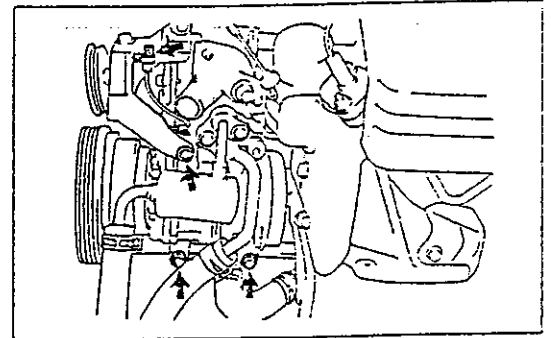
(1) Remove the two bolts as shown and remove the rear suspension lower brace RH.



11. Removing air conditioning compressor

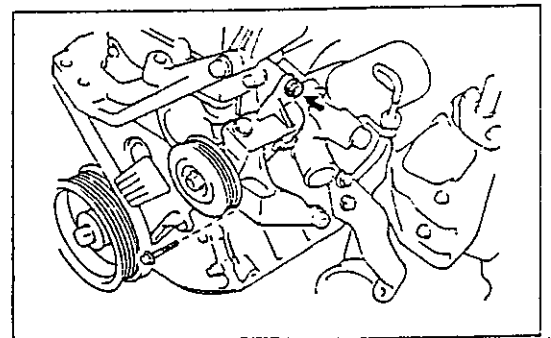
(1) Disconnect the connector for the magnet clutch, then remove the connector from the connector bracket.

(2) Remove three bolts, then disconnect the air conditioning compressor from the cylinder block.



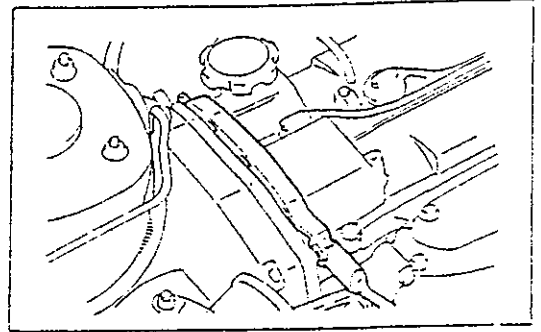
12. Removing idle pulley bracket.

(1) Remove two bolts, then remove the idle pulley bracket.

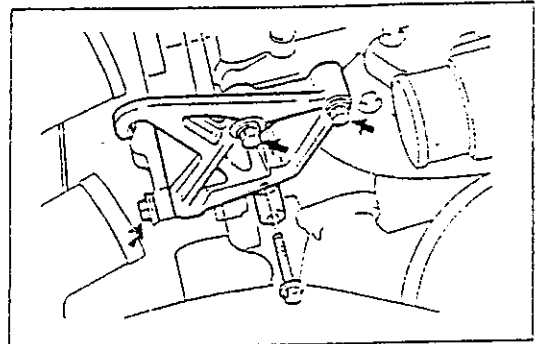


Removal Of The Stock Intercooler

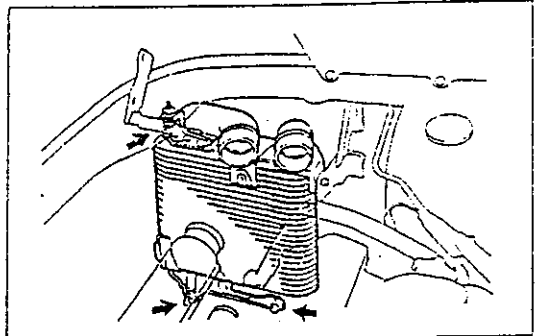
13. Moving the wire harness protector.
(1) Disconnect the connector for the O₂ sensor and the exhaust gas temperature, then move the wire harness protector.



14. Removal of the Engine Hanger No.3
(1) First remove the four bolts, then remove the Engine Hanger No. 3

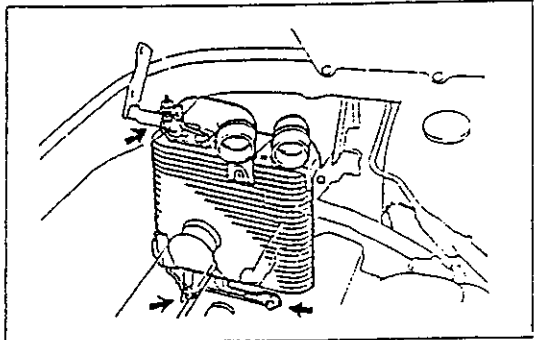


15. Removal of the Intercooler
(1) First remove the 3 bolts, then remove the intercooler.

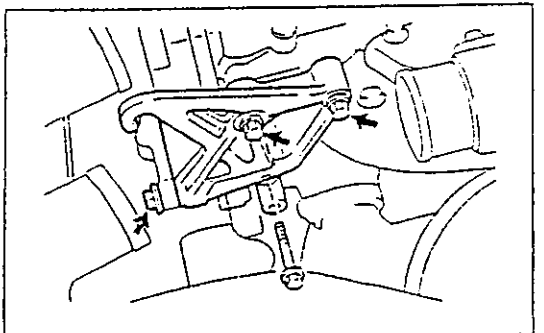


Installation Of The Intercooler.

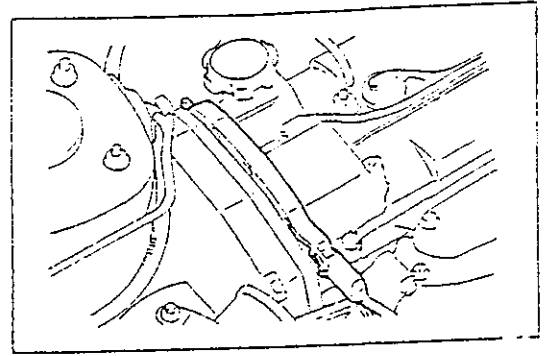
1. Install the intercooler using 3 bolts.



2. Install the Engine Hanger No.3 using 4 bolts
Torque=400kg/cm (Cylinder Head X Hanger)
Torque=620kg/cm (Bracket X Hanger)



3. Install the wire harness protector on top of the cylinder head cover. Then connect the O₂ sensor and the exhaust gas temperature sensor.



4. Installation of the idle pulley and the air conditioning compressor.

(1) Place the air conditioning compressor inside the engine room. (Make sure magnet clutch is facing down)

(2) Temporary bolt on the air conditioning compressor using bolts (1) and (2).

(3) Temporary bolt on the idler pulley bracket using the bolts (3) and (4)

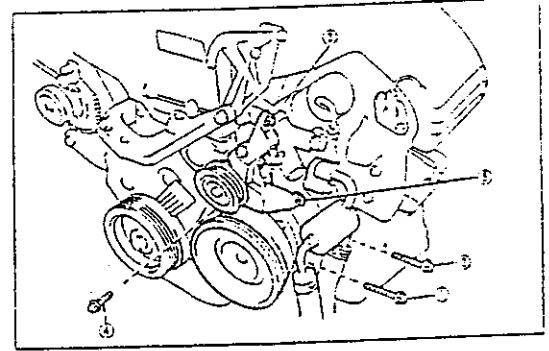
(4) Temporary bolt on the air conditioning compressor using the bolt (5).

(5) Retighten the bolts (1) and (2)
Torque=250kg/cm

(6) Retighten the bolt (5)
Torque=250kg/cm

(7) Using the 12mm deep socket wrench, retighten the bolt (4) on the idler pulley bracket.

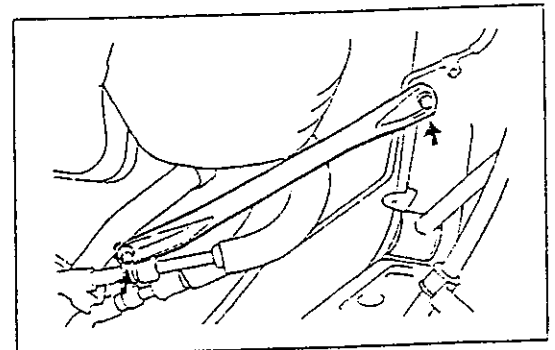
(8) Retighten the bolt (3) on the idler pulley bracket.



5. Installing rear suspension lower brace RH

(1) By using three bolts, install the rear suspension Lower brace RH.

Torque=740kg/cm

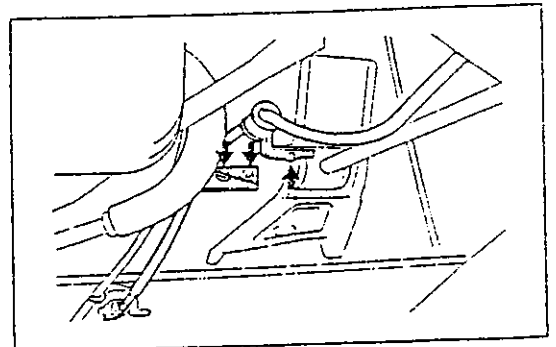


6. Installation of the brake cable no. 2 clamp.

(1) By using three bolts, install two cable clamps to the body.

Torque=55kg/cm (M6)

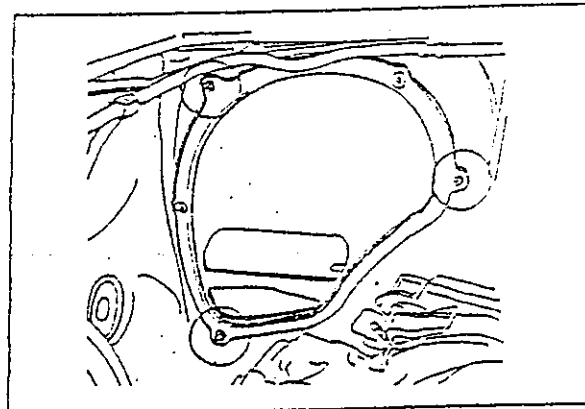
Torque=130kg/cm (M8)



7. Install the air conditioning serpentine belt.
8. Install the engine room cooling fan.
9. Install the speed control actuator and the accelerator link.
10. Install the intake air connector no.1 and 2.
11. Install the accelerator cable with the bracket.
12. Install the engine hood side panel RH.
13. Install the engine under cover No.1 and the bracket.
14. Install the engine under cover No.2

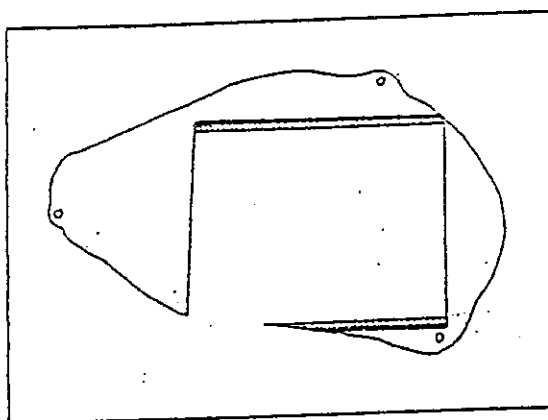
3. Installation Of The GReddy Intercooler Kit

3-1 Screw in three 6mm-25mm stud bolts to the genuine intercooler duct.
(See 3-a) (Part #15)



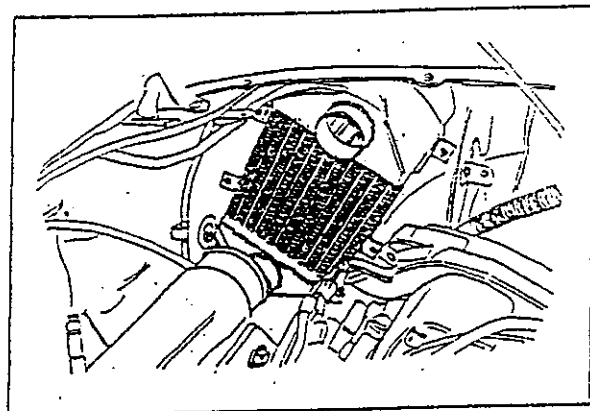
(3-a)

3-2 Place the Duct Plate (included in the kit) through the stud bolts, then only bolt on the bottom bolt. Next stick on the sponge tape to the shaded area of the duct plate as shown in 3-b. (Part #11, 12)

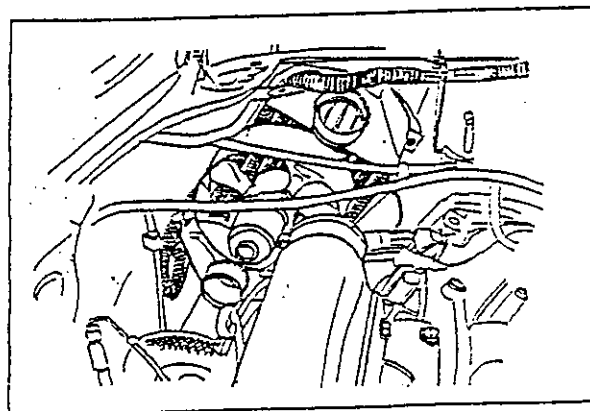


(3-b)

3-4 Install the stock engine room cooling fan to the Intercooler core bracket. Reuse the stock bolts for the fan bracket and the dumper. Leave the wiring coupler free.
(See 3-d) (Parts #16)



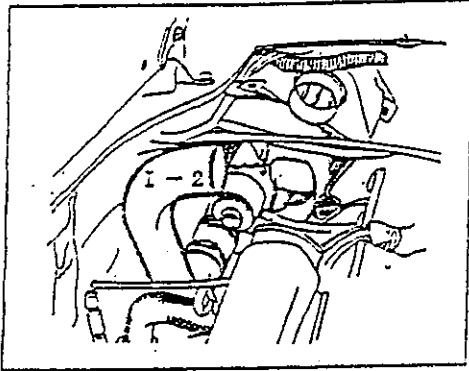
(3-c)



(3-d)

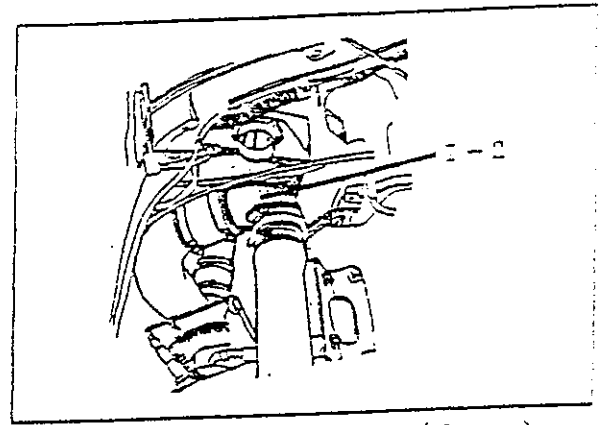
3-5 Temporary install the Intercooler Tube I-2 to the Intercooler Side Tank.
(See 3-e)

Next, match the I-1 Tube and the stock aluminum tube No.4 and connect the tubes I-1~2. (See 3-f) (Part # 2,3,6,7,9)

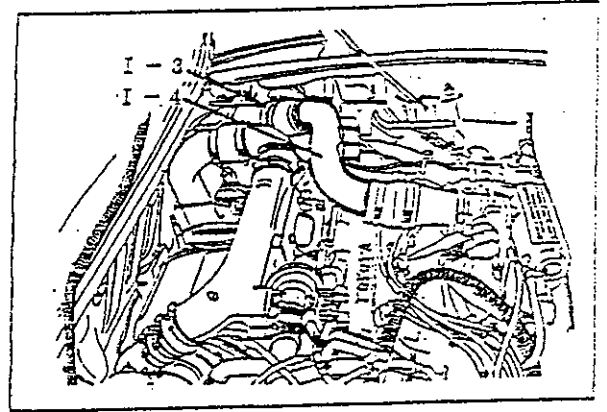


(3-f)

3-6 Install the I-3 tube to the upper side tank of the intercooler. Next, connect the I-4 tube to the throttle body. By matching the I-3~4 tubes, connect tubes between the intercooler and the throttle body.
(See 3-g) (Part # 4,5,6,8,9,10)



(3-e)



(3-g)

3-8 Please wrap the heat resistant cloth to the I-1 tube and the rubber hose connected to the stock aluminum air tube. Connect the coupler for the cooling fan and strap and secure it with the tie wraps.

3-8 Install the engine hood side panel, rear suspension upper brace and other stock parts.

* Start the engine and check to see if there are any air leaks and unusual sound coming out from any connections.