

# ***GR*Reddy®**

## ***GR*Reddy Intercooler Kit**

***Mazda RX-7 Turbo (FC3S)***



## Mazda RX-7 FC3S ( 13BT )

# Installation Manual

Please read the entire manual before installing this kit.

### Application:

| Make  | Model | Chassis | Year    |
|-------|-------|---------|---------|
| Mazda | RX-7  | FC3S    | 86 ~ 92 |

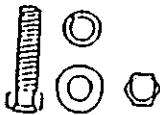
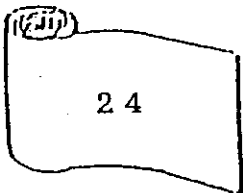
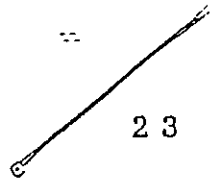
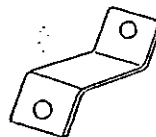
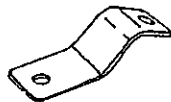
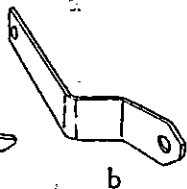
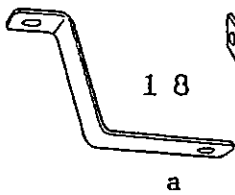
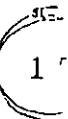
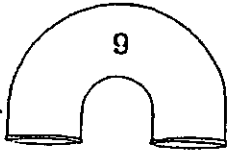
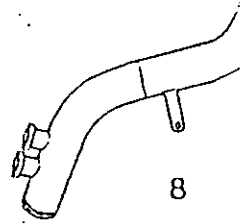
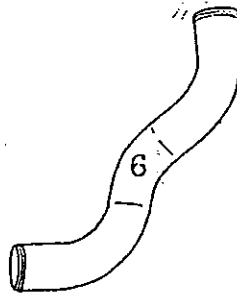
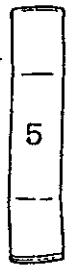
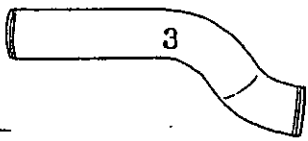
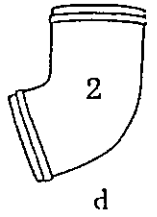
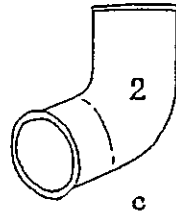
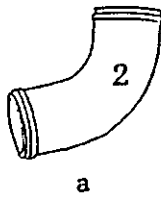
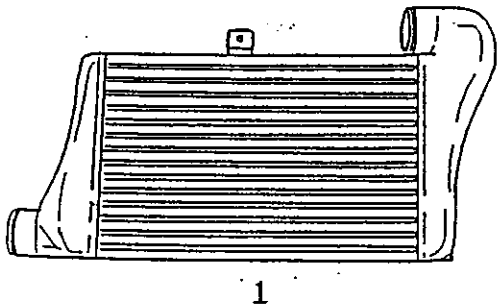
- This **GReddy Intercooler Kit** is designed only for the vehicles specified above with the **GReddy Turbo Upgrade** : RHC-7, RHC-6, TD-06SH

## FC3S ( 13BT )

### 1. PARTS LIST

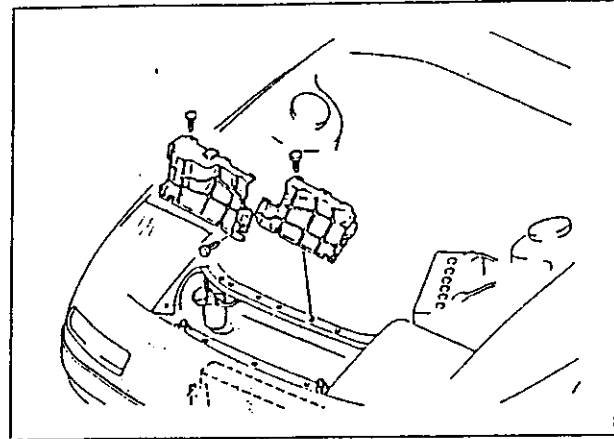
|     |  |    |
|-----|--|----|
| 1.  | TYPE 18 Intercooler core                                 | 1  |
| 2.  | Piping I-1a 50mm Alum Elbow for RHC-6                    | 1  |
| 3.  | I-2 60mm Steel Tube                                      | 1  |
| 4.  | I-3 60mm Alum Elbow 35R 90 degrees                       | 1  |
| 5.  | I-4 60mm Steel Tube                                      | 1  |
| 6.  | I-5  | 1  |
| 7.  | I-6  | 1  |
| 8.  | I-7a 60mm Steel With Injector holder Before miner change | 1  |
|     | I-7b After miner change                                  | 1  |
| 9.  | I-8 60mm Alum Elbow 35r 180 Degrees                      | 1  |
| 10. | Rubber Hose 50 DIA x 70mm straight                       | 1  |
| 11. | 60 DIA x 70mm straight                                   | 1  |
| 12. | 50 DIA to 60 DIA x 70mm                                  | 1  |
| 13. | 54 DIA to 60 DIA x 70mm                                  | 1  |
| 14. | 60 DIA to 65 DIA x 70mm                                  | 0  |
| 15. | Hose Band 50 DIA # 32                                    | 3  |
| 16. | 54 DIA to 60 DIA # 36                                    | 17 |
| 17. | 65 DIA # 40  | 0  |
| 18. | Intercooler Bracket a Steel (before miner change)        | 1  |
|     | b (after miner change)                                   | 1  |
| 19. | Radiator Grill Bracket Steel                             | 1  |
| 20. | Horn Bracket   | 1  |
| 21. | 8mm Plug Fitting   | 1  |
| 22. | Hose Band 8mm  | 2  |
| 23. | Tie Wrap 200mm   | 15 |
| 24. | Thremo Wrap 100mm x 1000mm                               | 1  |
| 25. | 8mm x 15mm P= 1.25 Stainless Bolt, Nut, and Washer       | 4  |
| 26. | 8mm x 20mm P= 1.25                                       | 2  |
| 27. | 6mm x 15mm P= 1.0  | 3  |

# Part List



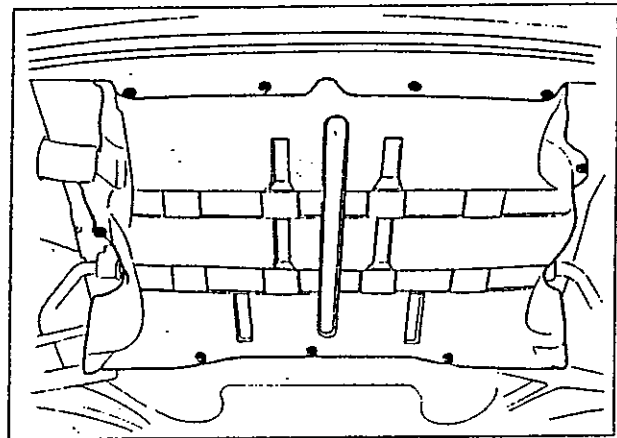
### Removing the radiator grill

remove 11 fastener and remove the grill from the radiator shroud.



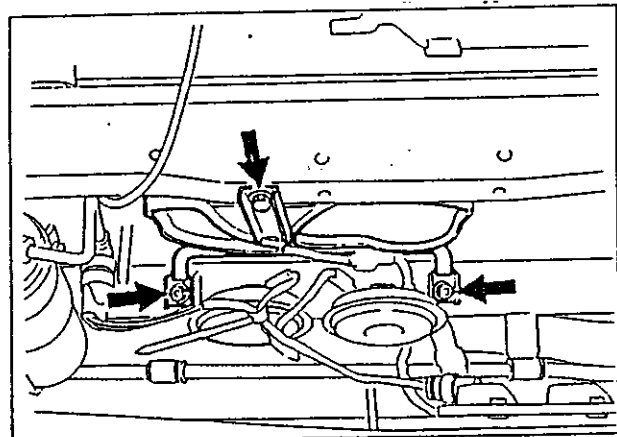
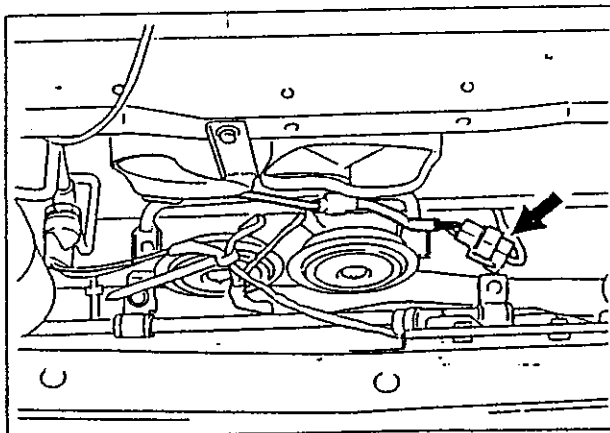
### Removing the under cover

Remove the bolts holding the under cover as shown



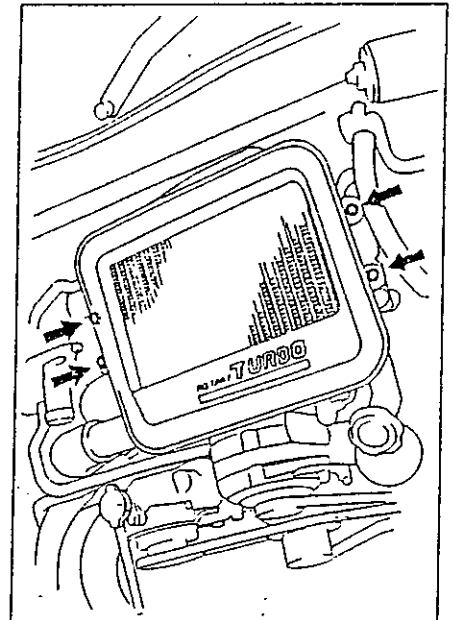
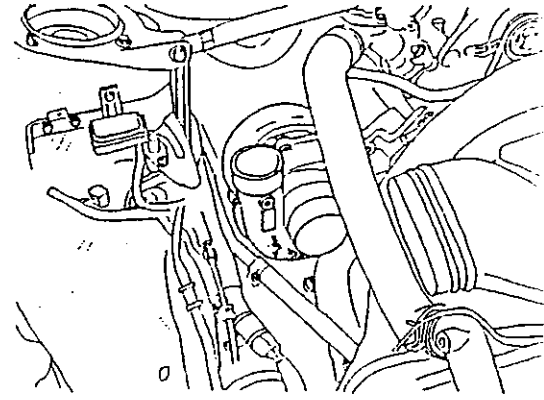
### Removing the radiator fan

Unplug the connector for the radiator.  
Unbolt the electric fan and remove.



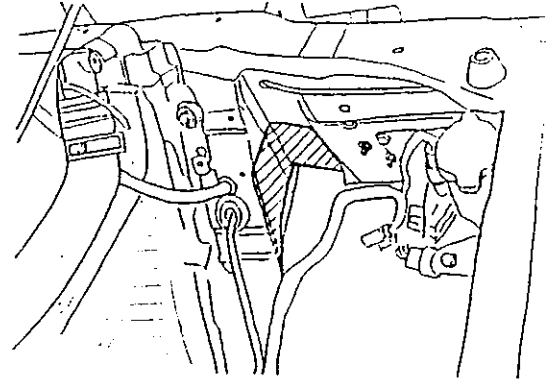
## 2. Removal of Stock Parts

- 2-1 Disconnect the negative side of the battery.
- 2-2 Remove the Airinx air filter, air flow meter, and the air intake aluminum elbow.  
( Reinstall after the intercooler kit is installed )
- 2-3 Remove the compression tube, stock intercooler and the bracket.
- 2-4 Remove radiator reserve tank, radiator grill, under cover, electric fan, hood lock, and horn.  
(see next page)
- 2-5 Remove the battery case air duct in the front bumper.
- 2-6 Remove the air conditioner liquid tank and the tube



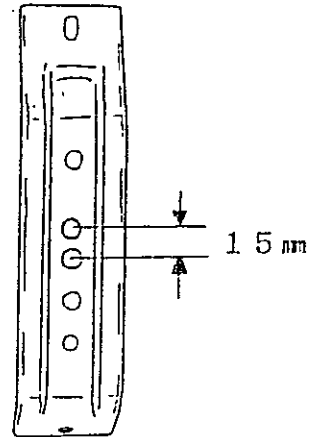
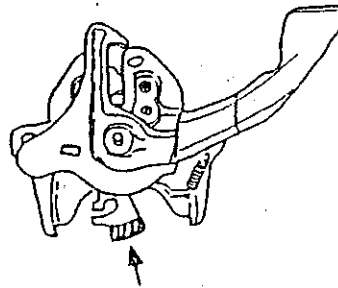
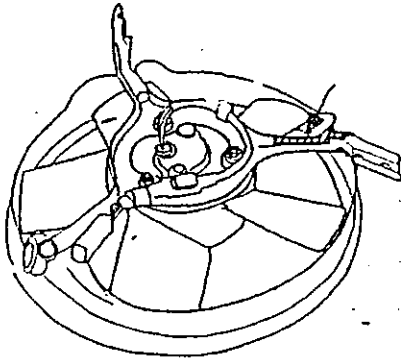
### 3. GReddy Kit Installation

3-1 Cut a hole on the chassis by right side of the radiator. Big enough for the 60mm piping and the air duct flexible tube to go through as shown in the picture.

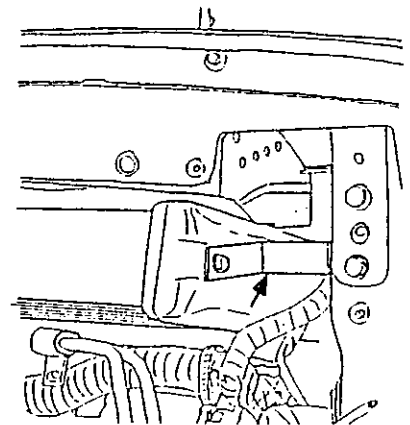
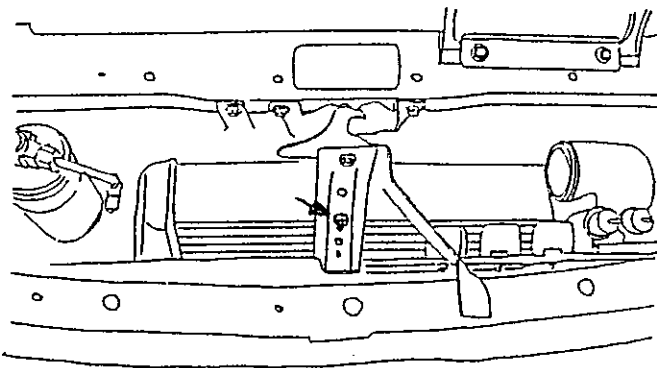


3-2 Plug the 8mm hose that was connected to the stock intercooler by using 8mm plug fitting and the hose band ( part # 21,22 )

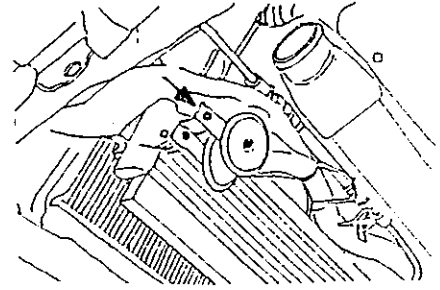
3-3 Modify the electric fan and the hood lock by cutting some pieces off as shown below. ( shaded areas ) Also drill 9mm hole in the hood lock bracket, and reinstall. Dimension shown below.



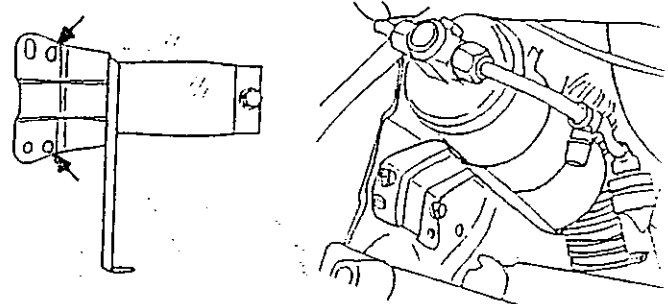
3-4 Install the GReddy Intercooler using the 9mm hole that was drilled in step 3-3 at the top and steel bracket for the bottom. ( Part # 1, 18, 25 )



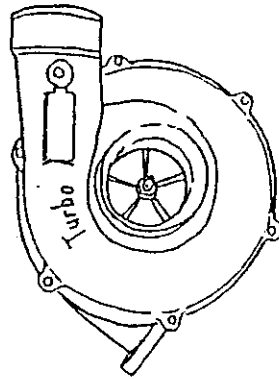
- 3-5 Remount the horn as shown. Also unbolt the bolt that holds the power steering oil cooler tube and tie wrap it to the body to avoid rubbing the intercooler. ( Part # 20, 27 )



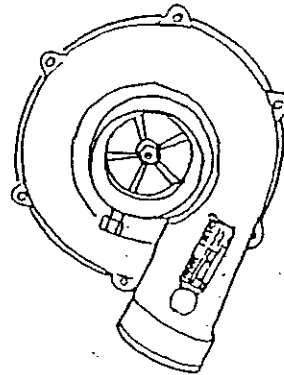
- 3-6 Modify the air conditioner liquid tank mounting bracket by drilling two holes as shown, ( drill two holes 15mm center to center below the stock location ) and remount the tank back using those new holes. Connect all the lines.



- 3-7 Turn the turbine compressor housing 200 degrees towards the engine and match the outlet with the piping I -1.

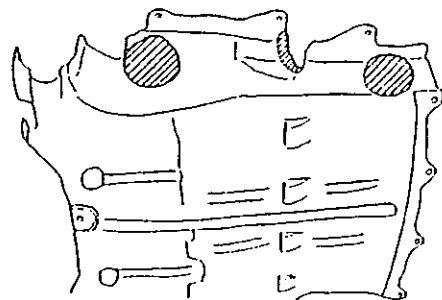
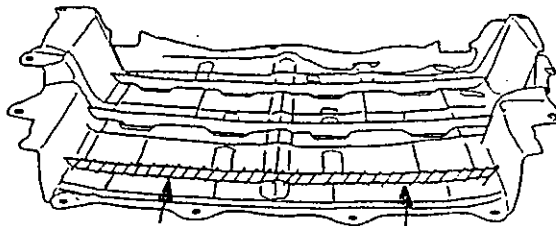


Stock Position



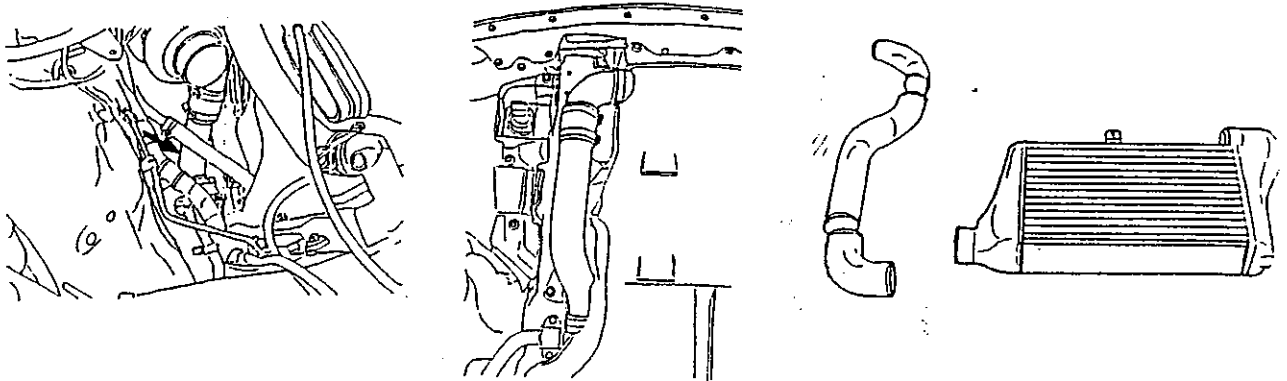
Intercooler kit Position

- 3-8 Modify the under cover by cutting two holes for the intercooler piping to go through, and cut shaded area as shown below.

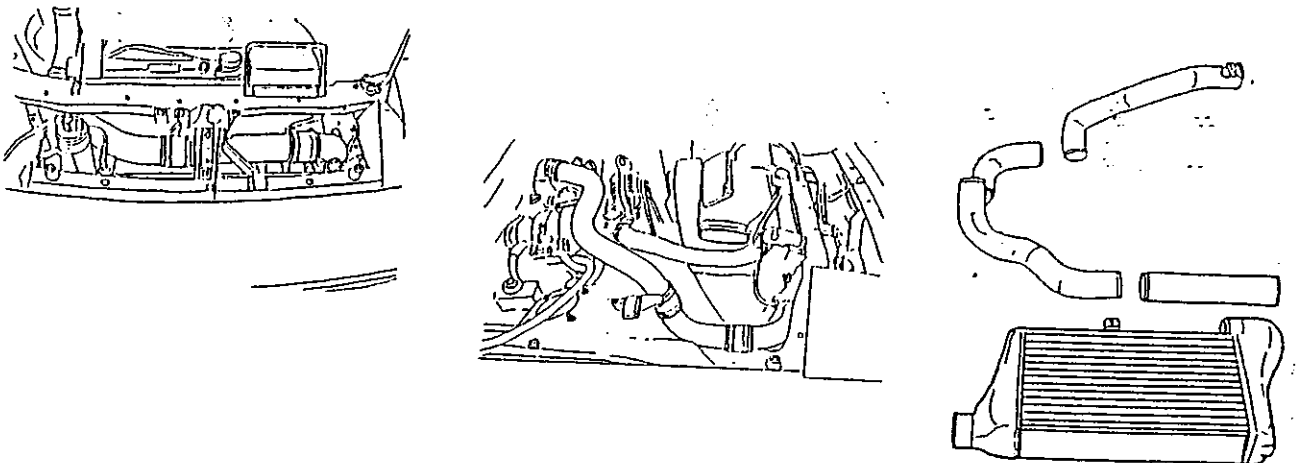




- 3-9 Wrap the intercooler piping I - 1 with thermo wrap, then install piping I -1, I -2, and I -3 between the turbine and the intercooler. Don't forget to install the under cover. (Part # 2, 3, 4, 10, 11, 12, 14, 15, 16, 17, 24 )

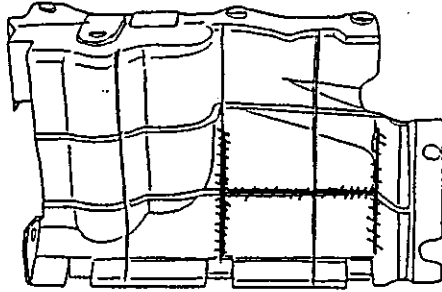


- 3-10 Install intercooler piping I -4, I -5, I -6, I -7, and I -8 between intercooler and throttle.
- \* If sub injector is not being used, install a dummy injector in the holder on the I -7 piping.
  - \* The air conditioner tube is in the way of the piping so bend carefully away from the piping.
  - \* I -5 piping goes though the hole in the chassis the was cut in step 3 -1. At the same time install the air duct flexible tube.
  - \* Mount the I -7 piping on to the intake manifold.
- ( Part # 5, 6, 7, 8, 9, 11, 12, 13, 16, 25 )

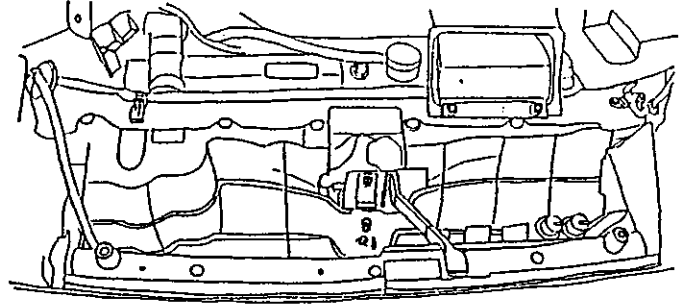
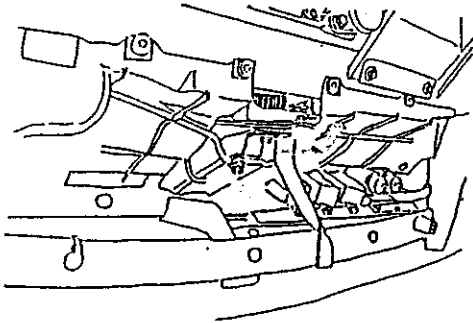


- 3-11 Make sure that all hoses and hose bands are correctly secured.

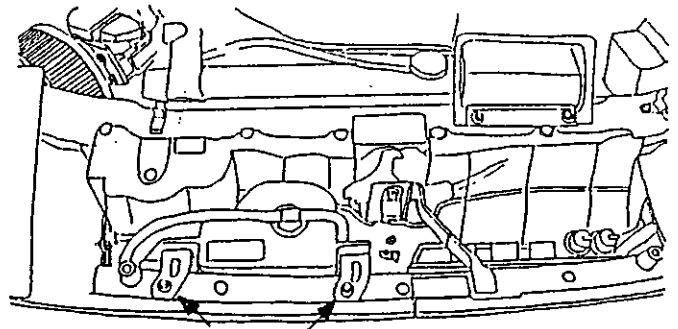
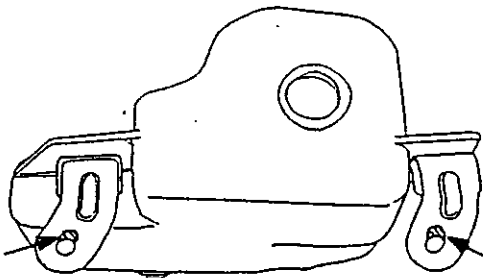
3-12 Modify the radiator grill as shown. (Cut the marked area)



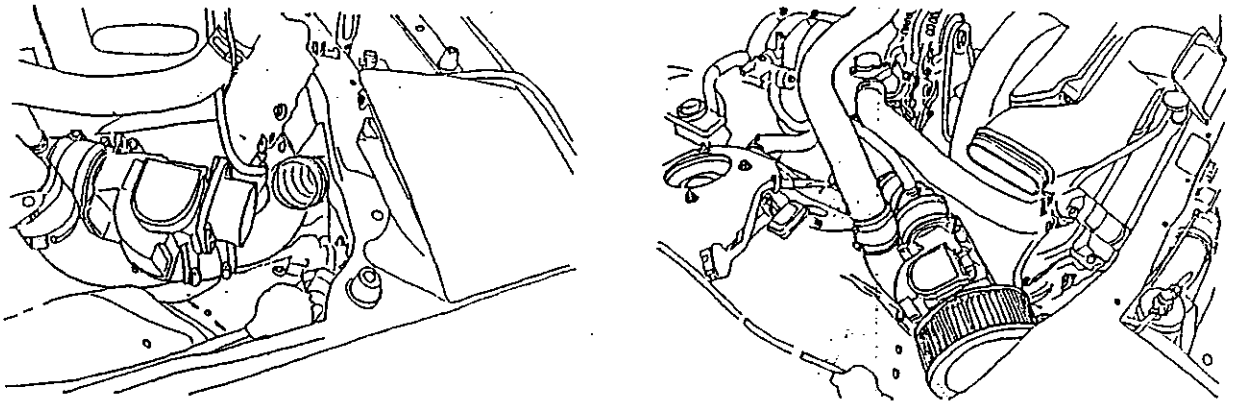
3-13 Bolt down the radiator grill bracket and the hood lock bracket together and install the modified radiator grill. (Part # 19, 26 )



3-14 Modify the radiator reserve tank bracket by cutting the two hole in to a slot as shown below, then reinstall.



3-15 Reinstall the air cleaner assy. in the reverse order it was removed.



3-16 After double checking the installation, reconnect the negative terminal on the battery, and start the engine. Check for any air leaks at idle.

3-17 Charge the air conditioner gas then check for any leaks.