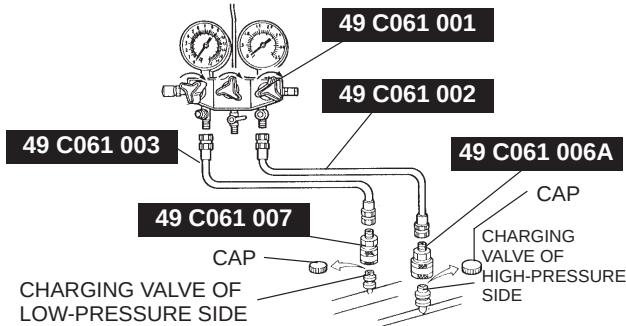


REFRIGERANT SYSTEM SERVICE PROCEDURES

MANIFOLD GAUGE SET INSTALLATION

1. Fully close the valves of the **SST** (49 C061 001).
2. Connect the **SSTs** (49 C061 002, 49 C061 003) to the high- and low-pressure side joints of the **SST** (49 C061 001).
3. Connect the **SSTs** (49 C061 006A, 49 C061 007) to the ends of the **SSTs** (49 C061 002, 49 C061 003).
4. Connect the **SSTs** (49 C061 006A, 49 C061 007) to the charging valves.



RECOVERY

Connect an R-134a recovery/recycling/recharging device to the vehicle and follow the device manufacturer's instructions.

CHARGING

Charging Recycled R-134a Refrigerant

Connect an R-134a recovery/recycling/recharging device to the vehicle and follow the device manufacturer's instructions.

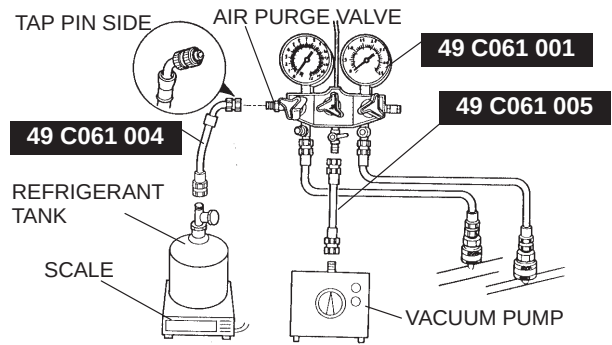
Charging New R-134a Refrigerant

Caution

- Do not exceed the specification when charging the system with refrigerant. Doing so will decrease the efficiency of the air conditioner or damage the refrigeration cycle parts.

1. Install the **SSTs** (Manifold gauge set). (Refer to MANIFOLD GAUGE SET INSTALLATION.)
2. Connect the tap pin side of the **SST** (49 C061 004) to the air purge valve of the **SST** (49 C061 001).
3. Connect the **SST** (49 C061 005) to the center joint of the **SST** (49 C061 001).
4. Connect the **SST** (49 C061 005) to the vacuum pump.
5. Connect the **SST** (49 C061 004) to the refrigerant tank.
6. Place the refrigerant tank on the scale.

Regular amount of refrigerant
550 g {19.4 oz}

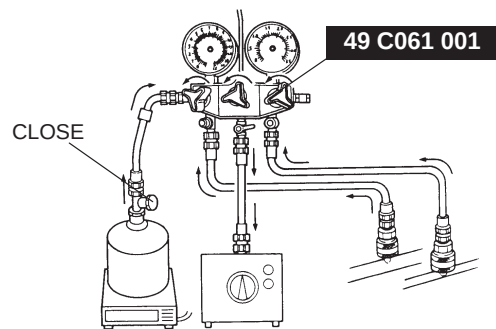


7. Open all the valves of the **SST** (49 C061 001).

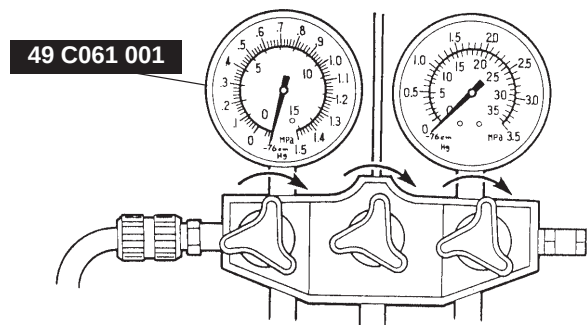
Caution

- Close the **SST** (49 C061 001) valve immediately after stopping the vacuum pump. If the valve is left open, the vacuum pump oil will flow back into the refrigeration cycle and cause a decrease in the efficiency of the air conditioner.

8. Start the vacuum pump and let it operate for **15 minutes**.



9. Verify that high- and low-pressure side readings of the **SST** (49 C061 001) are at **-101 kPa {-760 mmHg, -29.9 inHg}**. Close each valve of the **SST** (49 C061 001).



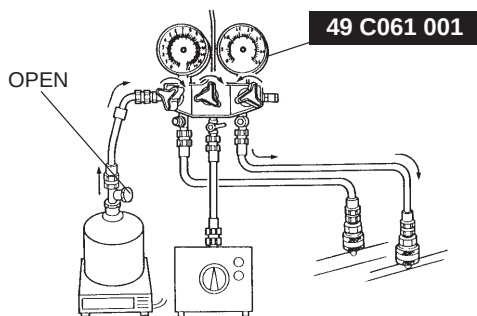
10. Stop the vacuum pump and wait for **5 minutes**.
11. Check the high- and low-pressure side readings of the **SST** (49 C061 001). If the reading has changed, inspect for leakage and then repeat from step 7. If the reading has not changed, go to step 12.
12. Open the valve of the refrigerant tank.
13. Weigh the refrigerant tank.

REFRIGERANT SYSTEM SERVICE PROCEDURES

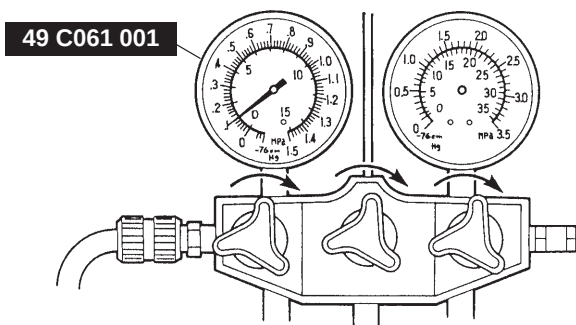
Warning

- If the refrigerant system is charged with a large amount of refrigerant when checking for gas leakage, and if any leakage should occur, the refrigerant will be released into the atmosphere. In order to prevent the accidental release of refrigerant which can destroy the ozone layer in the stratosphere, follow the proper procedures and charge with only a small amount of refrigerant when checking for gas leakage.
- If charging the system with refrigerant using service cans, running the engine with the high-pressure side valve open is dangerous. Pressure within the service cans will increase and the cans could explode, scattering metal fragments and liquid refrigerant that can seriously injure you. Therefore, do not open the high-pressure side valve while the engine is running.

14. Open the high-pressure side valve of the SST (49 C061 001).



15. When the low-pressure side reading increases to **0.098 MPa {1.0 kgf/cm², 14 psi}**, close the high-pressure side valve of the SST (49 C061 001).

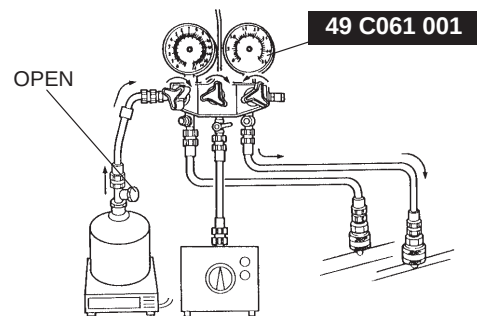


16. Inspect for leakage from the cooler pipe/hose connections using the SST (Gas leak tester). If there is no leakage, go to step 17. If a leakage is found at a loose joint, tighten the joint and inspect for leakage again. If there is still leakage at the same joint, discharge the refrigerant and then repair the joint. Repeat the charging procedure from step 7. If there is no leakage after tightening the joint, go to step 17.

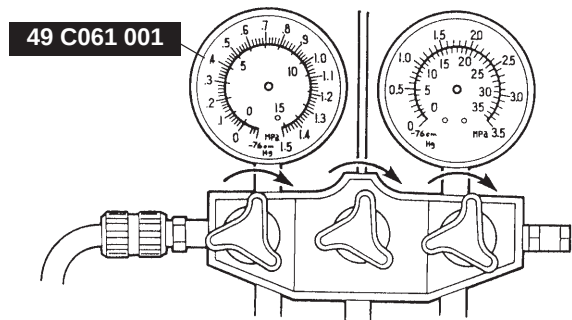
Warning

- If charging the system with refrigerant using service cans, running the engine with the high-pressure side valve open is dangerous. Pressure within the service cans will increase and the cans could explode, scattering metal fragments and liquid refrigerant that can seriously injure you. Therefore, do not open the high-pressure side valve while the engine is running.

17. Open the high-pressure side valve of the SST (49 C061 001) and charge with refrigerant until the weight of refrigerant tank has decreased **300 g {10.6 oz}** from the amount in step 13.



18. Close the high-pressure side valve of the SST (49 C061 001).

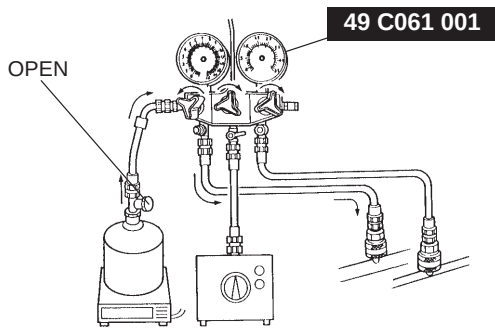


Warning

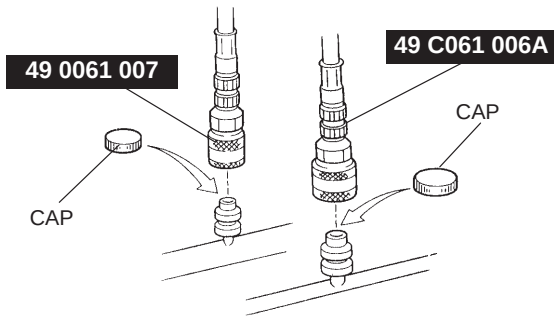
- If charging the system with refrigerant using service cans, running the engine with the high-pressure side valve open is dangerous. Pressure within the service cans will increase and the cans could explode, scattering metal fragments and liquid refrigerant that can seriously injure you. Therefore, do not open the high-pressure side valve while the engine is running.

19. Start the engine and actuate the A/C compressor.
20. Open the low-pressure side valve of the SST (49 C061 001) and charge with refrigerant until the refrigerant tank is empty.

REFRIGERANT SYSTEM SERVICE PROCEDURES



21. Close the low-pressure side valve of the **SST** (49 C061 001) and the valve of the refrigerant tank.
22. Stop the engine and A/C compressor.
23. Inspect for leakage using the **SST** (Gas leak tester). If there is no leakage, go to step 24. If leakage is found at a loose joint, tighten the joint and inspect for leakage again. If there is still a leak at the same joint, discharge the refrigerant and then repair the joint. Repeat the charging procedure from step 7. If there is no leakage after tightening the joint, go to step 24.
24. Disconnect the **SSTs** (49 C061 006A, 49 C061 007) from the charging valves.
25. Install the caps to the charging valves.

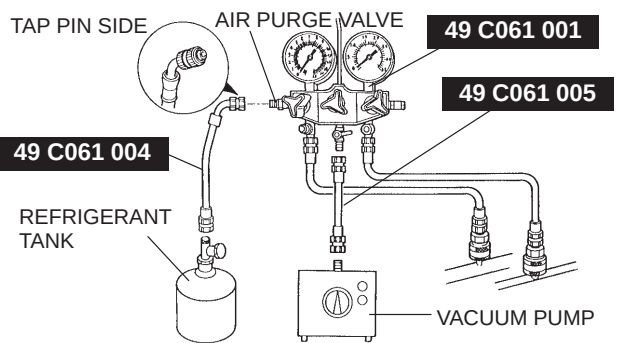


REFILLING

Caution

- Do not exceed the specification when charging the system with refrigerant. Doing so will decrease the efficiency of the air conditioner or damage the refrigeration cycle parts.

1. Install the **SSTs** (Manifold gauge set). (Refer to MANIFOLD GAUGE SET INSTALLATION.)
2. Connect the tap pin side of the **SST** (49 C061 004) to the air purge valve of the **SST** (49 C061 001).
3. Connect the **SST** (49 C061 005) to the center joint of the **SST** (49 C061 001).
4. Connect the **SST** (49 C061 005) to the vacuum pump.
5. Connect the **SST** (49 C061 004) to the refrigerant tank.

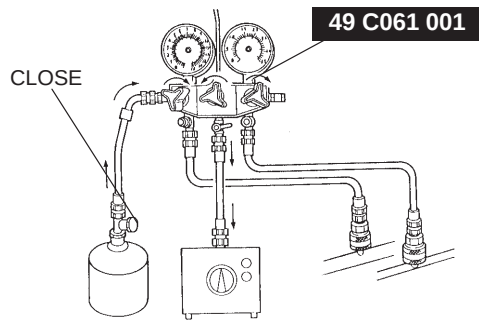


6. Open only the center valve of the **SST** (49 C061 001).

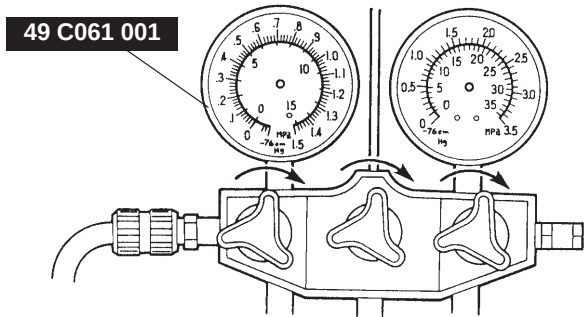
Caution

- Close the **SST** (49 C061 001) valve immediately after stopping the vacuum pump. If the valve is left open, the vacuum pump oil will flow back into the refrigeration cycle and cause a decrease in the efficiency of the air conditioner.

7. Start the vacuum pump and let it run for **1 minute**.



8. Close the center valve of the **SST** (49 C061 001).



9. Stop the vacuum pump.
10. Open the valve of the refrigerant tank.

Warning

- If charging the system with refrigerant using service cans, running the engine with the high-pressure side valve open is dangerous. Pressure within the service cans will increase and the cans could explode, scattering metal fragments and liquid refrigerant that can seriously injure you. Therefore, do not open the high-pressure side valve while the engine is running.