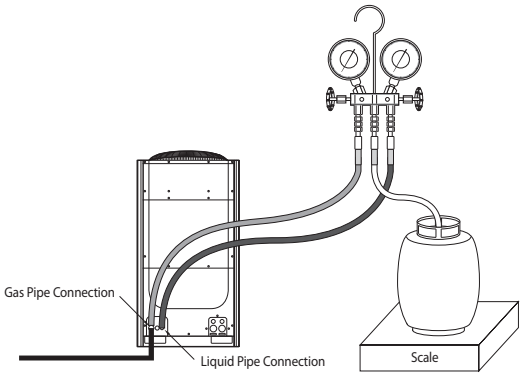
SAMSUNG

TECHNICAL NOTICE: System Pump-Down Operation For Samsung DVM S Systems

Samsung HVAC maintains a policy of ongoing development, information is subject to change without notice. Always refer to Samsung service and installation manuals for full details.

Step 1:
Connect refrigerant manifold to liquid and suction service ports on the MAIN outdoor unit. Connect a clean, exclusive refrigerant container to the service manifold. Place the container on a digital scale and zero the scale.



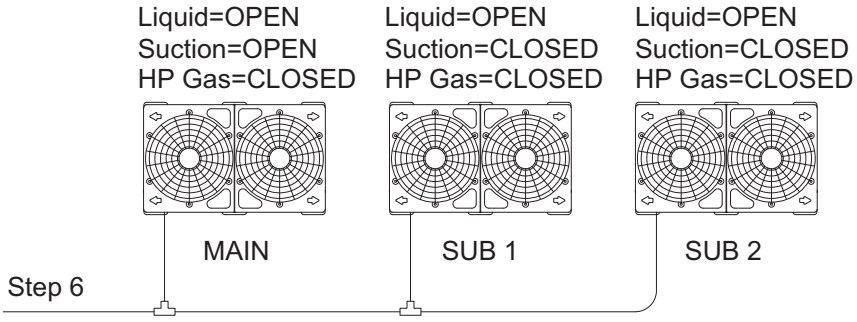
Step 2:
Determine the total system refrigerant volume.

Step 3:
Turn on 50% of the indoor units in cool mode. After the compressors start to operate, let the system run for at least 10 minutes. After 10 minutes if the high pressure goes above 427 PSI, reduce the number of indoor units in operation and observe to get high pressure to 427 PSI.

Step 4:
Open the liquid service manifold valve and the refrigerant container valve allowing liquid refrigerant to flow into the container. Watch the digital scale. Do not remove more than 50% of the total system refrigerant volume.

Step 5:
After 50% of the system refrigerant volume has been removed, close the service manifold valves and refrigerant container valve. Press K3 on the MAIN outdoor unit.

Step 6:
Close the suction service valve on the SUB 1 and SUB 2 units. Close the high pressure gas service valve on all units (HR systems). Only close the high-pressure gas pipe on the MAIN unit at this time. If the total system nominal capacity is 12 tons or smaller, disregard instructions for SUB units.



Step 7:
Press K2 on the MAIN unit PCB 3 times. K7 will display as pictured.

"K7" display on MAIN outdoor unit PCB

Step 8:
Once the compressor starts to operate, press K4 on the MAIN unit PCB 5 times. The MAIN unit PCB LED display will show "5" then 3 additional digits representing the low pressure of the system in kg/cm²,g see example). During pump-down operation the system should never go below 2 g/cm²,g. If at anytime pressure goes below 2 kg/cm²,g, press K3 on the MAIN outdoor unit immediately.

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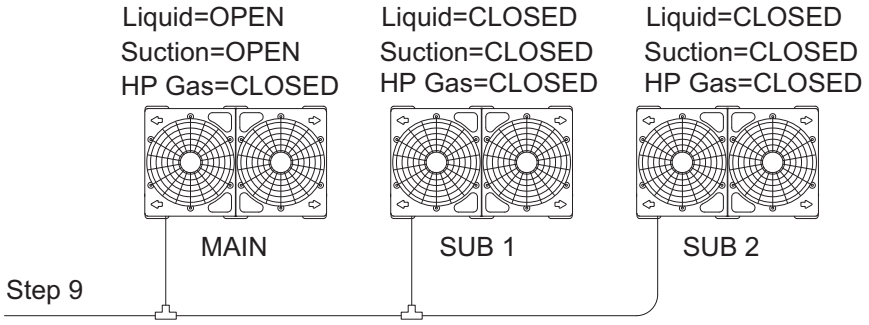
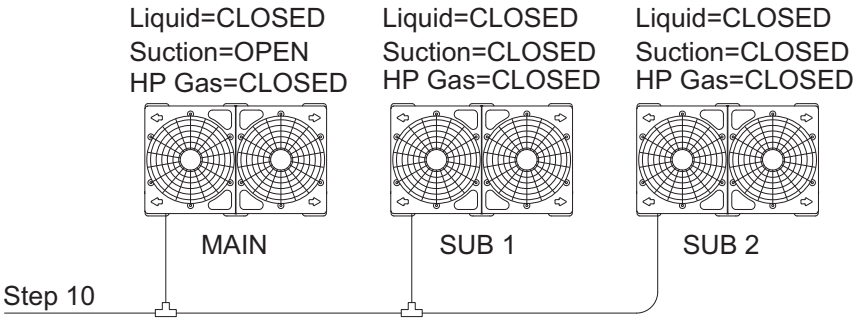
Low pressure
Example: = 4.3kg/cm2

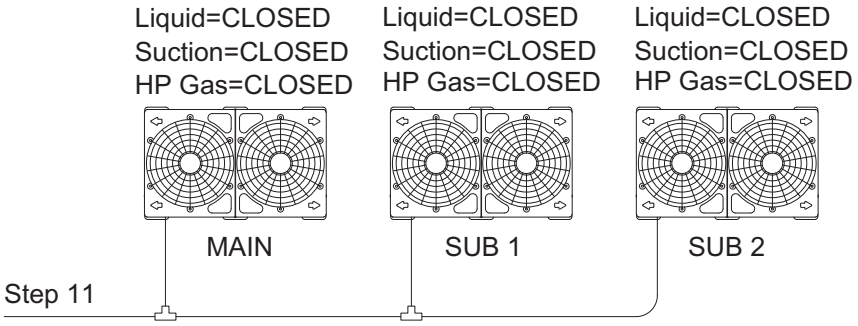
Step 9:
If the total system nominal capacity is 12 tons or smaller, skip to step 10. After the compressor(s) operate for 20-30 minutes, close the liquid valves of the SUB 1 and SUB 2 units.



Step 10:
While observing low pressure of the MAIN unit on its LED PCB display, close the liquid service valve on the MAIN outdoor unit.



Step 11:
Once the low pressure value on the MAIN unit PCB LED display reaches around 2kg/cm²,g or less, immediately close the suction service valve in the MAIN outdoor unit and press K3 on the MAIN unit PCB.



Step12:
Recover any refrigerant remaining in the refrigerant pipes into an appropriate container.