



NAVAC NRRD Recovery Unit User Guide

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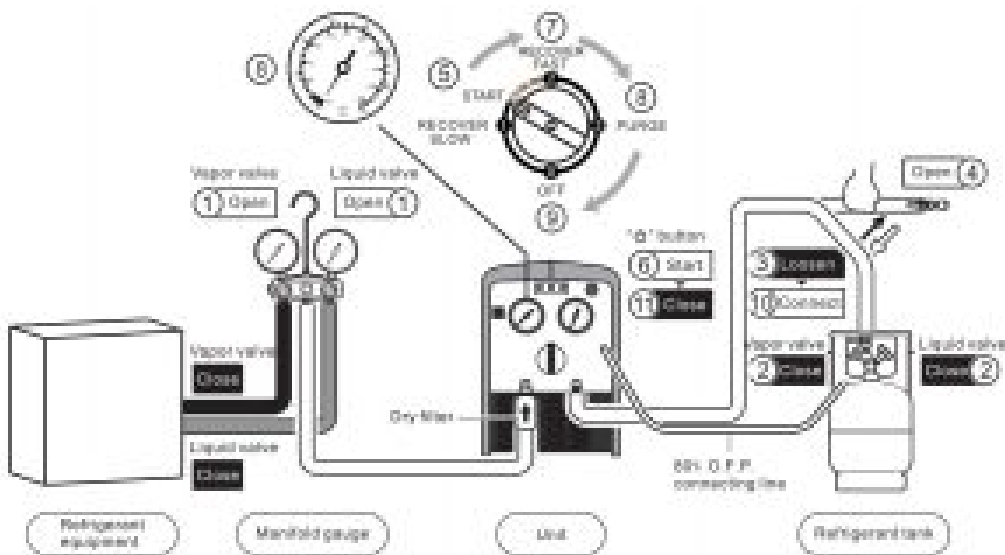
NAVAC NRRD Recovery Unit User Guide



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Refrigerant Hoses' Exhaust



Ready for operation

1. Connect hoses correctly and tight, referring to the connection diagram.
2. Open the vapor and liquid valves of manifold gauge.
3. Loosen the connecting hoses of refrigerant tank.
4. Open the valve to the hoses

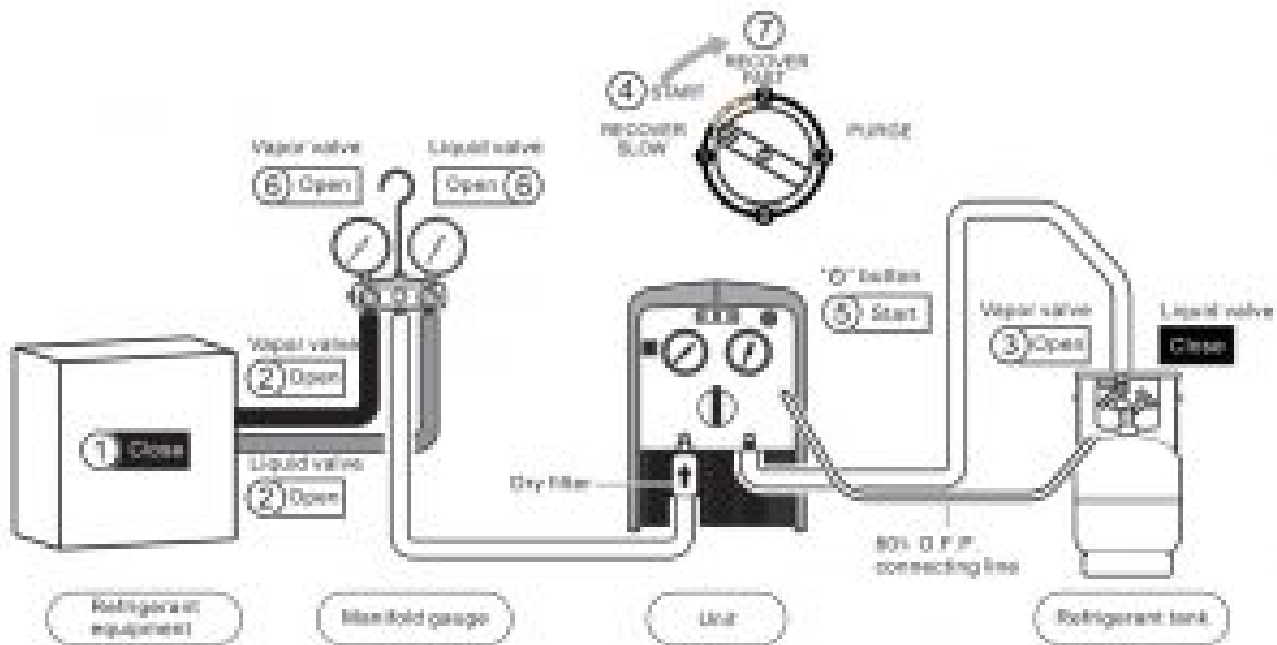
Start operation

1. Turn the switch to positon START.
2. Press  button.
3. Turn the switch to position 2 and start purging the air out of the hoses.
4. While the input gauge getting to 15" of vacuum (-1 bar) turn the switch to position 3 to start selfpurge.
5. While the input gauge getting to 15"(-1 bar) again, turn the switch to position 0 to finish self-purge.
6. Tighten the hoses at refrigerant tank.

Finish operation

1. Press  button.


Recovery Mode



Ready for operation

1. Connect hoses correctly and firmly. (Please refer to the connection diagram)
2. Make sure all valves are closed.
3. Turn off the power to system equipment.
4. Open the vapor and liquid valves of refrigeration or air conditioning system equipment.
5. Open the vapor valve of the refrigerant tank.

Start operation

1. Turn the switch to the position START.
2. Press  button.
3. Open the liquid valve for liquid recovery. Open the vapor valve for vapor recovery.
4. Turn the switch slowly to position 2 for faster recovery.
5. When the recovery is finished, the unit gets to the required vacuum or automatically stops by low pressure protection

Notice

1. If compressor liquid slugging occurs at position 2, turn the switch to position "START" until the liquid slugging stops.
2. If the recovery restarts after interruption of power or fails to start,
 - 2.1 Turn the switch to position START, turn on the power switch, press START button for liquid recovery.
 - 2.2 Turn the switch to position 3, turn on the power switch, press START button for vapor recovery

Notice

1. Turning the switch to position 1 gets a stable recovery of liquid with low speed of 1.2kg/Min.

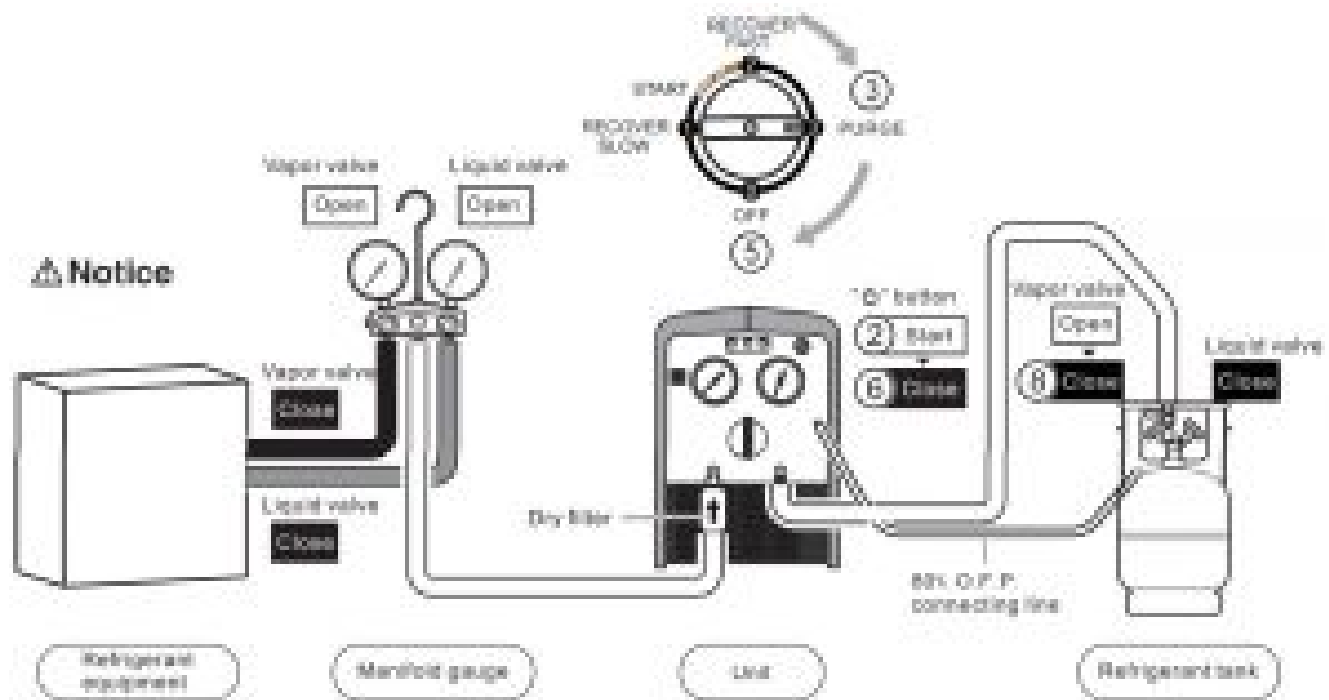
2. If compressor slugging occurs at the position 1 turn the switch slowly to position START until slugging stops.
Make sure the pressure is at zero, because it doesn't work at 10.
3. There is no need to turn off the power and it can do the self-purge cycle automatically.

Self-purge Mode




Notice


The unit must be purged after each use; Liquid refrigerant remained may expand and damage the components and pollute the environment.



Ready for operation

1. The unit stops automatically when recovery is finished.
2. Press  button.
3. Turn the switch slowly to position 3 to start purge
4. When the self-purging cycle is finished, the unit goes into a vacuum.

Finish operation

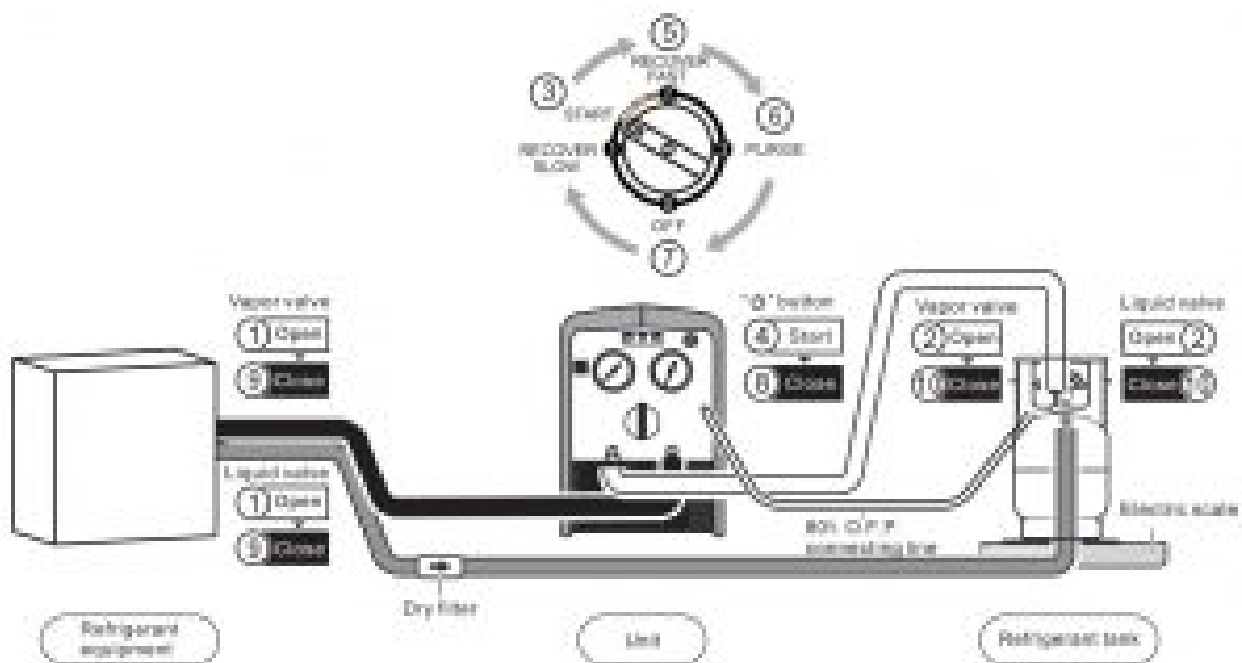
1. Turn the switch to position 0.
2. Press  button.
3. Close the check valve to hoses
4. Turn off the vapor valve of refrigerant tank.

Liquid Push/Pull Mode



Notice

An electric scale is needed to monitor the recover process to prevent overfilling.



Ready for operation



1. Connect the hoses correctly and firmly.
(Please refer to the connection diagram)
2. Make sure all valves are closed.

Start operation



Warning

When the electric scale shows that the refrigerant in the tank has reached 80% capacity, turn the power off and close the tank valves.

1. Open the vapor and liquid valves of the system equipment.
2. Open the vapor and liquid valves of the recovery tank.
3. Turn the switch to position START.
4. Press  button.
5. Turn the switch to position 2 to start push/pull mode. When the display of electric scale stops rising or increases very slowly, it means the liquid recovery is finished, and it is time to switch to vapor recovery.
6. Turn the switch to position PURGE and follow self-purge mode instructions to purge the refrigerant vapor.
7. Turn the switch to position OFF.
8. Press  button.
9. Close the vapor and liquid valves of the system equipment
10. Close the vapor and liquid valves on the recovery tank.
11. Connect the hoses again and recover the vapor from the system equipment according to recovery mode instructions.

TroubleShooting


FAULT	CAUSE	SOLUTION
Fan no response	Mechanical damage	1.Replace the fan 2.Factory service required
Compressor not start (Jammed)	<ol style="list-style-type: none"> 1. External pressure is too high 2. Motor failure or other components damaged 	<ol style="list-style-type: none"> 1.a.When recover the liquid, turn the knob to "SRART" positon, then restart b.When recover the vapor turn the knbo to "PURGE" / "3" position,then restart 2.a.Replace the components b.Factory service is needed
Press the " " button but compressor no response	<ol style="list-style-type: none"> 1. .a.Shut off by high pressure protection, red alarm light turns on. 2. Low pressure protection,green alarm light turns on(recovery not finished) 3. .80%O.F.P. cable not well connected with tank. 4. The " " light is not bright,Internal wiring fault. 	<ol style="list-style-type: none"> 1.a.Lower the pressure of the unit b.Check if the hoses are well connected c.Check the connection 2.a.Be checked by qualified technician b.Factory service required
Compressor start but stops within a few minutes	<ol style="list-style-type: none"> 1. High prssure shut off due to wrong operation,such as: 2. Outlet valve not open, Refrigerant tank valve not open 3. Motor thermal protector shuts off Circuit breaker shuts off 4.a.80% over filling protection <p>red alarm light turns on b.Recovery is over and the unit is</p> <p>under low pressure protection,green alarm light turns light</p> <p>c. Overload during liquid recovery,red alarm light goes out after a flash</p>	<ol style="list-style-type: none"> 1. Read carefully the OperationManual and follow the instructions while operating 2. The compressor will restart automatically after a few minutes 3. Cooling the Circuit breaker down and press "circuit breaker" to restart after 5 minutes. 4. a.Replace with an empty recovery tank b. Refer to step of self-purge method c.Turn the knob to "START" position, then restart

Low recovery speed	<ol style="list-style-type: none"> 1. The pressure of refrigerant tank is too high 2. Piston ring of the compressor is damaged 	<ol style="list-style-type: none"> 1. Cool the tank down can help bringing down the pressure 2. Replace the components b.Factory service required
Unit doesn't pull out a vacuum	<ol style="list-style-type: none"> 1. Connecting hoses are loose 2. Leakage in the unit 	<ol style="list-style-type: none"> 1. Tighten the hose connections 2.a.Replace the components 2. Factory service required

Warning

It's not suitable for class A3 refrigerants and toxic refrigerants of class B2,B3.

Documents / Resources

	NAVAC NRRD Recovery Unit [pdf] User Guide NRRD, Recovery Unit
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