OP1002

Asada

ECOsaver Tetra OPERATION MANUAL

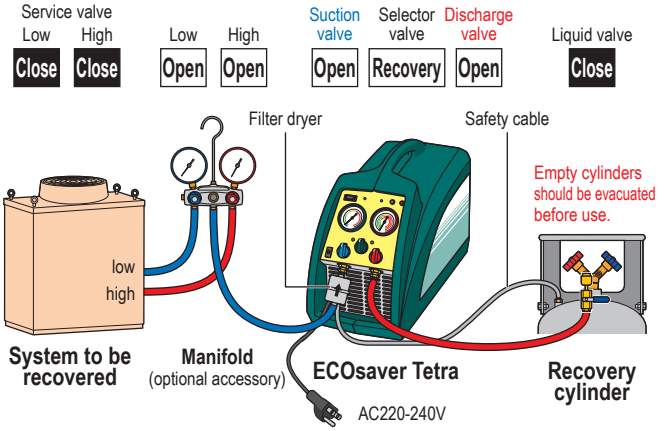
⚠ CAUTION

This manual shows the outline of the operation.
Read through the instruction manual carefully before using the machine for your safety.

REFRIGERANT RECOVER OPERATION

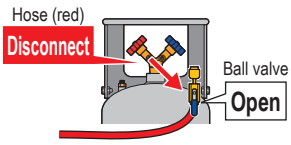
Standard liquid recovery procedure

1 CONNECTION OF THE HOSES AND EVACUATION

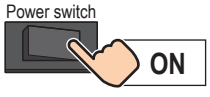


1. Set the hoses, cords and valves as above.
* Make sure the installing direction of the filter dryer is correct.
Replace the filter dryer every recovery of 90kg or it is clogged.

2. Open the ball valve of the red hose.

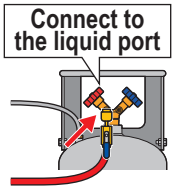


3. Switch on.



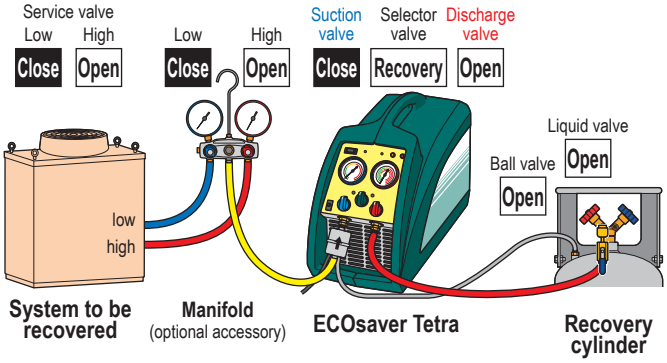
4. When the suction pressure reaches to a vacuum,
set the suction valve to the "Purge" position.
set the selector valve to the "Purge" position.

5. When the suction pressure reaches to a vacuum again, connect the hose to the liquid port of the cylinder.



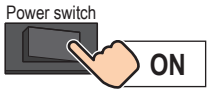
6. Switch off.

2 RECOVERY OPERATION

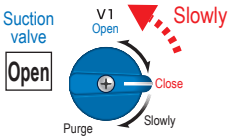


1. Set each valve as above.

2. Switch on.

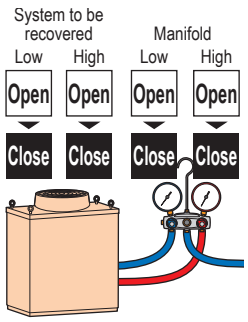


3. Turn the suction valve slowly to the "Open" position.



4. When liquid recovery is completed and vapor recovery starts, open the valve of the low pressure side of the manifold and open the port of the low pressure side of the system to be recovered.

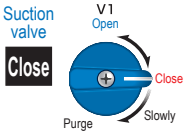
5. When the pressure of the low pressure side of the manifold reaches to a vacuum, close both the low and the high pressure side ports of the system as well as both the high and the low pressure side valves of the manifold.



After the recovery operation, leave the system for 5 to 10 minutes to see if the refrigerant melted in the refrigeration oil will evaporate. If the pressure rises from a vacuum, repeat the recovery operation.

6. Switch off.

7. Set the suction valve to the "Close" position.



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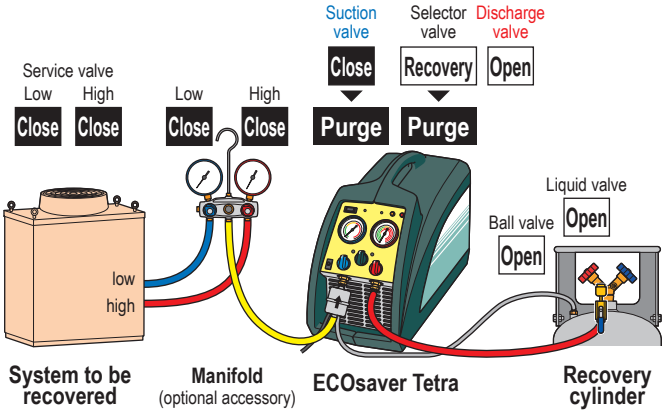
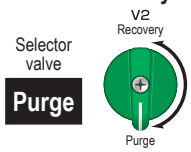
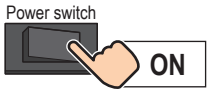
3 REFRIGERANT CLEARING (PURGE) PROCEDURE



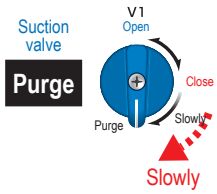
1. Set the selector valve to the "Purge" position.



2. Switch on.



3. Turn the suction valve slowly to the "Purge" position.

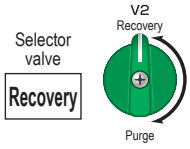


4. Close the liquid port of the cylinder when the suction pressure gauge indicates vacuum.

5. Turn the discharge valve to the "Close" position and close the ball valve of the red hose.

6. Switch off.

7. Turn the selector valve to the "Recovery" position.



8. Disconnect the hoses.

CAUTION

- Be careful about blow-off of refrigerant which remains in the discharge side.

* Recover the refrigerant left in the recovery machine using an evacuated cylinder.

ALL THE RECOVERY OPERATION IS COMPLETED

⚠ CAUTION

- Avoid voltage drop as this recovery machine is 220-240V 750W and the starting current is large.

How to prevent

- Connect to the original power source or do not use the power source with other equipments.
- When you have no choice but to use an extension cord or a cable reel, use a cord with larger wire diameter.
- Do not use an extension cord wrapped on a reel.
- Use a step-up transformer.
- Use a generator.

- Be careful about increase in temperature and in pressure in the cylinder when the ambient temperature is high.

How to deal with

- Replace the cylinder with an evacuated spare cylinder.
- Cool down the cylinder by sub-cooling.
- Reduce the suction pressure of the recovery machine.
- Use a 120L cylinder.
- Use Cooling Unit (optional accessory).

HOW TO SHORTEN THE RECOVERY TIME

- How to avoid rise in pressure in the cylinder (recovery in summer / efficient setup)

- Put the recovery machine in a well-ventilated shady area.
- Do not put the recovery machine and the cylinder directly on the floor but approximately 1m above the floor.
- Prepare some spare cylinders in the shade.
- Send air to the condenser of the recovery machine by an electric fan and so on to improve the efficiency.
- Cool down the cylinder with wet cloths.
- Send air to the cylinder by an electric fan and so on to cool it down.
- Use Cooling Unit or follow the sub-cooling procedure.
- Recover in liquid as much as possible.
- Throttle the suction valve not to increase the discharge pressure too much.

- How to prevent efficiency reduction due to the pressure drop in the system (low temperature, condensed to liquid / efficient setup)

- After recovery in liquid, recover from both the liquid and the vapor ports.
- Keep applying current to the crankcase heater of the system.
- Heat up and vibrate the accumulator and so on when they are frosted.
- Suspend recovery operation and wait for pressure increase if the recovery speed is slow when the suction pressure is around 0.1MPa.
- Connect to multiple systems at a time to reduce the effect of low temperature condensation.
- When the vertical piping is long, recover from the bottom of piping or heat up and vibrate the bottom of piping to speed up evaporation.

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