

ECOcycle Aurora II OPERATION MANUAL

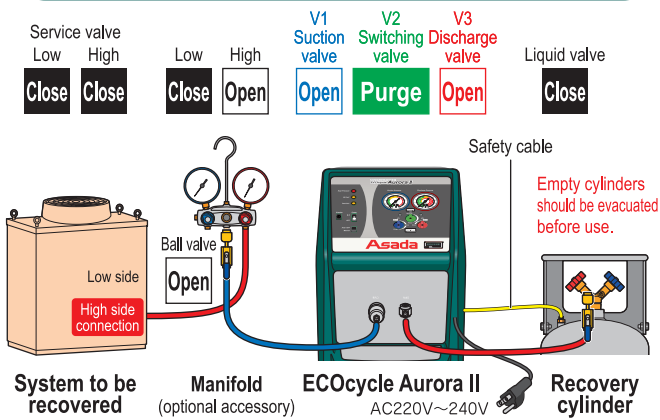
CAUTION

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

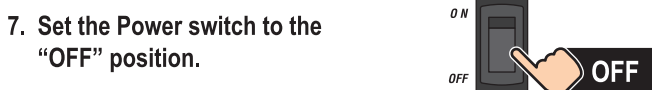
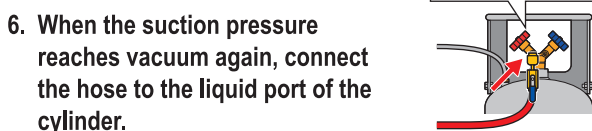
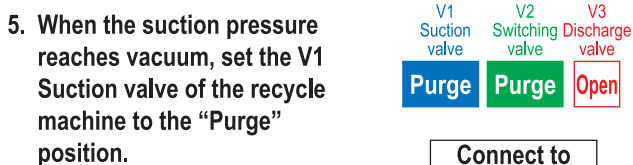
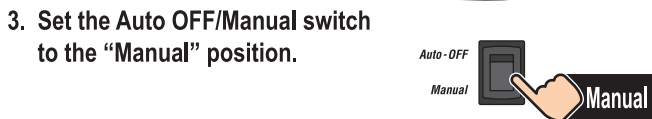
REFRIGERANT RECOVERY / RECLAIM

Standard recovery / reclaim procedure

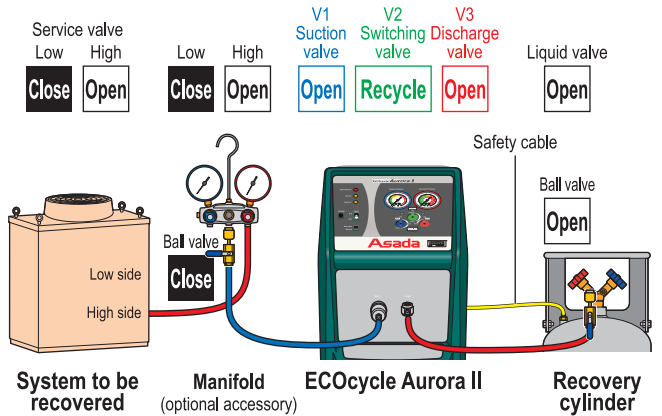
1 CONNECTION OF THE HOSES AND EVACUATION



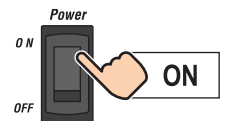
1. Set the hoses, cords and valves as above.
* **Make sure the installing direction of the filter is correct. Replace the filter every recycle of 90kg or when it is clogged.**



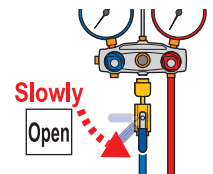
2 RECOVERY / RECLAIM OPERATION



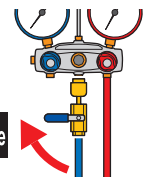
1. Set each valve as above.
2. Set the Auto OFF/Manual switch to the "Auto OFF" position.
3. Set the Power switch to the "ON" position.



4. **Slowly** OPEN the ball valve of suction hose.



5. The unit automatically stops when the suction pressure becomes -0.03MPa (-0.3kg/cm^2 / -4.3psi).



6. **CLOSE** the ball valve of suction hose.



7. Set the Power switch to the "OFF" position.

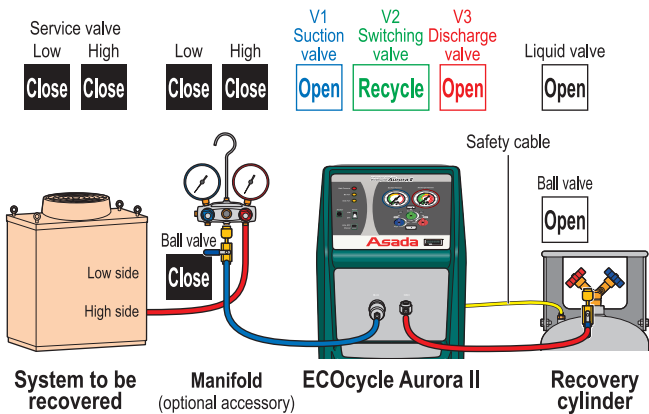
8. **CLOSE** high pressure side of Manifold and system.

After the recycle operation, leave the system for 5 to 10 minutes to see if the refrigerant mixed in the refrigeration oil will evaporate. If the pressure rises from the set value, repeat the recycle operation.

Refrigerant value	Set value
less than 2kg	0 MPa (0 psi)
2kg or more	-0.01 MPa (-1.4 psi)

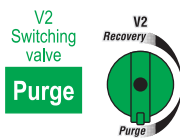
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REFRIGERANT CLEARING (PURGE) PROCEDURE



1. Turn V2 Switching valve to “Purge” position.

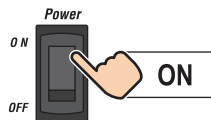
* In case of auto off, the unit does not start when suction pressure is lower than atmospheric pressure.



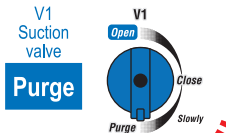
2. Set the Auto OFF/Manual switch to the “Auto OFF” position.



3. Set the Power switch to the “ON” position.



4. Turn V1 Suction valve to “Purge” position with adjusting suction pressure less than 0.2MPa



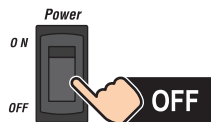
Adjusting suction pressure less than 0.2MPa

5. Close the liquid port of the cylinder when the machine stops automatically.

6. Turn the V3 Discharge valve to the “Close” position and close the ball valve of the hose at the discharge side.



7. Set the Power switch to the “OFF” position.



* There is vapor refrigerant left in the recycle machine and the hose of the discharge side. Connect the hose of the discharge side to an evacuated cylinder to recover the refrigerant left in the recycle machine and the hose.

8. Disconnect the hoses.

ALL THE RECOVERY OPERATION IS COMPLETED

CAUTION

• Avoid voltage drop.

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 / 100V model only).

HOW TO SHORTEN THE RECOVERY TIME

• How to avoid rise in pressure in the cylinder (recycle 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 liquid recovery is completed, recover from both the liquid and the vapor ports.
- Recover refrigerant while operating the crank case 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 (1.0kg/cm² / 14.5psi).
- Recover from multiple systems in one time.
- 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.