Checkout

Apply power to DR90/DR120A3000. Turn the humidity control to a low RH% level to initiate a dehumidification call. Confirm that the DR90/DR120A3000 compressor and fan turn on. The furnace blower will also turn on to circulate air. This will take up to two minutes. Be sure to turn the control to the desired RH% or to Off when checkout is complete.

1. Cut and remove plastic strap holding compressor in place. This strap is only used for shipping.

3. If using for ventilation, initiate a call for ventilation. Confirm that the DR90/DR120A3000 fan turned on, but that the compressor remained off.

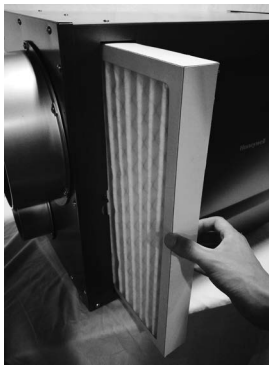
2. Apply power to DR90/DR120A3000. Turn humidity control to a low RH% to initiate a dehumidification call. Confirm that the compressor and fan turn on. The furnace blower will also turn on to circulate air. Be sure to turn the control to the desired RH% or to Off when the checkout is complete.

Cleaning

On an annual basis, perform the following maintenance requirement to ensure the dehumidifier runs at peak efficiency.

1. Unplug DR90/DR120A3000 before beginning service. Remove the magnetic filter door.

2. Remove filter and replace with new filter.



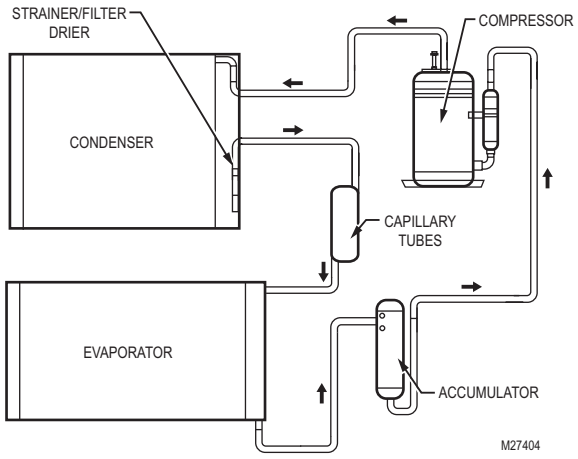
3. Remove cover on output side of dehumidifier. Using a damp cloth, remove excess dust and debris from blower and internal cabinet. Reattach cover when finished.

4. Check the drain connection and drain line to ensure it is clear of debris and sludge. Ensure all hose connections are secure once maintenance of the drain lines is complete.

5. When service is complete, initiate a call for dehumidification and check that the compressor and fan activate. If using the VisionPRO IAQ or TrueIAQ controls, reset maintenance reminders.

Technical Description

DR90/DR120A3000 uses a refrigeration system similar to an air conditioner to remove heat and moisture from incoming air and add heat to the air that is discharged. Hot, high-pressure refrigerant gas is routed from the compressor to the condenser coil. The refrigerant is cooled and condensed by giving up its heat to the air that is about to be discharged from the unit. The refrigerant liquid then passes through a filter drier and capillary tubing which causes the refrigerant pressure and temperature to drop. It next enters the evaporator coil where it absorbs heat from the incoming air and evaporates. The evaporator operates in a flooded condition, which means that all the evaporator tubes contain liquid refrigerant during normal operation. A flooded evaporator should maintain nearly constant pressure and temperature across the entire coil, from inlet to outlet.



Troubleshooting

Troubleshooting videos are available on Honeywell's CPRO YouTube channel playlist.

CAUTION: Servicing the DR65A3000 with its high pressure refrigerant system and high voltage circuitry presents a health hazard which could result in death, serious bodily injury, and/or property damage. Service should only be performed by a qualified service technician.

Problem	Recommended Troubleshooting Steps
No dehumidification. Neither fan nor compressor run and the ventilation timer is OFF.	1. Unit unplugged or no power to outlet. 2. Humidity control set too high or defective. 3. Loose connection in internal or control wiring. 4. Defective compressor relay. 5. Defective control transformer. 6. Optional Condensate Pump Safety Switch open.
No dehumidification. Compressor does not run but fan runs when there is a call for dehumidification and the ventilation control is OFF.	1. Defective compressor run capacitor. 2. Bad connection in compressor circuit. 3. Defective compressor overload. 4. Defective compressor. 5. Defrost thermostat open. 6. Optional Condensate Pump Safety Switch open.
Fan runs when there is a call for dehumidification and the ventilation control is OFF, but the compressor cycles on and off too frequently.	1. Low ambient temperature and/or humidity causing unit to cycle through defrost mode. 2. Defective compressor overload. 3. Defective compressor. 4. Defrost thermostat defective. 5. Dirty air filter(s) or airflow restricted. 6. Low refrigerant charge, causing defrost control to cycle. 7. Bad connection in compressor circuit. Fan does not run with fan switch in either position.

Troubleshooting (continued)

Problem	Recommended Troubleshooting Steps
Fan does not run with ventilation activated. Compressor runs briefly but cycles on & off with humidity control turned to ON.	1. Loose connection in fan circuit. 2. Obstruction prevents fan rotation. 3. Defective fan. 4. Defective fan relay. 5. Defective fan capacitor.
Evaporator coil frosted continuously, low de-humidifying capacity.	1. Defrost thermostat loose or defective. 2. Low refrigerant charge. 3. Dirty air filter(s) or airflow restricted.
Unit not providing ventilation.	1. Check control wire connections (check connections at fresh air damper also). 2. Defective fresh air damper. 3. Dirty air intake. Clean outside intake hood.
Unit removes some water, but not as much as expected.	1. Air temperature and/or humidity have dropped. 2. Humidity meter and or thermometer used are out of calibration. 3. Unit has entered defrost cycle. 4. Dirty air filter. 5. Defective defrost thermostat. 6. Low refrigerant charge. 7. Air leak such as loose cover or ducting leaks. 8. Defective compressor. 9. Restrictive ducting. 10. Optional Condensate Pump Safety Switch open.
Unit Test to determine problem:	1. Detach field control wiring connections from main unit. 2. Connect the R and FAN contacts from the main unit together; only the impeller fan should run. Disconnect the wires. 3. Connect the R and DHUM contacts from the main unit together; the compressor and impeller fan should run. 4. If these tests work, the main unit is working properly. You should check the control panel and field control wiring for problems next. 5. Remove the control panel from the mounting box and detach it from the field installed control wiring. Connect the blue, yellow, and green wires from the control panel directly to the corresponding colored pigtails on the main unit. Leave the violet, white, and red wires disconnected! 6. Turn on the humidity control. The compressor and impeller fan should run. 7. If these tests work, the problem is most likely in the field control wiring.