



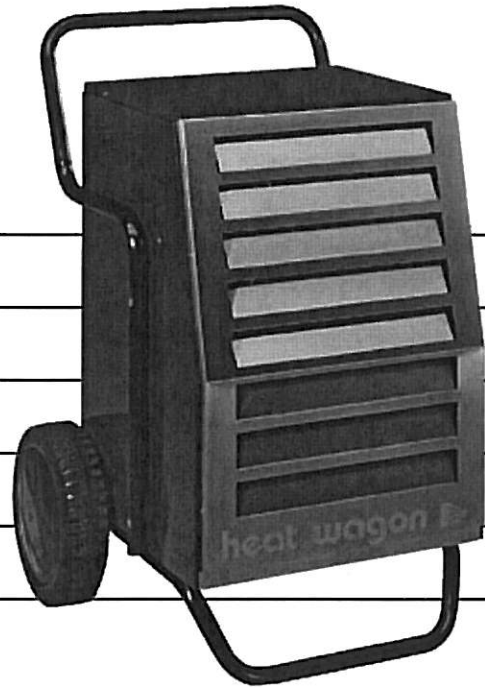
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Installation and Maintenance Manual

Please retain this manual for future reference.

XRC90

Dehumidifier



1. UNPACKING THE UNIT

Check that the unit has not been damaged during transport and that all accessories are present. In case of problems immediately call the dealer.



Packaging materials (cartons, polythene bags, etc.) should not be left within the reach of children as they could be very dangerous for them.

Before operating the unit, fix the handle to side panels using the proper fixing screws, as shown in illustration 1.

2. FUNCTIONING SEQUENCE

The ideal relative humidity of air for comfort should be always within 45% and 65%. Dehumidifiers dry air using the principle of condensation.

Wet air is sucked by the fan, then it flows through the filter and it is cooled when it comes into contact with the surfaces of the evaporator. As the air temperature reaches the dew point, water vapour contained in the air condenses into drops. Cold air in contact with the surfaces of the condenser and the compressor receives heat coming from the condensation process and from the compressor. Outgoing air has a temperature equal to, or slightly higher than that of incoming air. The continuous air flow through the unit provokes a quick drying effect (decrease of relative humidity) in the environment where it is installed.

Dehumidifiers can therefore be used in environments where a decrease of relative humidity is required, such as cellars, kitchens, bathrooms, etc.

3. INSTRUCTIONS FOR TRANSPORT

The unit should be transported in a vertical position or inclined on the handle side, if it has been kept horizontal during transport, hold it in vertical for about 1 hour, to allow the lubrication to be rebalanced.

4. INSTALLMENT



Install the unit in the centre of the room or where it will guarantee the best possible air circulation. Take special care of air inlet and outlet: they must always be absolutely free from any obstructions, even partial.

The following minimum safety distances are recommended between unit and walls or objects:

air inlet side:	0.6 m
air outlet side:	3.0 m



Do not install the unit near heat sources. Keep windows and doors closed while the unit is working.

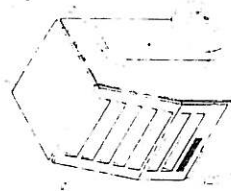
4.1 Electrical connections

The unit is equipped with a power cord with plug a for connection to a 230V 50 Hz electrical socket. A residual current circuit breaker (RCCB) in the electrical system is also recommended.



The DV (110/230V dual voltage) models are designed to run off either 230V 50Hz or 110V 50Hz electrical supply. The correct voltage may be selected by changing over the slide switch on the front panel.

- To change voltage:
- Remove the two fixing screws on voltage selector cover plate.
 - Move switch to correct voltage.
 - Reverse switch plate and screw back into position



ill. 1

4.2 Water drain

Drained water can be collected and eliminated in 3 ways:
1) using the supplied tank: this must be emptied when the full tank warning LED lights up. (fig. 2);

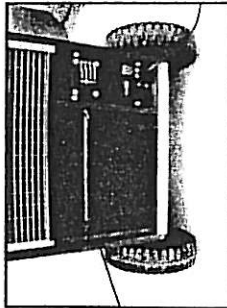
Switch off, reinsert tank and restart.

Before emptying the tank, switch the unit off and unplug. Carefully extract the tank avoiding water leaks. Reset the tank properly, take care not to exclude or damage the level sensor, to avoid overflowing.

⚠ NOTE: If the dehumidifier is switched off and then restarted, the compressor does not start to run immediately but only after some minutes. This waiting time protects the compressor from starts repeated at short intervals.

2) connecting a plastic hose with 14 mm inner diameter (to be supplied by the Customer) to the hose holder in the drain compartment;

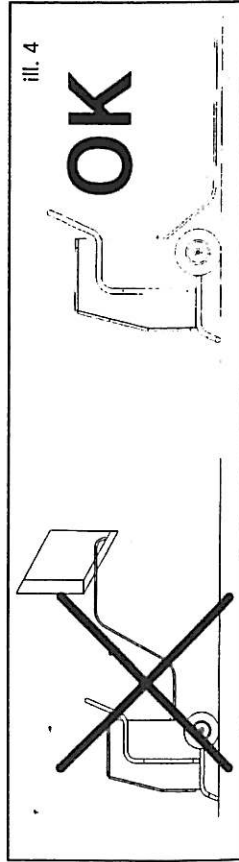
⚠ Special attention should be paid not to raise the plastic hose over the drain level of the unit (max height: about 1 ft) to avoid water spillage and flooding of the unit. (Ill. 4)



ill. 2

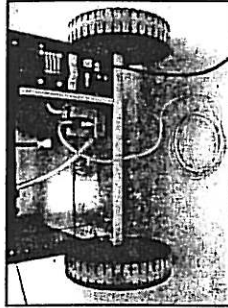


ill. 3



ill. 4

3) using the water extraction pump (available as accessory) (ill.5). See instruction sheet supplied with the pump for



ill. 5

4.3 Connection of the hygrostat

The dehumidifier can work continuously in manual mode or automatically under the control of a remote hygrostat. This can be supplied separately as an accessory.

To operate the unit with an hygrostat, connect the hygrostat jack plug to the proper socket on the control panel. Locate the hygrostat near the air inlet (filter side).

5. OPERATION OF THE DEHUMIDIFIER

⚠ DV (110/230 V dual voltage) models: make sure that the correct voltage has been selected before operating the unit.

5.1 Continuous operation (manual mode)

Connect the unit to power mains.
Move switch to position I and check that the switch light is powered; after a few minutes the green LED lights up and the compressor starts to work.

In this operational mode the unit dries the air continuously. To switch off, move the switch to position 0.

5.2 Automatic operation with remote hygrostat

Connect the unit to power mains. Connect the hygrostat to the unit as described above. Move switch to position I and check that the switch light is powered; after a few minutes the green LED lights up and the compressor starts to rotate. Set the desired value of humidity on the hygrostat. If the environmental humidity is higher than the preset value, the unit starts to dry air. When the humidity level has reached the set value, the compressor is switched off automatically and the fan goes on working. The compressor restarts automatically only when the air humidity exceeds again the preset value. To switch off, move the switch to position 0.

6. CONTROL ELECTRONIC DEVICE

The unit is equipped with an electronic board that performs all safety and control functions. The LEDs on the control panel give the following indications (also see ill.6) :

- 1 (orange)-The room temperature is too low or the unit is in defrost mode.
- 2 (red)-Room temperature is too high or a reduction of air flow has occurred. Check filter and remove obstructions to air flow if required. Check that the fan rotates properly.
- 3 (yellow)-The water tank is full or the water extraction pump has gone to alarm mode (if installed). Empty tank or check pump.
- 4 (green)-The compressor is running.

If the switch is in position I and no LEDs are powered, this means that the fan is running and the compressor is not working. This situation normally occurs at start or during automatic operation when the air humidity has reached the preset value.

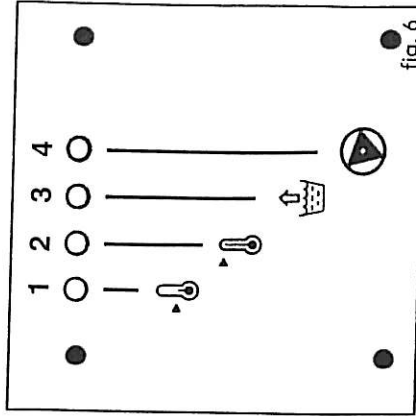


fig. 6

7. MAINTENANCE

Unplug unit before carrying out any maintenance or servicing.

7.1 Cleaning filter

A clean filter allows a good efficiency of the dehumidifier. Wash the filter in lukewarm water.

7.2 Cleaning the unit

Clean the unit at least once a year. Remove air filter, disassemble front and rear panels to reach inner parts. Clean inner parts using compressed air (especially condenser, evaporator and drain water tray).

8. TROUBLESHOOTING

Before thinking of possible faults, check that the machine has not stopped for a normal operational condition (see par. 5)

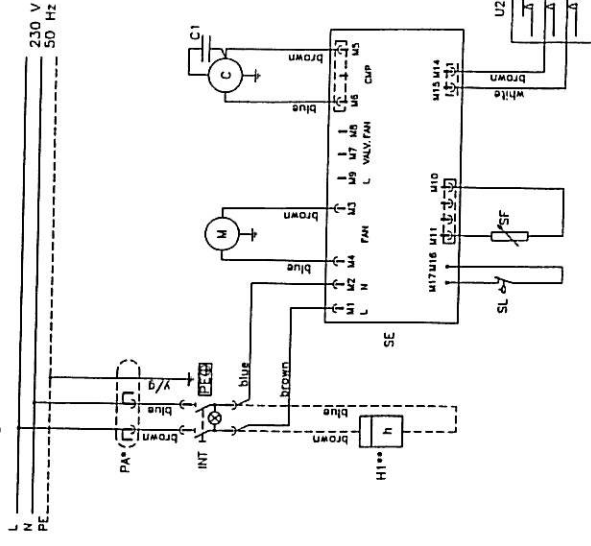
Problem	Cause/Solution
The unit does not start, the switch light is not powered.	Check mains voltage. Check the plug is inserted in the electrical socket.
Damaged supply cable	Apply to qualified personnel for replacement
With remote hygrostat, the unit does not start, the switch light is not powered.	The hygrostat is probably set too high or faulty. Make the unit work without hygrostat to check if this is faulty.
Minimum temperature LED (orange) lights up	Room temperature is too high or a reduction of air flow has occurred. Check filter and remove obstructions to air flow if required. Check that the fan rotates properly.
Maximum temperature LED (red) lights up	The room temperature is too low or the unit is in defrost mode.
Full tank warning LED (yellow) lights up	Full water tank. Empty the tank. Check level sensor is in correct position.

9. TECHNICAL SPECIFICATIONS

Model	25	40	55	90
Drying Capacity				
30°C / 80%RH (l/24h)	23	42	53	88
27°C / 60%RH (l/24h)	11	27	37	54
12°C / 70%RH (l/24h)	5	7	18	22
Working range				
Relative humidity (%)	40 - 100	40 - 100	40 - 100	40 - 100
Temperature (°C)	5 - 30	5 - 30	5 - 30	5 - 30
Rated voltage (V/Hz)	230V 50Hz	230V 50Hz	230V 50Hz	230V 50Hz
Rated current (A)	3	4	5	7
Rated power (W)	650	800	831	1205
Air delivery (m³/h)	350	500	600	800
Cooling gas type	R 407 C	R 407 C	R 407 C	R 407 C
Cooling gas mass (g)	350	500	525	700
Water tank capacity (l)	10	10	10	10
Weight (kg)	34	44	57	63

10. DIAGRAMS

Wiring diagram 230V models

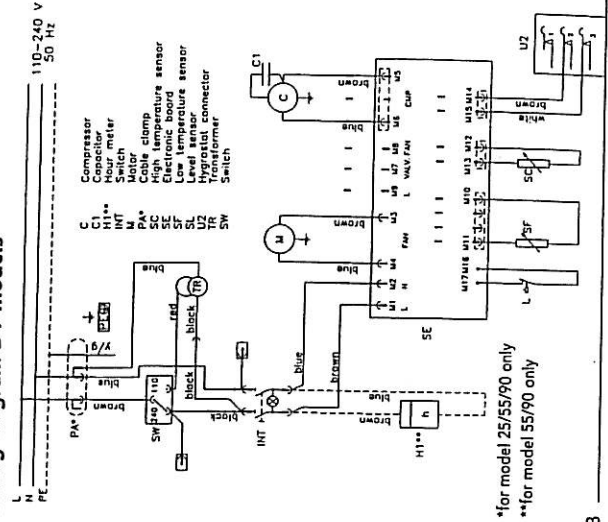


- C Compressor
- C1 Capacitor
- H1 Hour-meter
- INT Switch
- PA Cable clamp
- SE Electronic board
- SC High temperature sensor
- SL Water level sensor
- U2 Jack socket
- M Fan motor

*model 25/55/90

**model 40/55/90

Wiring diagram DV models

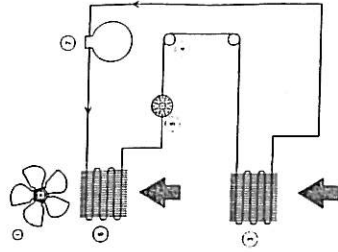


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*for model 25/55/90 only

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Cooling circuit diagram



1. Fan
2. Compressor
3. Evaporator
4. Capillary
5. Filter
6. Condenser

XRC DEHUMIDIFIERS WITH INTEGRAL WATER EXTRACTION PUMP

ADDITIONAL INSTRUCTIONS

DESCRIPTION

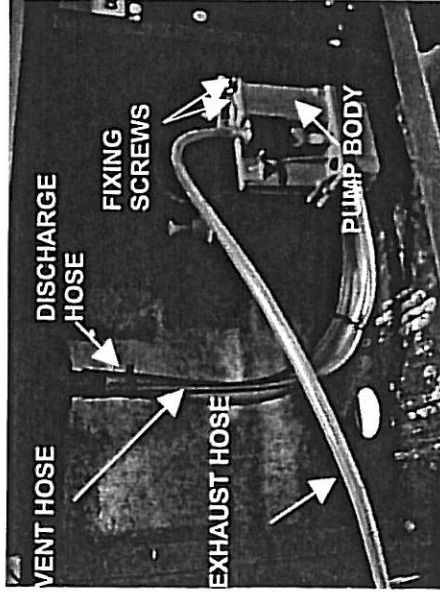
This unit is equipped with a tank for the collection of water and an integral water extraction pump.

Use with TANK

Ensure that the tank is properly located in its seat below the cooling unit. The unit will automatically discharge water in the tank. As the tank is full the level sensor stops the unit and the FULL TANK lamp lights up.

Use with WATER EXTRACTION PUMP

Remove the tank from its seat. Connect the discharge hose, the vent hose and the exhaust hose as shown in Ill. 1. This way water is extracted by the pump.



Ill. 1

The pump can reach a 9 ft level with a hose 21 ft long, thus ensuring effective water evacuation in all conditions. The following table shows pump performance specifications:

Flow (liters/24h)	0 ft	3 ft	9 ft	15 ft	21 ft
0 ft	288	264	240	240	216
3 ft	216	216	192	192	168
6 ft	192	168	168	144	144
9 ft	144	144	120	120	120
12 ft	96	96	72	72	72

WIRING DIAGRAM

