

***VRDXL00000***  
**High Capacity  
Ventilated Steam Distributor**

**Installation  
& Maintenance  
Manual**

***Read and Save  
these Instructions***



**CAREL**

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## WARNINGS



**BEFORE INSTALLING OR HANDLING THIS APPLIANCE PLEASE CAREFULLY READ AND FOLLOW THE INSTRUCTIONS AND SAFETY STANDARDS DESCRIBED IN THIS MANUAL AND ILLUSTRATED BY THE LABELS ON THE APPLIANCE.**

This appliance has been developed for a specific purpose, as long as the installation, use and maintenance operations are performed according to the instructions contained in this manual and on the labels applied internally and externally.

The conditions of the environment and the power supply voltage must comply with the specified values listed in this manual and on the labels on the appliance. In all cases you must abide by local and national plumbing and electrical codes.

All other uses and modifications made to the device that are not authorized by the manufacturer are considered incorrect. Liability for injury or damage caused by the incorrect use of the device lies exclusively with the user.

Please note that the machine contains powered electrical devices and hot surfaces. All service and/or maintenance operations must be performed by specialist and qualified personnel who are aware of the necessary precautions and are capable of performing the operations correctly. Disconnect the machine from the mains power supply before accessing any internal parts.

Disposal of the parts of the humidifier: the appliance is made up of metallic and plastic parts. All parts must be disposed of according to the local standards on waste disposal.

Warranty on materials: 2 years (from the date of production, excluding the consumable parts).

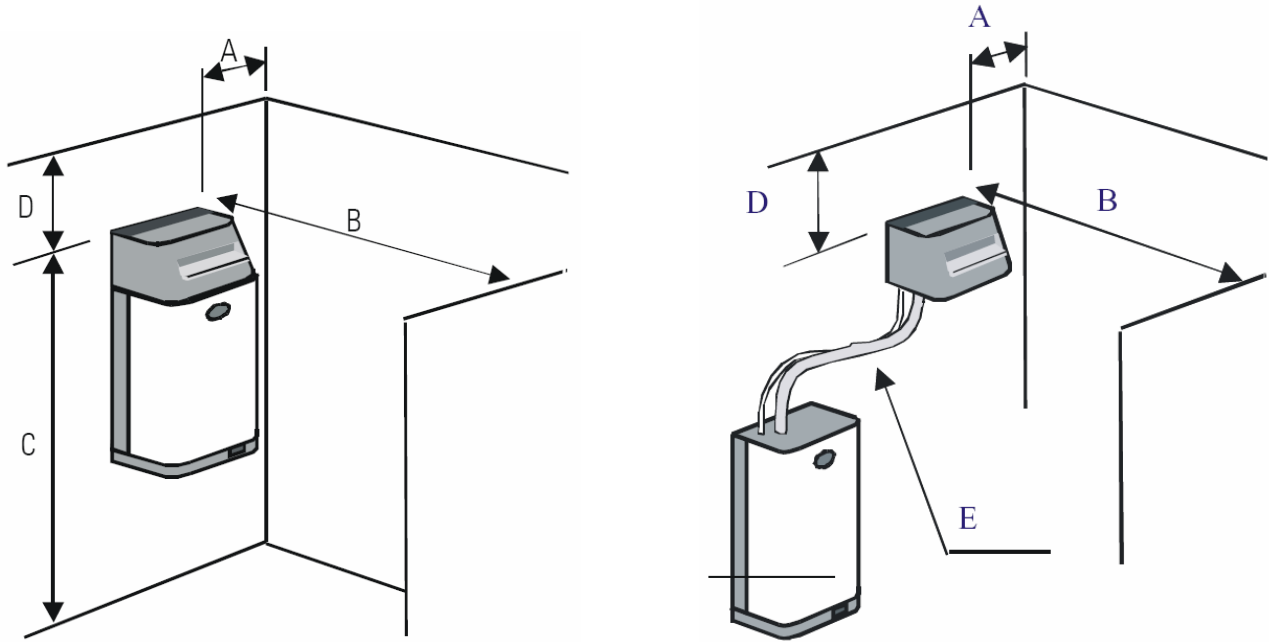
# 1. Mounting

The VRDXL is designed to be mounted securely to a wall or frame suitable to support its weight. Mounting brackets are provided with the unit for that purpose.

## 1.1. Select Location

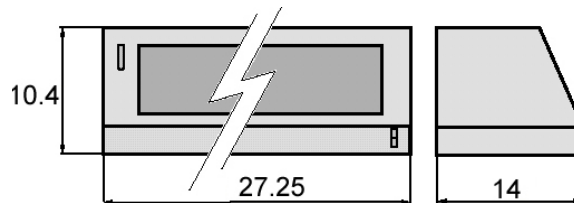
The VRDXL may be mounted to the wall directly above the CAREL humidifier or remotely by using additional lengths of steam and condensate hose.

It is important to mount the VRDXL unit so that the steam discharge will avoid personnel and obstructions. Anything that the visible steam contacts may get wet. There are also limits from the ceiling to allow for the normal tendency of steam to rise.



A (applies to both sides)	36" min. (600 mm)
B	120" min. (3000 mm)
C	72" min. (1800 mm)
D	60" min. (1500 mm)
E	20 ft max. (6 m)

## VRDXL Dimensions and Weight



VRDXL

Weight = 57 lbs.

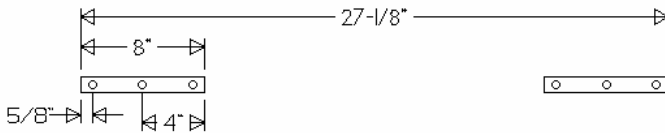
## 1.2. Secure Mounting Bracket to the wall

There are 2 mounting brackets supplied with the VRDXL unit. They are attached to the back of the unit with 2 sheet metal screws.

Remove these brackets using a Phillips head screwdriver and secure them to the wall where the VRDXL is to be located.



Bracket placement template:



Holes are 1/4" diameter.

## 1.3. Mount VRDXL to the Mounting Bracket and wall

Hang the VRDXL unit on the mounting brackets and secure with a capture screws through the bottom back flange of the VRDXL into the wall.

## 2. Plumbing

### 2.1. Steam Hose Connections

There are 2 barbed steam inlets on the bottom of the VRDXL which are designed to accept the CAREL 30 mm steam hose (Part No. SHOSE00030). The CAREL humidifier units above 30 lbs/hr have 40 mm steam outlets, which use CAREL 40 mm steam hose (Part No. SHOSE00040). An adapter (USTEAMY) is provided which has 1-40 mm inlet and 2-30 mm outlets. The USTEAMY is connected to the bottom steam inlets of the VRDXL and then connected to the 40 mm hose coming from the CAREL humidifier unit. Hose camps are to be used on all steam hose connections.

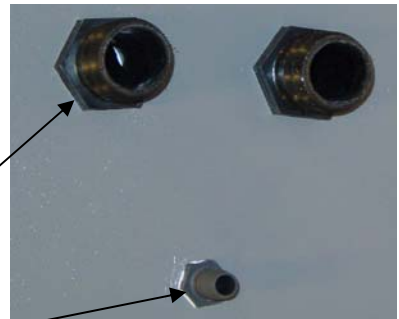


### 2.2. Condensate Hose Connections

A single barbed condensate connection is located on the bottom of the VRDXL to accept CAREL 5/16" condensate hose (Part No. CHOSE00516). This is to drain the distributor in the VRDXL and return the condensate to drain. Since the condensate is not reused, but is wasted, it may be returned either to the humidifier unit drain pan, or to any open drain. DO NOT run the condensate back into the humidifier unit fill cup as this will cause an erroneous reading of the conductivity.

Steam Hose Connections

Condensate Hose Connection



### **3. Wiring**

The VRDXL is continuously powered by 208-230/1/60 VAC.

Power is connected to the VRDXL inside the cover, on the side wall terminals. They may be labeled X1 & X2.

Connect 3 wires (2 power, 1 ground) from the humidifier unit to the VRDXL per the following diagrams. Be careful not to apply power to the ground wire.

On the side of the VRDXL is an On/Off switch and fuse (500 mA).

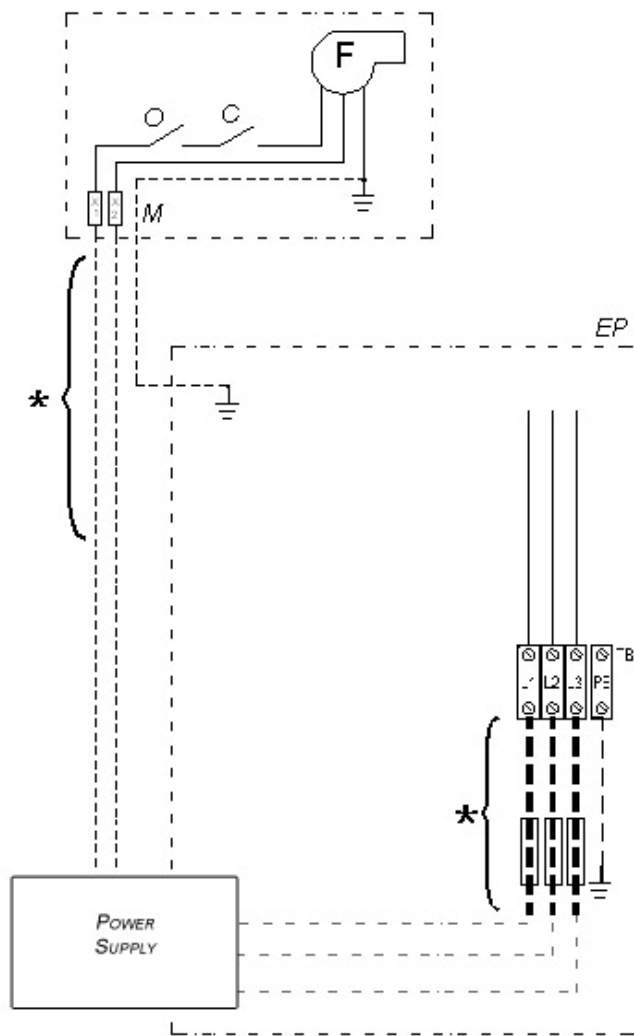
On/Off switch must be in the ON position for VRDXL to operate.



**For connection to UE, UR or UG humidifiers at 208-230 Vac:**

F	Fan
EP	Humidifier electrical panel
C	Thermostat - snap disk
O	On/Off switch
M	RDU terminal block
PS	Power supply
TB	Humidifier terminal block
*	Electrical connections by others

VRDXL  
CONNECTION TO UE-UR HUMIDIFIERS AT 208-230Vac



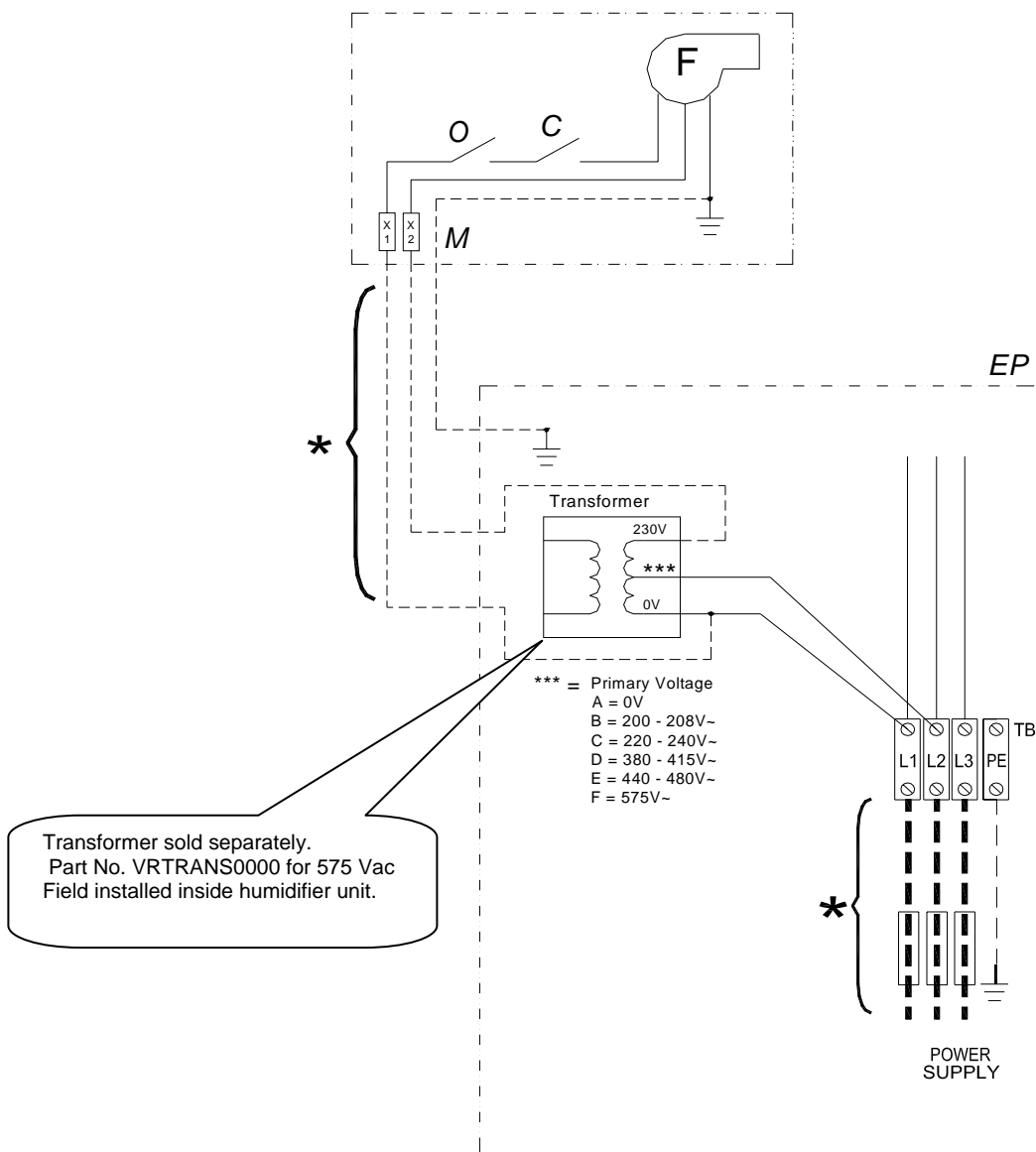
**Caution:** With this configuration, there is the possibility that the blower will run whenever there is power to the humidifier.

**NOTE:** In UG units, bring a separate power supply to the VRDXL.

**For connection to UE or UR humidifiers at 460-575 Vac:**

F	Fan
TD	Transformer for 460-574Vac
EP	Humidifier electrical panel
C	Thermostat - snap disk
O	On/Off switch
M	RDU terminal block
PS	Power supply
TB	Humidifier terminal block
*	Electrical connections by others

VRDXL  
CONNECTION TO UE-UR HUMIDIFIERS AT 460-575Vac

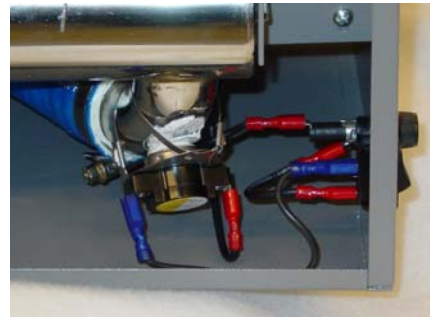


**Caution:** With this configuration, there is the possibility that the blower will run whenever there is power to the humidifier. In this case, the unit transformer works like an auto-transformer to provide the 220 Vac.

## 4. Operation

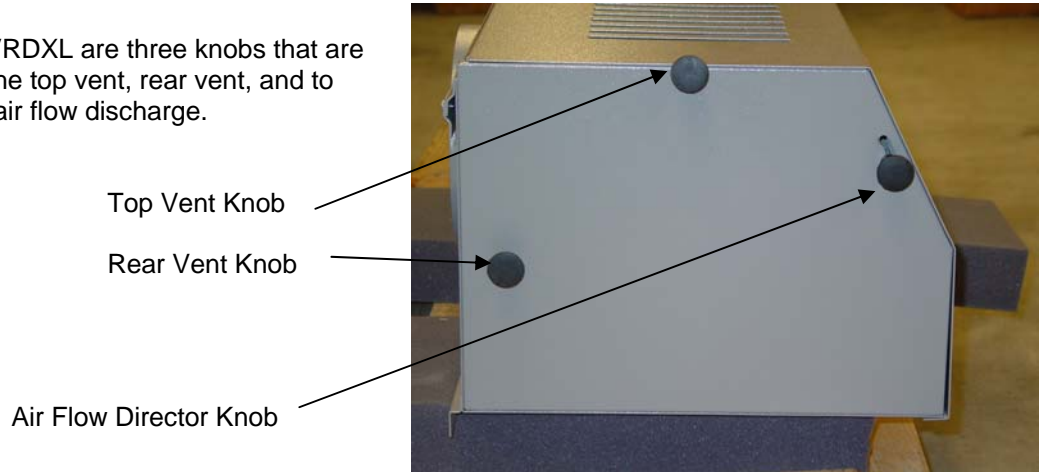
An internal klixon switch is used to sense the steam heat and start the operation of the VRDXL fan automatically. Operation will continue until the temperature at the klixon switch cools. This is to prevent excessive steam from rising out of the unit and wetting the ceiling.

**IMPORTANT:** The VRDXL is wired to always have power in most cases, so it is very important to disconnect all external power and check for voltage before servicing the unit.



If the VRDXL is installed on a wall, the rear duct adapter ring should be removed.

On the left side of the VRDXL are three knobs that are used to open or close the top vent, rear vent, and to adjust the angle of the air flow discharge.



## 5. Maintenance

The only maintenance to be performed on the VRDXL is to periodically clean or replace the internal air filter as it becomes dirty.

## 6. Replacement Parts

Part No.	Description
1312555AXX	Motor fan for VRDXL
13C289A002	Air filter for VRDXL
6132680AXX	Temp. snap disk

## 7. Trouble-Shooting

Problems	Checks	Solutions
The VRDXL does not start, even though steam is coming out of the manifold.	<ul style="list-style-type: none"> <li>• There is no power to the VRDXL.</li> <li>• The klixon temperature sensor is not in contact with the steam manifold, or is defective.</li> <li>• Capacitor may be bad and does not start motor.</li> <li>• Motor may be defective.</li> </ul>	<ul style="list-style-type: none"> <li>• Check incoming power supply and fuses, external as well as in unit.</li> <li>• Adjust position or replace klixon switch.</li> <li>• Replace capacitor.</li> <li>• Replace blower motor.</li> </ul>
The VRDXL gurgles or spits during operation.	<ul style="list-style-type: none"> <li>• The steam hose is not properly sloped and is allowing condensate to build up.</li> <li>• 90° elbows are used just below the steam lines on the VRDXL.</li> <li>• The condensate hose is blocked or kinked and cannot drain.</li> <li>• The VRDXL is not mounted level.</li> </ul>	<ul style="list-style-type: none"> <li>• Correct or support the steam hose for proper draining.</li> <li>• Replace the 90° elbows with 45° elbows.</li> <li>• Correct the condensate hose and insure it can drain.</li> <li>• Level the VRDXL.</li> </ul>
The VRDXL never shuts down, even when no steam is present in the manifold.	<ul style="list-style-type: none"> <li>• The klixon temperature sensor is defective.</li> </ul>	<ul style="list-style-type: none"> <li>• Replace the klixon temperature sensor.</li> </ul>
The VRDXL hums but does not blow any air.	<ul style="list-style-type: none"> <li>• Capacitor may be bad and does not start motor.</li> <li>• Motor may be defective.</li> </ul>	<ul style="list-style-type: none"> <li>• Replace capacitor.</li> <li>• Replace blower motor.</li> </ul>
Humidity cannot be maintained in the space.	<ul style="list-style-type: none"> <li>• Humidifier undersized.</li> <li>• VRDXL introducing outside air from the rear intake vent</li> </ul>	<ul style="list-style-type: none"> <li>• Check load calculations and resize humidifier.</li> <li>• Close rear air intake vents on VRDXL.</li> </ul>
VRDXL is noisy or overheats.	<ul style="list-style-type: none"> <li>• Filter is dirty and restricting air flow.</li> <li>• VRDXL air intake vents are closed.</li> <li>• Construction dirt or paint has gotten into the fan bearings.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean or replace filter.</li> <li>• Open VRDXL air intake vents.</li> <li>• Clean or replace fan motor.</li> </ul>

## 8. Technical Specifications

<b>Dimensions:</b>	27.25" wide x 10.4" high x 14" deep
<b>Weight:</b>	57 lbs.
<b>Volts/Phase:</b>	208-230/1
<b>Power Input:</b>	35 Watts
<b>Air Volume:</b>	380 CFM
<b>Noise Level:</b>	40 dBA
<b>Construction:</b>	16 gauge powder-coated steel
<b>Ambient Conditions:</b>	40 to 140 °F, 0 to 80%RH non-condensing

### Limited Warranty

All products manufactured by Carel USA, LLC are warranted to the original purchaser to be free from defects in materials and workmanship in the course of normal and reasonable use for a period of 2 years and 1 month from the date of shipment (The OEM controls warranty is 2 years from date of manufacture), humidifier replacement parts warranty is 90 days from date of Invoice. Warranty replacement parts are warranted for remainder of original unit warranty or 90 days, whichever is longer, so long as the product has been installed and operated in accordance with all appropriate manuals and wiring diagrams, and started up by a qualified Carel USA technician. Any product or part that is found to be defective will, at the option of Carel USA, LLC be replaced or repaired. Carel USA, LLC reserves the right to inspect any part or installation before replacing or repairing defective parts. After startup of the product, labor for repairs or replacement of parts is not covered by this warranty. Products not included in this warranty are NTC and PTC probes, transformers (TRA series), and routinely replaceable parts such as steam cylinders and gaskets. Carel USA, LLC assumes no liability for consequential or inconsequential damage, or damage due to negligence or improper use. Under the terms of this warranty, the original purchaser may have certain legal rights and other rights, which may vary from state to state. The Warranty will not be considered valid if a product is damaged due to negligence, mishandling or misapplication, or if the product label is missing. Carel USA will attempt to repair or replace the products within two (2) months of the receipt of the returned goods.

The logo for CAREL, featuring the word "CAREL" in a bold, sans-serif font. The letters "A", "R", and "E" have horizontal bars extending from their bases.

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