

How the Revolution works

The Revolution refrigerant dehumidifier uses a fan to draw moist air in and condenses it into water that collects in a tray and is automatically pumped out through a drain hose. The unit can be set to operate continuously or the user may select Humidistat Mode. In Humidistat Mode, the Revolution will turn on and off automatically to maintain the inlet humidity level the user has selected.

Features:

- Industrial-quality dehumidifier removes up to 134 pints (63 liters) of water per day.
- Automatic humidistat to set and maintain desired humidity level.
- Recessed feet indents ensure secure stacking of up to three Revolution units for storage and transport.
- Designed for convenient stacking and transporting on a handtruck.
- Recessed handles for easy positioning in confined spaces.
- Quiet operation and low power consumption.

CONTROLS AND OPERATING INSTRUCTIONS

Set unit upright

NOTICE: Always store, transport, and use the unit in a horizontal position. If the unit is ever placed in a vertical position, return it to the horizontal position and let it stand for at least 30 minutes before turning it on.

Positioning a Dehumidifier

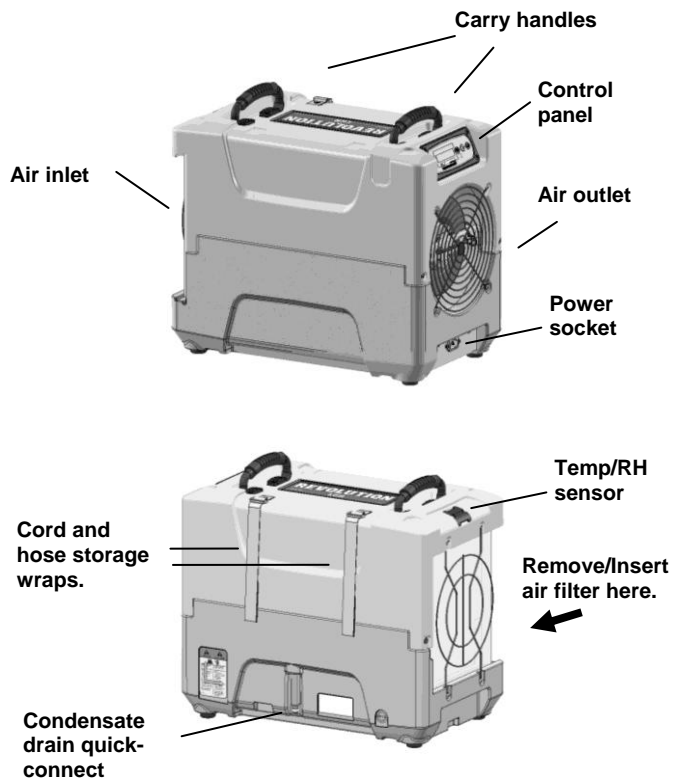
For best results, operate your dehumidifiers in an enclosed area. Close all doors and windows that open to the outside to maximize water removal efficiency. Place your dehumidifier away from obstructions, and keep it away from anything that could block airflow into and out of the unit. For more information about creating an optimum drying environment, contact Dri-Eaz at 800-932-3030.

Set up drain hose

The Revolution condensate pump connects to a plastic drainage hose. This hose is equipped with a quick-connect fitting for quick attachment to the provided 40 ft. (12 m) drain hose. Unwrap the entire hose and place the unattached end in a sink, drain, bucket or outdoors – anywhere that water can drain out safely. If you use a bucket or other container for water collection, check it regularly to prevent overflows.

NOTICE: Uncoil and straighten the entire drain hose. Do not leave any part of the hose coiled and do not place the end of the hose higher than 20 ft. (6 m) above the bottom of the unit. Also check for kinks or other obstruc-

Fig. A: Parts Identification



tions that might restrict the flow of water. Obstructions may cause a water backup and result in overflows.

Plug in electrical cord

The Revolution should be plugged into a GFCI-protected 115 volt outlet rated for at least 15 amps. Always plug the cord firmly into the unit first, and then plug the other end into a suitable outlet.

Startup display and normal display modes

When unit is first plugged in to AC power, the control panel display will briefly cycle through a series of readouts. This is part of the unit's self-diagnosis procedure and no user intervention is required.

Turn the unit on

The control panel on the Revolution dehumidifier has a display and a touchpad with four keys. Press the ①

ON/OFF to turn the unit on. The unit will now go through a compressor delay countdown (up to sixty seconds in duration) and a self diagnostics process.




Once the compressor delay countdown and self-diagnostics are complete, the display will switch to **normal display mode**.



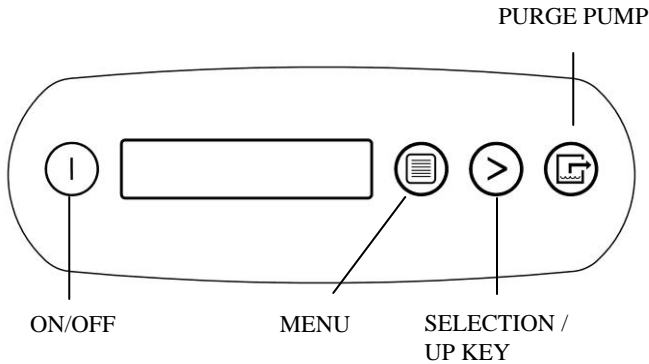
The **first line** of the display shows the total number of hours the unit has been in operation. This value may be reset to zero to track job hours (see "Job Hours Reset")

below). The **second line** of the display alternates between inlet temperature and inlet humidity.

User Settings Menu

A number of display settings may be changed by the user. System information can also be displayed. These items are accessed by pressing  DISPLAY MENU. Each press of the key will display the next parameter. When you reach the parameter you wish to adjust, press  MENU SELECTION to increase the value. Press  DISPLAY MENU again to accept the setting and re-start the display cycle. If no keys are selected for 5 minutes the display will automatically reset and return to the normal display mode.

CONTROL PANEL



ON/OFF	Press and release to turn unit on or off.
DISPLAY MENU	Press to select next item in menu. Menu item will show in display.
MENU SELECTION / UP KEY	Press to toggle or select values in menu displayed.
PURGE PUMP	Press and release to start purge. Display will count down seconds remaining until purge is complete.

Note that only menu items followed by a greater-than symbol (>) may be adjusted.

All settings and modes are discussed in detail in Control Panel Guide, below.


Error messages


If the Revolution onboard diagnostics discover a problem, the unit will display an error message. See "System Messages," p. 6 for an explanation of each message.


Control Panel Guide

1 ON/OFF. Press to turn the unit on or off. When the machine is turned on, the display normally reads PLEASE WAIT COMP. DELAY and performs a numeral countdown for a maximum of 60 seconds to 0. This delay allows time for refrigerant pressures to equalize for easier starting. Once the unit completes the compressor delay, the display shows UNIT ON XX HRS and cycles




between INLET XX°F and INLET XX%. NOTE: If no compressor delay countdown is displayed, a delay is not necessary and the machine will begin operation immediately.

 **DISPLAY MENU.** Press to cycle through the display of additional dehumidifier conditions and User Settings. To return to the main menu, press the ON/OFF key once.

 **MENU SELECTION.** Press to change the values of the "User Defined" settings. The MENU SELECTION key acts as the UP key for adjusting the setpoint for Humidistat mode operation. See User Settings Menu (below) for details.


 **PURGE.** Press to empty water from the condensate pump reservoir. The display will read PUMP PURGING with a numeral countdown. NOTE: During normal operation, the pump purges automatically every 20 minutes, or whenever the reservoir is full.

Changing settings and viewing system information

Display setting changes and system information can be accessed by pressing  DISPLAY MENU. Each press of the key will display the next parameter (see list below). When you reach the parameter you wish to adjust, press  MENU SELECTION to increase the value. Press  DISPLAY MENU again to accept the setting and re-start the display cycle. If no keys are selected for 5 minutes the display will automatically reset and return to the normal display mode.

Note that only menu items followed by a greater-than symbol (>) may be adjusted.

**JOB HOURS
RESET? >**

Press  MENU SELECTION to reset hours to zero. NOTE: When in Humidistat mode, the unit will display HUMIDISTAT on the top line during normal operation rather than JOB HOURS.

**LIFE HOURS
00 HRS**

Shows total unit operating hours. Value cannot be modified.

**INLET OUTLET
00° 00% 00° 00%**


Shows current temperature and RH of inlet and outlet.

Normal Operation


The default operating mode keeps the dehumidifier running at its maximum capacity. This is ideal for most restoration application. To control humidity at a specific level, choose Humidistat Mode, described below.

Humidistat Mode


HUMIDISTAT MODE
ON/OFF >

In ON mode, unit will maintain the humidistat setpoint (see below). Press  MENU SELECTION to toggle between ON and OFF. NOTE: When in Humidistat mode, the unit will display HUMIDISTAT on the top line during normal operation rather than JOB HOURS.


HUMIDISTAT
SETPOINT 00% >

Sets humidity level when unit is in Humidistat Mode. Press  MENU SELECTION to change RH value. Each press of the button increases the setting by 5% increments, cycling through 90%RH and starting again at 40%RH.

TEMP UNITS
F° >

Shows current temperature scale. Press  MENU SELECTION to select Fahrenheit or Centigrade scale.

LANGUAGE
ENGLISH >

Shows current display panel language. Press  MENU SELECTION to select Spanish, German, French or English.

COIL TEMP
00°F

Displays the cold (evaporator) coil temperature.

SENSOR ID >
0000000

This function is not used on the Revolution.

COMPRSSR CURRENT
0.0 A

Shows compressor current draw in amps.

AT THE END OF THE JOB

To reduce the possibility of drips when moving the unit, follow these additional steps to ensure that all water is removed from the unit.

NOTICE: To ensure the condensate tank empties completely while purging, make sure the unit is positioned horizontally on a flat surface.

1. If the unit is in a defrost cycle, wait until the unit has returned to normal operating mode before proceeding.

To check, review the control panel. The control panel will show one of the following:

Defrost in progress:

UNIT ON 00 HRS
DEFROST XX

Display mode when unit is in defrost mode. XX indicates the minutes remaining on the defrost cycle.

Shutdown Sequence


WAIT FOR
DEFROST XX

Display mode when unit is in defrost and is powered down by the user. Unit will complete the defrost cycle to remove any built-up ice and then purge the pump. XX indicates the minutes remaining on the defrost cycle.

Normal Display:

UNIT ON 00 HRS
INLET XX° F

Wait until the control shows the *normal display* before proceeding.

2. Gently rock the machine to ensure any water remaining on interior surfaces falls into the sump area.
3. Press the  PURGE key. When the purge cycle is complete, turn the unit off.
4. Remove the external drain hose, drain it carefully, coil it and secure it with one of the Velcro straps provided on the side of the unit.
5. Unplug power cord from power supply and from base of the machine, coil neatly, coil it and secure it with one of the Velcro straps provided on the side of the unit. (see Fig. A).

TRANSPORTATION AND STORAGE

NOTICE: Handle the unit carefully. Do not drop, throw, or place the unit where it could fall. Rough treatment can damage this equipment and may create a hazardous condition or void warranty.

- Do not expose the control panel to moisture, snow or rain.
- Protect from freezing.
- Store and transport securely to avoid any damaging impact to internal parts.
- Secure during transport to prevent sliding and possible injury to vehicle occupants.

MAINTENANCE SCHEDULE

WARNING! ELECTRIC SHOCK HAZARD. Unplug unit before cleaning or servicing.

WARNING: Risk of dust and contaminants exposure. Use of respirator mask and gloves is recommended. If unit has been exposed to potentially dangerous contaminants, clean thoroughly and sanitize before reuse.