



SuperDry 90

# Installation and Operations Manual WhiteWing Dehumidifiers

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#### **DEHUMIDIFIERS**

## **\*\*Safety Notes \*\***

- The WhiteWing Series Dehumidifier must always be connected using a grounded electrical connection as required for all electrical appliances. The warranty is voided and all responsibility for the operation transfers to the owner if non-grounded wiring is utilized. WhiteWing Dehumidifiers must be maintained and serviced by qualified technicians.
- WhiteWing Dehumidifiers are intended for use only when the unit is installed in a level and upright position. Operating the unit in any other position could cause water to come in contact with the electrical components.
- Before moving the dehumidifier, turn off dehumidifier and allow pump to empty reservoir. (Or if unit is already off, press "P" button to confirm drain reservoir is empty). After the pump has finished operation, unplug the power cord and relocate unit to the desired position.
- If the inside of the unit has gotten wet for any reason, the unit should be opened and allowed to dry thoroughly before reconnecting to electric and restarting.
- For proper operation, neither the inlet nor discharge should be positioned against a wall. A minimum of 12" clearance between unit and any obstruction is required.
  - · Do not insert any objects or fingers into the inlet or discharge.
  - All work on unit should be done with the unit "off" and unplugged.
- Do not use water to clean unit exterior. Only use a damp cloth to clean exterior and always unplug the unit first.
  - Do not use unit as shelf or device to hang clothes. This could cause damage to unit.
  - · Do not stand on machine.

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Congratulations on purchasing a WhiteWing Dehumidifier! Your new dehumidifier comes with an extensive warranty plan.

## **\*\*Features/Specifications \*\***

The SuperDry Series dehumidifier operates based on the refrigerant principle of dehumidification.

#### **SuperDry 90**

- High COP, 2.45L/KWh
- Eco-Friendly R410A Refrigerant
- Low Sound Levels <56dBA</li>
- Easy access for routine maintenance
- Self-monitoring system
- Unit can be ducted, if necessary
- Pump safety feature overflow protection
- Drain Pump with both Automatic and Manual Control
- Automatic (Humidistat) or Manual Control
- Each unit comes standard with a prefilter and Merv 8 filter. High efficiency and carbon filters are available as options.
- If power is interrupted during operation, the unit will automatically restart when power is restored.

#### **Identification:**

For future reference, write down the model, serial number, and date of purchase so you can identify your unit when seeking assistance. **NOTE: data label on back of unit includes serial number.** 

Model Number SuperDry 90

Serial Number Date of Purchase

#### **Customer Service:**

For additional questions concerning the operation of your dehumidifier,

#### please:

**Contact your installing contractor** 

Phone SuperDry Dehumidifiers: +888-236-7231

## **How Your SuperDry Dehumidifier Works**

The WhiteWing SuperDry Series Dehumidifier utilizes either its integral humidistat to monitor the conditioned space or a manual on/off control to energize the compressor when needed. Air is drawn across an evaporator coil. The evaporator coil is cooler than the dew point of the air so water vapor will turn into liquid condensation. Air is then reheated through the condenser coil and distributed back into the room.

## Installation:

#### WARNING! 240 Volts AC may cause serious injury from electric shock.

1. Disconnect electrical power before servicing 3

3. Do not use extension cord

2. Only plug unit into grounded electrical outlet

4. Do not use plug adapter

**Power Supply:** 115V, 60 Hz AC Only 1 Phase

Outlet Requirement: 3-Prong, GFI

Circuit Protector: 15 Amp Time Delay Fuse or Circuit Breaker

Alternatively, you can manually control unit to operate independent of space conditions.

Place unit in desired location. The inlet of unit should be at least 8" from any obstructions. If unit is transported in the horizontal position, allow it to sit in upright position for at least 30 minutes before operating.

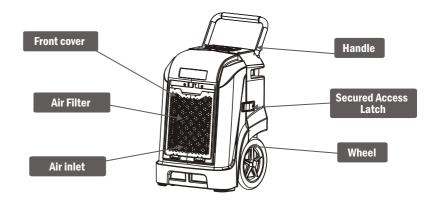
## **WARNING!**

It is recommended that the unit be removed from any location where corrosive or high VOC content materials are applied.

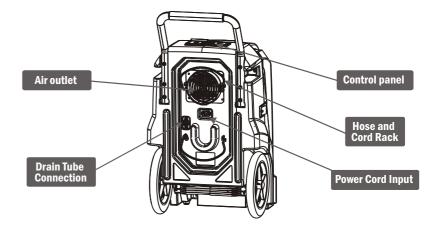
## **\*Unit Overview**

#### **SuperDry 90**

#### **\* Front View**

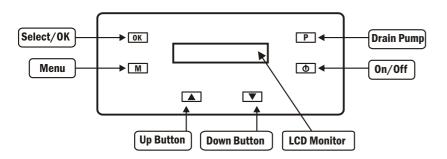


## **\* Rear View**



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## **\*Operating instructions\***



## **\*\* Control Panel Operation**

#### 1. ON/Off Button 🗇

Press this button, and the machine will start running. Press this key again and the machine will stop running. The display will show room humidity levels except while you' re pressing another button. NOTE: When unit is turned off, the fan will run for 1 minute prior to shutting off. "In addition the condensate pump will pump for approximately 14 seconds to drain the pump reservoir after unit is powered off."

#### 2. Pump Button P

For extended storage or movement of the machine, press the "Pump" bottom to remove water from the integral pump' s reservoir.

#### 3. Menu Button M

Pressing the Menu (M) button, gives you the options to select between two different control modes as well as adjust the temperature measurement units. Continue pressing the M button until you get to your desired selection. Press the Select (OK) key to confirm that selection and move to a submenu.

After you' ve completed your task, select "R" ,then press the "select/ok" button to move back to previous menu, or wait 10 sec to automatically return to the main screen.

#### Four selections are available:

Humidity Setting: Adjust the humidity setpoint

Timer Setting: Start Time Setup/Stop Time Setup/Cycle Time Setup

Temperature Scale Switch: Choose between Celsius and Fahrenheit readings

Return: Return to the main menu

NOTE: See Section 8 for more detailed programming instructions.

#### 4. Select/OK Button OK

Use to confirm a selection.

#### 5. UP Botton ▲ Down Botton ▼

These buttons are used for adjusting humidity or timer settings.

#### 6. LCD monitor

When the unit is running, the LCD monitor will go dark if no buttons are pushed. Push any button once to light monitor.

#### 7. LCD display function

(1) Show "Power On" when the machine has already connected but not started.



(2) Show "Unit On" when the machine is in working status (This display will change to next screen in 2 seconds).

The contents of the second line alternate every 10 sec.



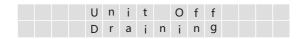
(3) The LCD interface shows two lines of data. The first line displays the room temperature and humidity. On the second line, Job T(working time) and Humidity Setpoint are displayed on an alternating basis.



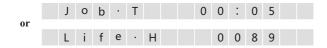
The contents of the second line alternate every 10 sec.

or H u m i · s e t 5 0 %

(4) When you press the "Power Off" button, two lines of data will be displayed. The top line will read "Unit Off". The bottom line will read "Draining" for approximately 14 seconds while the pump is emptied.



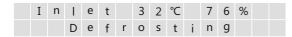
Once the pump reservoir is drained, the contents of the second line alternately show "job hours" and "total hours", alternating every 10 seconds until the one minute final fan cycle is completed.



(5) Show "Draining" when the pump is draining in both automatic and manual modes.



Show "Defrosting" when the machine is in defrosting mode. If both "Defrosting" and "Draining" are occurring simultaneously, "Defrosting" is the display priority.



(6) Second line of display will rotate through several screens depending on setup



Second screen display options:



Time remaining to Auto opening



Time remaining to Auto Closing



Time remaining to circulate status



#### 8. Operation and Display

Note: As long as the machine is plugged into power, the settings can be changed. The unit does not have to be operating to change setup.

- (1) The Humidity Setting (Humid)
  - a. Press the Menu (M) button. The screen shows:



b. Press the "M" button until "Humid" is flashing. Press "OK" to select this option. The screen shows:



- c. Press the menu key until the humidity level (bottom left of display) is flashing (it will either say "Co" f or continuous operation or a number for a specific percentage).
- d. Use the "Up" or "Down" buttons to set the machine to your desired level. Press the "OK" button when finished. The cursor automatically move to "R" which will be flashing. Press "OK" to confirm move to previous menu or wait 10 seconds and you will automatically return to the main menu.

#### (2) Timer Settings (Timer)

This selection allows you to set a timer for the unit to turn on or turn off. You can also set up cycle timing, which allows you to set up and repeating cycle of specific on and off durations.

a. Press the menu key several times unit the Timer button is flashing. Press "OK" button to confirm this option.



b. The screen shows: T. on, T. off, T.I / 0,R



"T.on" – Unit will start when timer expires

"T.off" – Unit will stop when timer expires

"T.I/O" – Unit will cycle "on" and "off" based on the set time. If unit is off, the cycling will start with unit "off". If unit is on, the cycling will start with the unit "on."

c. Press the menu key to select your desired selection.

#### 1) Start Time (T.on Selection)

a. Press to confirm key. The screen runs as follow, the first 00 positions (flashes) at the same time.



- b. Press "Up" and "Down" key to select hour choice between 00-24. Press "Ok" key to select choice.
- c. After the hour selection is confirmed, the minute choice will flash. Select as before and confirm with "Ok" key.
- d. The "OFF" button will now flash. Press "OK" one more time, the "OFF" display will switch to "ON" and the timer is now set.

#### 2) Shut Off Time (T.offSelection). Unit will run for designated time and then turn off.

- a. Press the M button until the T.off button is flashing. Press "OK" to confirm.
- b. Set timer as above.

#### 3) Cycling Timer (T.I/O Selection)

The third selection, T.I/O, lets you set up the machine to cycle on and off during a specific time frame. For example, you could set the unit to run 8 hours a day and remain off the other 16 hours. Note: You are selecting on and off periods of time, not set clock times.

- a. Press the M button until the T.I/O selection is flashing. Press "OK" button to select.
- b. Use the "Up" and "Down" arrows to adjust the hours and minute of the first cycle.
- c. Use the "M" button to move from 1st line of display to second and adjust second time period with up and down buttons.
  - d. Press the "OK" button to confirm the time. (Flashing OFF will turn to ON).

#### (3) Temperature scale set

This selection allows you to switch the machine from displaying temperature in degrees Celsius to degrees Fahrenheit.

a. Press the menu key. The screen shows: Humid, Timer, Tempu, R.



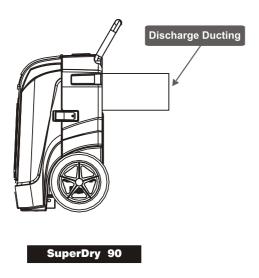
- b. Press the Menu key unit TempU flashes. Press "OK" to select.
- c. The screen shows: Celsius degree  $^{\circ}\text{C}$  on/off and Fahrenheit degree the  $^{\circ}\text{F}$  off/on.



- d. Press the menu key to move the cursor to the °C on/offor °F off/on(flashes).
- e. Press to confirm key. The on/off status of  ${\sf C}$  and  ${\sf F}$  will exchange.

#### 9. Optional Duct Installation

Ducting of the unit allows conditioning of an adjacent room or focusing discharge in an area needing focused attention. Diameter for supply ducting is 6". Flex or layflat ducting can be used for this purpose.



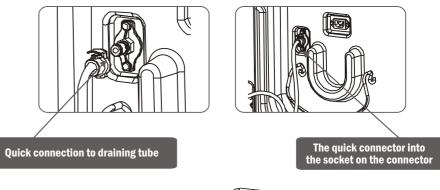
## **\*\*Preparing the Unit for Use\*\***

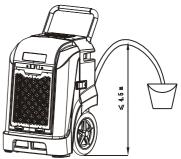
(1) Position the machine for a minimum 8" clearance on front and sides. Rear of machine should be positioned for maximum discharge distance or directly towards a specific location for spot drying.

If the unit was moved in such a manner that the compressor didn't remain in a vertical orientation, wait a minimum of 30 minutes before turning the unit "on."

(2) The included drain line attaches to the unit via a quick connection type fitting located on the base of the unit. The drain line should be routed to a suitable drain or outside. Because the unit features an integral drain pump, drain line may go vertically up

18' prior to reaching final drain location.





SuperDry 90

- (3) Firmly insert power cord into socket on top back of unit.
- (4) Set unit control as desired and energize.

## **\*\*Maintenance and Repair\*\***

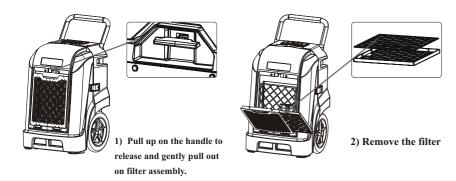
#### 1. Exterior Cleaning

Use a soft, slightly damp cloth to wipe the plastic body.

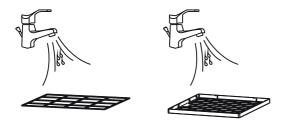
#### 2. Filter cleaning

a. Remove the inlet grille to access the filter

#### SuperDry 90



b. Filter may be cleaned by vacuuming or by washing with warm water (no soap or solvents). Insure filter is dry prior to restarting unit.

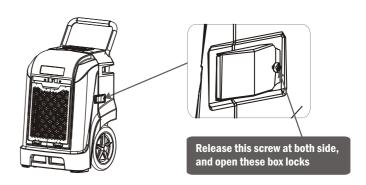


## **\*Maintenance**

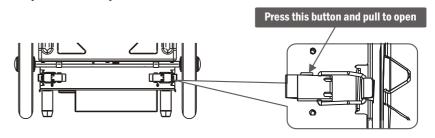
## WARNING – ALWAYS UNPLUG UNIT PRIOR TO PERFORMING ANY MAITENANCE

#### 1. Accessing Internal Components

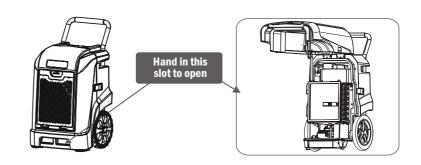
a. Remove tamperproof screws from side latches

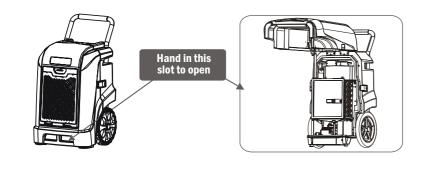


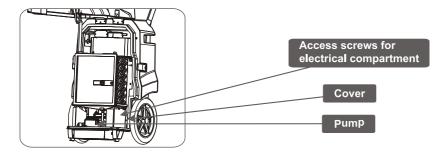
#### b. Pull up the bottom to open



#### c. Opening back housing







#### 2. Water Pump Maintenance

The pump is designed with quick connection construction. If service is required, condensate tube, float switch connections, and the main power cord to pump can easily be disconnected. The pump can be removed from reservoir by using a flat screwdriver to gently pry pump assembly from reservoir.

Your WhiteWing SuperDry is equipped with an integral condensate pump designed to pump condensate from your dehumidifier out to the desired drain. This pump requires routine maintenance that is not covered by your 1 year parts warranty. Only a defective pump will be repaired or replaced during the warranty period.

#### **Preventative Maintenance**

As with all pumps, preventative maintenance is necessary to prevent issues from dirt and slime that may accumulate in the drain system – including the drain pan, hose to the condensate pump, pump reservoir, pump head and float assembly, and discharge tubing.

## At least once per year, clean pump system

#### **Basic-**

- 1. Press the pump button (P) to drain water from reservoir.
- 2. Disconnect power to dehumidifier.
- 3. Mix a 16 oz solution of either 1 oz bleach to 15 oz water or 4 oz white vinegar to 12 oz water. Pour into the drain tray at the base of the coils.

Note: If you get any cleaning solution on the coils, flush with water.

- 4. Allow to soak for 15 minutes.
- 5. Reconnect power to dehumidifier.
- 6. Fill reservoir and flush/cycle pump at least two times with clean water.
- 7. Repeat if needed or refer to Advanced instructions.

#### Advanced-

- 1. a. Use manual pump button "P", to drain water from reservoir.
- b. Unplug the dehumidifier and open cover to access pump.
- c. Pump head can be removed from reservoir by pressing on tabs.
- d. A wet-dry vacuum or towels can be used to remove remaining water from reservoir.
- 2. Fill pump reservoir with a diluted cleaning solution (15 oz water to 1 oz bleach or 12 oz water to 4 oz white vinegar).
- 3. Reassemble pump and use manual pump button to flush mixture through discharge tubing.
- 4. Pour same diluted mixture slowly into drain pan under evaporator coil and allow it to clean hose from pan to pump. This process can be stopped when the pump energizes 1 time.

Note: If you get any bleach/water mixture on coils, flush with water.

- 5. Pour sufficient clean water through drain pan to force pump to activate twice.
- 6. Reassemble unit and return it to operational status.

#### Coil-

If necessary, clean your coils with a vacuum or approved coil cleaner.

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## **\*\*Storing Your Dehumidifier\*\***

If the unit will be stored for an extended period of time:

1. Turn unit off and allow to dry.

4. Clean the filter mesh.

2. Manually drain pump reservoir.

5. Store in clean, dry environment.

3. Wrap and secure the power cord .

## **\*\*Troubleshooting\*\***

Trouble	cause	Solution
Machine Won't Work/ Display is Blank	Display Blank. Power outage or poor connection	Check Power Supply Check both ends of power cord for good connection
	Room temperature outside unit operating range. HI or LO Error	Modify room conditions in between 33 and 100F.
Cannot start the dehumidifier	Filter mesh is clogged	Clean the filter
	Air inlet or outlet jammed	Clear the blockage from air inlet or air outlet
No Airflow	Filter mesh jammed	Clean the filter
	Unit is not level	Place unit on flat surface in vertical orientation
Loud/Unusual Noise	Pump dislodged	Reassemble pump as necessary
Trouble code:E1	Humidity Sensor or communication error	Check sensor cable is properly connected. Replace the Senser
Trouble code:E3	Temp Sensor or communication error.	Check sensor cable is properly connected. Replace the Sensor
Trouble codeE4	Pump detected high water in reservoir (See Notes Below)	Check for clogged drain lines Check pump working properly Service Pump、Replace Pump
Trouble codeL0	Unit is sensing room temperature below 33F.	Increase room temperature Check Sensor Check Sensor Cable

Trouble codeHI	Unit is sensing room temperature above 100F	Decrease Room Temp Check Sensor Check Sensor Cable
Trouble code:E1,L0,HI	Shows E1, L0,HI at the same time indicated a bad connection, cable or sensor	Check Cable connection Replace Cable Replace Sensor

## Pump Alarm-Error Code E4 If a pump alarm is provided on display:

- 1. Clear error code by disconnecting power cord and then reconnecting. NOTE: Unit will not function until error code has been cleared.
- 2. Manually check to see if pump is operational. Press pump button (P) and see if pump energizes and de-energizes properly and if any water is purged from system. If you haven't cleaned the system recently, check discharge line for obstruction and clean balance of pump system per instruction above.
  - 3. Replace hoses and or pump if maintenance alone is not sufficient.

## **\*Warranty**

Seller warrants the equipment to be free from defects in workmanship and materials for a period of 12 months after shipment (60 months/5 years on compressor, evaporator and condenser). This warranty is limited, however, to the repair or replacement of defective equipment. If it is necessary to return unit for service, customer is solely responsible for proper packaging, transportation costs. Customer must initiate warranty process by contacting factory. Do not send any component or product back to factory without Return Material Authorization.

This limited warranty does not apply to any part or component that is damaged in transit or when handling, has been subject to misuse, corr osion, chemicals, acts of God has not been installed, operated or serviced according to the Seller's instructions, or has been operated beyond the factory-rated capacity or has been altered in any way. Routine maintenance is not covered by this warranty.

#### **DEHUMIDIFIERS**

Seller's liability is limited to replacement of defective parts or components and does not include any cost of labor (including, but not limited to, labor to remove and/or reinstall any defective part), refrigerant or piping. Customer may elect to have unit fixed locally in which case required replacement parts will be sent to customer at customer's expense.

Shall not be responsible for loss of use of any product, loss of time, inconvenience, or damage to other equipment, or any other indirect or consequential damage with respect to property whether as a result of breach of warranty, neglect, or otherwise.

THE WARRANTIES AND LIABILITIES SET FORTH ARE IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, IN LAW OR IN FACT, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE. WhiteWing's total liability, regardless of nature of claim shall not exceed original purchase price of the product. If a product or component is replaced while under warranty, the applicable warranty period shall not be extended beyond the original warranty time period.

The foregoing shall constitute the total liability of seller in the case of defective performance all or any of the equipment or services provided to Buyer. Buyer agrees to accept and hereby accepts the foregoing as the sole and exclusive remedy for any breach or alleged breach of warranty by Seller.

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