

# APOLLO

## OWNER'S MANUAL

READ THIS MANUAL CAREFULLY BEFORE OPERATING  
CEILING DEHUMIDIFIER



**IMPORTANT:** After unpacking (or accidental tip-over) allow dehumidifier to stand upright for 20 minutes before starting

## IMPORTANT INSTRUCTIONS

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### **DO NOT use this unit outdoor!**

Before installing and using your dehumidifier, please read this owner's manual carefully. Store this manual in a safe place for future reference.

The user of electrical products may create hazards that include, but are not limited to injury, fire, electrical shock. Failure to follow these instructions may damage and/or impair its operation and void the warranty.

- Before operating, remove all packaging material and check for any damage that may have occurred during shipping or any missing items.
- Check household power supply to ensure it matches the specification of appliance.
- Always place the unit on a level surface.
- **NEVER** use or store gasoline or other flammable vapor or liquid near this unit unless instructed by this manual.
- **DO NOT** lay power cord under carpeting. **DO NOT** cover cord with throw rugs, runners, or similar coverings. **DO NOT** route cord under furniture or appliances. Arrange cord away from traffic area and where it will not be tripped over.
- To reduce the risk of fire or electric shock, **DO NOT** use this appliance with any solid-state speed control devices.
- **DO NOT** touch this appliance or the plug with wet hands or while standing in water.
- Maintain a 12-18-inch clearance space around this unit. **Do NOT** block or cover air inlet or outlet grids.
- The unit must be connected to a correctly grounded power supply.
- **DO NOT** start or stop the unit by inserting or pulling out the power plug.
- **DO NOT** use an adapter plug or extension cord.
- **DO NOT** use the unit in the immediate surroundings of a bath, a shower or a swimming pool.
- **DO NOT** insert anything into the air outlet. **DO NOT** obstruct air inlet or outlet grids unless instructed by this manual.
- **DO NOT** direct the air flow at human faces or bodies.
- **DO NOT** let children play near this unit.
- Always inspect the cord for signs of damage before use. If the power cord is damaged, it must be replaced by the manufacturer or a qualified service technician.
- **DO NOT** attempt to repair or adjust any electrical or mechanical functions of this appliance, as this may cause danger and void the warranty.
- If the appliance is damaged or it malfunctions, **DO NOT** continue to use it. Unplug the product and refer to troubleshooting guide or contact the seller.
- **Make sure** the unit is turned off and unplugged before cleaning or servicing this unit.

## INSTALLATION AND OPERATION GUIDE

### PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE OPERATING THE PRODUCT

- Power – plug the power into a standard 115V power supply outlet.
- Press “ON/OFF” button on control panel to start the unit.
- The screen will display the current humidity setting value and press “+” or “-” to adjust desired humidity increments of 1%. Press and hold the button to make faster adjustments. Setting the humidity value below 30% will allow the unit enter into “continuous dehumidifying” mode and “CO” will briefly appear on the screen.
- Press “ON/OFF” again to shut down the dehumidifier and do not forget to unplug the power when not in use.

#### ⚠ DANGER

**Do not handle the plug with wet hands. Electric shock may occur, resulting in injury or death.**

**Tips – the best humidity range for human health, furniture and other goods protection is 45% - 65%.**

**We suggest you keep the humidity in this range**

- When the humidity setting is higher than the current room humidity, the compressor will not run and fan motor continues running.
- Maintaining the humidity between 45-65% is suggested for best results.

**NOTE: NEVER attempt to start, stop and restart the unit without waiting at least 3 minutes. Failure to do so may cause damage to the compressor and/ or cause unit failure.**

- The unit will automatically sense when it needs to enter the Defrost mode, especially in low-temperature environments. During defrosting, the Defrost Indicator will illuminate on the display, the compressor will turn off, and the fan motor will run until the cycle is complete.

**NOTE: ALWAYS unplug the unit, properly wrap the power cord and utilize the plug storage receptacle before moving or servicing. Use only the ON/OFF button to turn the unit on and off.**



#### **WARNING**

**DO NOT block the grids when the unit is in use. Keep metal objects away from the unit. Bodily injury or property damage may occur.**

## INSTALLATION AND OPERATION GUIDE

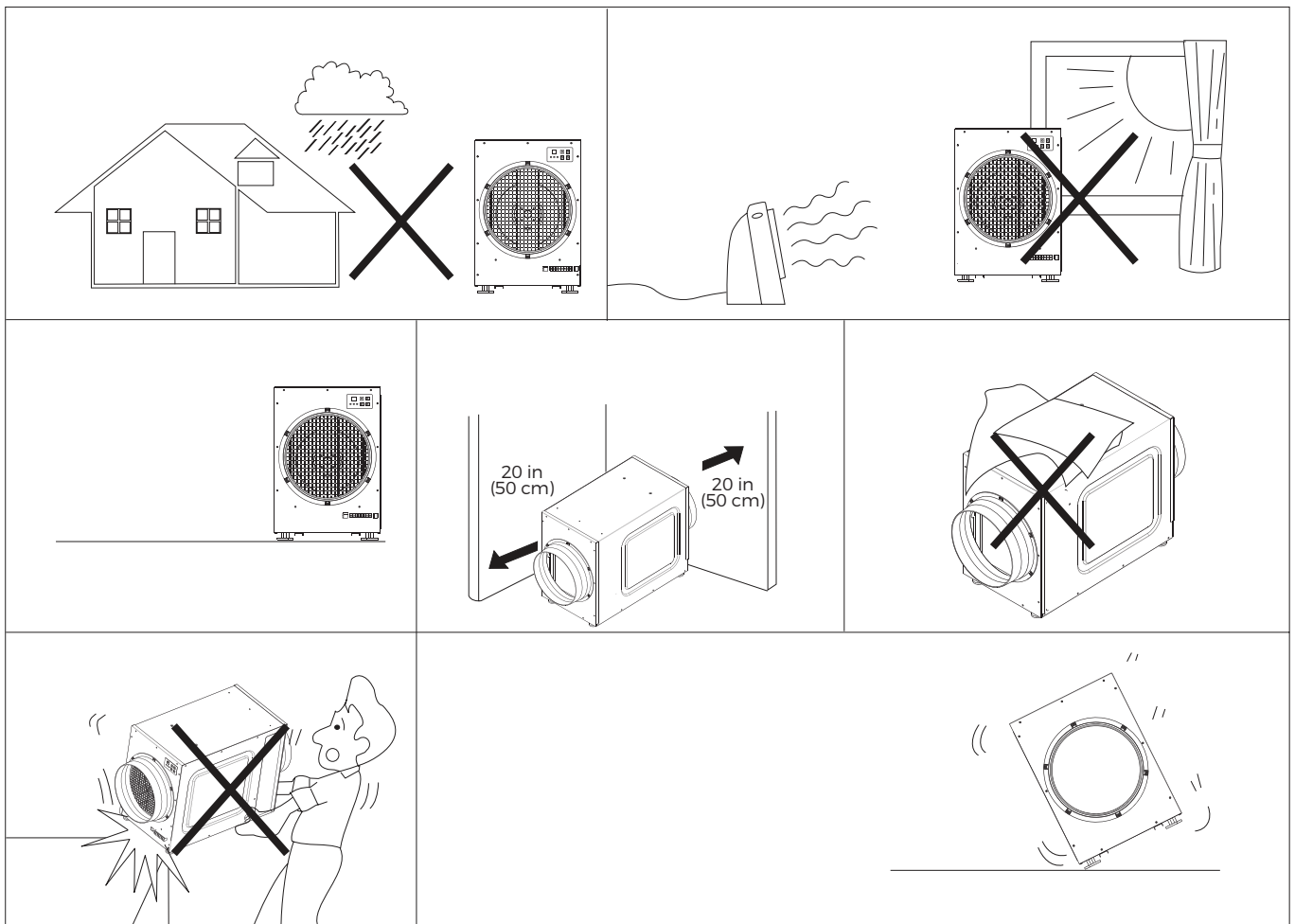
IF the unit was tilted on its side or upside-down during transportation, set the unit **UPRIGHT** for at least 1 hour before use. The dehumidifier must be positioned **UPRIGHT** on a level surface during operation.

**Environment** Temperature and Humidity: the dehumidifier is designed to work in an environment with a temperature of 41°F-104°F (5 °C - 40 °C) and relative humidity level of 10% and higher. The dehumidifier may not function normally or efficiently if the room temperature and humidity level exceed this range.

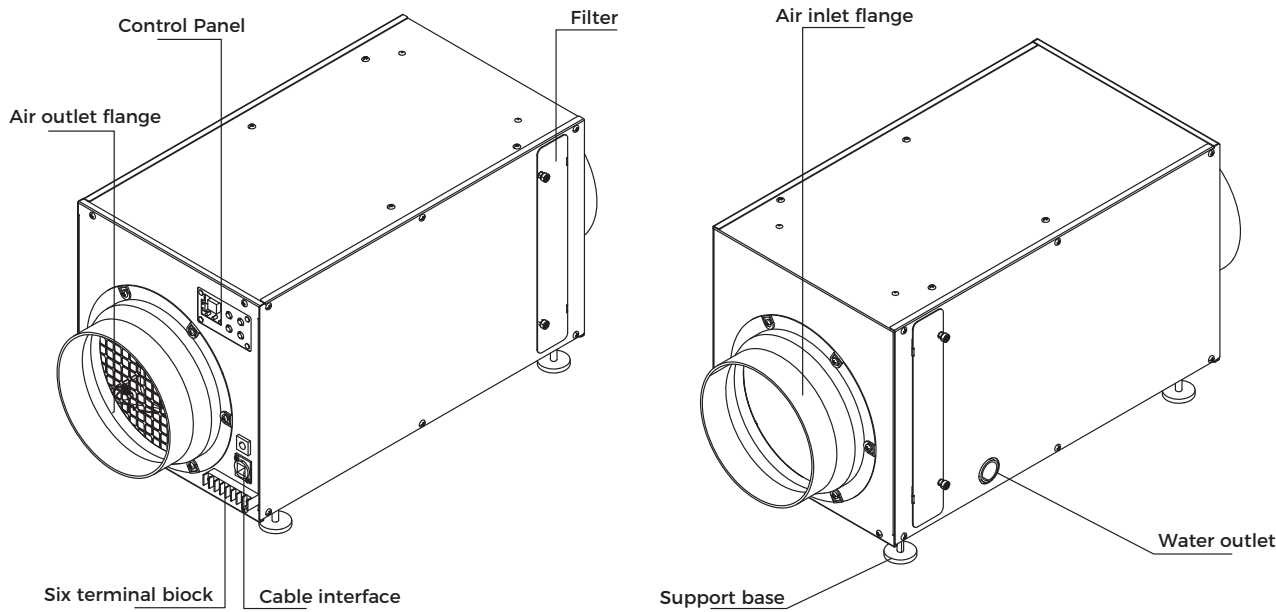
**WARNING**

**Must not use the dehumidifier in potentially dangerous locations.**

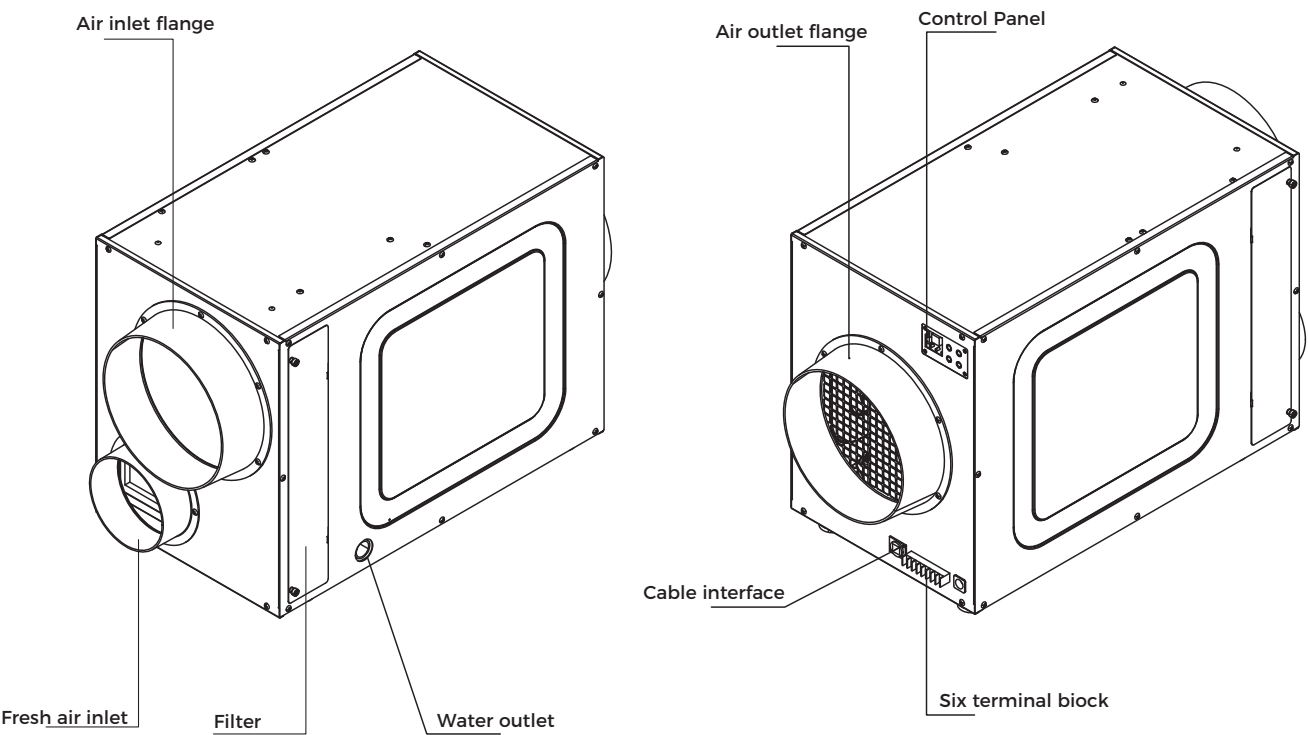
1. Remove the packaging and make sure the unit is NOT installed outdoors.
2. Your dehumidifier is designed for easy use and maintenance. Make sure that the filter is properly installed before use.
3. Keep the unit's air inlet and outlet at least 20 inches away from any wall/obstruction.
4. Select a flat, stable surface to place the unit. Do not place on or near heat sources such as stoves, radiators, heaters and avoid placement in direct sunlight.
5. Do not operate the unit in areas where chemicals are stored. Volatile chemicals might damage the unit and may cause the water bucket to leak.



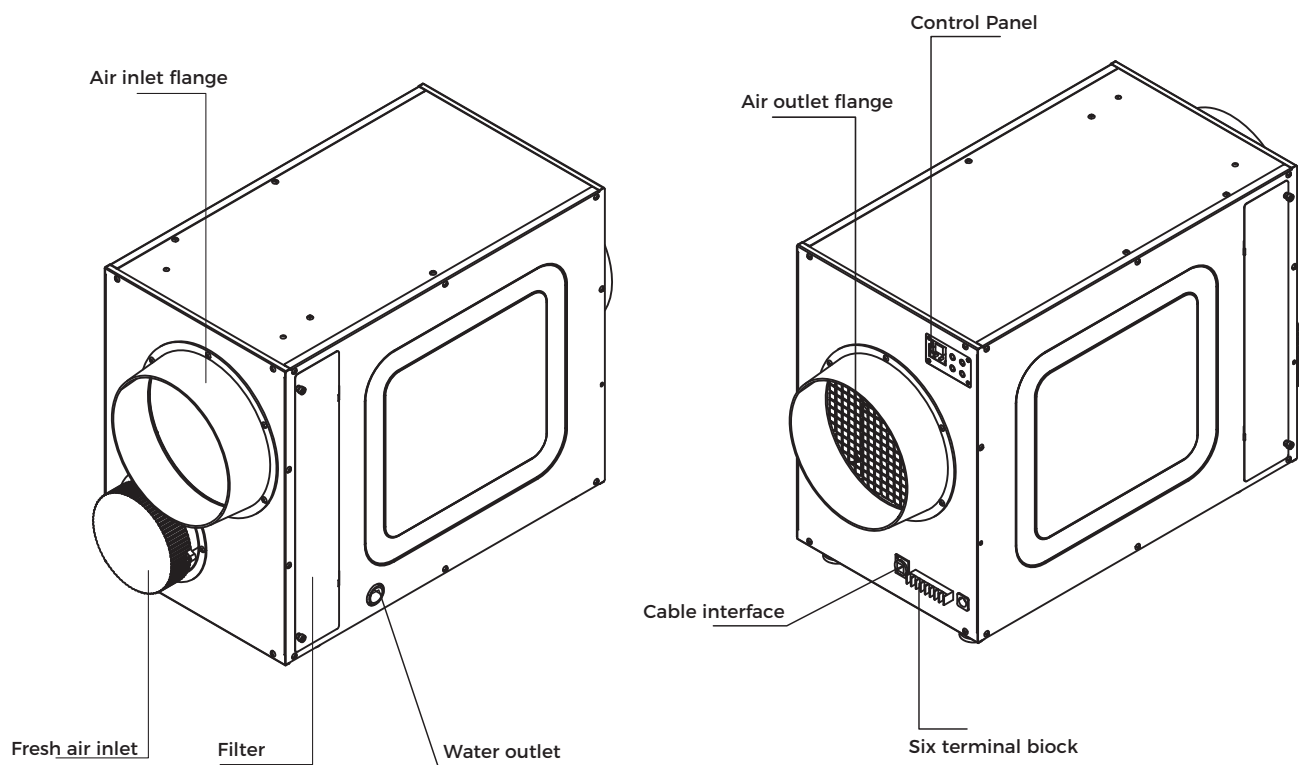
# INTRODUCTION OF STRUCTURE AND SHAPE-WH70



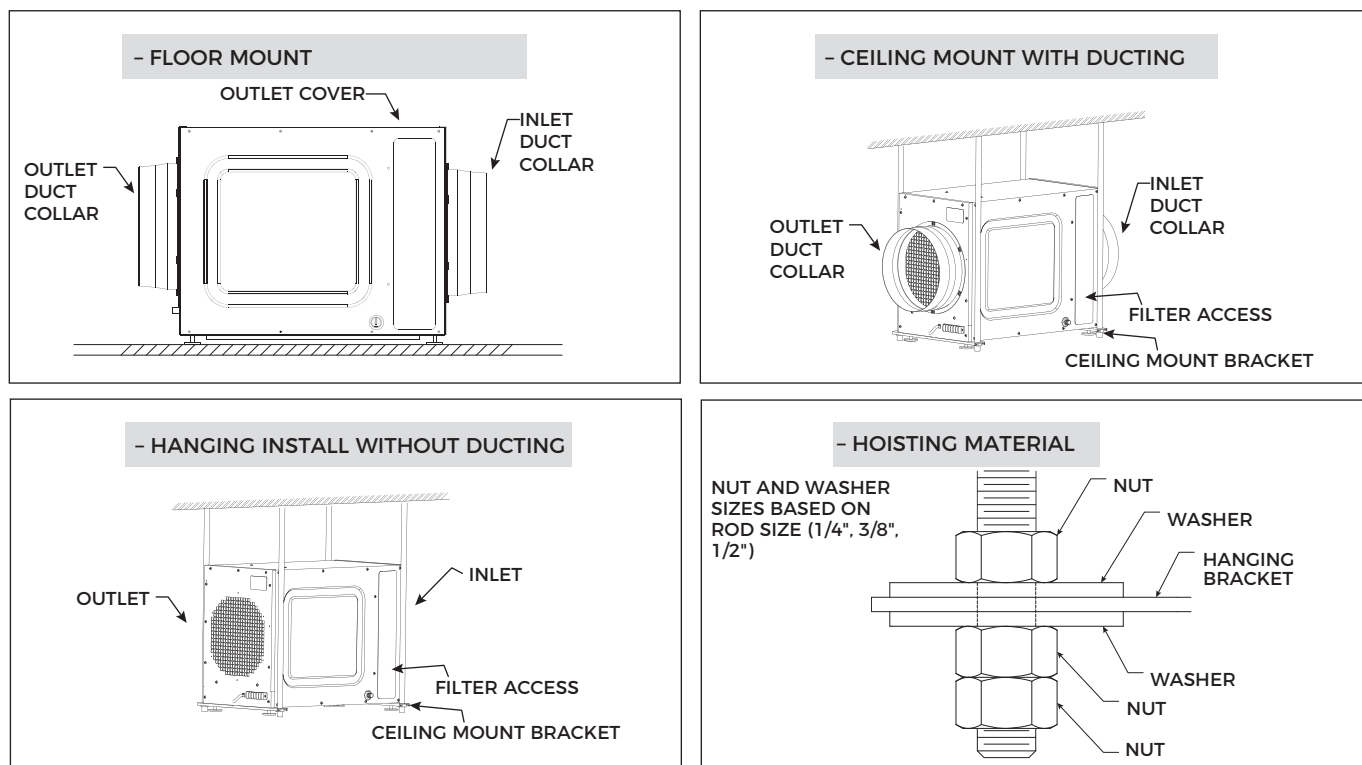
# INTRODUCTION OF STRUCTURE AND SHAPE-WH95



## INTRODUCTION OF STRUCTURE AND SHAPE-WH135

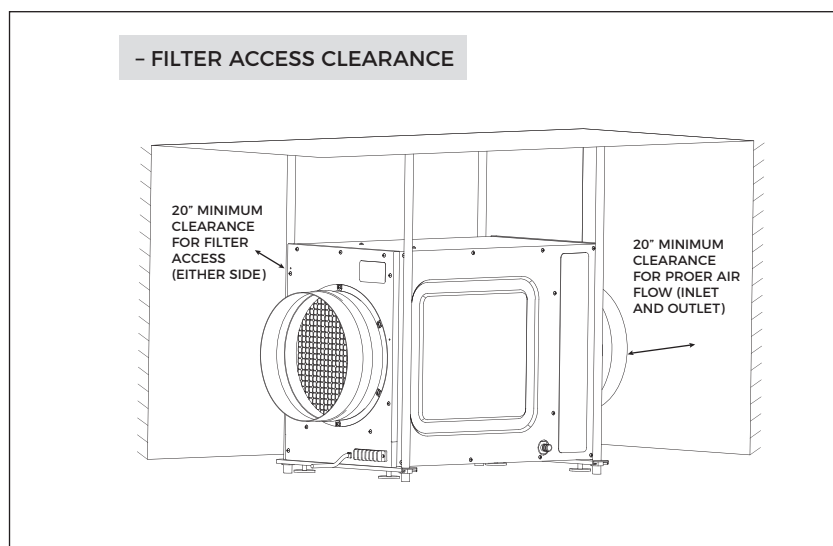


## DUCT COLLARS



## LOCATION CONSIDERATIONS

- Allow sufficient clearance for filter removal and to prevent airflow obstruction.
- Electrical service and control panel toward the outside aisle and allow sufficient space on this side of the unit.



## DRAIN INSTALLATION

The drain outlet on the dehumidifier can be hard piped using a 3/4" PVC Slip x 3/4" MNPT fitting and 3/4" nominal drain tubing or the provided 3/4" MNPT x 3/4" hose barb fitting and 3/4" clear PVC tubing can be used to drain the dehumidifier. Always maintain a constant downward slope from the dehumidifier to the drain and do not allow soft tubing to curl up which may result in air lock.

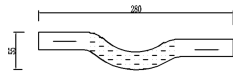
**NOTE:** PTFE thread seal tape is recommended for the threaded connection and hand tighten only. If hard pipe is used, PVC primer and cement is recommended for the slip fit connection.

## LEVELING

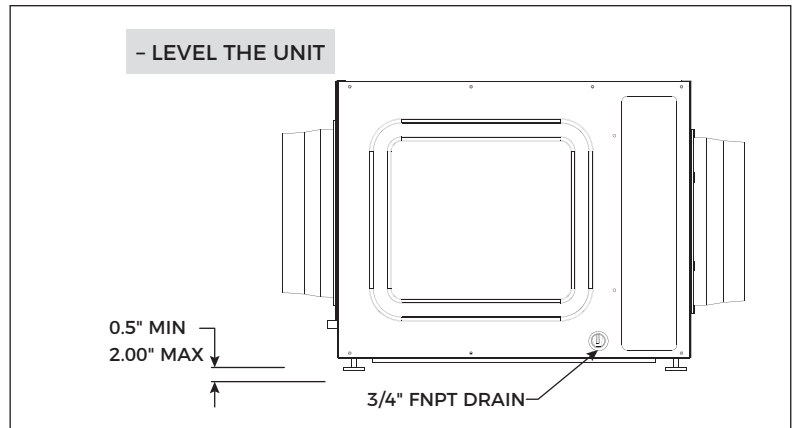
- The adjust feet can be adjusted to level the unit, and if required, to accommodate drain fittings and a secondary condensate pan.
- **Leveling is required to ensure proper drainage from the dehumidifier.**



3/4-14NPT outer wire connector



Water Storage Bend



## SIX TERMINALS DESCRIPTION

A wiring six terminal block is located on the side panel of the dehumidifier unit.

The six terminals for the terminal block (reading from left to right in the photo) are:

**FLOAT:** External low voltage float switch or water sensor (two terminals). Use normally closed switch.

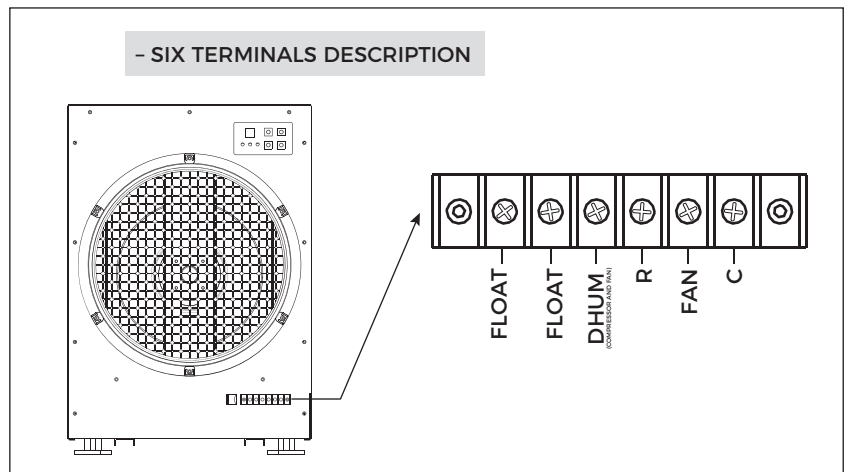
**DHUM:** Compressor and fan operation for dehumidification

**R:** 12V output

**FAN:** Fan activation only for ventilation

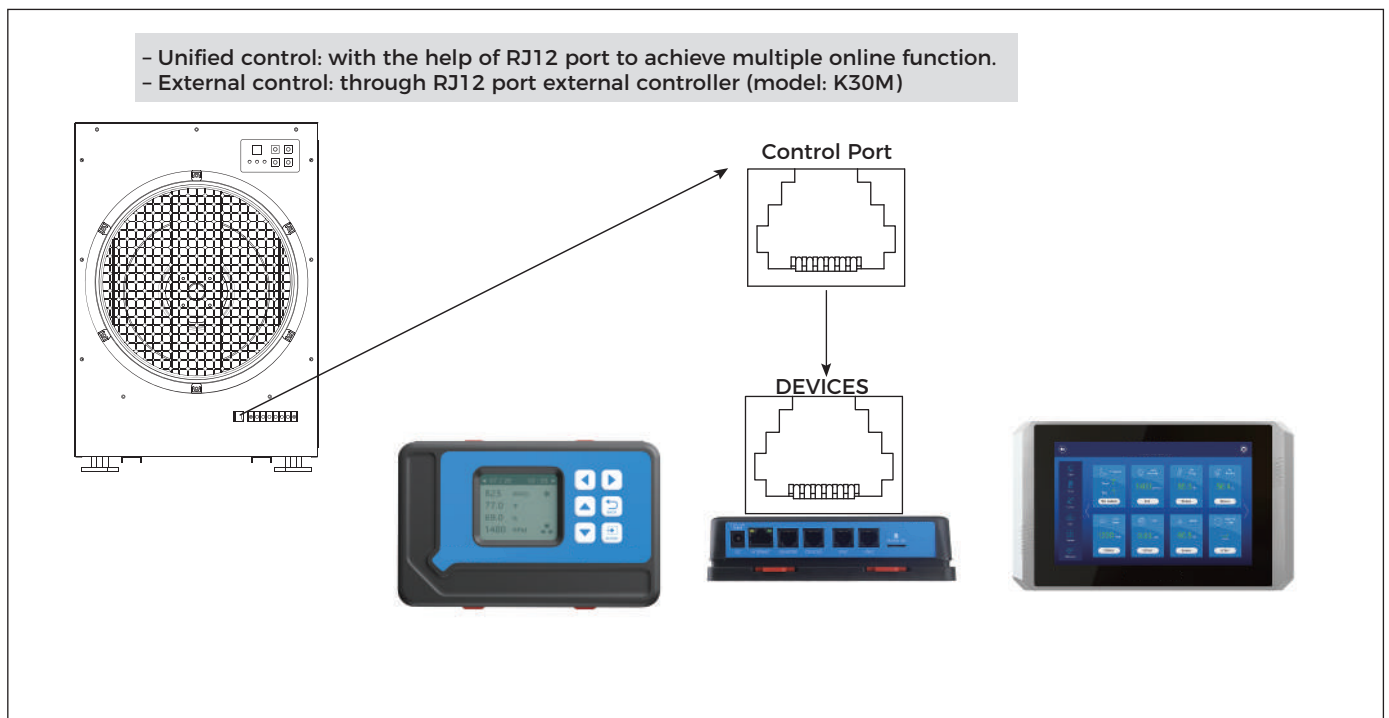
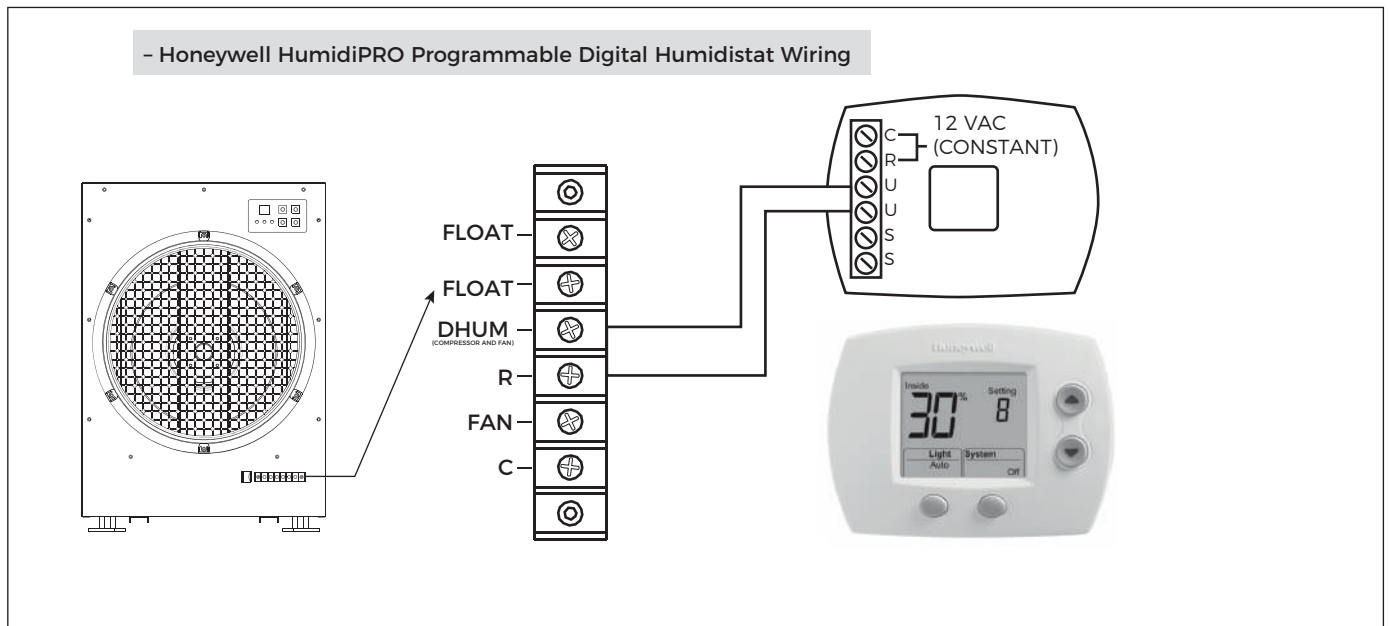
**C:** 12V output

External 12V devices can be powered from R and C terminals (20VA max.).



## WIRING CONTROLLER

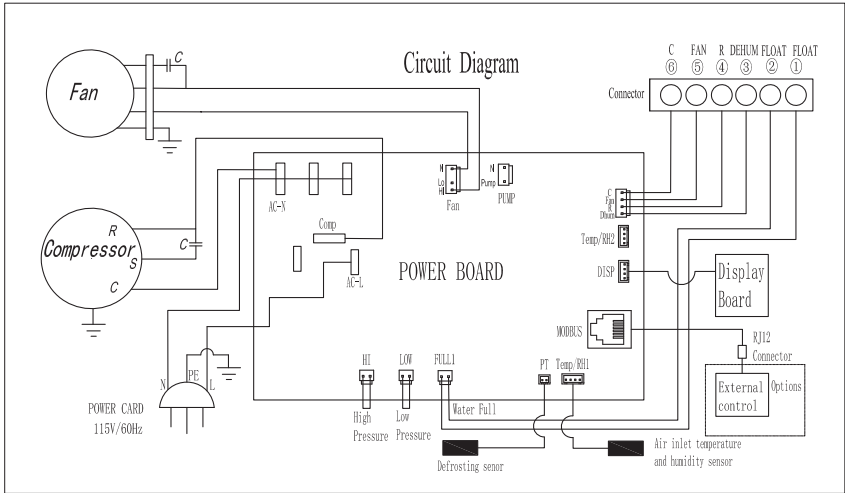
Follow this diagram if using the Honeywell HumidiPro Digital Humidity Controller.



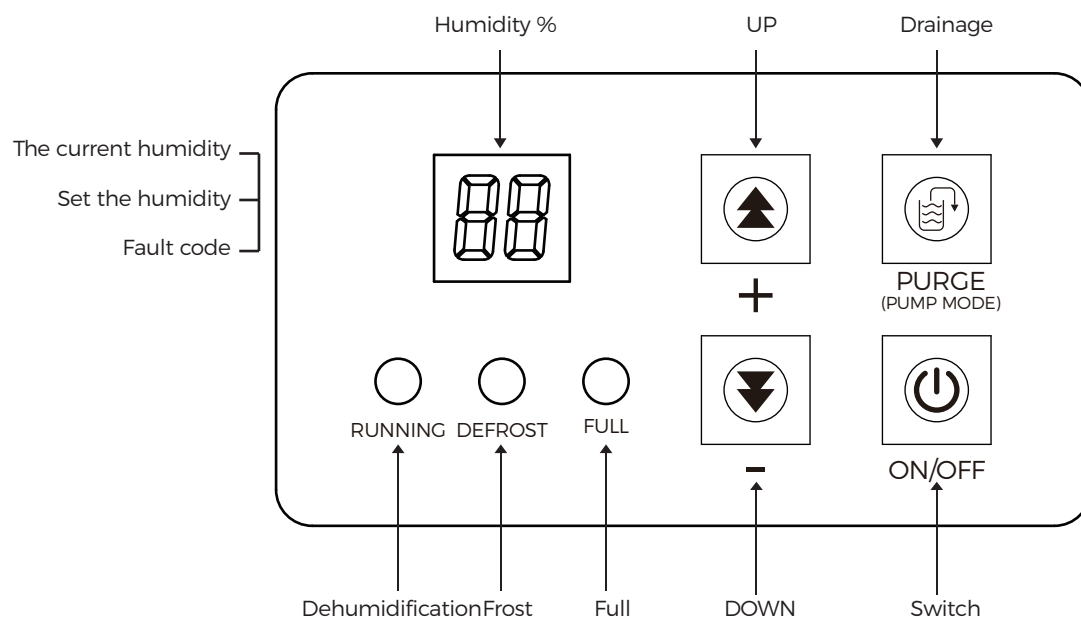
TECHNICAL SPECIFICATIONS

| MODEL                        | WH70                   | WH95                   | WH135                   |
|------------------------------|------------------------|------------------------|-------------------------|
| Input Voltage                | 115V / 60Hz 1PH        | 115V / 60Hz 1PH        | 115V / 60Hz 1PH         |
| Rated Current                | 4.3A                   | 5.6A                   | 7.5A                    |
| Power                        | 490W                   | 640W                   | 860W                    |
| Fan Airflow Vol.             | 170 CFM                | 315 CFM                | 340 CFM                 |
| Capacity (80 F 60 %RH) / Day | 70 PINTS               | 95 PINTS               | 135 PINTS               |
| Capacity (86 F 80 %RH)/ Day  | 100 PINTS              | 173 PINTS              | 202 PINTS               |
| Power Cord Length            | 10.5 ft.               | 10.5 ft.               | 10.5 ft.                |
| Refrigerant                  | R410A / 19.4 Oz        | R410A / 28.2 Oz        | R410A / 35.3 Oz         |
| Unit Dimension (L*W*H)       | 28.4 x 12.4x 12.7 in.  | 32.1 x 14.6 x 18.9 in. | 32..1 x 14.6 x 20.6 in. |
| Package Dimension (L*W*H)    | 32.9 x 16.7 x 16.9 in. | 35.5 x 19.1 x 23.8 in. | 35.5 x 19.1 x 25.4 in.  |
| Net Weight                   | 65 lbs / 29.5kg        | 87 lbs / 39.5kg        | 99 lbs / 45kg           |
| Gross Weight                 | 73 lbs / 33.2kg        | 96.7 lbs / 43.9kg      | 109.5 lbs / 49.7kg      |

ELECTRICAL SCHEMATIC DIAGRAM



## CONTROL PANEL



### Display Instruction

- Screen display green color two digitals
- Display contents include current humidity, setting humidity and fault code.
- Three indicator lights, green lights for dehumidification, red lights for defrosting and water full.
- The green color two digitals screen is flashing under the setting, fault, and warning.

### Button Instruction

#### POWER ON/OFF

Press "ON/OFF" button to switch the dehumidifier ON or OFF.

#### DRAINAGE

Press "PURGE" button once to start the water pump drainage. (*Optional function*)

#### HUMIDITY SETTING

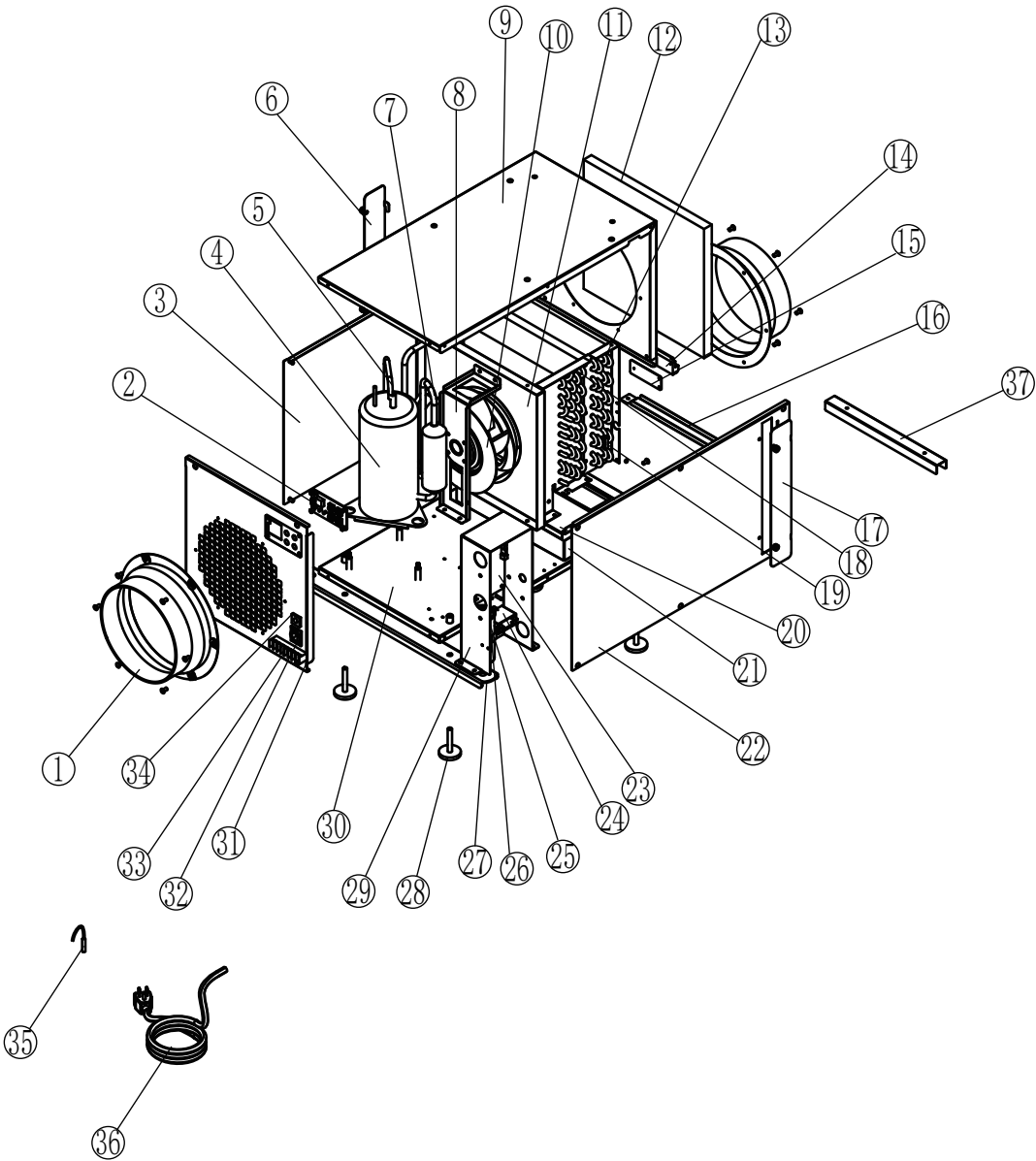
Press "+" / "-" button to increase / decrease the humidity level by 1% increments. Touch and hold to increase/decrease the setting humidity level by 5% per second. The adjustable range is 30% - 90%

### Information

Unit makes a "BEEP" sound when powered on. The default setting for humidity is 30% and use the Humidity Up and Down buttons to adjust the humidity setting.

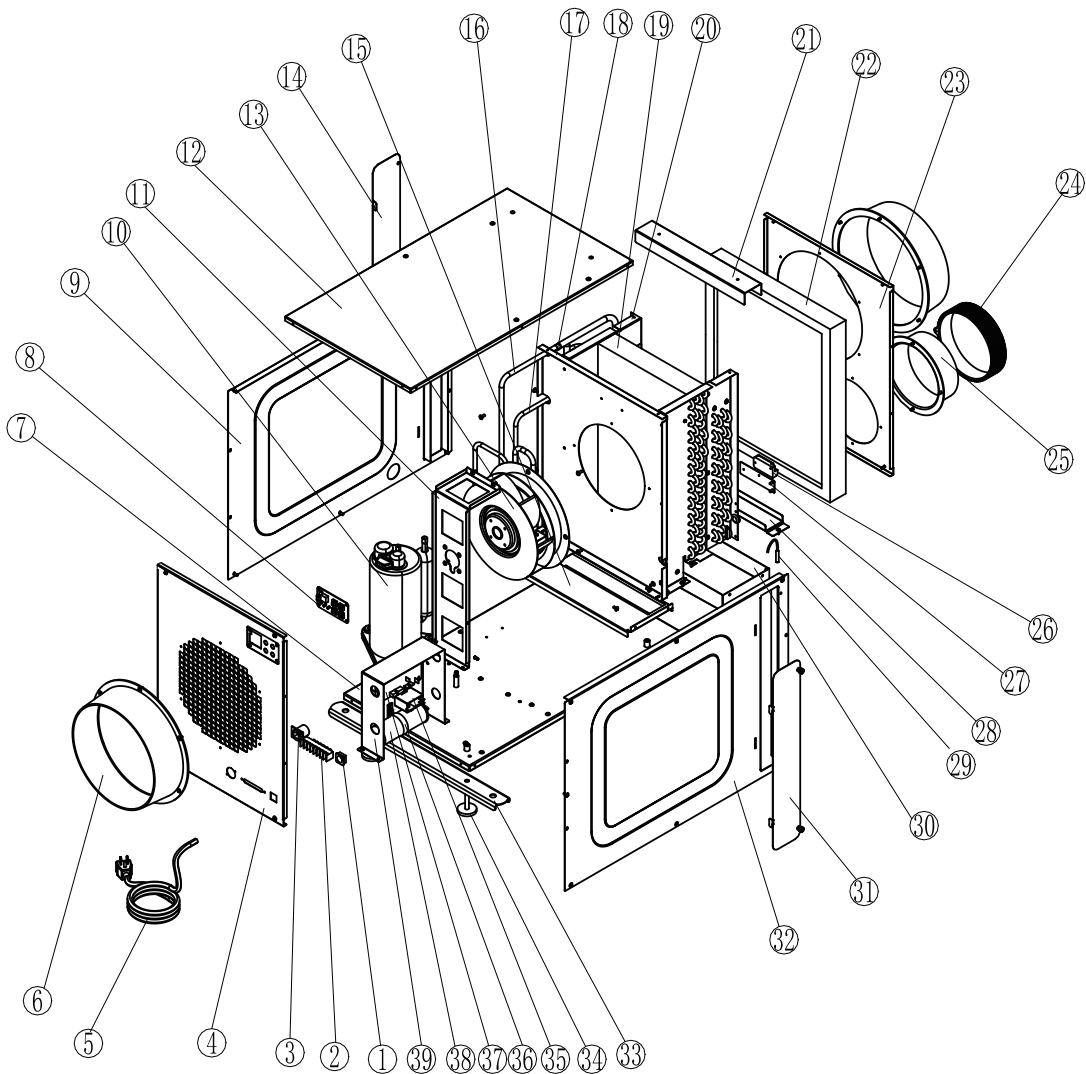
When the humidity is set at 30%, keep pressing the Humidity Down button to activate continuous dehumidify mode, which will show as "CO" (Continuous Operation) on the screen. When the humidity value is set to 30%-90%RH, the "CO" mode is automatically exited and the set humidity value is displayed.

Explosion list -- WH70



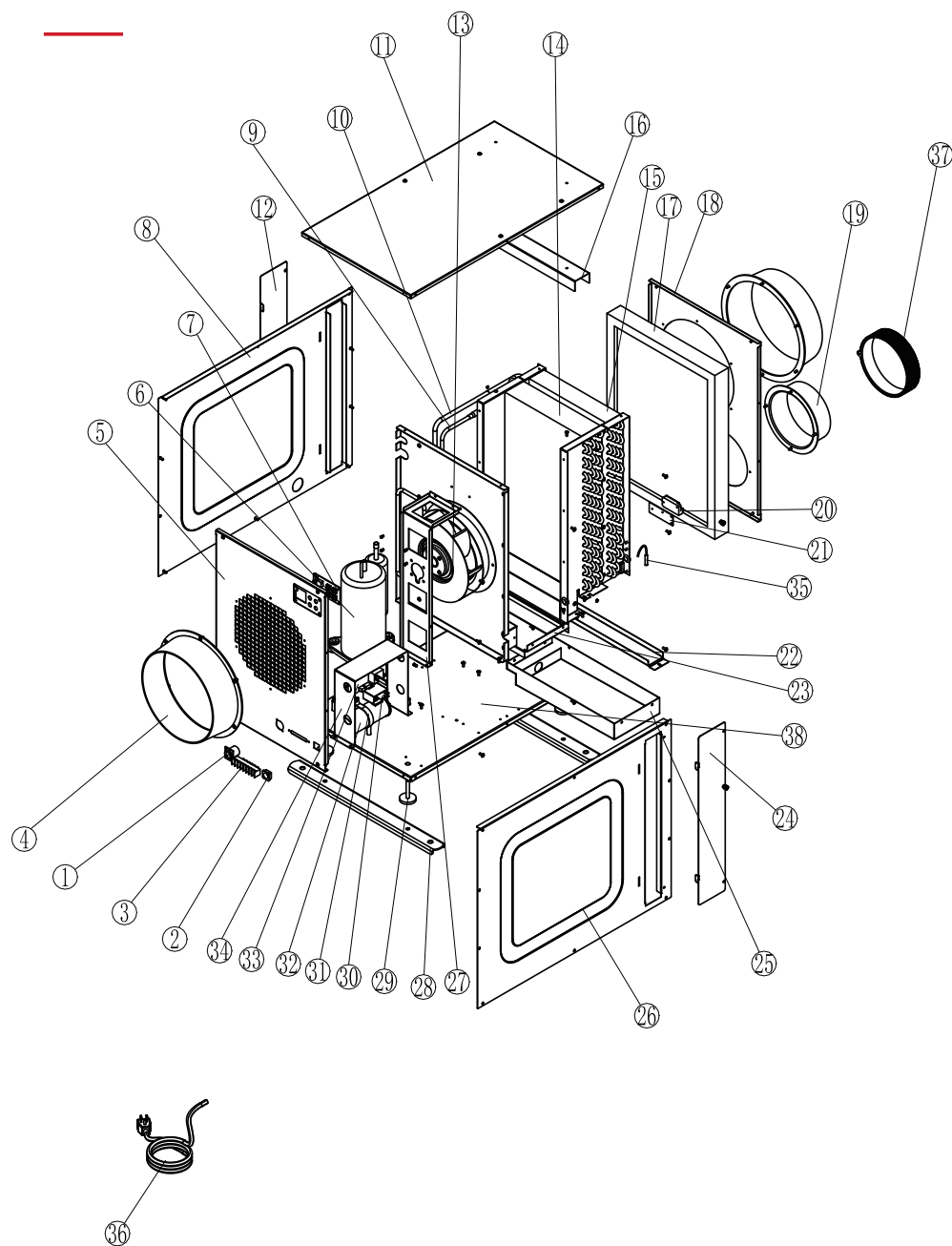
| NO. | Part Description              | Quantity |
|-----|-------------------------------|----------|
| 1   | 8' Wind Guide                 | 2        |
| 2   | K1 Display Panel              | 1        |
| 3   | Left Panel Assembly           | 1        |
| 4   | Compressor                    | 1        |
| 5   | High Pressure Tube            | 1        |
| 6   | Left Cover Of The Filter      | 1        |
| 7   | Low Pressure Tube             | 1        |
| 8   | Fan Support                   | 1        |
| 9   | Cover                         | 1        |
| 10  | Fan                           | 1        |
| 11  | Duct Damper                   | 1        |
| 12  | Filter                        | 1        |
| 13  | Evaporator Assembly           | 1        |
| 14  | Sensor Box                    | 1        |
| 15  | Sensor Retaining Plate        | 1        |
| 16  | Lower Baffle Plate Of Filter  | 1        |
| 17  | Cover Of The Filter           | 1        |
| 18  | Condenser Assembly            | 1        |
| 19  | Temperature And Humidity Tube | 1        |
| 20  | Plate Assembly                | 1        |
| 21  | Water Tray Assembly           | 1        |
| 22  | Right Panel Assembly          | 1        |
| 23  | K11Power Supply Panel         | 1        |
| 24  | Fan Capacitance               | 1        |
| 25  | Compressor Capacitor          | 1        |
| 26  | Capacitor Collar              | 1        |
| 27  | Boom                          | 2        |
| 28  | Adjusting Foot                | 4        |
| 29  | Electrical Box Assembly       | 1        |
| 30  | Baseboard Assembly            | 1        |
| 31  | Rear Panel Assembly           | 1        |
| 32  | RJ12 Adapter                  | 1        |
| 33  | Terminal Block                | 1        |
| 34  | Power Cable Protector         | 1        |
| 35  | Sensor                        | 1        |
| 36  | Power Cable                   | 1        |
| 37  | Filter Net Baffle             | 1        |

Explosion list -- WH95



| NO. | Part Description          | Quantity |
|-----|---------------------------|----------|
| 1   | Power Cable Protector     | 1        |
| 2   | Terminal Block            | 1        |
| 3   | RJ12 Adapter              | 1        |
| 4   | Rear Panel Assembly       | 1        |
| 5   | Power Cable               | 1        |
| 6   | 10' Wind Guide            | 2        |
| 7   | Baseboard Assembly        | 1        |
| 8   | K1 Display Panel          | 1        |
| 9   | Right Panel Assembly      | 1        |
| 10  | Compressor                | 1        |
| 11  | Fan Support               | 1        |
| 12  | Top Cover                 | 1        |
| 13  | Fan                       | 1        |
| 14  | Right Cover Of The Filter | 1        |
| 15  | Plate Assembly            | 1        |
| 16  | Low Pressure Tube         | 1        |
| 17  | High Pressure Tube        | 1        |
| 18  | Fan Mounting Plate        | 1        |
| 19  | Condenser Assembly        | 1        |
| 20  | Evaporator Assembly       | 1        |
| 21  | Filter Net Baffle         | 1        |
| 22  | Filter                    | 1        |
| 23  | Front platel              | 1        |
| 24  | 6'Lid                     | 1        |
| 25  | 6'Air Duct                | 1        |
| 26  | Sensor Box                | 1        |
| 27  | Sensor Retaining Plate    | 1        |
| 28  | Baffle Plate Of Filter    | 1        |
| 29  | Sensor                    | 1        |
| 30  | Water Tray Assembly       | 1        |
| 31  | Left Cover Of The Filter  | 1        |
| 32  | Left Panel Assembly       | 1        |
| 33  | Boom                      | 2        |
| 34  | Adjusting Foot            | 4        |
| 35  | Fan Capacitance           | 1        |
| 36  | Wire Clamp                | 1        |
| 37  | K11Power Supply Panel     | 1        |
| 38  | Compressor Capacitor      | 1        |
| 39  | Electrical Box Assembly   | 1        |

## Explosion list -- WH135



| NO. | Part Description          | Quantity |
|-----|---------------------------|----------|
| 1   | RJ12 Adapter              | 1        |
| 2   | Power Cable Protector     | 1        |
| 3   | Terminal Block            | 1        |
| 4   | 10' Wind Guide            | 2        |
| 5   | Rear Panel Assembly       | 1        |
| 6   | Rear Panel Assembly       | 1        |
| 7   | K1 Display Panel          | 1        |
| 8   | Right Panel Assembly      | 1        |
| 9   | High Pressure Tube        | 1        |
| 10  | Low Pressure Tube         | 1        |
| 11  | Top Cover                 | 1        |
| 12  | Right Cover Of The Filter | 1        |
| 13  | Fan                       | 1        |
| 14  | Condenser Assembly        | 1        |
| 15  | Evaporator Assembly       | 1        |
| 16  | Filter Net Baffle         | 1        |
| 17  | Filter                    | 1        |
| 18  | Front plate               | 1        |
| 19  | 6'Air Duct                | 1        |
| 20  | Sensor Box                | 1        |
| 21  | Sensor Retaining Plate    | 1        |
| 22  | Baffle Plate Of Filter    | 1        |
| 23  | Plate Assembly            | 1        |
| 24  | Left Cover Of The Filter  | 1        |
| 25  | Water Tray Assembly       | 1        |
| 26  | Left Panel Assembly       | 1        |
| 27  | Fan Support               | 1        |
| 28  | Boom                      | 2        |
| 29  | Adjusting Foot            | 4        |
| 30  | Fan Capacitor             | 1        |
| 31  | Wire Clamp                | 1        |
| 32  | Compressor Capacitor      | 1        |
| 33  | K11Power Supply Panel     | 1        |
| 34  | Electrical Box Assembly   | 1        |
| 35  | Sensor                    | 1        |
| 36  | Power Cable               | 1        |
| 37  | 6'Lid                     | 1        |
| 38  | Baseboard Assembly        | 1        |

## ERROR CODES

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| CODE | FAULT NAME                          | MACHINE STATE                                                           |
|------|-------------------------------------|-------------------------------------------------------------------------|
| E0   | Communication Failures              | Alarm Shutdown                                                          |
| E1   | Humidity Sensor Failure             | Automatic transfer to continuous dehumidification mode without stopping |
| E2   | Temperature Sensor Failure          | Only report fault and do not deal with it                               |
| E3   | Water-Full Alarm/Malfunction        | Power off                                                               |
| E4   | The coil Temperature Sensor Failure | Power off                                                               |

## TROUBLESHOOTING GUIDE

| Symptom                                                       | Possible Reason                                                                                                                       | Troubleshooting Procedure                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dehumidifier does not turn on/run.                            | No power to unit.                                                                                                                     | <ul style="list-style-type: none"> <li>• Check that the dehumidifier is plugged in.</li> <li>• Check that the power switch is turned ON.</li> <li>• Check that the control is turned ON.</li> <li>• Check that the circuit breaker has not tripped.</li> </ul>             |
| Dehumidifier blower is running but with little or no airflow. | Pressure drop across dehumidifier is too high.                                                                                        | <ul style="list-style-type: none"> <li>• Check dehumidifier air filter and replace if necessary.</li> <li>• Check for blocked duct work and clear.</li> </ul>                                                                                                              |
| Dehumidifier blower is running but compressor is not.         | Float switch open.                                                                                                                    | <ul style="list-style-type: none"> <li>• If float switch installed, check connections at control board and empty condensate pan.</li> <li>• If no float switch installed check that the jumper is installed at the float switch terminals on the control board.</li> </ul> |
|                                                               | Coil frosting – defrost.                                                                                                              | <ul style="list-style-type: none"> <li>• Lack of or reduced airflow. Check dehumidifier air filter and replace if necessary.</li> <li>• Check for blocked duct work.</li> <li>• Inlet air conditions below 60°F. Increase the humidity setting.</li> </ul>                 |
|                                                               | Inlet air temperature is outside of the 50°F – 104°F range or the dew point is below 40°F and there is a demand for dehumidification. | <ul style="list-style-type: none"> <li>• Verify all ductwork is properly sealed.</li> </ul>                                                                                                                                                                                |
| Dehumidifier is not draining properly.                        | Drain line blocked or unit not level.                                                                                                 | <ul style="list-style-type: none"> <li>• Verify that the unit is level.</li> <li>• Check the drain line blockages and for a continuous downward slope.</li> </ul>                                                                                                          |
| Dehumidifier is producing hot air.                            | Normal function.                                                                                                                      | <ul style="list-style-type: none"> <li>• Air is reheated across the condenser coil, resulting in a temperature rise between inlet and outlet, this is normal.</li> </ul>                                                                                                   |



