



**Dry Air**  
TECHNOLOGY

## OWNER'S MANUAL



## TECHNO PRO 5000 DEHUMIDIFIER

**This manual contains important safety and operating information.  
Please read before using the dehumidifier and save for future reference.**

Purchase Date: \_\_\_\_\_ Serial No: \_\_\_\_\_

313 North Oak Street Burlington, Washington 98233 Toll Free: **888.755.9176**

Phone: 360.755.9176 • Fax: 360.755.9236 • email: [info@dryairtech.com](mailto:info@dryairtech.com) • [www.dryairtech.com](http://www.dryairtech.com)



***Dry Air***  
TECHNOLOGY

## IMMEDIATELY

***Check for any External or Internal Damage From Shipping***

Please inspect your unit within 7 DAYS from date received. If concealed damage is noted, contact the delivering carrier immediately for inspection.

This unit was delivered to the carrier in first class condition. Shipper assumes no further liability after delivery to the transportation company. Your claim should be filed against the carrier for damage of any nature.

## **PACKAGING**

Be sure to keep all original packaging. Original packaging will help protect unit from freight damage if there is a need to return.

**Dry Air Technology**

Toll Free U.S. & Canada: 888.755.9176

Overseas: (001) 360.755.9176

Email: [info@dryairtech.com](mailto:info@dryairtech.com)

Congratulations on your purchase of the Techno Pro™ 5000. This dehumidifier has been designed to offer you the reliability, durability and portability you need.

Your Techno Pro™ 5000 removes up to 110 pints per day at saturation and 60 pints per day at AHAM.

The Techno Pro™ 5000 includes factory-installed wheels, handle and automatic pump-out system.

## SAFETY INFORMATION

**Caution!**  
**Unit operates on alternating current:**  
**110/120 volt, 60 Hz**  
**Or 230 volt, 50 Hz**

Do not operate your Techno Pro™ 5000 Dehumidifier with a cut or frayed power cord. Do not unplug your dehumidifier by pulling on its cord. Grasp the plug firmly and pull it out of the wall socket. The plug has a safety ground pin installed that must not be removed. If the pin is damaged or missing, have the power cord replaced at once. Visually inspect the power cord before each use. Ignoring these safety precautions may result in a fire or an electric shock.

Never operate electrical equipment in standing water. There is a shock hazard.

Never drop the unit. Sudden and severe impact may result in damage to internal components.

Your Techno Pro™ 5000 Dehumidifier should not be operated with the unit's outer cover removed. Personal injury may result.

Drapes or other loose fabrics can be drawn against the unit restricting its airflow. This condition may cause the unit to overheat. Assure that there is sufficient space between the back of the unit and these fabrics to avoid this condition.

Save the shipping carton in case your Techno Pro™ 5000 Dehumidifier must be returned for repair. But, discard the plastic bag to prevent children from using it as a toy. Also, children should not be allowed to play on or near a running dehumidifier.

Never operate your Techno Pro™ 5000 Dehumidifier outside when it is raining and never store your dehumidifier outside.

This unit should never be serviced or cleaned while it is plugged into a live electrical power source.

**Warning!**  
**Ignoring these safety precautions may result in serious personal injury.**

## OPERATING INSTRUCTIONS

1. If your unit is equipped with wheels, block them to keep the unit from accidentally rolling. Also, secure the dehumidifier during transportation to prevent its toppling over and to keep it upright. Severe impact may damage the compressor or electronic components.
2. In the event that the unit has been stored or transported on its side, set it upright for at least one (1) hour before starting.
3. Operate your Techno Pro™ 5000 only on a level surface. This will prevent the unit from spilling condensate or flooding the area.

4. Plug the unit into a grounded alternating current circuit and switch on the unit.
5. Secure the 40 feet pump hose to a sink or alternative drain.
6. To use the gravity drain, connect the hose to the fitting on the back of the unit under the drip tray. Place the hose into a suitable receptacle or drain connection.
7. Residual water left in the collection tray can be removed by using the manual purge switch. Continue to depress switch until all water is removed.
8. If the unit is shut down for any reason, allow at least five minutes before restarting. This will avoid damage to the compressor.
9. Assure that the fan and compressor are properly functioning before leaving a running unit unattended.

## MAINTENANCE

**Warning!**  
**Disconnect the unit from the power supply before cleaning or servicing.**

**Filter Cleaning:** The filter shroud must be cleaned after every job. The filter itself should be vacuumed frequently to control the build-up of soil. On a periodic basis, the filter should be removed completely from the unit. It can be washed with water and mild detergent. Allow the filter to thoroughly dry before reinstalling it in the unit.

**Coil Cleaning:** As the coils accumulate soil, their heat transferring properties are reduced. This can diminish water

extraction and create undue pressure on the refrigeration system.

The coils should be cleaned about every 8 to 12 weeks. If the Techno Pro™ 5000 Dehumidifier is used in a dusty environment, cleaning may need to be performed more frequently. The coils should be dry before the following cleaning operation is performed.

*Dry Method.* Inject compressed air through each coil. Clean the unit's front grill with a vacuum equipped with a brush attachment. After removing the dry particle contamination, a wet cleaning process may be used.

**Caution!**  
**Do not use a hose to flush the coils and do not permit water to leak into the electrical compartment.**

*Wet method.* Use a soft brush and soapy water. If soils have been allowed to accumulate over time, they may be dry and hard. Soak time may be required to dissolve and release these soils from the coils. A spray bottle or a syringe can be used to apply controlled amounts of cleaning solution. After cleaning, make sure that the drain port, the condensate tray and drain tubing are free of any residual soil.

**Electrical Wiring & Cord:** Inspect the power cord periodically to make sure that the insulation is in good condition. Replace worn or damaged cords.

Remove the dehumidifier cover to expose the wiring and terminal block. Inspect wires to assure that they are secured away from the fan blade. Inspect the terminal block connections and wires for abrasions, nicks or cuts. Repair or replace as needed.

**Warning!**  
**The fan blade is sharp! Do not touch the edges with your hands, serious personal injury may result.**

**Fan Motor:** Carefully remove dust and debris from the fan motor and blade assembly whenever you remove the unit's cover for interior cleaning.

**Drain Hose:** Inspect the gravity drain hose to make sure it is in good condition. The hose should be checked before your Techno Pro™ 5000 Dehumidifier leaves the shop and again before the unit is left on the job.

Make sure that the drain hose is **not** kinked or cracked. Avoid leaving the drain hose in a folded position during transport and storage.

## **Techno Pro™ 5000 FEATURES**

The Techno Pro™ 5000 utilizes a 5,595 BTU rotary compressor and “hot gas” defrost.

The Techno Pro™ 5000's temperature sensitive, intelligent “hot gas” defrost not only activates only when environmental conditions dictate but, once engaged, gets the coils defrosted and back into action much faster. This means that the Techno Pro™ 5000 is pulling water out of the air while other units are defrosting.

The evaporator coils on the Techno Pro™ 5000 feature an epoxy-phenolic coating most often used in heavily corrosive and grueling marine environments. This coating prevents corrosion and aluminum oxide build-up on the coils that can dramatically reduce a dehumidifier's performance. A washable Quadrafoam Filter with a special Uni-Grid support and aluminum

frame provides even more coil protection by cleaning the air before it enters the unit.

The Techno Pro™ 5000 is stackable for storage or for operation in the field. The unit also features two molded in handles mounted on either end of the unit. This makes transport much safer. Back strain and stress is reduced during handling so there is less chance of the unit being damaged.

Techno Pro™ 5000 Dehumidifier also has a 200-CFM fan and the unit only draws 5.3 amps. Several units can be operated on the same circuit. An aluminum space chassis with roto-molded polyethylene exterior protects the unit and will keep it looking great for years.

## **SPECIFICATIONS**

<b>Height:</b>	<b>18”</b>
<b>Width:</b>	<b>18</b>
<b>Length:</b>	<b>28”</b>
<b>Weight:</b>	<b>65LBS</b>
<b>Max Capacity</b>	<b>110 pints per day 60 pints at AHAM</b>
<b>Airflow:</b>	<b>200 CFM</b>
<b>Compressor:</b>	<b>5,595 BTU</b>
<b>Power Supply:</b>	<b>110/120V / 60 Hz 230V / 50 Hz</b>
<b>Amperage:</b>	<b>110V 5.3 amps 230V 2.6 amps</b>
<b>Refrigerant:</b>	<b>R - 22</b>

## REPAIRS

1. Should an electrical component fail consult your Distributor or the Factory Service Center to obtain OEM parts.
2. If a problem develops in the refrigeration system, only a certified refrigeration technician can correct it. Contact your Distributor or the Factory Service Center for more information.
3. For technical support and general information, contact your Distributor or the Factory Service Center.

<b>Techno Pro™ 5000 PARTS LIST</b>	
Description	Part Number
Techno Pro Shell	RD-00C-P4N20147
Wire Grill	RD-00C-M5A10150
Grill w/ Cord Wrap	RD-00C-M5A10204
Rubber Foot	AF-00C-R4A10044
Air Filter	RD-00C-NNAN0149
Strain Relief	AF-00E-PNN10015
20' Power Cord	CF-00E-N4A10004
Switch w Cover	AF-00E-P3B10016
Cover Gasket	AF-00C-R6A10034
Coil Assembly	RD-02M-N2AN0077
Drip Tray	RD-00C-PNN10160
¼ Hose Barb	RD-00M-P3A70232
3/8 Hose Barb	RD-00M-P3A70231
5000 BTU Compressor	RD-03M-N2NN0087
35mf 330V Capacitor	RD-00E-MNAN0092
Fan Motor Assembly	RD-03M-NNNN0089
Defrost Control 115v	RD-00E-N6NN0236
Defrost Control 230V	RD-00E-N6BN0122
Techno Pro™ Subframe	RD-00C-A2NN0166
Techno Pro™ Frame	RD-02C-A1N0227
Solenoid Valve	RD-00E-N3AN0119
Hot Gas Defrost	RD-00E-N6AN0120
Condensate Pump	RD-00M-P6NN0082



313 North Oak Street • Burlington WA 98322 USA  
Phone: 360-755-9176 Fax: 360-755-9236  
Toll Free from U.S. or Canada: 1-888-755-9176  
Email: [info@dryairtech.com](mailto:info@dryairtech.com) • [www.dryairtech.com](http://www.dryairtech.com)

## **Sequence of Operations for Techno Pro 5000**

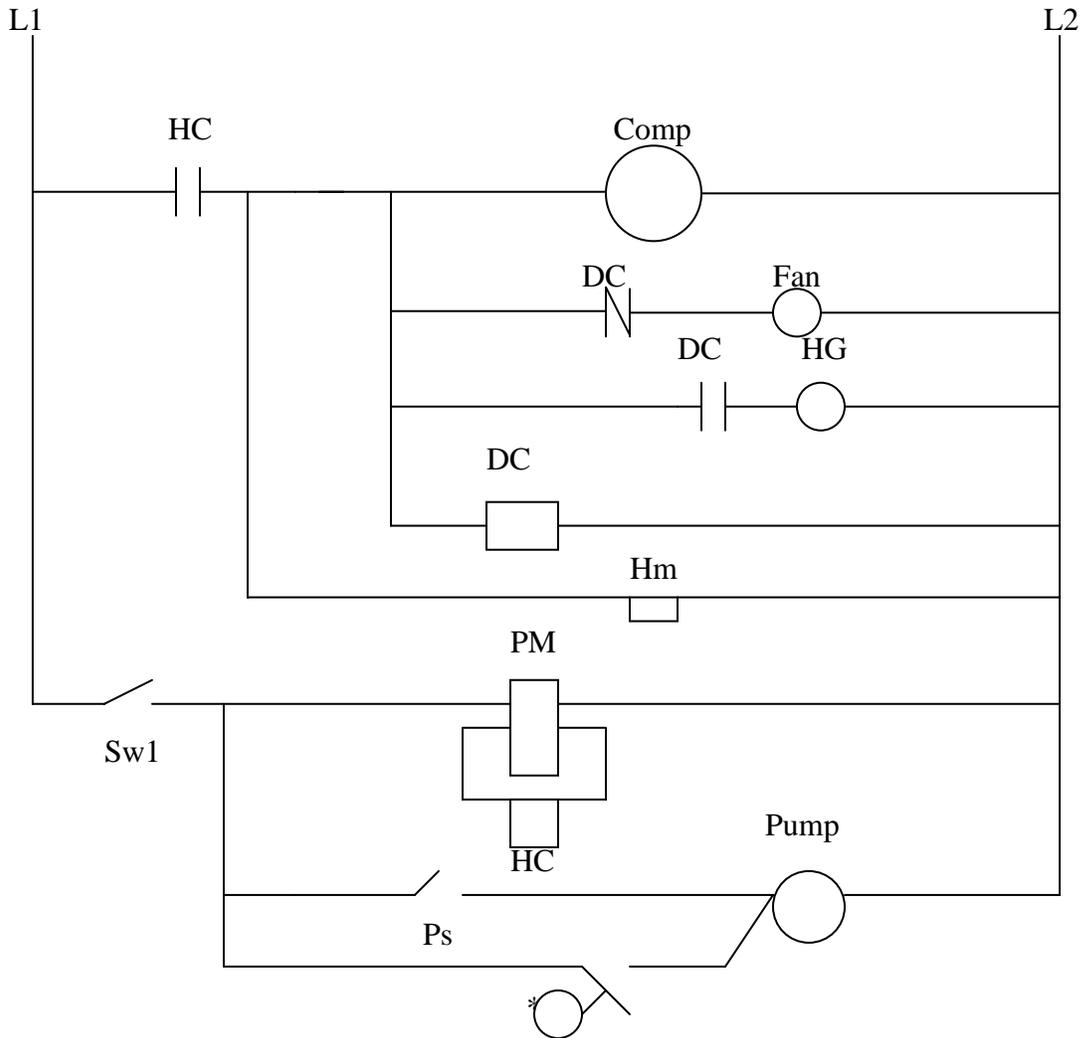
The On/Off switch (Sw1) in the ON position will energize the humidity control Power Module (PM) that supplies power to the Humidity Control module (HC). When ambient conditions rise above the factory (adjustable) setting of 40% RH (+4% dif) on the HC module the unit will start operations. The HC normally open (NO) contact will close and the Compressor; Fan; Defrost Control (DC); and Hour Meter (Hm) will all be energized.

The compressor circulates refrigerant (R-22) through the coils. The Evaporator coil becomes cold and causes warm wet ambient air to condense when blown across the cold coil. The Defrost Control (DC) will initiate a preset (30min) time interval after the remote sensing bulb senses 28 °F at the evaporator outlet. When the timer reaches this 30 minute limit it will initiate the timed 10 minute defrost cycle. When defrost is initiated the DC normally open and normally closed contacts will change positions. The NO contact will close allowing the Hot Gas solenoid (HG) to be energized, and the NC contact will open, de-energizing the fan. With the fan off and the HG solenoid energized, hot gas from the compressor will be circulated through the evaporator coil causing a temperature rise to defrost the coil. The defrost cycle will continue for the timed 10 minute period or until the suction line at the evaporator outlet reaches 55 °F. After the defrost cycle is complete the NO and NC contacts will switch back to their original positions and the unit will continue with its normal operation. The condensate pump will collect the condensed moisture in a reservoir for pump out. When the condensate reservoir fills, an internal float switch will automatically energize the pump for self purge. The condensate pump can also be energized via the Pump switch (Ps) located next to the ON/OFF Sw1 switch. The condensate pump can only be energized manually or automatically if the ON/OFF Sw1 switch is in the ON position.

When the HC remote sensor indicates that the conditioned ambient air has reached 40% RH the HC module is de-energized. The HC-NO contact opens and the compressor; fan; DC; and hour meter are all de-energized.

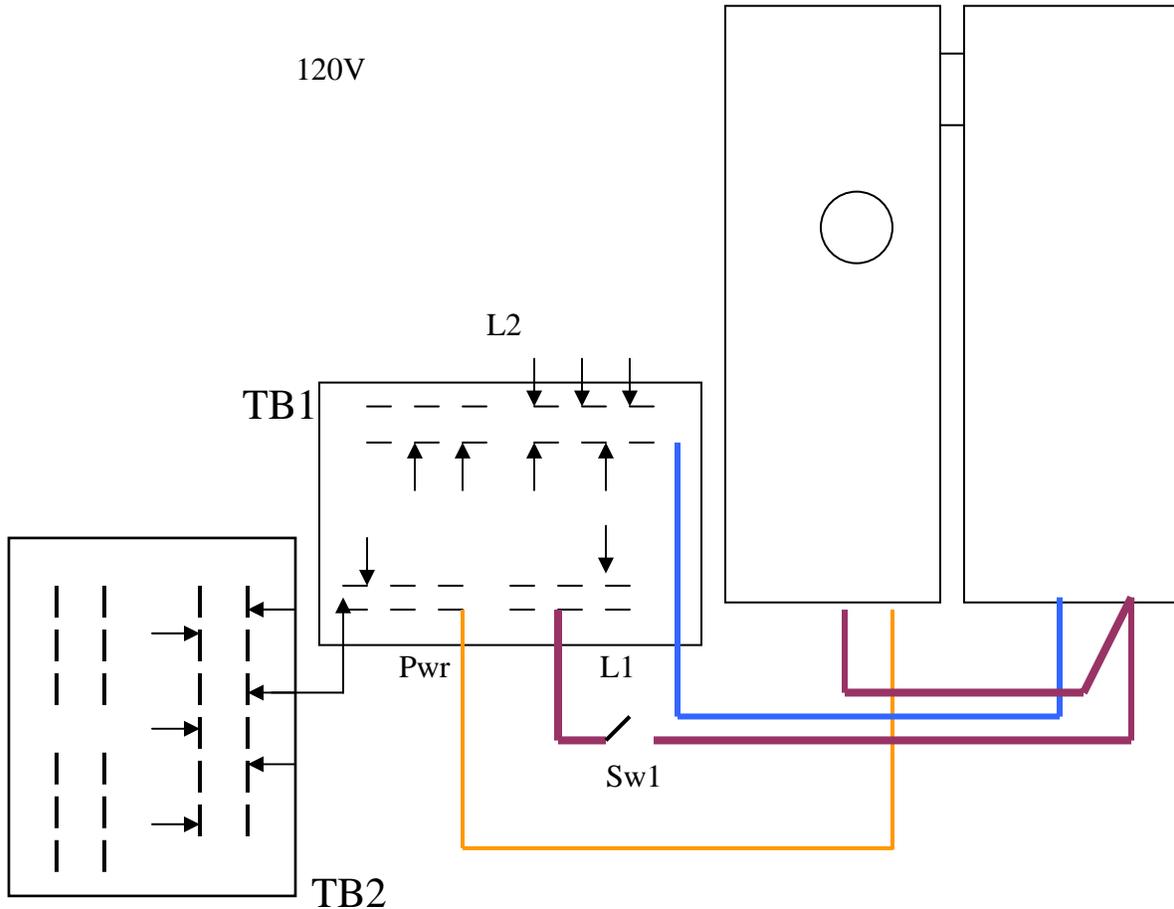


### Techno Pro 5000 with Humidity Control



- HC = humidity control module
- HG = hot gas solenoid
- DC = ICM (printed control board) or Ranco (mechanical control)
- Hm = hour meter PM = humidity control power module
- Sw1 = on/off switch
- Ps = condensate purge switch
- \* = float switch internal to pump

### Techno Pro Component Wiring to Terminal Block



L2= common terminals

Pwr = power terminals

L1 = 120V supply voltage terminals

TB = terminal block

SW1= main on/off power switch

L1 connections = Power cord; Sw1 (on/off switch to HC Power Module)

Pwr connections = Humidity Control module; compressor; jumper to TB2

L2 connections = Power cord; HC power module; compressor; defrost control; fan; hot gas solenoid; condensate pump; hour meter

TB2 = TB1 jumper; defrost control; \*DC Com; hour meter; condensate pump; purge switch

\* = defrost control com terminal, power supply for fan(NC) and hot gas solenoid(NO)

L1 → Sw1 → 120V terminal ( terminal 3 on HC power module)

L2 → Power Module common terminal (terminal 2 on HC power module)

Pwr → NO contact (on HC Control Module)

120V → COM (jumper from HC Power Module to HC Control Module)

# ***Dry Air Technology 10 Year Limited Warranty***

## **Refrigerant Dehumidifier Products**

**Warrantor:** Dry Air Technology, 313 North Oak Street, Burlington, WA 98233. Telephone: 888-755-9176, local: 360-755-9176, fax: 360-755-9236.

**Who Is Covered:** This warranty extends to the original end-user of refrigerant dehumidifiers manufactured by Dry Air Technology, and may not be assigned or transferred.

**Warranty Period:** The term of the warranty coverage from the date of purchase is:  
10 years on the cabinet, chassis and housing  
5 years on the parts of the sealed refrigeration system  
1 year on parts, labor and reasonable shipping costs, excluding filters and accessories.

**Warranty Coverage:** Dry Air Technology warrants that, for one year refrigerant dehumidifiers manufactured by Dry Air Technology will operate free from defects in material or workmanship, or Dry Air Technology, at its option, will repair or replace the defective part(s), free of charge.

Dry Air Technology further warrants that for a period of five (5) years, the condenser, evaporator and compressor of dehumidifiers manufactured by Dry Air Technology will operate free from defects in material or workmanship, or Dry Air Technology, at its option, will repair or replace the defective part(s), provided that all labor and shipping costs for the defective part(s) shall be borne by the end-user.

Dry Air Technology further warrants that for a period of ten (10) years, the cabinet, chassis and housing of dehumidifiers manufactured by Dry Air Technology, will be free from defects in material or workmanship, or Dry Air Technology, at its option, will repair or replace the defective part(s), provided that all labor and shipping costs for the defective part(s) shall be borne by the end-user.

This warranty does not cover any defect, malfunction, etc. resulting from misuse, abuse, lack of normal care, corrosion from chemicals, freezing, tampering, modification, unauthorized or improper repair or operation, accident, acts of nature or any other cause beyond Dry Air Technology's reasonable control.

**End-User Responsibilities:** Warranty service must be performed by a firm or individual authorized by Dry Air Technology. If the end-user is unable to locate or obtain warranty service from an authorized firm or individual, he should contact Dry Air Technology at the above location, which will arrange for covered warranty service. All covered warranty service will be performed during normal business hours.

**Limitations and Exclusions:** If any part of a dehumidifier manufactured by Dry Air Technology is repaired or replaced, the new part shall be warranted only for the remainder of the original warranty period of the dehumidifier (but all warranties will be extended by the period of time, if any, that the Dry Air Technology dehumidifier is out of service while waiting for covered warranty service).

UPON THE EXPIRATION OF THE WRITTEN WARRANTY APPLICABLE TO THE DRY AIR TECHNOLOGY DEHUMIDIFIER OR ANY PART THEREOF, ALL OTHER WARRANTIES IMPLIED BY LAW, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL ALSO EXPIRE. ALL WARRANTIES MADE BY DRY AIR TECHNOLOGY ARE SET FORTH HEREIN, AND NO CLAIM MAY BE MADE AGAINST DRY AIR TECHNOLOGY BASED ON ANY ORAL WARRANTY. IN NO EVENT SHALL DRY AIR TECHNOLOGY, IN CONNECTION WITH THE SALE, OPERATION, REPAIR OR REPLACEMENT OF ANY DRY AIR TECHNOLOGY DEHUMIDIFIER OR PART THEREOF BE LIABLE UNDER ANY LEGAL THEORY FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES INCLUDING WITHOUT LIMITATION WATER DAMAGE (THE END-USER SHOULD TAKE PRECAUTIONS AGAINST SAME), LOST PROFITS, DELAY, OR LOSS OF USE OR DAMAGE TO ANY REAL OR PERSONAL PROPERTY.

Some states do not allow limitations on how long an implied warranty lasts, and some do not allow the exclusion or limitation of incidental or consequential damages, so one or both of these limitations may not apply to you.

**Legal Rights:** This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

DRY AIR TECHNOLOGY, BURLINGTON, WASHINGTON