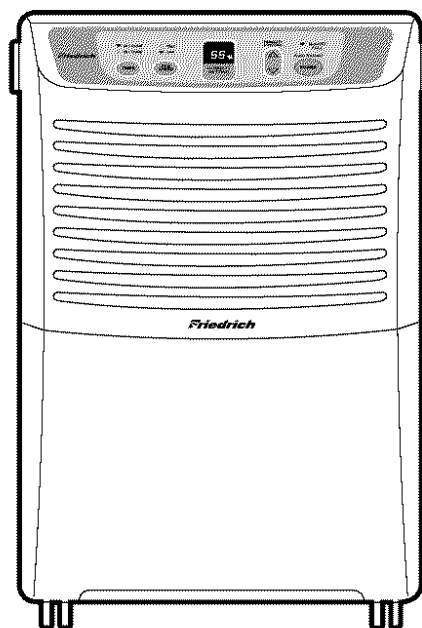


# Friedrich®



ENERGY STAR  
(D40C / D50C / D65C)

## Installation & Operation Guide



### DEHUMIDIFIER MODELS

115 Volts • D30C • D40C • D50C • D65C

ENGLISH

FRANÇAIS

ESPAÑOL

### Register Your Dehumidifier

Model information can be found on the name plate on the front of the unit behind the condensate bucket.

To register your dehumidifier, complete and mail the enclosed registration card, or register on-line at [www.friedrich.com](http://www.friedrich.com) (USA only). For your future convenience, record the model information here.

MODEL NUMBER

SERIAL NUMBER

PURCHASE DATE

920-154-00 (12/04)

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## FOR YOUR RECORDS

Write the model and serial numbers here:

**Model #** \_\_\_\_\_

**Serial #** \_\_\_\_\_

You can find them on a label on the side of each unit.

**Dealer's Name** \_\_\_\_\_

**Date Purchased** \_\_\_\_\_

■ Staple your receipt to this page in the event you need it to prove date of purchase or for warranty issues.

## READ THIS MANUAL

Inside you will find many helpful hints on how to use and maintain your dehumidifier properly. Just a little preventive care on your part can save you a great deal of time and money over the life of your dehumidifier.

You'll find many answers to common problems in the chart of troubleshooting tips. If you review our chart of **Troubleshooting Tips** first, you may not need to call for service at all.

## PRECAUTION

- Contact the authorized service technician for repair or maintenance of this unit.
- Contact the installer for installation of this unit.
- The dehumidifier is not intended for use by young children or invalids without supervision.
- Young children should be supervised to ensure that they do not play with the dehumidifier.
- When the power cord is to be replaced, replacement work shall be performed by authorized personnel only using only genuine replacement parts.

# SAFETY PRECAUTIONS

## READ ALL INSTRUCTIONS PRIOR TO USE

- To prevent injury to the user, others or property damage, the following instructions must be followed.
- Incorrect operation due to ignoring instructions will cause harm or damage; the seriousness is classified by the following indications.



### WARNING

This symbol indicates the possibility of death or serious injury.



### CAUTION

This symbol indicates the possibility of injury or damage to property only.

- Meanings of symbols used in this manual are as shown below.



**Never Do This.**



**Always Do This.**

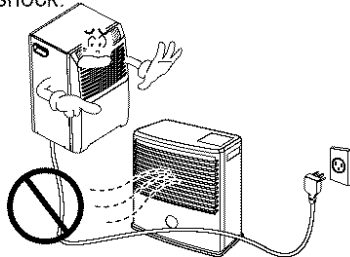


### WARNING

## ■ Installation

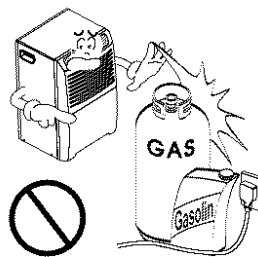
**Do not place the power cord near a heater.**

- It may cause fire and electric shock.



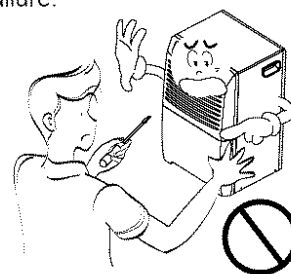
**Do not use the power cord near flammable gas or combustibles such as gasoline, benzene, thinner, etc.**

- It may cause explosion or fire.



**Do not disassemble or modify products.**

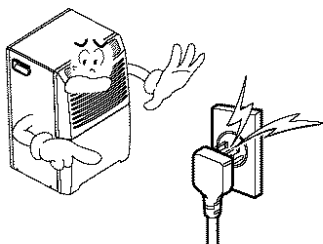
- It may cause electric shock and failure.



## ■ Operation

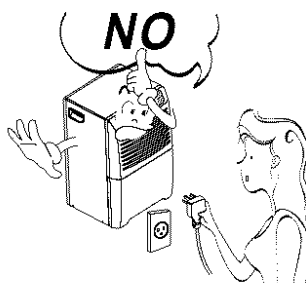
**Plug in the power plug properly.**

- Otherwise, it will cause electric shock or fire.



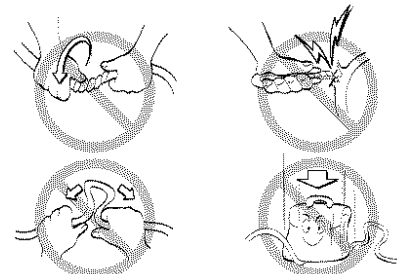
**Do not operate or stop the unit by inserting or pulling out the power plug.**

- It will cause electric shock or fire.



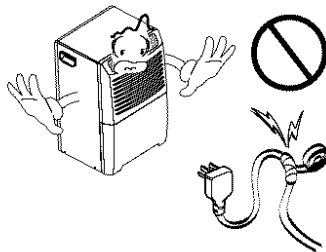
**Do not damage or use an unspecified power cord.**

- It will cause electric shock or fire.



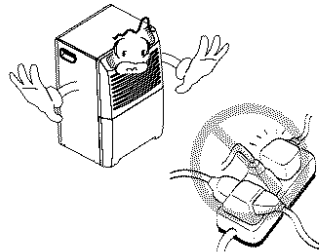
**Do not modify power cord length.**

- It will cause electric shock or fire.



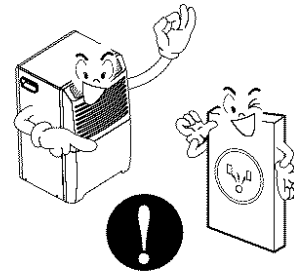
**Do not share the outlet with other appliances.**

- It will cause electric shock or fire.



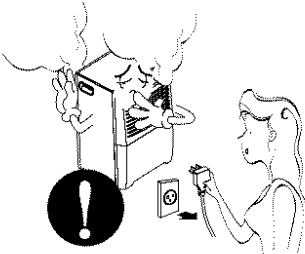
**Always plug into a grounded outlet.**

- No grounding may cause electric shock.



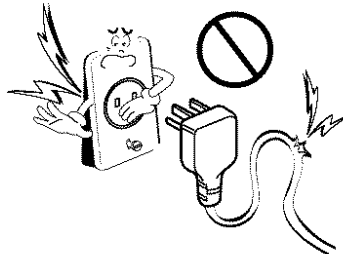
**Unplug the unit if strange sounds, odors, or smoke come from it.**

- Otherwise it may cause a fire or an electric shock.



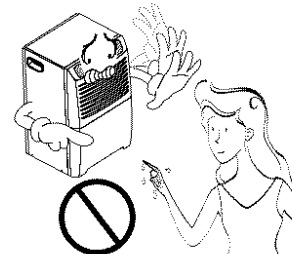
**Do not use the socket if it is loose or damaged.**

- It may cause fire and electric shock.



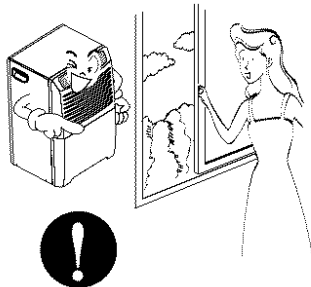
**Do not operate with wet hands or in damp environment.**

- It may cause electric shock.



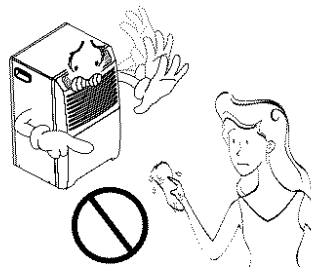
**Ventilate before operating dehumidifier if gas is present.**

- It may cause explosion, fire, and burn.



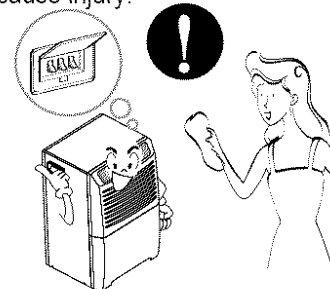
**Do not clean the dehumidifier with water.**

- Water may enter the unit and degrade the insulation. It may cause an electric shock.



**Turn off the power and breaker first when cleaning the unit.**

- Since the fan rotates at high speed during operation, it may cause injury.



**If water enters the product, turn off the dehumidifier's power switch. Contact service center after taking the power-plug out from the socket.**

- It will cause machine failure or electric shock.



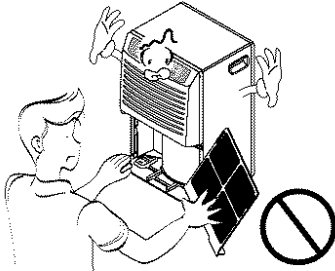


## CAUTION

### ■ Installation

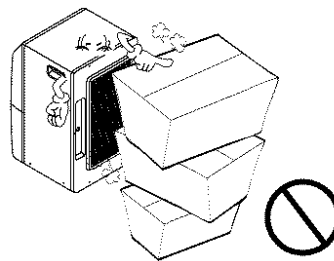
**Never touch the metal parts of the unit when removing the filter.**

- They are sharp and may cause injury.



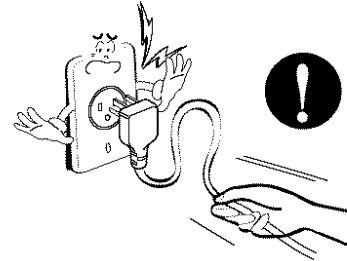
**Do not block the inlet or outlet.**

- It may cause failure of appliance or performance deterioration.



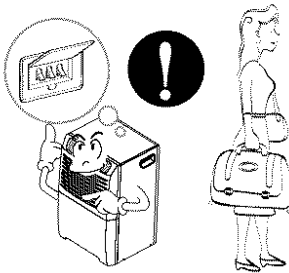
**Hold the plug by the head when taking it out.**

- It may cause electric shock and damage.



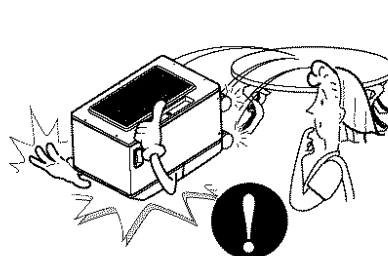
**Turn off the main power switch when not using the dehumidifier for a long time.**

- It will waste power consumption in vain and it may cause an accident.



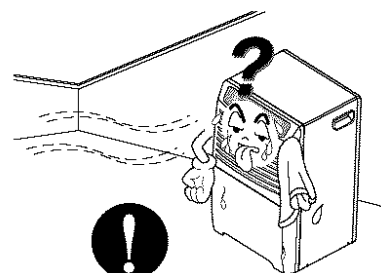
**Secure wheels with blocks to prevent unit from falling when installed on a table or shelf.**

- It may damage the dehumidifier or cause other damage or injury.



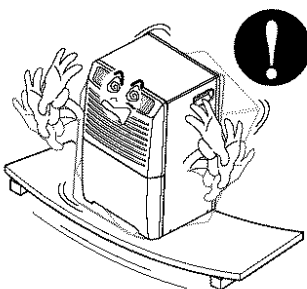
**Make sure the dehumidifier is the correct size for the area you want to dehumidify.**

- It is not designed to dehumidify the entire house.



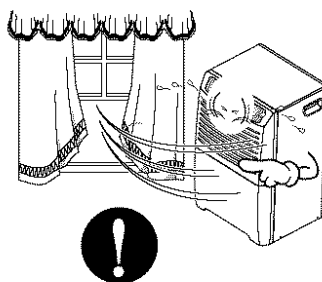
**Install the dehumidifier properly on a floor, table, or shelf that is level and strong enough to support it when the water collection bucket is full.**

- It should withstand around 90 lbs (40kg) of weight.



**Close all doors, windows and other outside openings to the room.**

- The dehumidifier must be operated in an enclosed area to be most effective.

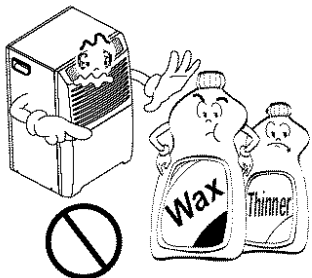




## ■ Operation

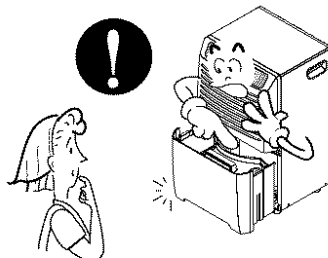
Use a soft cloth to clean. Do not use wax, thinner, or a strong detergent.

- The appearance of the dehumidifier may deteriorate, change color, or develop surface flaws.



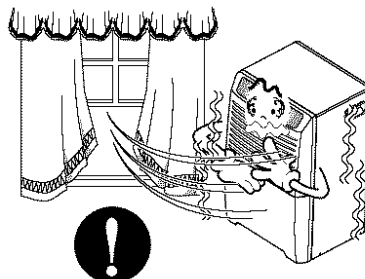
Be sure to replace the bucket properly after emptying to prevent water from collecting on the floor.

- Otherwise, it will cause property damage.



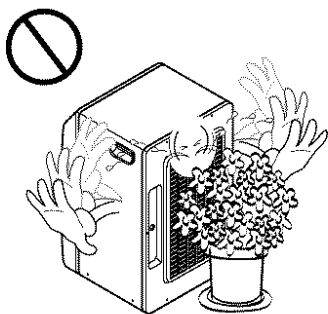
Unit does not perform optimally at room temperatures below 65°F (18°C).

- Low temperatures could cause coils to frost.



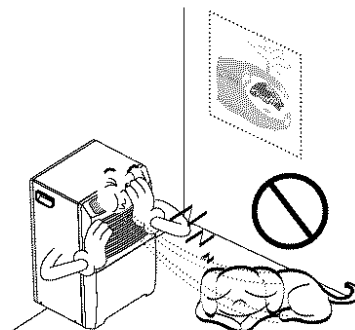
Do not put a pet or house plant where it will be exposed to direct air flow.

- This could injure the pet or plant.



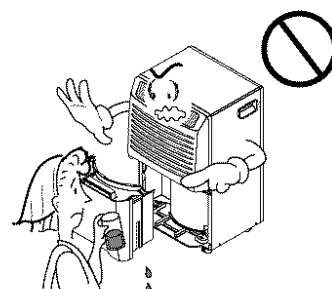
Do not use this appliance for special purposes such as pets, foods, precision machinery, or art objects.

- It is a general use appliance not precision equipment.



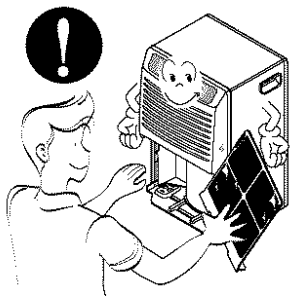
Do not use the water collected in the bucket for drinking purposes.

- It is not sanitary and could cause illness or personal injury.



Always insert the filter securely. Clean it every two weeks.

- Operation without filters will cause failure.



# PRIOR TO OPERATION

## PREPARING FOR OPERATION

1. Plug in the power plug properly.
2. Use a dedicated circuit.
3. Do not use an extension cord.
4. Do not start/stop operation by plugging/unplugging the power cord.
5. If the cord/plug is damaged, only replace it with an authorized replacement part.

## USAGE

1. Being exposed to direct airflow for an extended period of time could be hazardous to your health. Do not expose occupants, pets, or plants to direct airflow for extended periods of time.
2. Ventilate the room when the dehumidifier is used with other heating devices.  
Otherwise the oxygen supply may be inadequate.
3. Do not use this dehumidifier for non-specified special purposes (e.g. preserving precision devices, food, pets, plants, and art objects). Such usage could damage the items.

## CLEANING AND MAINTENANCE

1. Do not touch the metal parts of the unit when removing the filter. Injuries can occur when handling sharp metal edges.
2. Do not use water to clean inside the dehumidifier. Exposure to water can destroy the insulation, leading to possible electric shock.
3. When cleaning the unit, first make sure that the power and breaker are turned off. The fan rotates at a very high speed during operation. There is a possibility of injury if the unit's power is accidentally turned on while the interior of the unit is being cleaned.

## SERVICE

For repair and maintenance, contact your authorized service dealer.

# INSTRUCTION

## SYMBOLS USED IN THIS MANUAL



This symbol alerts you to the risk of electric shock.



This symbol alerts you to hazards that could cause harm to the dehumidifier.

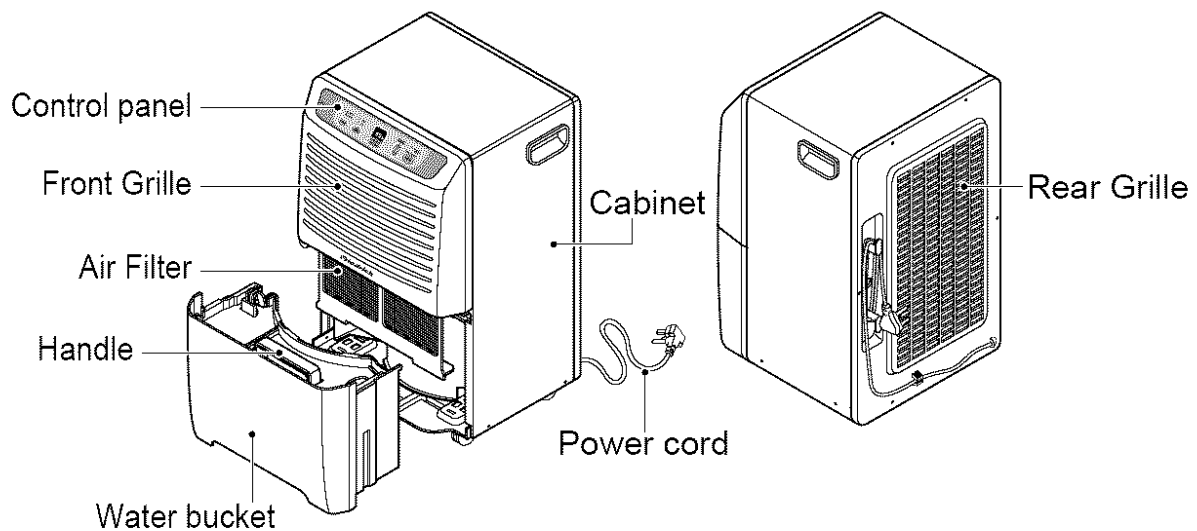
**NOTE!**

This symbol indicates special notes.

## PARTS



**WARNING:** This appliance should be installed in accordance with national wiring regulations.



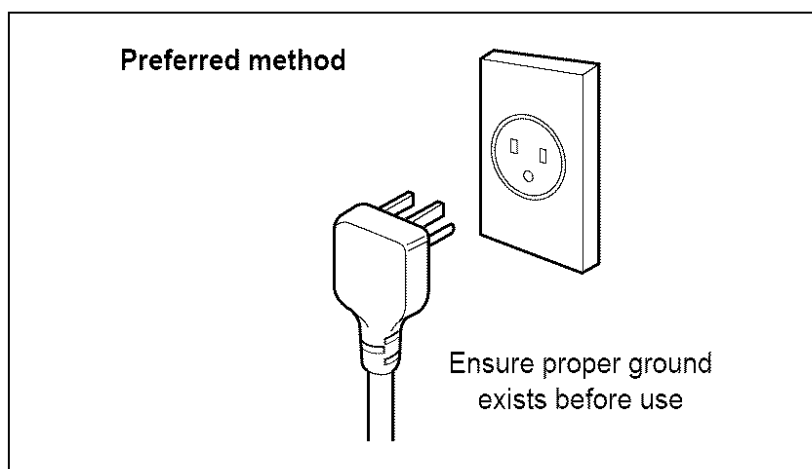


# ELECTRICAL SAFETY



**WARNING:** This appliance must be properly grounded.

The power cord of this appliance is equipped with a three-prong grounding plug. To minimize the risk of electric shock, use the plug with a standard three-slot grounding wall power outlet. If the power outlet does not include a grounding slot, have a qualified electrician replace the outlet before you use the dehumidifier.



**WARNING:** Do not cut or remove the grounding prong from the power plug.



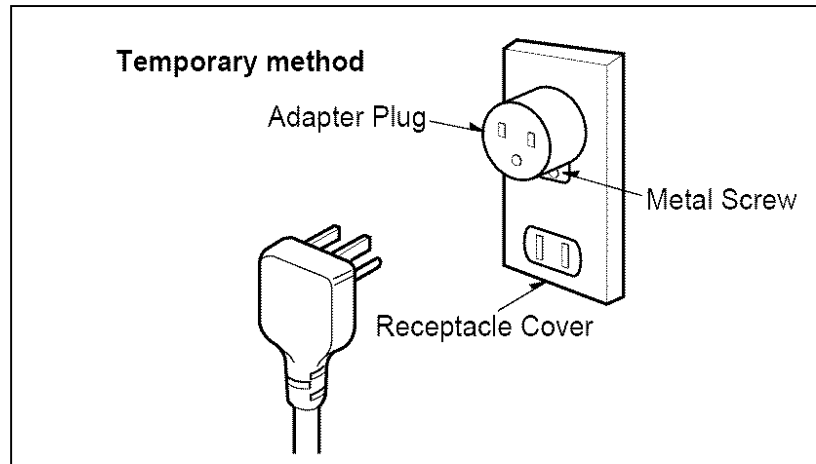
**WARNING:** Attaching the adapter ground terminal to the wall receptacle cover screw does not ground the appliance unless the cover screw is metal and not insulated, and the wall receptacle is grounded through the house wiring.



**WARNING:** If you have any doubt whether the air conditioner is properly grounded, have the wall receptacle and circuit checked by a qualified electrician.

## TEMPORARY USE OF AN ADAPTER

We **strongly discourage** the use of an adapter due to potential safety hazards. For temporary connections, use only a UL-listed adapter, available from most local hardware stores. To disconnect the power cord from the adapter, use one hand on each to avoid damaging the ground terminal. Avoid frequently unplugging the power cord as this can lead to eventual ground terminal damage.

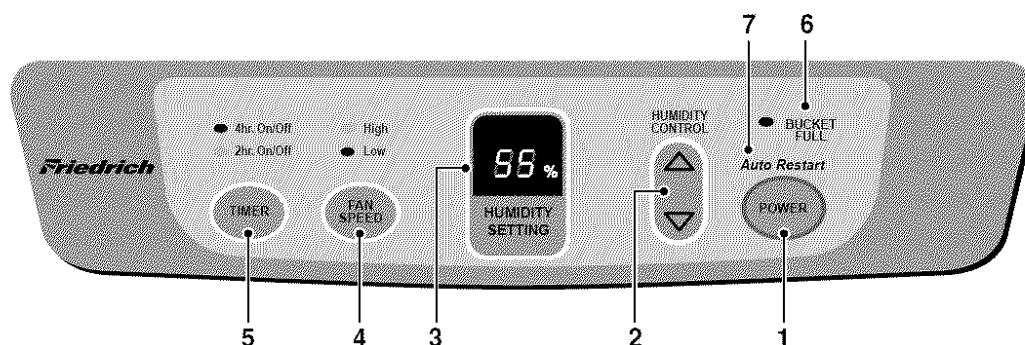


**WARNING:** Never use the appliance with a broken adapter.

## TEMPORARY USE OF AN EXTENSION CORD

We **strongly discourage** the use of an extension cord due to potential safety hazards.

# OPERATING INSTRUCTIONS



## CONTROL PANEL

1. **POWER key** --- Pressing this key once turns the dehumidifier "ON" and pressing again turns the dehumidifier "OFF".
2. **HUMIDITY CONTROL keys** --- Are used to select the desired humidity setting.
  - $\Delta$  : Used to raise the desired humidity setting.
  - $\nabla$  : Used to lower the desired humidity setting.
  - The desired humidity can be selected within a range of 35% to 70% RH in increments of 5%.
  - If you press the  $\nabla$  key once again at 35%RH, "On" mode is selected. In "On" mode the unit operates continuously, regardless of humidity conditions.
3. **HUMIDITY SETTING display** --- The desired humidity selected is displayed here.
4. **FAN SPEED key** --- Is used to set the fan speed as "High" or "Low".
  - Pressing this key changes the fan speed from High  $\rightarrow$  Low  $\rightarrow$  High.
  - The selected fan speed is indicated by indicator lights marked "High" and "Low".
5. **TIMER key** --- It is used to select the type of operation.
  - Select either 2 or 4 hr. On/Off for cycled operation.  
In this case the unit will run for 2 or 4 hours, and then shut off completely for 2 or 4 hours. The cycle will repeat until you change the setting.
  - When TIMER key is pressed, the TIMER indicator lights shift as 2hr.On/Off  $\rightarrow$  4hr.On/Off  $\rightarrow$  Off.
6. **BUCKET FULL Indicator** --- This light glows when the bucket is full and needs to be emptied. It also glows, when the bucket is not properly positioned. When bucket full indicator light glows, the compressor and fan will turn "OFF".
7. **AUTO RESTART** --- Once the power is restored after a power outage, the unit begins to operate at its previous operation setting. The fan will run by default for 2 minutes. After 2 minutes both fan and compressor will be ON or OFF depending on the humidity conditions.

## TO OPERATE THE DEHUMIDIFIER:

1. Plug the power cord into the electrical outlet. Press the POWER key.
2. Set the Humidity control between 35% to 70% for normal operation.
  - For less humidity, press the  $\nabla$  HUMIDITY CONTROL key.
  - For higher humidity, press the  $\Delta$  HUMIDITY CONTROL key.
3. Press the TIMER key, to set the amount of time for which you want the unit to cycle On and Off. The time can be set for 2 hours or 4 hours.
4. If you want to change the fan speed, press the FAN SPEED key. Each time the FAN SPEED key is pressed the fan speed changes as High  $\rightarrow$  Low  $\rightarrow$  High.
5. Press the POWER key to stop the unit manually.

### **NOTE!** Water bucket must be properly installed.

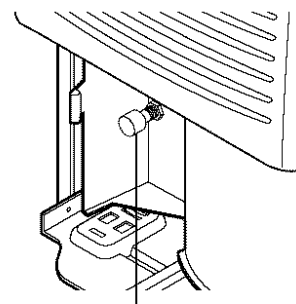
- The dehumidifier will not run if the bucket is not properly installed.
- The dehumidifier shuts off when the desired humidity setting is reached.

ENGLISH

## AUTOMATIC SHUT OFF

The dehumidifier will turn off automatically when the bucket is full, or when the bucket is removed or not replaced in the proper position.

The bucket must be replaced in the proper position for the dehumidifier to work. The light will be on and the dehumidifier will not run if the bucket is not in the proper position.



Water level  
control switch

## DISPOSING OF COLLECTED WATER

### 1. Empty the bucket manually.

When the bucket is full, pull out by grasping the handle and empty it into a large sink or tub and then replace it properly.

**NOTE!** Do not remove while operating the dehumidifier.

It can cause water to splash on the base pan or the floor.

Empty the bucket when the indicator light turns on.

**NOTE!** It is advisable to carry the bucket by supporting it from the bottom as well as by the handle.

### 2. Attach a length of garden hose to the threaded drain hose connection to carry water to the drain.

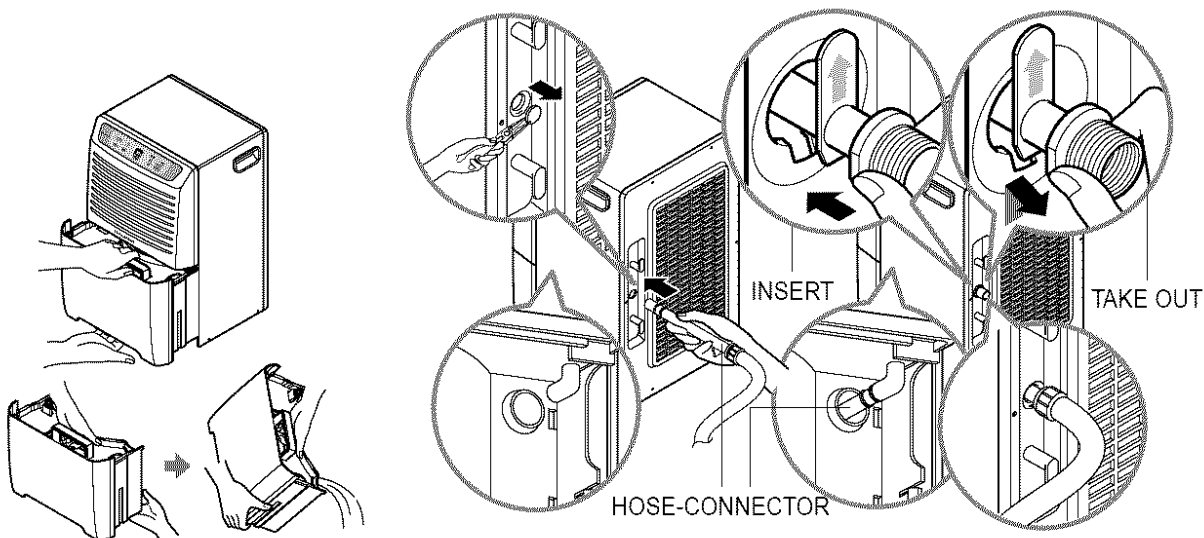
1. Remove the drain-hole cover.
2. Connect a garden hose to the threaded drain hose connector.
3. Push hose connector tightly to the drain-hole on Rear Grille.

When attaching hose to drain hose connection, do not bend or kink the hose.

The hose should lie flat from the dehumidifier to the drain.

**NOTE!** The hose attachment will accept a standard garden hose fitting.

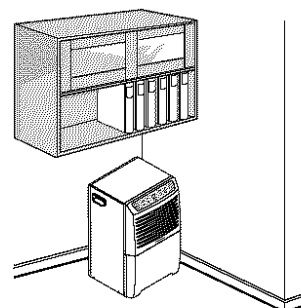
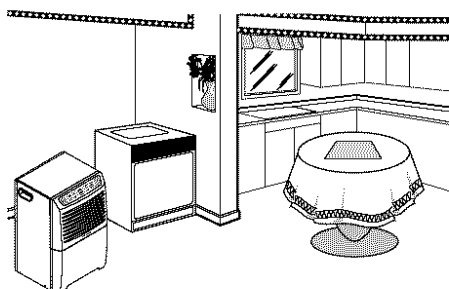
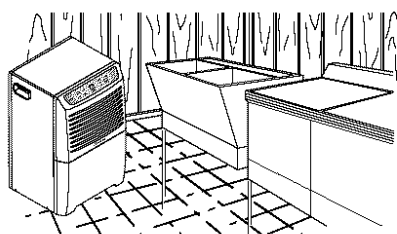
Do not over tighten the hose when connecting it to the hose connector, use a rubber washer and tighten by hand firmly without stripping the plastic threads.



# INSTALLATION

## CHOOSING THE PROPER LOCATION FOR YOUR DEHUMIDIFIER

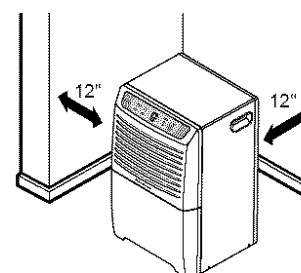
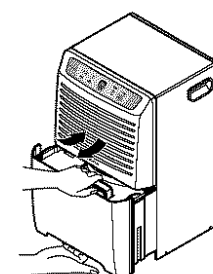
- Use the dehumidifier in a basement to help prevent moisture damage.
- Use the dehumidifier in laundry bathing, and dishwashing areas which have excessive moisture.
- Use the dehumidifier to prevent moisture damage where books are stored.



ENGLISH

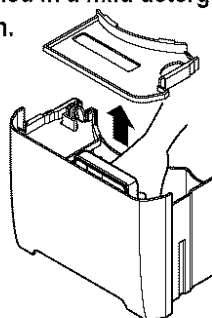
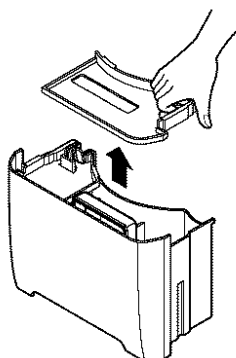
## INSTALLING THE DEHUMIDIFIER PROPERLY

1. Allow at least 12 inches of space on all sides of the unit for good air circulation.
2. Install your dehumidifier on a floor, table, or shelf. When installing the dehumidifier on a table or shelf, make sure the table or shelf is strong enough to support the weight of the dehumidifier with a full bucket. Do not sit or stand on the dehumidifier. Secure wheels with blocks to prevent unit from falling when installed on a table or shelf.  
**NOTE!** The height of a table or shelf might provide a better position from which to handle the bucket and help prevent icing of the coils due to colder air near the floor (such as in a basement.)
3. Lift the bucket and place it in the dehumidifier, making sure the slots on the bottom side of the bucket are positioned correctly.
4. Rollers let you move the dehumidifier easily.

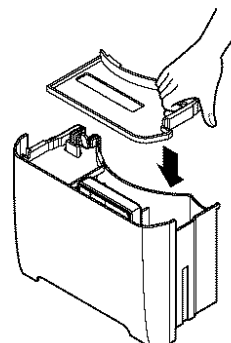


## CLEANING THE BUCKET

1. Pull out the bucket cover.
2. Brush off the residue in the bucket.  
**NOTE!** Clean the bucket by wiping with a brush or a cloth dampened in a mild detergent solution.



3. Close the cover.  
**NOTE!** Push the tabs on the top of the bucket when installing the bucket.



## MAINTENANCE AND SERVICE

Your dehumidifier is designed to serve you year-round. It needs practically no attention. However, you should check your dehumidifier and inspect the coils annually.

You may want an Authorized Service Center to perform this annual checkup. (Cost of the inspection is the owner's responsibility.)

### OR

If you are familiar with electrical appliances and their functions, listed below are instructions which would allow you to perform the inspection and maintenance yourself.

### Cleaning the front case, bucket and cabinet

Clean the front case and the cabinet with a soft cloth, warm water, and a mild detergent.

Clean the grille with a vacuum attachment or brush.

Do not use bleach or abrasives.

### Cleaning the air filter

1. Remove water bucket from the cabinet.  
Pull out the air filter as shown above.
2. Wash air filter with warm water and a mild detergent. Rinse and dry it, **before putting it back.**

### Cleaning the coil

1. Remove Front Grille from the cabinet as shown above.
2. Brush the coil gently. (see illustration)  
If necessary use warm water and a mild detergent. Rinse and dry thoroughly.



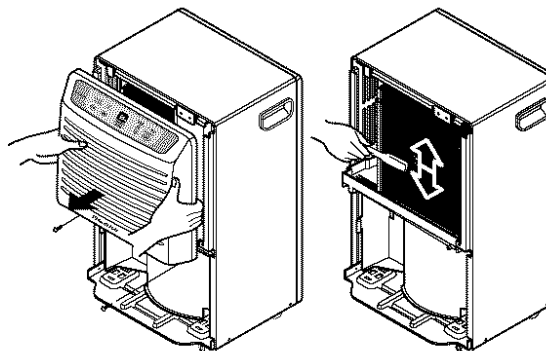
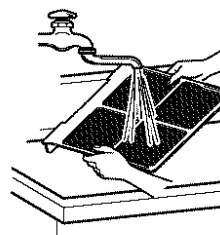
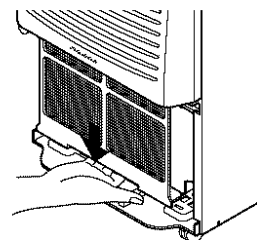
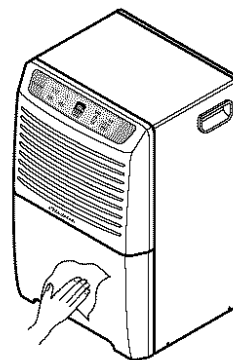
**CAUTION : Do not spray the coils using a water hose.**  
**Be careful! Coils have sharp edges!**

### ⚠ WARNING

#### Electrical Shock Hazard

- Disconnect power supply cord from receptacle before performing any maintenance.
- Be careful when cleaning the coils.  
Fins are sharp.

Failure to follow the above precautions could result in electrical shock or personal injury.





## TROUBLESHOOTING



The dehumidifier may be operating abnormally when:

Problem	Possible Causes	What To Do
Dehumidifier does not start	■ The dehumidifier power cord is unplugged.	• Make sure the dehumidifier plug is pushed completely into the outlet.
	■ The fuse is blown or circuit breaker is tripped.	• Check the house fuse or circuit breaker box and replace the fuse or reset the breaker.
	■ Water bucket is full.	• The dehumidifier automatically turns off when this occurs. Empty the bucket.
	■ Bucket is not installed.	• Make sure the bucket is in the right place.
	■ In case the Room humidity is less than selected humidity setting.	• Lower the humidity setting.
Dehumidifier does not dry the air as it should	■ Did not allow enough time to remove the moisture.	• When first installed, allow at least 3 or 4 days to maintain the desired dryness.
	■ Airflow is restricted.	• Make sure there are no curtains, blinds or furniture blocking the front or back of the dehumidifier.
	■ The Humidity Control may not be set to low Humidity.	• Press the ▽ Humidity Control button to lower the humidity.
	■ Doors and windows may not be closed tightly.	• Check that all doors, windows and other openings are securely closed.
	■ Clothes dryer may be blowing moisture-laden air into the room.	• Install the dehumidifier away from the dryer. The dryer should be vented to the outside.
Dehumidifier runs too much	■ Room temperature is too low.	• The unit will not operate at maximum capacity if the room temperature is below 65°F. (18°C.).
	■ Area to be dehumidified is too large.	• Check with your dealer to see if the capacity is adequate.
Frost appears on the coils	■ Doors and windows are open.	• Close all doors and windows to the outside.
	■ Dehumidifier has recently been turned on or room temperature is below 65°F (18°C).	• This is normal. Frost will usually disappear within 60 minutes.
Fan noise	■ Air is moving through the dehumidifier.	• This is normal.
Water on floor	■ Drain hose connection may be loose.	• Check the hose if one is attached.
	■ Water bucket is not in all the way.	• See Removing and Emptying The Water Bucket.
Dehumidifier operates continuously	■ Check if the unit is operating in "ON" mode.	• Change the humidity setting.
	■ Room Humidity is high	• Change the humidity setting.



FRIEDRICH AIR CONDITIONING CO.  
Post Office Box 1540 • San Antonio, Texas 78295-1540  
(210) 357-4400 • FAX (210) 357-4490

## DEHUMIDIFIER LIMITED WARRANTY

### FIRST YEAR

**ANY PART:** If any part supplied by FRIEDRICH fails because of a defect in workmanship or material within twelve months from date of original purchase, FRIEDRICH will repair the product at no charge, provided dehumidifier is reasonably accessible for service. Any additional labor cost for removing inaccessible units and/or charges for mileage related to travel by a Service Agency that exceeds 25 miles one way will be the responsibility of the owner. This remedy is expressly agreed to be the exclusive remedy within twelve months from the date of the original purchase.

### SECOND THROUGH FIFTH YEAR

**SEALED REFRIGERANT SYSTEM:** If the sealed refrigeration system (defined for this purpose as the compressor, condenser coil, evaporator coil, reversing valve, check valve, capillary, filter drier, and all interconnecting tubing) supplied by FRIEDRICH in your dehumidifier fails because of a defect in workmanship or material within sixty months from date of purchase, FRIEDRICH will pay a labor allowance and parts necessary to repair the Sealed Refrigeration System; **PROVIDED FRIEDRICH** will not pay the cost of diagnosis of the problem, removal, freight charges and transportation of the dehumidifier to and from the Service Agency, and the reinstallation charges associated with repair of the Sealed Refrigeration System. All such cost will be the sole responsibility of the owner. This remedy is expressly agreed to be the exclusive remedy within sixty months from the date of the original purchase.

**APPLICABILITY AND LIMITATIONS:** This warranty is applicable only to units retained within the Fifty States of the U.S.A., District of Columbia, and Canada. This warranty is not applicable to:

1. Air filters or fuses.
2. Products on which the model and serial numbers have been removed.
3. Products which have defects or damage which results from improper installation, wiring, electrical current characteristics, or maintenance; or caused by accident, misuse or abuse, fire, flood, alterations and/or misapplication of the product and/or units installed in a corrosive atmosphere, default or delay in performance caused by war, government restrictions or restraints, strikes, material shortages beyond the control of FRIEDRICH, or acts of God.

**OBTAINING WARRANTY PERFORMANCE:** Service will be provided by the **FRIEDRICH Authorized Dealer or Service Organization** in your area. They are listed in the Yellow Pages. If assistance is required in obtaining warranty performance, write to: Room Air Conditioner Service Manager, Friedrich Air Conditioning Co., P.O. Box 1540, San Antonio, TX 78295-1540.

**LIMITATIONS:** THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES. Anything in the warranty not with standing, ANY IMPLIED WARRANTIES OF FITNESS FOR PARTICULAR PURPOSE AND/OR MERCHANTABILITY SHALL BE LIMITED TO THE DURATION OF THIS EXPRESS WARRANTY. MANUFACTURER EXPRESSLY DISCLAIMS AND EXCLUDES ANY LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGE FOR BREACH OF ANY EXPRESSED OR IMPLIED WARRANTY.

**NOTE:** Some states do not allow limitations on how long an implied warranty lasts, or do not allow the limitation or exclusion of consequential or incidental damages, so the foregoing exclusions and limitations may not apply to you.

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

**PROOF OF PURCHASE:** Owner must provide proof of purchase in order to receive any warranty related services.

All service calls for explaining the operation of this product will be the sole responsibility of the consumer.

All warranty service must be provided by an **Authorized FRIEDRICH Service Agency**, unless authorized by FRIEDRICH prior to repairs being made.

In case of questions regarding the provisions of this warranty, the English version will govern.

Revised 12/04