

**DRI-EAZ**

# F388 Owner's Manual

## Dri-Eaz<sup>®</sup> EnviroBoss<sup>™</sup> 1400 (115V)

DRI-EAZ PRODUCTS, INC.  
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*The EB1400 is a portable cooling, heating and dehumidification system. The unit may be ducted for directing cooled or heated air into specific spaces.*

### READ AND SAVE THESE INSTRUCTIONS

#### **WARNING**



**Read and understand manual before operating.**

#### **ELECTRIC SHOCK HAZARD**

**WARNING!** Unit must be grounded.

- Use indoors only.
- Keep out of water.
- Keep electrical components dry. If they get wet, allow them to dry before using the EB1400.
- Insert three-prong plug on power cord into a matching electrically grounded outlet. Never cut off third prong.

#### **FIRE HAZARD**

- Keep air intakes clear of obstructions and dirt. Reduced airflow can cause motor to overheat. Keep away from draperies or other material that could block air intakes. See maintenance instructions.
- Keep air filter clean. Keep filter clear of clogging, oil, grease or other contaminants that can be drawn into the EB1400.

#### **SAFETY INSTRUCTIONS**

**WARNING!** Unplug unit before opening housing for cleaning or servicing.

- Turn off unit and unplug before lifting or moving.
- Handle the unit carefully. Always operate the unit on a stable, level surface. Do not drop, throw, or place where it could fall. Rough treatment can damage the unit, and may create a hazardous condition or void the warranty.
- Inspect the power cord before use. If cord is damaged, do not use. Replace with a cord of the same type and amperage rating. Protect cord from damage by turning off unit before unplugging. Always grasp the plug (not pulling on the cord) to unplug.
- The unit is designed to operate on 115V/60 Hz. Make sure that the electrical outlet is grounded.

- Secure during transport to prevent sliding and possible injury to vehicle occupants.
- Keep children away from unit. Be sure unit is inaccessible to children when unattended.
- Do not attempt to disassemble or repair the unit. For Authorized Service Centers, go to [www.dri-eaz.com/howtobuy](http://www.dri-eaz.com/howtobuy) or call Dri-Eaz Service : 800-932-3030.

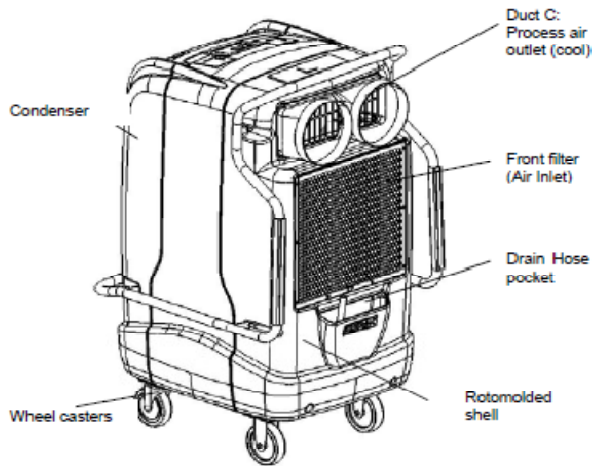
#### **INTRODUCTION**

The EB1400 is a versatile unit providing dehumidification cooling with 470 CFM across the evaporator and 750 CFM across the condenser, plus focused heating and ventilation. The unit can be ducted for spot cooling and directing conditioned air or heat into specific spaces while filtering air and pumping out condensate.

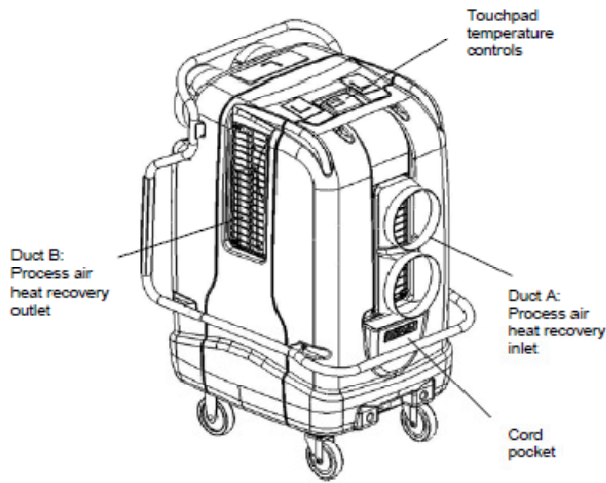
#### **FEATURES:**

- Ducts to and from unit for heating and cooling. Note adapters for condenser inlet and outlet and evaporator outlet. No duct adapter for evaporator inlet.
- Refrigeration system that dehumidifies while it heats/cools
- Uniform 8" ducting size for all outlets
- Digital temperature control
- Durable rotomolded duct rings and housing
- Wheel casters and handle for ease of transport

## PARTS IDENTIFICATION (Shown, below)



Front (Intake) Filter View



Back View

## SETUP

Place dehumidifier upright. When transporting the EB1400 in a horizontal position is necessary, set upright (vertically) for at least 30 minutes before operation. When machine is placed in a horizontal position, oil from the compressor flows into the refrigerant coils reducing the ability of the EB1400 to function.

## OPERATING INSTRUCTIONS

### GETTING STARTED

#### PLACEMENT:

For cooling or heating, place at least one EB1400 per room.

1. Place the unit on a level surface.
2. Make sure the System switch is set to Off then plug cord into a standard 115V grounded outlet.
3. Set the digital temperature controls needed to function (see below).
4. Check for proper operation before leaving the unit unattended. Do not move or carry the EB1400 while running or plugged in.

### OPERATING RANGE

Recommended operating range is between 60° and 46 °C). The EB1400 will not function properly when operating in an environment with temperatures outside this range.

### CYCLE TIMES AND COMPRESSOR PROTECTION

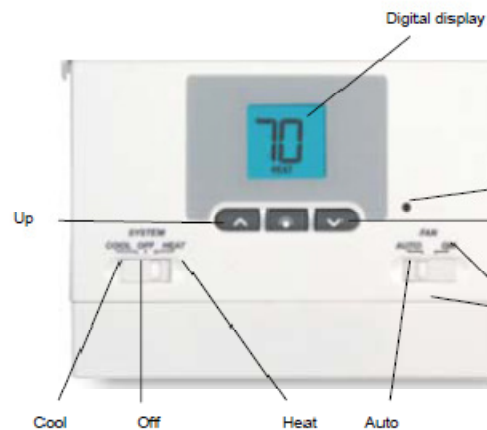
The EB1400 thermostat includes an automatic compressor protection feature to avoid potential damage to the compressor system from short cycling. This thermostat automatically provides a five minute delay after turning off the cooling output to protect the compressor. This protection is present while operating the unit in heating application.

### Important Notes:

- If unit loses power or gets unplugged during operation operator **MUST** wait five minutes before plugging in or risk damaging the compressor or tripping the breaker in the facility.
- Always turn the System switch to OFF before using the unit.
- If the System setting is adjusted during operation the unit will automatically delay five minutes before starting.
- When switching unit from cooling to heating or heating to cooling operator must adjust set point temperature.

## TESTING AND PROGRAMMING THERMOSTAT

### DIGITAL CONTROLS



### TO TEST THERMOSTAT:

1. Move the system switch from OFF to the HEAT position. Press the ^ button on the keypad until the set point temperature setting is a minimum of three degrees above the current room temperature.

than the current room temperature. The EB1400 should start within several seconds.

2. The system switch in the OFF position. The EB1400 should stop within several seconds on normal single stage heating or cooling systems. Note: On refrigeration systems you must wait five minutes for the automatic compressor short cycle protection period to expire, or press the RESET button to bypass this feature for initial testing purposes. Pressing the RESET button will erase any user program settings.
3. Place the system switch in the COOL position.
4. Press the v button on the keypad until the set point temperature is a minimum of three degrees lower than the current room temperature. The cooling system should start within several seconds.
5. Place the fan switch in the AUTO position when using the EB1400.

#### VIEWING SET TEMPERATURE

1. Press and hold ^ or v button. The current set point temperature will be displayed in the place of the current room temperature, and the indicator SET will be displayed.
2. The display will return to normal operating mode when the ^ or v buttons are released. The SET indicator will turn off, indicating that the current temperature shown in the display is the room temperature. Continuing to hold the ^ or v button for three seconds or longer will allow the user to change the current set point temperature (See Changing Set Temperature, below).

#### CHANGING SET TEMPERATURE

1. Press and hold ^ or v button for three seconds. The entire display will flash once and the SET indicator will be flashing. Release the ^ or v button and press the ^ or v button again as desired to adjust the set temperature.
2. The display will return to normal operating mode after five seconds.
3. The SET indicator will turn off in the display, indicating that the current temperature shown in the display is the room temperature.

#### HIGH TEMPERATURE SAFETY SWITCH

When the selector switch is set to HEAT, a software feature automatically turns the unit off if the room temperature rises above 93°F (34°C). If the temperature rises above 99°F (37°C), the thermostat mechanically turns the unit off.

#### NON-VOLATILE MEMORY

In the event of a power failure, the non-volatile memory feature of this unit allows all settings to be recovered. When AC power is restored after an outage, all settings are retrieved from memory and reinstated.

#### RESETTING THERMOSTAT

The Reset feature allows the user to completely reset the thermostat to return to factory-set software settings.

1. To erase all entered settings, gently press RESET button using a paper clip or a small pencil tip.

2. This will return all thermostat settings to their default values and register all new manual switch settings for proper operation.

#### DUCTING INSTRUCTIONS FOR THE EB1400

Duct A: Process air heat recovery inlet  
Duct B: Process air heat recovery outlet  
Duct C: Process air outlet (cool)

- DUCTING: The unit is ductable for directing conditioned air or heat into specific spaces.
- DUCTING SIZE: Use eight inch diameter ducting and seal with clamps on duct adapters.
- SIDE DUCTING: When using duct on the side, ducting should be run sideways out doors and windows. Put unit in room and duct up at an angle into ceiling tiles (not directly into ceiling).
- RIGID DUCTING: Duct A requires rigid ducting (not layflat) attached by clamps.

#### APPLICATIONS

(For more applications, please visit the EB1400 Virtual Training Center at [vtc.dri-eaz.com](http://vtc.dri-eaz.com))

- COOLING IMMEDIATE AREA: Cold air blowing from Duct C (ducting) will cool overall room.
- HEATING AREA: Duct B outputs heat; ducting is needed to direct warm air outside room or to focus heat in target area. If not ducted outside the room then it will heat the immediate space.
- NEUTRAL AIR CONDITIONING: For neutral air conditioning, use both B (heat outlet) and A (heat inlet) outside the structure.
- DEHUMIDIFYING: Spot cool with dehumidification by ducting to outlet C. No ducting is needed to dehumidify overall room.
- SPOT COOLING: For spot cooling point outlet C air stream to specific area or duct it to spot cool.

#### TRANSPORTING AND STORING

1. Before transporting, move Duct B ducting adapter to the front or back of the unit to prevent damage. Note not to expose the thermostat to moisture and rain when transporting in uncovered vehicles such as flatbed trucks.
2. Transport the unit on stairs or over rough surfaces using the Unimover or hand truck and hold in place using straps. Do not secure the unit by the handle. **WARNING:** Take care when loading the unit on a hand truck; the unit could tip over resulting in personal injury. Always place a strap around the housing of the EB1400 and secure the Unimover or hand truck before attempting to lift the unit.
3. Store with left side of unit against the wall and keep upright while transporting. **NOTICE!** Do not secure the unit by the handles. Secure into place with a strap wrapped around the plastic housing. Store securely to avoid a damaging impact to internal parts.

## MAINTENANCE

**WARNING!** Turn off and unplug unit before cleaning or servicing.

### BEFORE EACH USE

#### Inspect Power Cord

Inspect power cord for cuts, fraying or damage; do not use if damaged.

### WEEKLY MAINTENANCE

#### Inspect Front Filter

Slide duct ring adapters for outlet D off to remove front filter for cleaning. Slide out the filter and inspect for damage or excessive dirt. Use a clean 3M™ HAF filter (see below). Replace filter every four months or earlier if necessary. For Parts and Service call your local distributor or the Dri-Eaz Service Department at 800-932-3030 or 360-757-7776.

#### Use Clean 3M HAF Filters

Keep clean filters in the unit at all times to keep out dust and protect internal components. HAF filters may be vacuumed clean and reused up to three times before replacement.

**Note:** The two filters used for the unit are the same type but different sizes. Be sure the appropriate size is installed.

### MONTHLY MAINTENANCE

#### 1. Inspect Exterior

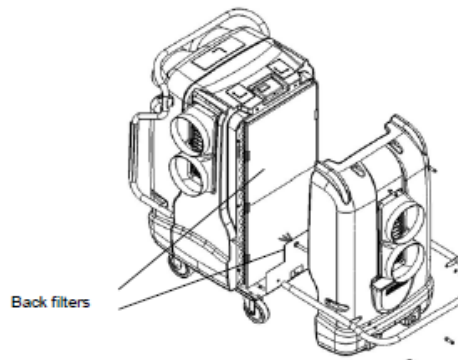
Inspect exterior components and make sure they are properly installed. Listen to the unit for abnormal sounds. For Parts and Service call your local distributor, or the Dri-Eaz Service Department at 800-932-3030 or 360-757-7776

#### 2. Clean Exterior

Clean the housing with a damp cloth. Bring back the original shine with a vinyl cleaner/polish like those used on automobile plastics.

#### 3. Inspect Back Filters

The second set of filters is in the back of the unit on the condenser side and may only require cleaning periodically (every three to six months depending on the cleanliness of the air ducted or drawn into the condenser inlet). To access these filters, use a 3/4" socket wrench to remove the six 1/4-20 bolts holding the back cover and lower handle in place. If you need further assistance, contact the Dri-Eaz Service Department at 800-932-3030 or 360-757-7776.



Condenser Side Filter Location

## SPECIFICATIONS

Model	F388
Weight	195 lbs (88.5 kg)
Dimensions (H x D x W)	49.5 x 33.5 x 27.25 in. 125.7 x 85.1 x 69.2 cm
Amperage	11.7 amps
Cooling Capacity	11,000 BTU/h
Capacity (@ 95°F/60% RH)	108 pints (51.1 liters)/day
Air movement	470 CFM Evaporator air stream 750 CFM Condenser air stream
Filters	3M HAF filter
Cord Length	20 ft. (6.1 m)
Construction	Rotomolded shell
Safety	ETL listed to UL and CSA stan

Specifications are subject to change without notice. Some values may be approximate.

## ACCESSORIES

### Ceiling Adapter Kit (F400)

The Ceiling Adapter Kit allows the user to direct the heat absorbed by the EB1400 during A/C operation into a suspended ceiling space and recirculate it back through EB1400. Isolating the heat dissipating stream from the ceiling stream creates a neutral air pressure environment, enabling the EB1400 to deliver maximum cooling performance in situations where it is not possible to vent absorbed heat outside of the structure. Kit includes two lightweight ceiling adapter housings, four 10 foot sections of semi-rigid duct and a 24 x 24 in. cardboard panel to temporarily block ceiling openings adjacent to adapter.

### Rigid Performance® Ducting (F382)

One 10 ft. section of 8 in. diameter semi-rigid ducting.

### LayFlat Ducting (F268)

One 500 ft. roll 8.3 in. (ID) x 4 mil poly layflat ducting.

**FOR PARTS AND SERVICE CALL YOUR LOCAL DISTRIBUTOR**  
the Dri-Eaz Service Department at 800-932-3030 or  
360-757-7776. [www.dri-eaz.com](http://www.dri-eaz.com)