# CANNADRI
## CRUSADER

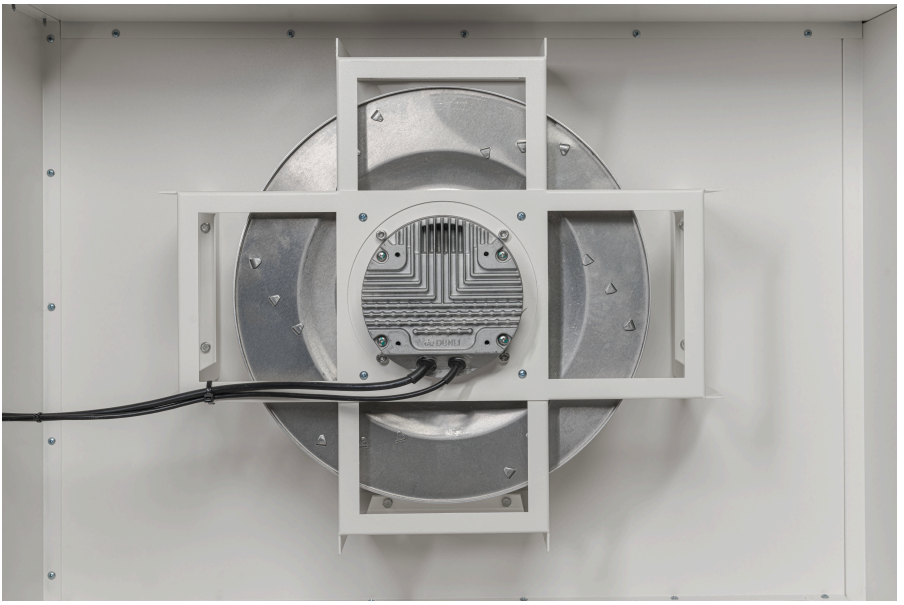
**INSTRUCTION MANUAL 2 . 0**
NORTH AMERICA EDITION

# CAN-500 DEHUMIDIFIER



IN ORDER TO QUALIFY FOR THE 5-YEAR WARRANTY,
PLEASE REGISTER YOUR PRODUCT WITHIN 30 DAYS
FROM THE PURCHASE DATE AT:
**cannadri.ca/warranty-registration/**

# SAFETY INSTRUCTIONS



**WARNING:** SAFETY DISCLAIMER

1. Disconnect electrical power before starting installation or servicing. Leave power disconnected until installation/service is completed. Failure to do so may result in electrical shock.

2. Sharp edges may cause serious injury: when cutting plenum openings and handling duct work, use extra cautionary care and attention.

3. Dropping may cause personal injury or equipment damage. Handle with care and adhere to installation instructions outlined in this manual. If, for whatever reason you are NOT clear about any of the installation instructions, please contact info@cannadri.ca for clarity and further explanation.

# SAFETY INSTRUCTIONS

**CAUTION:** READ THE FOLLOWING SAFETY INSTRUCTIONS

1. Read all instructions carefully before beginning installation, and before powering on your unit.

2. This appliance is not intended for use by persons with diminished physical, sensory or mental capabilities, or lack of experience and knowledge, despite if they are supervised, or have been provided with instruction concerning use of the appliance by a person responsible for their safety. To ensure no accidental harm or damage, under no circumstances should children operate the dehumidifier(s) or be allowed to play in close proximity of the dehumidifier(s).

3. Do not use in water applications, such as pools, hot tubs, or showers. Full submersion in water along with pool chemicals will damage the dehumidifier.

4. Do not use solvents, cleaners or chemicals on or near the circuit board. Chemicals can damage the circuit board contents and/or the control board.

5. Wait 24 hours before powering on and running the unit if it was not shipped or stored in it's upright position.

6. If the SUPPLY CORD is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

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# A. MANUFACTURER SAFETY INSTRUCTIONS

**WARNING: 208-240 volts (single phase) may cause serious injury from electric shock.**

1. The working temperature of the dehumidifier is 60°F –100°F | 16°C-37°C
2. Installation and servicing should be conducted without dehumidifier power. Leave the power disconnected until installation/service is completed.
3. Do NOT roll, damage, or stress the power cord when installing or moving the dehumidifier. It is dangerous to insert fingers or any other objects into the dehumidifier. Do not attempt.
4. To avoid damage to the compressor, do NOT tilt the dehumidifier more than 45°. If the dehumidifier is on an angle during shipping or installation, ensure to let it sit upright 24 hours before applying power and starting.
5. Regarding the compressor: the room temperature will go up around 3°C from compressor heat dissipation when the dehumidifier is running- this is typical and harmless.
6. The dehumidifier should never have direct contact with chemicals and/or water. Place and situate the dehumidifier in an area in which it will not have any contact with water and/or chemicals.
7. Never connect other equipment to the dehumidifier: do NOT use ANY relay, extension cords, or adapters to connect power between the CAN-500, or any other dehumidifier.
8. Do NOT place the CAN-500 dehumidifier next to other equipment that will manipulate and deplete the dehumidifier's heat.
9. Clean any and all dirt or debris off the power cord before inserting the plug.
10. Do not damage or modify the power line, do not repair by yourself or disassemble and re-configure any parts in the dehumidifier.
11. To attain a steady drain, ensure that the drainage tube has been inserted smoothly in place.
12. In the case of malfunction, ALWAYS cut the power AFTER shutting down the dehumidifier.

# B. SPECIFICATIONS

## i. ENVIRONMENTAL

**CAN-500:**

Operating Temperature Range: 60°F –100°F | 16°C-37°C
Operating Humidity Range: RH40%- RH95%

## ii. MECHANICAL

**CAN-500:**

Weight: 286 lbs/130kgs (without packaging)
Dimensions: 51.1" x 31.4" x 28.0"
130.0cm x80.0cm x 71.2cm
Drain Size: 3/4"
Capacity: 500 PPD @80°F/30°C 60%RH
Airflow: 1600 CFM (free flow)




## iii. ELECTRICAL

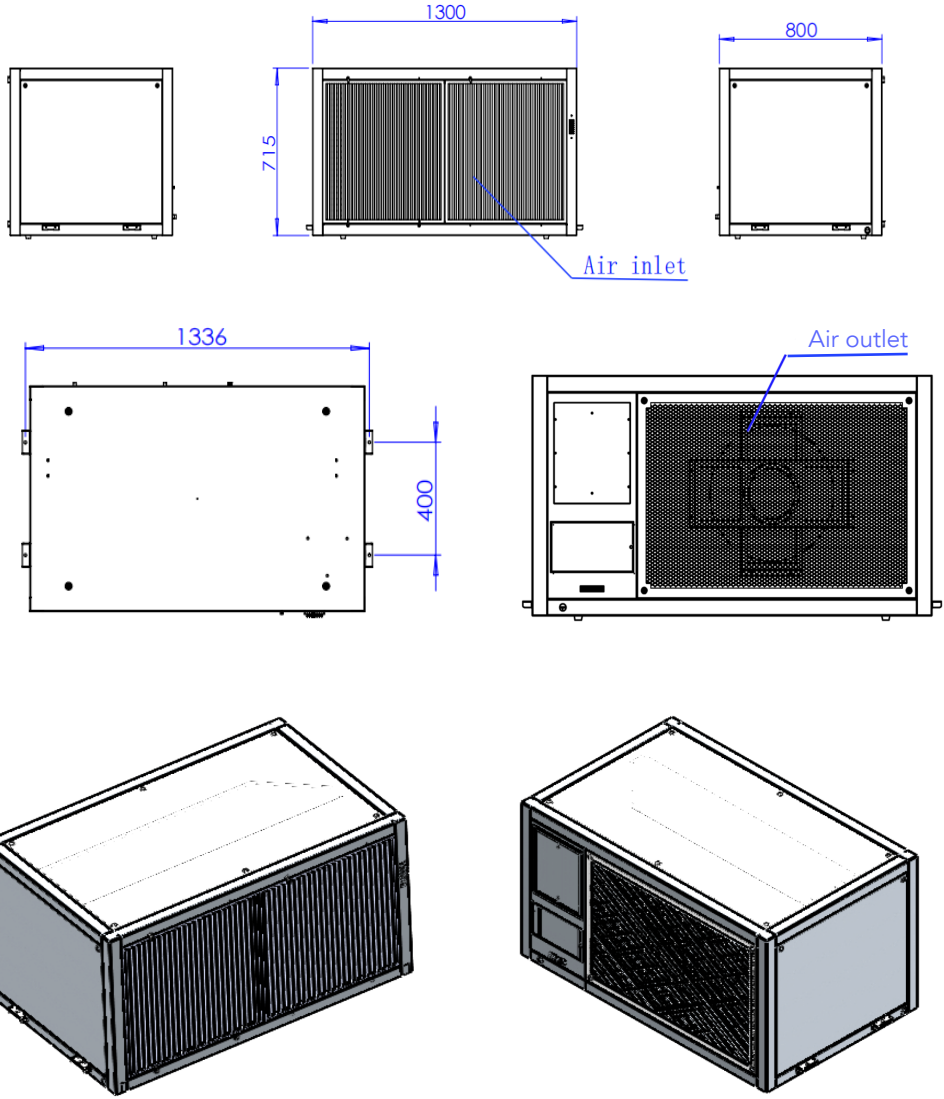
**CAN-500:**

Voltage: 208-240 VAC ~, 1ø, 60 HZ
Operating Current: **CAN-500:** 12.9A @80°F/30°C 60%RH

Efficiency: **CAN-500:** 7.2pint/kwh

## iv. DIMENSIONS

**CAN-500** *Fig. 1.2*




Length measured by cm

# C. UNPACKING THE DEHUMIDIFIER

Please disassemble the crate carefully ensuring there is no damage to the dehumidifier:

**Included in the carton:**

- Dehumidifier
- Drain Tube
- Filter
- Instruction Manual
- Power Cord
- CAN-500: 220 Volt

*Fig. 1.4*

# D. INSTALLATION GUIDE

## i. BEFORE INSTALLATION

**You will need: a screwdriver, 3/8 threaded rod, and spanner wrench (Items not included).**

1. Unpack the outer wooden case and remove the protective film. Then remove the dehumidifier for installation.
2. Securely attach the threaded rod to the ceiling in line with the mounting holes on the dehumidifier. Then install the bolt to fix the threaded rod.
3. Install the dehumidifier through the four-threaded rods and adjust the height according to the space to ensure the dehumidifier is horizontal.
4. Connect the drain tube to make sure there is no leakage, no block for the drainage.
5. Connect the power, please make sure the power supply is 208~240v/60hz (single phase) and has overload protection.

CAUTION: PLEASE MAKE SURE TO TURN THE UNIT ELECTRICITY OFF DURING THE INSTALLATION TO AVOID ACCIDENT AND/OR HARM.

## ii. INSTALLATION INSTRUCTIONS

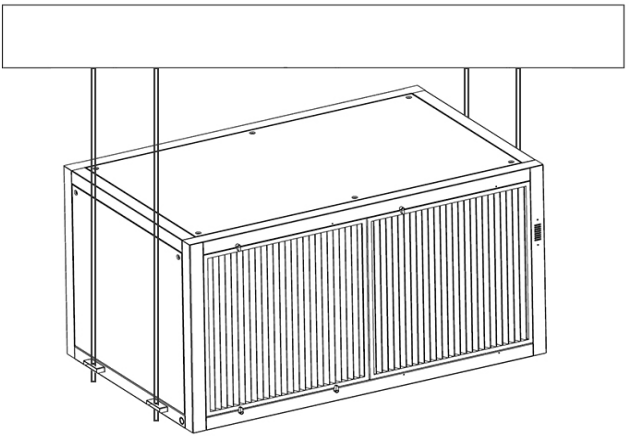


*Fig. 1.6*

1. Use the 3/8 threaded rod with corresponding fasteners to fix the dehumidifier on the ceiling.
2. Make sure to install the dehumidifier horizontally to avoid malfunction or leakage.
3. Make sure your power cord is installed properly in a well-protected outlet, away from high traffic areas.
4. Make sure the drain tube is installed unhindered.
5. In order to optimize performance, please make sure the dehumidifier is installed in a space with good air circulation for air inlet and air outlet.
6. Connect the power controller to the terminal on the dehumidifier then connect the power cord with power supply and make sure it's 208~240v single phase 60hz.

## i. STRUCTURE AND RUNNING

**Automatic defrost protection function**

The dehumidifier will defrost automatically when the ambient temperature is under 18°C/64.4°F - the compressor will shut down. The dehumidifier will automatically re-start when the defrosting has finished.

**Compressor delay start protection function**

The compressor will re-start 3 minutes after re-starting the machine from a power shut down.

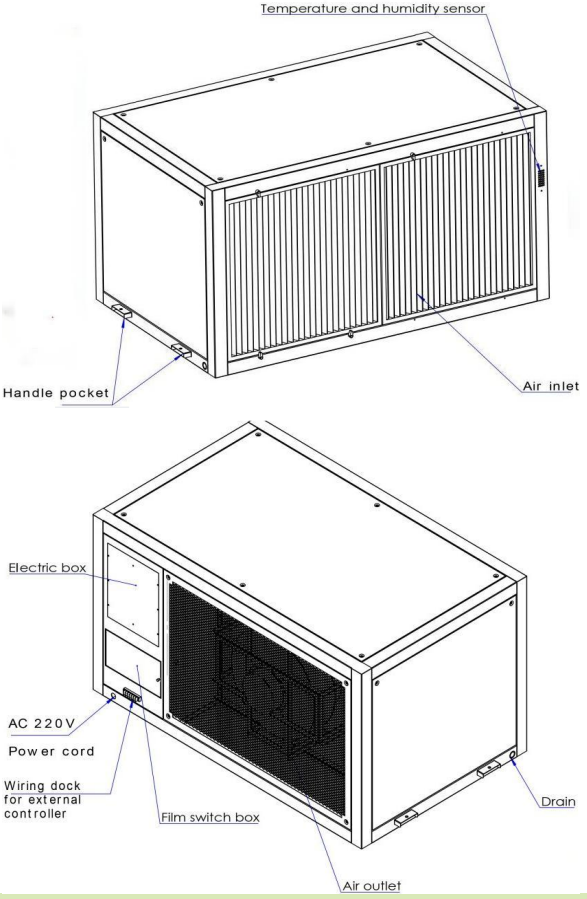



*Fig. 1.9*

## ii. EXPLODED DIAGRAM

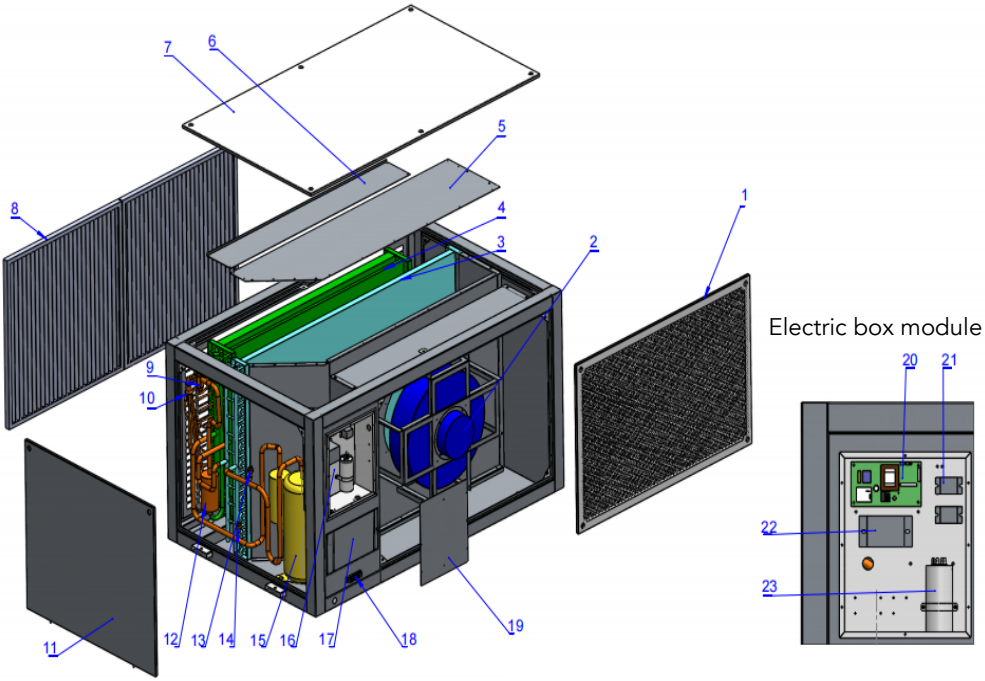


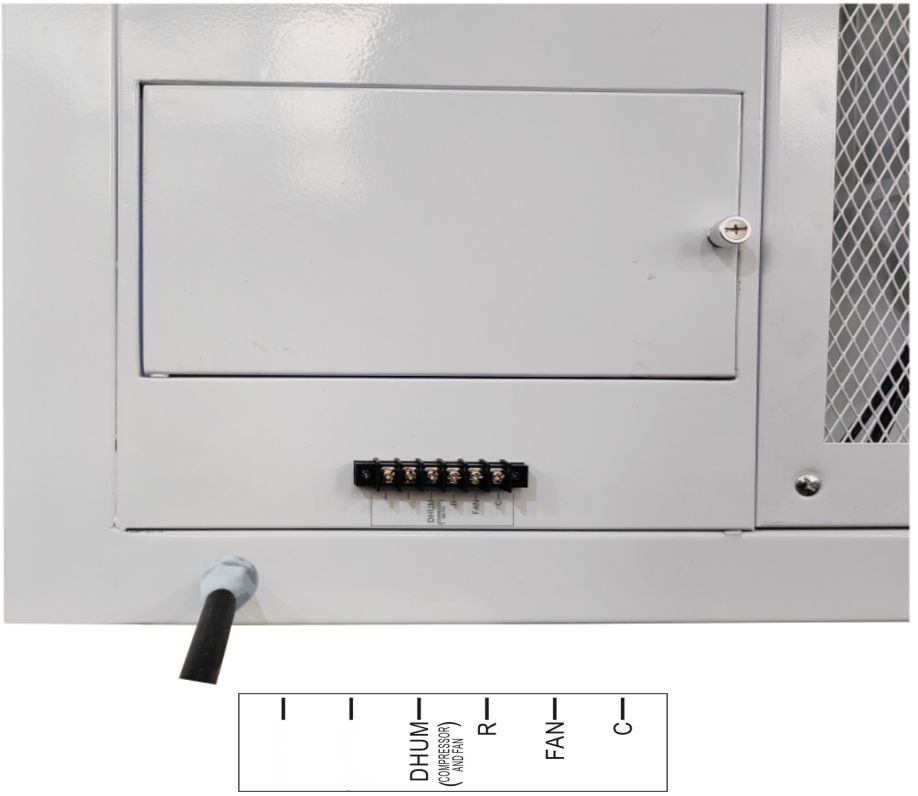

*Fig. 1.10*

1 Air outlet
2 Fan Module
3 Condenser
4 Evaporator
5 Heat exchanger cover plate
6 Heat exchanger cover plate
7 Top cover plate module
8 Filter
9 Thermal expansion valve
10 Capilliary tube
11 Side panel
12 Liquid-distributor
13 High pressure pipe
14 Low pressure pipe
15 Compressor
16 Electric box module
17 Film switch box
18 24v transformer
19 Electric box cover plate
20 Control board
21 Relay
22 Transformer
23 Capacitor for compressor

# F. THIRD PARTY CONTROL CONNECTION

**WARNING：Low Voltage Hazard can cause equipment damage. Please remove connections before installation!**

## THIRD PARTY CONTROL IS SIMPLIFIED




**DHUM：Dehumidifying mode. Both compressor and motor works.**
**R：24VACoutput**
**FAN：Only fan (motor) works**
**C：24VAC neutral (common)**
**External 24Vequipment can be powered by short-pass pin Rand C (Max. load 20VA).**

## PRIMARY FUNCTIONS

| | |
|---|---|
| Applicable Models: | CAN-500 |
| Power Supply: | 208-240V/60hz~Single Phase |
| Working Requirement: | Temperature 5-60°C/41°-140°F, Humidity RH40%-RH≤95% |




*Fig. 1.13*

1. **TO TURN ON:** press
   *Note that the selected icon will blink in each function to set the configuration.

2. **TO SET THE HUMIDITY SETPOINT:** press
   Use the and arrows to select the desired humidity %.

3. **TIMER CONFIGURATIONS:** There are three settings –
   Timer on, timer off, and time clock (24 hour clock).

   i. TO CONFIGURE THE HOURS: press to select timer 'on'- schedule in hours desired.
   ii. TO CONFIGURE THE MINUTES: press again after configuring the hours to schedule the minutes.
   iii. TO PREVENT INTERMITTENT SHUT-OFF: set the timer both ON and OFF at 0:00. Clock set to appropriate time.

**The selected icon will blink in each function to set the configuration.*
**Clock configuration and repeat.*

## PROTECTION FUNCTIONS

### AUTOMATIC DEFROSTING

The dehumidifier will detect when it is necessary to turn on the automatic defrosting function which is indicated when the 'defrosting running icon' light is turned on. The compressor will stop, and the fan will continue to run.

### COMPRESSOR DELAY SHORT-CYCLE PROTECTON

The dehumidifier has a short-cycle compressor protection of three minutes.

**CAUTION: PLEASE MAKE SURE TO TURN THE UNIT ELECTRICITY OFF DURING THE INSTALLATION TO AVOID ACCIDENT AND/OR HARM.**

## ERROR CODES

| ERROR CODE | REASON | SOLUTIONS |
|---|---|---|
| E1 | Ambient temperature sensor error | Check the connection of sensor or replace the temperature sensor |
| E2 | Humidity sensor error | Check the connection of sensor or replace the humidity sensor |
| E3 | Phase sequence | Check the phase sequence if correct |
| E4 | Phase failure | Check whether there is phase loss |
| E6/E7 | Low refrigerant pressure protection (Leakage, block) | Stop the unit and power off *Please contact Cannadri for further assistance. |

1] Please contact info@cannadri.ca for further assistance for any malfunction that cannot be confirmed and resolved – do not disassemble the machine by yourself.
2] Note that supply air temperature will be above ambient.

# H. WARRANTY

Cannadri warrants that the products will be free from defects in materials and workmanship from the time of purchase to delivery.

We offer a five-year limited warranty. If for whatever reason you are unsatisfied with our hardware or performance, our human customer service team will make every possible attempt to help you resolve the issue. The five-year limited warranty will cover the cost of replacements parts, not the cost of labor, for the five years following the date of purchase. Note that hardware must not be damaged or defective due to misuse, consumer error, or damage caused by the consumer. On all warranty claims the cost of shipping will be bound to the customer.

Should you wish to sell your Cannadri unit after initial purchase, installation, and use, the warranty is non-transferable and void.

Once you receive your Cannadri equipment, please register your warranty on our website right away: **cannadri.ca/warranty-registration/** In order to qualify for the 5-year warranty, please register your product **within 30 days from the purchase date.**

# NOTES

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# CANNADRI
## CRUSADER

**CANADA**

Cannadri Equipment Ltd.
info@cannadri.ca
Cannadri.ca

We offer
GROW-OPTIMIZED
DEHUMIDIFIERS