

FMS Dehumidifier **Owner's Manual**



FMS
FREEDOM MARINE
SOLUTIONS

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Warranty Information



We offer a 5-year warranty with every new dehumidifier or A/C unit purchased. The FMS warranty covers defects in materials and workmanship for 5 years from the date the unit is purchased. FMS is the only authorized repair site for FMS products. Contact the FMS office before any work is performed, any unauthorized repairs will invalidate the FMS 5-year warranty.

Thermostats, pumps, digital controls, and accessories carry a 1-year warranty.

Service needs **within** first 6 months:

Shipping costs to our factory and return to sender are included.

Service needs **after** 6 months - 5 years (from date of purchase):

Customer pays shipping to our factory and FMS pays for return shipping

*For our clients outside the continental U.S. the 5-year warranty is still valid. However, shipping and handling will be the responsibility of the client to and from the FMS factory.

Limitation of liability:

FMS is dedicated to manufacturing high quality custom marine and dehumidifier units. FMS makes this limited warranty expressly in lieu of all other warranties, expressed or implied, including but not limited to, the expressed warranties of merchantability and breach of any warranty the liability of FMS shall be limited to repairing or replacing the non-conforming goods. In no event shall FMS be liable for any indirect, incidental or consequential damages arising out of any sale or operation of the products sold and/or installed. The purchaser of the unit will hold FMS harmless of any incident caused by the failure of the FMS product up to and including injury or death. And in no event shall FMS's obligation exceed the value of the product(s) sold.

Dehumidifier Operation

Unit Specifications:

All units come standard with stainless steel construction for exceptional durability and assures a continued clean look. Dehumidification is efficiently achieved by a reliable and environmentally safe refrigeration system.

DP-1 (110V) and DP-2 (220V)

Up to 12 pints of water per day (80 degrees F and 60% humidity)

3.7 amps 110V and 1.85 amps 220V

Approximately 175 CFM of air movement

Dehumidification for approximately 250 to 350 cubic feet

DPXL-1 (110V) and DPXL-2 (220V)

Up to 24 pints of water per day (80 degrees F and 60% humidity)

6.8 amps 110V and 3.8 amps 220V

Approximately 300 CFM of air movement

Dehumidification for approximately 1000 cubic feet

Operation:

A dehumidifier is nothing more than a small air conditioning unit that gives up the ability to cool the air in order to remove as much moisture as possible. This effect is accomplished by flowing air directly through the evaporator (where moisture is removed and the air is cooled) directly into the condenser which reheats the air before it is returned to the room. The circulation fans are controlled by the compressor operation and the dehumidifiers incorporate a free-flow drain pan that can discharge water directly into a sink, shower, or other drainage fixture.

It is recommended to plug the dehumidifier into a GFI outlet and it will automatically come on once plugged in. The humidistat is factory preset to a 30% humidity level. Read through the "Humidistat Operation" section for adjusting this setting. If you are using the this dehumidifier in a "wood" environment, it is recommended to operate between 40% and 60% (relative humidity) level. The unit will automatically shut off when the RH setting has been reached. It is not abnormal, under high humidity conditions, to have the unit operate continuously. The dehumidifier and its components are designed to run 24 hours a day, 7 days a week and running constantly will not be detrimental to the operation of the unit.

The digital humidistat contains upper and lower limits for humidity levels and a humidity calibration function. It is recommended to leave these settings at the factory defaults. Contact FMS technical support for assistance.

Humidistat

Humidistat Wiring:

Humidistat Terminals:

0 0 0 0 0 0
1 2 3 4 5 6 7 8 9

- 1 & 3 Black Power In From Fuse
- 2- Power to Compressor and Fans
- 4- White Power In
- 5, 6, & 7 Humidity Sensor (BLACK, YELLOW, RED)
- 8 & 9 Temperature Sensor (If Equipped)

Humidistat Operation:

Power:

Press “RST” to turn unit on. Push and hold “RST” for three seconds to turn unit off.

Humidity:

Press “SET” to enter humidity settings mode. Use the arrows to adjust the humidity setting up or down. Press and hold the an arrow for 3 seconds for fast adjustments. Press “SET” again to exit humidity settings mode.

System Menu:

Press and hold “SET” for 3 seconds while not in humidity settings mode to enter the menu. Use the arrows to move through the menu. Press the “SET” once to set a selected parameter. Use the arrows to change the value and press the “SET” to save the value and return to the menu. Press “RST” to exit the menu.

Menu Parameters:

- HC- (Factory Set to C) Dehumidification Mode
- AL- Low Humidity Alarm Setting
- AH- High Humidity Alarm Setting
- P7- Time Delay For Compressor
- CA- Humidity Calibration
- d- Differential Humidity Setpoint

Humidistat

Fault Codes:

EEE- Humidity or temperature sensor has become disconnected or is faulty

LLL- Low humidity alarm (setting in the menu parameter "AL")

HHH- High humidity alarm (setting in the menu parameter "AH")

Fuse:

The fuse housing is located on the front of the unit. To open, twist cap off fuse holder in a counterclockwise direction. Replace the fuse with a similar fuse. The standard DP is equipped with a 10 amp fuse. The DP-XL is equipped with a 30 amp fuse.

Replacing the fuse with a higher load fuse may cause a dangerous condition and will void the 5-year warranty!

DO NOT REPLACE THE FUSE WHILE THE UNIT IS PLUGGED INTO POWER

Maintenance:

Air Filter:

The filter is located on the front of the unit. Under normal operating conditions the filter should be cleaned once every 3 months like an air conditioner filter. Depending on the environment in which the unit is operating, the filter may need to be cleaned or swapped out more often. To clean the filter, pull it out of the filter slot and wash with fresh water. Ensure the filter is dry before re-installing the filter. Failure to follow these instructions will cause the dehumidifier to work improperly.

Drain Pan:

The drain pan can have biological growth just like an air conditioner. It is recommended to check the drain condition and if needed clean out the drain pan with a drain pan chemical or using a shop vacuum to pull any debris out of the drain pan through the drain nipple. Contact FMS technical support for assistance with these steps if needed. Many customers can go years without worrying about the drain pan. The free-flow design should not allow for a large amount of condensation to accumulate and limits stagnant water.

Troubleshooting

FMS dehumidifiers have exceptional durability and there are very few troubleshooting steps to be taken before contacting FMS technical support. Do not attempt to make repairs to the unit on your own! This will void any warranty.

Blown Fuse:

Power fluctuations such as outages or surges are the most common way for the fuse to blow on the front of the dehumidifier. Replace the fuse and attempt to run the unit. If the fuse remains intact then allow the unit to continue operation. If the fuse blows again contact FMS technical support for assistance.

Display Issues:

If the display stops functioning properly it will most likely need to be replaced. The numbers may not show correctly on the screen or the unit will not operate. Contact FMS technical support for assistance.

Drain Pan Overflowing:

Check and clear the drain hose of any obstruction. Take a rigid object such as a screwdriver and attempt to clear any obstruction of the drain nipple leaving the unit. A wet and dry vacuum is also a great option for clearing any debris quickly.

Fans Stop Working:

The fans and compressor are both powered at the same time. If the fans have stopped working contact FMS technical support for assistance.

No Condensate Being Made:

The humidity or air temperature could be too low for the dehumidifier to operate correctly or there is a refrigerant issue. Contact FMS technical support for assistance.

Dehumidifier Freezing:

The humidity or air temperature could be too low for the dehumidifier to operate correctly or there is a refrigerant issue. Contact FMS technical support for assistance.