

Owner's Manual

LGR 7000XLi Portable Dehumidifier

Model F412

LEGEND BRANDS, INC.

15180 Josh Wilson Road, Burlington, WA 98233

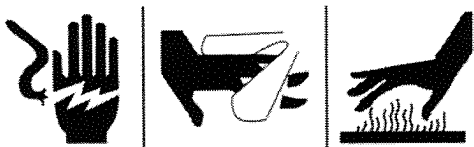
Phone: 800-932-3030 Fax: 360-757-7950 LegendBrandsRestoration.com

The Legend Brands® LGR 7000XLi dehumidifier reduces humidity in enclosed environments by removing water vapor from the air. The 7000XLi is rugged, durable and highly portable, making it ideal for water damage restoration, structural drying, construction, and other applications requiring temporary, high-performance dehumidification.

Patents: <http://www.LBpatents.com>

SAVE THESE INSTRUCTIONS

⚠ WARNING



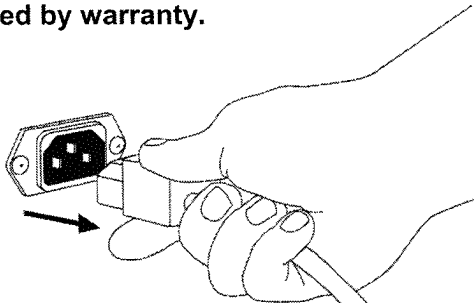
WARNING! Do not alter or modify your unit in any way. Use only replacement parts authorized by Legend Brands. Modifications or use of unapproved parts could create a hazard and will void your warranty. Contact your local distributor for assistance.

WARNING! Electric shock hazard, rotating fan, hot surface hazards. Unplug unit before opening cover for cleaning or servicing. Unit must be grounded.

CORRECT PLUG REMOVAL

Grasp IEC plug and pull straight out

IMPORTANT: Damage to IEC receptacle or dehumidifier resulting from improper removal of the power cord is not covered by warranty. The IEC power cord is a wear item and is not covered by warranty.



- Inspect the power cord before use. If cord is damaged, do not use. Always grasp the plug (not the cord) to unplug.
- Insert three-prong plug on power cord into a matching electrically grounded outlet. Do not use adapter. Never cut off third prong. Do not use an extension cord.
- The unit must be operated on a 120V/60Hz circuit protected by a Ground Fault Circuit Interrupter (GFCI) device.
- Keep motor and wiring dry.
- Do not attempt to repair the unit. For Authorized Service Centers, contact Legend Brands.

INTRODUCTION

LGR (low-grain refrigerant) dehumidifiers utilize an internal pre-cooling system to boost water removal efficiency. LGR units can continue to remove moisture in drier environments where conventional refrigerants cannot.

OPERATING YOUR DEHUMIDIFIER

Set unit upright

NOTICE: Transporting or storing the unit in a horizontal position is not recommended. When the machine is placed in a horizontal position, the oil from the compressor can flow into the refrigerant coils and reduce the ability of the dehumidifier to function and possibly damage the unit. If the unit has been placed in a horizontal position, set it upright and let it stand for at least 30 minutes before turning it on.

Positioning a Dehumidifier

For best results, operate your dehumidifiers in an enclosed area. Close all doors and windows that open to the outside to maximize the unit's water removal efficiency. Place your dehumidifier away from obstructions, and keep it away from anything

FIG. A: FRONT

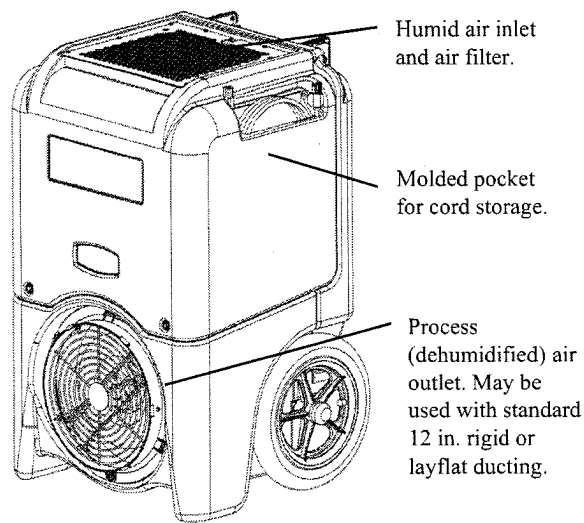


FIG. B: BACK

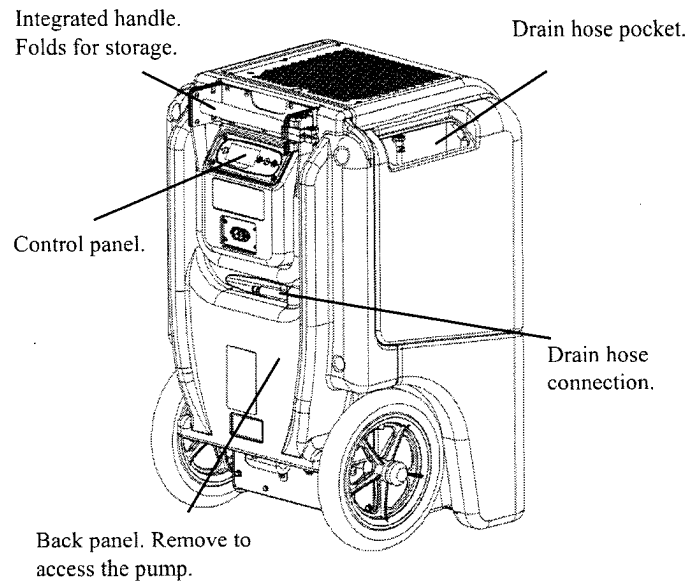
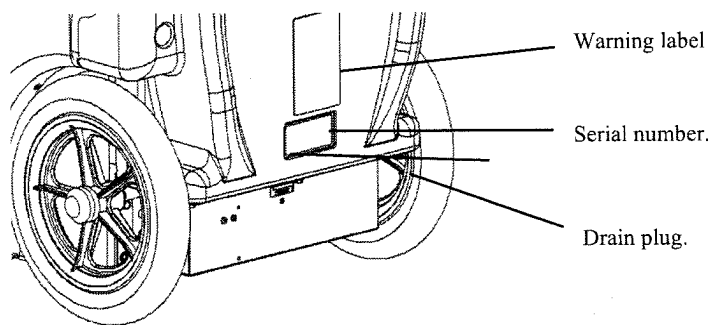


FIG. C: LOWER BACK PANEL



that could block airflow into and out of the unit. For more information, contact your Legend Brands distributor.

Set up drain hose

This unit automatically pumps out water on a regular basis. The condensate pump connects to a plastic drainage hose that is located in the pocket on the side of the unit. This hose is equipped with a quick-connect fitting for quick attachment to the provided drain hose. Unwrap the entire hose and place the unattached end in a sink, drain, bucket or outdoors – anywhere that water can drain out safely. If you use a bucket or other container for water collection, check it regularly to prevent overflows.

NOTICE: Uncoil and straighten the entire drain hose. Do not leave any part of the hose coiled on the unit and do not place the end of the hose higher than 20 ft. (6 m)

above the bottom of the unit. Also check for kinks or other obstructions that might restrict the flow of water. Obstructions may cause a water backup and result in overflows.

Plug in electrical cord

The dehumidifier should be plugged into a GFCI-protected 120 volt outlet rated for at least 15 amps. Remove the cord from its storage pocket and uncoil it. Always plug the cord firmly into the unit first, and then plug the other end into a suitable outlet.

Turn the unit on

The control panel has a display and a touchpad with four keys. Press the ON/OFF to turn the unit on. The unit will now go through a compressor delay countdown (up to 60 seconds in duration) and a self-diagnostics process, then switch to normal display mode.

Startup display and normal display modes

When unit is first plugged in to AC power, the control panel display will briefly cycle through a series of readouts. This is part of the unit's self-diagnosis procedure and no user intervention is required.

Once the self-diagnosis is complete, the display will switch to **normal display mode**.



The **first line** of the display shows the total number of hours the unit has been in operation. This value may be reset to zero to track job hours (see "Job Hours Reset" below). The **second line** of the display alternates between inlet temperature and inlet humidity.

User Settings Menu

A number of settings may be changed by the user. System information can also be displayed. These items are accessed by pressing DISPLAY MENU. Each press of the key will display the next parameter. When you reach the parameter you wish to adjust, press MENU SELECTION to increase the value. Press DISPLAY MENU again to accept the setting and re-start the display cycle. If no keys are selected for 20 seconds the display will automatically reset and return to the normal display mode.

Note that only menu items followed by a greater-than symbol (>) may be adjusted. All settings and modes are discussed in detail in User Settings, below.

Error messages

If the Unit onboard diagnostics discover a problem, the unit will display an error message. See "Error Messages," below, for an explanation of each message.

ON/OFF. Press to turn the unit on or off. When the machine is turned on, the display normally reads PLEASE WAIT COMP. DELAY and performs a numeral countdown from a maximum of 60 seconds to 0. This delay allows time for refrigerant pressures to equalize for easier starting. Once the unit completes the compressor delay, the display shows UNIT ON XX HRS and cycles between INLET XX°F and INLET XX%. NOTE: If no compressor delay countdown is displayed, a delay is not necessary and the machine will begin operation immediately.

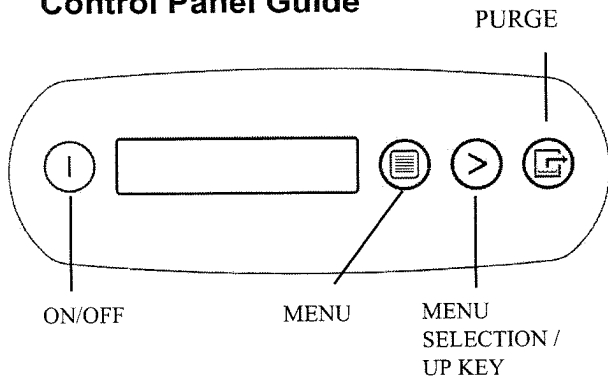
DISPLAY MENU. Press to cycle through the display of additional dehumidifier conditions and User Settings. To return to the main menu, press the ON/OFF key once.

MENU SELECTION. Press to change the v of the "User Defined" settings. The MENU SELECTION key acts as the UP key for adjusting the setpoint for Humidistat mode operation. See User Settings Menu (below) for details.

PURGE. Press to empty water from the condensate pump reservoir. The display will read PUMP PURGING with a numeral countdown.

NOTE: During normal operation, the pump purges automatically.

Control Panel Guide



- | | |
|-------------------------|--|
| ON/OFF | Press and release to turn unit on or off. |
| DISPLAY MENU | Press to select next item in menu. Menu item will show in display. |
| MENU SELECTION / UP KEY | Press to toggle or select values in menu displayed. |
| PURGE PUMP | Press and release to start purge. Display will count down seconds remaining until purge is complete. |

USER SETTINGS

Only menu items followed by a greater-than symbol (>) can be adjusted. If no keys are selected for 5 minutes on screens: INLET OUTLET, GRAIN DPR, the display will return to normal display mode. In all the other menu items, the display will return to the normal display mode after 20 seconds. Items without the symbol (>) are for information only and cannot be changed or reset.

Press **DISPLAY**
MENU to proceed to the next menu item. ↓

Press > **MENU SELECTION** to change the setting. →

1. JOB HRS RESET >
PWR INTERRUPT X

>

1. JOB HR RESET 0
PWR INTERRUPT 0

Press > to reset to 0.

2. INLET OUTLET
100' 80% 115' 30%

For information only.

3. GRAIN DPR
XX GPP

Unit displays GPP if set to Fahrenheit or g/kg if set to Celsius. To change this setting, see menu item 9.

4. CHECK FILTER
XXX HRS >

>

4. FILTER CHECKED
0 HRS

Press > to clear filter hours.

5. COIL CLEANED
XXX HRS >

>

5. COIL CLEANED
0 HRS

Press > to clear coil hours.

6. HUMIDISTAT
MODE OFF >

>

6. HUMIDISTAT
MODE ON >

Press > to turn ON or OFF. **For maximum dehumidification, make sure HUMIDISTAT is OFF.**

7. HUMIDISTAT
SETPOINT XX% >

>

Press > to cycle through 40%–90% at 5% increments (default is 50%).

8. LANGUAGE
ENGLISH >

>

8. IDIOMA
ESPANOL >

>

8. SPRACHE
DEUTSCH >

>

8. LANGUE
FRANCAIS >

Press > to change language options.

9. TEMP UNITS
'F >

>

9. TEMP UNITS
'C >

Press > to change to °F or °C.

10. COIL TEMP
XX'

For information only.

11. COMP CURRENT
XX.X A

For information only.

12. FIRMWARE
3.XX FXXX-XXX

For information only.

13. LIFE HOURS
XXXX HRS

(Returns to top menu item.)

The following section available only on wireless-equipped units.

14. SENSOR ID
XXXXXXXXXX

(Returns to top menu item.)

AT THE END OF THE JOB

To reduce the possibility of drips when moving the unit, follow these additional steps to ensure that all water is removed from the unit.

NOTICE: To ensure all water is removed from the dehumidifier, the unit will complete the defrost cycle even if the unit is turned off. If the unit is unplugged during the defrost cycle, excessive water may accumulate in the unit and may drip out when you move the unit. If the defrost cycle is interrupted in this way, note that the unit will display the message POWER FAILURE the next time it is powered up. To clear the message, press the MENU SELECTION key.

NOTICE: To ensure the condensate tank empties completely while purging, make sure the unit is placed upright on a horizontal surface.

1. Do not turn unit off or move it until it has returned to normal operating mode. To confirm unit status, review the control panel. The control panel will display one of the following messages:

Defrost in progress:

DEFROST XX

Display mode when unit is in defrost mode. XX indicates the seconds remaining on the defrost cycle.

Shutdown sequence

**WAIT FOR
DEFROST XX**

Display mode when unit in defrost and unit is powered down (shut off by user). Unit will complete the defrost cycle to remove any built-up ice then purge the pump. XX indicates the seconds remaining on the defrost cycle.

Drying sequence

**WAIT FOR
UNIT DRYING XXX**

Display mode when unit not in defrost and unit is powered down (shut off by user). Unit will complete the 5 minute drying cycle then purge the pump. XX indicates the seconds remaining on the drying cycle.

Normal display:

**UNIT ON 00 HRS
INLET XXX°F / XX%**

The unit has completed a defrost and drying cycle and has returned to normal mode. You may now proceed to step 2.

2. Gently rock the machine to ensure any water remaining on interior surfaces falls into the sump area.

3. Press the PURGE key. When the purge cycle is complete, turn the unit off.

4. Remove the external drain hose, drain it carefully, coil it and secure it with one of the straps provided on the side of the unit.

TRANSPORTATION AND STORAGE

IMPORTANT: Before moving, transporting or storing, purge unit and stow hose and power cord as described in the "At the End of the Job" section above.

NOTICE: Handle the unit carefully. Do not drop, throw or place the unit where it could fall. Rough treatment can damage the dehumidifier and may create a hazardous condition or void the warranty.

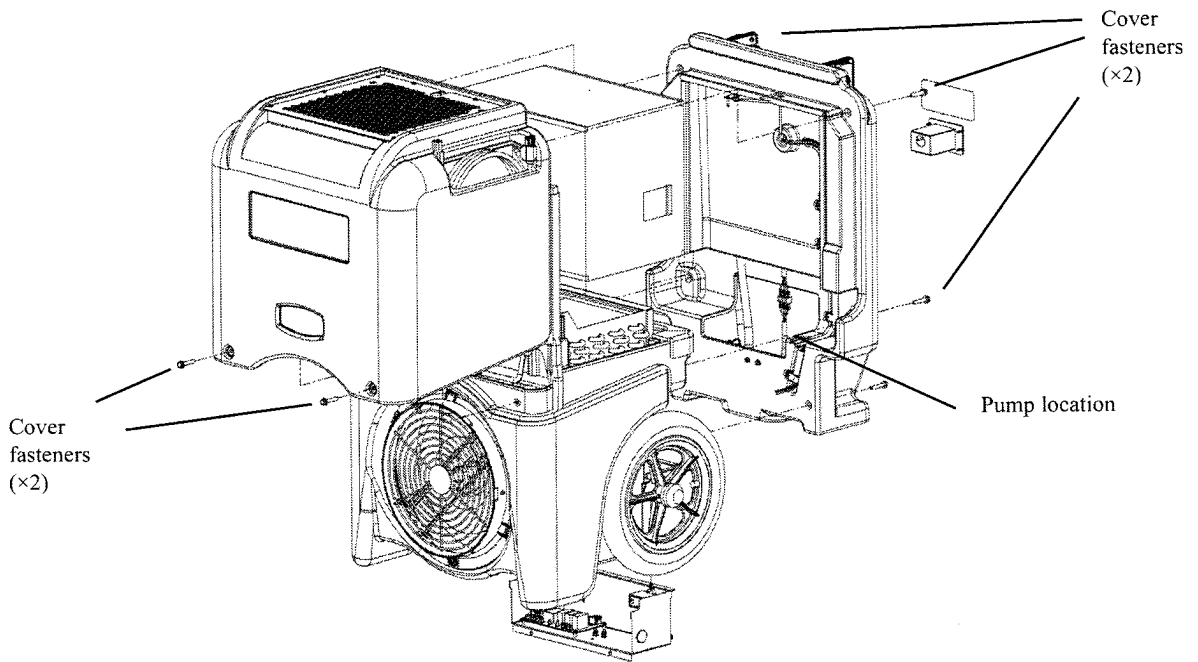
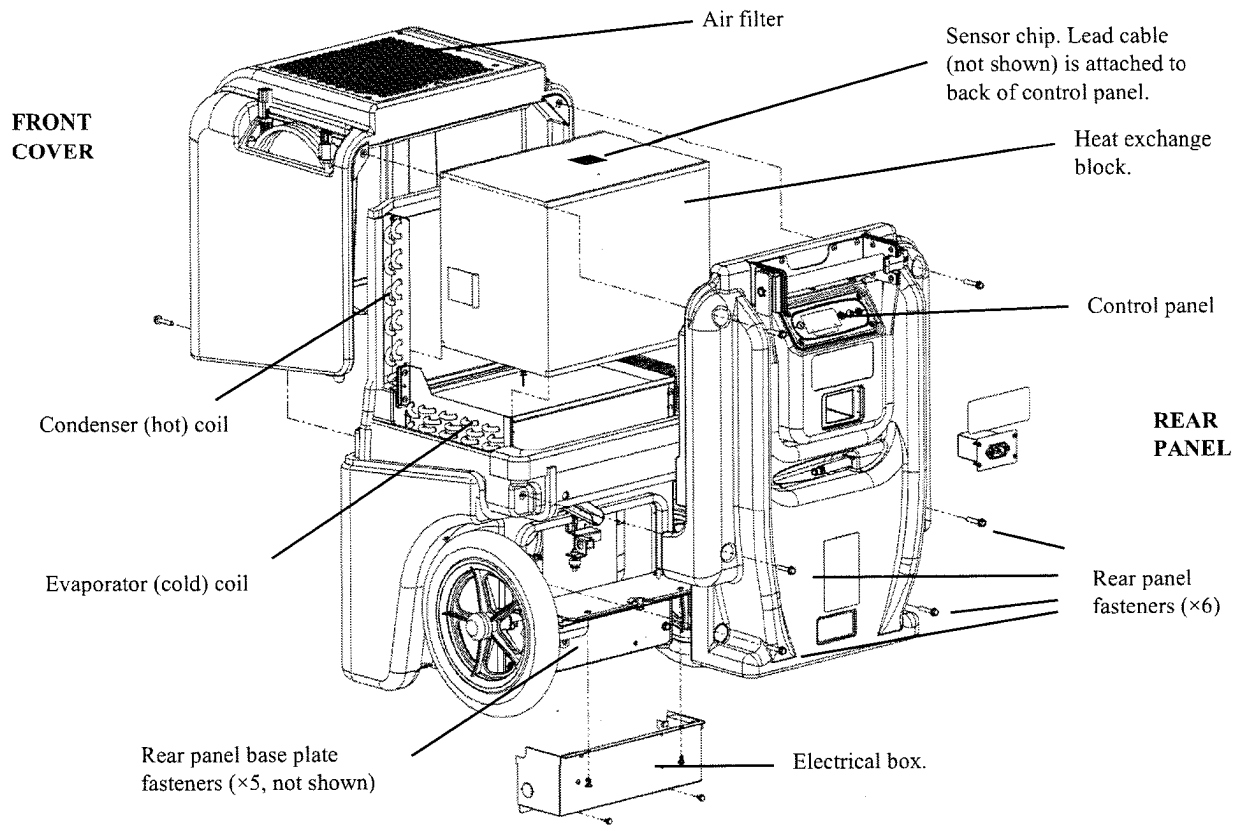
- Do not expose the control panel to moisture, snow or rain.
- Store and transport securely to avoid any damaging impact to internal parts.
- Secure during transport to prevent sliding and possible injury to vehicle occupants.
- Do not transport or store the unit on its front, sides or back. This will help to prevent any remaining moisture from escaping from the unit or flowing into areas outside the sump.

Special tip for transporting on stairs:

Before transporting unit on stairs, follow these additional steps to ensure that all water is removed from the unit:

1. Turn the unit off after a defrost cycle has been completed. Gently rock the upright machine on its wheels to ensure any water remaining on interior surfaces falls into the sump area.
2. Press the PURGE key. When the purge cycle is complete, turn the unit off.
3. Remove the external drain hose, drain it carefully, and return it to the pocket provided on the side of the unit.
- 4. IMPORTANT: Remove power cord from base of unit, coil it neatly, and place it in the cord storage pocket. This will prevent the cord from catching on the stairs and possibly damaging the cord.**

FIG. D: PARTS DIAGRAM



MAINTENANCE SCHEDULE

WARNING! ELECTRIC SHOCK HAZARD. Unplug the dehumidifier before performing any maintenance.

WARNING: Risk of dust and contaminants exposure. Use of respirator mask and gloves is recommended. If unit has been exposed to potentially dangerous contaminants, clean thoroughly and sanitize before reuse.

NOTICE: The unit is fitted with sensitive electronic sensors. Protect the sensors and their lead wires from damage and do not expose them to water or cleaning solution.

The following tools and supplies are needed to complete the maintenance procedures described in this manual:

- Philips and flat blade screwdrivers
- Needle-nose pliers
- 9/16 in. wrench
- 3/8 in. nut driver or socket
- 5/16 in. socket (to remove pump)
- 6 in. socket extension
- Ratchet wrench
- Cleaning cloths
- HEPA vacuum cleaner with soft brush nozzle and crevice nozzle.

Recommended

Cordless drill, small knife, small-jaw pliers, coil cleaning solution, Rotomolded housing cleaning solution

Before each use

Inspect the electrical cord for damage. Look for fraying, cuts, etc. Replace the cord if you find any damage.

Inspect filter. Replace if accumulation of dust and debris is visible.

NOTICE: Replace used filters only with a new Legend Brands 4-PRO filter part no. F581 (24-pack). Other filter types do not provide adequate filtration or airflow. Each filter is individually wrapped to protect filtration effectiveness. Remove the wrapper before installing the filter into the dehumidifier.

Monthly

Inspect coils and heat exchange block. Clean when dust accumulation is visible. In normal use, dust can accumulate and can restrict airflow, reducing performance and causing the unit to overheat. See "Disassembling the unit to clean coils and the heat exchange block," below.

To maintain appearance, wipe interior and exterior surfaces with a damp cloth. For deep cleaning and a lasting, protective shine, use a similar automotive interior treatment.

As Needed

Clean Pump Check Valve and Basin. If the unit displays the message "ER9 PUMP BLOCKED PUMP & HOSE", the pump check valve and pump basin may need to be cleaned. This requires removal of the back cover.

Clean coils and heat exchange block. Inspect the horizontal evaporator (cold) coil with the back cover removed. If excessive dust and debris is present, vacuum thoroughly and/or clean with alkaline (non-acidic) coil cleaner.

SYSTEM MESSAGES

The Control Panel will display the following messages based on system performance and environmental conditions. User action, if any is required, is indicated in the third column.

CONTROL PANEL MESSAGE	EXPLANATION	USER ACTION
INITIALIZING	Unit is powering up.	None
FIRMWARE VERSION XXX	Indicates control board firmware version number.	None
FXXX-XXX	Model number.	None
OFF	Unit has finished powering up and is operating.	None
PLEASE WAIT COMP. DELAY XX	60s delay before compressor turns on. Allows system pressure to equalize.	None
UNIT ON XXXX HRS INLET XXX°F / XX%	First line: indicates total operating hours. Second line: Toggles between inlet temperature and inlet RH every 2 seconds.	None
HUMIDISTAT INLET XXX°F / XX%	First line: indicates unit is in humidistat mode Second line: Toggles between inlet temperature and inlet RH every 2 seconds.	None
LOW TEMP INLET XXX°F/ XX%	Unit shuts off if inlet temp below 45°F/7°C. Turns back on when inlet reaches 50°F/10°C.	None
--- PUMP PURGING XX	Displays when the Pump Purge button is pressed. Shows time remaining in seconds.	None
HI TEMP CYCLE REMAINING XX MIN	Unit overload limit reached. Cool-down initiated.	None
--- DEFROST XX	Unit is defrosting, with countdown in seconds.	None
WAIT FOR DEFROST XXX	Unit turned off when coil is cold or already in a defrost cycle. Proceeds to finish cycle or initiate one to clear the coils of ice before storage.	None
WAIT FOR UNIT DRYING XXX	Occurs when unit is turned off and coil is not frozen. Clears the coils of water before storage.	None
CHECK FILTER > ---	Prompt to change filter.	Change filter. Press the > key to reset
CLEAN COILS > --	Prompt to clean coils and interior.	Clean coils. Press the > key to reset

ERROR MESSAGES

If the control system detects an error, it will produce an error ("ER") message. If this occurs, first unplug the unit and then plug it back in. This will usually reset the electronics, and the unit will begin operating normally. If the error message reappears, refer to the explanations and solutions shown below. If these solutions do not fix the problem, contact your local authorized service center.

CONTROL PANEL MESSAGE	EXPLANATION AND SOLUTION
ER4 DEFROST SENSOR CONNECT -or- ER4 OUTLET SENSOR CONNECT	Temp sensor is open, missing, or shorted. Check that temp sensors are installed correctly on control panel. If error persists, contact service.
ER5 SENSOR CONNECTION ON BD	Inlet Temp/RH sensor is open, missing, or shorted. Check that inlet temp/RH sensor is installed correctly on control panel and inlet shroud. If error persists, contact service.
ER6 CONTACT SERVICE CENTER	Current sensor failure. If error persists, contact service.
ER7 INVALID MODEL SETTING	Incorrect or unsupported DIP switch settings. Contact Legend Brands service department for correct DIP switch settings.
ER8 BUTTON STUCK ALL BUTTONS	Key is stuck or has been held down too long. Contact service.
ER9 PUMP BLOCKED PUMP & HOSE	Check for obstructions in drain hose. Check the pump.

TROUBLESHOOTING

FAULT	CAUSE	SOLUTION
Water drips out when moving unit	Unit was unplugged before purging was complete.	Purge unit before moving. See "At the End of the Job."
Unit does not operate	Unit not switched on. No power to machine.	Switch unit on. Plug in unit; check power cord connection at wall outlet and at base of unit.
Blower wheel not turning	Obstructed blower.	Remove duct ring and grill and remove obstruction. Replace duct ring and grill.
Unit operating, but room not dry	Not enough time to dry. Poor air movement in room. Excessive moist air infiltration.	Make sure "Humidistat" is OFF. Allow more time for drying. Increase air movement with air movers. Seal off area to reduce infiltration.
Unit collects too little water	Room air is dry. Room temperature is too low. Air filter is full. Heat exchange block and/or coils are clogged.	Make sure "Humidistat" is OFF. Confirm humidity level with hygrometer. Increase room temperature. Check filter. Clean or replace as necessary. Check heat exchange block and coils. Clean as necessary.
<p><i>If the problem you are experiencing is not listed here, contact your Legend Brands location for further assistance.</i></p>		

SPECIFICATIONS

Model	LGR 7000XLi (F412)
Water removal AHAM (80°F/60% RH)	130 pts. 61.5 liters / day
Water removal low grain (80°F/20% RH)	17 pts. 8 liters / day
Process air (max.)	325 CFM* ductable floor-level outlet.
Dimensions (H x D x W)	33.5 x 20 x 20 in. 85 x 51 x 51 cm
Weight	107 lbs. 49 kg
Amps	8.3A
Volts	115V
Frequency	60Hz
Noise level (avg.)	62 dB
Air filter	Part no. F581 (24 pack)
Drain hose	40 ft. 12.2 m
Power cord	25 ft. 7.6 m
Construction	Rotomolded shell
Safety	ETL certified CSA 22.2 no. 92
<p>Specifications are subject to change without notice. Some values may be approximate.</p> <p>*Fan speed varies automatically for optimized performance.</p>	

Warranty information is available at LegendBrandsRestoration.com.

Be sure to visit Warranty.LegendBrandsRestoration.com and register your purchase. Your registration will help us provide you with updated product information as needed.

For proper disposal, this unit should be taken to a recycler licensed to process refrigeration equipment.



WARNING: This product may expose you to chemicals, including lead and phthalates, known to the State of California to cause cancer, birth defects, or other reproductive harm. For more information, go to P65Warnings.ca.gov