

OWNER'S MANUAL

READ THIS MANUAL CAREFULLY BEFORE OPERATING



LGR DEHUMIDIFIER



LGR2200HD



LGR2500HD

IMPORTANT NOTICE BEFORE FIRST TIME USE:

Only store upright!

Pls let this unit sit in the upright position for 24hours before plug it in!

IMPORTANT SAFETY INSTRUCTIONS

When using electrical appliances, these instructions and warnings should always be followed to reduce the risk of fire, electrical shock and injury to persons:

READ AND SAVE ALL WARNINGS AND INSTRUCTIONS BEFORE USING THIS UNIT.

WARNING



DO NOT use this unit to ventilate areas where flammable liquids or vapors are used, stored or are present, including paints, gasoline, varnishes, floor refinishing products or solvents. ALWAYS read and follow all warnings and instructions on the containers for these products!

DO NOT use the unit near combustible gas, or hot air as unit could melt and cause a fire or electrical hazard. ALWAYS be sure the plug fits tightly into the outlet and that it fits tightly into the unit. When plugs fit loosely into outlets, they may slip partially out of the outlet and create a poor connection. This may cause outlets to overheat and create a potential fire hazard. Outlets in this condition should be replaced by a qualified electrician.

DO NOT take the unit apart or repair it unless you are qualified to do so. NEVER repair or service unit while unit is plugged in.



ALWAYS unplug the power cord when cleaning or moving the unit. DO NOT use the Power switch as the sole means of disconnecting power. NEVER leave children unattended when the unit is on or plugged in. ALWAYS turn off and unplug the Unit when not in use.

Store the unit in a clean, dry environment. DO NOT store outdoors or allow water inside the unit's motor. If the motor becomes wet, allow it to thoroughly dry before use.

The unit should never be operated near standing water as it will create a risk of serious injury from electrical shock. Never plug in or unplug the unit with wet hands or while standing in water. Handle unit with care to avoid causing damage or injury.

BE CERTAIN that the power source for the Unit is 120V AC, 60Hz. DO NOT plug the Unit into 240V or other power source.

The power cord is equipped with a three-prong, grounded plug that must be inserted into a grounded receptacle. Under no circumstances must the grounding prong be cut off the plug. **WARNING:** Do not use a three-prong to two-prong adapter. Where a two-prong wall receptacle is encountered, it must be replaced with a properly grounded three-prong receptacle installed in accordance with the National Electrical Code (NEC) and all applicable local codes and ordinances. This work must be done only by a qualified electrician, using copper wire only.

USE OF A THREE-PRONG TO TWO-PRONG ADAPTER IS NOT PERMITTED. IMPROPER CONNECTION MAY CREATE THE RISK OF ELECTRICAL SHOCK. USE OF SUCH ADAPTERS IS NOT PERMITTED IN

CAUTION

- AVOID the use of extension cords, power strips, power taps, outlet style air fresheners or other cord connected device, as these devices may overheat and cause a fire hazard.
- DO NOT route power cord under rugs, carpets, runners or furniture. This may damage the cord or cause it to overheat creating a fire hazard.
- ALWAYS place the Unit on a stable, flat, level surface while in operation to prevent the Unit from overturning.

- NEVER insert or allow fingers or objects to enter grill openings while Unit is in operation or injury and/or damage to the Unit may occur.
- DO NOT block, cover or obstruct air flow to or from the Unit while in operation.
- DO NOT use this unit outdoors or in standing water. Keep motor and wiring dry.
- DO NOT run cord under carpeting. Do not cover cord with throw rugs, runners, or similar coverings. Do not route cord under furniture or appliances. Arrange cord away from traffic area and where it could be tripped over.
- NEVER use a single extension cord to operate more than one Unit or other electrical device.
- DO NOT operate this product with a damaged power cord plug. If the supply cord is damaged it must be replaced by qualified personnel or other similar qualified persons in order to avoid hazard.
- The use of attachments or accessories not recommended or sold by the product distributor may cause injury to persons or damage to property.
- This appliance is NOT intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- DO NOT leave children unsupervised with the appliance.
- DO NOT use this Unit if it has been damaged or is not functioning properly.
- THIS Unit DOES NOT MEET THE REQUIREMENTS OF NEC ARTICLE 547-7 (2008). This Unit is not suitable for use in agricultural facilities including areas where livestock, poultry or other animals are confined. Please refer to National Electric Code (NEC) Article 547-7 (2008), or applicable state or local codes or standards relating to electrical requirements for agricultural buildings.
- THIS Unit DOES NOT MEET THE REQUIREMENTS OF NEC ARTICLE 500 (2008). This Unit is not suitable for use in hazardous locations. Please refer to National Electric Code (NEC) Article 500 or applicable state or local codes or standards relating to electrical requirements for hazardous locations.

MAINTENANCE:



To reduce the risk of electrical shock and fire please observe the following instructions. Cleaning the Unit regularly will help to maintain its efficiency.



- Always unplug the cord before moving, servicing or cleaning.
- NEVER place the unit in or near standing water. DO NOT IMMERSE UNIT IN WATER.
- Clean the unit only with a vacuum equipped with a brush attachment; the vacuum will remove the lint and dirt from the surface of the unit.



- Vacuum intake grills and filter every two weeks; this will help to maintain optimum performance.
- Clean the body of the unit with a soft cloth only.
- NEVER use ALCOHOL or SOLVENTS such as gasoline, benzene, paint thinner, or other harsh cleaners.

SAVE THESE INSTRUCTIONS

The Diamond products LGR Dehumidifier reduces humidity in enclosed structural environments by removing water vapor from the air. With proper use, the LGR2200HD/LGR2500HD can help to dry out damp structural materials, insulation, contents, and maintain a healthy level of humidity. Using the Diamond LGR Dehumidifier may also prevent secondary damage caused by high humidity.

SETUP DRAIN HOSE

The Diamond Dehumidifier condensation pump connects to a plastic drainage hose. This hose is equipped with a quick- connect fitting for quick attachment to the provided 25 ft. (7.5 m) 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 and do not place the end of the hose higher than 17 ft. (5 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.

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.

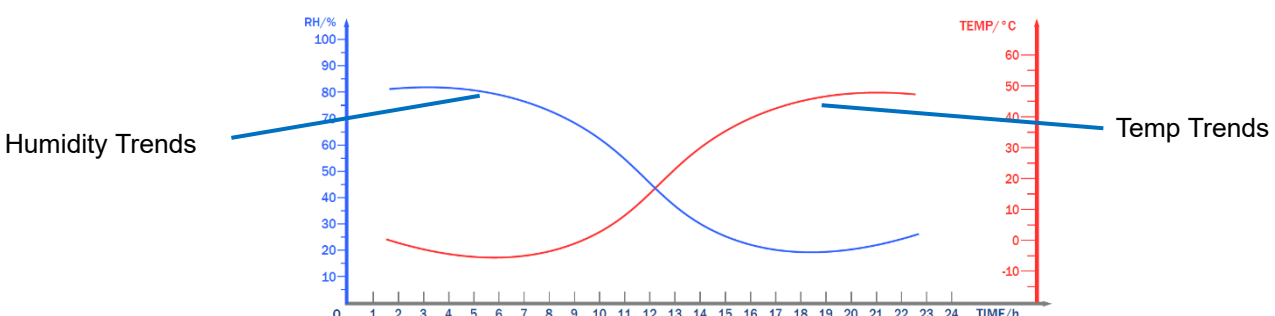
NOTICE: The Dehumidifier must be plugged into a 120VAC/ 60Hz outlet rated for at least 10 amps. Always plug the cord firmly into the unit first, and then plug the other end into a suitable wall outlet.

CONTROL PANEL

The Diamond Products Dehumidifier upgraded to the large LED touch control screen, it allows users to set the dehumidifier and monitor the humidity trends easily.



IN	Shows Temp & Humidity of inlet	⚡	Current Amps of the Dehumidifier
Out	Shows Temp & Humidity of outlet	🌡️	Temp of the Evaporator
Target	Shows Target Humidity	🕒	Job Hour and Total Hour
☰	Shows Status and Error Code		



HUMIDISTAT SETTING

The default operating mode keeps the dehumidifier running at its maximum capacity. This is ideal for most restoration application. To control humidity at a specific level, described below:

1. Press ◀ ▶ to reduce or increase the target humidity level. **THE DEHUMIFIER WILL TURN OFF IF THE TARGET HUMIDITY LEVEL IS LOWER THAN THE INLET HUMIDITY.**
2. The another method is press Set on screen, then Press the Humidity, then input the target humidity you need.

TEMPERATURE SETTING

To Change unit of Temperature, described below:

1. Press SET once on Screen, Press the Unit you need, there are 2 options: °F & °C

MEMORY RESTART AFTER POWER FAILURE

The default operating mode will turn on the dehumidifier automatically after a power failure. To close this function, described below:

1. Press SET once on screen, press the OFF Instead ON for MEMORY RESTART

AFTER 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 the condensate tank empties completely while purging, make sure the unit is positioned horizontally on a flat surface.

1. Gently rock the machine to ensure any water remaining on interior surfaces falls into the sump area.
2. Press the PUMP key. When the purge cycle is complete, turn the unit off.
3. Remove the external drain hose, drain it carefully, coil it and secure it with one of the Velcro straps provided on the side of the unit.
4. Unplug power cord from power supply and from base of the machine, coil neatly, coil it and secure it with one of the Velcro straps provided on the side of the unit.

TRANSPORTATION AND STORAGE

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

- Do not expose the control panel to moisture, snow or rain.
- Protect from freezing.
- Store and transport securely, and in the upright position, to avoid damaging of internal parts.
- Secure during transport to prevent sliding and possible injury to vehicle occupants.

MAINTENANCE SCHEDULE

WARNING! ELECTRIC SHOCK HAZARD. Unplug unit before cleaning or servicing.

WARNING: Risk of dust and contaminants exposure. Use of respirator mask and gloves is recommended. If unit has been exposed to po-tentially dangerous contaminant, 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.

Before Each Use Inspect the electrical cord for damage. Look for fraying, cuts, etc. Replace the cord if you find any damage. Inspect, vacuum or replace filter. **Monthly** Inspect coils. Clean when dust accumulation is visible. In normal use, dust can accumulate and can restrict airflow, reducing performance and causing the unit to overheat. Use a vacuum cleaner with a brush tool and a soft cloth to re-move any debris. Take care not to damage any interior components.

To maintain appearance, wipe interior surfaces with a damp cloth.

Clean Pump Check Valve and Basin If the unit displays the message “**STATE PUMP**”, which means the pump may be blocked, check valve and pump basin may need to be cleaned. **This operation must be performed by a qualified technician.** Unplug the dehumidifier before Cleaning . Remove grills and cover. Remove screws from pump base and lift out pump. Wipe out pump basin with a damp cloth. Inspect the pump base for build-up of debris and clean if needed.

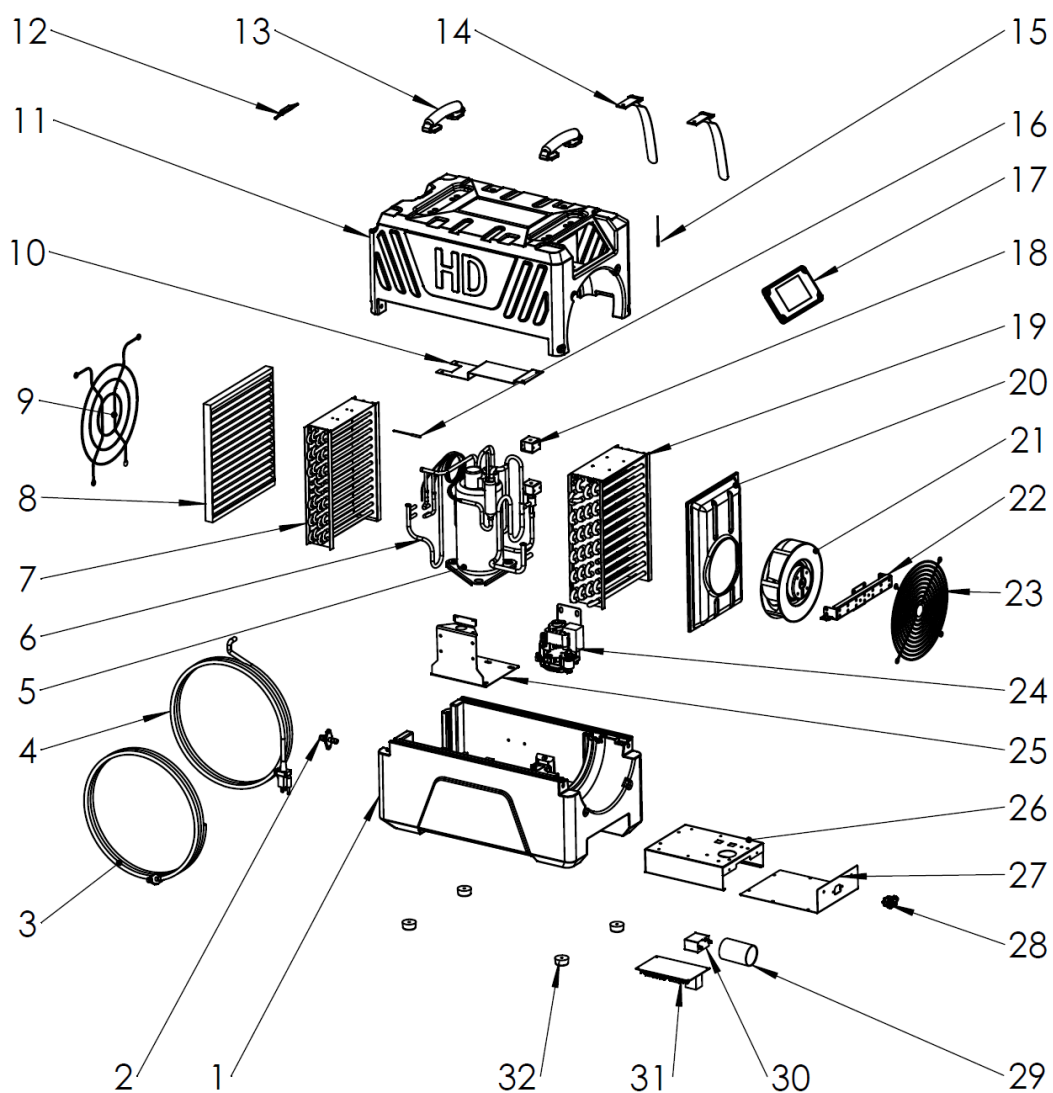
Unthread barbed fitting with check valve and rinse fitting and check valve with clean water. Reinstall check valve into barbed fitting and install the barbed fitting into pump. Do not over-tighten. Reinstall pump in base. Reinstall cover and grills.

Clean Coils With the cover removed, inspect both coils. If excessive dust and debris is present, vacuum thoroughly and/or clean with coil cleaner. **This operation must be performed by a qualified technician.**

PRODUCT SPECIFICATIONS

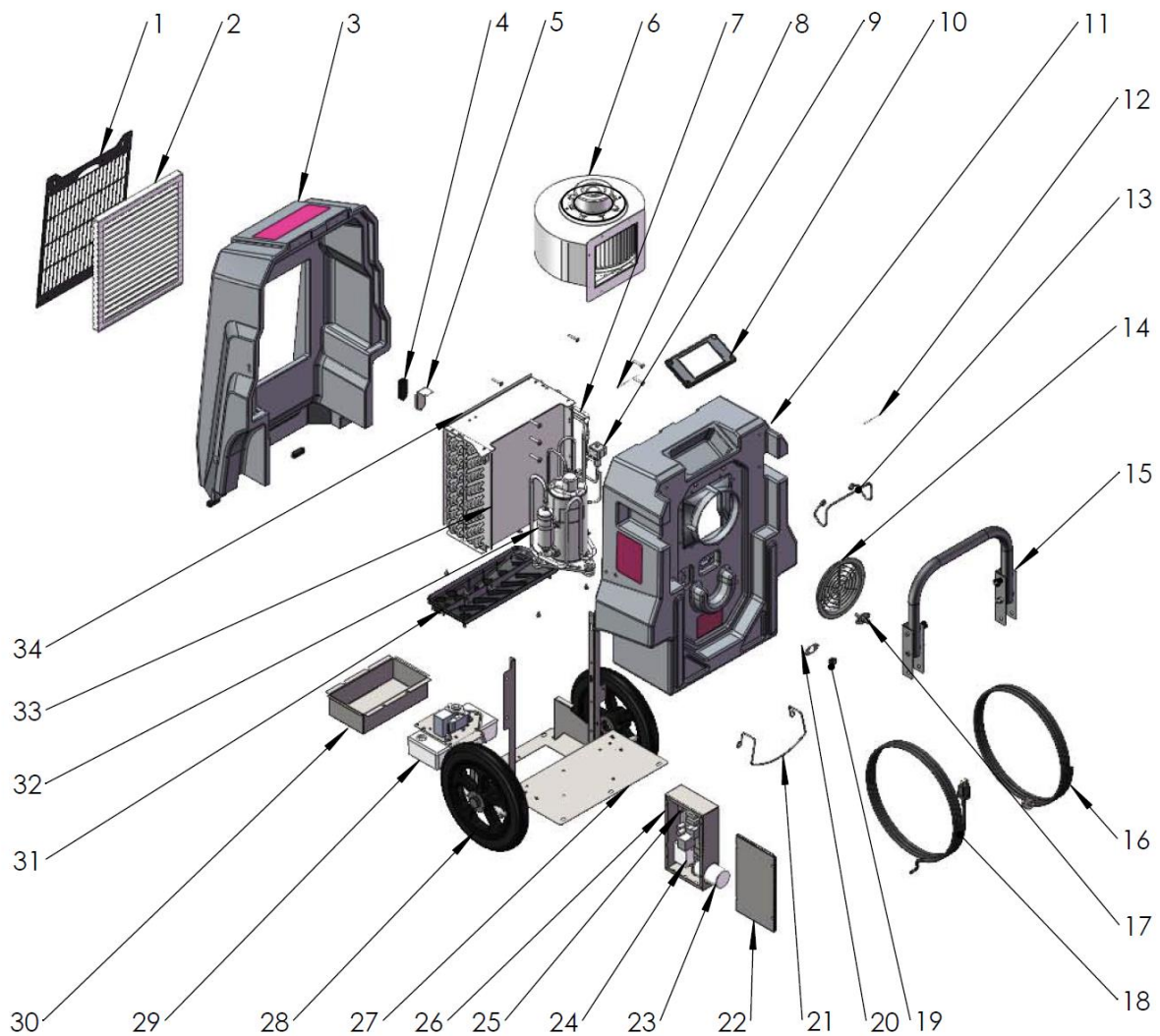
MODEL	LGR2200HD	LGR2500HD
Input	120V/60HZ	120V/60HZ
Rated Power	700watts @ aham 900watts @ 86°F/80%RH	750watts @ aham 950watts @ 86°F/80%RH
Rated Amps	7.5amps	8.5amps
Refrigerant	R410A 23oz	R410A 23oz
Compressor	Panasonic	Panasonic
Dehumidify Capacity	80PPD @Aham 150PPD @ Saturation	95PPD @Aham 180PPD @ Saturation
Power Cord	25ft 14awg SJTW	25ft 14awg SJTW
Drain Hose	25ft Silicon Pipe	25ft Silicon Pipe
Weight	65lbs	90lbs
Size	22.6*14*20inch	22*21*33inch
Certification	ETL/CETL	ETL/CETL

EXPLODE DRAWING LGR2200HD



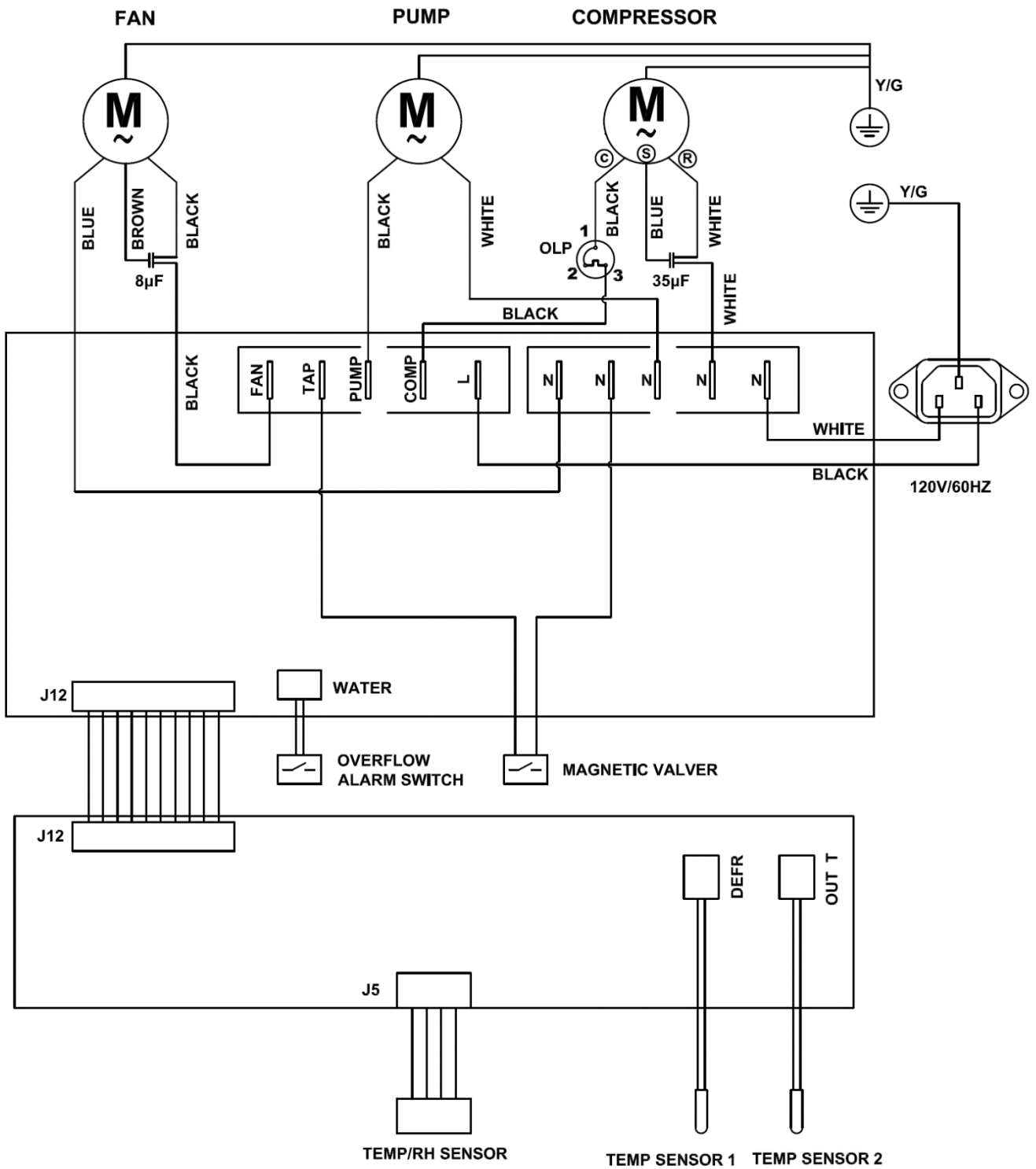
Item	Description	Qty	Item	Description	Qty
2201	Button Housing	1	2217	Control Panel	1
2202	Water Connector	1	2218	Solenoid Valve Coil	1
2203	Drain Hose	1	2219	Condenser	1
2204	Power Cord	1	2220	Outlet Cover	1
2205	Compressor	1	2221	Fan Motor	1
2206	Coil Pipe	1	2222	Fan Bracket	1
2207	Evaporator	1	2223	Outlet Grill	1
2208	Inlet Filter	1	2224	Pump	1
2209	Inlet Griller	1	2225	Base Bracket	1
2210	Bracket	1	2226	Control Box	1
2211	Upper Housing	1	2227	Control Box Cover	1
2212	Inlet Humidity Sensor	1	2228	Outlet	1
2213	Handle	2	2229	Compressor Capacitor	1
2214	Velcro	1	2230	Fan Capacitor	1
2215	Outlet Temp Sensor	1	2231	PCB Board	1
2216	Coil Temp Sensor	1	2232	Rubber Feet	4

EXPLODE DRAWING LGR2500HD



Item	Description	Qty	Item	Description	Qty
2501	Inlet Grill	1	2518	Power Cord	1
2502	Inlet Filter	1	2519	Cord Connector	1
2503	Front Housing	1	2520	Cord Bracket	1
2504	Inlet Humidity Sensor	1	2521	Lower Hooker	1
2505	Sensor Bracket	1	2522	Control Box Cover	1
2506	Fan Motor	1	2523	Compressor Capacitor	1
2507	Coil Pipe	1	2524	PCB Board	1
2508	Coil Temp Sensor	1	2525	Fan Capacitor	1
2509	Solenoid Valve Coil	1	2526	Control Box	1
2510	Control Panel	1	2527	Base Support	1
2511	Main Housing	1	2528	Wheels	2
2512	Outlet Temp Sensor	1	2529	Pump	1
2513	Upper Hooker	1	2530	Pump Box	1
2514	Outlet Grill	1	2531	Water Tray	1
2515	Foldable Handle	1	2532	Compressor	1
2516	Drain Hose	1	2533	Condenser & Evaporator	1
2517	Male Connector	1	2534	Cover	1

WIRING DIAGRAM



SYSTEM MESSAGES

The Dehumidifier control system constantly monitors internal operating conditions. If the system detects a problem, the state row will change to an ERROR message instead of RUN/OFF. If the display shows an ERROR message, 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 explanation and solution shown below.

System Message	Explanation and Solution
State: Pump	Check for obstructions in drain hose. If clogged, remove hose from unit and blow hose out with compressed air. Inspect and clean the pump check valve and pump basin.
State: COMP	Compressor may not work, Check compressor cable for proper connection. If error persists, contact service.
State: MOIS	Check inlet Temp/RH sensor for proper connection. If error persists, contact service.
STATE: TEMP 1	Check inlet Temp/RH sensor for proper connection. If error persists, contact service.
STATE: TEMP 2	Check outlet Temp/RH sensor for proper connection. If error persists, contact service.

TROUBLE SHOOTING

Problem	Possible Cause	Possible Solution
Water drips out when moving unit	Unit was unplugged before purging was complete.	Purge unit by pressing the pump button before moving. See "AFTER THE JOB" on page 4.
Unit does not operate	a) Unit not switched on. b) No power to machine	a) Switch unit on. b) Plug in unit; check that the power cord connections at the wall outlets and base of the unit are inserted completely and secure.
Unit operating, but room not dry	a) Not enough time to dry. Poor air movement in room. b) Excessive moist air infiltration.	a) Allow more time for drying. Increase air movement with air movers. b) Seal off area to reduce infiltration.
Unit collects too little water	a) Room air is dry. b) Room temperature is too low. c) Coils are clogged. d) Filter is clogged.	a) Confirm humidity level with hygrometer. b) Increase room temperature. c) Check coils. Clean as necessary. d) Check filter. Clean or replace as necessary.
Unit stop working after few hours	The set humidity is less than the environment humidity.	Decrease the set humidity according to the HUMIDISTAT SETTING process.



CUSTOMER SERVICE:

Toll-Free (888) 768-5091. Email: INFO@DIAMONDPRODUCTSUS.COM

Our Customer Service team is available to assist you with product
and service questions.

Please have your model number available.

WWW.DIAMONDPRODUCTSUS.COM