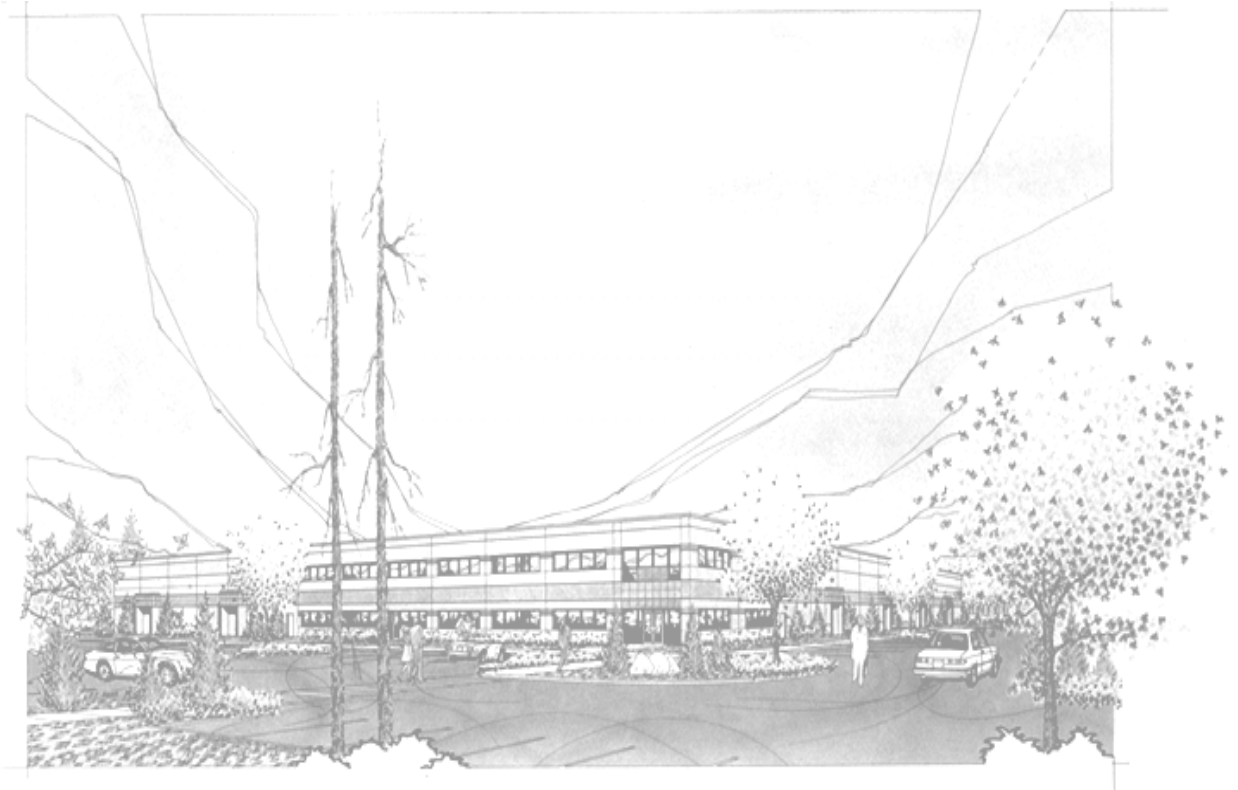


# Lang



**Installation, Operation, Maintenance, & Troubleshooting**  
**Model: CLG-48A-S** Electric Cruise Line Grooved Griddle  
**Serial:**



**THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE. READ, UNDERSTAND AND FOLLOW THE INSTRUCTIONS AND WARNINGS CONTAINED IN THIS MANUAL.**

**FOR YOUR SAFETY**

**DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.**

**WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.**

**NOTICE: THIS EQUIPMENT IS APPROVED FOR INSTALLATION ONLY ON VESSELS GREATER THAN 65 FEET IN LENGTH, IN ACCORDANCE WITH USCG REGULATIONS IN TITLE 46 CFR 110-113. ANY WIRING USED IN THE INSTALLATION OF THIS APPLIANCE MUST BE STRANDED COPPER.**

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**CAUTION:** GRIDDLE WEIGHS 515 lbs (234 kg). FOR SAFE HANDLING, INSTALLER SHOULD OBTAIN HELP AS NEEDED, OR EMPLOY APPROPRIATE MATERIALS HANDLING EQUIPMENT (SUCH AS A FORKLIFT, DOLLY, OR PALLET JACK) TO REMOVE THE UNIT FROM THE SKID AND MOVE IT TO THE PLACE OF INSTALLATION.



**CAUTION:** ANY STAND, COUNTER OR OTHER DEVICE ON WHICH GRIDDLE WILL BE LOCATED MUST BE DESIGNED TO SUPPORT THE WEIGHT OF THE GRIDDLE.



**CAUTION:** SHIPPING STRAPS ARE UNDER TENSION AND CAN SNAP BACK WHEN CUT.



**DANGER:** THIS APPLIANCE MUST BE GROUNDED AT THE TERMINAL PROVIDED. FAILURE TO GROUND THE APPLIANCE COULD RESULT IN ELECTROCUTION AND DEATH.



**WARNING:** INSTALLATION OF THE UNIT MUST BE DONE BY PERSONNEL QUALIFIED TO WORK WITH ELECTRICITY. IMPROPER INSTALLATION CAN CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT. UNIT MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.



**NOTICE:** The data plate is located behind the access panel in the back of the griddle. The griddle voltage, wattage, serial number, wire size, and clearance specifications are on the data plate. This information should be carefully read and understood before proceeding with the installation.



**NOTICE:** The installation of any components such as a vent hood, grease extractors, fire extinguisher systems, must conform to their applicable National, State and locally recognized installation standards.



**CAUTION:** ALWAYS KEEP THE AREA NEAR THE APPLIANCE FREE FROM COMBUSTIBLE MATERIALS.



**CAUTION:** KEEP FLOOR IN FRONT OF EQUIPMENT CLEAN AND DRY. IF SPILLS OCCUR, CLEAN IMMEDIATELY, TO AVOID THE DANGER OF SLIPS OR FALLS.



**WARNING:** KEEP WATER AND SOLUTIONS OUT OF CONTROLS. NEVER SPRAY OR HOSE CONTROL CONSOLE, ELECTRICAL CONNECTIONS, ETC.



**CAUTION:** MOST CLEANERS ARE HARMFUL TO THE SKIN, EYES, MUCOUS MEMBRANES AND CLOTHING. PRECAUTIONS SHOULD BE TAKEN TO WEAR RUBBER GLOVES, GOGGLES OR FACE SHIELD AND PROTECTIVE CLOTHING. CAREFULLY READ THE WARNING AND FOLLOW THE DIRECTIONS ON THE LABEL OF THE CLEANER TO BE USED.



**NOTICE:** Service on this, or any other, LANG appliance must be performed by qualified personnel only. Consult your authorized service station directory or call the factory at 1-800-224-LANG (5264), or [WWW.LANGWORLD.COM](http://WWW.LANGWORLD.COM) for the service station nearest you.



**WARNING:** BOTH HIGH AND LOW VOLTAGES ARE PRESENT INSIDE THIS APPLIANCE WHEN THE UNIT IS PLUGGED/WIRED INTO A LIVE RECEPTACLE. BEFORE REPLACING ANY PARTS, DISCONNECT THE UNIT FROM THE ELECTRIC POWER SUPPLY.



**CAUTION:** USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY LANG OR THEIR AUTHORIZED DISTRIBUTORS CAN CAUSE BODILY INJURY TO THE OPERATOR AND DAMAGE TO THE EQUIPMENT AND WILL VOID ALL WARRANTIES.



### **3.1 Receiving the Griddle**

Upon receipt, check for freight damage, both visible and concealed. Visible damage should be noted on the freight bill at the time of delivery and signed by the carrier's agent. Concealed loss or damage means loss or damage which does not become apparent until the merchandise has been unpacked. If concealed loss or damage is discovered upon unpacking, make a written request for inspection by the carrier's agent within 15 days of delivery. All packing material should be kept for inspection. Do not return damaged merchandise to Lang Manufacturing Company. File your claim with the carrier.

### **3.2 Location**

Prior to un-crating, move the griddle as near its intended location as practical. The crating will help protect the unit from the physical damage normally associated with moving it through hallways and doorways.

### **3.3 Un-crating**

The griddle will arrive completely assembled inside a wood frame covered by cardboard box and strapped to a skid. **Remove the cardboard cover, cut the straps and remove the wood frame.**

**CAUTION:**      **GRIDDLE WEIGHS 515 lbs (234 kg). FOR SAFE HANDLING, INSTALLER SHOULD OBTAIN HELP AS NEEDED, OR EMPLOY APPROPRIATE MATERIALS HANDLING EQUIPMENT (SUCH AS A FORKLIFT, DOLLY, OR PALLET JACK) TO REMOVE THE UNIT FROM THE SKID AND MOVE IT TO THE PLACE OF INSTALLATION.**



**CAUTION:**      **ANY STAND, COUNTER OR OTHER DEVICE ON WHICH GRIDDLE WILL BE LOCATED MUST BE DESIGNED TO SUPPORT THE WEIGHT OF THE GRIDDLE.**



**CAUTION:**      **SHIPPING STRAPS ARE UNDER TENSION AND CAN SNAP BACK WHEN CUT.**



Remove griddle from skid and place in intended location.

# INSTALLATION

**DANGER:** THIS APPLIANCE MUST BE GROUNDED AT THE TERMINAL PROVIDED. FAILURE TO GROUND THE APPLIANCE COULD RESULT IN ELECTROCUTION AND DEATH.



**WARNING:** INSTALLATION OF THE UNIT MUST BE DONE BY PERSONNEL QUALIFIED TO WORK WITH ELECTRICITY. IMPROPER INSTALLATION CAN CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT. UNIT MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.



**NOTICE:** The data plate is located behind the access panel in the back of the grill. The griddle voltage, wattage, serial number, wire size, and clearance specifications are on the data plate. This information should be carefully read and understood before proceeding with the installation.



**NOTICE:** The installation of any components such as a vent hood, grease extractors, fire extinguisher systems, must conform to their applicable National, State and locally recognized installation standards.



## 4.1 Electrical Connection

There is one power supply connection on the griddle. Refer to the power supply chart on the bottom of this page for proper power supply size.

There is (1) one 1 1/4 inch conduit knockout on the griddle located at the rear of the griddle, through the back and the bottom of the griddle body. Use a supply wire suitable for at least 90° C.

## 4.2 Griddle Voltage

The model CLG-48A-S griddle is shipped from the factory wired for 440 volts.

## 4.3 Phasing

All griddles are shipped from the factory set up for a **three phase** service.

GRIDDLE SPECIFICATIONS					
MODEL NUMBER	TOTAL kW	NOMINAL AMPS PER LINE			WEIGHT
		THREE PHASE			
		440 VOLT			
		LINE 1	LINE 2	LINE 3	
CLG-48A-S	24.0	35.4	35.4	23.6	515 lbs.

# INITIAL START UP

## **5.1 Initial Start Up**

Before starting the griddle for the first time, clean the griddle body and cooking surface with a mild soap and water solution then rinse with clear water and dry.

Set the main power switch, located at the far left of the control panel, to the "ON" (up) position.

Set the temperature dials to 200 degrees.

Heat the griddle at 200 degrees for 2 hours to evaporate any moisture that may be in the elements.

After 2 hours at 200 degrees, proceed with "SEASON THE COOKING SURFACE".

## **5.2 Season the Grill**

The cooking surface must be "seasoned" in order to reduce product sticking.

To season, heat the griddle to 250 degrees.

Once at 250 degrees, coat the cooking surface with a non-salted vegetable oil.

Allow the griddle to stand at 250 degrees until the cooking surface looks dry then coat it again.

Heat the griddle to 350 degrees and repeat the procedure.

The griddle may emit a small amount of smoke as the cooking surface passes the 350° point. Do not be alarmed as oils associated with the manufacturing process may cause smoke and will stop when the griddle reaches 350 degrees.



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**CAUTION:** KEEP FLOOR IN FRONT OF EQUIPMENT CLEAN AND DRY. IF SPILLS OCCUR, CLEAN IMMEDIATELY, TO AVOID THE DANGER OF SLIPS OR FALLS.



## **6.1 Setting the Temperature**

If different temperature settings across the same griddle are to be used, select one side of the griddle and run that at the lowest temperature. Adjoining sections should be set at progressively higher temperatures. Do not try to run end sections hot and center sections cool.

## **6.2 Loading the Grill**

An understanding of how the griddle sections are controlled will be a valuable aid in loading your griddle.

A thermostat independently controls each 12-inch section. The sensor for each is mounted under the griddle plate in the center of each cooking section.

If product is loaded directly over the temperature sensor, that section will turn on and the element will heat the entire cooking section. If the product is loaded to the side, front or back of the temperature sensor, the controller will react to the temperature change of the entire section instead of just one product.

During slow periods minimal loads, do not load directly over the temperature sensors as this will unnecessarily turn the elements on and over heat the remainder of the section not being utilized.

During busy periods, a systematic approach should be utilized in loading the griddle. Load the entire section from rear to front and continue cooking to the next section if necessary.

Turn the product and continue cooking until it has reached its desired degree of doneness.

Remove the product from the griddle.

When reloading the griddle, first use the griddle surface on which a previous load was not placed. This will ensure the proper griddle temperature.

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**CAUTION:** MOST CLEANERS ARE HARMFUL TO THE SKIN, EYES, MUCOUS MEMBRANES AND CLOTHING. PRECAUTIONS SHOULD BE TAKEN TO WEAR RUBBER GLOVES, GOGGLES OR FACE SHIELD AND PROTECTIVE CLOTHING. CAREFULLY READ THE WARNING AND FOLLOW THE DIRECTIONS ON THE LABEL OF THE CLEANER TO BE USED.



## **7.1 Daily Cleaning (after each meal)**

Empty the grease drawer often or whenever it is 3/4 full. Remove the grease drawer after each meal and wash the inside and outside of the drawer.

Keep the griddle surface clean. After each cooking load, scrape the griddle surface with the grooved griddle cleaning tool to remove any carbonized grease.

The griddle surface should be cleaned and re-seasoned. Use a griddle stone, griddle pad, or liquid cleaner. Rub with the grain of the metal, being careful not to scrape the splashguard.

Clean the exterior of the appliance with a hot water and chlorine solution to maintain a gleaming appearance.

Be sure to rinse thoroughly and coat the cooking surface with a thin film of oil to prevent rusting.

Re-season the griddle plate after each cleaning (refer to page 8).

# TROUBLESHOOTING

## **9.1 Symptoms**

What follows is a chart of Symptoms and Possible Causes to aid in diagnosing faults with the oven.

Refer to the Symptoms column to locate the type of failure then to the Possible Cause for the items to be checked.

To test for a possible cause, refer to the TEST section and locate the Possible Cause then refer to test to identify test procedures.

<b>SYMPTOM</b>	<b>POSSIBLE CAUSE</b>
Griddle will not heat	<ul style="list-style-type: none"><li>• Failed element</li><li>• Failed thermostat</li><li>• No power to cord outlet</li><li>• Open wire</li></ul>
Product burning	<ul style="list-style-type: none"><li>• Product is cooked too long</li><li>• Failed thermostat</li></ul>
Product under done	<ul style="list-style-type: none"><li>• Failed thermostat</li></ul>

# TROUBLESHOOTING CONT'D

## 9.2 TESTS

### NOTICE:

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### WARNING:

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If an item on the list is followed by an asterisk (\*), the work should be done by a factory authorized service representative.

Possible Cause	TEST
Product is cooked too long	<ul style="list-style-type: none"><li>• No test available, operational condition</li></ul>
Failed thermostat	<ul style="list-style-type: none"><li>• Check thermostat for continuity, or that it is cycling on &amp; off</li></ul>
Failed element	<ul style="list-style-type: none"><li>• Remove the wires and check for proper resistance across the element</li></ul>

### CAUTION:

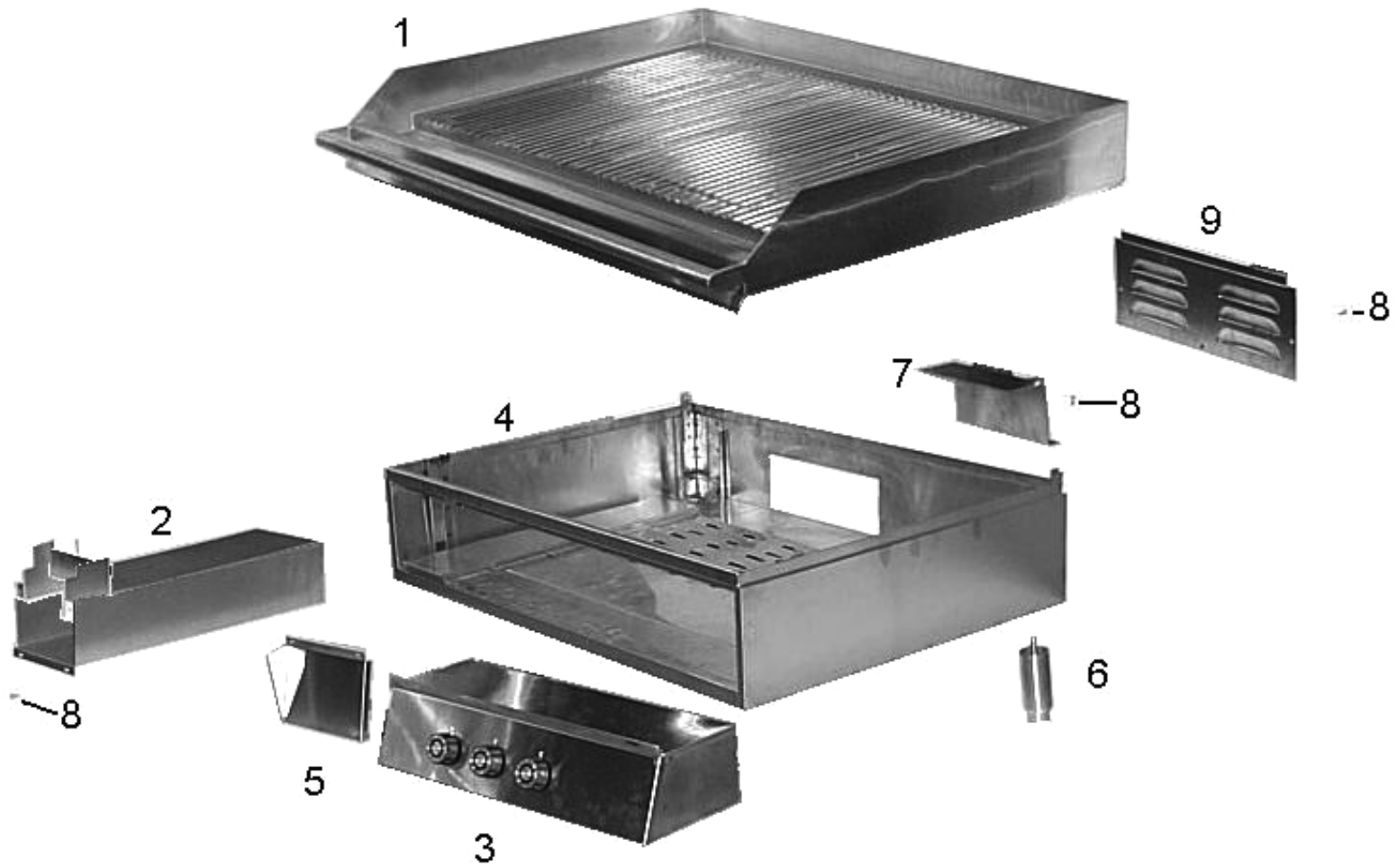
**USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY LANG OR THEIR AUTHORIZED DISTRIBUTORS CAN CAUSE BODILY INJURY TO THE OPERATOR AND DAMAGE TO THE EQUIPMENT AND WILL VOID ALL WARRANTIES.**



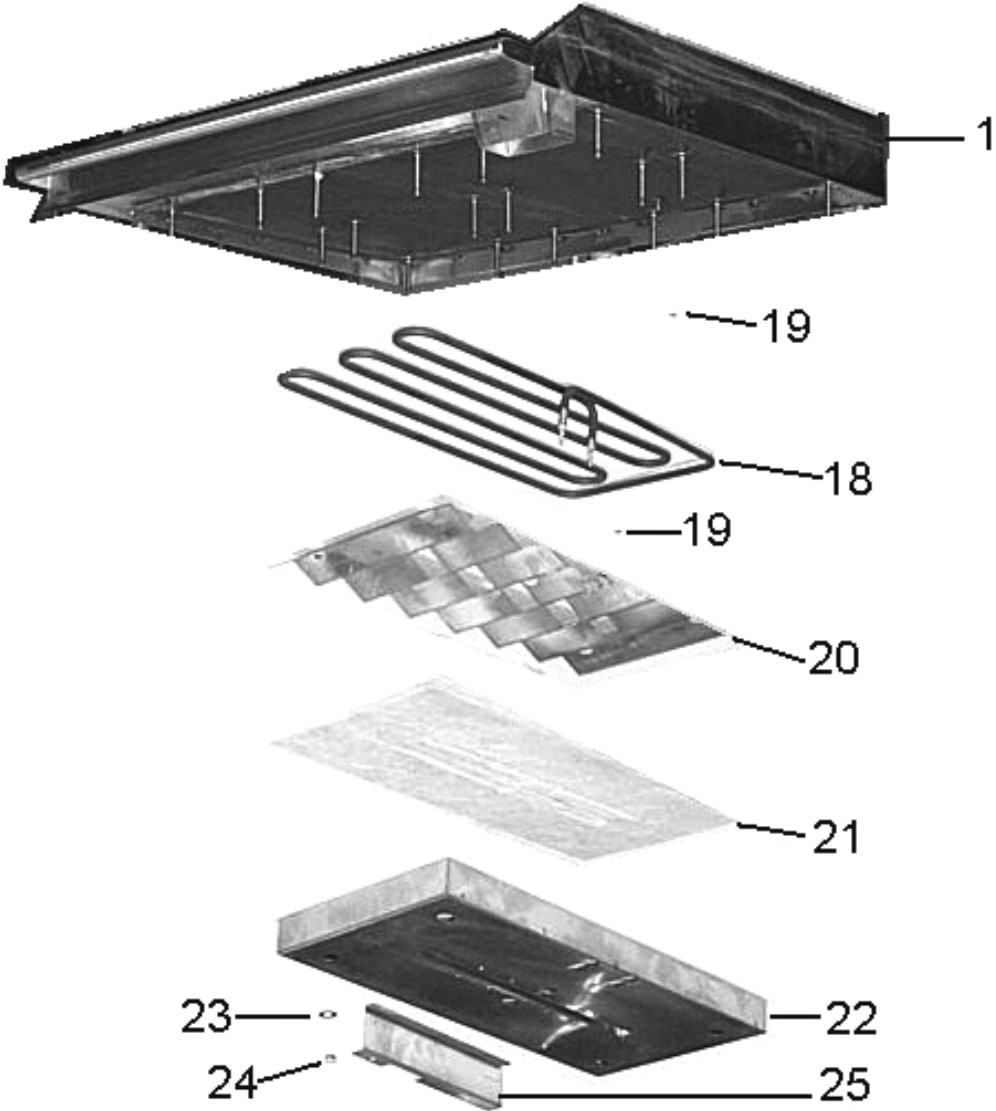
## PARTS LIST

Item #	Description	Part Number
1	Griddle Plate 4 Foot Grooved	LGCL-723-6
2	Grease Drawer Slide Assembly	See Page 17
3	Control Box	See Page 16
4	Griddle Body	N/A
5	Access Panel	LGCL-422
6	Leg, 4" with Round Adjustable Toe	72500-12
7	Supply Wire Baffle	LGCL-227
8	Screw Stainless Steel 10-32 x 1/2" Hex Head Cap	20111-09
9	Rear Cover	LGCL-507
10	Ground Wire 24"	LGCL-770
11	Wire Harness	LGCL-586
12	Terminal Block 2 Pole, Large 175 Amp	30500-11
13	Thermostat, Griddle, 550°F	30402-07
14	Knob, Thermostat, 550°F	70701-19
15	Element Box	LGCL-725-4
16	Snap Bushing 1 3/8" SB1375-16 Black	70801-02
17	Electric Box Cover	LGCL-524
18	Element, Griddle 440 Volt 5991 Watts	11030-48
19	Nut, Hex, Stainless Steel, 10-32	20303-02
20	Element Pan, Zig-Zag	LGCL-439
21	Element Pan, Insulation	XL-424
22	Element Pan	LGCL-434
23	Washer, Stainless Steel, Flat	20203-05
24	Nut, Hex, Stainless Steel, 5/16-18	20303-07
25	Thermostat Holder	LGCL-504
26	Grease Snout Guard, Left Hand	LGCL-100-1
27	Grease Snout Guard, Rear	LGCL-100-2
28	Grease Snout Guard, Right Hand	LGCL-100
29	Grease Drawer Slide	LGCL-228
30	Screw, Stainless Steel, 1/4-20 x 5/8 Hex Head Cap	20111-03
31	Grease Drawer Stop	LGCL-234-1
32	Nut, Hex Stainless Steel, 1/4-20	20303-01
33	Grease Drawer	LGCL-235

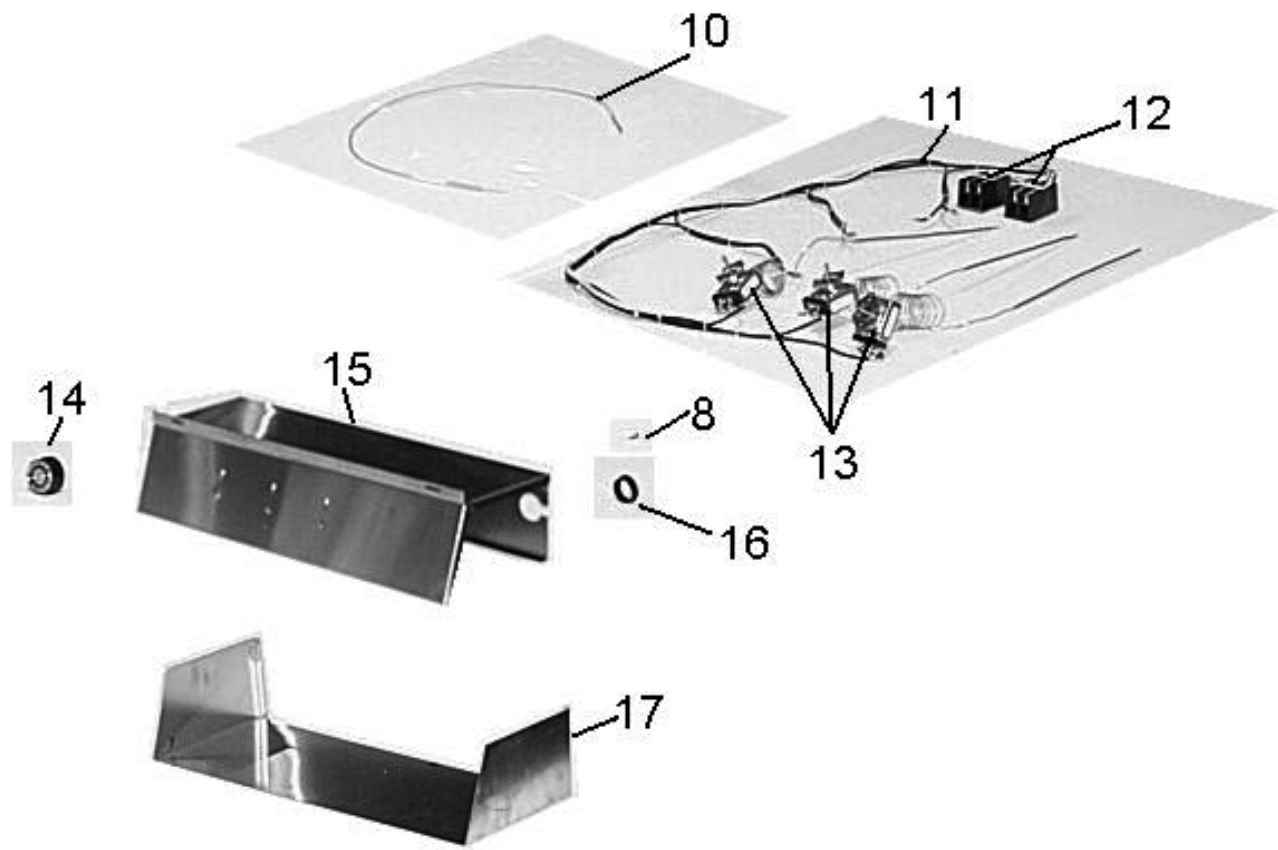
**EXPLODED VIEW**



**EXPLODED VIEW CONT'D**



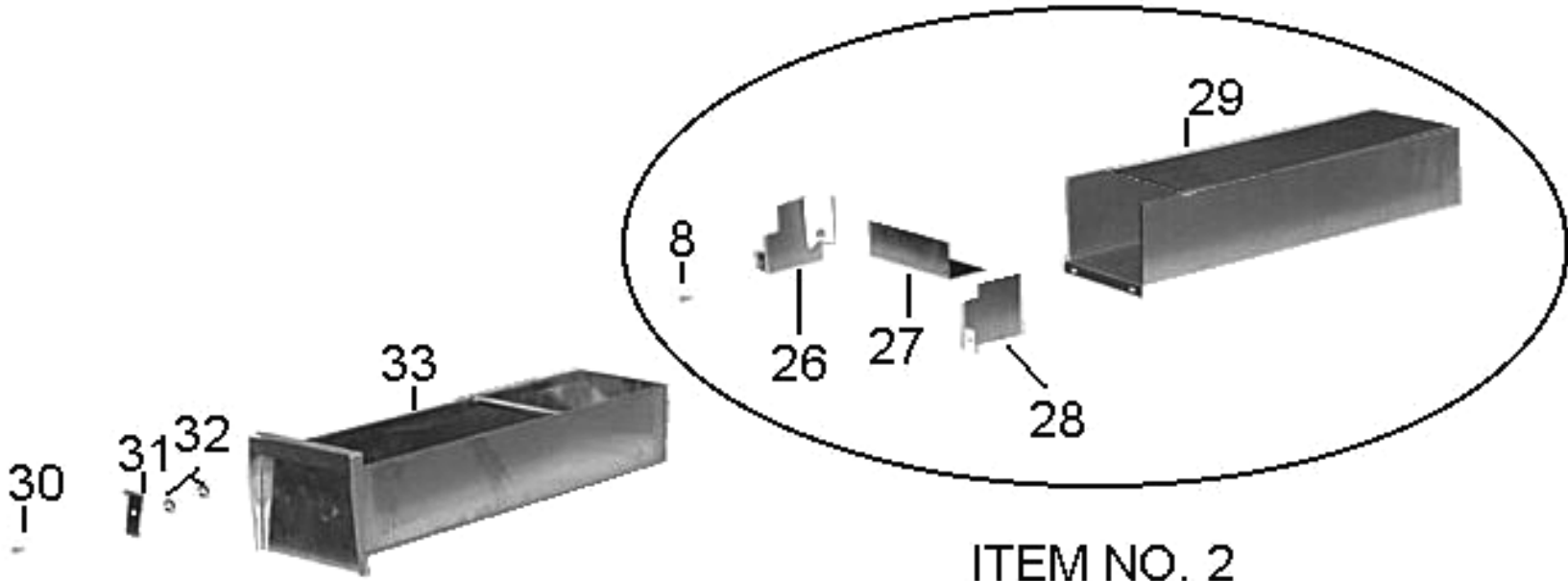
**EXPLODED VIEW CONT'D**



ITEM NO. 3

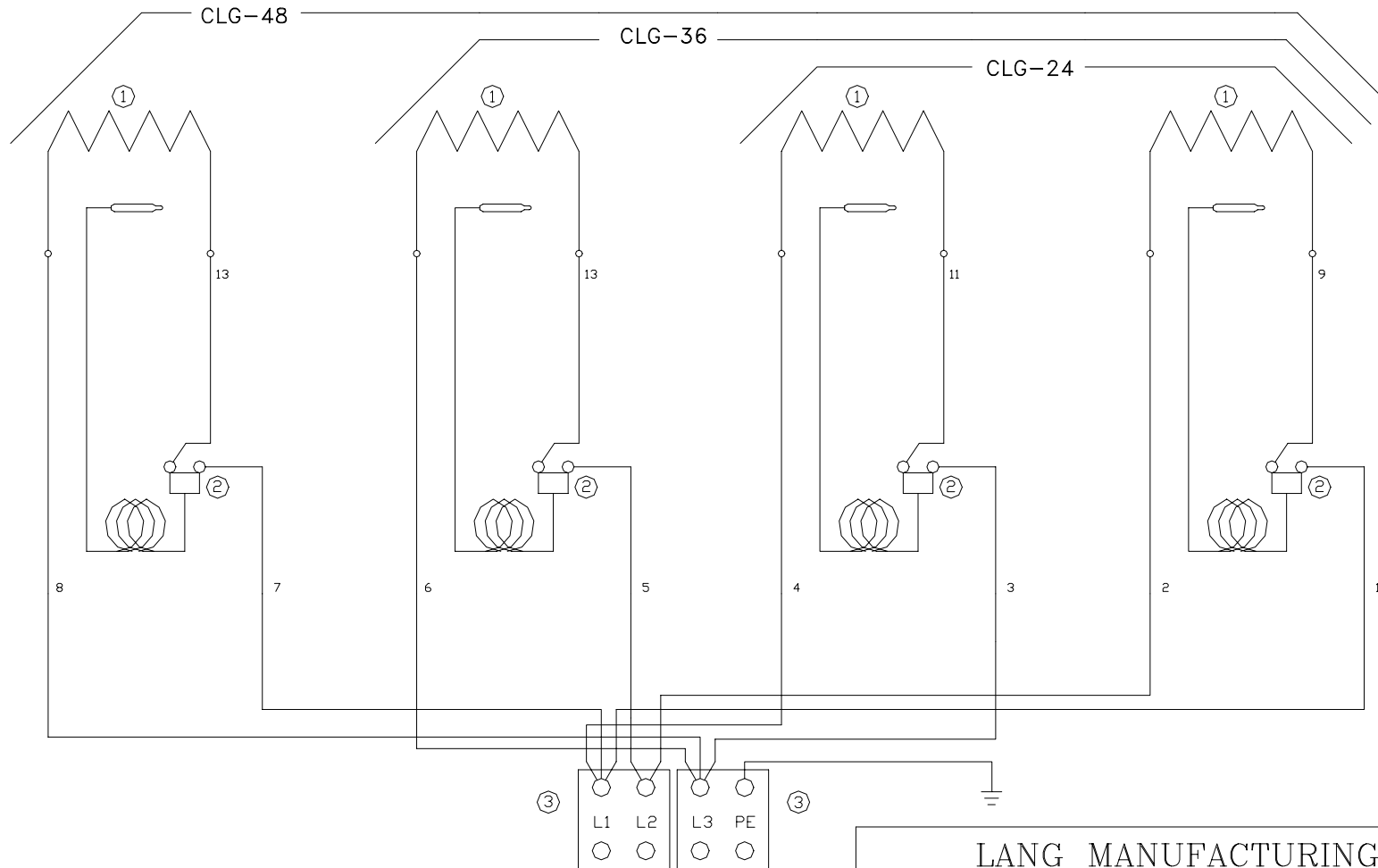


**EXPLODED VIEW CONT'D**



# WIRING DIAGRAM

REVISION BLOCK						
REV	ECN NO.	DESCRIPTION	DR:	MFG	ENG	DATE
-	-	-	-	-	-	-



QTY	IT	PART	ITEM
4	1	11030-48	ELEMENT 440 VAC 6000 WATTS
4	2	30402-07	THERMOSTAT 550 DEGREE
2	3	30500-11	TERMINAL BLOCK 2 POLE 175 AMP

LANG MANUFACTURING			
DR: MLS DATE: 10/08/01	TITLE: CLG-48A-S&CLG-48-S		
CK: - DATE: -	440VAC, 3PHASE		
TOLERANCES FRACTIONS DECIMALS ± 1/64 .X ± .05 ANGLES .XX ± .03 ± .5° .XXX ± .015 UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	NEXT HIGHER ASSY.	SHEET	DRAWING NUMBER
SCALE: SCALE	SH10F	61131-02	REV
			-

## ***Lang Manufacturing Limited Warranty to Cruise Line Purchasers***

Lang Manufacturing Equipment (“Lang Equipment”) has been skillfully manufactured, carefully inspected and packaged to meet rigid standards of excellence. Lang warrants its Equipment to be free from defects in material and material-related workmanship for (13) thirteen consecutive months from the date of initial shipboard installation or (18) eighteen consecutive months from date of initial factory shipment, whichever ever comes first. The aforementioned warranty statement is subject to the following conditions and limitations.

**I.** This warranty is limited to the provision of replacement components for Product sold by Lang to a joiner company for installation aboard a cruise ship, or a cruise ship company for installation aboard its own ship. The provision of replacement components to affect Product repairs will be on a no-charge basis during the term of the warranty. Replacement components will be sent to the address required within 48 hours of Lang receiving written notification of the description of the defect and the model and serial number of the Product affected by the repair.

Quartz elements are warranted for ninety (90) days from the date of installation.

**II.** Damage during shipment is to be reported to the carrier, is not covered under this warranty, and is the sole responsibility of purchaser/user.

**III.** Replacement components will be shipped F.O.B. factory with freight prepaid. Replacement component damage related to shipment is not covered under this warranty.

**IV.** This warranty does not cover consumable parts such as quartz elements, and does not cover defects caused by improper installation, abuse, careless operation, or improper maintenance of Product.

**V.** All warranties are conditioned upon Lang’s receipt of written notice of any defect prior to the end of the applicable warranty period.

**VI.** THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EACH OF WHICH IS HEREBY EXPRESSLY DISCLAIMED. THE REMEDIES DESCRIBED ABOVE ARE EXCLUSIVE AND IN NO EVENT SHALL LANG BE LIABLE FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR THE BREACH OR DELAY IN PERFORMANCE OF THIS WARRANTY.

**VII.** Lang Equipment is for cruise line use only. If sold as a component of another (OEM) manufacturer’s equipment, or if used as a consumer product, such Equipment is sold AS IS and without any warranty.