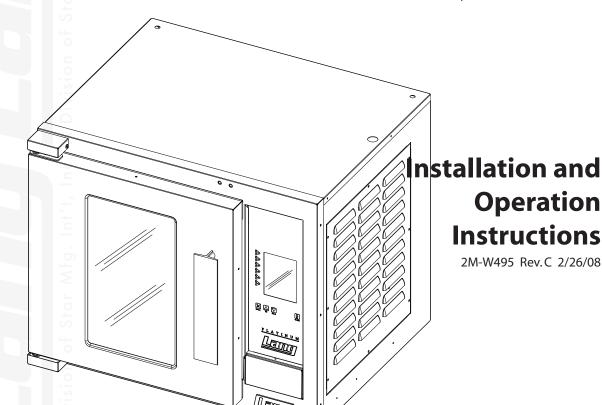


ELECTRIC HALF SIZE COMPUTERIZED CONVECTION OVEN

ECOH-PT, RCOH-PT



ECOH-PT









These symbols are intended to alert the user to the presence of important operating and maintenance instructions in the manual accompanying the appliance.

FOR YOUR SAFTEY

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

POST IN PROMINENT LOCATION

INSTRUCTIONS TO BE FOLLOWED IN THE EVENT USER SMELLS GAS. THIS INFORMATION SHALL BE OBTAINED BY CONSULTING YOUR LOCAL GAS SUPPLIER. AS A MINIMUM, TURN OFF THE GAS AND CALL YOUR GAS COMPANY AND YOUR AUTHORIZED SERVICE AGENT. EVACUATE ALL PERSONNEL FROM THE AREA.

WARNING

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.



WARNING RISK OF FIRE OR ELECTRIC SHOCK DO NOT OPEN



WARNING, TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE CONTROL PANEL. NO USER-SERVICABLE PARTS INSIDE.
REPAIRS SHOULD BE DONE BY AUTHORIZED SERVICE PERSONNEL ONLY.

NOTICE

Using any part other than genuine Lang factory supplied parts relieves the manufacturer of all liability.

Star reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.

Due to periodic changes in designs, methods, procedures, policies and regulations, the specifications contained in this sheet are subject to change without notice. While Star Manufacturing exercises good faith efforts to provide information that is accurate, we are not responsible for errors or omissions in information provided or conclusions reached as a result of using the specifications. By using the information provided, the user assumes all risks in connection with such use.

MAINTENANCE AND REPAIRS

Contact your local dealer for service or required maintenance. Please record the model number, serial number, voltage and purchase & Installation Information in the area below and have it ready when you call to ensure a faster service.

Model No.:	 Purchased From:
Serial No.:	 Location:
Voltage:	 Purchase Date:
1-Phase or 3 Phase:	Installed Date:



PROBLEMS, QUESTIONS or CONCERNS

Before you proceed consult you authorized Lang service agent directory or

Call the Lang Technical Service & Parts Department at 1-800-807-9054.

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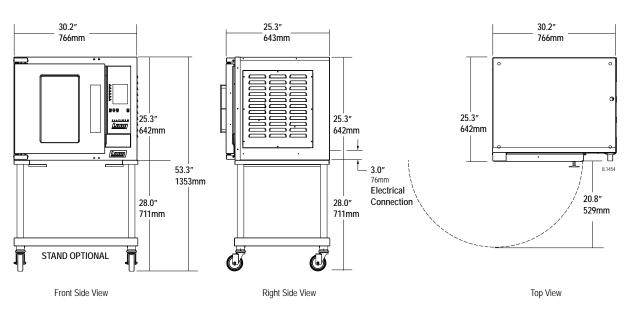
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NOTICE

Service on this or any other Lang appliance must be performed by qualified personnel only. Consult your Lang Authorized Service Agent Directory. You can call our toll free number 1-800-807-9054 or visit our website WWW.STAR-MFG.COM for the service agent nearest you.

SPECIFICATIONS

Model	Height x Width x Depth	Clearance from	Weight	
	(without optional stand)	combustible surface	Installed Shippir	g Freight Class
ЕСОН	25.3" x 30.2" x 25.3" 642mm x 766mm x 643mm	Side:6", Back: 6", Floor: 6"	185 lbs. 225lbs (84 kg) (102 kg	



SPECIFICATIONS

Star Number	Previous Model	VOLTS AC	Hz.	MOTOR AMPS	PHASE	AMPS 3PH/ NTRAL	KW TOT.	AMPS 1 PH	WIRE 1 PH	L1	L2	L3	WIRE 3 PH
ECOHPT208CF	EHS-PT-ACFAO	208	60	3.3	3		5.3	25.5	10	25.5	25.5	-	10
ECOH-PT208CF	EHS-PT-ACFA	208	60	3.3	3		5.3	25.5	10	25.5	25.5	-	10
ECOHPT208CFC	EHS-PT-ACFA	208	60	3.3	3		5.3	25.5	10	25.5	25.5	-	10
ECOHPT208CFR	EHS-PT-ACF	208	60	3.3	3		5.3	25.5	10	25.5	25.5	-	10
ECOH-PT208MF	EHS-PT-AF	208	60	3.3	1/3		7.8	38	8	23	21	23	10
ECOH-PT208NT	EHS-PT-ANE	208	60	3.3	1/3		7.8	38	8	23	21	23	10
ECOH-PT208RF	EHS-PT-ARF	208	60	3.3	1/3		7.8	38	8	23	21	23	10
ECOH-PT208SZ	EHS-PT-ASHTZ	208	60	3.3	1/3		7.8	38	8	23	21	23	10
ECOH-PT-208V	EHS-PT-A	208	60	3.3	1/3		7.8	38	8	23	21	23	10
ECOH-PT208V7	EHS-PT-A	208	60	3.3	1/3		7.8	38	8	23	21	23	10
ECOH-PT208WA	EHS-PT-AWA	208	60	3.3	1/3		7.8	38	8	23	21	23	10
ECOH-PT208WD	EHS-PT-AWD	208	60	3.3	1/3		7.8	38	8	23	21	23	10
ECOH-PT240SZ	EHS-PT-ISHTZ	240	60	2.6	1/3		7.8	33	8	20	18	20	12
ECOH-PT-240V	#N/A!	240	60	2.6	1/3		7.8	33	8	20	18	20	12
ECOH-PT240WA	EHS-PT-IWA	240	60	2.6	1/3		7.8	33	8	20	18	20	12
ECOH-PT480CF	EHS-PT-UCF	480	60	3.3	3		5.3			11	11	-	12
ECOH-PT480MF	#N/A!	480	60	1.0	3		7.8			10	9	10	12
ECOH-PT-480V	EHS-PT-U	480	60	1.0	3		7.8			10	9	10	12
RCOHPT-208CF	EHS-PT-ACF	208	60	3.3	3		5.3	25.5	10	25.5	25.5	-	10
RCOHPT-208V	#N/A!	208	60	3	1/3		7.8	37.5	8	22	20.7	22	12
RCOHPT-240CF	#N/A!	240	60	2.6	1/3		5.3	22.1	10	22.1	22.1	-	10
RCOHPT-440VM	#N/A!	440	60	1.4	3		6.6			8.8	8.3	8.8	12
RCOHPT-480CF	EHS-PT-UCF	480	60	3.3	3		5.3			11	11	-	12

EQUIPMENT DESCRIPTION

Exterior Construction

The Top, Front, Back, and Sides are constructed of stainless steel with an aluminized bottom.

The oven exterior dimensions are:

30" (76.2 cm) Wide, 25.25" (74.3 cm) High, 26.5" (67.31 cm) Deep.

The oven door comes standard with a high temperature insulated window equipped with a polycarbonate handle.

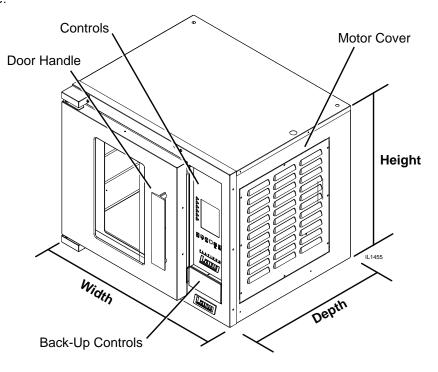
The oven cavity is insulated with high temperature insulation for efficiency and reduced heat loss.

Interior Construction

The oven is designed for five shelves and comes with five Chrome Plated Racks.

The interior cooking chamber is constructed of stainless steel with dimensions of:

15" (38.1 cm) Wide, 20" (50.84 cm) High, 21" (53.38 cm) Deep.



Operation

The ECOH oven is a forced air convection oven with a vented oven cavity. The air is driven by a 1/3 HP fan motor.

Controls

Pre-Programmable Product Selections Independent Shelf Timers for each Shelf. Shelf Compensation Timing for uniform baking.

Technical

Oven operates as shipped on either 208 or 240-volt (singe or three phase), or 480-volt (three phase).

The oven can be shipped with a Power Cord and Plug attached, but must be specified upon ordering (part number is listed in the Parts portion of this manual).

Floor space required is 42" (106.68cm) Wide, 32.5" (82.55cm) Deep.

The oven weighs approximately 225 lb. (102.5 Kilograms).

The ovens are stackable, stacking kit available upon request.

NOTICE The data plate is on the back side of the oven above the power cord. The oven 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.

UNPACKING

Receiving the Oven

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 it 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 Star Manufacturing Company. File your claim with the carrier.



Location

Prior to un-crating, move the oven as near to 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.

Un-crating

The oven will arrive completely assembled inside a wood frame and strapped to a skid. Cut the straps and remove the wood frame.

The oven can now be removed from the skid.

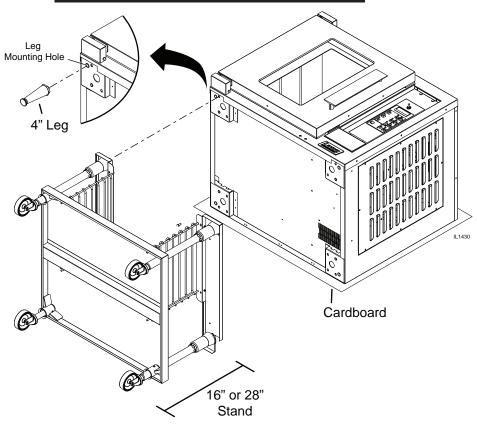


THE UNIT IS EXTREMELY HEAVY. FOR SAFE HANDLING, INSTALLER SHOULD OBTAIN HELP AS NEEDED, OR EMPLOY APPROPRIATE MATERIALS HANDLING EQUIPMENT (SUCH AS A FORKLIFT, DOLLY, OR PALLET JACK) TO CAUTION REMOVE THE UNIT FROM THE SKID AND MOVE IT TO THE PLACE OF INSTALLATION.

> ANY STAND, COUNTER OR OTHER DEVICE ON WHICH OVEN WILL BE LOCATED MUST BE DESIGNED TO SUPPORT THE WEIGHT OF THE OVEN.

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

INSTALLATION



Leg Installation

4" legs are available for single countertop installations. Single and double deck installations require 16" or 28" stand installation, casters may also be used in certain situations.

To install the 4" legs, place some cardboard on the floor and gently tip the unit onto its back. Fasten the four, 4" legs into the threaded holes located on the bottom of the unit. Gently lift the oven into its operating position.

16" & 28" stand installation, after following the assembly instructions that were provided with the stand, gently lower unit on to some cardboard as shown here. Align the stand with the bottom of the unit and secure with the hardware provided. With the assistance of carefully raise the unit to its vertical position.

Stacking the Ovens

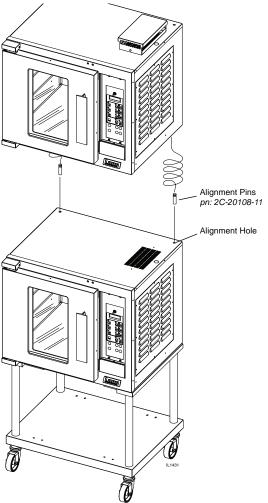
Two alignment pins (pn:2C-20108-11) are needed if you intend on stacking two ECOH-C on each other as shown. These pins must be requested at the time of purchase, or call your Lang authorized service agent, or Lang parts department at 1-800-807-9054.

Having completed the previous step remove any and all button plugs from the lower unit, so the upper unit will lay properly.

Lay the upper unit on its back and screw the alignment pins into the two rear holes.

With assistance lift the upper unit onto the lower unit, being certain that the alignment pins go into the alignment holes, as shown here.

NOTE: Each unit must have separate electrical connections



INSTALLATION continued

Ventilation and Clearances

Standard minimum clearance from combustible construction is as follows.

4" from side

4" from back

6" from floor

- These ovens may be set directly, without legs, on a curbed base or non-combustible floor.
- If the oven is set without legs on a non-combustible floor or a curbed base, maintain a 4-inch back
- If the oven is set directly against a non-combustible back wall, maintain a 6-inch clearance to the
- Do not install the oven closer than 4 inches from another oven on the right hand side (control panel side).
- Do not install the oven closer than 12 inches from an uncontrolled heat source (char broiler etc.) on the right side.
- · Keep the area free & clear of combustible material, and do not obstruct the flow of combustion or ventilation air.
- The installation of any components such as a vent hood, grease extractors, and/or fire extinguisher systems, must conform to the applicable nationally recognized installation standards.

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.

Electrical Connection

The electrical connection must be made in accordance with local codes or in the absence of local codes with NFPA No. 70 latest edition (in Canada use: CSA STD. C22.1).

The electrical service entrance is provided by a 1 1/4-inch knockout at the oven back directly behind the control compartment. A grounding lug is provided at the rear service entrance.

Certain units are provided with or can be purchased with a Cord & Plug kit (Part number 9Q-ECOH-CK). This kit includes a 48" cord with a NEMA L15-30P plug and is for 3 Phase units ONLY. In stacked situations each units needs to have separate cord & plug assemblies.

Oven Voltage

The Lang Model ECOH ovens can be operated on 208, 240-volt (single or three phase), or 480-volt (three phase only) source. The Amp draw, KW rating, and phasing can be found in specification section of this manual.



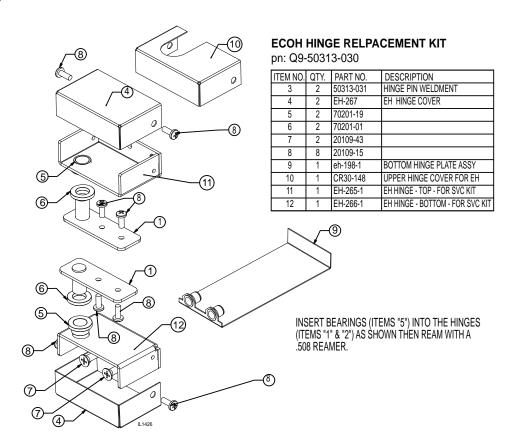
THIS APPLIANCE MUST BE GROUNDED AT THE TERMINAL PROVIDED. FAILURE TO GROUND THE APPLIANCE COULD RESULT IN ELECTROCUTION AND DEATH.



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

Reversing the door

- 1. Disconnect oven from power.
- 2. Remove the top and bottom door hinge covers (4) by removing the two 10-32 Phillip head screws (8).
- 3. Remove the top door hinge bracket (1) from the oven by removing the two 1/4-20 Phillip head screws (7). The hinge should now slide off of the door pin (this will now be your right hand lower hinge)
- 4. Lift the door off the bottom pin and set aside.
- 5. Remove the bottom door hinge bracket (2) by removing the two ½-20 Phillip head screws (7) (this will now be your upper right hand hinge).
- 6. Remove the lower hinge mounting plate (9) by pulling it from behind the leg pad adapter on the bottom of the oven.
- 7. Remove the two Phillips head screws in the bottom right corner of the oven, where the new hinge will be placed.
- 8. Slide the hinge mounting plate (9) into place and mount the hinge bracket (this should be your old upper hinge) using two ½-20 (7) Phillips head screws.
- 9. Remove the two Phillips head screws in the upper right corner of the oven where the new hinge will be placed.
- 10. Rotate the door 180° and slide the door pin into the bottom hinge bracket.
- 11. Slide the upper door hinge (1) onto the upper door pin and then screw into place using two ½-20 Phillip head screws.
- 12. Place the top and bottom door hinge covers (4) back on the oven using two 10-32 Phillip head screws (8).



INITIAL START UP

Pre-Power On

After th oven is installed and connected to power, prior to turning on, verify the following

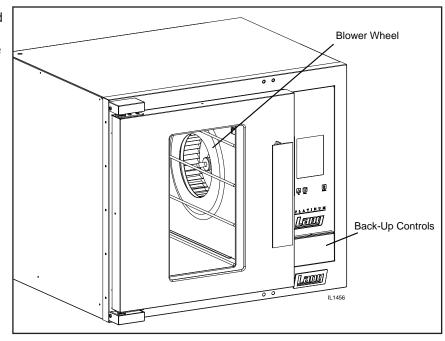
- The door opens and closes freely
- All racks are in the oven correctly
- All packing materials have been removed from the inside of the oven

Power On

Once the oven has been turned on verify that the blower wheel is spinning freely in a clockwise position and that the elements are heating properly.

Switch the back-up controls on and make certain it can run the unit,

Confirm that the thermostat knob in the back-up controls is move freely.



NOTICE

During the first few hours of operation you may notice a small

amount of smoke coming from the oven, and a faint odor from the smoke. This is normal for a new unit and will disappear after the first few hours of use.

General Operation & Programming

Convection ovens constantly circulate air over and around the product. This strips away the thin layer of moisture and cool air from around the product allowing heat to penetrate more quickly.

Always weigh your product. This will give you a more consistent size, color and quality.

To convert standard deck oven recipes, reduce the temperature 50 degrees and the time by 25%. Make minor adjustments as necessary.

The lower the oven temperature the more even the bake.

Check the product near the end of the initial cooking.

Do not open the oven door during baking, as this will change the baking characteristics of the oven and make it difficult to determine a final program.

If the product is overdone on the outside and underdone on the inside, reduce the baking temperature.

If the product is pulling away from the edge of the pan, the temperature is too high or the cooking time too long.

A convection oven is a mechanical piece of equipment. The same control settings will always give the same results. If the results vary, problems may be because of changes in the product preparation.

ECOH-PT Control Panel

The control panel consists of the following items. Detailed operational descriptions are given later this section.

Power Switch: Turns the oven on and off

Function Keys: Keys are active when a program option is displayed on the display adjacent to that key.

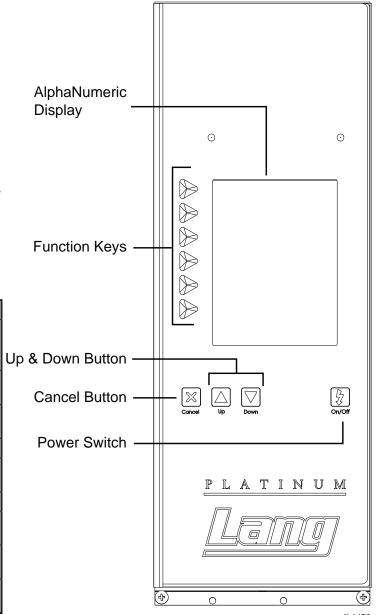
Up & Down Buttons: Allows you to scroll through the programming selections.

Cancel: When scrolling through menus this will allow you to back up to the previous menu. In program mode this will allow you to back up to the previous step.

Alpha Numeric Display: Visual interface.

Typical Operation Sequence

ACTION	RESULT
Press the on switch.	Control panel comes on; display says "LANG, Run Oven, Time Date Program".
Select "Run Oven".	Display will show a list of product to choose.
Select Product button next to Icon desired.	Display says "Preheating to XXXF".
Beeper sounds briefly.	Display says " Ready "
Select Product to start.	Display shows possible product selection for that temperature.
Select Product to start	Display says, "Select shelf"
Press Product button next to desired shelf.	Display will show icon chosen and begin to count down.
Beeper sounds continuously.	Display shows "DONE", press button and remove product from that shelf.
Oven is ready for another product.	



PLATINUM

IL1476

General Operation & Programming cont.

Loading

Here are some things to remember when loading your oven.

- When loading and unloading the oven, stage products and racks so the oven door is opened for the least amount
 of time.
- Be sure that racks are level within the oven.
- Bent or warped pans can greatly affect the evenness of the cook or bake.
- If using baker's parchment, be sure the parchment does not blow over the product. That will create an uneven bake.
- Load each shelf evenly. Spaces should be maintained equally between the pan and oven walls, front and back.
- Do not overload pan's this will create an uneven bake.
- For best baking results, load the oven from the center out during random loading.



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.

Record Your Menus Here Before Entering Your Program.

Record your specific menu items using the table below, prior to entering them into your units program. Keep for your records.

	Product Name	ex: Biscuits						
	Icon No.	11						
	Cooking Temp	325°F						
	Cooking Time	12:30						
Tier 1	Cooking Curve	50%						
	Fan Speed	Ξ						
	Pulse Rate	100%						
	Cooking Temp							
	Cooking Time							
Tier 2	Cooking Curve							
	Fan Speed							
	Pulse Rate							
	Cooking Temp							
	Cooking Time							
Tier 3	Cooking Curve							
	Fan Speed							
	Pulse Rate							

Product Icons: This list shows the icons available for your menu programs, they appear in the same order as shown here.

20 Calzone	19 Cake B White	18 Cake A Chocolate	17 Brownies	16 Bread Stick	15 Bread Sourdough Round	14 Bread Loaf	13 Bread French Option 2	12 Bread French	11 Biscuit	10 Banana	9 Baked Potato	8 Bagel C	7 Bagel B	6 Bagel A	5 Apple	4 Appetizer C, Option 2	3 Appetizer C	2 Appetizer B	1 Appetizer A	Icon No. Description
40 Fish	39 Egg Roll	38 Egg Dish	37 Doughnut, Option 2	36 Doughnut	35 Cornbread	34 Cookie D	33 Cookie Chocolate Chip	32 Cookie C	31 Cookie B	30 Cookie A, Option 2	29 Cookie A	28 Cinnamon Roll, Option 2	27 Cinnamon Roll	26 Chicken Strips	25 Chicken	24 Cheery	23 Cheese Cake	22 Cheese Stick	21 Casserole	Icon No. Description
60 Pie B	59 Pie A	58 Pear	57 Peanut	56 Pastry	55 Onion Rings, Option 2	54 Onion Rings	53 Muffin C	52 Muffin B	51 Muffin A	50 Lemon	49 Lasagna	48 Hot Dog	47 Hoagie	46 Hash browns, Option 2	45 Hash browns	44 Ham	43 French Fries	42 Flag	41 Fish, Option 2	Icon No. Description
		78 Sandwich A			75 Roast Beef	74 Ribs	73 Quiche, Option 2	72 Quiche	71 Pretzel	70 Potatoes	69 Pot Pie	68 Pork Chop		66 Pizza Cheese	65 Pizza B	64 Pizza A	63 Pie Cherry	62 Pie D	61 Pie C	Icon No. Description
								90 Birthday Cake	89 Vegetable	88	87 Vegetable	86 Triangle	85 Star	84 Square	83 Seafood	82 Scone	81 Sausage	Option 2	80 Sandwich on Hoagie,	Icon No. Description

Platinum PROGRAMING

When using the Platinum Control Panel follow these simple steps.

Function Keys: Are active when selecting an option that is displayed on the LCD Screen.

Function Buttons:

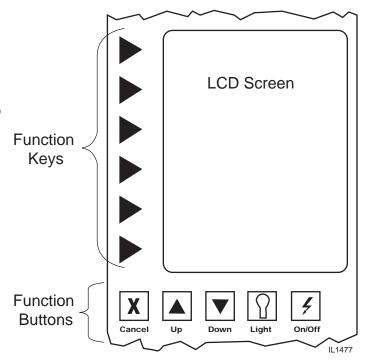
Cancel: During Program Mode it will take you to the next step, otherwise it will take you back to the

previous menu.

Up & Down: Will move you through the selections/settings displayed on the LCD Screen which will be used when programming your specific

requirements. (Example: access codes, temperature settings, cooking time, curve, fan speed etc.)

On/Off: Main Power Switch



Programming Step Contents:

Step 7 Select Product Icon,

Step 8 Select Product Name,

Step 9 **Select Product Temperature**,

Step 10 Select Tier Cook Time,

Step 11 Select Cooking Curve,

Step 12 **Select Fan Speed**,

Step 15 Continue To Next Tier

Cooking Curve: Cooking curve is a programmable function that adjusts the cooking time to compensate for planned times when the oven temperature would be lower than the programmed temperature.

(i.e. temperature loses during loading and unloading). Cooking Curve 40%, is the most commonly used. Cooking Curve settings from 0% (no time adjustment) to 100% (max time adjustment) are available. As a general rule the longer the cooking time the lower the cooking curve, the shorter the cooking time the higher the cooking curve.

Pulse Fan Function: A Fan Pulse Rate setting allows the fan to be programmed to cycle on and off at regular intervals during the period in the cooking cycle when there is no heat applied. (The computer will not allow the fan to be OFF whenever the heat is ON).

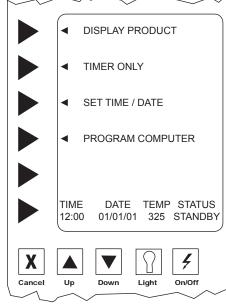
Tier Cooking: "Tiered" programming is the ability to change the cooking temperature or fan function while cooking. (i.e. some products may require high heat and the fan to be LO for the first half of the cooking cycle. Tier 1 would be programmed with the Heat up and the fan LO and Tier 2 would then be programmed with the heat lowered and the fan HI for the remainder of the cycle.)

Multiple shelf baking function is disabled when using Tier Baking

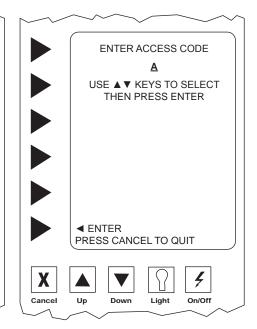
programs.

Platinum PROGRAMMING





Select PROGRAM COMPUTER

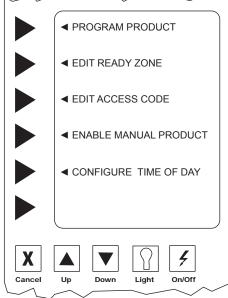


Step 1. Turn power switch on. If the oven is on, press cancel until the above screen is displayed.

Step 3

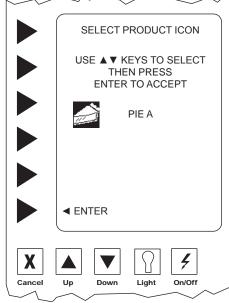
Step 4 Using the ▲ ▼ arrows, enter access code "A B C D E F" hitting ENTER after each letter.

Step 2. Select **TIME/DATE/PROGRAM**



Step 5 Select PROGRAM PRODUCTS then

Step 6 Select **CREATE NEW PRODUCTS**

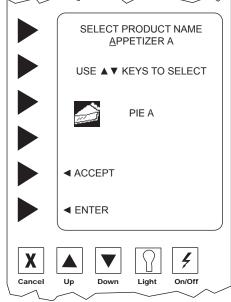


Step 7 Select Product Icon,

This is the first screen in creating a product program. Press ▲ ▼ until you find a icon which resembles your product.

Select **ENTER** to accept the icon and move to the next screen.

Note: Refer to the Chart on page 13 for a selection of icons available.



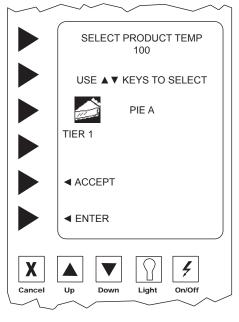
Step 8 Select Product Name,

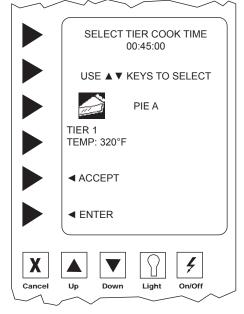
This is where you enter the name of the product into the computer. Using the $\blacktriangle \lor$ keys type over the default name, blank space is before the A and after the 9.

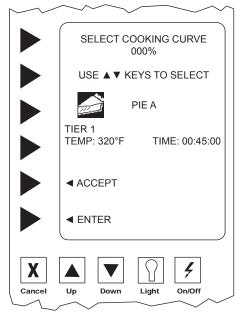
Select **ACCEPT** to continue.

Note: Curser must be moved past the last digit to save the entire entry.

Platinum PROGRAMMING







Step 9 Select Product Temperature,

Press the ▲ ▼ to select the first digit, then press **ENTER** to move to the next digit. It will automatically move to the next screen after the third digit.

Step 10 Select Tier Cook Time,

Time is entered in hours:minutes:seconds.
The maximum is 12:59:59.

Select **ENTER** to move the cursor to the place you want to enter the number.

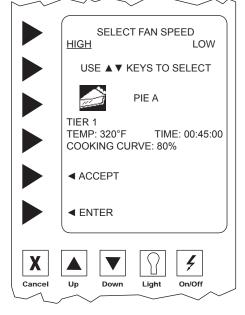
Select **ACCEPT** to continue.

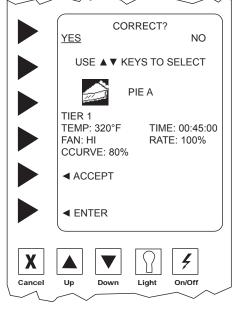
Step 11 Select Cooking Curve,

press ▲ ▼ to select the numbers, press the **ENTER** to move the cursor to the next space.

Cooking Curve may be any number between 0% and 100%.

Select ACCEPT to continue.





Step 12 Select Fan Speed,

Press the $\blacktriangle \blacktriangledown$ to move the curser between the HIGH and LO settings.

Press **ENTER** to make your selection and move to the next screen.

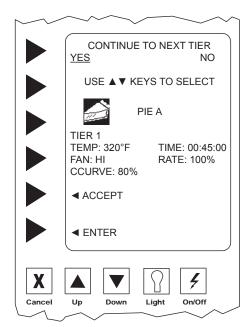
Step 13 Correct

The computer is asking if the display is correct. If any part of the program is incorrect press ▲ ▼ NO, and you will be taken back to Step 7.

Selecting **YES** will advance the screen.

16

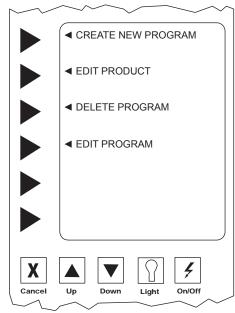
Platinum PROGRAMMING





The cursor automatically appears on **NO**. Select **ENTER** or **ACCEPT** to end programming

move the curser ▲ ▼ to YES. This will allow your to enter another tier to this program, repeating steps 6 - 14 to program second tier.



Step 16 After programing the last tier, the computer will automatically advance the screen to program more products. If no other products need to be programmed, select **CANCEL** three times to advance screen to the boot up screen.



Step 17 Boot-up Screen

You may now preheat the oven for any product you have programmed.

Step 18 Select RUN OVEN

MAINTENANCE

- Oven interiors should be wiped down daily and thoroughly cleaned weekly using warm water and mild detergent.
 DO NOT use caustic cleaners.
- The appliance should be thoroughly checked at six-monthly intervals by a qualified technician (heating unit, mechanical stability, corrosion...) with particular emphasis on all control and safety devices.

CLEANING

- · Always start with a cold oven.
- The stainless exterior can easily be cleaned using stainless steel cleaner.
- Always follow the cleaner manufacturer's instructions when using any cleaner.
- Care should be taken to prevent caustic cleaning compounds from coming in contact with the fan wheel.
- The oven racks, rack slides, may be cleaned outside the oven cavity using oven cleaner.
- Using any harsh chemicals will result in the removal of the ETC coating and etching of the
 porcelain below it. The oven interior should only be cleaned using a mild soap and a non metal scouring pad.
 DO NOT use caustic cleaners.
- Always apply stainless steel cleaners when the oven is cold and rub in the direction of the metal's grain.



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



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.

NEVER LEAVE A CHLORINE SANITIZER IN CONTACT WITH STAINLESS STEEL SURFACES LONGER THAN 10 MINUTES. LONGER CONTACT CAN CAUSE CORROSION.

Troubleshooting

Symptoms & Possible Causes

The following are charts of Symptoms and Possible Causes to aid in diagnosing faults with your unit.

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 test to identify test procedures. Test indicated with an "*" should be done by a Lang factory authorized service representative.

Symptoms	Possible Cause	Possible Cause	Test		
	No power to cord outlet	Product is cooked too long	No test available, operational		
	Oven unplugged from outlet		condition		
Power indicator is not lit	Failed Power cord or plug	Failed Probe	Check probe for proper resistance*		
	Failed power switch		Confirm that Circuit board is getting		
	Failed indicator light	Failed Circuit board	correct voltage and putting out correct voltage*		
	Power Switch is not "ON"		Check both Primary and Secondary		
	Failed Transformer	Failed Transformer	coils for correct voltage*		
	Failed Probe		Remove the wires from the		
Oven will not heat	Failed Circuit board		contactor coil and check for		
	Failed Contactor	Failed Contactor	continuity across the contactor coil connection*		
	Failed Over-temperature Thermostat		Ensure the contactor moveable		
	Failed Element		points move freely up and down*		
	Power Switch is not "ON"	E 11 114 1	Confirm that motor is getting correct		
Oven motor will not run	Failed Transformer	Failed Motor	voltage*		
Overrinotor will not run	Failed Contactor	Failed or disconnected safety	Check across the thermostat		
	Failed Motor	thermostat	connectors for continuity*		
	Product is cooked too long	Failed Element	Confirm that Elements are getting		
Product burning	Failed Probe		correct voltage and have continuity*		
	Failed Circuit board				
	Product is not cooked long enough				
Product is under done	Failed Probe				
	Failed Circuit board				

NOTICE

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



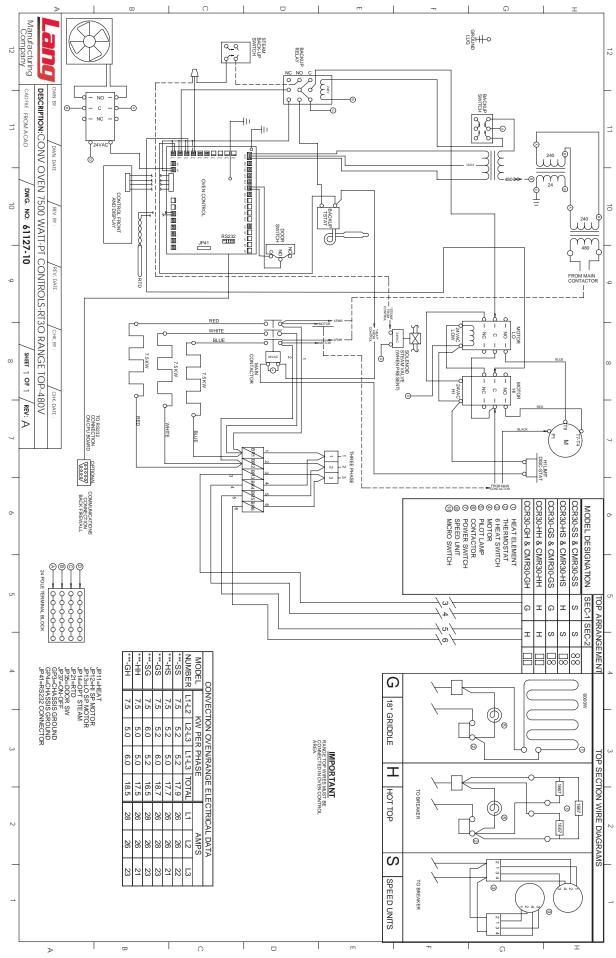
USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY LANG OR THEIR AUTHORIZED DISTRIBUTORS CAN CAUSE BODILY INJURY TO THE OPERATOR AND DAMAGE TO THE EQUIPMENT AND WILL VOID ALL WARRANTIES.

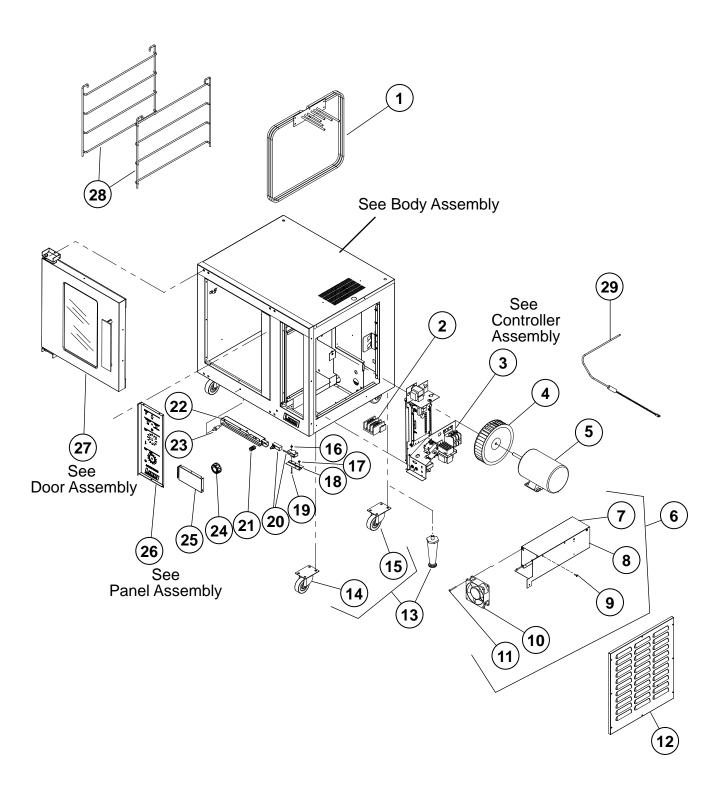
NOTICE

Service on this or any other Lang appliance must be performed by qualified personnel only. Consult your Lang Authorized Service Agent Directory. You can call our toll free number 1-800-807-9054 or visit our website WWW.STAR-MFG.COM for the service agent nearest you.



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.





ECOH Complete Assembly



Model No: ECOH & RCOH, AP, PP & PT CONTROLS Commercial & Marine Half Size Economy Convection Oven

Key Number	Part Number	Qty Per	Description	
1	2N-11090-20	1	ELMNT EHS 208V 7.5KW	208V
	2N-11090-21	1	ELMNT EHS 240V 7.5KW	240V, ECOH-AP208FA, ECOH-AP2/3FA
	2N-11090-22	1	ELMNT EHS OVEN 480VAC 7.5KW	440VM, 480V, 480VM
	2N-11090-23	1	ELMNT EHS OVEN 208VAC 5.0 KW	RCOHAP-208KR, RCOHAP-208CF, RCOHRAP208KR, RCOHPT-208CF
2	2E-30500-07	1	TRM BLOCK 3PLELRGE 125AMP	ECOHPT208CFR, RCOHPT-208CF, RCOHPT-240CF
	2E-30500-09	1	TRM BLOCK 3 POLE SMALL 95	ECOH-AP-208V/208M/240V/208DR, ECOH-AP-480V480/M, RCOHAP-208V, RCOHAP-480V, RCOHAP-480VM, RCOHAP- 480V/480M, RCOHRAP-480V/480M, RCOHPT-440VM
3	Q9-EHPPT-C	1	PNEL ASSY EHS-PT 208/240/480V	ECOH-PT, RCOHPT
	Q9-60101-767	1	PANEL EH 208/240V	ECOH-AP-208, 208M, 240V, 208DR
	Q9-EHPAP-GFA	1	PANEL EH 220/380V ACCU-PLUS FA	ECOH-AP208FA, ECOH-AP2/3FA
	Q9-EHPAPRT-C	1	PANEL EH 208/240V AP W/RT30	RCOHAP-208KR, RCOHAP-208V, RCOHRAP208KR
	Q9-EHPAP-U	1	PANEL EH 480 VOLT ACCU-PLUS	ECOH-AP-480M, 480V, RCOHAP-480V, 480VM, RCOHRAP-480M, 480V
	Q9-EHPPP-C	1	PANEL EH 208/240V PURPLE w/COOL	ING FAN ASSY ECOH-PP-208V, 208BK, 208WB, 240BK, 240WB
	Q9-EHPPP-C-S	1	PANEL EH 208/240V PURPLE w/o COC	DLING FAN ASSY ECOH-PP-208V, 208BK, 208WB, 240BK, 240WB
4	2U-71500-06	1	BLOWER WHEEL EHS OVEN	ALL
5	2U-30200-16	1	MOTOR 1/3HP 460V/1/60HZ 2SP	ECOH-AP-480V, ECOH-AP-480M, ECOH-PT-480V, ECOH-PT480CF, ECOH-PT480MF, RCOHAP-480V, RCOHAP-480M, RCOHRAP-480M, RCOHRAP-480V, RCOHPT-440VM, RCOHPT-480CF
	2U-30200-17	1	MTR 1/3HP208/240V1PH2SPD	ECOH-AP-208M, ECOHAP-208V, ECOH-AP-240V, ECOH-AP208DR, ECOH-PP-208V, ECOH-PP208BK, ECOH-PP208WB, ECOH-PP240BK, ECOH-PP240WB, ECOH-PT-208V, ECOH-PT-240V, ECOH-PT208CF, ECOH-PT208MF, ECOH-PT208NT, ECOH-PT208RF, ECOH-PT208SZ, ECOH-PT208V7, ECOH-PT208WA, ECOH-PT208WD, ECOH-PT240SZ, ECOH-PT240WD, ECOH-PT240SCF, ECOH-PT240WD, ECOHPT208CFR, RCOHAP-208KR, RCOHAP-208V, RCOHPT-208CF, RCOHPT-208V, RCOHPT-240CF, RCOHRAP208KR,
6	2U-30200-53 Q9-EH-268	1 AR	MOTOR 1/3HP 240/254V 50HZ 2 SP EH COOLING FAN ASSY	ECOH-AP208FA, ECOH-AP2/3FA ECOH-PP-208/240V, ECOH-PT-208/240/480V,
7	Q9-EH-268-2	1	AIR DUCT BACK	RCOHPT-208/240CF/480CF ECOH-PP-208/240V, ECOH-PT-208/240/480V, RCOHPT-208/240CF/480CF
8	Q9-EH-268-1	1	AIR DUCT FRONT	ECOH-P1-208/240U-F/480U-F ECOH-PP-208/240V, ECOH-PT-208/240/480V, RCOHPT-208/240CF/480CF
9	2C-20103-02	6	SCRW SM PLT 10 X .5 PHLSL	ECOH-PP-208/240V, ECOH-PT-208/240/480V, RCOHPT-208/240CF/480CF

IMPORTANT: WHEN ORDERING, SPECIFY VOLTAGE OR TYPE GAS DESIRED INCLUDE MODEL AND SERIAL NUMBER

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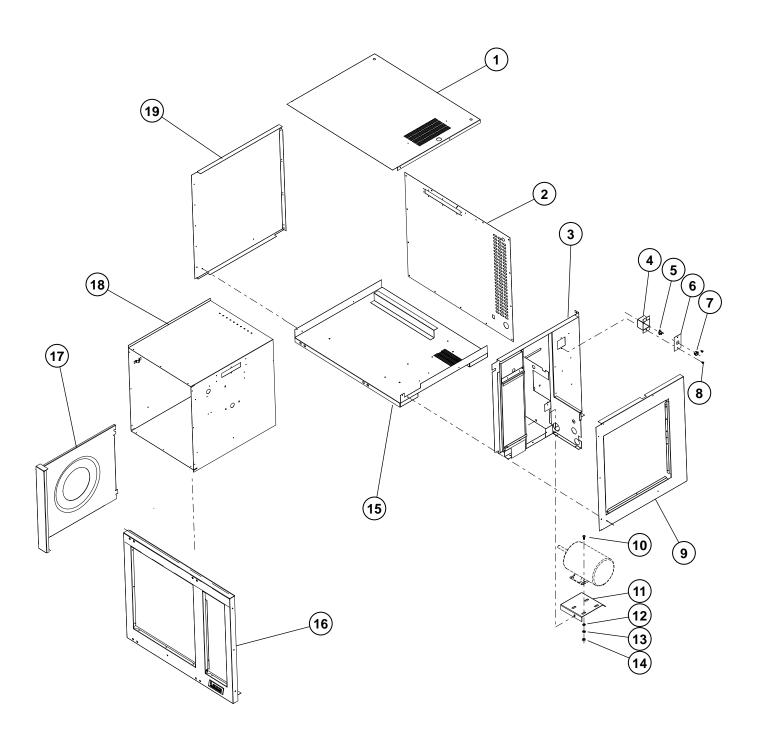
Model No: ECOH & RCOH, AP, PP & PT CONTROLS Commercial & Marine Half Size Economy Convection Oven

Key Number	Part Number	Qty Per	Description	
10	2U-30200-46	1	MTR W/FAN AXIAL 220VAC70C	ECOH-PP-208/240V, ECOH-PT-208/240/480V, RCOHPT-208/240CF/480CF
11	2C-20109-31	4	SCRW S/S 8-32 X 1-3/4 T/H PHIL	ECOH-PP-208/240V, ECOH-PT-208/240/480V, RCOHPT-208/240CF/480CF
12	Q9-60102-1368		MOTOR COVER EH (EH-141) & HRDW	
13	2A-72500-02	4	LEG 4 SS MM	ECOH-AP208DR, ECOH-PT208V7
	9Q-ECOH-C4		CASTERS (SET OF 4)	sold as an accessory with most units
	Q9-EHS-4C	1	CASTERS (SET OF 4)	RCOHAP-208KR, RCOHAP-208V,
			,	RCOHAP-480V, RCOHPT-208CF, RCOHPT-208V, RCOHPT=240CF,
	04 70500 05		1 FO 4 M/POLT BOMM A D I	RCOHPT-480CF
	2A-72500-05	4	LEG 4 W/BOLT DOWN ADJ	ECOH-AP-208M, RCOHAP-480VM, RCOHRAP-480VM
14	2P-72901-17	2	CSRT SWVL W/BRK 35/16TRD	RCOHAP-208KR, RCOHAP-480V, RCOHPT-208CF
15	2P-72900-04	2	CSTER RIGID 3,5/16WTRD	RCOHAP-208KR, RCOHAP-480V, RCOHPT-208CF
16	2C-20301-10	2	NUT HEX 6-32 PLTD	ECOH, RCOH
17	2C-20101-65	2	SCRW MS PLT 10-32 X .25 THD	ECOH, RCOH
18	Q9-EH-356	1	SWITCH BRACKET	ECOH, RCOH
19	2C-20101-17	2	SCRW RND MS 6-32X1 PLTD	ECOH, RCOH
20	2E-30301-17	1	SWT MICRO PLUNGER XLH	V-27971 & W-48418,
	Q9-EH-363	1 1	SWITCH ARM, MICRO	ECOH, RCOH
21	2P-51001-12	1	SPRING COMPRSN.665ID X 1.4 LONG	·
22	Q9-EH-250	1	WELD SWITCH ARM	ECOH, RCOH
23	Q9-EH-350	1	SWITCH PLUNGER - ASSY	ECOH, RCOH
24	Y9-70701-18	1	KNOB ASSY 450°	ECOH-AP, ECOH-PT, ECOH-PP, RCOH-AP, RCOH-PT
25	Q9-60102-112	1	SWITCH DOOR - ASSY EH	ECOH-PP-208V
26	Q9-60101-765	1	ECOH-PT / EHS-PT CONTROL FRONT	
20	Q9-60101-766	1	ECOH-PP / EHS-PP CONTROL FRONT	
27	Q9-51100-53	1	COMP DOOR ASSY EHS/GHS WINDOW	
28	2B-50200-83	2	RACK SLIDE EHS	ECOH-AP, ECOH-PT, ECOH-PP, RCOH-AP, RCOH-PT
29	2E-41100-12	1	SENSOR EHS OVEN 450 DEG	ALL
NI	2B-50200-34	5	RACK HALF SIZE OVENS	ECOH-AP, ECOH-PT, ECOH-PP, RCOH-AP, RCOH-PT
NI	2E-31800-01	6	CB 250V50A 1 POLE CRLNGSW	RCOHAP-208KR, RCOHAP-208V, RCOHPT-208CF
NI	2E-31800-04	1	CB 480V 50A 3 POLE	RCOHPT-440VM
NI NI	2E-31800-04	2	CB 480V 50A 3 POLE	RCOHAP-480V
NI	2E-60101-75	1	EHS CORD KIT 3-PHASE	ECOH-AP208DR, -PP208BK, -PP240BK, -PT208CF, -PT208WD, -PT208CFC
NI	2K-70801-03	1	SNAP BUSH 3/8 SB375-4 BLK	ECOH-PP-208V
NI	2K-70801-04	AR	SNAP BUSH 3/4 SB750-10	ECOH
NI	2M-61111-135	1	WD EHS-AP 208V-240VAC	ECOH-AP-208V
NI	2M-61111-148	1	WD EHS-PP 208-240VAC 2SPD	ECOH-PP-208V
NI	2M-61111-163	1	WD EHS-AP 480V	ECOH-AP-480M
NI	Q9-60102-97	1	DOOR SEAL EH w/ mounting hardware	
NI	2C-20108-01	2	STACKING PINS	ALL
NI	Q9-EH-550	1	WIRING HARN, ELEMENT	ALL
NI	Q9-EH-551	1	WIRING HARN, ELEMENT WIRING HARN, HIGH VOLT CONTROL	
NI	Q9-EH-553	1	WIRING HARN, HIGH VOLT CONTROL	ALL
NI	Q9-EH-554	1	WIRING HARN, POWER SWITCH	ALL
NI		1	LUG GROUNDING UL APPROVED	ALL
INI	2E-31200-02	l l	LUG GROUNDING ULAPPROVED	MLL .

IMPORTANT: WHEN ORDERING, SPECIFY VOLTAGE OR TYPE GAS DESIRED INCLUDE MODEL AND SERIAL NUMBER

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ECOH Body Assembly



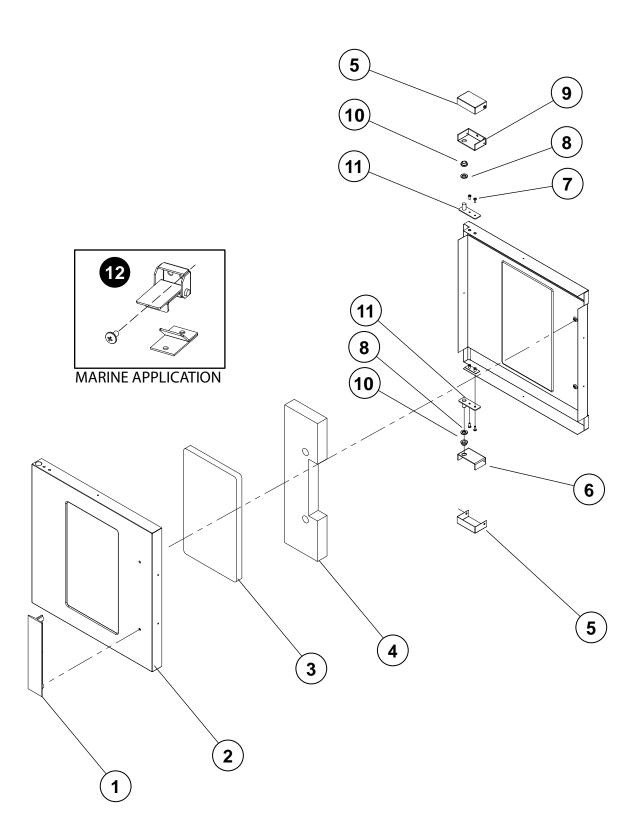
Model No: ECOH & RCOH, AP, PP & PT BODY PANELS Commercial & Marine Half Size Economy Convection Oven

Key Number	Part Number	Qty Per	Description	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 17 18 19	Q9-60102-1361 Q9-EH-119-2 Q9-EH-135 2T-30401-09 Q9-EH-136 2K-70801-04 2C-20103-02 Q9-60102-1364 2C-20104-41 Q9-EH-209 2C-20202-08 2C-20201-09 2C-20301-06 Q9-EH-104-2 Q9-EH-215-2 Q9-EH-452-3 Q9-EH-374-3 Q9-60102-1365	1 1 1 1 1 1 2 1 4 4 4 4 1 1 1 1 1	BODY TOP EH & HRDW BODY BACK EH & HRDW FIREWALL - ASSY SAFETY STAT BOX STAT FXD 500° DEG OPEN SAFETY STAT COVER SNAP BUSH 3/4 SB750-10 BLK SCRW SM PLT 10 X .5 PHLSL BODY R/H SIDE EH & HRDW SCRW MACH 1/4-20X5/8 H/H MOTOR MOUNT WSHR PLT 5/16 LOCK SPLIT WSHR PLT 5/16 FLAT SAE NUT HEX 5/16-18 PLTD BOTTOM SPOT WELD FRONT - ASSY REVERSIBLE BAFFLE STD BAFFLE ASSY STEAM CAN ASSY STD -[NEW RACK BODY L/H SIDE EH & HRDW	ALL

IMPORTANT: WHEN ORDERING, SPECIFY VOLTAGE OR TYPE GAS DESIRED INCLUDE MODEL AND SERIAL NUMBER

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ECOH, RCOH Door Assembly

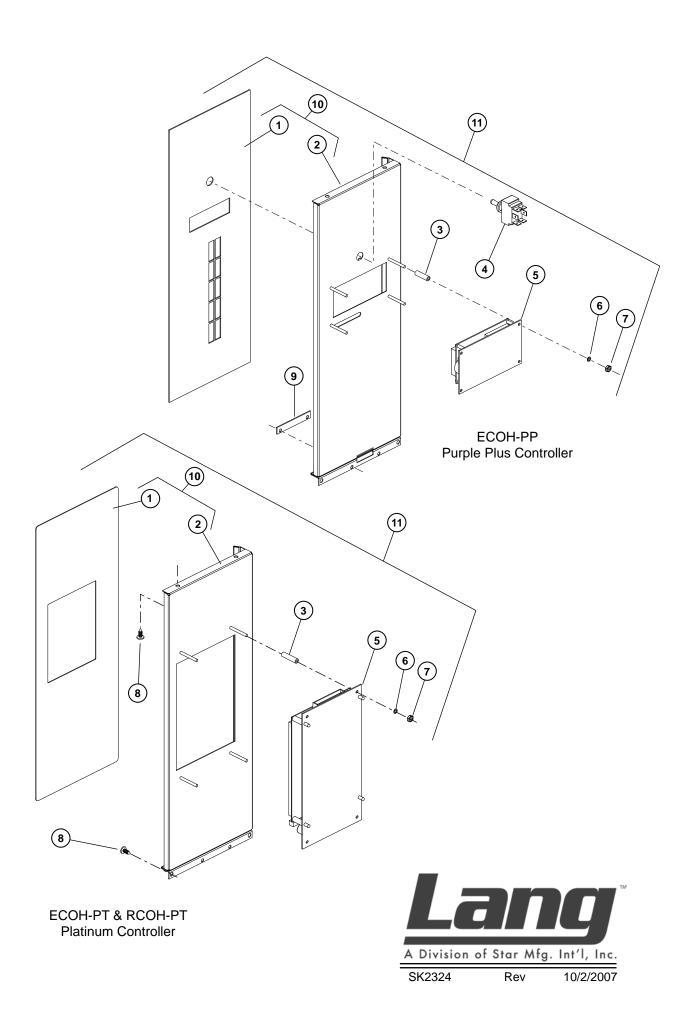


Model No: ECOH & RCOH, AP, PP & PT DOOR ASSEMBLY Commercial & Marine Half Size Economy Convection Oven

Key Number	Part Number	Qty Per	Description			
1 2 3 4 5 6 7 8 9 10 11 12	R-50800-12 Q9-60102-1362 2Q-71301-04 2H-60106-17 Q9-EH-266 2C-20109-15 2P-70201-01 Q9-EH-265 2P-70201-19 Q9-50313-031 Q9-60102-370	Per 1	DOOR T HANDLE 11 1/2 LNG OUTER DOOR EH NO/LOGO WINDOW ASSY 9-5/8X16-5/8 INSULATION KIT EHS DOOR - HINGE COVER HINGE BOTTOM SCRW PHD MS SS 10-32X1/2 BRNZBR.505IDX.8750DX.175 HINGE TOP BRNZBRFLN1/2IDX5/8ODX3/8 HINGE PIN - WELD DOOR LATCH ASSY	ALL		
IMPOST	ANT WIEN ORDER	C SPECIF	TY VOI TAGE OR TYPE GAS DESIRE	:n	PAGE 1	

IMPORTANT: WHEN ORDERING, SPECIFY VOLTAGE OR TYPE GAS DESIRED INCLUDE MODEL AND SERIAL NUMBER



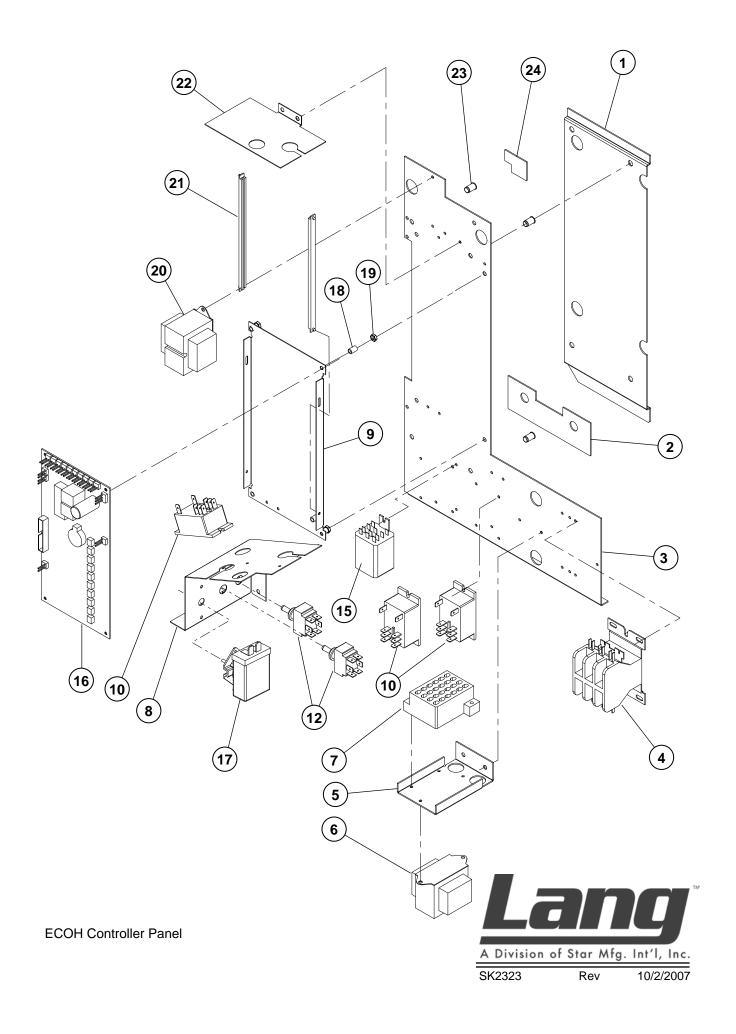


Model No: ECOH & RCOH, PP & PT CONTROL ASSEMBLY Commercial & Marine Half Size Economy Convection Oven

				1
Key	Part	Qty		
Number		Per	Description	
			200011711011	
	014 00004 447		OWITOLL BL ELLAVOS	FOOLLDD
1	2M-60301-117	1	SWITCH LBL EH 4X20	ECOH-PP
2	2M-60301-118 Q9-60101-7665	1 1	SWITCH LBL EH PLATINUM ECOH-PP / EHS-PP CNTRL FRNT W/PROTO	ECOH-PT, RCOHPT ECOH-PP
	Q9-EH-516-1	1	CONTORL PANEL - EH-PT	ECOH-PT-208V
3	2A-20504-01	4	SPACER NYLON #6 1/4 X 7/8	ECOH-PP
	2A-20504-02	4	SPACER NYLON #6 1/4 X 1"	ECOH-PT, RCOHPT
4	2E-30303-06	1	SWT TOG ON-ON DPDT BLK	ECOH-PP, ECOH-PT, RCOH-PT
5	2J-40102-24	1	DSPLY 4X20 MDL.DA170-001	ECOH-PP
6	2J-40102-25 2C-20205-02	1 4	DSPLY 320X240 DB170-001 .140#6IDX.2500DX.032	ECOH-PT, RCOHPT ALL
6 7	2C-20205-02 2C-20301-10	2	NUT HEX 6-32 PLTD	ECOH-PP
'	2C-20301-10	4	NUT HEX 6-32 PLTD	ECOH-PT, RCOHPT
8	2C-20103-02	4	SCRW SM PLT 10 X .5 PHLSL TP A	ALL
9	Q9-EH-519	1	COMPUTER STRIP HOLDER	ECOH-PP
10	Q9-60101-7661	1	ECOH-PP / EHS-PP FRNT W/LABEL	ECOH-PP
14	Q9-60101-7662	1	ECOH-PT / EHS-PT FRNT W/LABEL	ECOH PT ROOMPT
11	Q9-60101-765 Q9-60101-766	1 1	ECOH-PT / EHS-PT CONTROL FRONT ECOH-PP / EHS-PP CONTROL FRONT	ECOH-PT, RCOHPT ECOH-PP
NI	2M-60301-128	1	PRODUCT STRIP PURP COMP	ECOH-PP
NI	OB-60301-46	1	OBS PRDCT STRIP-BLU/PURP COMPH	ECOH-PP

IMPORTANT: WHEN ORDERING, SPECIFY VOLTAGE OR TYPE GAS DESIRED INCLUDE MODEL AND SERIAL NUMBER





Model No: ECOH & RCOH, PP & PT CONTROL PANEL ASSEMBLY Commercial & Marine Half Size Economy Convection Oven

Key Number	Part Number	Qty Per	Description	
1 2 3 4 5 6 7 8 9 10 12 15 16 17 18 19 20 21 22 23 24 NI NI NI NI	Q9-EH-495 Q9-EH-495-1 Q9-EH-505 2E-30700-06 Q9-EH-507 2E-31400-07 2E-31400-07 2E-30503-01 Q9-EH-509 Q9-50307-47 2E-30701-05 2E-30600-02 2J-40102-26 2T-30402-27 2A-20501-01 2C-20301-10 Y9-31400-26-1 2E-41800-02 Q9-EH-513 2C-20306-03 Q9-EH-495-2 Q9-40102-51-1 Q9-ECCOPPT-C Q9-ECCOPPT-U	1 1 1 1 1 1 1 1 1 3 2 1 1 1 5 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	COMPUTER CONTROL SLIDE SLIDE CLIP A COMPONENT MOUNT C,P,PP CONTC3POLE35A24VAC50/60HZ TERMINAL BLOCK MOUNT XFRMR 480/240VAC 100VA XFORMR120-208-240/24V40VA TRM BLOCK 24 POS QK CON SWITCH BRACKET CPU MOUNT CONTC 2POLE 30A 24VAC P & SWT TOG ON-ON DPDT BLK RELAY 240VAC 3FORMC FLNG MAIN BOARD, MDL.CA170-001 STAT ADJ 450 DEG 48 PILOT SPCR FBR 1/4 OD #8 ID 3/8 NUT HEX 6-32 PLTD XFORMR 208-240/24-12 40VA PCB GUIDE 6.675 LG 24V TANSFORMER SHIELD AVK CAD 10-32 1ST GRP SLIDE CLIP B FILTER BOARD PHANTOM - PANEL ECCO 208/240V PANEL ECCO 480V PLATINUM	ECOH-PP, ECOH-PT, RCOH-PT ECOH-PP ECOH-PP ECOH-PT ECOH-PP

IMPORTANT: WHEN ORDERING, SPECIFY VOLTAGE OR TYPE GAS DESIRED INCLUDE MODEL AND SERIAL NUMBER

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STAR MANUFACTURING

10 Sunnen Drive, St. Louis, MO 63143 U.S.A. (800) 807-9054 (314) 781-2777 Parts & Service (800) 807-9054 www.star-mfg.com