



Installation

Operation

Maintenance

Troubleshooting

Model: 32S-M

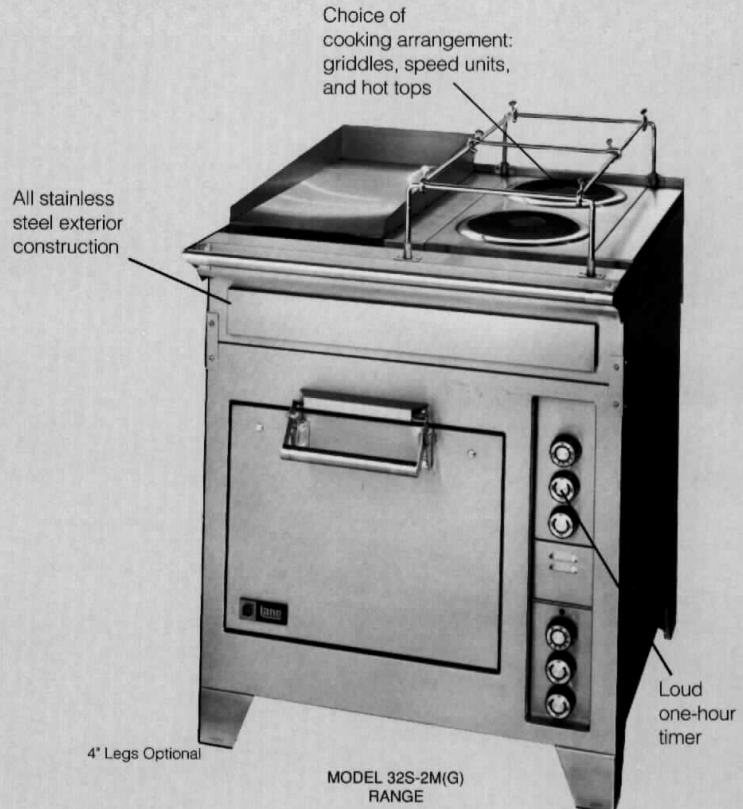
Lang Marine Electric Range

Lang

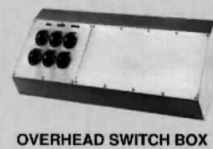
- Choice of cooking top arrangements are combinations of griddles, hot tops, and speed units.
- Each twelve-inch section of cooking top shall be controlled independently.
- Grease drain shall be located in the front trough with spillage drawers the full width and depth of the range.
- One-piece splash guard is welded continuously on three sides of grill plate to prevent grease leakage.
- Oven is equipped with one heavy duty oven rack and rack slide supports.
- Oven is insulated on six sides with high grade rock wool.
- The controls are located in the cool zone.
- Standard finish shall be high quality stainless steel.
- Standard equipment includes nickel-plated sea rails over hot tops and speed units, stainless steel front grab bar, and oven door latch.
- 208-V, 240-V, and 480-V ranges are equipped with hydraulic-magnetic circuit breakers as standard equipment.
- Overhead switch box can be furnished, as an accessory, if required and specified.
- Ranges can be furnished, as an optional extra, in two-piece construction – top and oven – to permit entrance through narrow 26" galley doors.
- The range oven shall include a loud one-hour timer.
- Wire used in high heat zone shall be number twelve nickel stranded.
- Heating units are enclosed tubular type, with incoloy sheath.
- Lang Marine ovens meet the requirements of the United States Coast Guard and the National Sanitation Foundation Testing Laboratory and have been tested and listed by Underwriters Laboratories as meeting U.L. 197 to include the marine supplement per U.S. Coast Guard regulation CFR 46 111.77-3.
- Standard warranty shall cover parts and labor for one full year.

MARINE 32S SERIES RANGE

**OVERALL SIZE
30" by 30"**



VOLTAGE AVAILABLE
 208 Volt A.C.
 240 Volt A.C.
 480 Volt A.C.
 Single or Three Phase
 115 Volt D.C.
 230 Volt D.C.
 Single Phase

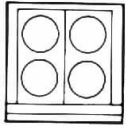


OVERHEAD SWITCH BOX

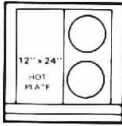


Specifications subject to change without notice.

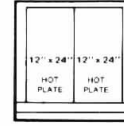
32 SERIES GALLEY RANGE TOP COMBINATIONS AND SPECIFICATIONS



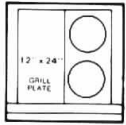
32S-1M
4-Speed Units**



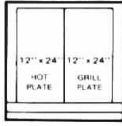
32S-2M(H)
1-12" x 24" Hot Plate*
2-Speed Units**



32S-3M(H)
2-12" x 24" Hot Plates*



32S-2M(G)
1-12" x 24" Grill Plate***
2-Speed Units**

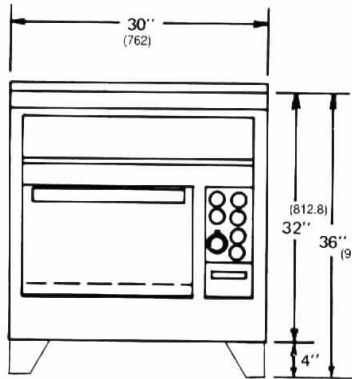


32S-3M(G)
1-12" x 24" Hot Plate*
1-12" x 24" Grill Plate ***



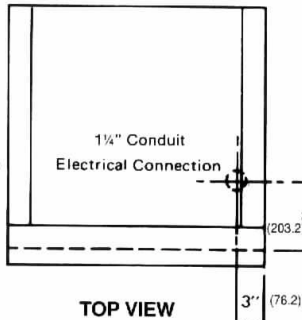
32S-4M
1-24" x 24" Grill Plate***

*3 - Heat Switch
**6 - Heat Switch
***Thermostat

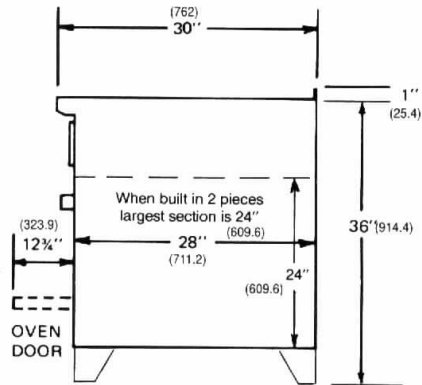


FRONT VIEW

**RANGE AVAILABLE IN
2-PIECE CONSTRUCTION
ALLOWS ENTRANCE
THROUGH A 26" DOORWAY.**



TOP VIEW
OVERALL DEPTH WITH
FRONT GRAB BAR 32 1/2" (825.5)



SIDE VIEW

INSIDE OVEN DIMENSIONS	
Width	19" (482.6)
Depth	21" (533.4)
Height	12" (304.8)

All dimensions are in both inches and millimeters.
(Approx. millimeters in parentheses)

ELECTRICAL DATA																		
ALL MODEL 32S SERIES RANGES																		
MODEL NO.	THREE PHASE LOADING			TOTAL K.W. CONN.	NOMINAL AMPS PER LINE												SHIP. WEIGHT*	
	K.W. PER PHASE				THREE PHASE									SINGLE PHASE		D.C. AMPS		
	L1-L2	L2-L3	L3-L1		208 VOLTS			240 VOLTS			480 VOLTS			208 V	240 V	115V DC		230V DC
	L1	L2	L3		L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3		L1
32S	5.0	5.0	4.0	14.0	37.5	41.7	37.5	32.5	36.1	32.5	16.3	18.1	16.3	67.3	58.3	122	61	370 lbs. (138 kg.)

*Overhead Switch Box 75 lbs. (30 kg)

WHEN ORDERING SPECIFY VOLTAGE AND PHASE

Specifications subject to change without notice.

LANG MANUFACTURING COMPANY

OPERATING INSTRUCTIONS

RANGE TOPS

Electric range tops consist of various top arrangements, depending upon the specific models purchased.

- Options include:
- 1.) 12" x24" hot plates
 - 2.) Round speed units
 - 3.) Griddles

These units are independently controlled by three position switches, thermostats, or infinite controls.

All thermostats are used in conjunction with a red indicator or pilot lamp. When the light is on the elements are energized and bringing the plate to the temperature set on the thermostat. When the light is off the plate has reached the temperature set on the thermostat. Griddle pilot lights should be allowed to cycle a least twice before usage.

Recommended Usage:

- 1.) 12"x 24" hot plates - Heavy stock pots and kettles.
- 2.) Round speed units - Light duty sauce pans and small stock pots. (NOT recommended for large stock pots.)
- 3.) Griddles - Used for grilling product directly on surface.

CAUTION- All hot plates and speed units should be turned to the low or off position when not in use. Allowing these elements to stay in the full on or high position with nothing on top to absorb and dissipate the heat is detrimental to element life. Lang warranty provisions do not cover abuse of this nature.

OPERATING INSTRUCTIONS

LANG COMMERCIAL ELECTRIC RANGES

GENERAL

The range is designed to give, well regulated, uniform heat throughout the oven and over the surface units. The oven and surface units should be thoroughly preheated before being used. It is advantageous from an operating cost stand point to operate with the switches and/or thermostats set at the lowest position that will satisfactorily perform the cooking being done.

INITIAL PREHEAT

Before the initial use of the range, the oven must be thoroughly allowed to dry itself out. This is done by setting the top and bottom oven switches to the "low" position, and setting the thermostat to 350 degrees. Allow the range oven to saturate until all vapor and condensation has been eliminated. For best operating results allow the range oven to thoroughly dry out. Allow 8 to 12 hours for this process. Clean top plates thoroughly. Apply salad oil. Turn each plate switch or thermostat to a low position and allow plate to heat for three hours.

RANGE CONTROLS

Three heat switches or automatic thermostats control the top plate units. The range is provided with an upper heating unit located in the top of the oven and a lower heating unit located under the metal deck, in the bottom of the oven. Each heating unit is independently regulated for proper ratio of "top" and "bottom" heat, to suit the product being baked or roasted, by means of two 3-heat switches located in the panel at the right of the range. The range oven is also provided with an adjustable, automatic temperature control, the dial, which is located in the range switch panel. The setting of the control dial establishes the average temperature to be maintained in the range oven.

OPERATION

The range oven must be thoroughly, preheated before satisfactory baking can be done. The range oven will not bake uniformly if not sufficiently preheated. To compensate for temperature drop when loading the range oven, set the thermostat up 50 degrees over the desired temperature. Reset thermostat after the range is loaded. The range oven may, of course, be preheated with the 3 heat switches set at a lower position than "High", but the time required will be proportionally longer. After preheating, set the two 3 heat switches for proper ratio of "top" and "bottom" heat to suit the product to be baked or roasted.

The 12" high "Roasting and Baking" range oven is equipped with a removable rack. For baking pies, bread, or for roasting operations, the rack may be placed directly on the metal deck and the pans placed on the rack. For baking cakes or pastries the rack should be located in the lower position provided by the rack supports at the sides of the range and the pans placed on the rack in this lower position.

Range Top

12 x 24 Hot Plate or Round Speed Units, controlled by 3 - heat switch, 6 - heat switch or high temperature thermostats.

Round Speed Units, controlled by 3 - heat switch or 6 - heat switch. Recommended: Light duty sauce pans and small stock - pots. Not Recommended: Heavy stock - pots, or heavy urns, or kettles.

12 x 24 or 24 x 24 Griddle plates, controlled by thermostats. Temperature range 450 degrees F. Recommended: All heavy and light frying. Set the thermostat dial at the desired temperature. The red pilot light will be illuminated until the desired temperature is reached. The pilot light indicates when the plate is heating.

Maintenance Instruction

Daily Cleaning

Warning: Burns could occur when dealing with hot grease!

Empty grease drawers daily or when the area under the grease shoot is full. Do not wait until the entire grease drawer is full.

Clean exterior of the range with hot water and a mild detergent to maintain a gleaming appearance.

Keep the griddle plate surface clean. After each cooking load, scrape the griddle surface to remove any carbonized grease.

Caution: When scraping griddle surface, do not scrape the splash guard. It may eventually be cut through.

Weekly Cleaning

The range should be thoroughly cleaned at least once a week in addition to the normal daily cleaning to insure against the accumulation of foreign material. Keep inside of oven and metal deck clean, particularly around door opening, door edges and at bottom of door opening so that the door may close tightly.

MODEL DESIGNATION	TOP ARRANGEMENT		TOP SECTION WIRING DIAGRAMS			
	SECTION 1	SECTION 2	THERMOSTAT	HEATING ELEMENT	SPEED UNITS	
32S-1	C	C				
32S-2M(G)	A	C				
32S-2	B	C				
32S-2M(H)	B	C				
32S-3M(G)	A	B				
32S-3	B	B				
32S-3M(H)	B	B				
32S-4	A	A				
32S-4M	A	A				

OVEN WIRING DIAGRAM

EXAMPLE FOR DETERMINING THE WIRING OF A LANG RANGE:

- VIEWED FROM THE FRONT, LEFT TO RIGHT, THE TOP 1 FOOT SECTIONAL ARRANGEMENT FOR A 32S-2M(G) RANGE IS A AND C (SEE TOP ARRANGEMENT CHART). EACH OF THE LETTERS REPRESENT ONE OF THE TOP SECTION WIRING DIAGRAMS ABOVE.
- THE POWER INPUT LEADS TO EACH SECTION AND THE OVEN ARE SHOWN AT LEFT CONNECTED TO THEIR RESPECTIVE CIRCUIT BREAKERS.
- SEE SERVICE CONNECTION CHART FOR PROPER CONNECTION OF CIRCUIT BREAKERS TO POWER SUPPLY.

SERVICE CONNECTION		AMPS PER LINE	
		208V	240V
SINGLE PHASE	L1	1,3	57.5
	L2	2,4	
THREE PHASE	L1	1,4	41.7
	L2	2	37.5
	L3	3	37.5
KW PER PHASE		TOTAL KW	
L1-L2	L2-L3	L3-L1	14
5	4	5	

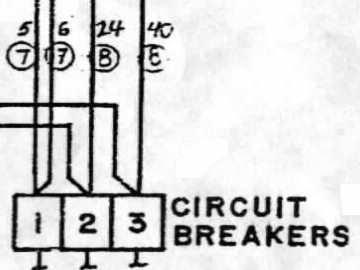
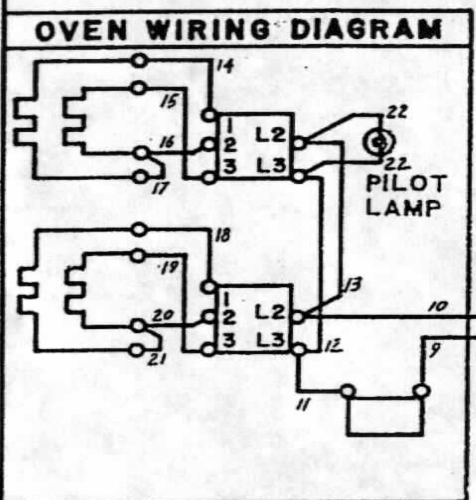
32S RANGE WITH EGO HDT TDP

FD	2-1-94	REV	5-31-89	USE ON-E-SER. NO.	AND ON
LANG MFG. CO. REDMOND, WA.		MATERIAL			
32 SERIES RANGE		208-240 VOLT AC			
61101-10		B			

MODEL DESIGNATION	TOP ARRANGEMENT	
	SECTION 1	SECTION 2
32S-1	C	C
32S-2	B	C
32S-2M(G)	A	C
32S-2M(H)	B	C
32S-3	B	B
32S-3M(G)	B	A
32S-3M(H)	B	B
32S-4	A	A
32S-4M	A	A

TOP SECTION WIRING DIAGRAMS

A	AUTOMATIC CONTROL HOT PLATE OR GRILL	B	MANUAL EGO HOT PLATE	C	EGO SPEED UNITS W/6 HEAT SWT.
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EXAMPLE FOR DETERMINING THE WIRING OF A LANG RANGE:

- (1) VIEWED FROM THE FRONT, LEFT TO RIGHT, THE TOP 1 FOOT SECTIONAL ARRANGEMENT FOR A 32S-M(G) RANGE IS A AND C (SEE TOP ARRANGEMENT CHART). EACH OF THE LETTERS REPRESENT ONE OF THE TOP SECTION WIRING DIAGRAMS ABOVE.
- (2) THE POWER INPUT LEADS TO EACH SECTION AND THE OVEN ARE SHOWN AT LEFT CONNECTED TO THEIR RESPECTIVE CIRCUIT BREAKERS.
- (3) SEE SERVICE CONNECTION CHART FOR PROPER CONNECTION OF CIRCUIT BREAKERS TO POWER SUPPLY.

32S RANGE WITH EGD HDT TOP
USE ON E SER. NO, AND ON

SERVICE CONNECTION			AMPS PER LINE
			480 VOLT
L1	1		18.0
L2	2		16.2
L3	3		16.2
KW PER PER PHASE			TOTAL KW
L1-L2	L2-L3	L3-L1	14
5	4	5	

FD	QTY.	MATERIAL	
2-1-94		LANG MFG. CO. REEDMOND, WA.	
		32 SERIES RANGE	
		480 VOLT AC	
A		REV. NO. MW 11-1-84	INC. NO. 61101-07
		REV. NO. BM 11-1-84	REV. NO. A

PARTS LIST

DESCRIPTION	PART NO.
Element Top Plate 208V O/S 2000 Watts	11010-09
Element Top Plate 208V I/S 3000 Watts	11010-10
Element Top Plate 115VDC O/S 2000 Watts	11010-13
Element Top Plate 115VDC I/S 3000 Watts	11010-14
Element Top Plate 240V O/S 2000 Watts	11010-21
Element Top Plate 240V I/S 3000 Watts	11010-22
Element Top Plate 480V O/S 2000 Watts	11010-23
Element Top Plate 480V I/S 3000 Watts	11010-24
Element Top Plate 380V O/S 2000 Watts	11010-25
Element Top Plate 380V I/S 3000 Watts	11010-26
Element 32 Oven 208/240 Volt I/S 1000 Watts	11040-01
Element 32 Oven 208/240 Volt O/S 1000 Watts	11040-02
Element 32 Oven 480 Volt I/S 1000 Watts	11040-07
Element 32 Oven 480 Volt O/S 1000 Watts	11040-08
Element 32 Oven 115 Volt DC I/S 1000 Watts	11040-15
Element 32 Oven 115 Volt DC O/S 1000 Watts	11040-16
Element 32 Oven 380 Volt I/S 1000 Watts	11040-17
Element 32 Oven 380 Volt O/S 1000 Watts	11040-18
Element French Plate 208 Volt 2600 Watts	11120-12
Element French Plate 240 Volt 2600 Watts	11120-13
Element French Plate 480 Volt 2600 Watts	11120-14
Element French Plate 380 Volt 2000 Watts	11120-18
Thumb Screws 1/4-20 x 3/4	20112-01
Switch Three Heat 240/600VDC	30304-04
Switch Rotating 3 Heat	30304-06
Switch Rotating 6 Heat + Off	30304-09
Thermostat 450°F Oven/Griddle	30402-08
Terminal Strip 24 Pole	30500-06
Terminal Block 2 Pole Large	30500-11
Contactors 4 Pole 125VDC	30703-01
Fuse 60 Amp 250 Volt	30900-08
Fuse Block 2 Pole 60 Amp 208/240 Volt Units	30901-06
Pilot Light 208/240 Volt 6" Lead Black Body	31601-01
Pilot Light 480 Volt 6" Lead Black Body	31601-02
Circuit Breaker 208/240 Volt 1-Pole	31800-01
Circuit Breaker 480 Volt 3-Pole	31800-04
Handle Channel Marine	50300-14
Element Pan Assembly with Snout	50300-20
Speed Unit Frame Assembly	50300-29

PARTS LIST CONT'D

Grab Bar Assembly 30" Long	50300-30
French Plate Frame Assembly	50300-82
Element Clip Long	50301-09
Element Clip Short	50301-10
Element Bushing Metal	50301-11
Hot Top Assy. 3/4" x 1 foot	50400-02
Range Plate Assy 1/2" x 1 foot	50401-01
Range Plate Assy 1/2" x 2 foot	50401-02
Tension Disc Oven Door	50800-07
Ship Rail 13"	50900-01
Ship Rail 24"	50900-02
Ship Rail Hooked 11 3/8"	50901-01
Ship Rail Hooked 29 1/2"	50901-02
Ship Rail Socket Front	50902-01
Ship Rail Socket Rear	50902-02
Spring Right Side 7 1/2" Long – Oven Door	51001-02
Knob 3 Heat Switch	70701-10
Knob Thermostat 450°F Griddle / Oven	70701-16
Knob 6 Heat Switch	70701-41
Knob 3 Heat 240/600 VDC	70701-51