



Installation, Operation, and Maintenance Instructions

Electric Clamshell®

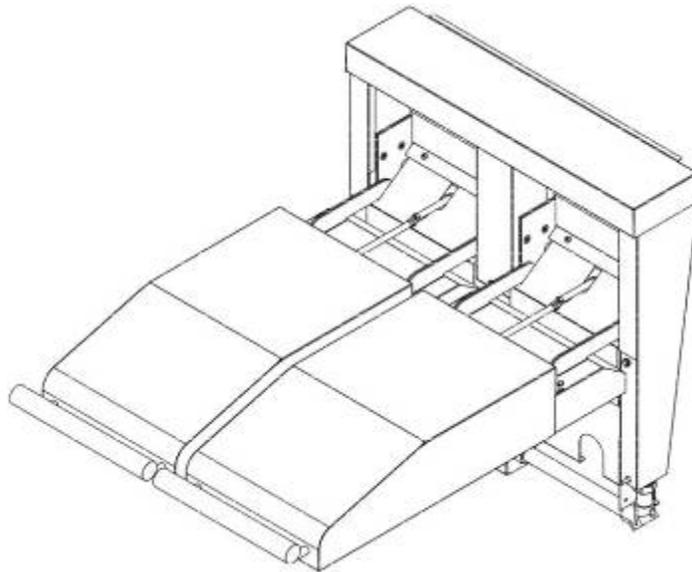
Model:

CSE12-208VCD

CSE12A-1-208V

CSE12A-2-208V

CSE12A-1G thru CSE12A-6G (*Glass Surface*)



Safety

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

DANGER POTENTIALLY HAZARDOUS SITUATION, WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH.



WARNING POTENTIALLY HAZARDOUS SITUATION, WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.



CAUTION POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY.



NOTICE Helpful operation and installation instructions and tips are present.



FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS NEAR 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.

Model #:	Purchased from:
Serial #:	Location:
Date purchased:	Date installed:
Purchase order #:	For service, call:

CAUTION	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 REMOVE THE UNIT FROM THE SKID AND MOVE IT TO THE PLACE OF INSTALLATION.	
	ANY STAND, COUNTER OR OTHER DEVICE ON WHICH UNIT WILL BE LOCATED MUST BE DESIGNED TO SUPPORT THE WEIGHT OF THE UNIT.	
DANGER	WHEN CUTTING SHIPPING STRAPS, USE CAUTION, THE SHIPPING STRAPS ARE UNDER TENSION AND CAN SNAP BACK WHEN CUT, CAUSING SERIOUS INJURY AND OR DEATH.	
DANGER	GROUND THIS APPLIANCE AT THE TERMINAL PROVIDED. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY AND/OR 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.	
WARNING	BROILER ELEMENTS CAN IGNITE GREASE FIRES ON THE GRIDDLE SURFACE, WHICH MAY RESULT IN PROPERTY DAMAGE, SERIOUS INJURY OR DEATH. ENSURE GRIDDLE SURFACE IS SLOPPED DOWN FROM BACK TO FRONT BY AT LEAST ¼" BEFORE COOKING	
NOTICE	<p>The data plate is located behind the Clamshell® between the two pivot arms. The Clamshell® voltage, wattage, serial number, wires size and clearance specifications are on the data plate. This information should be carefully read and understood before proceeding with the installation.</p> <p>The installation of any components such as a vent hood, grease extractors or fire extinguisher systems must conform to their applicable National, State and locally recognized installation standards.</p> <p>During the first few hours of operation you may notice a small amount of smoke and a faint odor from the smoke. This is normal for a new unit and will disappear after the first few hours of use.</p>	
CAUTION	<p>ALWAYS KEEP THE AREA NEAR THE APPLIANCE FREE FROM COMBUSTIBLE MATERIALS.</p> <p>KEEP FLOOR IN FRONT OF EQUIPMENT CLEAN AND DRY. IF SPILLS OCCUR, CLEAN IMMEDIATELY TO AVOID THE DANGER OF SLIPS OR FALLS.</p>	
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.	

Safety

NOTICE

Qualified personnel must perform service on this or any other Lang appliance only. Consult your authorized service agent directory. You can call our toll free number 1-800-438-5264 or visit our website www.langworld.com for the service station nearest you.



WARNING

HIGH 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 Star Manufacturing International OR THEIR AUTHORIZED DISTRIBUTORS CAN CAUSE BODILY INJURY TO THE OPERATOR AND DAMAGE TO THE EQUIPMENT AND WILL VOID ALL WARRANTIES.



Safety Precautions

Lang manufacturer, hereby disclaims any and all responsibility for injury, damage, loss or other claim that may occur to person or property from improper alteration, modification, addition, operation, maintenance or service, whether it be mechanical, electrical, or otherwise, which may occur from such improper alteration, modification, addition, operation, maintenance or service to this piece of equipment.

Safety Considerations

Your 12-inch Clamshell[®] is manufactured to rigid standards. This equipment is approved by a certifying agency to conform to safety and sanitation standards.

The presence of safety equipment control and interlocks on an appliance and attendant components of installation cannot in and of themselves, assure absolute safety of operation. Diligent, capable, well-trained operators and maintenance personnel, as well as proper programs of operation and maintenance, are essential to the safe and reliable operation of this appliance.

- A. The **responsibility of the manufacturer** is to supply suitable, comprehensive instructions and recommendations for the operation and maintenance of the appliance.
- B. Trained qualified and factory-authorized personnel must perform all operation, maintenance and repair of these appliances. It is the **responsibility of the owner/operator** to ensure that this happens.
- C. A regular periodic program of cleaning, inspection and maintenance must be established and comprehensive maintenance records maintained. It is the **sole responsibility of the user** to establish, schedule and enforce the frequency and scope of these programs in keeping with recommended practice and with due consideration given to actual operating conditions.
- D. Operate this appliance within the limits it was designed for, which will not exceed the working limits of any component within the appliance as a whole.

Table of Contents

Chapter	Page
Safety	2
General Information.....	6
Installation.....	7
Initial Start Up	8
Cleaning.....	9
Hood Stop Adjustment.....	10
Parts List	<u>11-12</u>
CSE12A-1G thru CSE12A-6G Exploded View & Parts List.....	13-14
Wiring Diagram	<u>15</u>

General Information

Lockout Procedure

Announce lockout to other personnel.

Turn power off at main panel.

Test lockout by turning power switch on and observing if elements come on. Check heater circuit with voltmeter.

Perform necessary repairs or tests.

Clear the unit of personnel before starting the griddle.

Turn power on at main panel.

Announce unit is “on” to other personnel.

Controls

The broiler turns on with the power switch of the griddle.

The broiler operates with full power when it is in the closed position. In the open position, the broiler will operate with partial power and be in the “idle” mode.

Technical

The broiler, not including the griddle, is standard 208 or 240V, single phase. Specify voltage when ordering.

Receiving the Unit

Upon receipt, check for freight damage, both visible and concealed. Note visible damage on the freight bill at the time of delivery and have the carrier's agent sign the freight bill at that time. Concealed loss or damage means loss or damage, which does not become apparent until the merchandise has been unpacked. Make a written request for inspection upon unpacking and finding concealed damage within 15 days of delivery. Keep all packing material for inspection. Do not return damaged merchandise to Star Manufacturing Company. File your claim with the carrier.

Location

Prior to un-crating, move the unit 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.

Un-crating

The unit 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

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 REMOVE THE UNIT FROM THE SKID AND MOVE IT TO THE PLACE OF INSTALLATION.

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

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



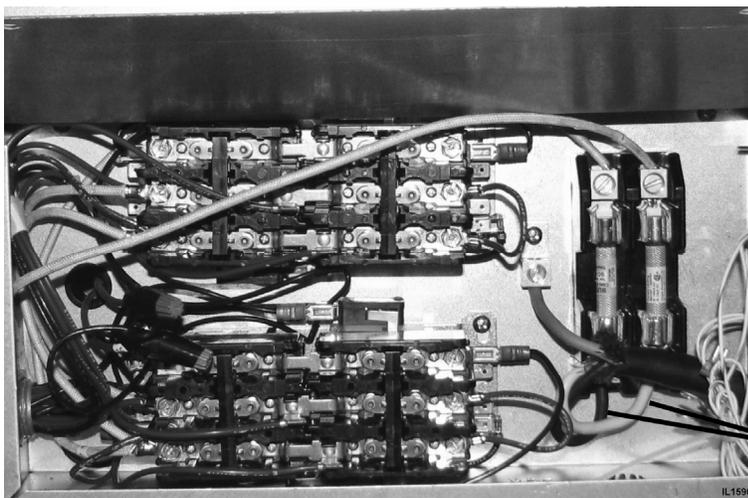
Remove the unit from the skid.

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 AND PLUMBING. IMPROPER INSTALLATION CAN CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT. UNIT MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.
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NOTICE	The data plate is located behind the Clamshell® between the two pivot arms. The Clamshell voltages, wattage, serial number, wire size and clearance specifications are on the data plate. Carefully read and understand this information before proceeding with the installation.
NOTICE	The installation of any components such as a vent hood, grease extractors or fire extinguisher systems must conform to the applicable National, State and locally recognized installation standards.



Electrical Connection

Verify griddle installation was performed as directed in the installation instructions. Connect electrical service to the box at the back of the griddle. Electrical specifications are located on the data plate.



Field Supply Leads

Clearance

Use this griddle only in non-combustible locations. Maintain clearances of base appliance.

Initial Start Up

NOTICE During the first few hours of operation, you may notice a small amount of smoke and a faint odor from the smoke. This is normal for a new unit and will disappear after the first few hours of use.

Each unit is preheated, tested and calibrated at the factory prior to shipment. However, due to temperature and climate changes during shipment the unit can absorb moisture. Check griddle for moisture and allow the unit to dry before placing the unit into full operation.

Prior to putting any unit into full time operation at normal cooking temperatures, it must be thoroughly "seasoned" or dried out. Moisture absorption in the closed spaces, in the insulation and even inside the heating elements can cause future trouble if not properly treated.

Allow the element in the unit to dry thoroughly prior to the initial use. To dry the unit, cycle the unit on and place the hood into the down position. Allow the unit to saturate until all vapor and condensation have been removed. For best operating results allow the unit to thoroughly dry out for 8 to 12 hours.

Pre-heat the griddle for one hour, if the unit has been out of service for three days, especially when exposed to high humidity and/or cool temperatures.

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.



Once the griddle has been loaded properly, lower the hood over the product.

Elements must not touch product when clamshell is in the closed position.

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.

**Daily Cleaning**

The CSE12 broiler is a self-cleaning device. When the hood is in the down position, it will bake off any debris that may accumulate during normal business operation.

Do not use water or cleaning solution on the elements.

Clean the exterior of the appliance with cleaner and water.

Wipe drip shield between hood and griddle to remove any grease.

Weekly Cleaning

Allow the hood to burn off any carbon build up after high use periods.

With a cold griddle, lower the hood and allow the hood to cook for 30 minutes.

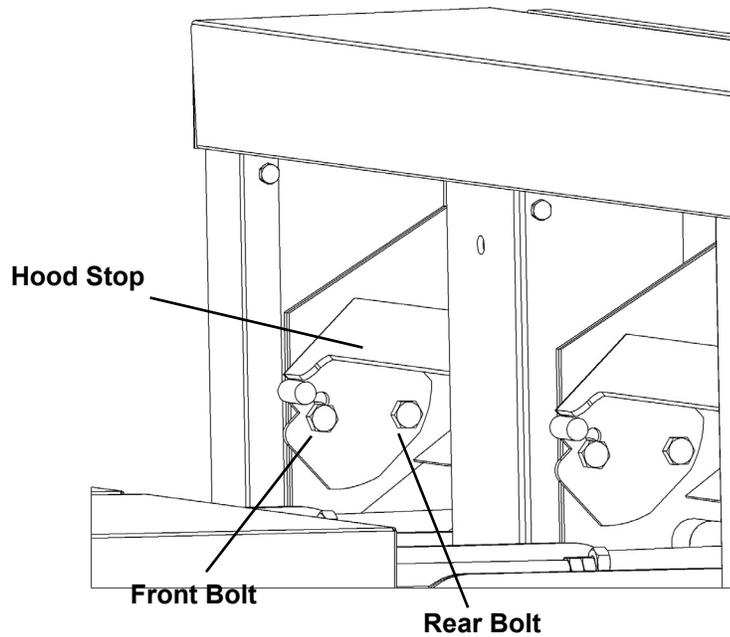
Additional time may be necessary for more baked-on grease.

ADJUSTMENT

HOOD STOP ADJUSTMENT

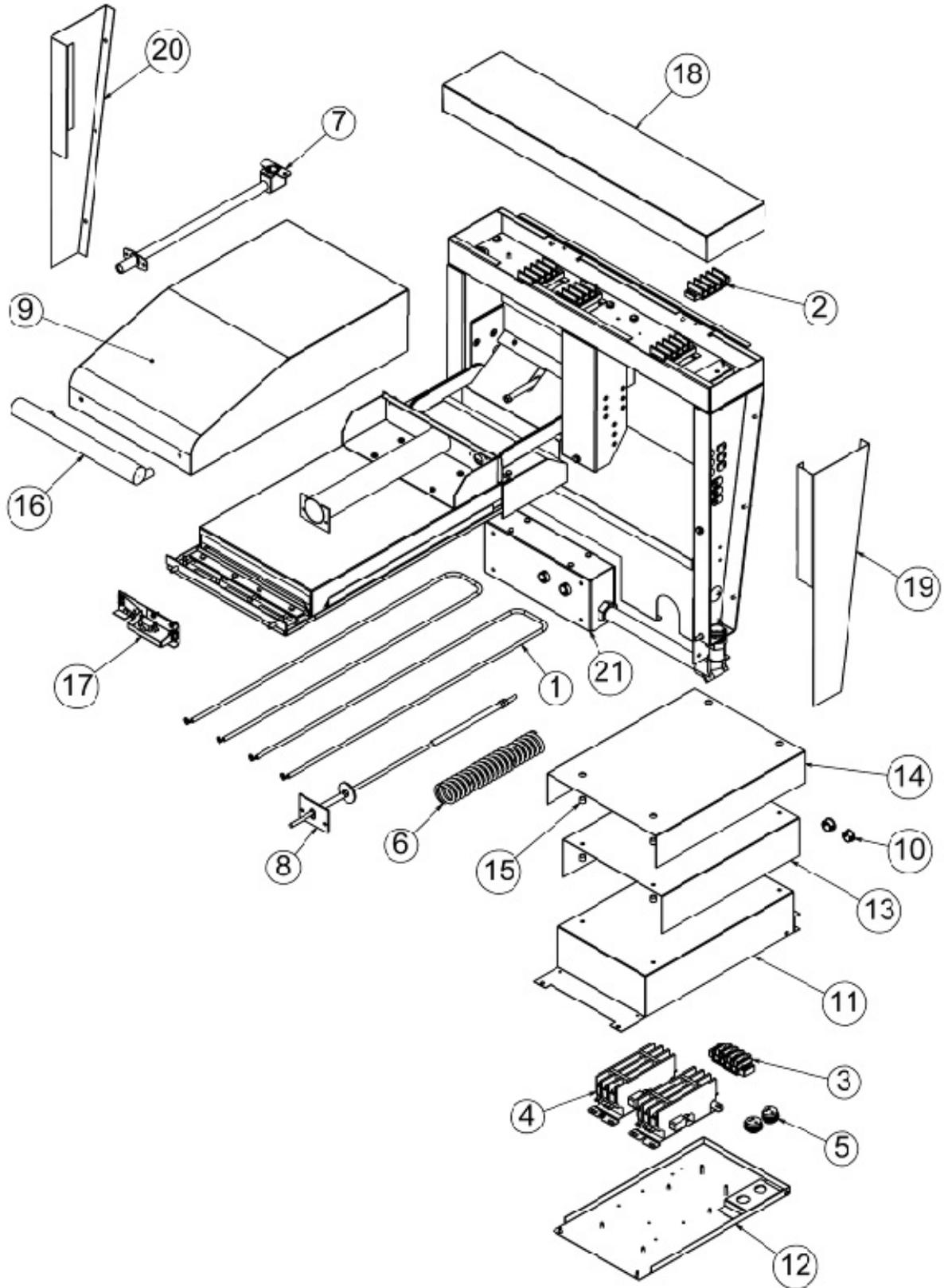
Units with an Adjustable Hood Stop Installed have the capability to adjust between a 40° to 45° degree settings. These simple steps will assist you in accomplishing this. If you have difficulty accomplishing this, please call a qualified service agent or Star Manufacturing Technical Service Department.

1. Remove the front bolts from the hood stop, and loosen the back bolts up, do not completely remove the back bolts.
2. Adjust the hood stop to the desired position, the top hole is to stop the hood at 40° degrees the bottom hole is to stop the hood at 45° degrees.
3. Re-install the front bolts and tighten up the back bolts.



(Fig. 1)

Parts List

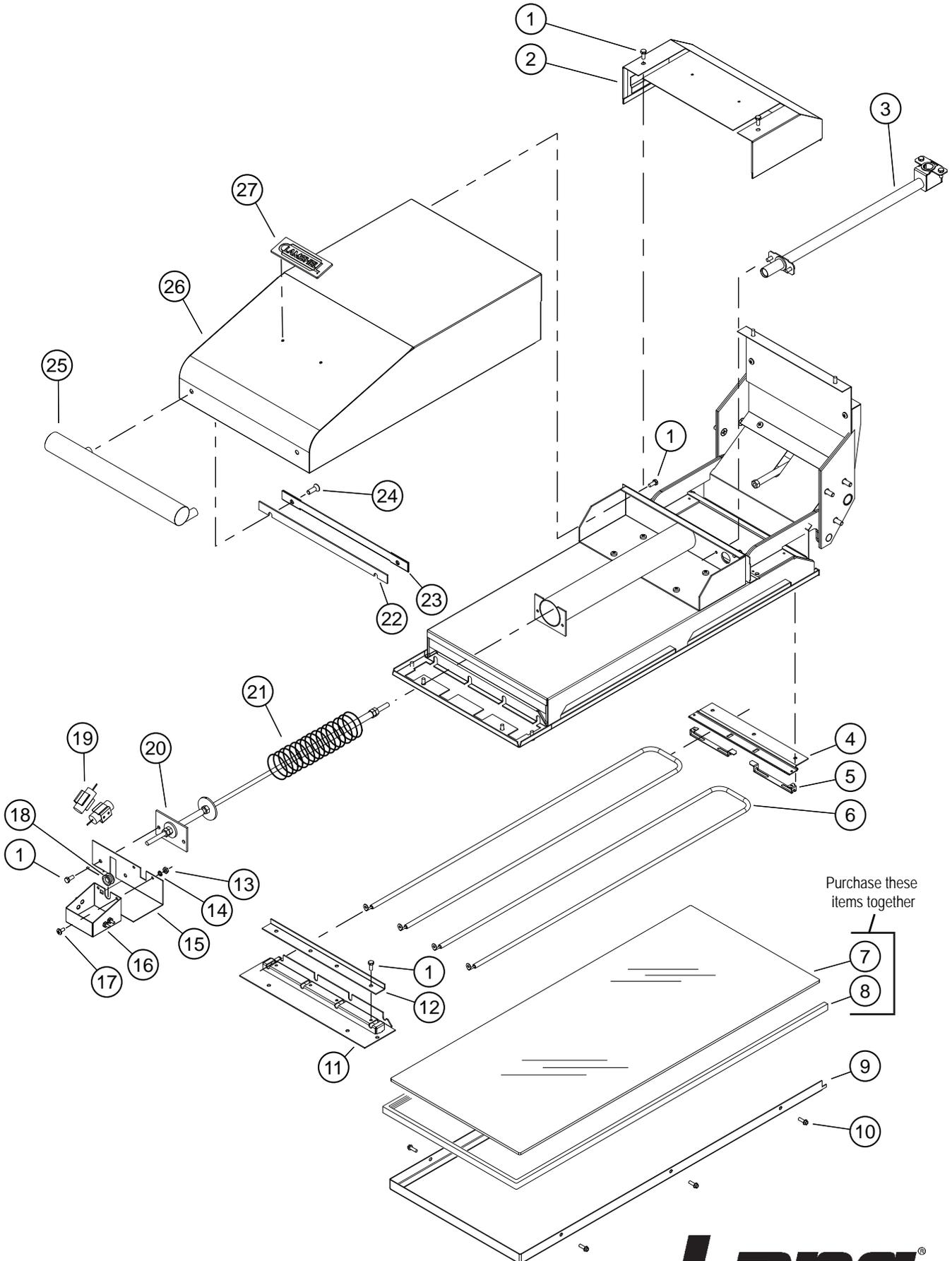


Parts List

December 5, 2007, Rev. C

Model: CSE12-208VCD, CSE12A-1-208V, CSE12A-2-208V

Item	Part	Description	Qty	Application
1	2N-11160-32-2	STLHTR208VXLH1600W42.5WSI	2	CSE12-208VCD, A-1-208, A-2-208, A-3-208, A-4-208, A-5-208, A-6-208
1A	2N-11160-32-4	STLHTR240VXLH1600W42.5WSI	2	CSE12A-1-240, A-2-240, A-3-240, A-4-240, A-5-240, A-6-240
2	2E-30500-02	TRM STRP 4 POLE 30A 600V	1	ALL
3	2E-30501-03	TERM STRP 4 POLE W/PUSH	1	ALL
4	2E-30705-01	CONTC 2-SPD MTR-COIL 240VA	1	ALL ELECTRIC GRIDDLES
	2E-30705-02	CONTC 2-SPD MTR 25A 24VAC	1	ALL GAS GRIDDLES
5	2J-40302-02	CANCTR/RECEPTACLE GGB	1	ALL
6	2P-51002-15	HOOD SPRING XLH12 NEW	1	ALL
7	K9-60102-13582	BRIDGE TO HOOD WIRE	1	ALL
8	K9-60102-13588	ROD ASY HOOD SPRNG XLH12	1	ALL
9	K9-60102-XLH609	FRONT HOOD WRAP	1	ALL
10	2K-70801-04	SNAP BUSH 3/4 SB750-10	1	ALL
11	K9-EZG-418-1	OUTER BOX SPOTWELD CSE12	1	ALL
12	K9-EZG-429	SPOT CONNECTOR MOUNT	1	ALL
13	K9-EZG-430	BOX HEAT SHIELD COMBO	1	ALL
14	K9-EZG-433	BOX HEAT SHIELD #2 COMBO	1	ALL
15	K9-EZG-436-1	BOX HEAT SHIELD SPACER	1	ALL
16	K9-XLH-709-1	HANDLE ASSY. CSE12	1	ALL
17	K9-XLH-740-1	Hood switch svc kit	1	ALL
17	2E-30307-04	SWT MERCURY TILT HI-TEMP	2	ALL
18	K9-XLH-636-21	BRIDGE COVER 2' CSE12 NO	1	ALL
19	K9-XLH-659	RIGHT STANCHION COVER	1	ALL
19	K9-XLH-659-1	RIGHT STANCHION CVR	1	ALL
20	K9-XLH-660-1	LEFT STANCHION CVR	1	ALL
21	K9-XLH-735-221	CON. BOX/FLUE 2'GAS-12 NO	1	ALL
NI	K9-XLH-704-01	ELEMENT ASSY 208	1	CSE12-208VCD, A-1-208, A-2-208, A-3-208, A-4-208, A-5-208, A-6-208
NI	K9-XLH-704-02	ELEMENT ASSY 240	1	CSE12A-1-240, A-2-240, A-3-240, A-4-240, A-5-240, A-6-240
NI	K9-XLH-781	HOOD STOP BRACKET	1	CSE12-208VCD
NI	2A-XLH-782	HOOD STOP	2	CSE12-208VCD



Model: CSE12A-1G thru CSE12A-6G
 CLAMSHELL HOOD GLASS

Lang[®]

SK2522, Rev. -, 6/15/2011

PARTS LIST

June 15, 2011

Model: CSE12A-1G thru 6G, Clamshell Hood Glass				
Fig No.	Part Number	Description	Qty	Application
1	2C-20111-09	SCRW HXHD CAP 10-32X1/2	24	
2	K9-XLH-706-W1	REAR COVER ASSEMBLY-XLH12	1	
3	K9-XLH-734	BRIDGE TO HOOD WIRE	1	
4	K9-XLH-788	BASE - ELEMENT BRACKET	2	
5	K9-XLH-789	BRACKET - ELEMENT	4	
6	2N-11160-32-2	STLHTR208VXLH1600W42.5WSI	2	208V
	2N-11160-32-4	STLHTR240VXLH1600W42.5WSI		240V
7	2Q-71300-20	GLASS - HIGH TEMP CERAMIC	1	
8	1P-72602-38	TAPE-FIBERGLASS 1"x1/16TK	5.21 FT	
9	K9-XLH-268	FRAME - GLASS CLAMSHELL	1	
10	2C-Z6925	SCREW #8X1/2 HEXW B SS	6	
11	K9-XLH-705-01	ELEMENT HOLDER ASSY	1	
12	K9-XLH-628-01	ELEMENT CLAMP	1	
13	2C-20301-11	NUT HEX 8-32 PLTD	2	
14	2C-20202-12	WSHR LOCK #8 INT STAR	2	
15	K9-XLH-742-1	MERCURY SWITCH BRACKET	1	
16	K9-XLH-741-1	MERCURY SWITCH BASE	1	
17	2C-20101-28	SCRW THD MS 8-32X3/8 PLTD	2	
18	2I-70803-04	CERMC INSLTR 9/32ID11/16	1	
19	2E-30307-04	SWITCH MERCURY TILT	2	
20	K9-60102-13588	ROD ASSY HOOD SPRNG	1	
21	2P-51002-15	HOOD SPRING XLH12 NEW	1	
22	K9-XLH-611	HANDLE BRACE TOP	1	
23	K9-XLH-612	HANDLE BRACE BOTTOM	1	
24	2C-20104-61	SCRW 1/4-28X3/4 FLT HD SO	2	
25	K9-XLH-709-1	HANDLE ASSY. CSE12	1	
26	K9-XLH-707	FOREWARD HOODWRAP ASSY	1	
27	2M-60301-W2	LANG CLAMSHELL LOGO	1	

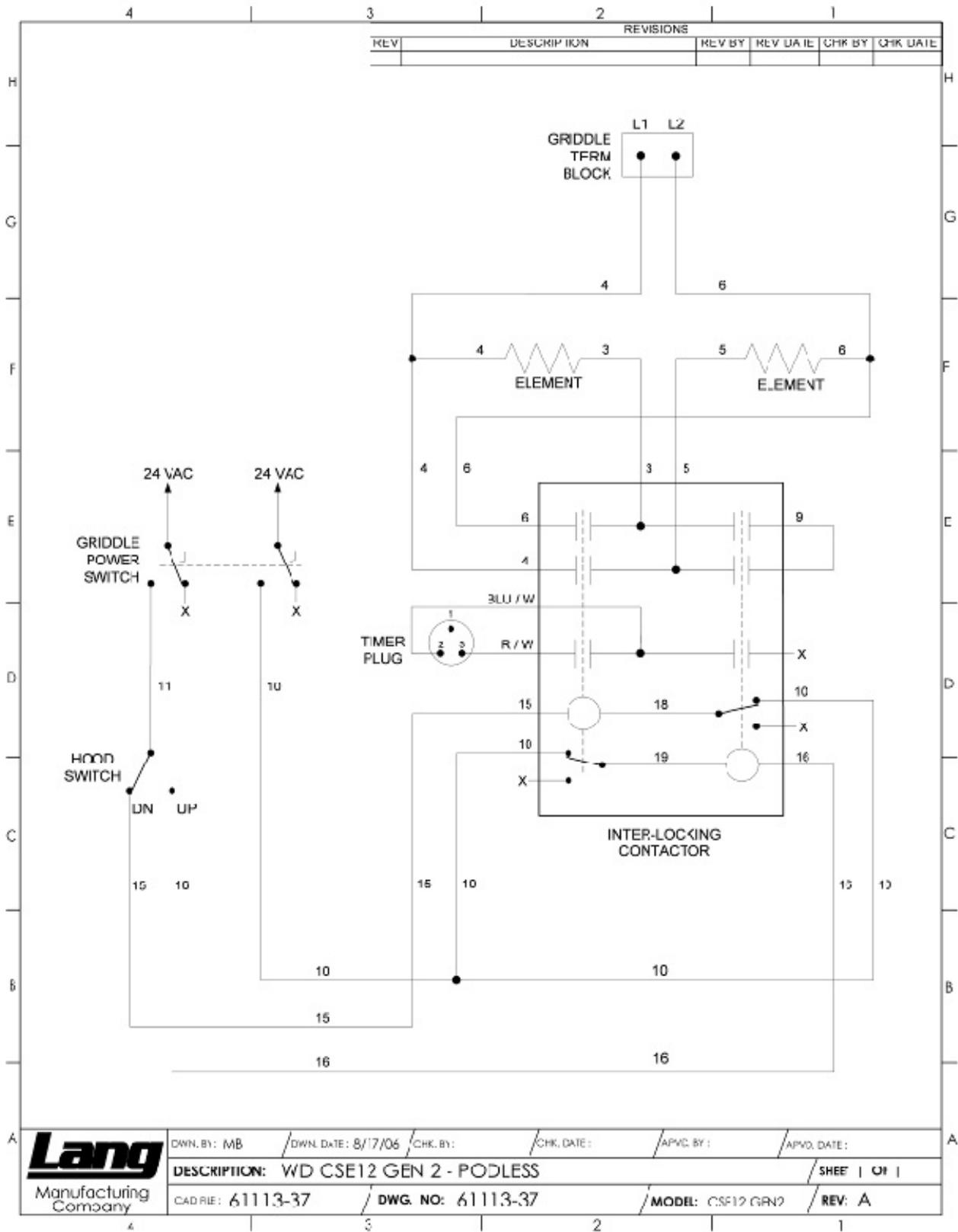
**IMPORTANT: WHEN ORDERING, SPECIFY VOLTAGE OR TYPE GAS DESIRED
INCLUDE MODEL AND SERIAL NUMBER**

PAGE 1
OF 1

Some items are included for illustrative purposes only and in certain instances may not be available.



Wiring Diagram



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