Contact Clamshell

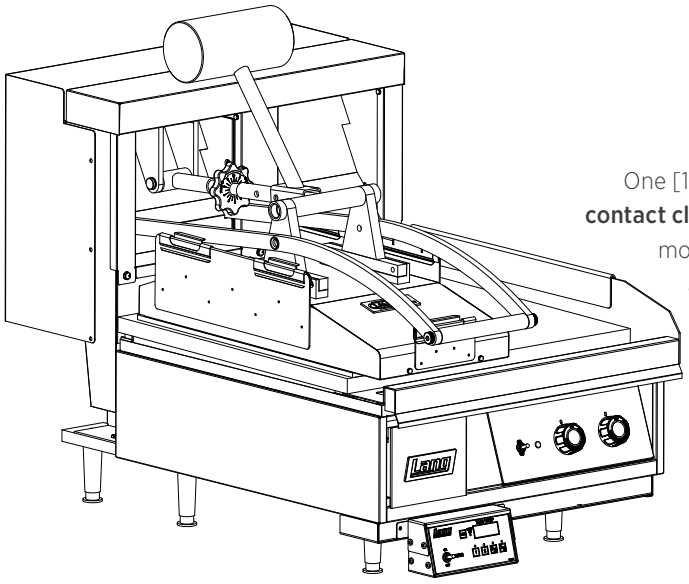
Owner's Manual

Models
CCSE12

This manual includes material related to installation, use , cleaning, and care. Exploded view(s), as well as any available parts list(s) and wiring diagram(s) pertaining to the unit(s) covered by this manual are also included.

This manual must be read and understood by all persons using or installing this appliance. Contact your Lang dealer if you have any questions concerning installation, use, or maintenance of this equipment.

DO NOT DISCARD THIS MANUAL.



One [1] **CCSE12 contact clamshells** mounted on a 24-inch griddle.

2M-W2121 • Rev. Q • 10.2018

LIMITED EQUIPMENT WARRANTY

Lang Manufacturing [as well as its subsidiaries] warranties new products to be free from defects in material and/or workmanship for a period of one [1] year from the date of original installation, except as noted below. Defects that occur as a result of normal use, within the time period and limitations defined in this warranty, will at Lang's discretion have the parts replaced or repaired by Lang or a Lang-authorized service agency.

THIS WARRANTY IS SUBJECT TO ALL LISTED CONDITIONS.

Repairs performed under this warranty are to be performed by a Lang-authorized service agency. Lang will not be responsible for charges incurred or service performed by non-authorized repair agencies. In all cases, the nearest Lang-authorized service agency must be used.

Lang will be responsible for normal labor charges incurred in the repair or replacement of a warrantied product within 50 miles (80.5 km) of an authorized service agency. Time and expense charges for anything beyond that distance will be the responsibility of the owner. All labor will need to be performed during regular service hours. Any overtime premium will be charged to the owner. For all shipments outside the U.S.A. and Canada, please see the International Warranty for specific details.

It is the responsibility of the owner to inspect and report any shipping damage claims, hidden or otherwise, promptly following delivery.

No mileage or travel charges will be honored on any equipment that is deemed portable. In general, equipment with a cord and plug weighing less than 50 lb. (22.7 kg) is considered portable and should be taken or shipped to the closest authorized service agency, transportation prepaid.

CONTACT

Should you require any assistance regarding the operation or maintenance of any Lang equipment; write, phone, fax or email our service department. In all correspondence mention the model number and the serial number of your unit, as well as the voltage or type of gas you are using.

Business hours are 8:00 a.m. to 4:30 p.m. Central Standard Time

Telephone 314.678.6315

Fax 314.781.2714

Email customerservice@star-mfg.com

www.langworld.com

WARRANTY EXCLUSIONS

THE FOLLOWING WILL NOT BE COVERED UNDER WARRANTY.

- Any product which has not been used, cleaned, maintained, or installed in accordance with the directions published in the appropriate installation sheet and/or owner's manual as well as national and local codes, including incorrect gas, electrical, or water connection. Lang is not liable for any unit which has been mishandled, abused, misapplied, subjected to chlorides, harsh chemicals, or caustic cleaners, damaged from exposure to hard water, modified by unauthorized personnel, damaged by flood, fire, or other acts of nature [or God], or which have an altered or missing serial number.
- Installation, labor, and job checkouts, calibration of heat controls, air and gas burner/bypass/pilot adjustments, gas or electrical system checks, voltage and phase conversions, cleaning of equipment, or seasoning of griddle surface.
- Replacement of fuses or resetting of circuit breakers, safety controls, or reset buttons.
- Replacement of broken or damaged glass components, quartz heating elements, and light bulbs.
- Labor charges for all removable parts in gas charbroilers and hotplates, including but not limited to burners, grates, and radiants.
- Any labor charges incurred by delays, waiting time, or operating restrictions that hinder a service technician's ability to perform service.
- Parts that fail or are damaged due to normal wear or labor for replacement of Items that can easily be replaced during a daily cleaning routine. such as but not limited to silicone belts, PTFE non-stick sheets, knobs, control labels, bulbs, fuses, quartz heating elements, baskets, racks, and grease drawers.
- Components that should be replaced when damaged or worn, but have been field-repaired instead [eg. field-welded fry pots]
- Any loss of business or profits.

ADDITIONAL WARRANTIES

Specialty/chain specific versions may also have additional and/or extended warranties.

PRODUCTS	PARTS	LABOR
Lang Chef-Series™ convection ovens	2 years	2 years
Lang Strato-Series™ convection ovens	2 years	2 years
Lang convection oven doors [excluding hardware]	lifetime	2 years
Lang griddles and charbroilers	2 years	2 years
chrome griddle surfaces [against peeling]	5 years	
cast iron grates, burners, and burner shields	180 days	
original Lang parts sold to repair Lang equipment	90 days	
Service First	1 year	

The foregoing warranty is in lieu of any and all other warranties expressed or implied and constitutes the entire warranty.

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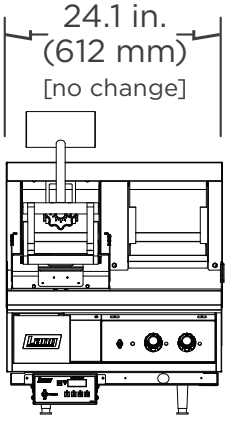
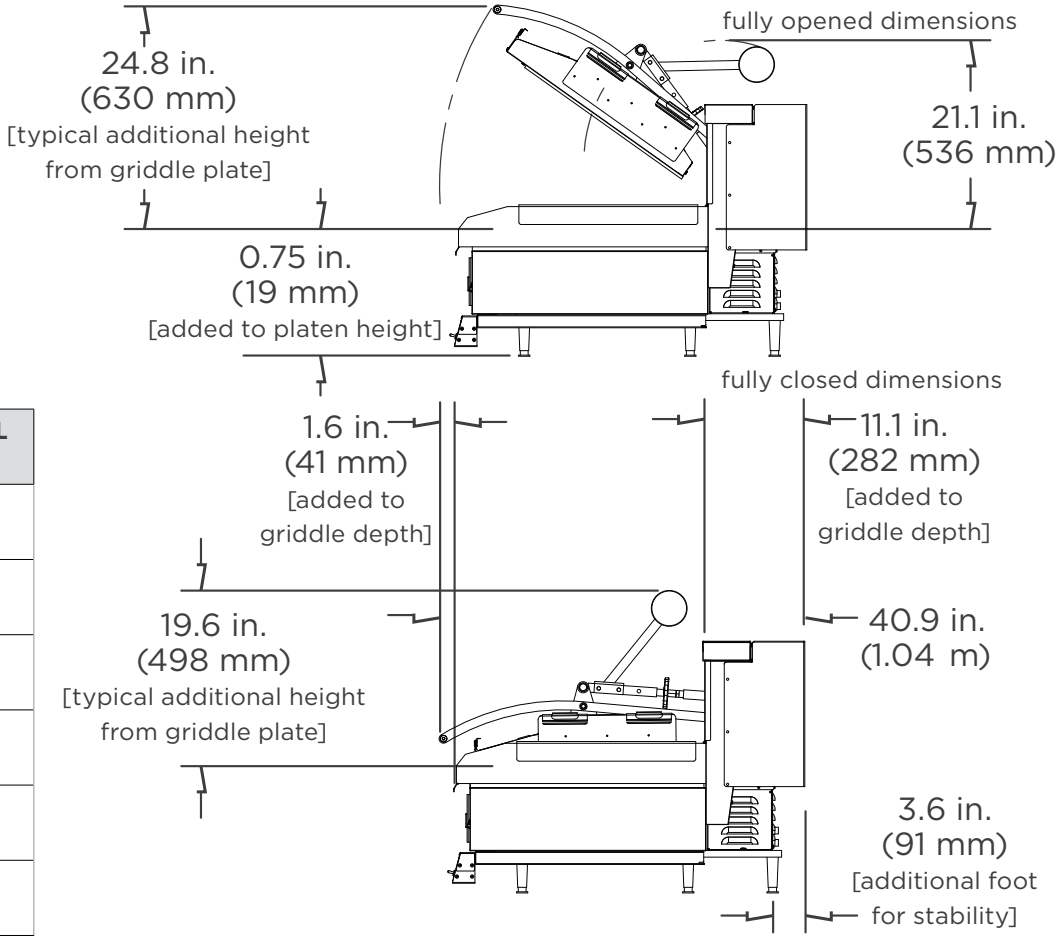
SPECIFICATIONS

Two [2] CCSE12 mounted on 124THE griddle shown.



ADDITIONAL INSTALLATION INFORMATION

Dimensions are expected changes when mounted to griddle. For information on griddle dimensions, refer to the spec sheet for that griddle. A griddle will support one [1] hood per foot of griddle width. Up to two [2] hoods can use one [1] electrical connector box—setups with more than two hoods will use additional electrical connector boxes.

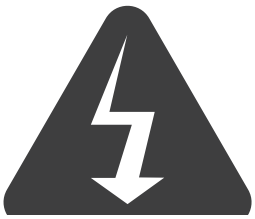


NUMBER OF HOODS	ADDITIONAL WEIGHT
1	80 lb. (36.3 kg)
2	155 lb. (70.3 kg)
3	235 lb. (106.6 kg)
4	310 lb. (140.6 kg)
5	390 lb. (176.9 kg)
6	465 lb. (210.9 kg)

NUMBER OF HOODS PER CONNECTOR BOX	VOLTAGE, PHASE	AMPS	TOTAL KW	MINIMUM SUPPLY WIRE GAUGE	HZ	RECOMMENDED NEMA PLUG [NO PLUG INCLUDED]
1	208, 1Φ	20.2	4.2	12	60	6-30P
2	208, 1Φ	40.4	8.4	8	60	6-50P
1	240, 1Φ	17.5	4.2	14	60	6-30P
2	240, 1Φ	35	8.4	8	60	6-50P
1	480, 1Φ	8.8	4.2	14	60	N/A
2	480, 1Φ	17.6	8.4	12	60	N/A

SAFETY SYMBOLS

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



THOROUGHLY INSPECT YOUR UNIT ON ARRIVAL

This unit has been tested for proper operation before leaving our plant to ensure delivery of your unit in perfect condition. However, there are instances in which the unit may be damaged in transit. In the event you discover any type of damage to your product upon receipt, you must immediately contact the transportation company who delivered the item to you and initiate your claim with that company. If this procedure is not followed, it may affect the warranty status of the unit. If damage or loss is not apparent until after equipment is unpacked, a request for inspection of concealed damage must be made with carrier within 15 days. Please record the model number, serial number, voltage, and purchase date in the area below at the time of receipt..

Model Number _____

Serial Number _____

Voltage _____

Purchase Date _____

MAINTENANCE AND REPAIRS

Contact your local authorized service agent for service or required maintenance. Please have the information in the above fields ready when you call to ensure a faster service.

Using any part other than genuine Star factory supplied parts relieves the manufacturer of all liability. Due to periodic changes in designs, methods, procedures, policies, and regulations, the specifications contained in this document are subject to change without notice. Star reserves the right to change product specifications and design without notice. In regards to previously purchased equipment, such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements. While Star International Holdings Inc. 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. When performing maintenance, power to the unit should be unplugged or turned off.

PLEASE REFER TO THE WARRANTY PAGE FOR SPECIFIC WARRANTY INFORMATION.

AUTHORIZED SERVICE AGENT LISTING

Reference the listing provided with the unit or for an updated listing go to the website or call customer service to find an agent.

Business hours: 8:00 a.m. to 4:30 p.m. Central Standard Time
Telephone: 314-678-6303
Fax: 314-781-2714
Email: customerservice@star-mfg.com
Website: www.langworld.com

Please visit *www.starwebconnect.com/manuals.aspx* for digital versions of any documents associated with this unit.

2M-W2121 Rev. Q Owner's Manual for CCSE12 Contact Clamshell

THE NAMEPLATE 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.

GENERAL SAFETY INFORMATION

This equipment is designed and sold for commercial use only, and is intended for use by personnel trained and experienced in its operation. This is not sold for consumer use in and around the home nor for use directly by the general public in food service locations.

Before using your new equipment, read and understand all the instructions and labels associated with the unit prior to putting it into operation. The presence of safety equipment and components 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 unit.

Lang manufacturing is not responsible 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.

GENERAL INSTALLATION INFORMATION

The unit is shipped fully assembled. It will be shipped in a crate, and on a skid. The unit as a whole is very heavy and should be moved carefully to avoid damage or injury. Make certain any counter or stand the unit is being installed upon is rated to hold the total weight of the unit. Do not remove the crating until the unit is as close as possible to the final install location. When removing crating, be careful of cutting shipping straps as they are under tension and can snap back when cut.

Make certain to observe the minimal clearances recorded on the nameplate of the unit when installing. If operated improperly, damage to persons or property may result. Installation of extractor or suppression systems must conform to applicable national, state, and locally recognized installation standards.

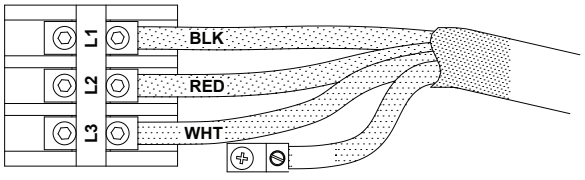
Before using the unit for the first time, ensure to clean and season the griddle and clean the clamshell properly.

ELECTRICAL CONNECTION

Electrical installation must only be performed by a certified electrical technician. The clamshell comes in a 208 V, 240 V, or 480 V version, which must be specified at the time of ordering. The units are shipped being set up for 3-phase, but can be converted to single phase in the field. Before making any electrical connection to this unit, check that the power supply is adequate for the voltage, amperage, and requirements stated on the rating plate. Start by ensuring the griddle has been correctly installed. Do not connect equipment to power without proper ground connections. Improper grounding may result in personal injury or fatality. Proceed to connecting electrical service to the box[es].

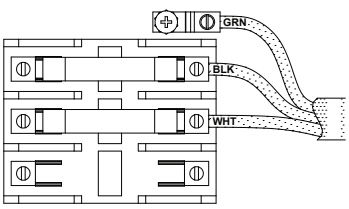
Make certain to disconnect the unit from the power source before installing or removing any parts.

GRIDDLE
THREE PHASE

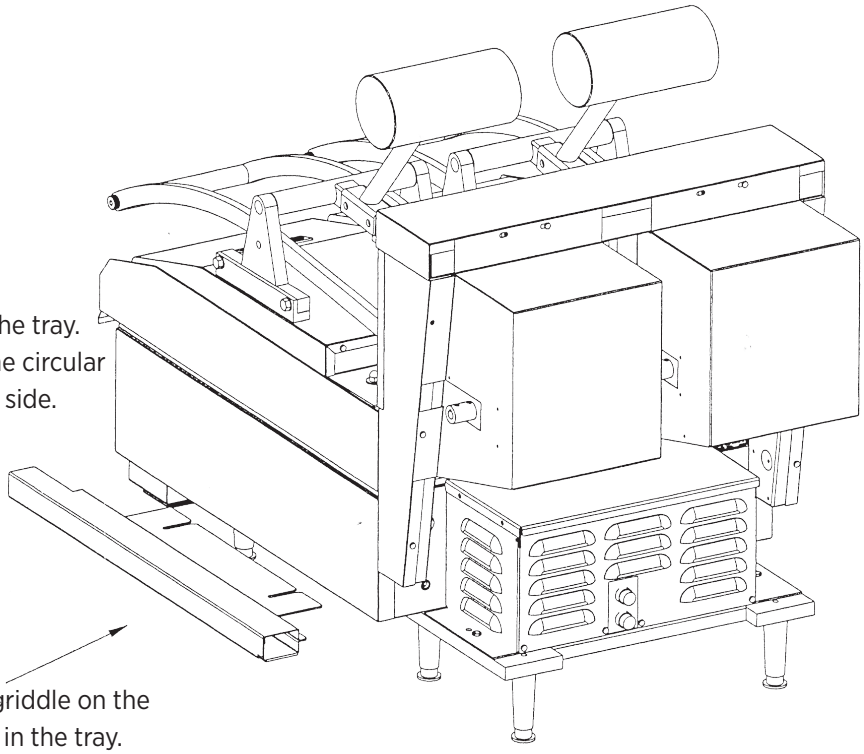


CLAMSHELL
SINGLE PHASE

Fuse block may have two or three positions. With a three position block, connect to the two positions which have fuses.

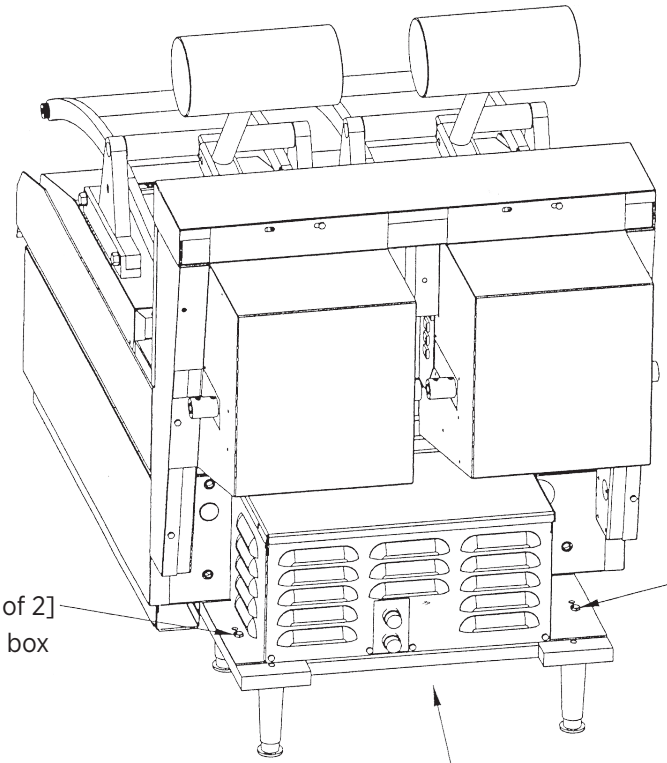


CONTROL BOX WIRING



1. Run the control box wiring through the tray. The end of the control box wire with the circular connector should extend from the rear side.

2. Loosen the two bolts under the griddle on the stabilizer that line up with the slots in the tray. Slide the tray into place and tighten bolts.



3A. Remove the bolt [1 of 2] holding the connection box to the stabilizer.

3B. Remove the bolt [2 of 2] holding the connection box to the stabilizer.

4. Slide the connection box back until the wiring block can be accessed. Connect wiring and reinstall box.

LOCKOUT PROCEDURE

USE THIS PROCEDURE WHEN PERFORMING ANY SERVICE OR REPAIR TO ENSURE THE SAFETY OF ALL PERSONNEL ON SITE.

i. Announce the lockout to other personnel.
ii. Turn the power off at the main panel.
iii. Test lockout by turning power switch on and observing if the elements come on.
iv. Check the heater circuit with a voltmeter.
v. Perform necessary repairs or tests.
vi. Clear the unit of personnel before starting the griddle.
vii. Turn power on at main panel
viii. Announce unit is "on" to other personnel.

OPERATION

⚠ CERTAIN SURFACES ARE EXTREMELY HOT DURING OPERATION AND CARE SHOULD BE TAKEN WHILE USING THIS UNIT.

⚠ DO NOT LEAVE THE UNIT IN OPERATION WITHOUT AN ATTENDANT.

⚠ DO NOT LEAVE THE UNIT AT HIGH TEMPERATURE WHEN NOT IN USE OR DURING IDLE PERIODS.

⚠ ALWAYS KEEP THE AREA NEAR THE APPLIANCE FREE FROM COMBUSTIBLE MATERIALS.

⚠ KEEP FLOOR IN FRONT OF EQUIPMENT CLEAN AND DRY. IF A SPILL OCCURS, CLEAN IMMEDIATELY TO AVOID THE DANGER OF SLIPS OR FALLS.

INITIAL START UP

Each unit is tested and calibrated at the factory prior to shipment. Due to temperature and climate changes during shipment the unit can absorb moisture. Check 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 dried out. Moisture absorption in closed spaces— like the insulation and even inside the heating elements—can cause future trouble if not properly treated. Make certain to pre-heat the griddle for one hour, if the unit has been out of service for three days or more, especially when exposed to high humidity and/or cool temperatures.

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.

DAILY USE

The unit should be allowed to preheat for approximately 30 minutes in the up position prior to use. After this period, the unit will be ready for use until powered down.

LEVELING ADJUSTMENT

The adjusting knob, centered above the clamshell body, can be turned clockwise to raise the back and lower the front of the unit and counterclockwise to raise the front and lower the back of the unit.

CLEANING

Refer to your griddle's manual for maintenance and cleaning information regarding the griddle itself.

The clamshell hood should be wiped down daily with cleaner to remove any excess grease or residue on the exterior surfaces. DO NOT SUBMERGE THE UNIT OR ALLOW FLUID TO PENETRATE THE REAR HOUSING. If fluid is allowed to enter the rear housing, it will clean away the permanent lubricant neccesary for quiet, smooth operation of the clamshell. Do not allow excess moisture to come in contact with the control for the clamshell, mounted on the lower front of the griddle. Once a week, with a cold griddle, lower the clamshell hood and allow to heat for 30 minutes [or more if necessary] to burn off excess carbon and baked-on grease.

ADJUSTING TIME AND TEMPERATURE

EACH CLAMSHELL WILL HAVE ITS OWN INDEPENDENT CONTROL BOX.

i. Press and hold "TEMP" [actual temperature displays].
ii. While holding "TEMP" press and hold any program button on the for three seconds. The LED above the program number will light and the display will read "_ _ _ _". Enter the four-digit security code sequence 4, 3, 2, 1. Once the sequence has been successfully entered, the preset time will be displayed and the LED for that program will begin to flash.
iii. Set the desired time with the "3/+" to increase time or "4/-" to decrease time. Press the "TEMP" button to save changes.
iv. The temperature setting will now be displayed and can be programmed. Set the desired temperature with the "3/+" to increase the temperature or "4/-" to decrease temperature. Press the "TEMP" button again to save changes.
v. Press any other program button within 15 seconds to continue programming without re-entering the security code.

TROUBLESHOOTING

ERROR CODES

The control can display codes based on perceived faults in the system. It should be noted, proper diagnosis is still required as these codes are meant to show how or where a malfunction has been detected, not necessarily what is causing the malfunction.

i. **PRO1**—If the control board detects that the temperature probe has an open or shorted circuit, this error code will display on the screen. Whenever this code is displayed, power will be cut to the relay.

ii. **RELY**— If the unit is powered on and either remains below 150° F (66° C) for 30 minutes, or exceeds 640° F (338° C), this error code will display on the screen. Whenever this code is displayed, power will be cut to the relay.

CALIBRATION CHECK

BE EXTREMELY CAREFUL WHEN WORKING ON THE UNIT WHEN IT IS WARM.
DIRECT CONTACT WITH THE COOKING SURFACE CAN RESULT IN SEVERE BURNS.

SUGGESTED EQUIPMENT

i. K-type thermocouple thermometer with a surface probe, rated to at least 500° F (260° C).

CLAMSHELL

The clamshell should be set at 350° F (177° C) to ensure accuracy. Refer to the owner's manual for instructions on how to set temperature.

i. Allow the unit to remain in the up position, with the power on, for 30 minutes.

ii. Place the thermocouple probe 15.75 in. (40 cm) from the front of the platen surface, centered from left to right.

iii. If the temperature is set as directed above, the probe should read ±15° F (8° C) from the set temperature.

iv. If the test does not fall within the given parameter, the temperature offset in the control programming may be adjusted to compensate by authorized personnel or technician.

TEMPERATURE OFFSET ADJUSTMENT

A. To adjust the the temperature offset, press and hold the "TEMP" button and switches "3" and "4" for 2–4 seconds. Release the buttons as soon as the offset value is displayed.

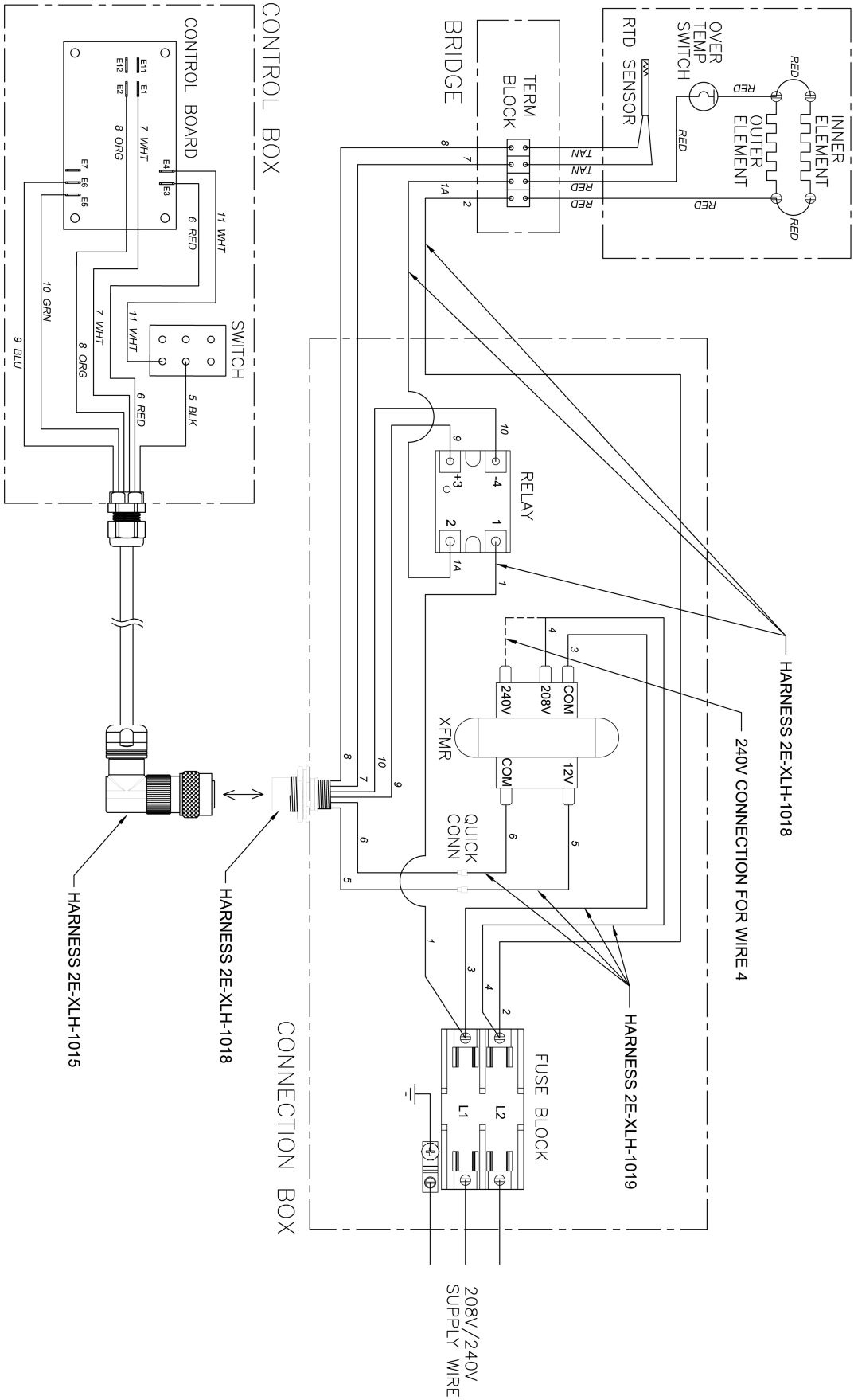
B. Increase the offset by pressing switch "3" or decrease the offset by pressing switch "4" in order to adjust for the difference in desired and observed temperatures. Increases and decreases shall be in 1° F or 1° C increments depending on the unit's current settings.

C. Once the desired offset is displayed, press the "TEMP" switch.

D. The current TCTD setting will be displayed. This value should not be adjusted during this process. Press the "TEMP" switch to exit programming.

E. Perform step **i–iii** [above] again to confirm the change has had the desired result. If not, repeat steps **A–E**.

WIRING DIAGRAM



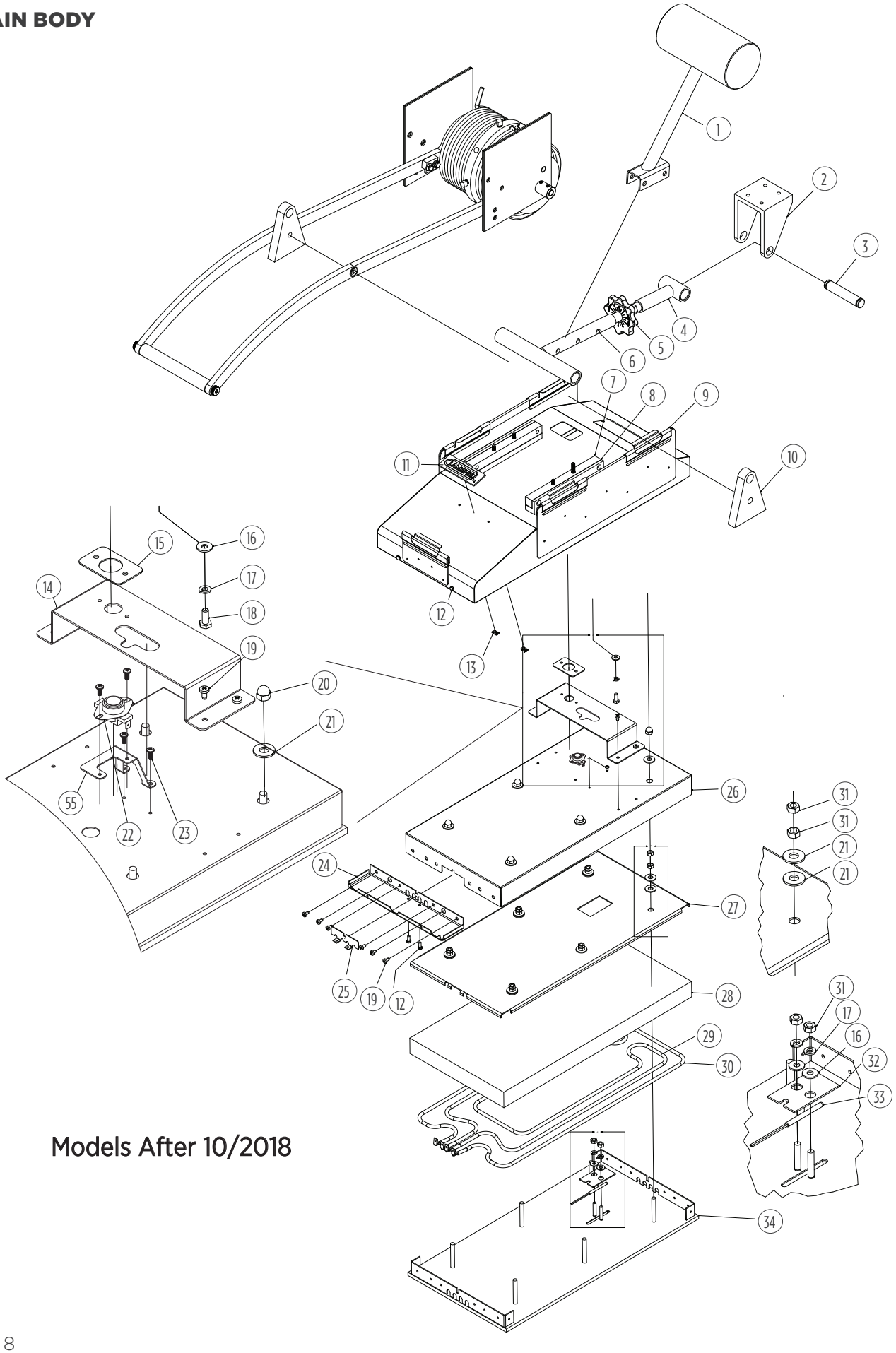
PARTS LIST

Side references are from the operator's point-of-view—from the front of the unit. Items labeled "NS" are non-serviceable. Items labeled "NP" are not pictured. All quantities are per single clamshell hood or per electrical connection in the case of parts 50, 51, 53, and 54. Other parts, such as a mounting frame, will need to be purchased with the griddle and clamshell also.

REF NO	PART NUMBER	DESCRIPTION	QTY	PAGE NO
1	2V-XLH-901	counterweight	1	8
2	2V-XLH-890	rear leveling link bracket	1	8
3	2A-XLH-889	rear leveling link pivot shaft	1	8
4	2V-XLH-1010	rear section, leveling link	1	8
5	2F-XLH-1011	center section, leveling link	1	8
6	2V-XLH-1009	front section, leveling link	1	8
7	2V-XLH-917	upper leveling block base	2	8
8	2V-XLH-916	lower leveling block base	2	8
9	K9-XLH-1025	non-stick sheet clip	5	8
10	2V-XLH-866	leveling hinge block	2	8
11	2M-60301-W2	clamshell logo	1	8
12	2C-20111-09	#10-32 x 0.5-inch screw	8	8
13	2C-20602-04	tinnerman nut	2	8
14	K9-XLH-1023	conduit mounting bracket	1	8
15	K9-XLH-1022	conduit end seat	1	8
16	2C-20201-07	0.25-inch ID flat washer	14	8
17	2C-20202-05	0.25-inch ID split lock washer	10	8
18	2C-20111-03	1/4-20 x 0.625-inch screw	8	8
19	2C-20102-12	#10-32 x 0.375-inch screw	24	8, 9
20	2C-302520	5/16-18 acorn nut	6	8
21	2C-20201-06	5/16 ID flat washer	18	8
22	2T-30401-35	fixed thermostat	1	8
23	2C-20102-08	8-32 x 0.375-inch screw	4	8
24	K9-XLH-929	bracket	1	8
25	K9-XLH-928	element hold-down bracket	1	8
26	K9-XLH-1035	element pan cover	1	8
27	K9-XLH-1037	element plate	1	8
28	K9-XLH-826	insulation	1	8
29	2N-11060-35	208 V inner element	1	8
	2N-11060-39	240 V inner element		
	2N-11060-41	480 V inner element		
30	2N-11060-34	208 V outer element	1	8
	2N-11060-38	240 V outer element		
	2N-11060-40	480 V outer element		
31	2C-20301-13	1/4-20 nut	14	8
32	2V-XLH-866	hinge block	1	8
33	2E-Z20781	RTD probe	1	8
34	K9-XLH-920	weld plate	1	8

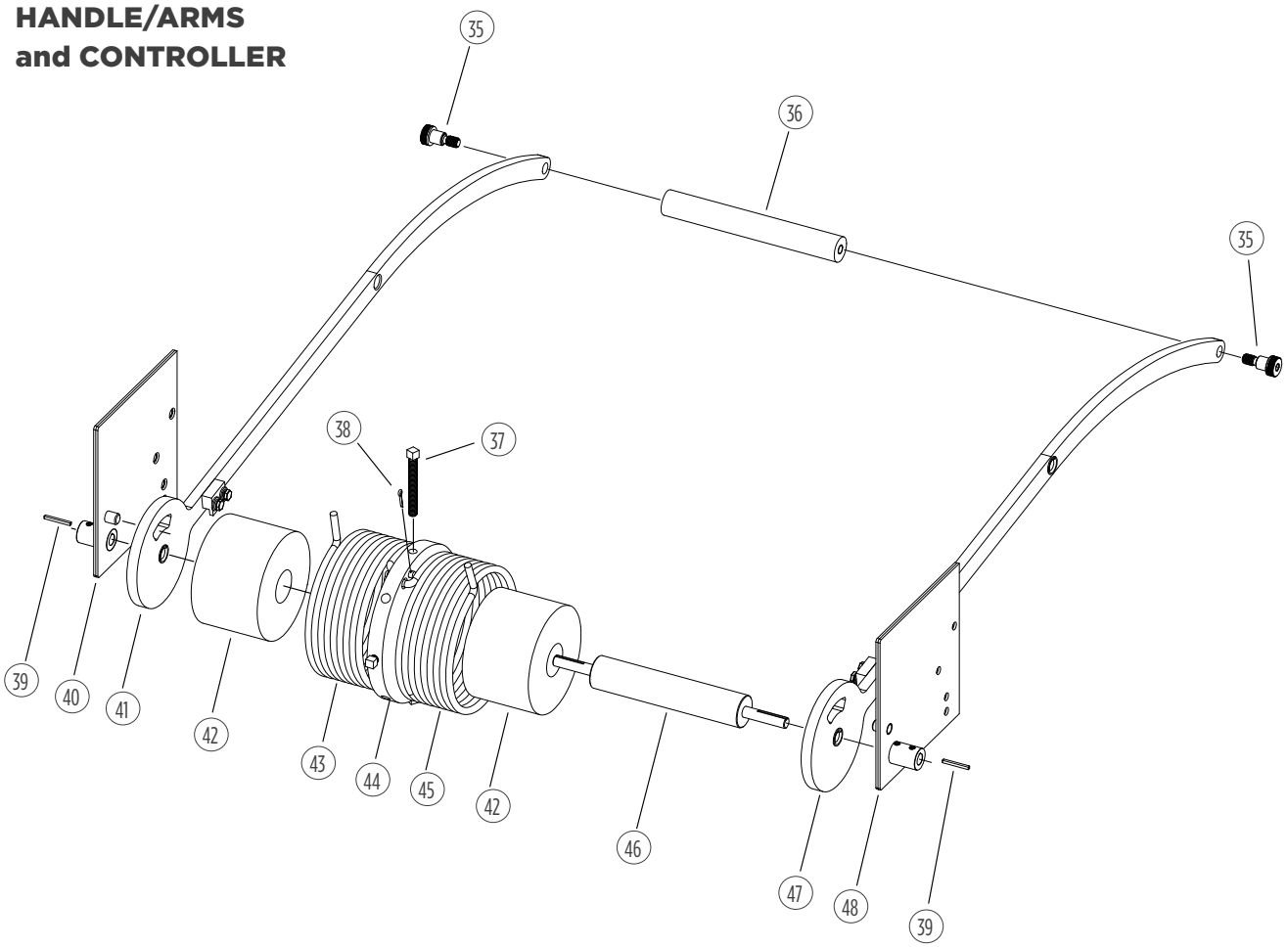
REF NO	PART NUMBER	DESCRIPTION	QTY	PAGE NO
35	2C-20106-14	shoulder screw	2	9
36	2A-XLH-854	handle	1	9
37	2C-20105-22	3/8-16 x 3-inch set screw	4	9
38	2A-5401	0.09735-inch x 0.75-inch cotter pin	2	9
39	2V-XLH-893	spring shaft key	2	9
40	K9-XLH-875	right outside pivot bracket	1	9
41	K9-XLH-853	right arm	1	9
42	2K-XLH-915	aluminum bushing	2	9
43	2P-51001-42	spring, right	1	9
44	2A-XLH-876	shaft collar	1	9
45	2P-51001-43	spring, left	1	9
46	2V-XLH-888	spring shaft	1	9
47	K9-XLH-852	left arm	1	9
48	K9-XLH-874	left outside pivot bracket	1	9
49	K9-XLH-959	control box	1	9
	THE BELOW PARTS [49A–49L] ARE PART OF THIS ASSEMBLY [49]			
49A	K9-XLH-962	control box front	1	9
49B	2E-Z12020	toggle switch	1	9
49C	2M-60301-187	control box overlay	1	9
49D	2A-20504-12	nylon spacer	4	9
49E	2J-Z17605	control board	1	9
	K9-XLH-1076	control board [Sarku]	1	9
49F	2C-20301-11	#8-32 nut	4	9
49G	K9-XLH-964	control box rear	1	9
49H	K9-XLH-961	control box top	1	9
49I	K9-XLH-960	control box bottom	1	9
49J	Z1-70-07-0343	switch guard	1	NP
49K	2M-Z18461	on/off label	1	NP
49L	2I-05-07-0013	switch boot	1	NP
50	2E-30900-30	60 amp fuse	2	NP
51	2E-30901-15	fuse block	1	NP
52	2E-30600-15	208 V/240 V relay	1	NP
	2E-30600-16	480 V relay		
53	2E-31200-02	lug ground	1	NP
54	2E-Z15018	transformer	1	NP
54	K9-XLH-734	conduit assembly	1	NP
55	K9-XLH-1132	bracket, high limit mount	1	8

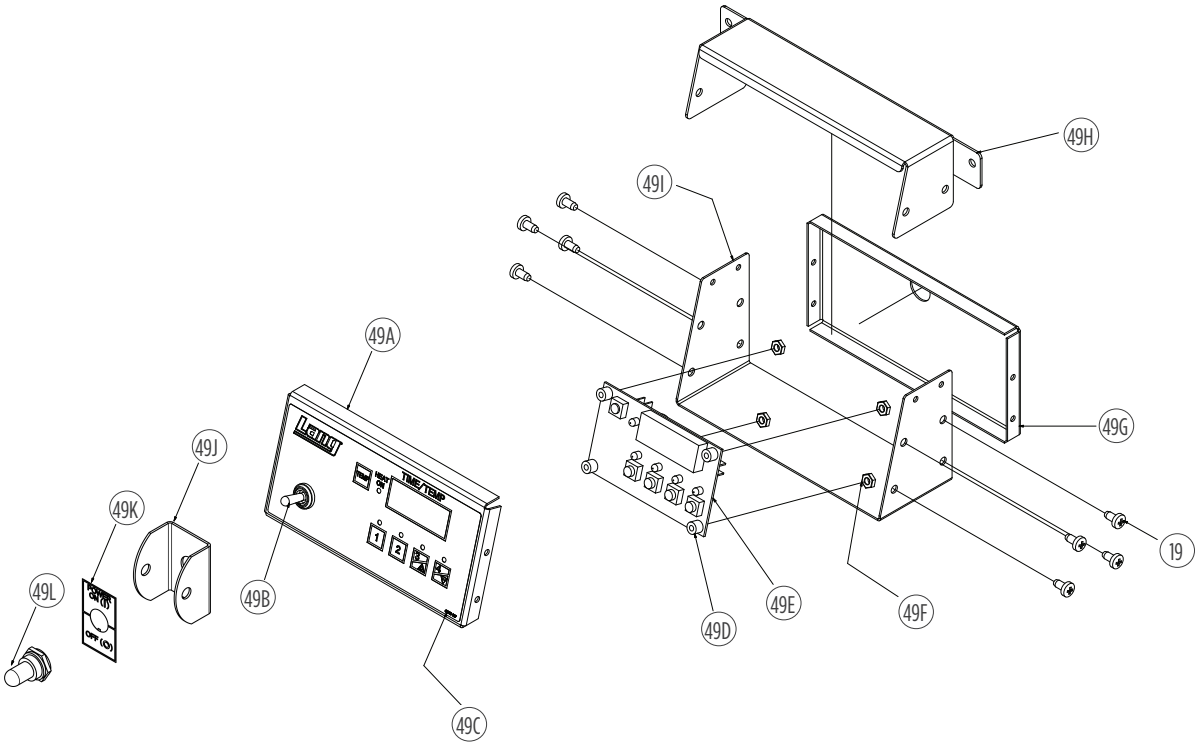
MAIN BODY



Models After 10/2018

HANDLE/ARMS and CONTROLLER





CCSE12 Contact Clamshell
PTFE Non-Stick Sheet Kit CCSE12C-10NS

Installation Instructions

PTFE Non-Stick Sheet Installation

BE CAREFUL DURING INSTALLATION. IF THE GRIDDLE AND/OR CLAMSHELL HAVE BEEN IN OPERATION, THEY AS WELL AS THE MOUNTING CLIPS FOR THE PTFE WILL BE VERY HOT AND SHOULD BE HANDLED/TOUCHED WITH CAUTION AND PROPER PROTECTION.

i. Insert the rod into the eyelet that runs through the rear of sheet.

ii. Line the rod up and set the ends into the two rear channels [one on each side].

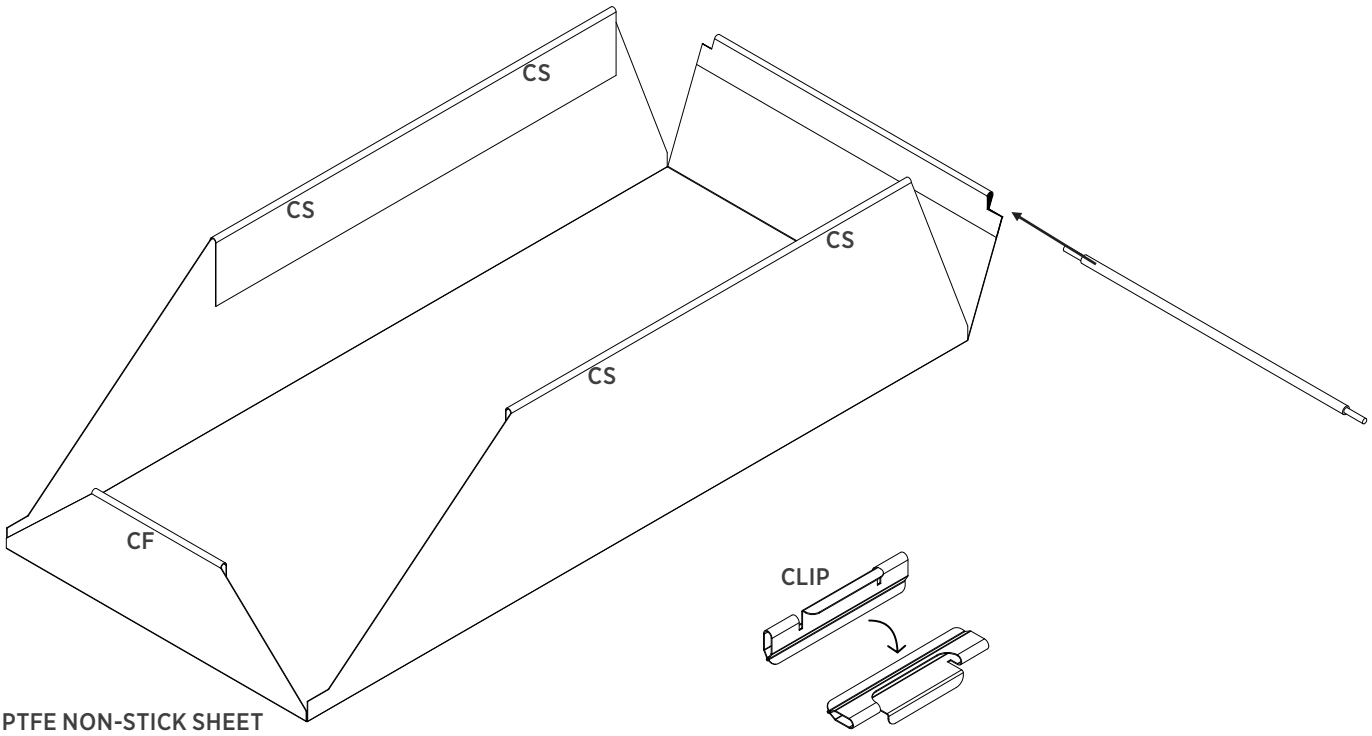
iii. Tuck the back of the PTFE sheet up against the back splashguard and along griddle surface, making a soft 90 degree fold where the two meet.

iv. Gently lower the clamshell onto the PTFE sheet making certain the flaps on both sides and front are clear of the clamshell.

v. Fold the front flap up and around the top of the front tab and place a clamp over the top to hold it in place. [labeled CF]

vi. Repeat the same process on the right and left, which will have two clips each. [labeled CS]

vii. Raise the clamshell and check to make sure PTFE is flush running the length of the clamshell. There should still be a small amount of slack to allow for slight movement when raising and lowering the clamshell.



PTFE NON-STICK SHEET

[all clips are identical, positions are simply labeled differently to relate to specific steps]

NOTES

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