



Outperform every day.™

Wendy's Chili Cooker 57815B Critical Service Information

Supplement to Professional Foodservice Equipment Servicer Training (Not for End-User)

Introduction

The 57815B is based on a proven series of Vollrath Cayanne full size food warmers. There are some common attributes, the most obvious of which is the resin based well structure. However, it should be noted that although similar in appearance there are very critical differences between the various models and the Wendy's 57815B is one of the most unique of the series. The unique features of particular importance are:

- Very high heat input capability making it officially qualify as a Re-thermalizing appliance not just a warmer or holding appliance. This feature necessitates a dedicated 120 volt receptacle.
- An automated temperature control system specifically designed for Wendy's Chili Cooking procedures.
- Both an audible and visual low water alarm system.

Unique Components

- CAST HEATER 1440W 120V (Cal-Rod Cast in Coated Aluminum Design)
PART # - 44262-1
LIST PRICE- \$35.00



- SILICONE RUBBER HEATER GASKET
PART # - 17868-1
LIST PRICE – \$9.70



- 120 MINUTE TIMER (Included in Control Panel Kit)
PART # - 17620-1
LIST PRICE - \$45.70

CONTROL KNOB (BLACK)
PART # - 17012-1
LIST PRICE - \$3.80



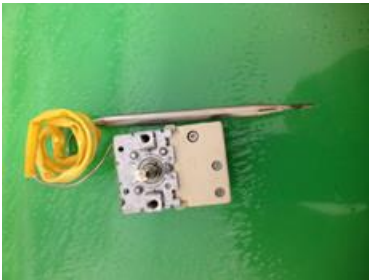
- POWER SWITCH SPST 125V NON-ILL (Included in Control Panel Kit)
PART # - 2515840-1
LIST PRICE - \$9.00



- INDICATOR LAMP 125V RED DOME (Included in Control Panel Kit)
PART # - 2515841-1
LIST PRICE - \$10.00



- THERMOSTAT SHORT CAPIL. EGO (Included in Control Panel Kit)
PART # - 17074-1
LIST PRICE - \$63.60



- BUZZER ASSY 120V (Included in Control Panel Kit)
PART #4358410-2
LIST PRICE - \$48.60



- LOW WATER THERMOSTAT 300F (N/O) (Note red strip on Thermostat)
PART # - 2519000-1
LIST PRICE - \$5.60



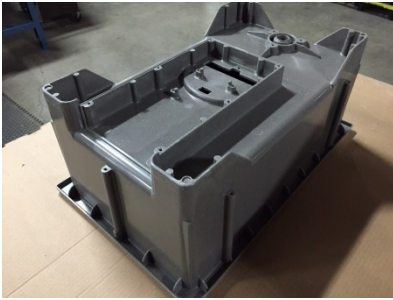
- LOW WATER THERMOSTAT 300F (N/C)
PART # - 2519010-1
LIST PRICE - \$5.60



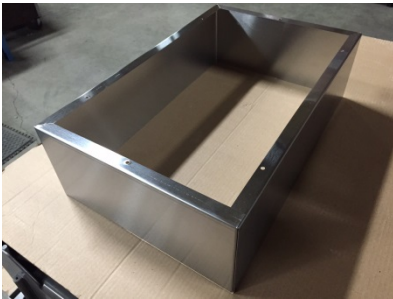
- HI LIMIT ASSEMBLY
PART # - 44407-2
LIST PRICE - \$15.00



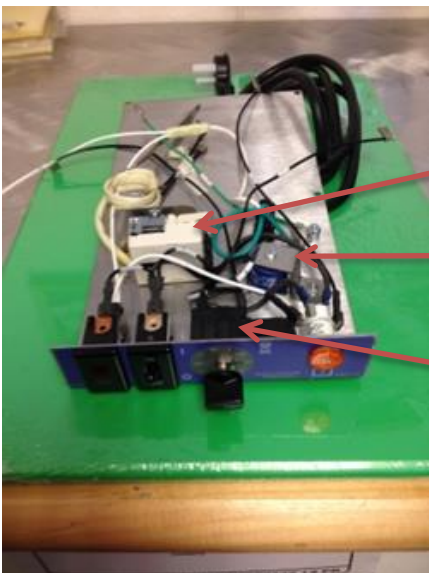
- WELL-MARBLE DARK GRAY GRANITE
PART # - 17528-1
LIST PRICE - \$99.50



- HOUSING (SATIN CHROME) 1001
PART # - 44640-2
LIST PRICE - \$25.50



- WENDY'S FIELD REWORK KIT BLK (Does not include: Heater, High Limit Assembly, or Low Water Thermostats)
PART # - 26062-2
LIST PRICE - \$180.00



EGO regulating Thermostat

Buzzer assembly

Timer

- WENDY'S BLACK CORD SERVICE KIT (Includes cord and strain relief)
PART # - 46552
LIST PRICE - \$34.30



- WENDY'S STRAIN RELIEF TOOL (Required when cord set is changed)
PART # - 26232-1
LIST PRICE - \$160.00



Theory of Operation

Heat transfer efficiency with the 57815B is much higher than traditional warming units due to direct contact between the water medium and a high wattage heater. This is critical in achieving official approval as a re-thermalizing appliance. Any time the unit is powered on as indicated by the power switch being in the on position and the adjacent pilot lamp illuminated, the temperature control system will maintain Wendy's required product holding temperature. The EGO hydraulic regulating thermostat is concealed inside the wiring compartment and is factory calibrated to maintain the proper holding temperature.

For the cooking procedure, maximum heat input is required to bring the food product up to temperature quickly. The wind-up 120 minute timer control provides the means to provide maximum heat by bypassing the EGO regulating thermostat for the duration of time initially set by the timer dial. For this to be effective, water must be in the vessel at the proper level as indicated by the range defined by the vertical fill lines molded into the resin well inside walls. The full size pan of product must be

thoroughly stirred, as described in Wendy’s Procedures, to obtain a uniform temperature within the product for the proper heating rate to be achieved. When the wind-up timer expires, the EGO hydraulic regulating thermostat regains temperature control and the proper holding temperature is maintained.

There are three internal snap disk type thermostats attached to the bottom of the cast aluminum heater. These are fixed (non-adjustable), automatic reset devices. The high limit safety device has a trip point of 350F. There are two 300F snap disk thermostats that both operate in a low water condition. The NC one opens the heater circuit while the second NO one activates the low water buzzer and light. All three of these devices will automatically reset when cooled several degrees.

Trouble Shooting

Symptom	Possible cause	Solution
Unit begins to buzz immediately after power supplied	Incorrect Low water thermostat (NO vs. NC (300F)snap disk or defective snap disk.	Replace with correct snap disk thermostat
Unit does not heat at all	No Power to the unit. Check internal circuit components for proper continuity (switch, timer, T-stats).	Check with known good outlet. Check GFCI. Replace defective internal circuit component.
Unit does not heat correctly or maintain water temperature above 185F	defective snap disk thermostat, defective NGO thermostat	Correct faulty thermostat
Product not reaching correct temperature	Frozen product, Ineffective stirring procedure, low water, check your thermometer calibration & product test procedure.	Verify water temperature above 185F. Evaluate for correct operations procedures.
GFCI trips	Water migration into unit, bad GFCI	Check with known good circuit and good GFCI circuit. Replace defective GFCI.
Water level drops rapidly requiring frequent refills	Pans do not fit opening tightly, (see product over heats) Bad NO thermostat	Replace pans with bent edges. See Product over heats or too hot
Product over heats or too hot	Water temperature consistently above 200F due to bad thermostat. Incorrect temperature measurement.	Replace defective thermostat. Check thermometer calibration & product test procedure.
Trips circuit breaker	Other appliance on the same circuit (not a dedicated circuit), internal short circuit	Provide a dedicated circuit. Replace defective internal components.

Component Tests

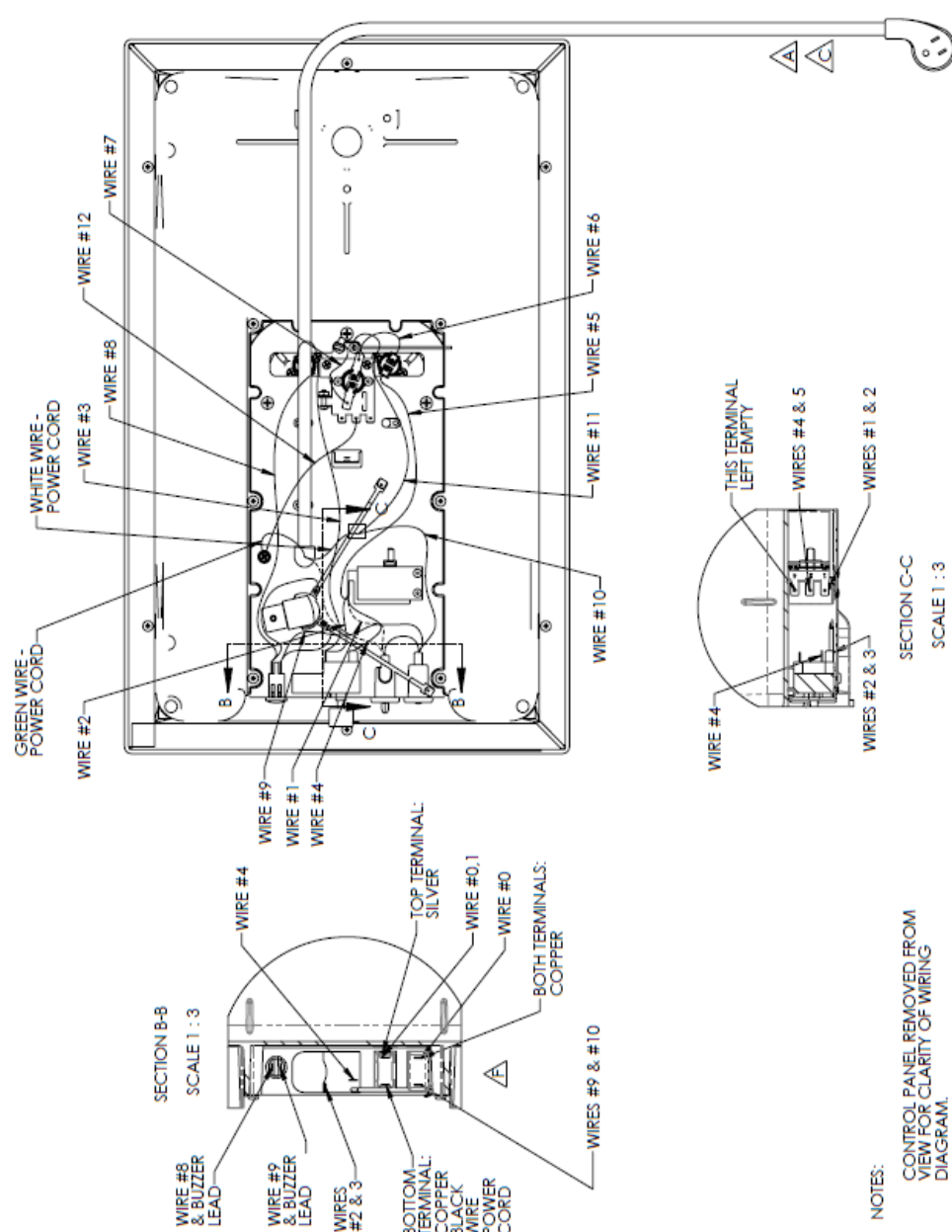
Heating element-The heating element should never be removed from the vessel since this will break the factory seal and could lead to a leak in this area. If a heating element issue is suspected, it should be tested with an accurate DMM on the ohms scale as follows. Remove the connections from one end of the heating element so that no other components affect the reading. The resistance through the heating element should be between 9.46 -10.97Ω.

Timer-There are (2) procedures to confirm timer operation. Mechanically wind the timer to verify function by listening for the “Tick Tock” indicating that the knob is slowly turning counter clockwise. Second, verify the timer switch for continuity through the timer. Remove the connections from one terminal on the timer and check with a DMM on the ohms scale. This will verify the internal contacts close while timer is operating. Failure in either test indicates the timer should be replaced.

Buzzer/Low Water Light- The low water alarm system can be tested by energizing the cooker without water in the well. Within 5 minutes both the buzzer and low water lamp should activate. The buzzer and the low water lamp work in parallel, so if one works and the other does not, the non-working component is likely defective. It can be removed and verified by connecting to a 120V circuit. If neither the buzzer nor low water lamp function, the low water snap disk thermostat circuit should be tested.

High Limit / Low water snap disk thermostates- These switches are designed to switch operate at high temperatures and cannot be checked for switching at temperature without significant risk. The high limit snap disk is normally closed and can be checked with a DMM for continuity at room temperature. Likewise the low water snap disk should show closed at room temperature and the buzzer snap disk should show open at room temperature.

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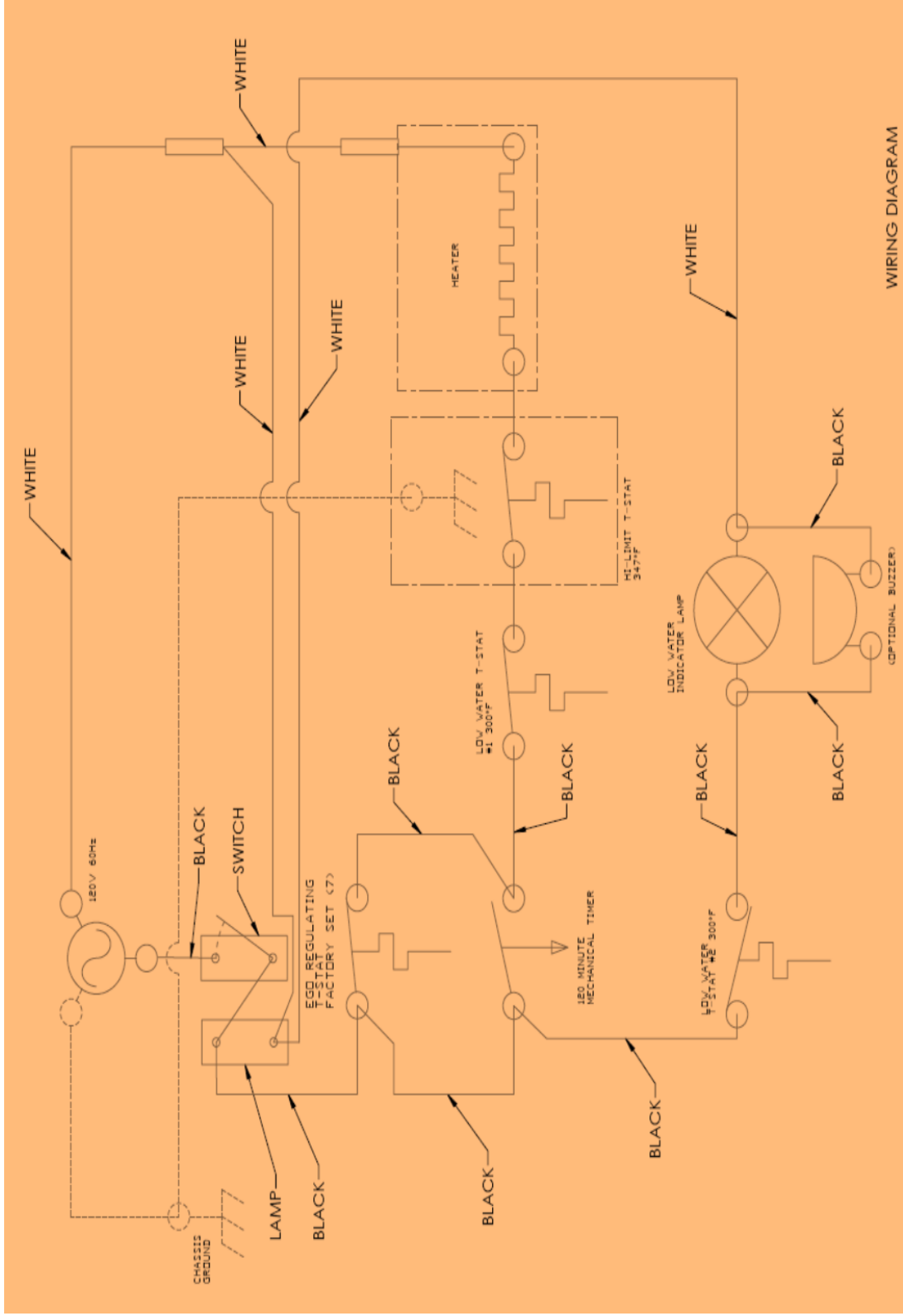


NO.	REV.	DESCRIPTION	DATE	BY
13844	F	WAS 2011A, REVISED WIRE LOCATION	5/2/2014	AJS
13801	E	NEW CONTROL PANEL	4/29/2014	AJS
13832	D	REWORK LABEL FROM 13845 TO 13804	3/25/2014	MSB
13874	C	REV. WIRE #2013 & #2012 TO ADD WIRE #2012, #2013, #2014, #2015, #2016	3/10/2014	DAW
13897	B	ROCK UP WIRE HARNESS	12/8/2013	AJS
13150	A	CHANGED POWER CORD TO 25' LEAD PLUG #105	11/22/2013	DAW

INITIAL RELEASE:
SEE ECR #12600 FOR APPROVALS
TOLERANCE UNLESS OTHERWISE SPECIFIED
2 PL. DEC. ±.06 ANGLES ±.1°
DO NOT SCALE THE DRAWING

THE VOLLRATH CO., L.L.C.
SHEBOYGAN, WI U.S.A.
CHILI WARMER
WENDY'S RESTAURANTS
SCALE 1:3
FILE NAME: 578158
DATE: 07/17/13

NOTES:
CONTROL PANEL REMOVED FROM VIEW FOR CLARITY OF WIRING DIAGRAM.



WIRING DIAGRAM

Best Practices for Chili Cooker Longevity:

- **Water** –This is an electrical appliance and must be treated as such. One of the best ways to protect the unit is to minimize water contact. Never allow the unit to be immersed in water.
 - When emptying the well it is important that water is emptied from the back end of the unit. Avoid water on the front panel
 - Use care in moving this unit. Avoid dropping the unit. Do not move unit around by the electrical cord.
 - Do not use a water spray to clean the unit.
- **Scale** - The build-up of scale on the heating element is a major contributor to shortened life of your cooker. As the scale builds it acts as an insulator that forces the heat down into the interior of the cooker. As soon as scale begins to form on the heater it is important that the element is de-scaled.
 - At the end of each day change the water in the well. This will greatly reduce the scale build-up. Adding water to the well without pouring off the water left from the previous day creates very high scale water that will form on the well and heating element.



- **Use** - If you are running more than 4 cooks per unit it is important that the cooker is allowed time to cool down from time to time.
 - Winding the timer more than once per cook provides no benefit. If it is perceived multiple windings of the timer in the course of a cook is required, verify proper procedures are being followed (hot water used, fully thawed products, etc.)
 - If no product is being cooked or held, shut the unit off and drain water.

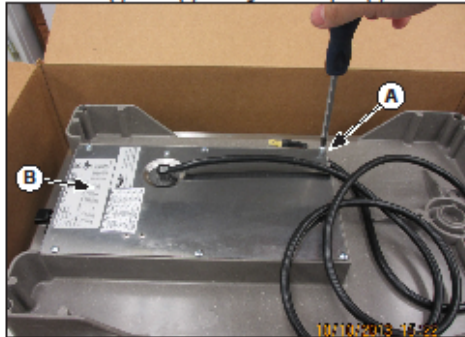


Technical Field Information

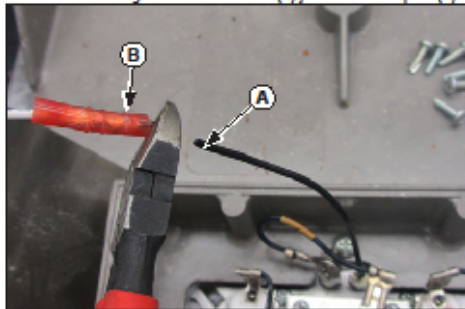
WENDY'S CHILI COOKER CONTROL PANEL REPLACEMENT

Field reports indicate that a small number of Wendy's Chili Cookers have had electrical issues. To fix this problem:

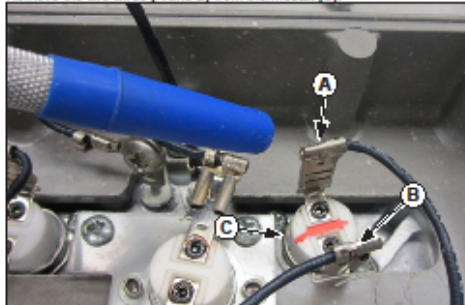
1. Unplug the unit. Drain the water.
2. Turn the unit over (upside down on a table or suitable surface).
3. Record the serial number from the bottom plate.
4. Remove the six (6) screws (A) securing the bottom plate (B).



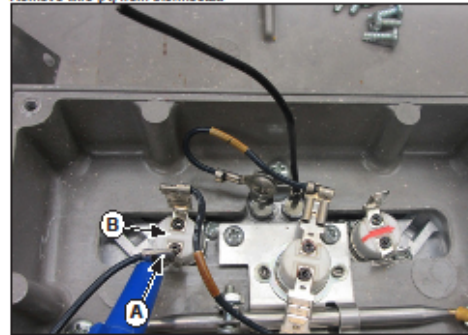
5. Cut the black heating element neutral wire (A) just behind the splice (B).



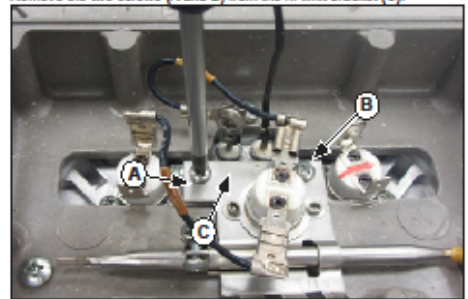
6. Remove the two wires (A and B) from thermostat (C).



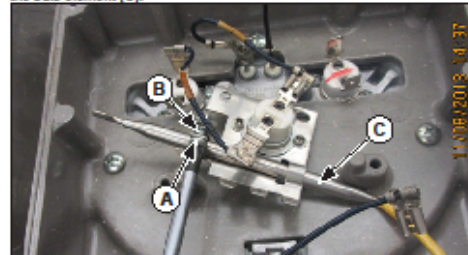
7. Remove wire (A) from thermostat.



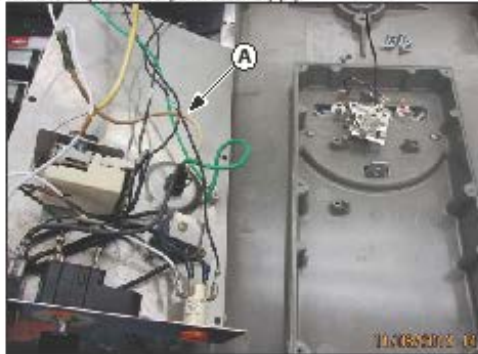
8. Remove the two screws (A and B) from the hi-limit bracket (C).



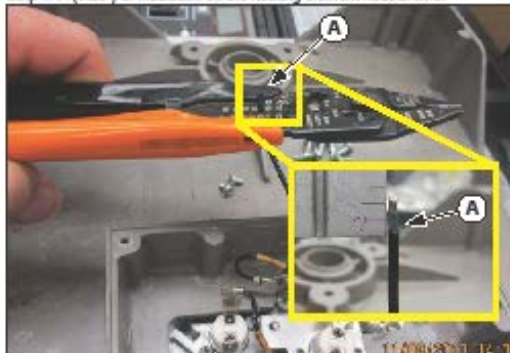
9. Loosen screw (A), do not remove. Pry bracket (B) open slightly. Remove the bulb element (C).



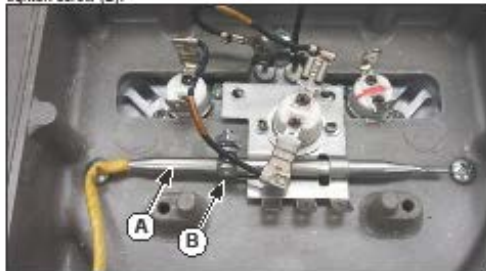
10. Remove original control panel assembly (A).



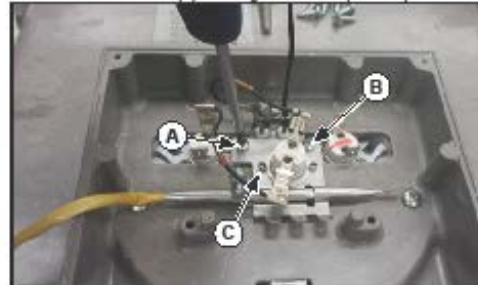
11. Strip 1/4" (0.25") of insulation off the heating element neutral wire.



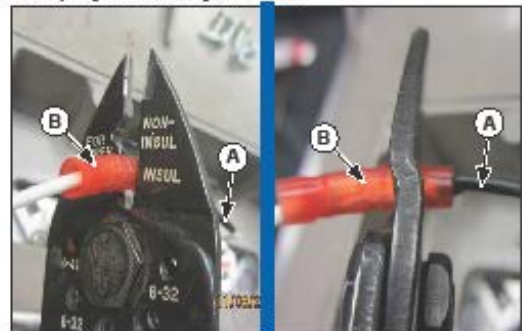
12. Install the new thermostat bulb (A) from left to right and shown and tighten screw (B).



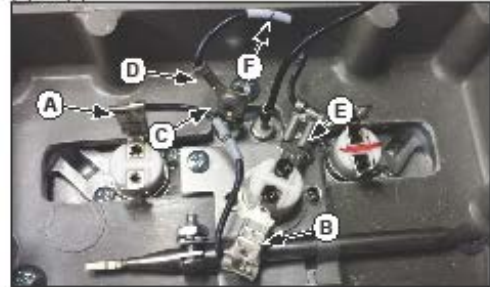
13. Install the hi-limit bracket (A) securing with screws (B and C).



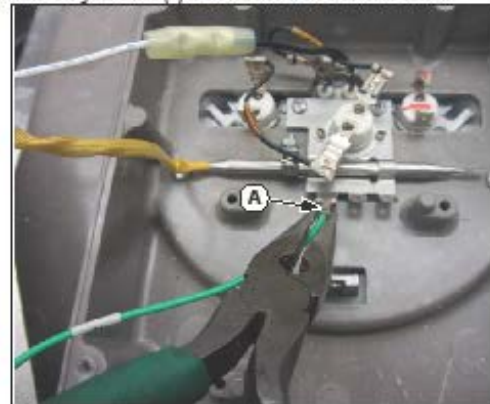
14. Slide heating element neutral wire (A) into butt connector (B) and crimp securely. Tug test the rewiring termination.



15. Remove terminal connectors (A) and (B) and wire (C) 18 gauge (thin) discard. Replace with new 16 gauge (thick) connecting terminals (A) and (B). Remove terminal connectors (D) and (E) and wire (F) 18 gauge (thin) discard. Replace with new 16 gauge (thick) connecting terminals (D) and (E).



16. Install the ground wire (A) to the left side of the bracket as shown.



ENGLISH

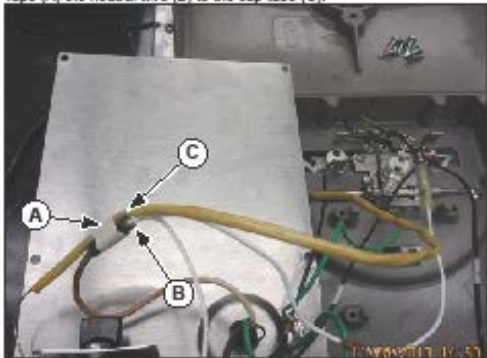
17. Install wire #8 (A) in the location shown on thermostat (C). Install wire #3 (B) in the location shown on thermostat (C).



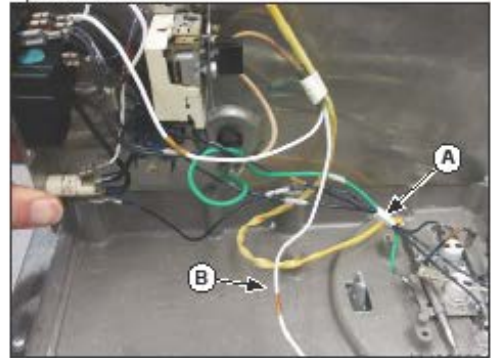
18. Install wire #5 (A) to hi-limit switch (B).



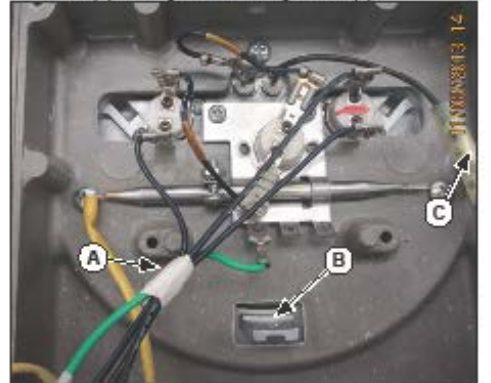
19. Tape (A) the neutral wire (B) to the cap tube (C).



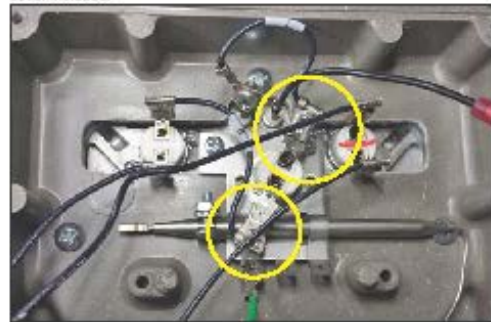
20. Bundle and tape wires (A) as shown. Keep white neutral wire (B) separated from bundle.



21. Route wire bundle (A) to the left side of heating element tab (B). Route neutral wire (C) to the right side of heating element (B).



22. Ensure that no terminals are in contact with metal or other terminals, top cover included.



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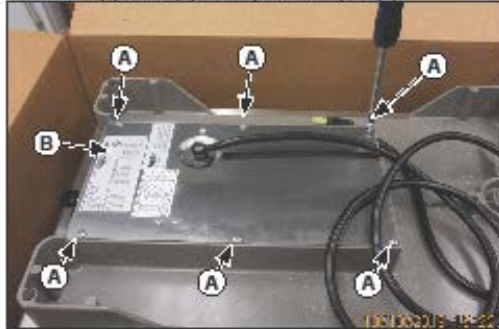
23. Close the control panel onto the warmer base. Check that no wires are pinched or touching the heating element tab.



24. Install the control panel (A) using caution not to pinch any internal wiring.



25. Install the six (6) screws (A) securing the bottom plate (B).



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