Preferred Service

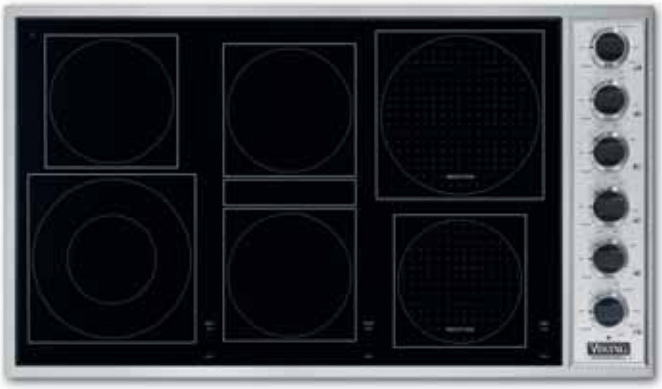
Service Manual

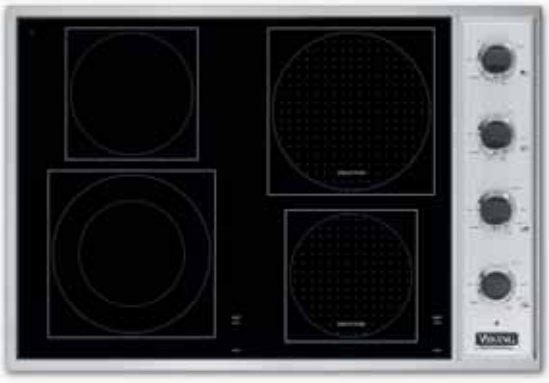
This manual is to be used by qualified appliance technicians only. Viking does not assume any responsibility for property damage or personal injury for improper service procedures done by an unqualified person.

Professional Built-In Electric All Induction and Induction/Radiant Ceramic Cooktops

This manual covers general and specific information including, but not limited to the following models:

VICU206
VICU266
VCCU106
VCCU166





SMC-0005
May 2009

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SAVE THESE INSTRUCTIONS

REVIEW ALL SERVICE INFORMATION IN THE APPROPRIATE SERVICE MANUAL AND TECHNICAL SHEETS BEFORE BEGINNING REPAIRS.

Pride and workmanship go into every product to provide our customers with quality appliances. It is possible, however, that during the lifetime of a product, service may be required. Products should be serviced only by a qualified authorized service technician who is familiar with the safety procedures required to perform the repair and is equipped with the proper tools, parts, testing instruments, and the appropriate service manual.

Safety Information

We have provided many important safety messages throughout this manual and on the appliance. Always read and obey all safety messages. This is a safety alert symbol.

This symbol alerts personnel to hazards that can kill or hurt you and others. All safety messages will be preceded by a safety alert symbol and the word "DANGER", "WARNING" or "CAUTION". These words mean:

DANGER

Immediate hazards which WILL result in severe personal injury or death.

WARNING

Hazards or unsafe practices which COULD result in severe personal injury or death.

CAUTION

Hazards or unsafe practices which COULD result in minor personal injury, product or property damage.

All safety messages will identify the hazard, tell you how to reduce the chance of injury, and inform you what can happen if the instructions are not followed.

WARNING

To avoid risk of serious injury or death, repairs should not be attempted by unauthorized personnel.

CAUTION

VIKING will not be responsible for any injury or property damage from improper service procedures. If performing service on your own product, you must assume responsibility for any personal injury or property damage which may result.

To locate an authorized service agent, call:
Viking Customer Service
Phone No. 1-888-845-4641

Address your written correspondence to:
Viking Preferred Service
1803 HWY 82 West
Greenwood, MS 38930

Professional Built-In Electric All Induction and Induction/Radiant Ceramic Cooktops

One Year Full Warranty

Built-in induction/radiant cooktops and all of their component parts, except as detailed below*, are warranted to be free from defective materials or workmanship in normal household use for a period of twelve (12) months from the date of original retail purchase. Viking Range Corporation, warrantor, agrees to repair or replace, at its option, any part which fails or is found to be defective during the warranty period.

*Glass (including light bulbs), painted and decorative items are warranted to be free from defective materials or workmanship for a period of ninety (90) days from the date of original retail purchase. ANY DEFECTS MUST BE REPORTED TO THE SELLING DEALER WITHIN NINETY (90) DAYS FROM DATE OF ORIGINAL RETAIL PURCHASE.

Five Year Limited Warranty

Any electric element which fails due to defective materials or workmanship in normal household use during the second through fifth year from the date of original retail purchase will be repaired or replaced, free of charge for the part itself, with the owner paying all other costs, including labor.

Ninety (90) Day Residential Plus Warranty

This warranty applies to applications where use of the product extends beyond normal residential use. Examples are, but not limited to, bed and breakfasts, fire stations, private clubs, churches, etc. This warranty excludes all commercial locations such as restaurants, food service locations and institutional food service locations.

This warranty extends to the original purchaser of the product warranted hereunder and to each transferee owner of the product during the term of the warranty.

This warranty shall apply to products purchased and located in the United States and Canada. Products must be purchased in the country where service is requested. Warranty labor shall be performed by an authorized Viking Range Corporation service agency or representative. Warranty shall not apply to damage resulting from abuse, accident, natural disaster, loss of electrical power to the product for any reason, alteration, outdoor use, improper installation, improper operation, or repair or service of the product by anyone other than an authorized Viking Range Corporation service agency or representative. This warranty does not apply to commercial usage. Warrantor is not responsible for consequential or incidental damage whether arising out of breach of warranty, breach of contract, or otherwise. Some jurisdictions do not allow the exclusion or limitation of incidental of consequential damages, so the above limitation or exclusion may not apply to you.

Owner shall be responsible for proper installation, providing normal care and maintenance, providing proof of purchase upon request, and making the appliance reasonably accessible for service. If the product or one of its component parts contains a defect or malfunction during the warranty period, after a reasonable number of attempts by the warrantor to remedy the defects or malfunctions, the owner is entitled to either a refund or replacement of the product or its component part or parts. Warrantor's liability on any claim of any kind, with respect to the goods or services covered hereunder, shall in no case exceed the price of the goods or service or part thereof which gives rise to the claim.

VIKING RANGE CORPORATION
111 Front Street, Greenwood, Mississippi (MS) 38930 USA 662-455-1200

Specifications are subject to change without notice.
For more product information, call 1-888-VIKING1 (845-4641), or visit our web site at http://www.vikingrange.com

WARRANTY SERVICE

Under the terms of this warranty, service must be performed by a factory authorized Viking Range Corporation service agent or representative. Service will be provided during normal business hours, and labor performed at overtime or premium rates shall not be covered by this warranty. To obtain warranty service, contact the dealer from whom the product was purchased, an authorized Viking Range Corporation service agent, or Viking Range Corporation. Provide model and serial number and date of original purchase. For the name of your nearest authorized Viking Range Corporation service agency, call the dealer from whom the product was purchased or Viking Range Corporation. **IMPORTANT:** Retain proof of original purchase to establish warranty period.

The return of the Owner Registration Card is not a condition of warranty coverage. You should, however, return the Owner Registration Card so that Viking Range Corporation can contact you should any question of safety arise which could affect you.

Any implied warranties of merchantability and fitness applicable to the described halogen elements are limited in duration to the period of coverage of the applicable express written limited warranties set forth above. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which may vary from jurisdiction to jurisdiction.

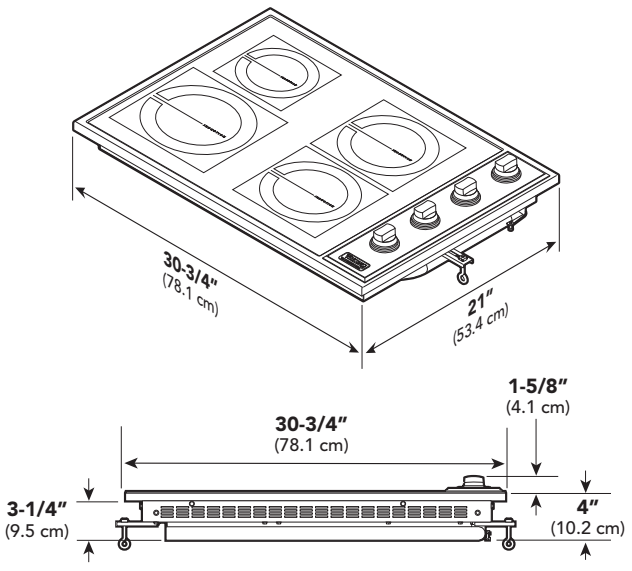
VIKING RANGE CORPORATION
111 Front Street • Greenwood, Mississippi 38930 USA
(662) 455-1200
www.vikingrange.com
Specification subject to change without notice

Specifications*

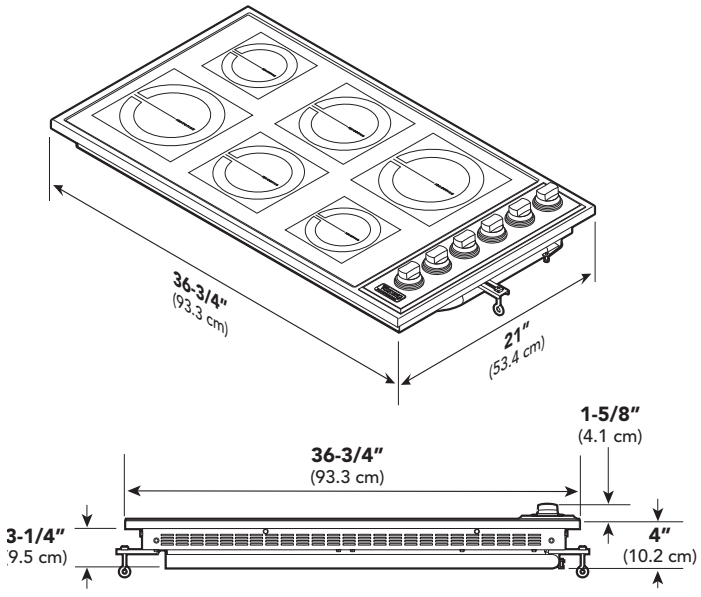
Induction Cooktop				
Description	**VICU206**		**VICU266**	
Overall width	30-3/4" (78.1 cm)		36-3/4" (93.3 cm)	
Overall height from bottom To top of knobs To top of cooking surface To bottom edge of frame	5-5/8" (14.3 cm) 4" (10.2 cm) 3-1/4" (8.3 cm)			
Overall depth from rear	21" (53.3 cm)			
Electrical requirements	240-208/120 VAC; 50/60 Hz; factory-installed 4 ft. (121.9 cm) flexible steel conduit 3-wire conduit with a No. 10 ground wire; located on the right rear corner of unit			
Maximum amp usage	240V—30.8 amps (7.4 kw) 208V—30.8 amps (6.4 kw)		240V—46.3 amps (11.1 kw) 208V—46.3 amps (9.6 kw)	
Surface element rating	240V	208V	240V	208V
Right front	1,850 watts	1,600 watts	1,400 watts	1,213 watts
Right rear	1,850 watts	1,600 watts	3,200 watts	2,773 watts
Center front	N/A	N/A	1,850 watts	1,600 watts
Center rear	N/A	N/A	1,850 watts	1,600 watts
Left front	3,700 watts	3,206 watts	3,700 watts	3,206 watts
Left rear	1400 watts	1213 watts	1,400 watts	1,213 watts
Approximate shipping weight	52 lb. (23.6 kg)		63 lb. (28.6 kg)	

**Go to vikingrange.com for latest specifications.*

30" Induction Cooktop



36" Induction Cooktop

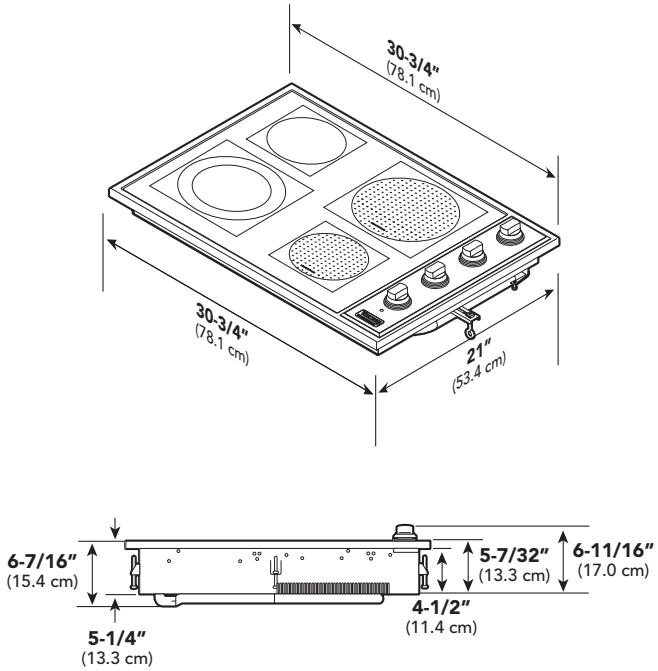


Specifications•

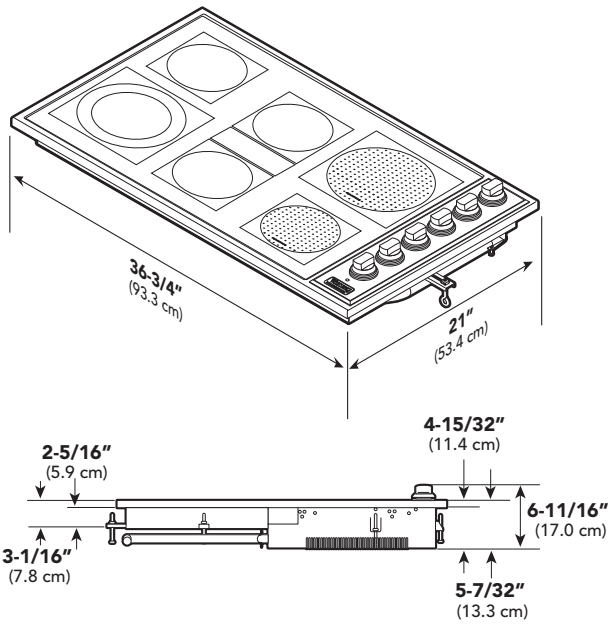
Induction/Radiant Glass Ceramic Cooktop				
Description	**VCCU106**		**VCCU166**	
Overall width	30-3/4" (78.1 cm)		36-3/4" (93.3 cm)	
Overall height from bottom To top of knobs To top of cooking surface To bottom edge of frame	6-11/16" (17.0 cm) 5-7/32" (13.3 cm) 4-15/32" (11.4 cm)			
Overall depth from rear	21" (53.3 cm)			
Electrical requirements	240-208/120 VAC/60 Hz; 3-wire conduit with a No. 10 ground wire.			
Maximum amp usage	240V—37.9 amps (9.1 kw) 208V—35.4 amps (7.4 kw)		240V—55.0 amps (13.2 kw) 208V—50.2 amps (10.4 kw)	
Surface element rating	240V	208V	240V	208V
Right front–induction	1,850 watts	1,600 watts	1,850 watts	1,600 watts
Right rear–induction	3,200 watts	2,720watts	3,200 watts	2,720 watts
Center front–radiant	N/A	N/A	1,800 watts	1,350 watts
Bridge–radiant	N/A	N/A	800 watts	600 watt
Center rear–radiant	N/A	N/A	1,800 watts	1,350 watts
Left front (Dual Zone)–radiant	2,500 watts	1,875 watts	2,200 watts	1,650 watts
Left front (inner only)	1,000 watts		750 watts	
Left rear–radiant	1,500 watts		1,500 watts	
Approximate shipping weight	52 lb. (23.6 kg)		63 lb. (28.6 kg)	

**Go to vikingrange.com for latest specifications.*

Induction/Radiant 30"W. Models



Induction/Radiant 36"W. Models



Warnings

Read and follow all instructions before using this appliance to prevent the potential risk of fire, electric shock, personal injury, or damage to the appliance as a result of improper usage of the appliance. Use appliance only for its intended purpose as described in this manual.

To ensure proper and safe operation: appliance must be properly installed and grounded by a qualified technician. DO NOT attempt to adjust, repair, service, or replace any part of your appliance unless it is specifically recommended in this manual. All other servicing should be referred to a qualified servicer. Have the installer show you the location of the gas shut-off valve and how to shut off in an emergency.

Electrical Requirements
Check your national and local codes regarding this unit.

⚠ WARNING

Burn hazard
The use of cabinets for storage above the appliance may result in potential burn hazard. Combustible items may ignite, metallic items may become hot and cause burns. If a cabinet storage is to provided the risk can be reduced by installing a range hood that projects horizontally a minimum of 5" beyond the bottom of the cabinets.

⚠ WARNING

Electrical Grounding Instructions
This cooktop must be electrically grounded in accordance with local codes or, in the absence of codes, with the National Electrical Code, ANSI/NFPA 70-latest edition.
FOR PERSONAL SAFETY, THIS APPLIANCE MUST BE PROPERLY GROUNDED.

⚠ WARNING

The electrical power to the unit must be shut off while line connections are being made. Failure to do so could result in serious injury or death.

⚠ WARNING

Fire and electrical shock hazard
DO NOT use an extension cord with this appliance. Such use may result in fire, electrical shock, or other personal injury.

⚠ CAUTION

Be sure the electric power is off from the breaker box to the junction box until the cooktop is installed and ready to operate. The junction box should be connected to a suitable ground.

Cookware

Each cook has his or her own preference for the particular cookware that is most appropriate for the type of cooking being done. This a matter of personal choice. As with any cookware, yours should be in good condition and free from excessive dents on the bottom to provide maximum performance and convenience. When using big pots, it is recommended to use the front elements. There is more room in the front and potential cleanup of rear of appliance due to staining or discoloration will be minimized.

Ceramic Glass Cooktop
All products are wiped clean with solvents at the factory to remove any visible signs of dirt, oil, and grease which may have remained from the manufacturing process. Clean your glass top before the first time you use it. A thorough cleaning with a glass top cleaner is recommended.

Induction Cookware
Induction cooking utilizes magnetic power which reacts with iron in the base of cookware, instantly transforming the pot or pan into the heat source. The heat stops when the cookware is removed. Your cookware MUST have a magnetic layer of steel for your induction cooktop to operate properly. The cookware should have a flat, heavy magnetic bottom and straight sides with a diameter of 5" (13 cm) to 12" (31 cm) to accommodate the various sized elements. The induction cookware should be in good condition and free from excessive dents on the bottom to provide maximum performance and convenience.

All Viking cookware is induction friendly, as are most other high-end brands of stainless steel and enamel cookware. Most induction cookware will be suitable for your induction cooktop if a magnet adheres to the bottom surface.

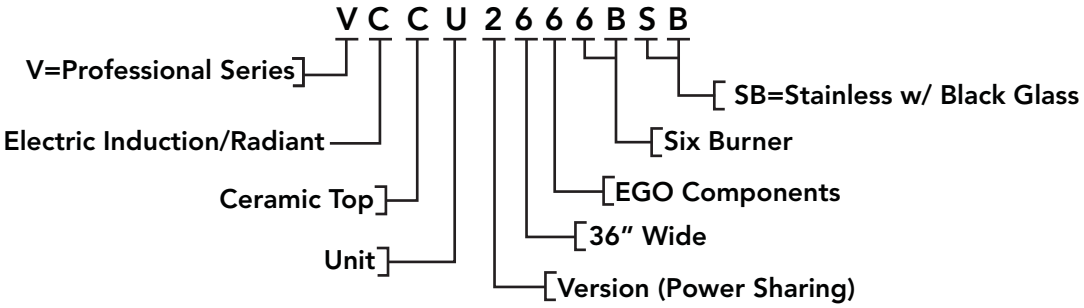
- Cookware that is NOT suitable for your induction cooktop includes pottery, glass, aluminum.

Model – Serial Number Matrix

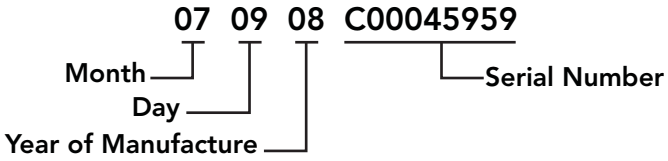
The model number and serial number are located on the data plate. The data plate is located on the underside of the burner box.

Model Numbers

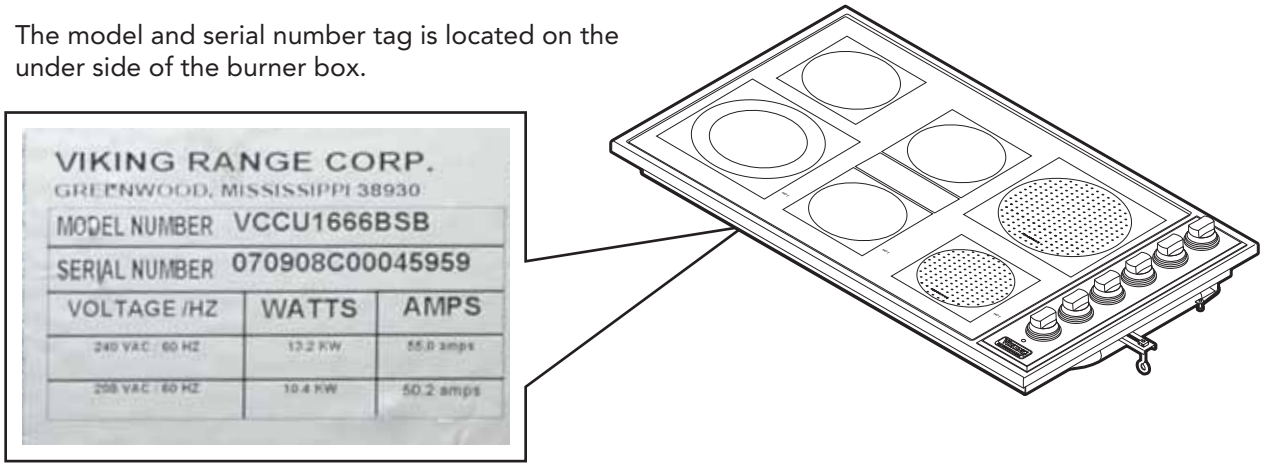
V–Viking Professional Series,
C–Electric Induction/Radiant, **I**–All Induction
C–Ceramic top
U–Unit
1–Version (Non-Power Sharing) **2**–(Power Sharing)
0–30"W **6**–36"W
5–Luxine Components **6**–EGO Components
6–6 induction–Digit change for new versions
4B–4 Burners, **5B**–5 Burners, **6B**–6 Burners
(burners/elements)



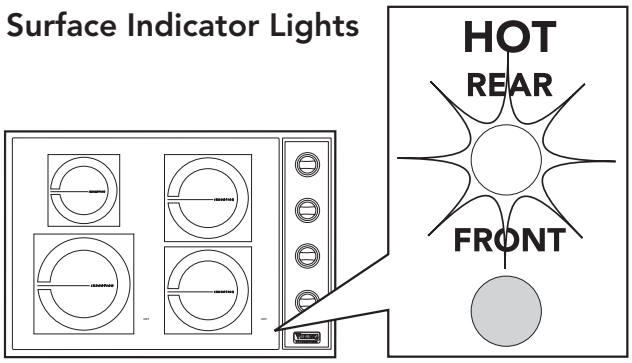
Serial Numbers



The model and serial number tag is located on the under side of the burner box.



Surface Indicator Lights



The surface indicator lights are located at the front of the glass cooktop. The indicator lights are used to indicate activation, hot surface, and warnings.

Cleaning and Maintenance

Any piece of equipment works better and lasts longer when maintained properly and kept clean. Cooking equipment is no exception. Your cooktop must be kept clean. Make sure all controls are in the "OFF" position.

Glass Ceramic Top
Cleaning of glass ceramic tops is different from cleaning a standard porcelain finish. To maintain and protect the surface of your new glass ceramic top, follow these basic steps:

For normal, light soil:
1. Rub a few drops of a glass ceramic cleaning cream on to the cool, soiled area using a damp paper towel.

2. Wipe until all soil and cream are removed. Frequent cleaning leaves a protective coating which is essential in preventing scratches and abrasions.

For heavy, burned soil:
1. Rub a few drops of glass ceramic cleaning cream on to cool, soiled area using a damp paper towel.

2. Carefully scrape remaining soil with a single-edged razor blade. Hold the blade at a 30˚ angle against the ceramic surface.

3. If any soil remains, repeat the steps above. For additional protection, after all soil has been removed, polish the entire surface with the cleaning cream.

4. Buff with a dry paper towel. As the cleaning cream cleans, it leaves a protective coating on the glass surface. This coating helps to prevent build-up of mineral deposits (water spots) and will make future cleaning easier.

***Note:** Dishwashing detergents remove this protective coating and therefore, make the glass ceramic top more susceptible to staining.*

Cooktop Surfaces
Several different finishes have been used in your cooktop. Cleaning instructions for each surface are given below. NEVER USE AMMONIA, STEEL WOOL PADS OR ANY ABRASIVE CLOTHS AND MATERIALS SUCH AS CLEANSERS, OVEN CLEANERS, OR ABRASIVE POWDERS. THEY CAN PERMANENTLY DAMAGE YOUR COOKTOP.

Control Panel
DO NOT use any cleaners containing ammonia, abrasives or stainless steel cleaners on any surface that contains graphics. These products could remove the graphics from the control panel. Apply hot, soapy water to a soft clean cloth. DO NOT spray liquids directly onto the control panel.

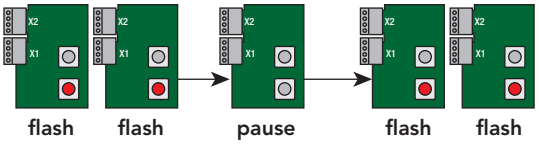
Control Knobs
MAKE SURE ALL CONTROL KNOBS POINT TO THE "OFF" POSITION BEFORE REMOVING. Pull the knobs straight off. Wash in detergent and warm water. Dry completely and replace by pushing firmly onto stem.

Stainless Steel Parts
All stainless steel body parts should be wiped regularly with hot, soapy water at the end of each cooling period and with a liquid cleaner designed for that material when soapy water will not do the job. DO NOT use steel wool, abrasive cloths, cleansers, or powders. If necessary, scrape stainless steel to remove encrusted materials, soak the area with hot towels to loosen the material, then use a wooden or nylon spatula or scraper. DO NOT use a metal knife, spatula, or any other metal tool to scrape stainless steel. DO NOT permit citrus or tomato juice to remain on stainless steel surface, as citric acid will permanently discolor stainless steel. Wipe up any spills immediately.

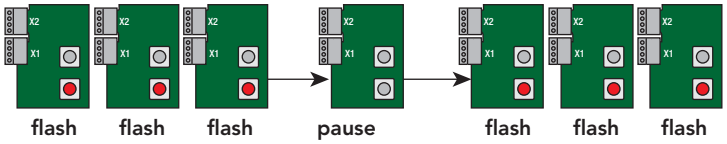
Built-In Error Codes

The thermostat timer digital display is designed to alert you if there is an error or problem in the control.

Example of LED code 2.

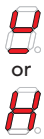


Example of LED code 3.



If one of the following front burner switch cover LED codes occurs, perform the following to determine the proper repair:

Note: *Use flashing LED for error determination. Interface display only works for 1 burner. You may have up to 10 flashes before a pause.*

LED Code	Interface Display	Failure	Possible Reason	Action
1		Induction element is not recognizing a compatible cooking vessel. Residual heat flashes at 1 Hz	Pan detection has the higher priority over residual heat, also shown when Boost is selected.	Place compatible cooking vessel on induction element The surface is hot (60˚C)
2		Switch	Wiring Operation of switch	Replace or repair as necessary Replace switch
3		Flash failure	Flash failure Component failure	Replace interface board
4		Incorrect setup data Configuration error between interface board and induction generator No function or partial function	False configuration of filter board by interface board Component error on interface or filter board	Check version of interface board Replace interface board If continuous error replace filter board.
5		Communication error between interface board and induction generator	Interface board Interface board cable loose or defective Filter board	Replace interface board Check connection of cable and replace cable if needed Replace filter board

Built-In Error Codes (continued)

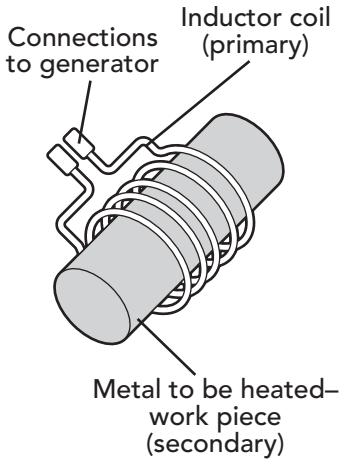
LED Code	Interface Display	Failure	Possible Reason	Action
6	E5	Error on filter board EEPROM data wrong	Permanent low voltage Error on electronic device Lost data or EEPRPM	Check voltage–if proper and error persists replace filter board Replace filter board Replace filter board
7	E6	Voltage supply Cable Filter board Power board	Missing L2 Loose cable Defective board Defective board	Verify L2 Repair replace cable as needed Replace filter board Replace power board
8	E1	Error code received which cannot be assigned	Component failure Communication error	Cycle power–if error continues replace cable–if error continues replace filter board Replace power board
9	E9	Temperature sensor defective Mechanical failure Electrical failure	Mechanical crack of sensor Fading resistance Power board	Change coil–if issue continues replace power board
10	U4000	Wrong terminal connected	Secondary voltage of the power supply above 400 Volts	Check the power supply
–	E2	Temperature sensor shows overheat of induction coil or power board	Cooking zone overheated Heat opened thermal Induction generator temperature too high	Allow zone to cool down Allow to cool down Error display is canceled after cooling down
–	H	Display of the residual heat	No failure Temperature over 60°C in a cooking zone	Cooking zone needs to cool down

- Zone LED's flash on and off for both pan detection (Zone switched "ON") and with residual heat (Zone switched "OFF").
- When a cooking zone is turned "OFF" and there is residual heat present, the zone indicator LED will flash on and off until the zone has cooled.
- Pan detection has the higher priority over residual heat, also shown when Boost is selected.
- The cooking zone indicator LED's are on statically (Not flashing) during cooking operation.
- Zone LED's flash on and off rapidly in case of an overheat condition on the individual coil.
- LED's flash in sequences in case of an error with the highest priority.

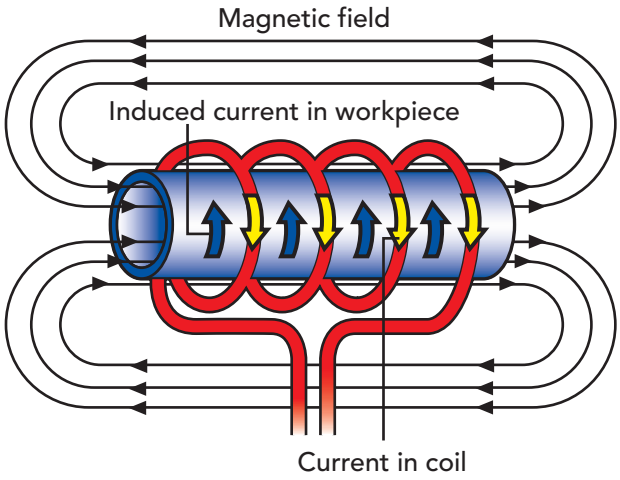
Theory of Induction Operation

Cooking, by definition, is the application of heat to food. On a cooktop, very rarely is the food heated in anything other than a cooking vessel. In this case, the job of the cooktop becomes to heat the vessel and allow the vessel to heat the food. Cooking therefore, involves transferring heat to a strategically placed cooking vessel. Two common methods of achieving this are chemical, burning a combustible substance such as gas, and electrical, passing an electric current through a resistance element.

Induction cooking, introduces a third cooking method completely different from the other two. Induction cooking does not involve generating heat which is then transferred to the cooking vessel, but rather makes the cooking vessel the original generator of the heat source. The induction element, inductor, can be viewed as a powerful high-frequency electromagnet. The electromagnetism is generated by electronics in the inductor under the main top glass. When a good-sized piece of magnetic material (cooking vessel) is placed in the magnetic field that the inductor is generating, the field induces energy into the cooking vessel. This transfer of energy causes the cooking vessel to become hot. By controlling the strength of the electromagnetic field (cooktop setting), the amount of heat being generated in the cooking vessel can be controlled instantaneously.



How Induction Works

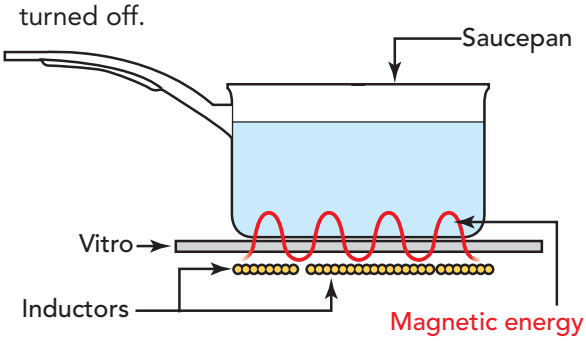


1. The electronics connected to the inductors powers a coil that produces a high-frequency electromagnetic field.

2. The electromagnetic field penetrates the metal of the ferrous cooking vessel and sets up a circulating electric current, which generates heat.

3. The heat generated in the cooking vessel is transferred to the vessel's food load.

4. Nothing outside the cooking vessel is affected by the field as soon as the cooking vessel is removed from the element or the element is turned off.



There is one point about induction cooking with current technology that needs to be made. The cooking vessel being used must be of a ferrous material, a magnetic will stick to it. The ferrous material will readily sustain a magnetic field and work with the induction system. Materials like aluminum, copper, and Pyrex are not usable with the induction system because they are not ferrous and will not readily sustain a magnetic field. As a rule of thumb, if a common refrigerator magnet will stick to the cooking vessel, it will work with the induction system.

Induction Safety

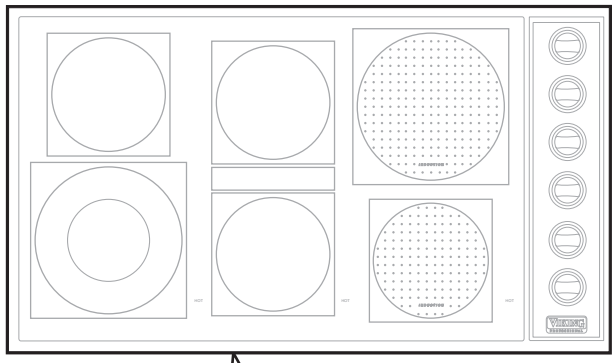
Induction cooking has built in safety features. The system features pot detection. If the cookware is not compatible, the unit will not turn on. The indicator will flash indicating the system does not recognize a pot on the cooking zone. The system also features cool surface temperatures. Since the heat is generated by the transfer of energy induced into the cooking vessel, the heat stays primarily within the cooking vessel. Once the vessel is removed, the heat is as well. The system also has thermal devices to protect the unit from overheating. The system has near instantaneous responses similar to gas units, however, utilizes energy to generate heat versus combusting gas with the potential of flame loss or carbon monoxide.

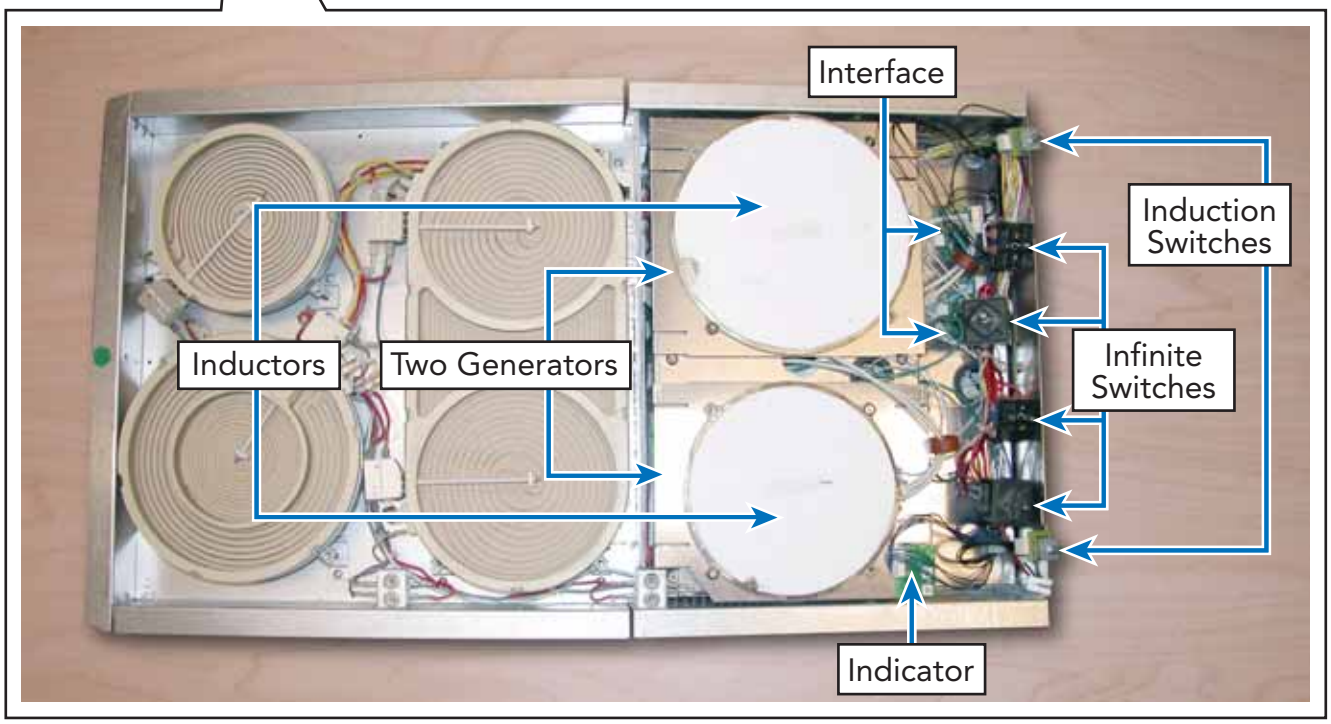
Service Situation Chart

The chart below is a basic overview of the serviceability and accessibility of components in the cooktop.

Task	Front Serviceable	Partial Removal Required	Full Removal Required
Knobs	X		
Control Panel			X
Infinite Switch			X
Induction Switch			X
Indicator			X
Interface			X
Power Board			X
Filter Board			X
Inductors			X
Burner Box			X
Cooling Fan			X

General Parts Location (VCCU shown)





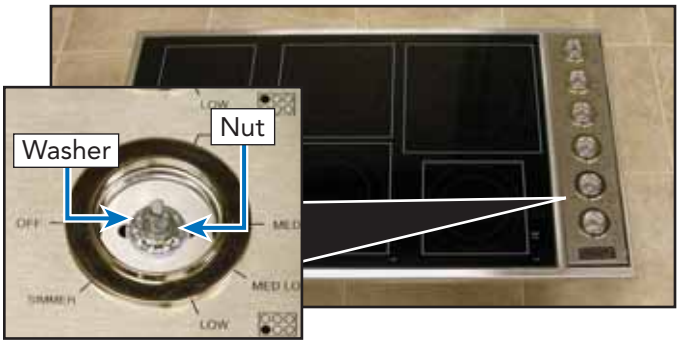
⚠ WARNING

To avoid risk of electrical shock, personal injury, or death, disconnect electrical power source to unit, unless test procedures require power to be connected. Discharge capacitor through a resistor before attempting to service. Ensure all ground wires are connected before certifying unit as repaired and/or operational.

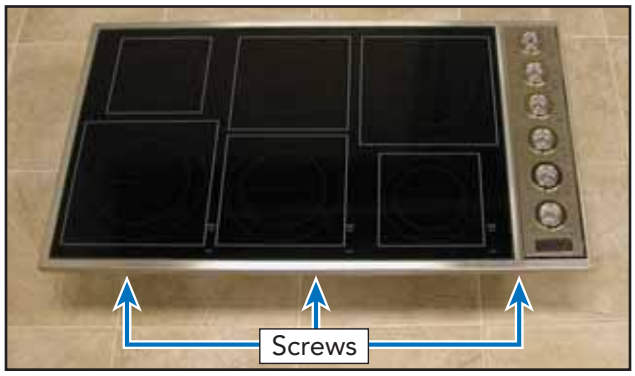
All Induction Cooktop

1. Take off knobs.

2. Remove washer and nut for switches (label wiring and switch orientation before disassembly).

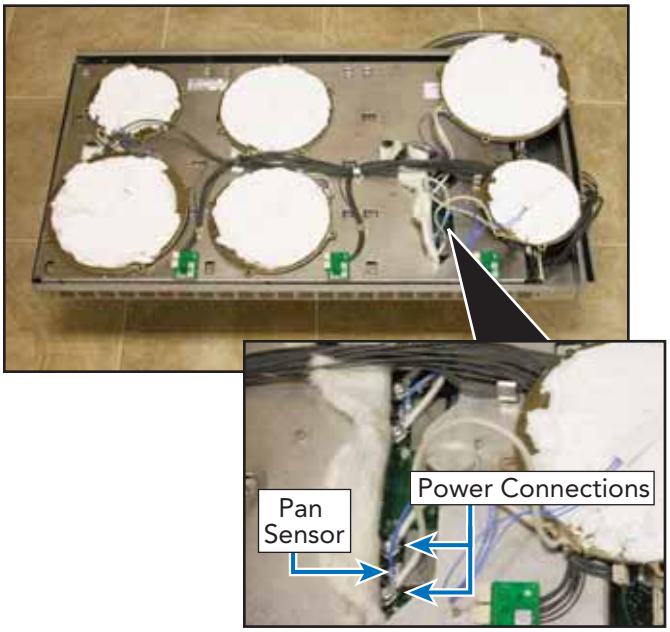


3. Remove six screws (three on each side) that secure ceramic top. Remove ceramic top.



4. Carefully move first two inductors to side.

5. Fold cloth insulation back and disconnect inductor connections and pan sensor from power board.



6. Remove first two inductors.

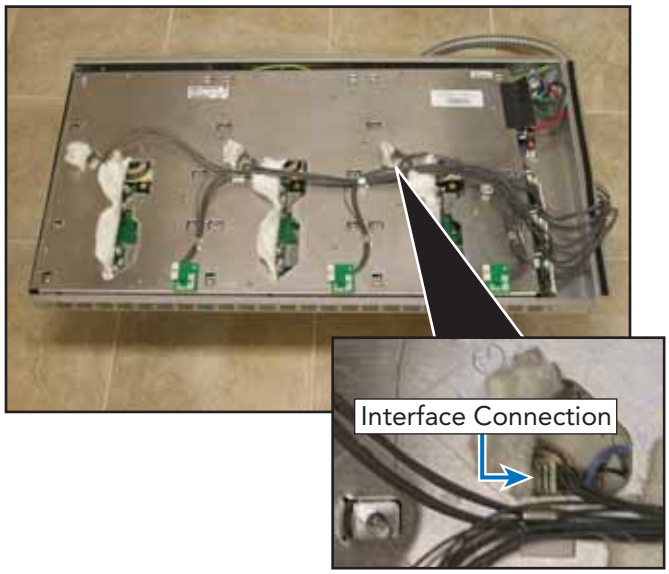
7. Repeat steps 5 and 6 for remaining inductors.

⚠ WARNING

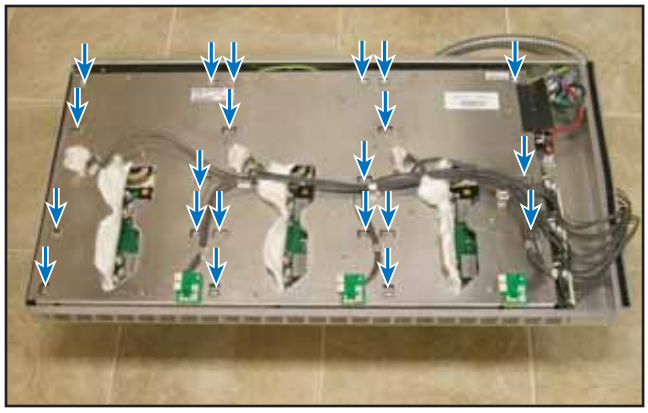
To avoid risk of electrical shock, personal injury, or death, disconnect electrical power source to unit, unless test procedures require power to be connected. Discharge capacitor through a resistor before attempting to service. Ensure all ground wires are connected before certifying unit as repaired and/or operational.

All Induction Cooktop (continued)

8. Disconnect interface board connections at filter boards.



9. Remove 17 screws and 4 hidden screws securing filter/power board cover.



10. From under side of filter/power board cover, disconnect three ground connections.

11. Remove filter/power board cover. All power and filter boards are now accessible.

13. Reverse procedure for installation.

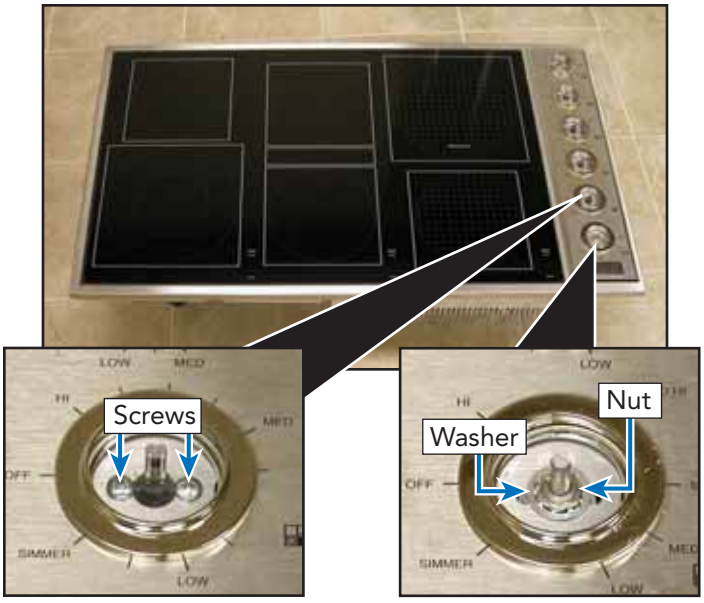
WARNING

To avoid risk of electrical shock, personal injury, or death, disconnect electrical power source to unit, unless test procedures require power to be connected. Discharge capacitor through a resistor before attempting to service. Ensure all ground wires are connected before certifying unit as repaired and/or operational.

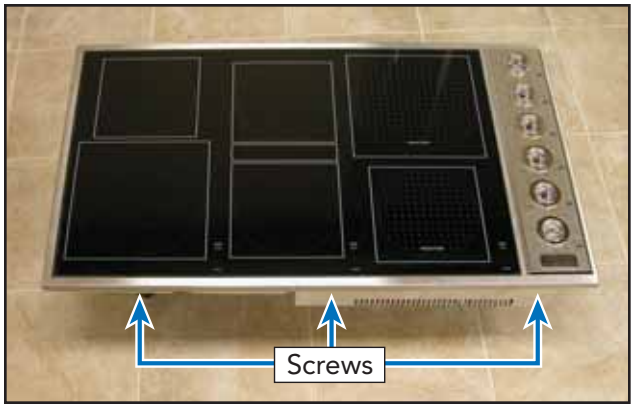
Induction/Radiant Cooktop

1. Take off knobs.

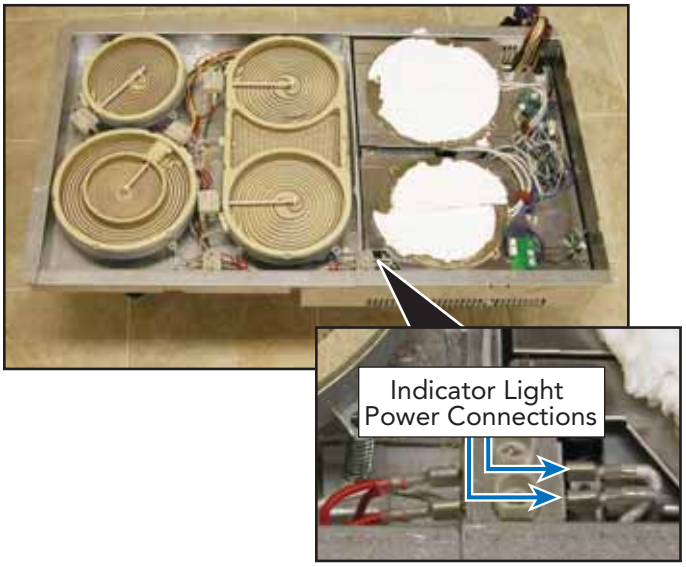
2. Remove two screws from LF, LR, CF, CR. Remove washer and nut from RF, RR (label wiring and switch orientation before disassembly).



3. Remove six screws (three on each side) that secure ceramic top and remove ceramic top.

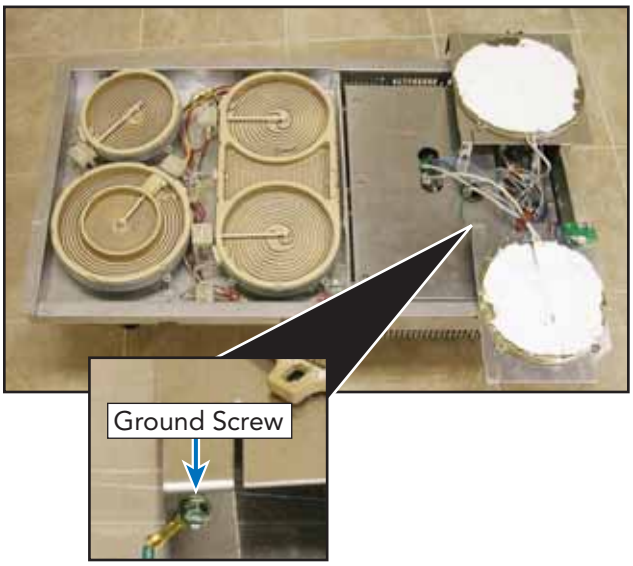


4. Disconnect indicator light power connectors.



5. Move inductor assemblies to side.

6. Disconnect front inductor ground screw.



WARNING

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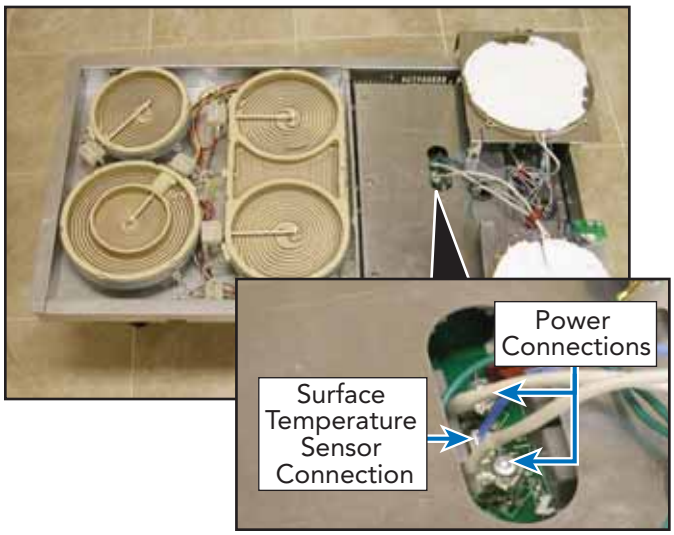
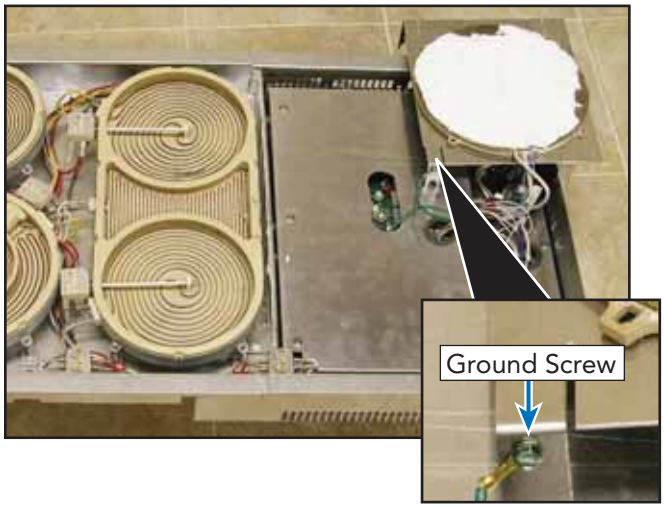
Induction/Radiant Cooktop (continued)

7. Disconnect front inductor connections, pan sensor and indicator board from upper power board.

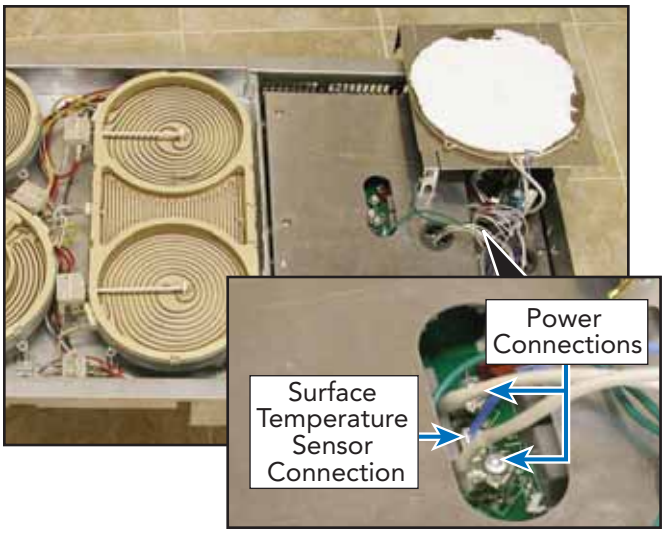


8. Remove front inductor.

9. Disconnect rear inductor ground screw.

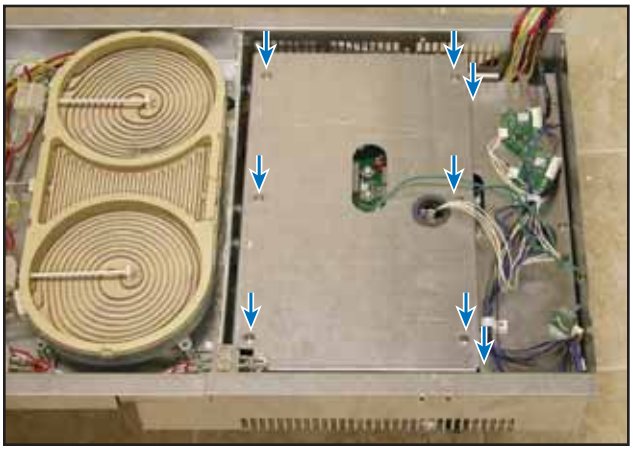


10. Disconnect rear inductor connections, pan sensor and indicator board from lower power board.



11. Remove rear inductor.

12. Remove six screws on top, two screws on side of upper filter/power board cover.



⚠ WARNING

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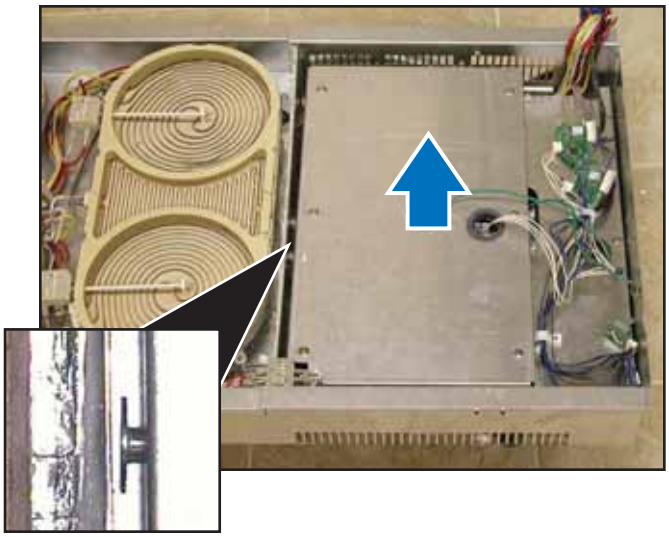
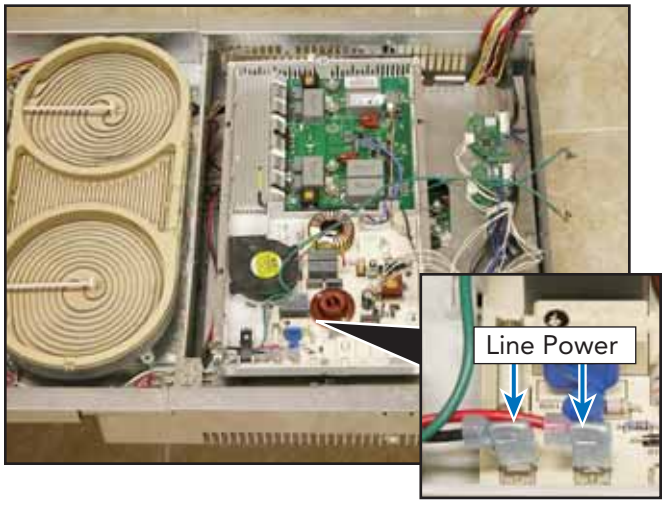
Induction/Radiant Cooktop (continued)

13. Remove upper filter/power board cover by sliding entire module toward rear to disengage cover from keyholes.

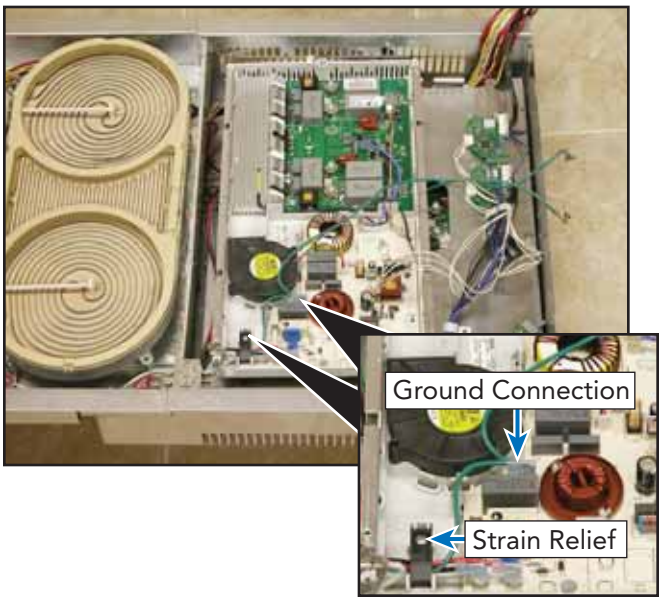


14. Carefully remove insulation to gain access to upper filter/power board.

15. To gain access to lower power/filter board, remove line power to upper filter board.

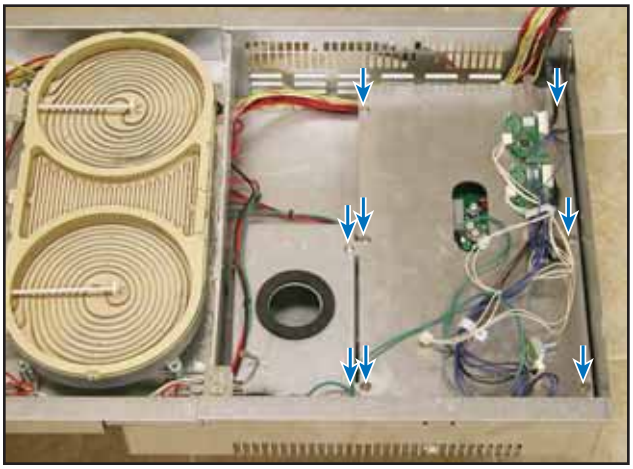


16. Disconnect upper filter board strain relief and upper filter board ground.



17. Remove upper filter/power board module.

18. Remove six screws on top, two screws on side of lower filter/power board cover.

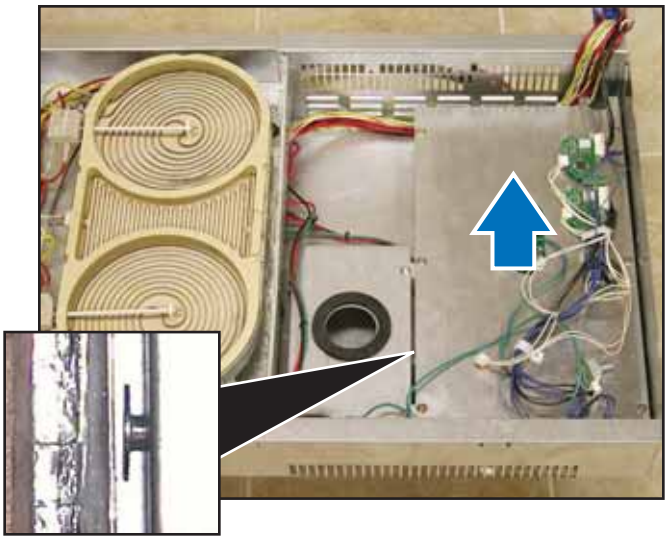


WARNING

To avoid risk of electrical shock, personal injury, or death, disconnect electrical power source to unit, unless test procedures require power to be connected. Discharge capacitor through a resistor before attempting to service. Ensure all ground wires are connected before certifying unit as repaired and/or operational.

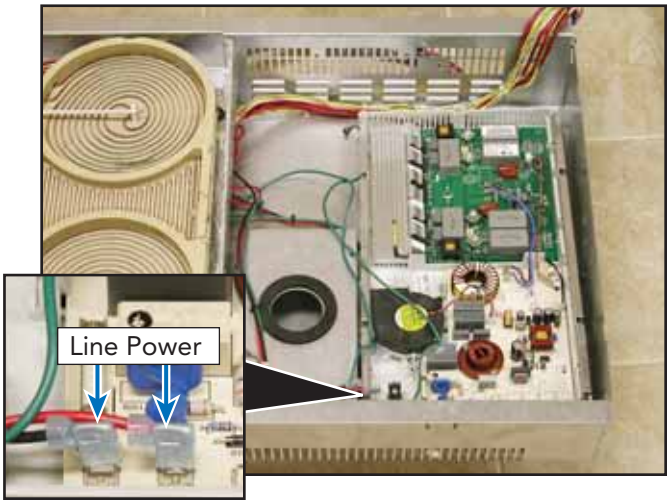
Induction/Radiant Cooktop (continued)

19. Remove lower filter/power board cover by sliding entire module toward rear to disengage cover from keyholes.

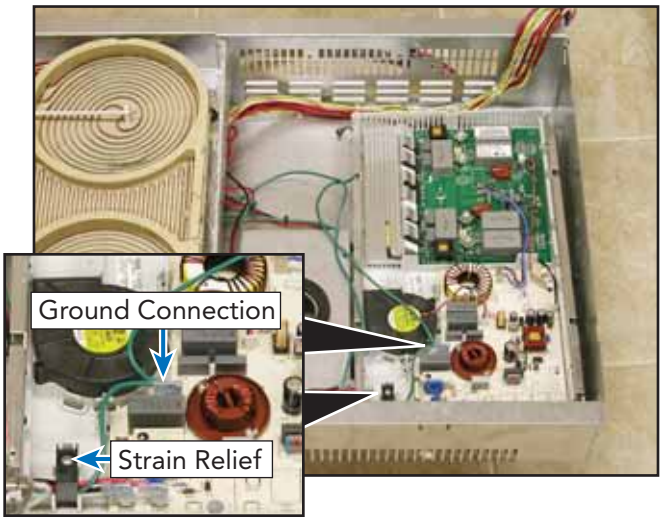


20. Carefully remove insulation to gain access to lower filter/power board.

21. To remove lower module, remove line power to lower filter board.



22. Disconnect lower filter board strain relief and board ground.



23. Lower module can now be removed.

24. Reverse procedure for installation.

Component Testing

Component	Volts	Ohms	Amps	Test Location
Cooling Fan	12VDC	9150	0.38	X57 on Filter Board
Inductor	240	990 unplugged 708 plugged	N/A	Blue wires from inductor
Power Board	240	N/A	N/A	Black to Blue
Filter Board	240	N/A	N/A	L1 (X50) and L2 (X52)
Induction Switch	N/A	12300 Ω 10000 Ω 91300 Ω 8540 Ω 7800 Ω 3650 Ω 0 Ω	N/A	Off terminals 2-3 Simmer terminals 2-3 Low terminals 2-3 Med-low terminals 2-3 Medium terminals 2-3 Med-HI terminals 2-3 HI terminals 2-3
Radiant VCCU106 Left Rear Left Front (dual element) 6" Inner 9" Outer	240	 37.5 Ω 25.8 Ω 25.8 Ω	N/A 6.25 4.2 10.4	At element
Radiant VCCU166 Left Rear Left Front (dual element) 6" Inner 9" Outer Bridge	240	 37.5 Ω 25.8 Ω 25.8 Ω 21.5 Ω	N/A 6.25 3.1 9.1 3.3	At element

Troubleshooting Guide

Below and on the following page are some general guides should a problem be detected. Please refer to the test procedures in this manual to determine the defective component.

Problem	Probable Cause	Correction
Nothing operates	Wiring Breaker	Repair or replace wiring as needed Reset breaker
One coil will not energize (indicator light blinking)	Non magnetic pan Cooking zone too hot Coil circuit open Generator board	Use magnetic cookware Allow unit to cool down Check coil circuit Check power and filter board
One coil will not energize (indicator light not blinking)	Switch Cable Interface board Generator Indicator Power connection	Verify switch is working Verify cable is connected and not open Check interface board Check power and filter board Check indicator Check terminal block
Neither coil will energize	Power connection Circuit breaker Internal power	Check terminal block Verify breaker and reset if needed Verify power and not shorted or open
Coil stays on when switch in off position	Defective switch	Check switch and replace if necessary
Coil on indicator not working	Indicator Cable	Check indicator Check connection and possible short open condition

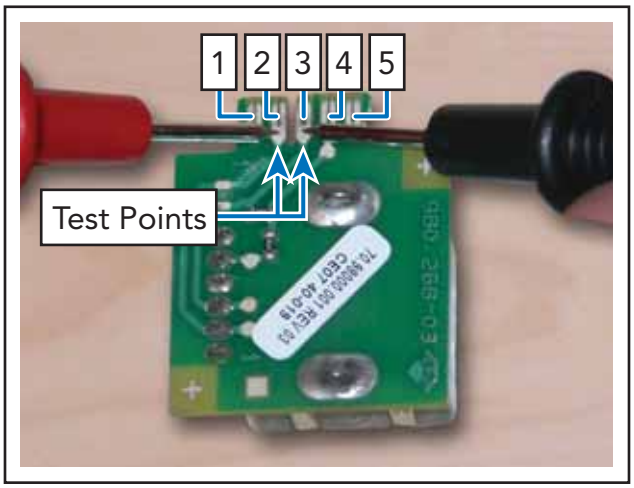
Induction Switch

The purpose of the surface switch is to control the cooking operation. Once the end user chooses a setting, the corresponding amount of power and cycle rate to deliver a given output is sent to the interface board. The interface board communicates between the indicator and the generator. The indicator communicates if a pot is in place. The generator receives input to power the inductor and deliver the desired output.

Boost Function – The boost function is operated like a normal cooking function. If the small coil is on, the boost function will be canceled when the total power is over 3700 watts. The boost function has to reset if the lower wattage element is turned off, or if the element is turned to a lower setting of a maximum 3700 watts within the first 10 minutes of operation. The 10 minutes starts when the 3700 watts (3200watts) is turned on. When the lower wattage element is turned on, power will be reduced from 3700 watts (3200 watts) to 2300 watts when the power consumption from the generator is over 3700 watts. The boost function is available on the RR (VCCU 30/36”), LF (VICU 30”), LF and RR (VICU 36”) models.

To access the surface switch, remove the control knobs, switch securing screws/nut, perimeter screws securing main top, main top and the switches are now accessible.

The switch is a 10K potentiometer. Measure the resistance at different switch settings. If no reading or an open occurs, the switch is bad. Resistance should be approximately 12300 Ω in off position, 10000 Ω in simmer, 9130 Ω in low, 8540 Ω in medium-low, 7800 Ω in medium, 3650 Ω in medium-HI, and 0 Ω in HI.



Induction Switch Resistance Chart

Setting	Resistance
Off	12300 Ω +/- 50 Ω
Simmer	10000 Ω +/- 50 Ω
Low	9130 Ω +/- 50 Ω
Medium-Low	8540 Ω +/- 50 Ω
Medium	7800 Ω +/- 50 Ω
Medium-High	3650 Ω +/- 50 Ω
High	0 Ω

Measured from positions 2 and 3

Element	Off	HI	9	8	7	6	5	4	3	2	1	Simmer
210mm	0	3500	2300	1472	966	644	414	276	184	115	69	58
210mm	0	3220	2300	1472	966	644	414	276	184	115	69	58
180mm	0	1850	1850	1184	777	518	333	222	148	93	56	46
145mm	0	1100	1100	90	462	308	198	132	88	55	33	28
Max Time (min.)	0	10	90	113	139	170	212	260	318	402	520	520

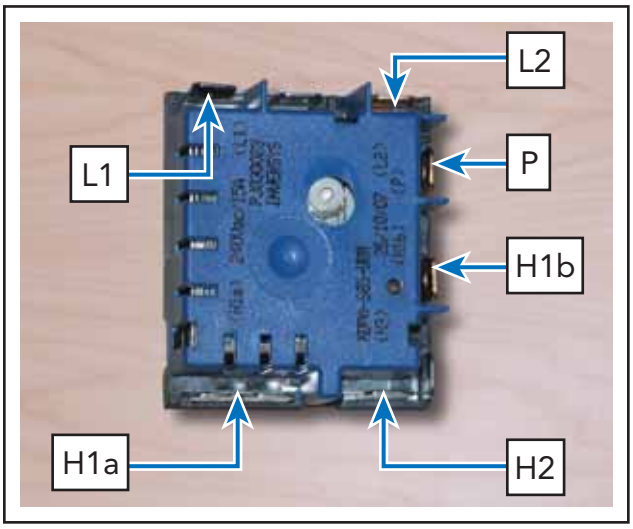
Infinite Switch–Radiant Burners

The purpose of the infinite switch is to control the cooking operation. Once the end user chooses a setting, the corresponding amount of power and cycle rate to deliver a given output is sent to the appropriate element via switch contacts closing.

To access the infinite switch, remove the knobs, maintop, and the infinite switch is accessible.

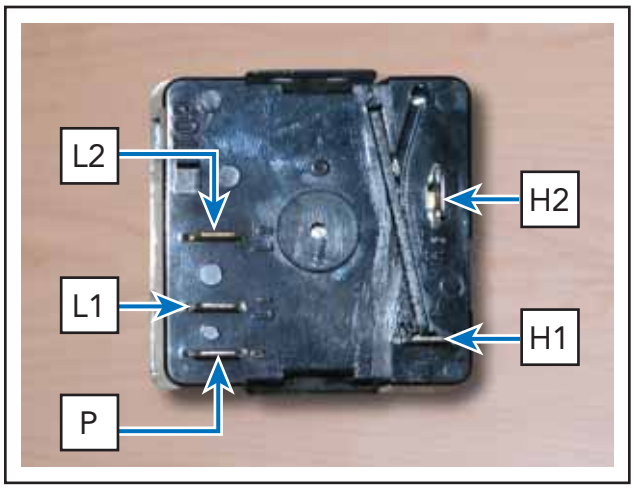
The two different infinite switches are used on the cooktop. Switch contacts are as follows:

Dual Infinite Switch



Verify 240 VAC between L1 & L2, if no voltage is present, check wiring and breaker. If 240 VAC is present check the output from the switch.With the selector switch in the on position, 120 VAC between ground and terminal P should be measured. If 120 VAC is not found, verify wiring before replacing the infinite switch. With the selector switch in the on position, 240 VAC should be present between H1a and L2 and H1b and L2. If voltage is not present, verify wiring, element, and element limiter before replacing the switch.

Infinite Switch

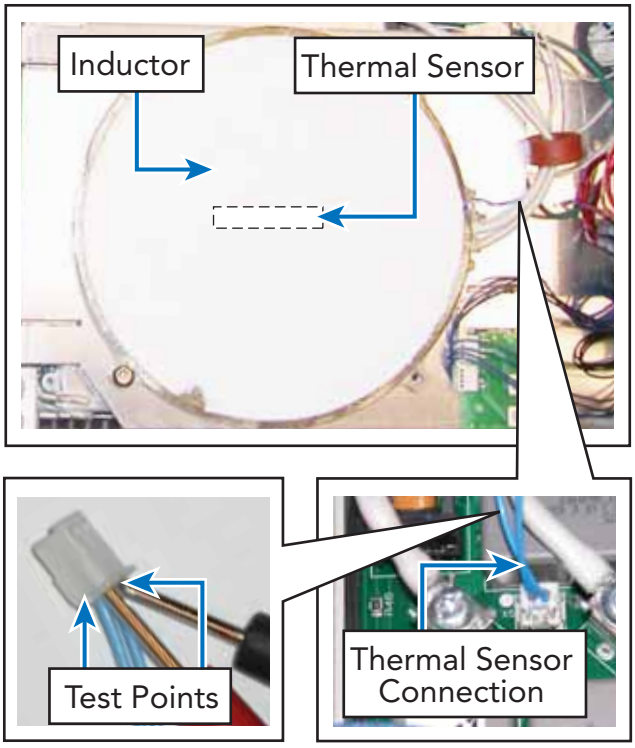


Verify 240 VAC between L1 & L2, if no voltage is present, check wiring and breaker. If 240 VAC is present check the output from the switch. With the selector switch in the on position, 120 VAC between terminal P and ground should be measured. If it is not, verify wiring before replacing switch. With the selector switch in the on position, 240 VAC should be measured between terminals H1 and H2. If 240 VAC is not measured, verify wiring, element, and element limiter before replacing switch.

Note: *Refer to wiring schematic for unit being repaired.*

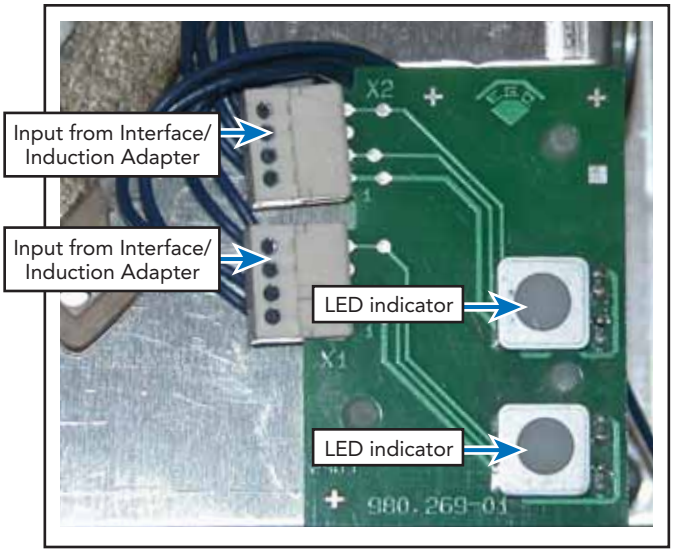
Inductor

The inductor is similar to the surface element in a normal cooking system. When the end user makes a selection, the signal is sent to the filter board via the interface. The filter board sends power to the power board and in turn energizes the inductor. This creates an electromagnetic field and allows an electromagnetic transfer of energy from the inductor to the cooking vessel which generates heat in the vessel causing it to heat up rapidly.



The inductor has two blue wires that plug into the power board. These wires go to the thermal sensor which monitor glass temperature to prevent an overheat situation. If an overheat situation occurs, an E2 failure code will be displayed. If a failure of the thermal sensor occurs, an E9 will be displayed. Resistance should be approximately 990 Ω when unplugged from the power board. If resistance is within range, verify voltage from the power board position X5 or X4. If no power verify the inductor leads are properly secured to the power board X6, X8, X7, X9. If the inductor leads are secured and no power out, replace the power board. If power out and no heat, verify the cooking vessel is proper (a common refrigerator magnetic will stick to it). If the cooking vessel is proper, replace the inductor.

Indicator

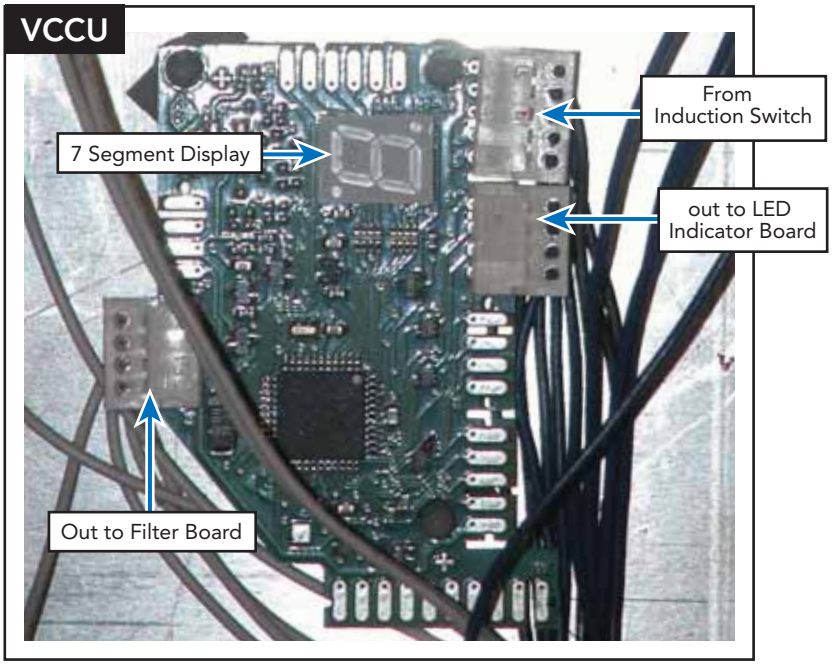


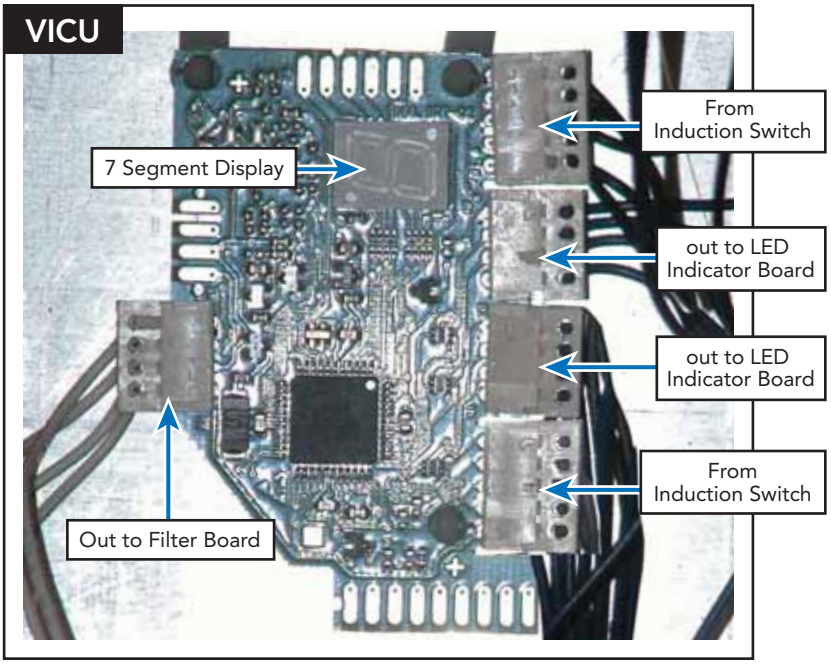
The indicator serves as a means to ensure a pot is on the cooking surface. The indicator will flash if no pot is recognized or if an error is present.

LED flashes with pan detection and residual heat. When cook top is off and residual heat is present, the zone indicator flashes. In case of overheat powerboard LED's flash rapidly.

The indicator receives a signal at position X2 via a four wire cable from the interface position X1. Verify the cable is connected and ohm the wires end to end. If continuity is present, check the switch and interface. If both are OK, replace the indicator.

Interface/Induction Adapter



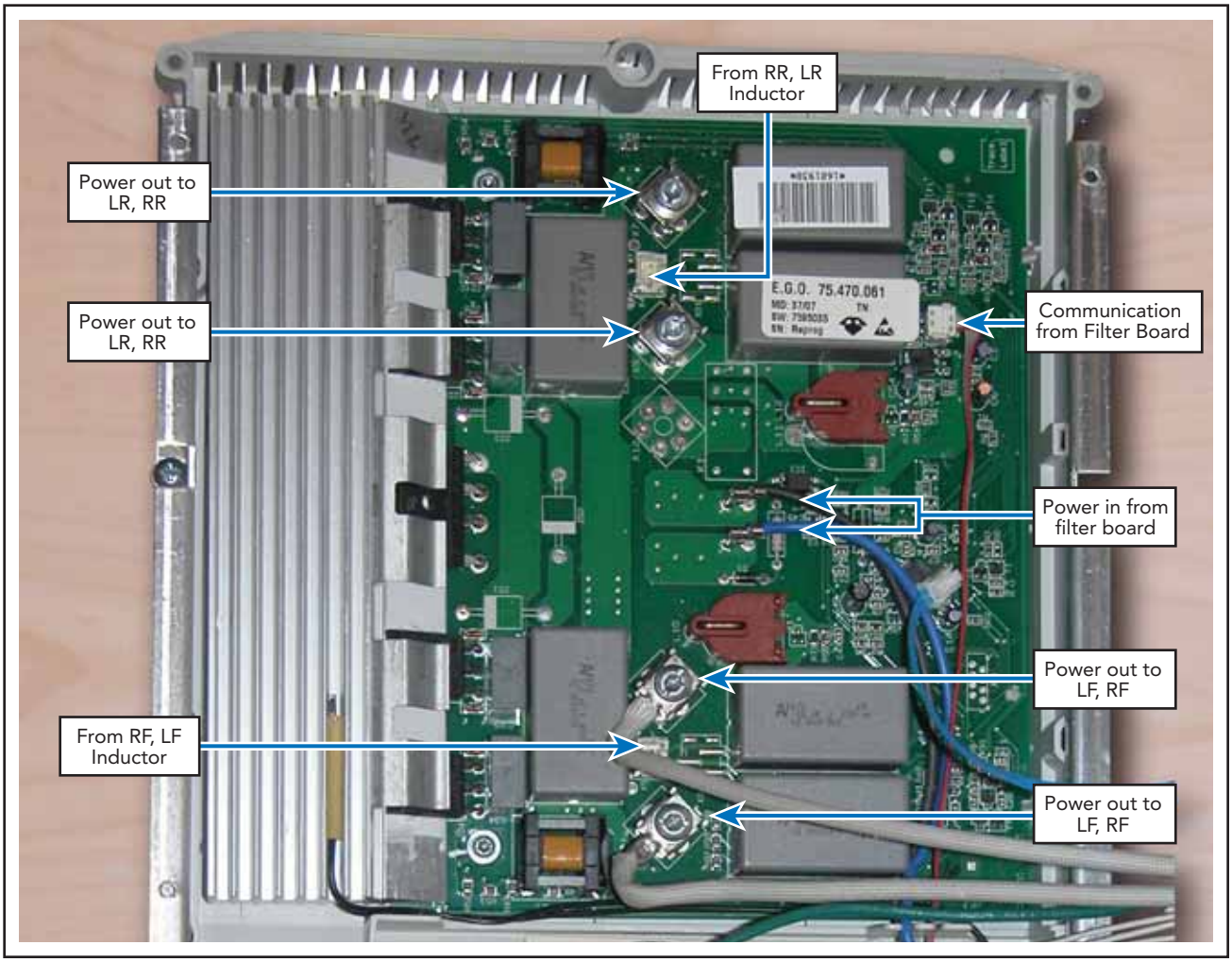


***IMPORTANT NOTE:** Interface boards are pre-programmed for specific inductor configurations. When replacing interface boards be sure to check the replacement part number for the specific board needed or you will get an interface error (Er31).*

The interface receives a signal from the switch depending on the consumer selection. This input triggers a corresponding output to the generator to power the inductor and induce energy into the cooking vessel.

The interface is connected to the switch via a 5 wire cable. Ohm the wire to ensure no breaks and verify connections are tight. If the cable is OK, verify resistance of switch per information in component testing chart. If connections are tight, wiring is good, and switch resistance is in range, replace the interface.*

Power Board

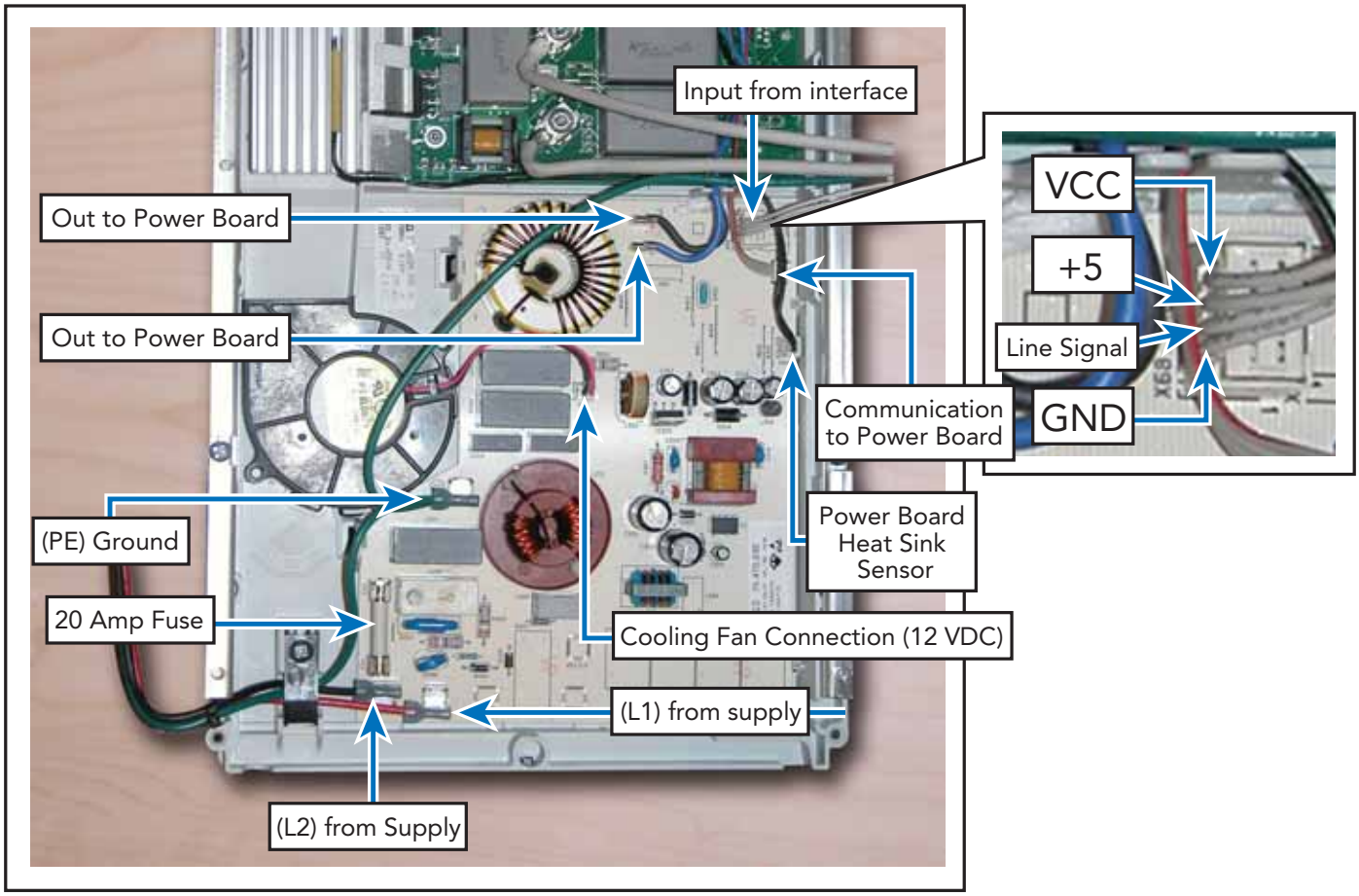


The power board is part of the generator used to power the inductor. Once a selection is made by the end user, the interface communicates with the filter board, which in turn sends power to the power board. Once the power board is energized, the inductor is energized and induces energy into the cooking vessel generating heat. Wattage per cooking zone 3200W max. Total wattage X6 to X9 3700W

The power board is connected to the filter board via a cable. Ensure connection to the filter board cable X10 (power board) – X58 (filter board), blue wire via X55, and black wire via X56. X4 and X5 are connection points for the sensor wires, X6/ X7, X8/ X9 are terminals for the inductor leads.

If wiring is proper, connections are tight, 240 VAC Blue to Black is present at the inductor replace the power board. If no power at the inductor and the filter board has 240 VAC L1 (X50) to L2 (X52), the 20 amp fuse (E23 – E22) at the filter board is not open, and voltage is found at blue and black wires at power board, replace the power board. If no voltage at blue and black wires at power board and connections are proper, replace filter board.

Filter Board

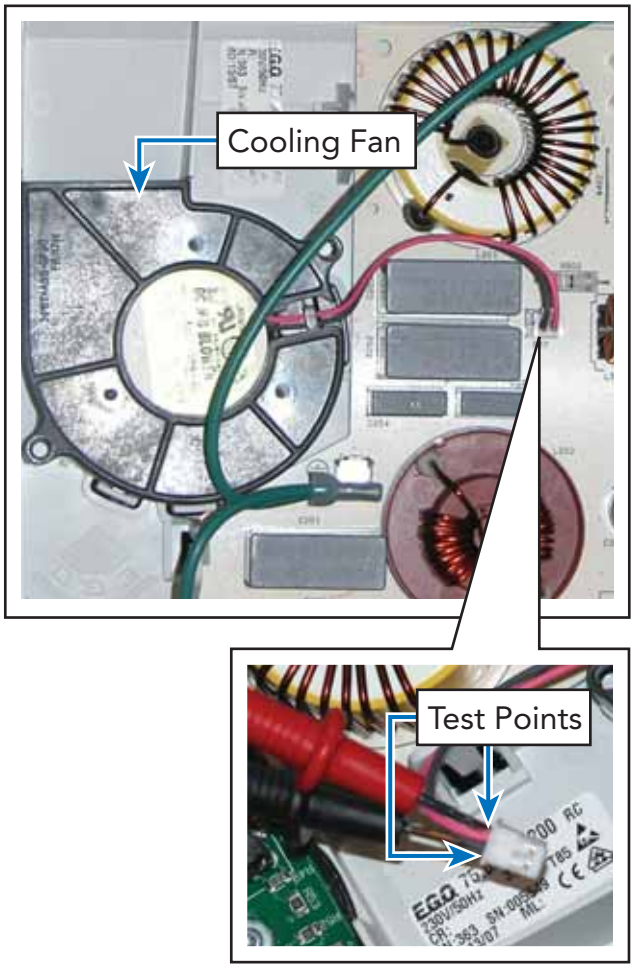


The filter board is part of the generator. Once a selection is made by the end user, the interface communicates with the filter board. The filter board in turn sends power to the power board. This energizes the inductor which induces energy into the cooking vessel generating heat and the vessel heats rapidly.

The filter board receives 240 VAC between L1 (X50) and L2 (X52) and is protected by a 20 amp fuse between E23 – E22. Verify 120 VAC between L1 (X50) and Ground (PE), 120 VAC between L2 (X52) and Ground (PE), and 240 VAC between L1 (X50) and L2 (X52) to the filter board, and that the fuse is not open.

The filter board connects to the power board via a cable X58 (filter board) to X10 (power board). Ensure the cable connections are proper and wires are not open. Input from the sensor is received at X600 and should measure continuity at room temperature. Input from the interface is received at X67/X68 and connections as well as wiring should be verified. If power is present, the fuse is not open, connections and wiring are proper, the pot is proper and no heat is generated, replace the filter board.

Cooling Fan



The cooktop uses cooling fans to help with heat management. The fan ensures the electronics and switches are kept cool during cooking modes as well as pulls excess heat from the cooktop. The fan (X57) is 12 VDC, 0.38 amp, 4.6 W, 9400 Ω.

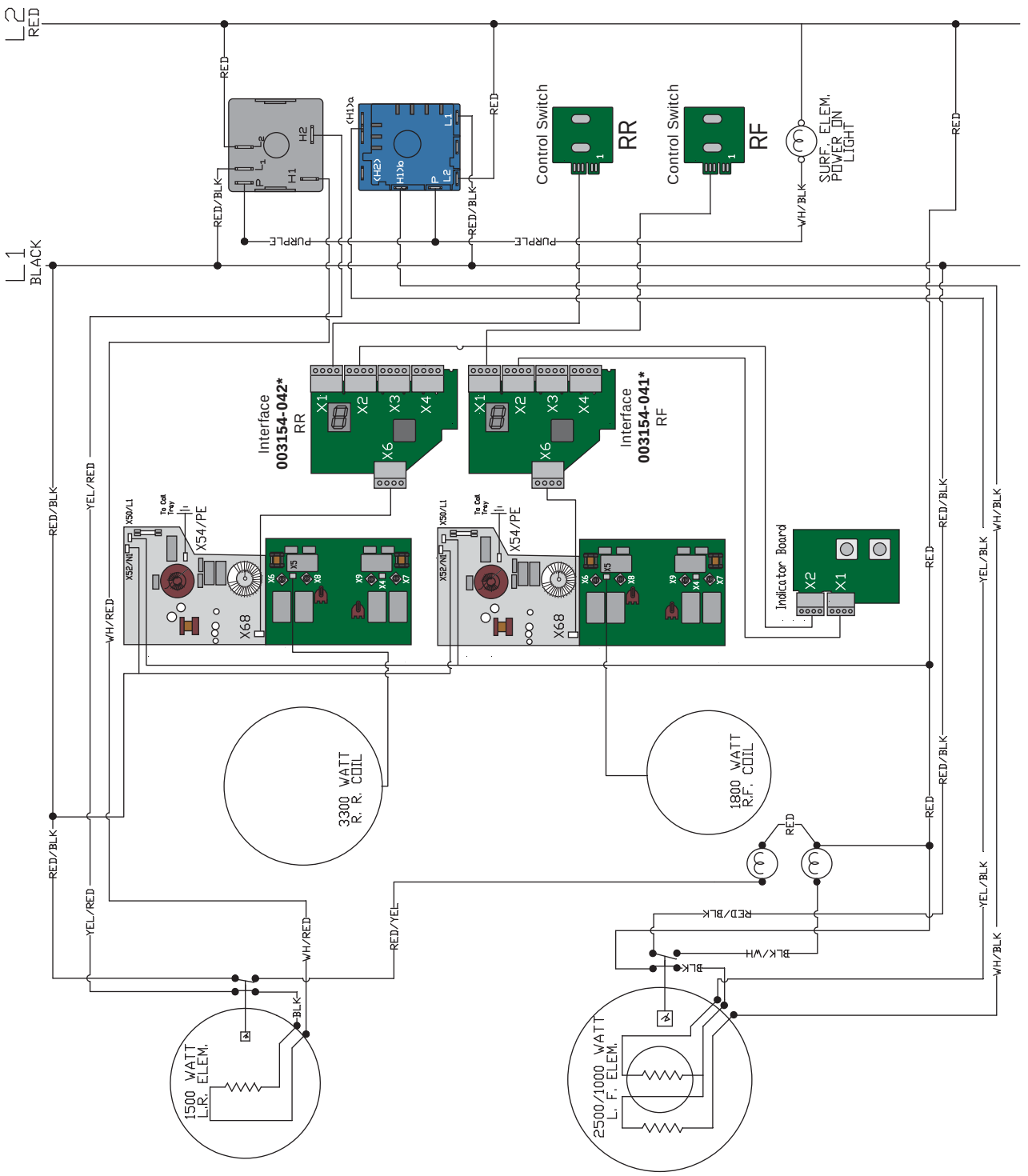
NTC Temperature Sensor

The cooktop uses a N.T.C. sensor under the main glass top. It is used for two purposes. One is to protect the inductors and the second is to detect an overheat situation. In either case, once an over temperature is detected, the unit shuts down.

Measure the resistance of the sensor and compare to the chart below.

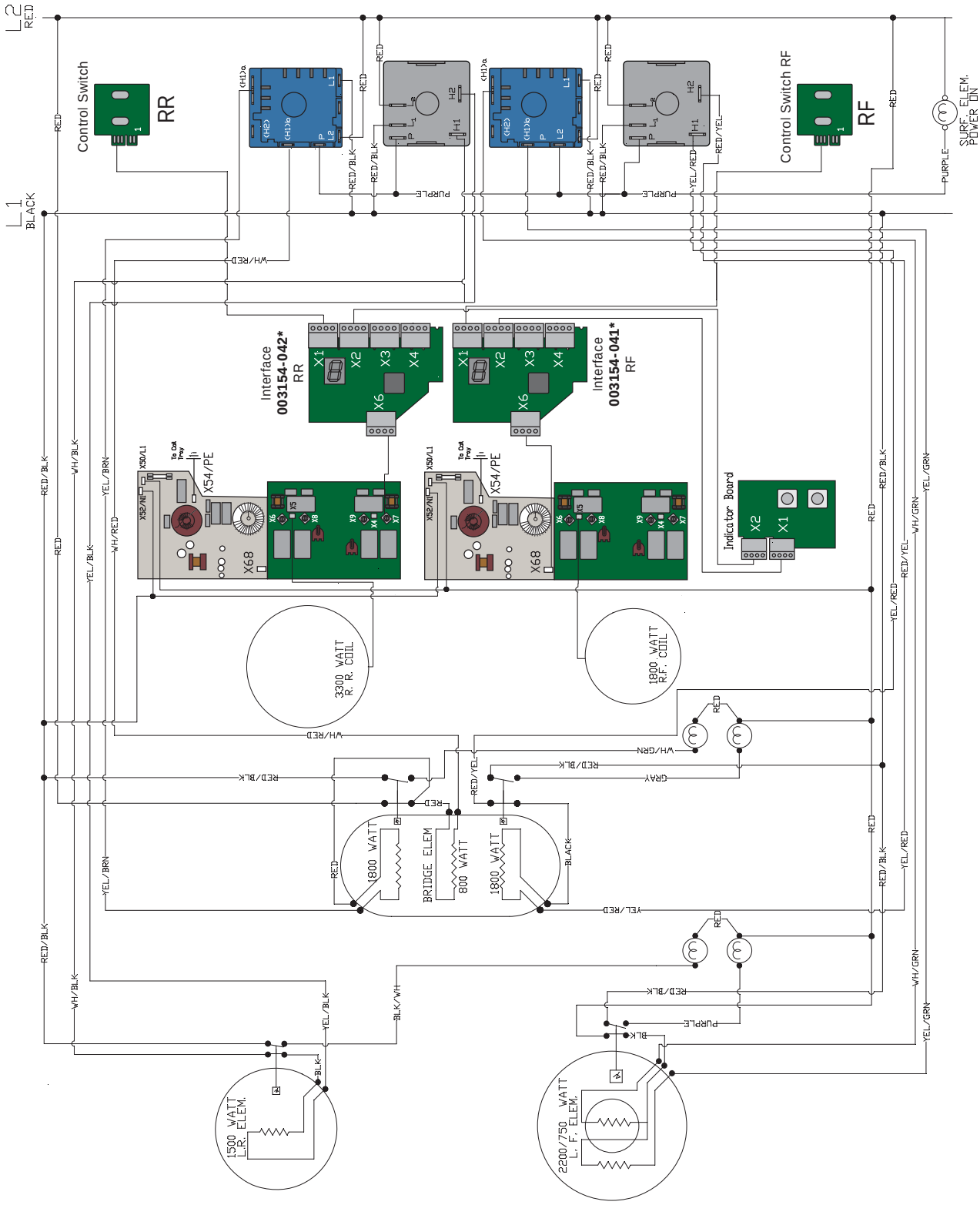
˚F	˚C	Rnenn	Ro	Ru
32	0	917.56	920.88	914.23
77	25	1001.7	1006.7	996.7
122	50	1085.5	1092.2	1078.9
167	75	1168.7	1177.1	1160.4
212	100	1251.3	1261.4	1241.4
257	125	1333.3	1345	1321.7
302	150	1414.7	1428.1	1401.4
347	175	1495.5	1510.5	1480.5
392	200	1575.6	1592.3	1559
437	225	1655.1	1673.5	1636.9
482	250	1734	1754	1714.2
527	275	1812.3	1834	1790.8
572	300	1890	1913.3	1866.9
617	325	1967.1	1992	1942.3
662	350	2043.5	2070.1	2017.1

WIRING DIAGRAM
30" W, VCCU

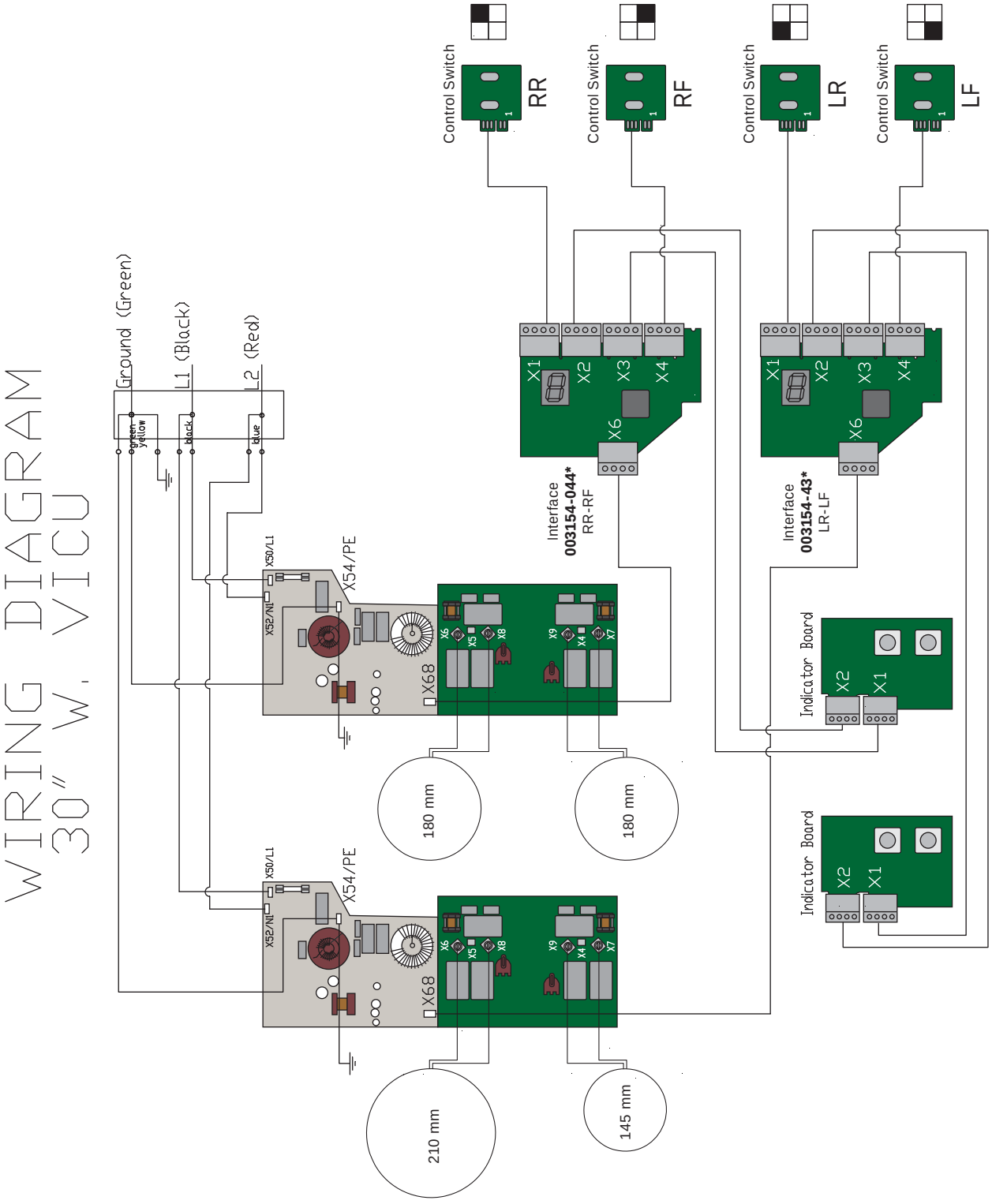


***Caution do not swap Interface Boards/Induction Adapters or you will get an Interface error (Er 31).**

WIRING DIAGRAM
36" W. VCCU

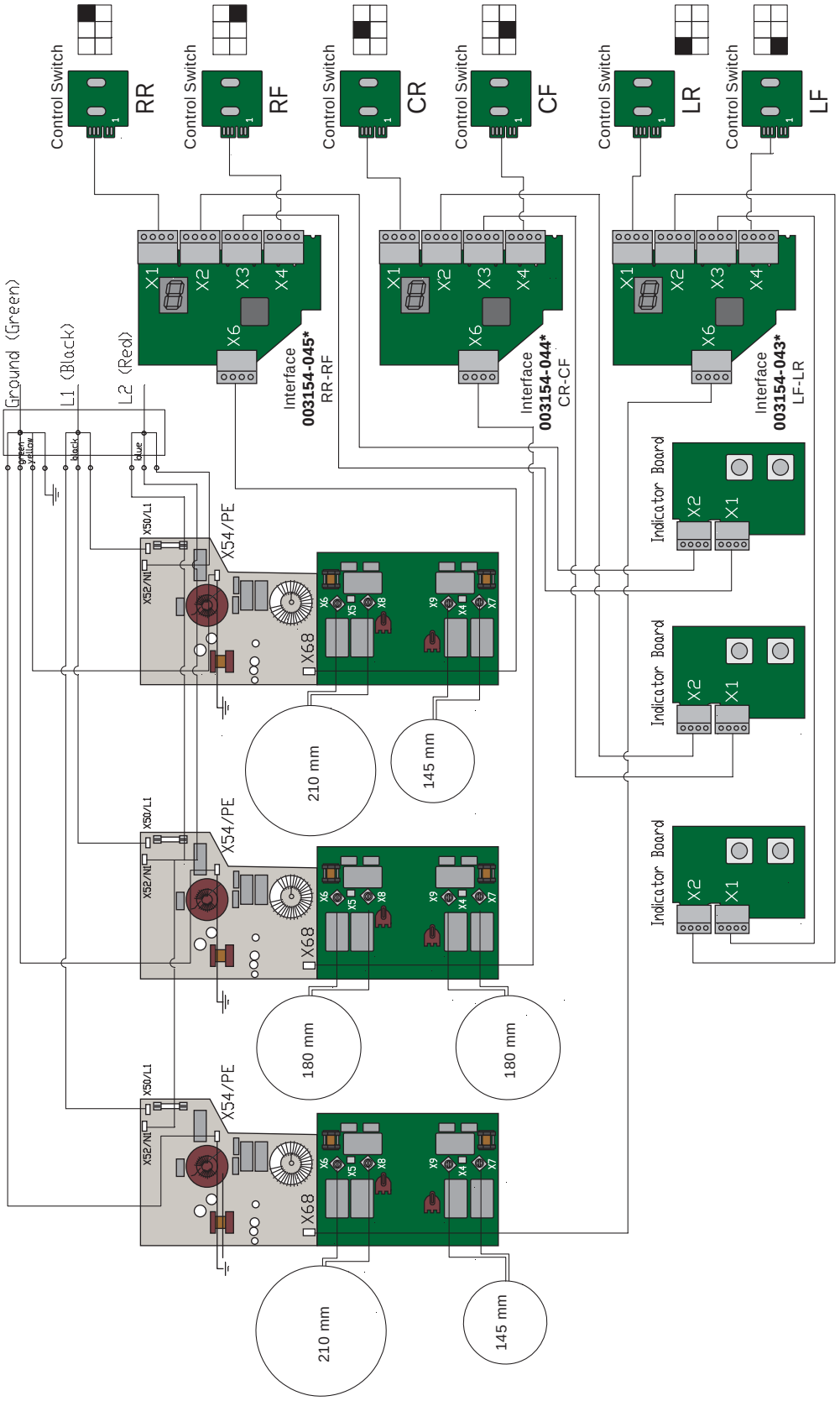


*Caution do not swap Interface Boards/Induction Adapters or you will get an Interface error (Er 31).



***Caution: Do not swap interface boards/induction adapters – you will get an Interface error (Er 31).**

WIRING DIAGRAM
36" W. VICU



***Caution: Do not swap interface boards/induction adapters – you will get an Interface error (Er 31).**