SERVICE DATA SHEET - 30" Induction Cooktop with Ceramic Glass

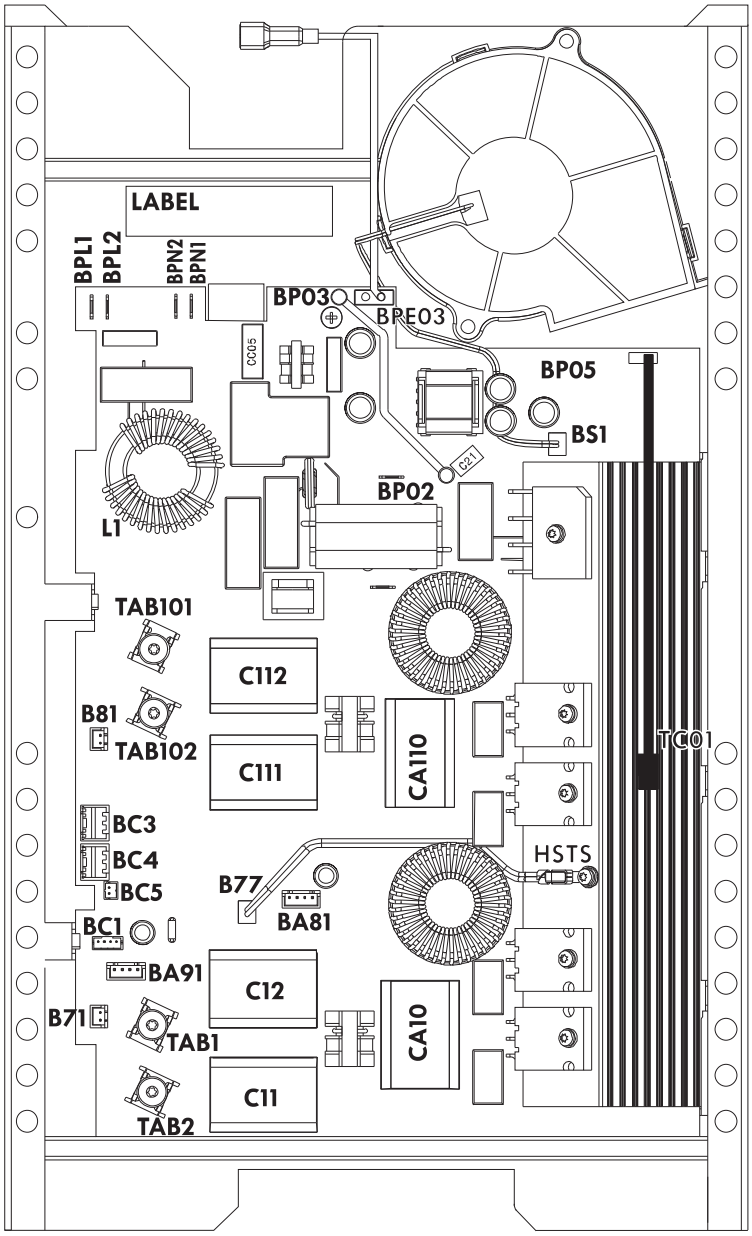
NOTICE - This service data sheet is intended for use by persons having electrical and mechanical training and a level of knowledge of these subjects generally considered acceptable in the appliance repair trade. The manufacturer cannot be responsible, nor assume any liability for injury or damage of any kind arising from the use of this data sheet.

SAFE SERVICING PRACTICES

To avoid the possibility of personal injury and/or property damage, it is important that safe servicing practices be observed. The following are examples, but without limitation, of such practices.

1. Before servicing or moving an appliance remove power cord from electrical outlet, trip circuit breaker to OFF, or remove fuse.
2. Never interfere with the proper installation of any safety device.
3. GROUNDING: The standard color coding for safety ground wires is GREEN or GREEN WITH YELLOW STRIPES. Ground leads are not to be used as current carrying conductors. **It is extremely important that the service technician reestablish all safety grounds prior to completion of service. Failure to do so will create a potential safety hazard.**
4. Prior to returning the product to service, ensure that:
   - All electric connections are correct and secure.
   - All electrical leads are properly dressed and secured away from sharp edges, high-temperature components, and moving parts.
   - All uninsulated electrical terminals, connectors, heaters, etc. are adequately spaced away from all metal parts and panels.
   - All safety grounds (both internal and external) are correctly and securely reassembled.

INDUCTION GENERATOR HOUSING



Induction Generator Housing Legend:

BPL1 & BPL2: AC Line 1 Input (Power)
BPN1 & BPN2: AC Line 2 Input (Power)
BS1: FAN Drive Output
BP02: Chassis connection
BP03: Chassis connection
BP05: Thermal CutOut Input (TC01)
BC1: ID Bridge*****
BC3: Pin 1: Vcc (5Vdc) Input
BC4: Pin 2: MACS Serial Communication
Pin 3 : Ground
BC5: MACS Bus Supply Output*****
B71: Inductor Temperature Sensor Input
B77: Heat Sink Temperature Sensor Input (HSTS)
B81: Inductor Temperature Sensor Input
BA81: Not Used (Programming Header)
BA91: Not Used (Programming Header)
TAB1: Power output (Black)
TAB2: Power output (Red)
TAB101: Power output (Black)
TAB102: Power output (Red)

*** BC1 and BC5 connectors are used to identify the generator housing. They can be connected in different configuration. Refer to the Interconnection System section of this booklet.**

IMPORTANT
DO NOT REMOVE THIS BAG OR DESTROY THE CONTENTS
WIRING DIAGRAMS AND SERVICE INFORMATION ENCLOSED
REPLACE CONTENTS IN BAG

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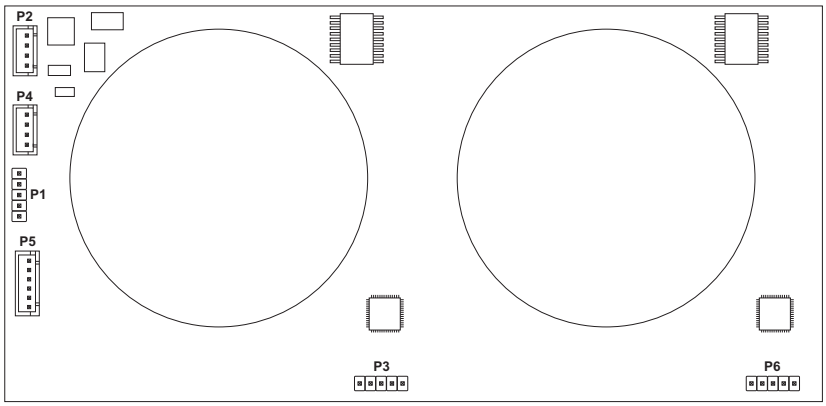
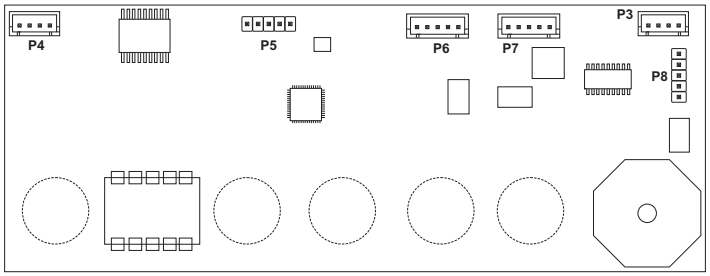
ZONE CONTROL BOARD



Zone Control Board Legend:

P1	Not Used	
P3	Not Used (Programming header)	
P6	Not Used (Programming header)	
P2	Pin 1	Vled(8Vdc) Input
&	Pin 2	Ground
P4	Pin 3	SCL - I2C Serial Clock
	Pin 4	SDA - I2C Serial Data
P5	Pin 1	Vcc (5Vdc) Output
	Pin 2	ID1 Input
	Pin 3	Vcc (5Vdc) Output
	Pin 4	ID2 Input
	Pin 5	ID3 Input
	Pin 6	Vcc (5Vdc) Output

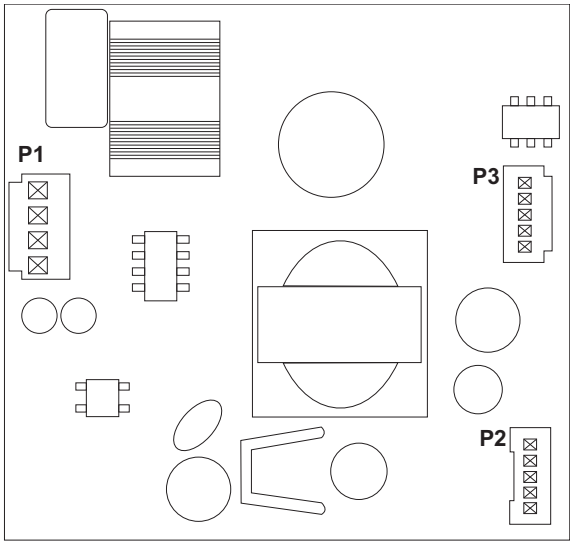
MAIN CONTROL BOARD



Main Control Board Legend:

P1	Not Used	
P2	Not Used	
P5	Not Used (Programming header)	
P8	Not Used (Programming header)	
P3	Pin 1	Vled(8Vdc) Output
&	Pin 2	Ground
P4	Pin 3	SCL - I2C Serial Clock
	Pin 4	SDA - I2C Serial Data
P6	Pin 1	Vled(8Vdc) Input
&	Pin 2	Zero Cross Input
P7	Pin 3	Ground
	Pin 4	Vcc (5Vdc)
	Pin 5	MACS Serial Communication

POWER SUPPLY BOARD



Power Supply Board Legend:

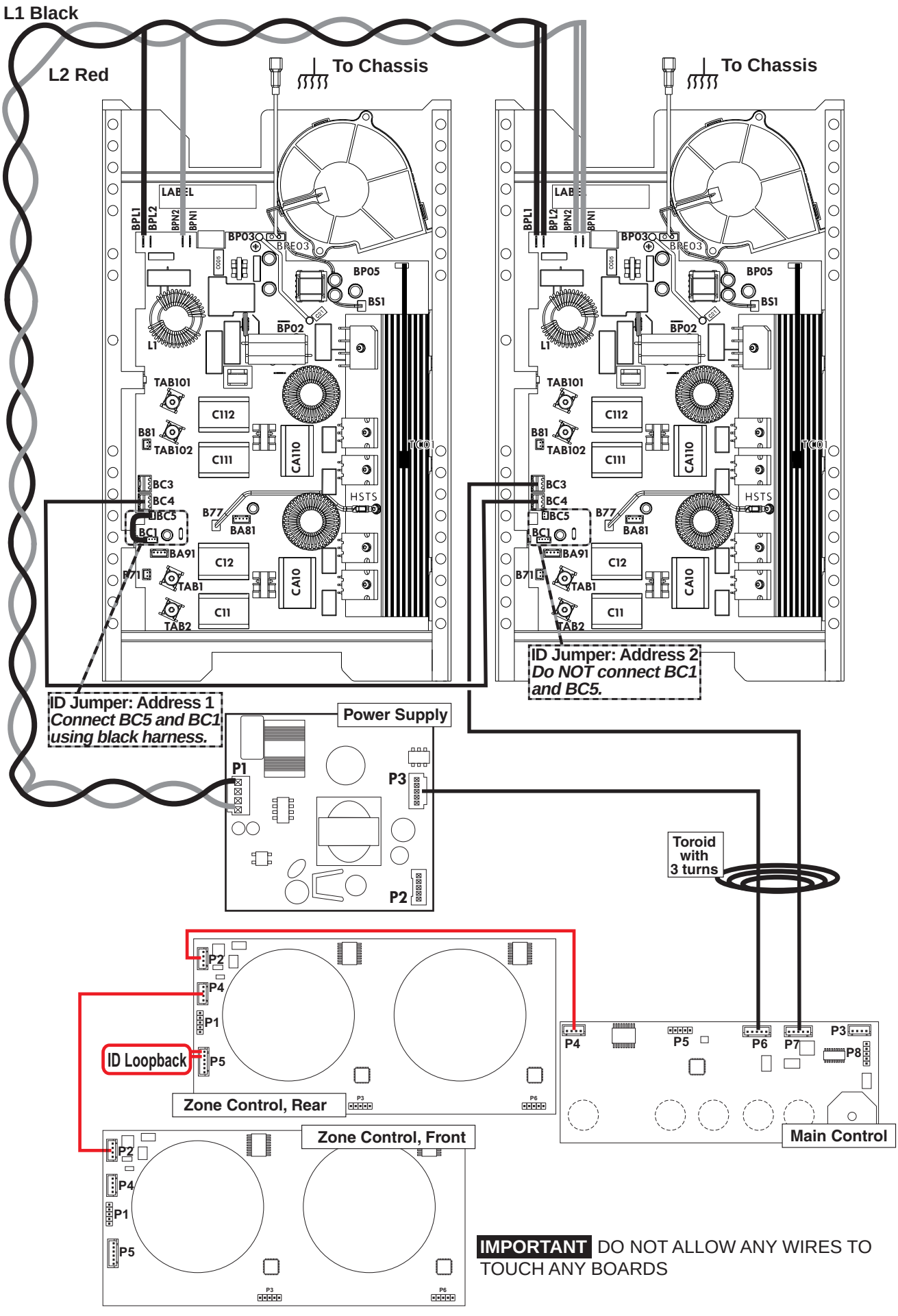
P1	Pin 1	Vac Input (120 - 240 Vac)
	Pin 2	Not Used
	Pin 3	Not Used
	Pin 4	Vac Input (120 - 240 Vac)
P2	Pin 1	Ground
&	Pin 2	Vled(8Vdc) Output
P3	Pin 3	Not Used (13Vdc Output)
	Pin 4	Not Used
	Pin 5	Zero Cross Output

POWER LEVEL EXPLANATION TABLES

Power Levels	Relative Inductor Power (%)
Keep Warm	2.5
Lo	3
1.2	3.5
1.4	4
1.6	4.5
1.8	5
2	5.5
2.2	6
2.4	7
2.6	8
2.8	9
3	10.5
3.5	13
4	15.5
4.5	18
5	21
5.5	25
6	31
6.5	38
7	45
7.5	50
8	54
8.5	59
9	64
9.5	80
Hi	100
Power Boost	See Inductors Power Levels Table

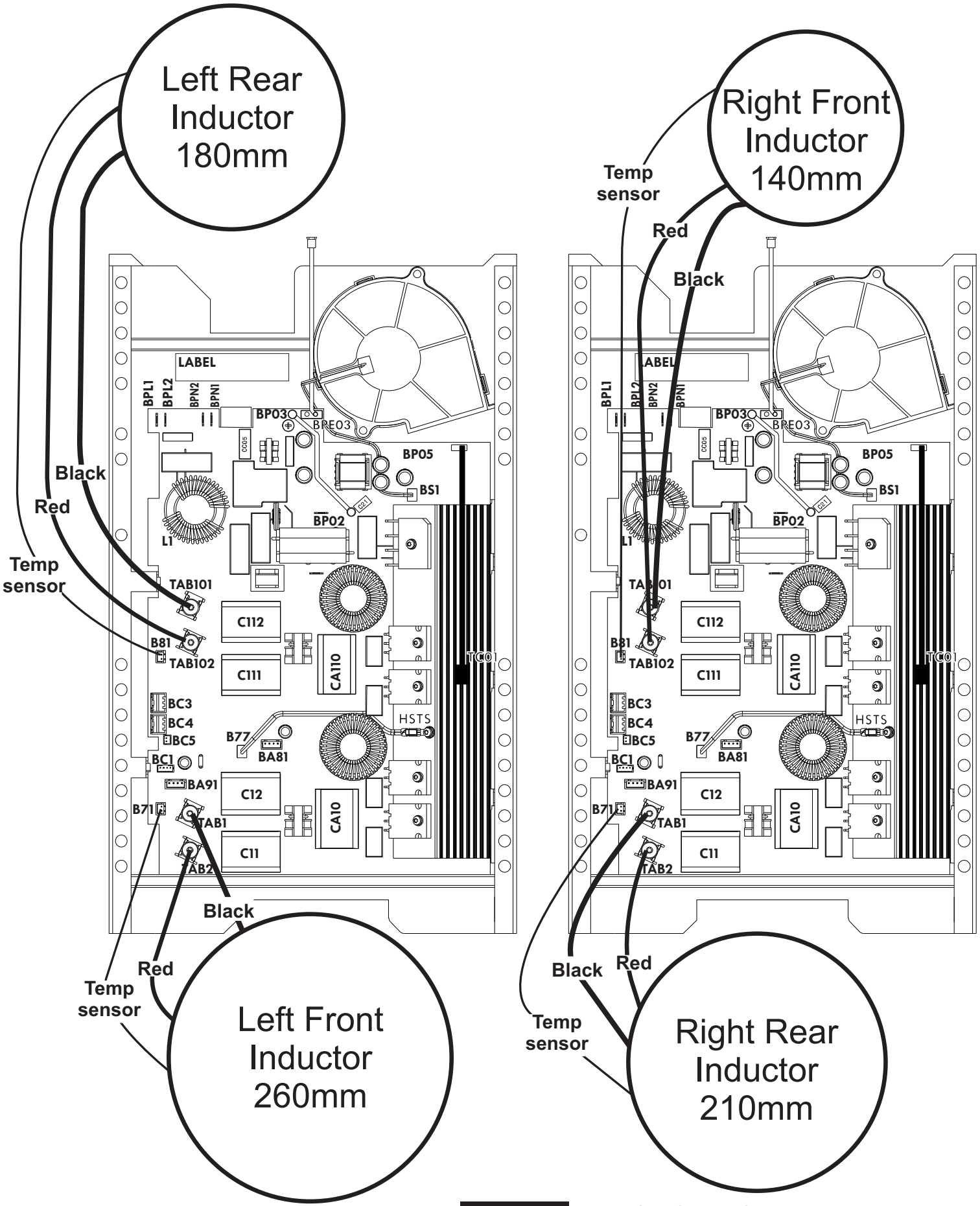
Inductor Size	Nominal Power level	Power Boost Levels	
140mm	1450W	2016W (139%)	10 minutes max
180mm	1875W	2606W (139%)	10 minutes max
210mm	2300W	3200W (139%)	10 minutes max
260mm	2600W	3900W (150%)	10 minutes max

INTERCONNECTIONS SYSTEM



IMPORTANT DO NOT ALLOW ANY WIRES TO TOUCH ANY BOARDS

INDUCTOR CONNECTIONS



IMPORTANT Test cooktop for Hot Element indicator when service is complete.

ERROR CODES

UI Display	Error Description	Corrective Action
C11	Shorted keypad. The defective control will flashes the error code in its display.	1- Verify there is no mechanical interference near the defective control (harnesses, metallic devices, etc).
		2- Replace the defective control.
C15	FMEA Error	Base Line Railed.
		RC circuit for Capacitive touch sensing.
		Continuity of both Cancel buttons traces.
		Replace Timer board or Housing containing Timer board.
C20	Loss of communication with Left Generator Housing Assembly Induction. (MACS)	1- Check communication harness attached to the Left Induction Generator Housing. Replace if defective.
		2- Verify ID loopback connector is present on the left side Induction Generator Housing (30" only otherwise no loopback connector). Replace if defective.
		3- Verify there is no ID loopback connector present on the right side Induction Generator Housing .
		4- Replace left side Induction Generator Housing.
C21	Loss of communication with Right Generator Housing Assembly Induction. (MACS)	1- Check communication harness attached to the Right Induction Generator Housing. Replace if defective.
		2- Verify ID loopback connector is present on the left side Induction Generator Housing (30") or center Induction Genearator Housing (36"). Replace if defective.
		3- Verify there is no ID loopback connector present on the right side Induction Generator Housing.
		4- Replace right side Induction Generator Housing.
C22	Loss of communication with Center Generator Housing Assembly Induction. (MACS)	1- Check communication harness attached to the Center Induction Generator Housing. Replace if defective.
		2- Verify ID loopback connector is present on the center Induction Generator Housing. Replace if defective.
		3- Verify there is no ID loopback connector present on the right and left side Induction Generator Housings.
		4- Replace center Induction Generator Housing.
C23	Loss of communication with 2 or more Housing Assembly Induction. (MACS)	1- Check communication harnesses between Main Control and Induction Generator Housings (3 harnesses for 30" and 4 for 36"). Replace if defective.
		2- Replace Main Control
		3- Replace each Generator Housing in succession starting from the right most and working left.
C24	UART communication has been lost.	1- Replace Main Control
C25	Loss of communication with Rear Zones Control.(I2C lost/ error)	1- Verify ID loopback connector is present on the rear 2 zones control. Replace if defective.
		2- Verify communication harness between front 2 zones Control P2 and rear 2 zones control P2. Replace if defective.
		3- Replace rear 2 zones Control.
C26	Loss of communication with Front Zones Control. (I2C lost/ error)	1- Verify ID loopback connector is present on the rear 2 zones control. Replace if defective.
		"2- Verify ID loopback connector is not present on the front 2 zones control."
C2A	All communication has been lost with I2C in all zones.	1- Check wiring between main control and zones
		2- Replace Main Control
C2C	All communication has been lost between I2C and Macs.	1- Check wiring between main control and zones and wiring between main control and generators.
		2- Replace Main Control

ERROR CODES

UI Display	Error Description	Corrective Action
C30/35	AC input voltage too high/low, left side Induction Generator Housing	1- Verify AC Input voltage at cooktop input (customer wiring).
		2- Verify AC voltage between left side housing BPL and PBN connectors. Should measure 240Vac +- 24Vac.
		3- Replace left side Induction Generator Housing
C31, C32, C34, C36, C37	Internal generator error, left side Housing Assembly Induction	1- Replace left side Induction Generator Housing
C33	Cooling FAN Blocked, left side Housing Assembly Induction.	1- Verify there is no mechanical interference for the fan to operate on the left side Induction Generator Housing.
		2- Replace left side Induction Generator Housing
C38	FAN Not Connected, left side Housing Assembly Induction	1- Verify fan is correctly connected at BS1 of left side Housing Assembly Induction
		2- Replace left side Induction Generator Housing
C40	IGBT, Heat sink sensor defect, left side Induction Generator Housing	1- Verify the heat sink sensor is installed properly and not damaged in the left side Induction Generator Housing (measured approx 100K ohms at room temperature).
		2- Replace left side Housing Assembly
C41-C42-C43	Induction sensor / Pot detection defect, left side Induction Generator Housing	1- Verify the inductors are well connected and not damaged on the left side Induction Generator Housing (measure approx 0 ohm at room temperature).
		2- Replace left side Housing Assembly
C44-C45	Board Temperature Alarm, left side Induction Generator Housing.	1- Verify all airway are free. There should be some hot air going out at the center front of the cooktop edge.
		2- Ensure customer do not use the cooktop with dry pan at high temperature levels.
		3- Replace left side Induction Generator Housing
C46	Power Fail Detect, left side Induction Generator Housing.	1- Check AC input supply
		2- Check cooktop wiring
		3- Replace left side Induction Generator Housing
C51 Element temperature sensor breaks (Left Front Zone) **C52** Element temperature sensor breaks (Left Rear Zone) **C55** Element temperature sensor breaks (Right Front Zone) **C56** Element temperature sensor breaks (Right Rear Zone) **C57** Element temperature sensor breaks (Center Front Zone) **C58** Element temperature sensor breaks (Center Rear Zone)		1- Verify, inductor temperature sensor is connected properly at B71 or B81 as per wiring diagram.
		2- Verify the inductor temperature sensor is installed properly and not damaged in the associate Induction Generator Housing (measured approx 100K ohms at room temperature)
		3- Replace associate induction Generator Housing
C62	Loss of Zero Cross at timer input	1- Verify harness between switching power supply and Main Control. Replace harness if defective or damaged.
		2- Using a DC voltmeter, verify power supply signal at P3, pins 1-5. Should measure 2.8Vdc +- 0.5Vdc. Replace Power Supply if defective.
		3- Replace Main Timer Control.
C63 Left Front Zone element temperature sensor too hot. **C64** Left Rear Zone element temperature sensor too hot. **C65** Right Front Zone element temperature sensor too hot. **C66** Right Rear Zone element temperature sensor too hot. **C67** Center Front Zone element temperature sensor too hot. **C68** Center Rear Zone element temperature sensor too hot.		1- Ensure customer do not use the cooktop with dry pan at high temperature levels.
		2- Verify the inductor temperature sensor is installed properly and not damaged in the associate Induction Generator Housing (measured approx 100K ohms at room temperature)
		3- Replace associate induction Generator Housing

ERROR CODES

UI Display	Error Description	Corrective Action
C70/75	AC input voltage too high/low, right side Induction Generator Housing	1- Verify AC Input voltage at cooktop input (customer wiring).
		2- Verify AC voltage between right side housing BPL and PBN connectors. Should measure 240Vac +- 24Vac.
		3- Replace right side Induction Generator Housing
C71, C72, C74, C76, C77	Internal generator error, right side Induction Generator Housing	1- Replace right side Induction Generator Housing
C73	Cooling FAN Blocked, right side right side Induction Generator Housing	1- Verify there is no mechanical interference for the fan to operate on the right side Induction Generator Housing.
		2- Replace right side Induction Generator Housing
C78	FAN Not Connected, right side Induction Generator Housing	1- Verify fan is correctly connected at BS1 of right side Housing Assembly Induction
		2- Replace right side Induction Generator Housing
C80	IGBT, Heat sink sensor defect, left side Induction Generator Housing	1- Verify the heat sink sensor is installed properly and not damaged in the right side Induction Generator Housing (measured approx 100K ohms at room temperature).
		2- Replace right side Housing Assembly
C84-C85	Board Temperature Alarm, right side Induction Generator Housing.	1- Verify all airway are free. There should be some hot air going out at the center front of the cooktop edge.
		2- Ensure customer do not use the cooktop with dry pan at high temperature levels.
		3- Replace right side Induction Generator Housing
C86	Power Fail Detect, right side Induction Generator Housing.	1- Check AC input supply
		2- Check cooktop wiring
		3- Replace right side Induction Generator Housing