JWE-DISHWASHER BASIC TRAINING

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JET WASH

ECOLOGY/ ECONOMY

62 WASH CYCLES PER HOUR

BOOSTER HEATER BUILT IN

GENERATION

JWE-620UA

- HIGH TEMP DISHWASHER
- HIGH TEMP USES HOT WATER TO SANITIZE THE DISHES ~ 185°F +
- IT'S MORE ECONOMICAL TO USE HOT WATER TO SANITIZE THAN TO BUY CHEMICAL SANITIZERS
- IT'S MORE ENVIRONMENTALLY FRIENDLY TO USE HOT WATER TO SANITIZE
- NSF, ANSI-3, ETL, ENERGY STAR

BUILD FEATURES

- ALL STAINLESS CONSTRUCTION
- SLOPED TOP
- ENCLOSED DOOR SPRINGS
- BUILT IN BOOSTER HEATER
- ELECTRONIC CONTROLS
- 18” DOOR OPENING
- LOW WATER CONSUMPTION

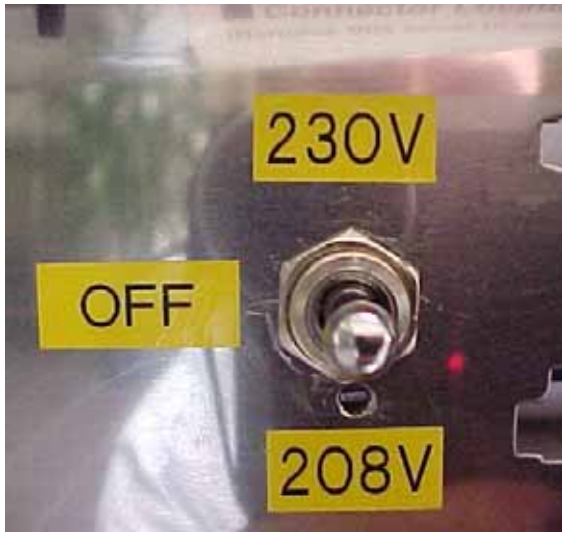
ELECTRICAL SPECIFICATIONS

- REFER TO PAGE 4 IN SERVICE MANUAL

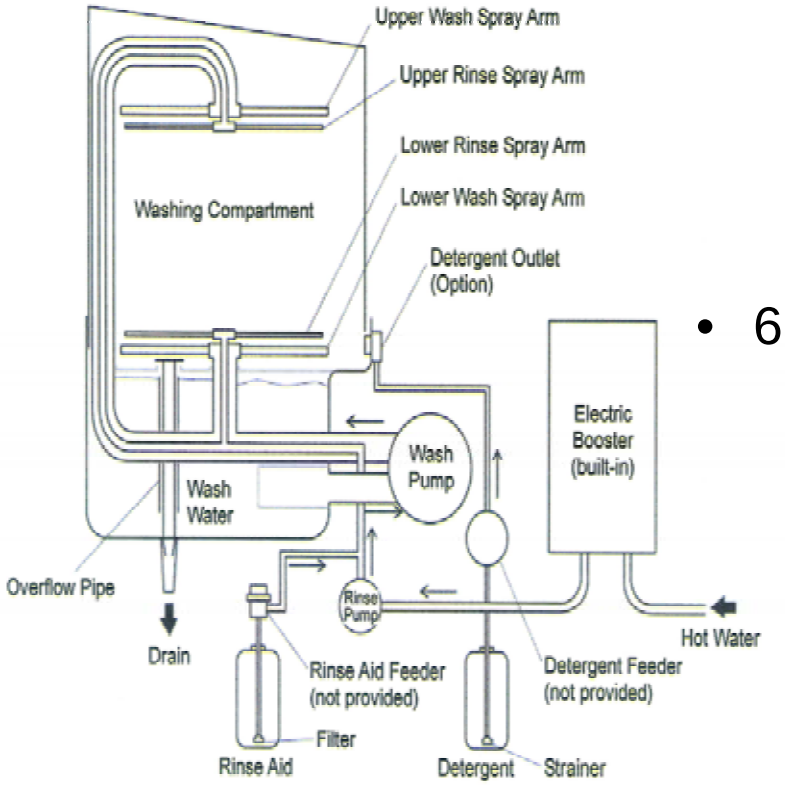
- 3PHASE 208/230V.

- 40AMP CIRCUIT

- BREAKER SWITCH ALSO HAS GFCI PROTECTION



WATER SPECIFICATIONS



SUPPLY

- ¾ FNPT
- 3~5GPM
- 140°F TEMP (110~167°F RANGE)
- 68.5 PPM WATER HARDNESS OR LESS
- 10 ~ 70PSI WATER PRESSURE

DRAIN

- 1 ½ MNPT
- GRAVITY FEED
- OVERFLOW PIPE

BASIC UNIT CONSTRUCTION

FRONT VIEW

VERTICAL SLIDING DOOR

DOOR HANDLE

FRONT COVER

NAME PLATE

ELECTRONIC CONTROLLER

BREAKER/GFCI COVER

BASIC UNIT CONSTRUCTION

SIDE VIEW

DOOR PILLAR
WITH ENCLOSED DOOR SPRING

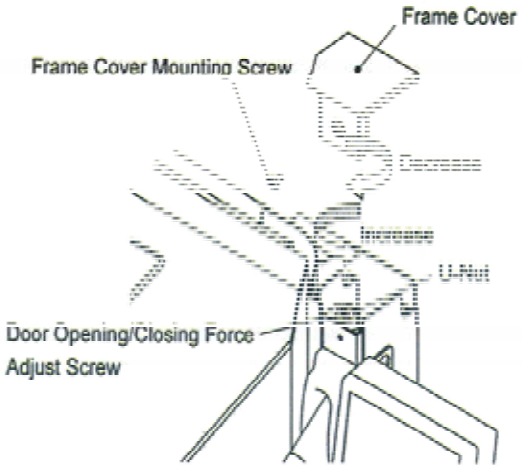
SLOPED TOP: Allows water to shed to the front and helps stop soap dripping on clean dishes.

SOAP PORT
ONE ON LEFT AND RIGHT SIDE

LEFT SIDE PANEL

BASIC UNIT CONSTRUCTION

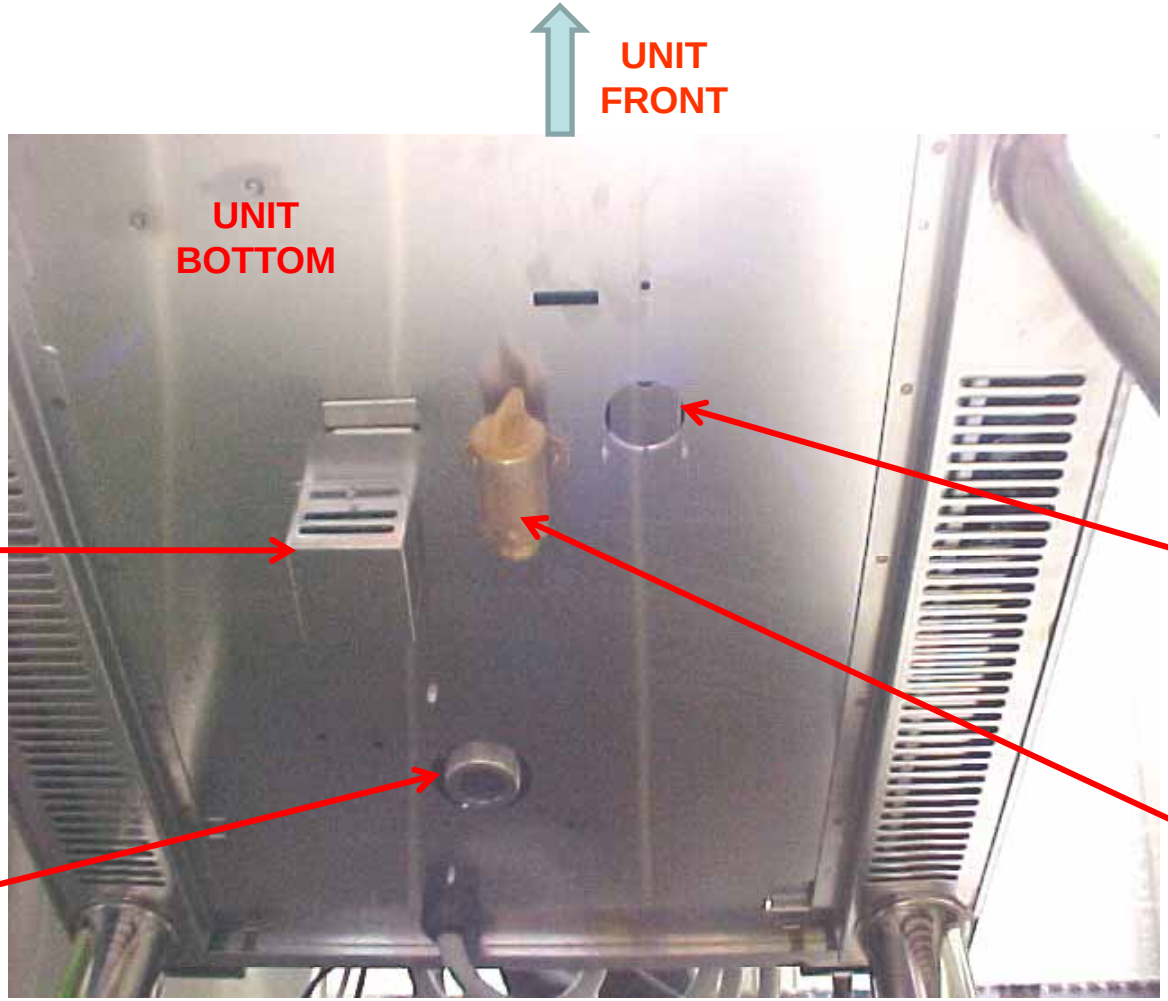
REAR VIEW



DOOR PILLARS
WITH ENCLOSED DOOR SPRINGS

POWER CORD
Will not be on production model

BASIC UNIT CONSTRUCTION



BASIC UNIT CONSTRUCTION

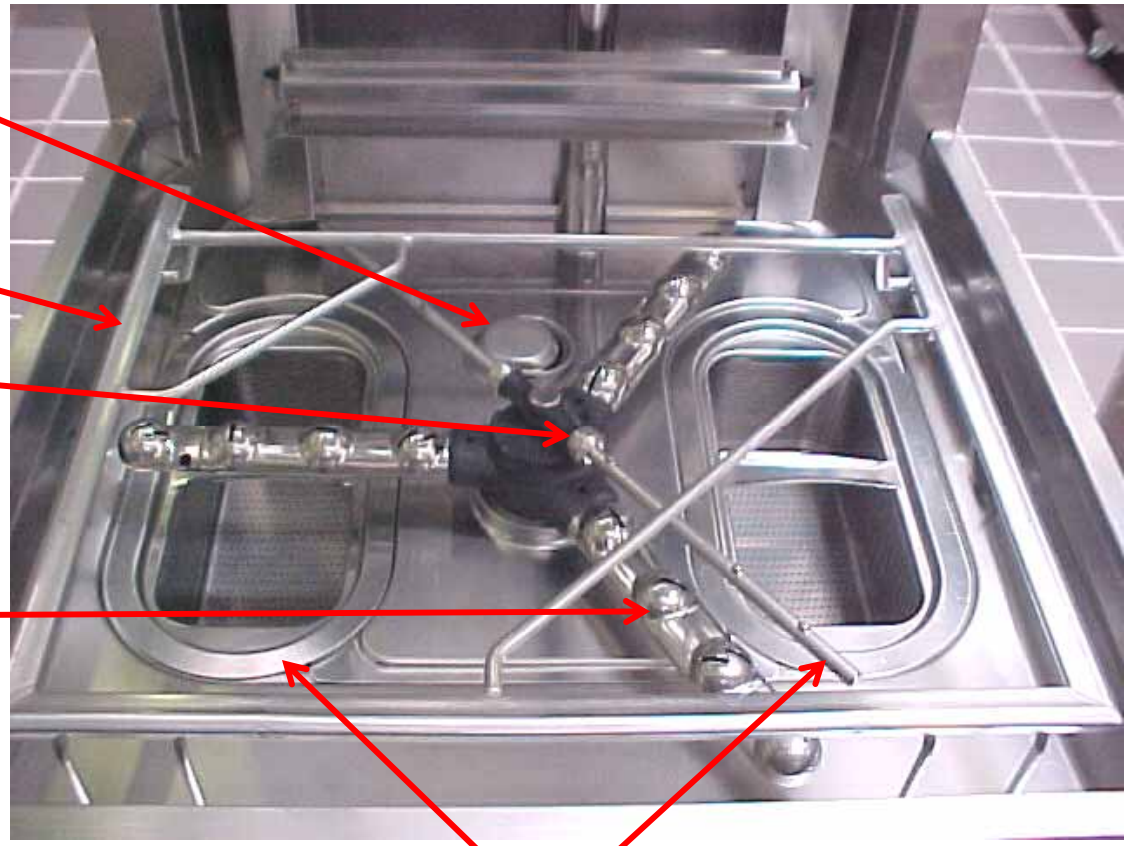
FRONT VIEW

DOOR OPEN

WASH CHAMBER

18” DOOR HEIGHT INDUSTRY LEADER

LOWER WASH TANK ASSEMBLY



The upper and lower rinse arms are threaded. They hold the wash arm in position.

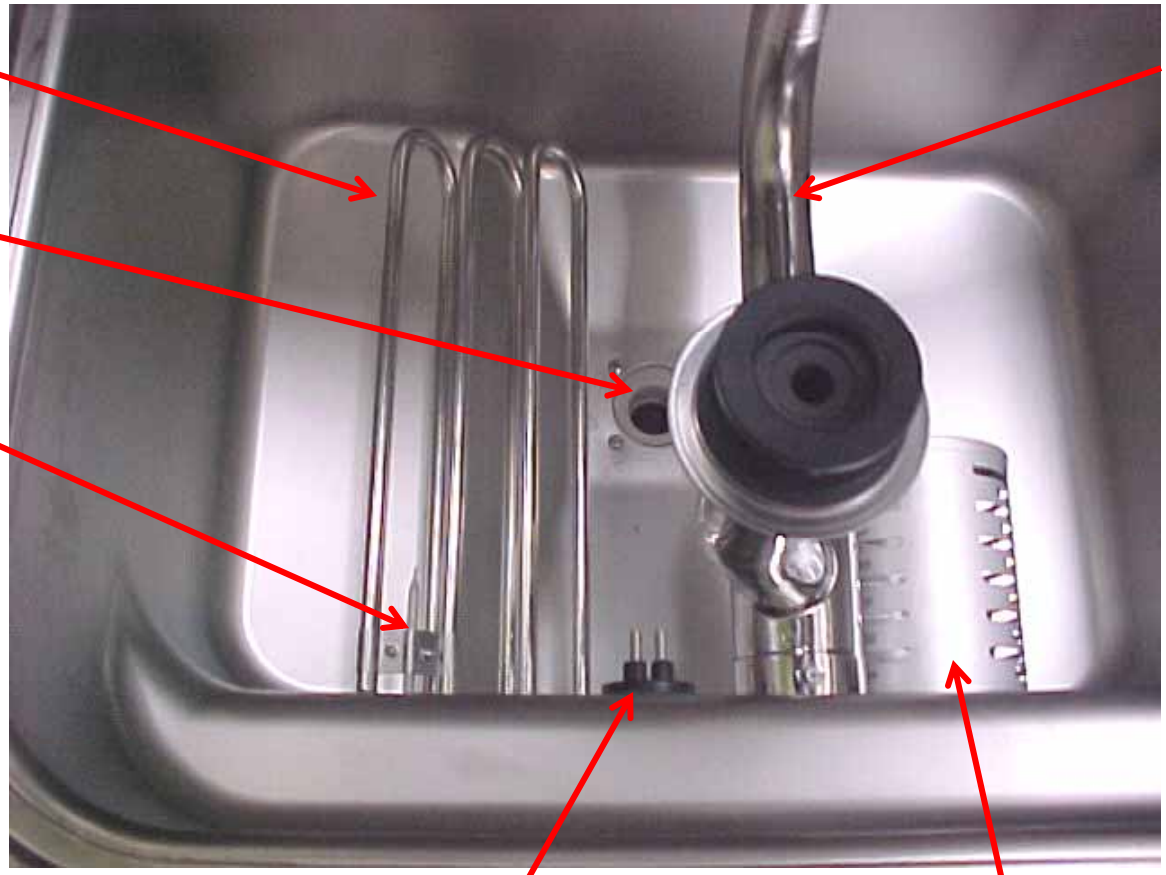
HAND TIGHT ONLY

WASH TANK SEPARATOR (Removable)

WASH TANK HEATER
6.9KW

DRAIN
OVERFLOW PIPE
REMOVED

WASH TANK
THERMISTOR

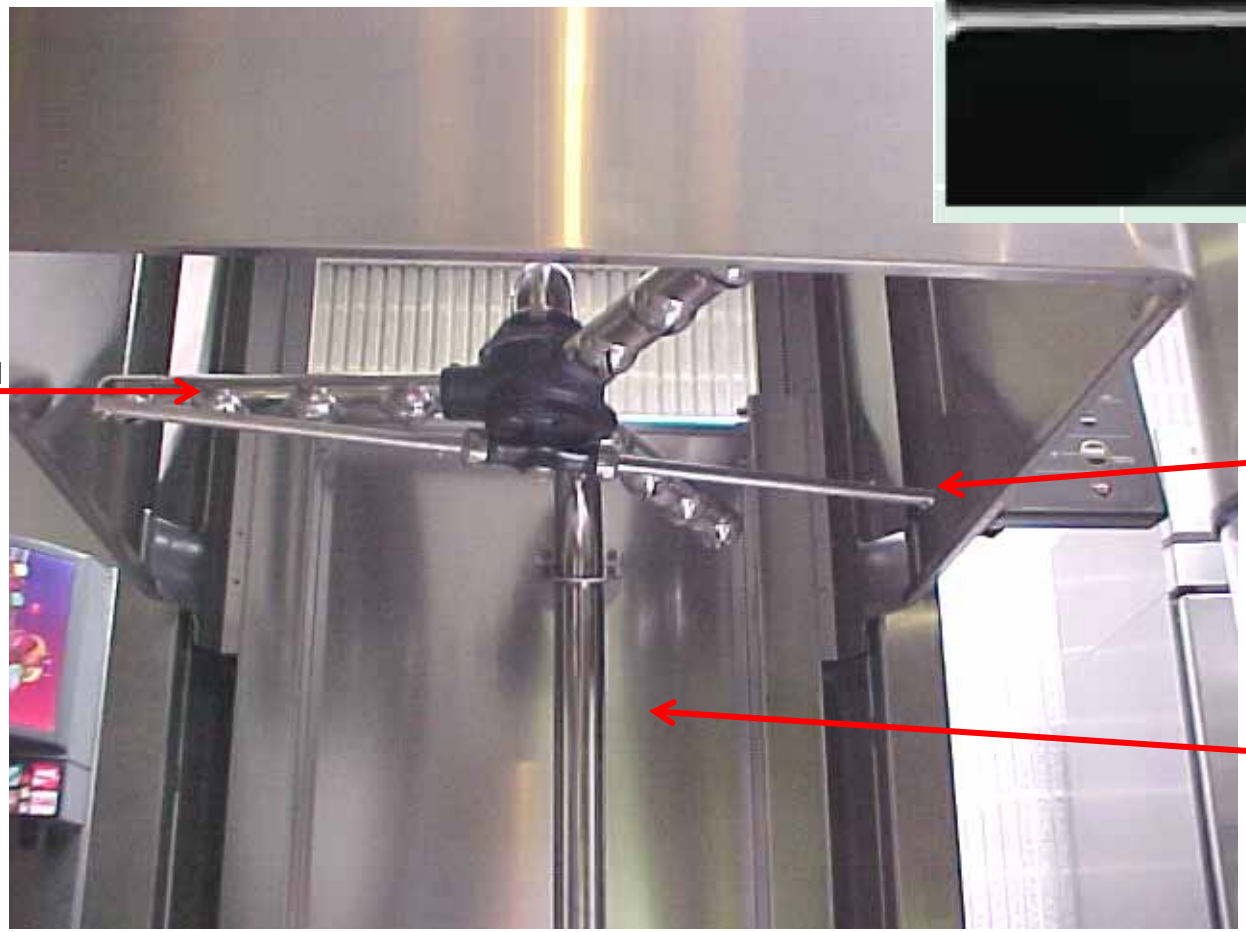


FLUSH PIPE

FRONT OF
UNIT

WATER LEVEL
SENSOR

WASH PUMP
SUCTION FILTER



UPPER WASH SPRAY ARM

UPPER RINSE SPRAY ARM

FLUSH PIPE

FRONT PANEL REMOVAL

TO REMOVE FRONT PANEL:
1.REMOVE BOTH 5MM TRUSS HEAD SCREWS
2.SLIGHTLY TILT OUT THE BOTTOM OF THE PANEL
3.PULL DOWN ON PANEL UNTIL IT CLEARS WASH TANK

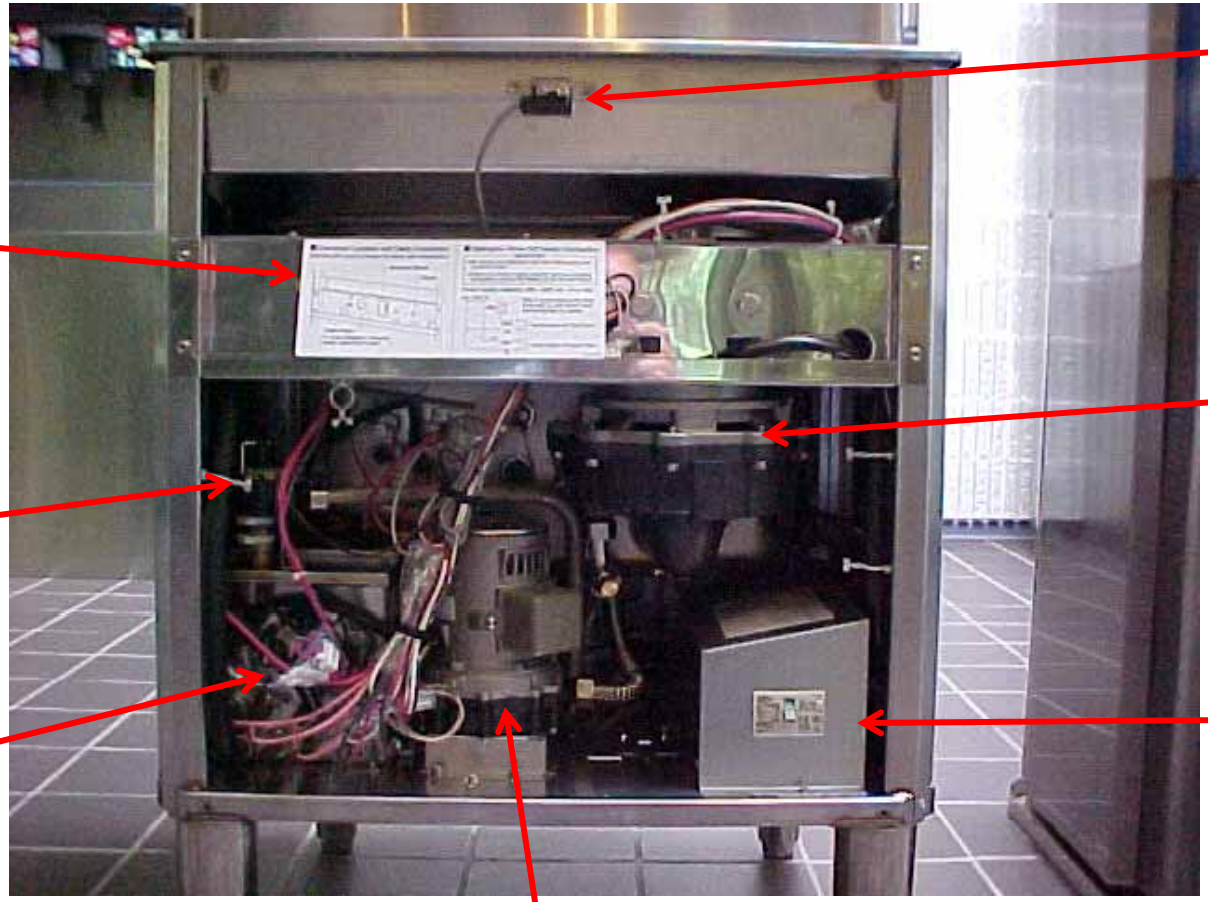
FRONT PANEL

HINGED BREAKER COVER

TWO 5MM TRUSS HEAD SCREWS

COMPONENT LAYOUT

FRONT PANEL REMOVED



DOOR SWITCH

INSTRUCTION SHEET FOR SOAP CONNECTIONS

WASH PUMP

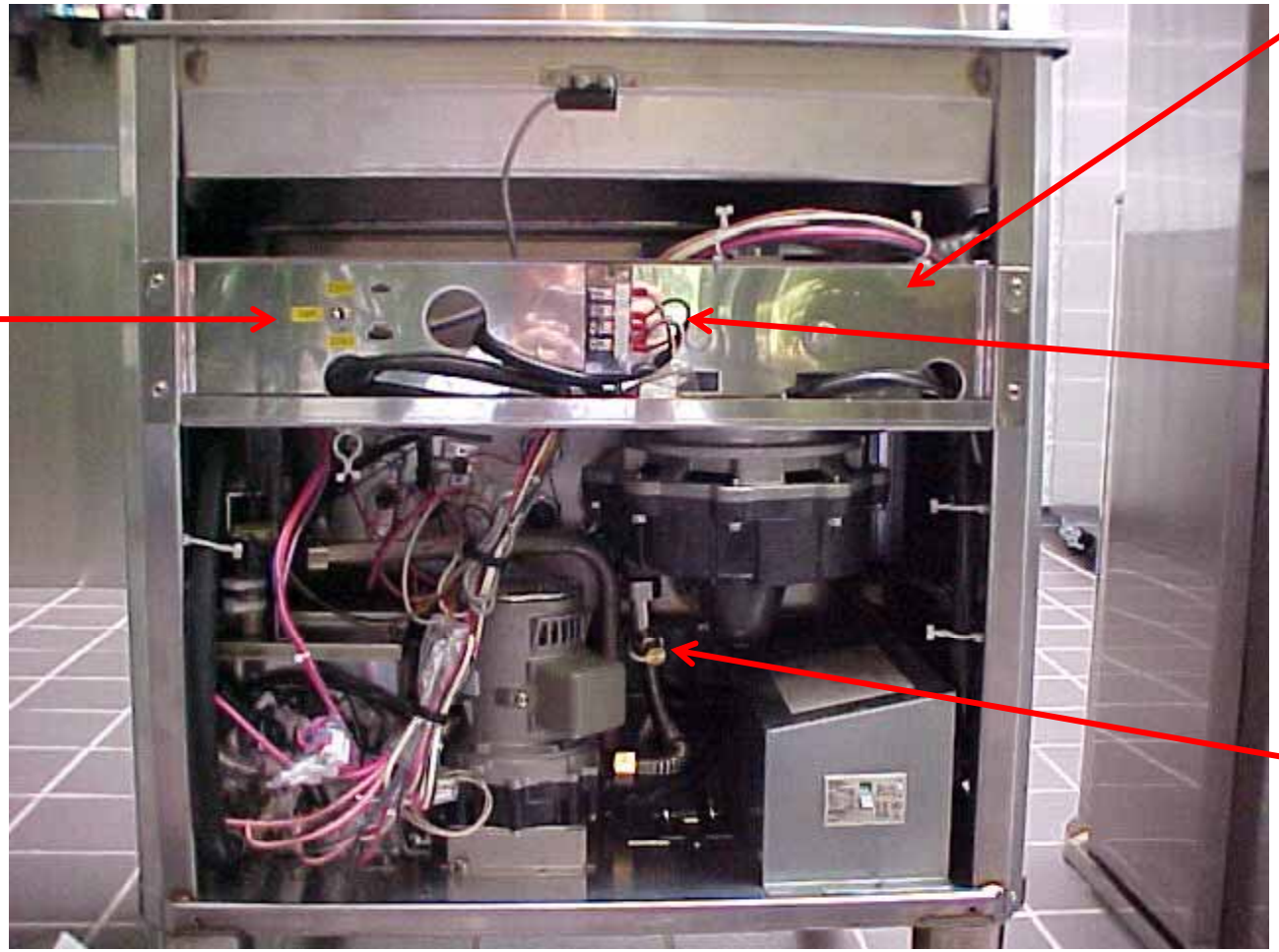
INLET WATER VALVE

BOOSTER HEATER TANK

CONTROL BOX

RINSE PUMP

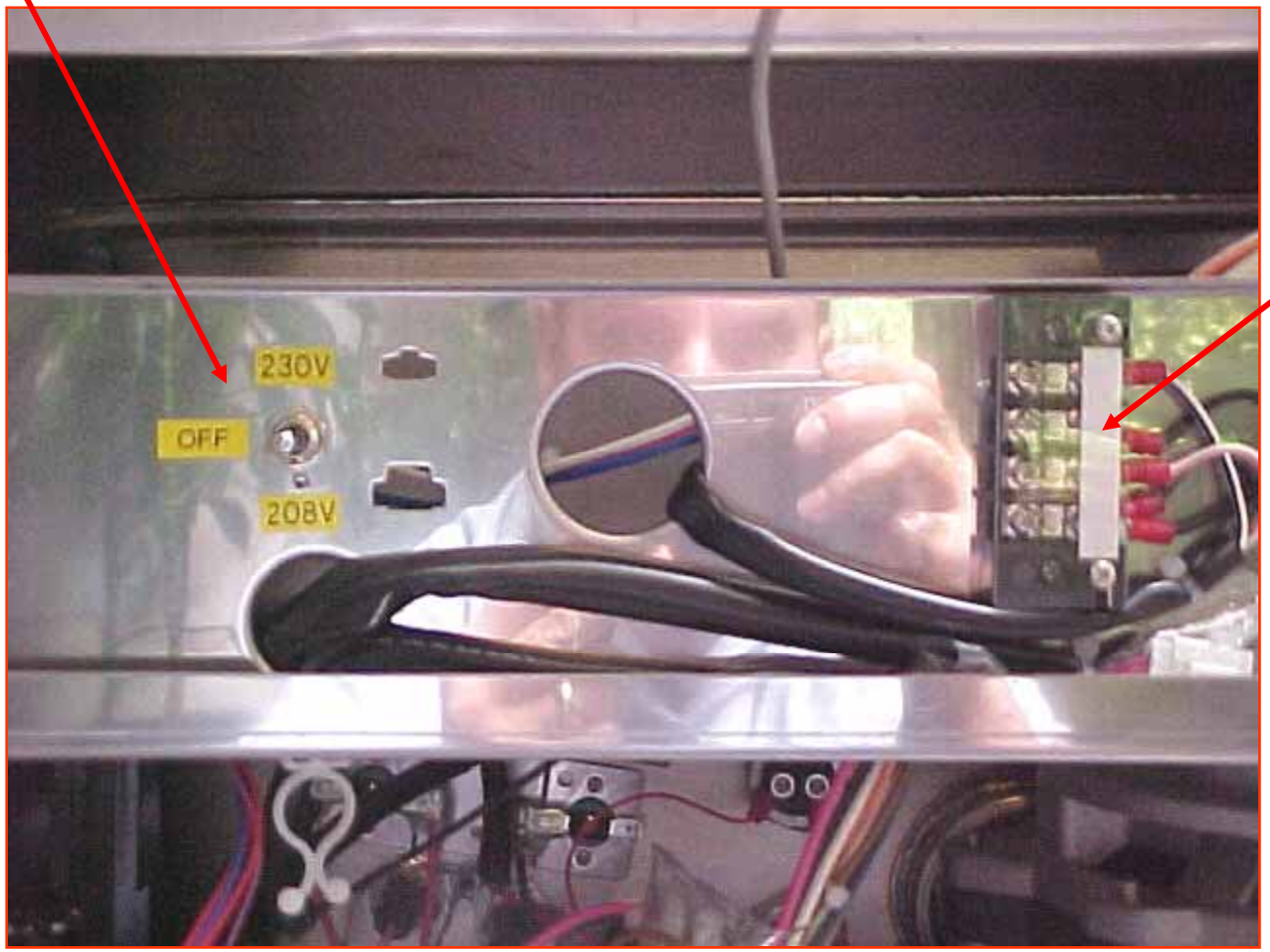
INSTRUCTION SHEET
REMOVED



Center tap switch

(Verify Power coming in and switch accordingly)

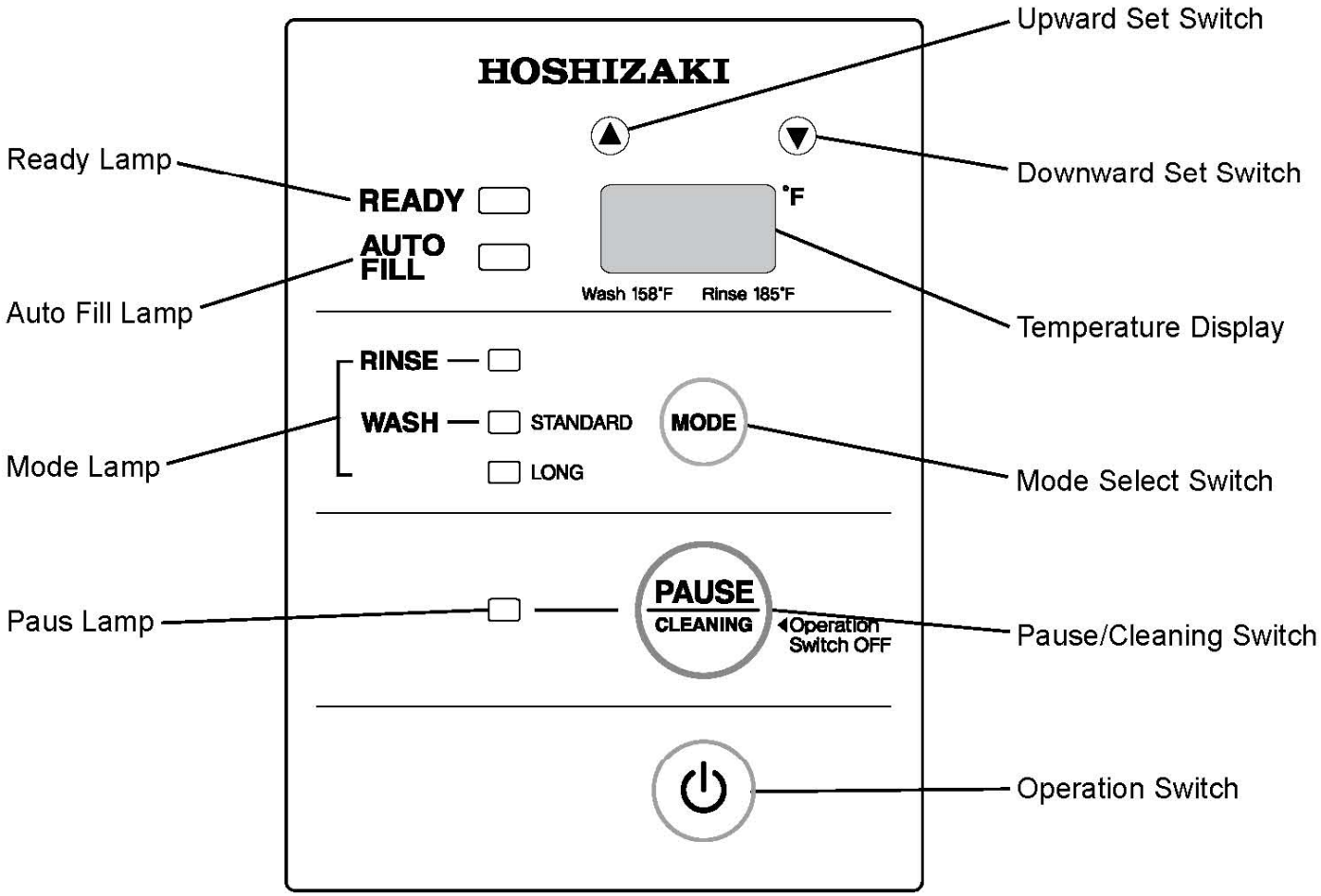
CLOSE UP OF VOLTAGE TAP AND TERMINAL BLOCK



Connection for Wash Detergent and Rinse aid 208/230 VAC

(If Used)

CONTROL PANEL LAYOUT



ON / OFF BUTTON

POWERS UP UNIT

PAUSE BUTTON

PAUSES UNIT DURING NORMAL OPERATION

USED AS START SWITCH WHEN SETTING #11 IS IN THE OFF POSITION

USED TO EXIT AND SAVE DATA IN THE MAINTENANCE MODE

USED TO ENTER THE SELF-CLEANING MODE - “SC”

MODE BUTTON

USED TO TOGGLE UNIT INTO LONG WASH AND RINSE ONLY

USED TO ENTER MAINTENANCE MODE

ENTERS DATA CHANGES IN THE MAINTENANCE MODE

USED TO ENTER THE PREVENTIVE CLEANING MODE

DISPLAY

DISPLAYS WASH TANK TEMP BY DEFAULT

DISPLAY ALL DATA

DISPLAYS ALL ERRORS

ARROWS

USED TO SCROLL THROUGH MENUS

CLEARS ERROR LOG –BOTH PRESSED

USED TO ENTER THE PREVENTATIVE CLEANING MODE – BOTH PRESSED

USED TO ENTER INPUT SIGNALS MODE – BOTH PRESSED

UP ARROW ONLY

USED TO DISPLAY NUMBER OF OPERATIONS

DOWN ARROW ONLY

DISPLAYS OPPOSITE WATER TEMP OF SETTING 12

CLEARS THE INPUT SIGNAL MODE

STOPS ERROR BUZZER

LED’S

INDICATES THE MODE OF OPERATION THE UNIT IS IN.

6. ERROR CODES

If the Control Board detects a trouble with the dishwasher, one of the following error codes is displayed with a beep sound. The unit operation in case of error depends on the type of error.

Code	Error	Condition	Operation	Reset
A1	Wash Tank auto fill error	Water level in Wash Tank does not reach Water Level Sensor after Rinse Pump has run preset number of cycles.	Whole unit stops	ON/OFF Button OFF
A2	Booster Tank auto fill error	Booster Tank auto fill cycle does not complete within 10 min.	Whole unit stops	ON/OFF Button OFF
A3	Wash Tank water level error	Water level in Wash Tank goes below Water Level Sensor range in standby.	Auto fill cycle starts	Auto fill cycle ends
o1	Overflow Switch error (Water Level Switch ON)	Water level in Booster Tank reaches overflow level (both Water Level Switch and Overflow Switch remain ON for 1 min).	Normal (Heater OFF)	ON/OFF Button OFF
o2	Overflow Switch error (Water Level Switch OFF)	Water Level Switch is OFF, and water level in Booster Tank reaches overflow level (Water Level Switch turns OFF and Overflow Switch remains ON for 1 min).	Normal (Heater OFF)	ON/OFF Button OFF
H1	Wash Tank Thermistor error	Thermistor senses abnormal temperature (at or above 230°F (110°C)).	Continues (Heater OFF)	Thermistor senses normal temperature
H2		Thermistor senses abnormal temperature (at or below -6°F (-21°C)).		
H3	Booster Tank Thermistor error	Thermistor senses abnormal temperature (at or above 230°F (110°C)).	Continues (Heater OFF)	
H4		Thermistor senses abnormal temperature (at or below -6°F (-21°C)).		
H5	ROM/RAM error	Control Board ROM/RAM fails.	Whole unit stops	Control Board resumes normal operation
H6	EEPROM error	EEPROM fails.	Whole unit stops	
H7	Phase reversal error	Power supply phase is reversed.	Whole unit stops	Power reset

5. MAINTENANCE MODE

The maintenance mode is available as a data setting function of the Control Board. The detailed data setting instructions are also specified on the label "DISHWASHER PROGRAMMABLE CONTROLS" provided with the dishwasher.

Always turn off the ON/OFF Button [Power Switch (GFCI) on] before entering the maintenance mode.

1) Press and hold the Mode Button on the Operation Panel, and press the ON/OFF Button. The Temperature Display illuminates the setting number 01.

2) Press the Up (▲) or Down (▼) Button to display the desired setting number.

3) Press the Mode Button to flash the set value for the selected setting number.

4) Press the Up (▲) or Down (▼) Button to change the set value within the setting range.

   Note: Press and hold the Up (▲) or Down (▼) Button for quick change.

5) Press the Mode Button again to return to the setting number.

6) After completing the data setting, press the Standby/Cleaning Button to store the set value. The Temperature Display goes off.

Setting No.	Item	Setting Range		Display
01	Wash cycle time (standard mode)	1 - 99 seconds		1 - 99
02	Wash cycle time (long mode)	10 - 990 seconds (see No. 09 for multiplier)		
03	Rinse cycle time	5 - 60 seconds		5 - 60
04	Wash temperature	32 - 167°F (0 - 75°C)		32 - 167
05	Rinse temperature	32 - 185°F (0 - 85°C)		32 - 185
07	Auto fill cycles	5 - 30 cycles		5 - 30
08	Wash cycle time unit (standard mode)	1: x 1 second, 10: x 10 seconds		1,10
09	Wash cycle time unit (long mode)			
11	Wash cycle start	ON	Door closing	on
		OFF	Start switch	oF
12	Water temperature display	ON	Wash temp in standby	on
		OFF	Rinse temp in standby	oF
15	Water temperature drop for Booster Tank energy saving	0 - 40°F	Adjustable down to set point -40°F	0 - 40
		0 - 22°C	Adjustable down to set point -22°C	0 - 22
16	Standby time before Booster Tank energy saving	0 - 99 minutes		0 - 99
17	Booster Tank water temperature to stop wash cycle (with No. 14 ON)	180 - 185°F (82 - 85°C)		180 - 185

BASIC UNIT OPERATION

START UP

1. **PLACE THE VOLTAGE TAP SWITCH IN THE PROPER LOCATION**
2. **PLACE THE BREAKER SWITCH IN THE “ON” POSITION**
3. **PRESS THE “OPERATION” SWITCH ON THE ELECTRONIC CONTROL PANEL**

LOWER BUTTON IS THE “OPERATION” SWITCH

WHAT HAPPENS?

1. UNIT WILL CHECK THE PHASE ROTATION. AN ALARM WILL SOUND IF IT IS OFF AND THE DISPLAY WILL READ “H7” UNIT WILL STOP

2. THE UNIT WILL RUN AN AUTO FILL CYCLE

3. THE ELECTRONIC CONTROLLER WILL DISPLAY A READY LIGHT WHEN COMPLETE

4. IF THE VERTICAL SLIDING DOOR IS OPEN THE UNIT WILL NOT FILL. IF THE DOOR IS OPENED DURING THE AUTO FILL CYCLE IT WILL STOP AND RESUME ONCE IT IS CLOSED.

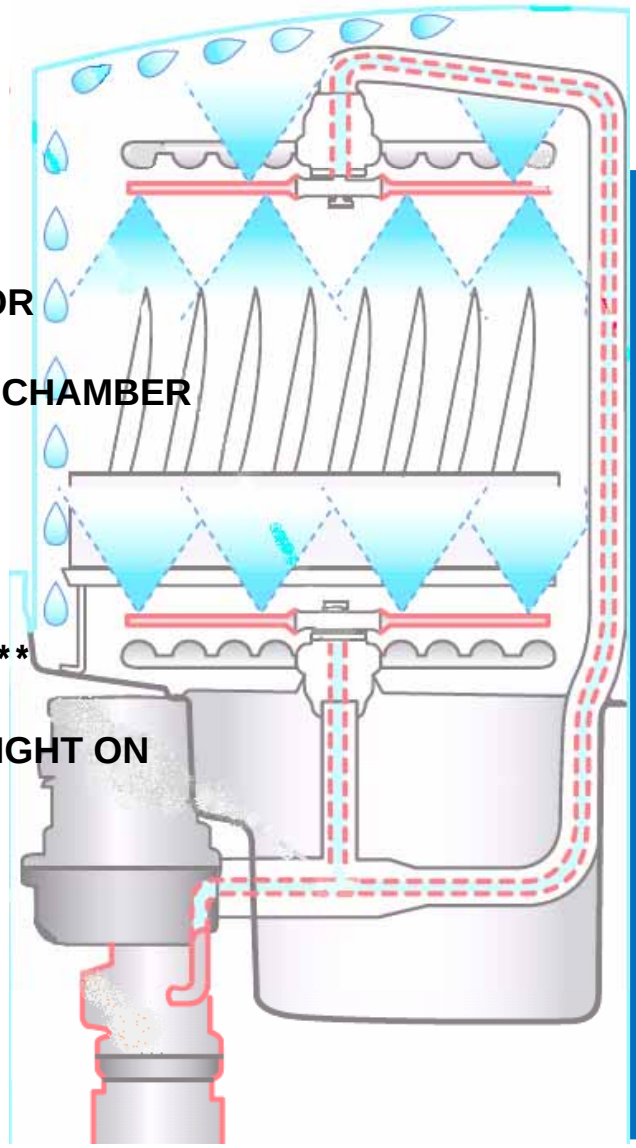
AUTO FILL CYCLE:

The unit energizes the inlet water valve letting water enter the booster tank. When the float switch is closed the water valve will denergize and the rinse pump will energize and spray this water through the rinse spray arms into the wash tank.
The number of fill cycles is pre set in the control board.
The default number of fill cycles is “28”
The “AUTO FILL” light flashes during the fill cycle

During “AUTO FILL” no heaters are energized

AUTO FILL COMPLETE / READY LIGHT ON

1. LIFT VERTICAL SLIDING DOOR
2. PLACE DISH RACK IN WASH CHAMBER
3. CLOSE DOOR
4. READY LIGHT OFF
5. UNIT WILL START WASHING.**
6. CYCLE COMPLETE READY LIGHT ON TWO BEEPS.



****WASH CYCLE:**

WASH PUMP MOTOR STARTS RUNNING – 41sec.

READY LIGHT "OFF"
WASH LIGHT " BLINKING"

PAUSE – 5sec.

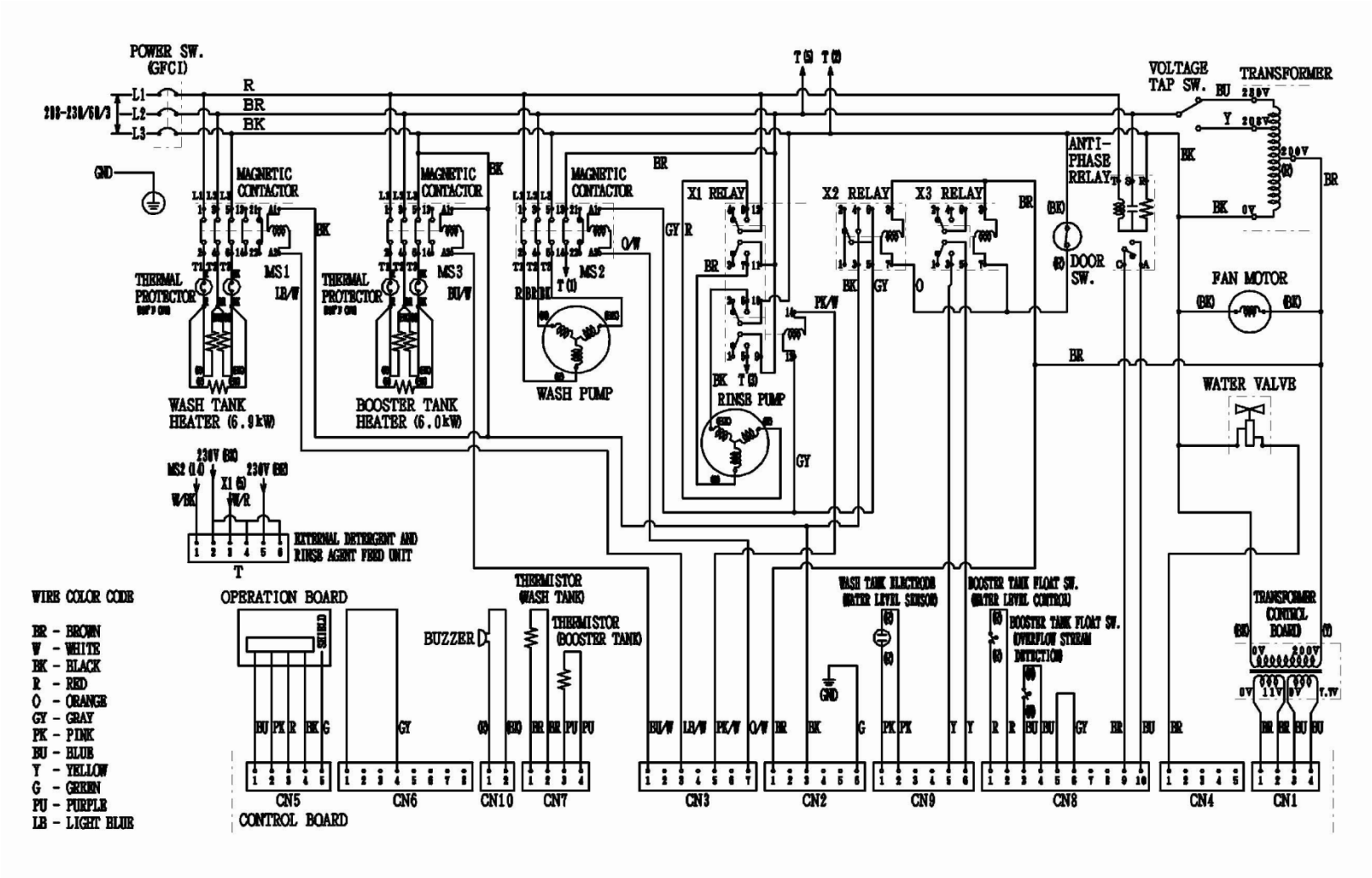
RINSE PUMP STARTS RUNNING – 6sec.
RINSE LIGHT BLINKING

PAUSE – 1sec.

CYCLE COMPLETE

WASH CYCLE TIME IS ADJUSTABLE – 53sec. IS DEFAULT

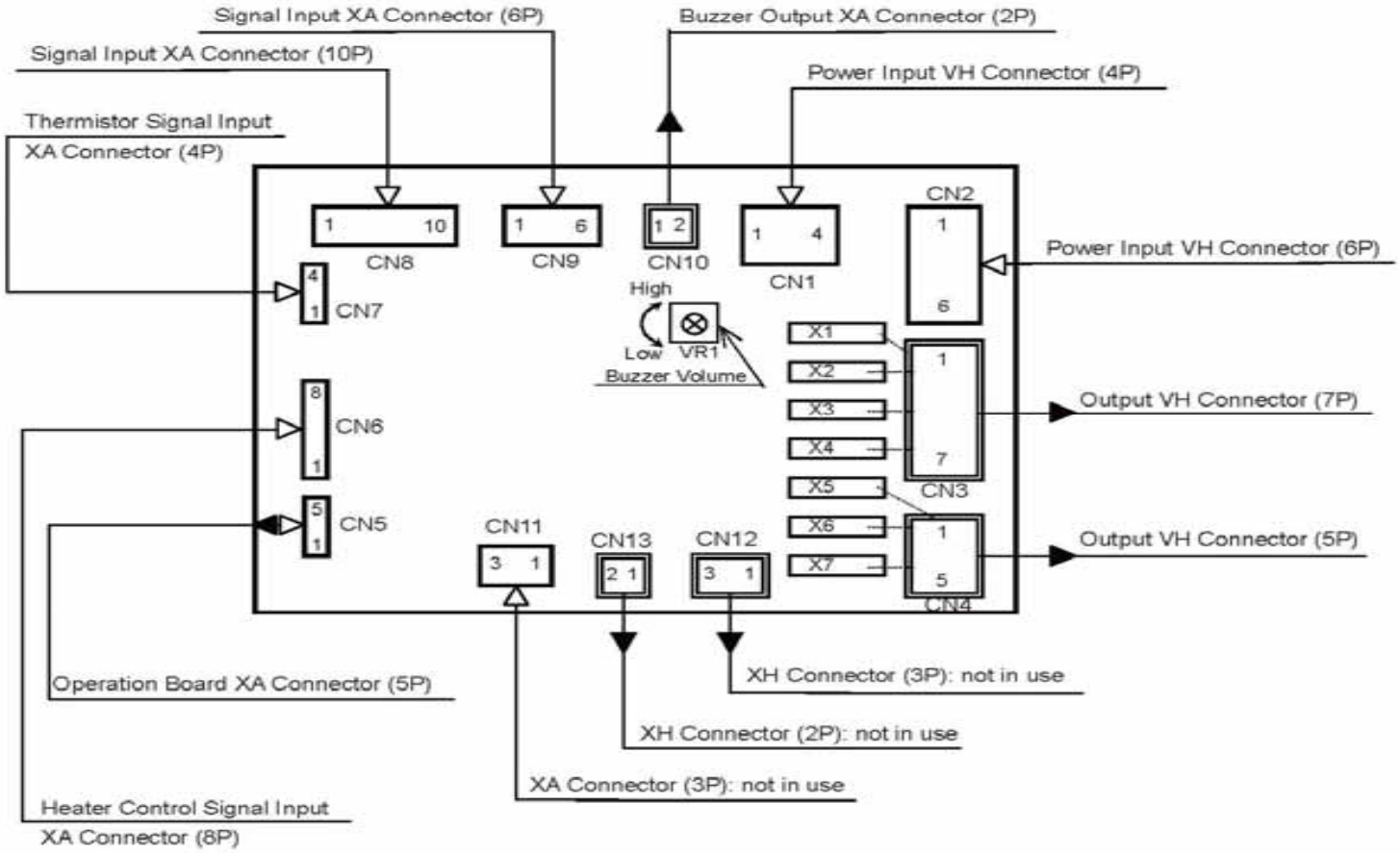
ELECTRICAL SEQUENCE



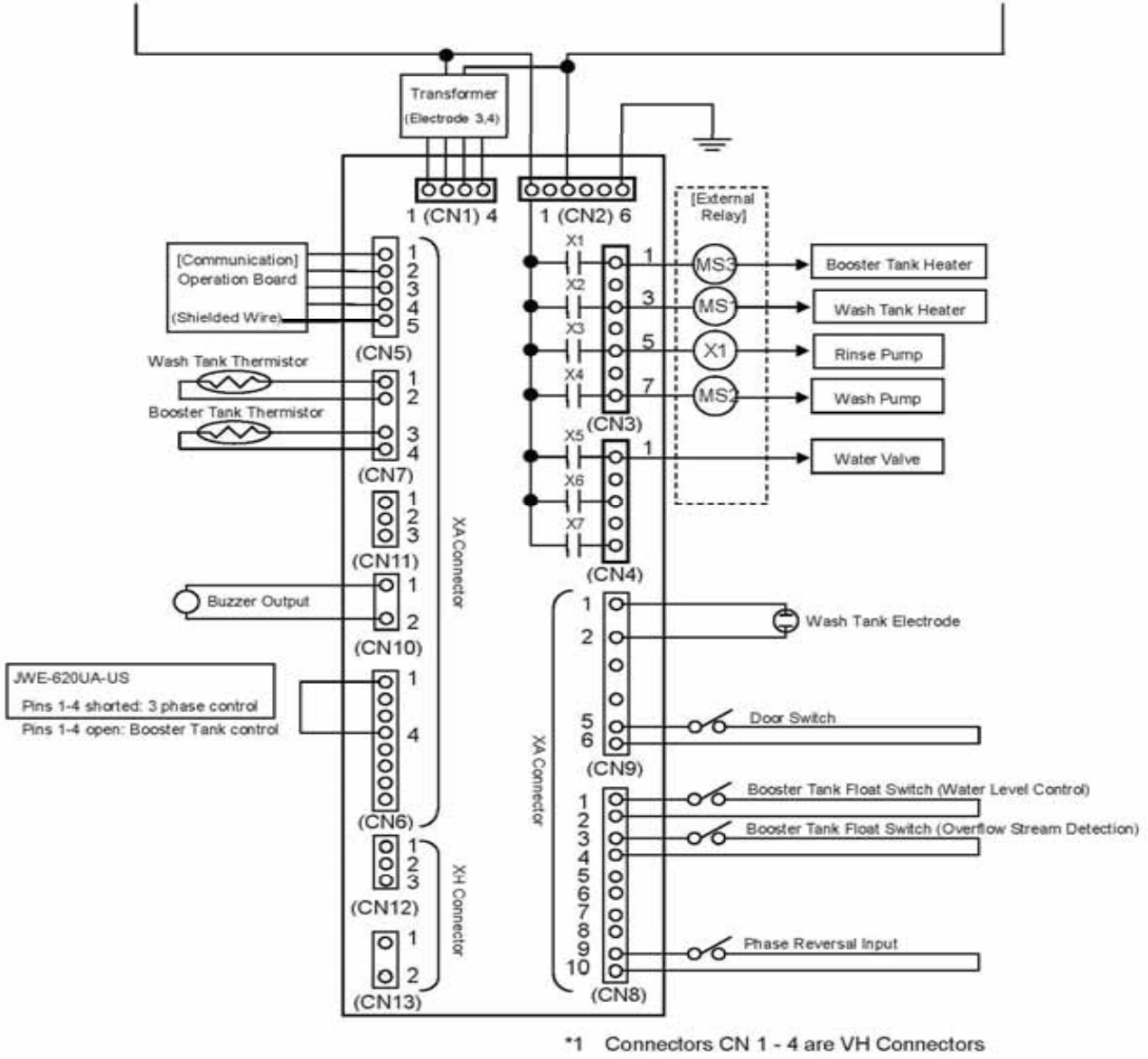
INPUT / OUTPUT

Control Board Input / output Layout

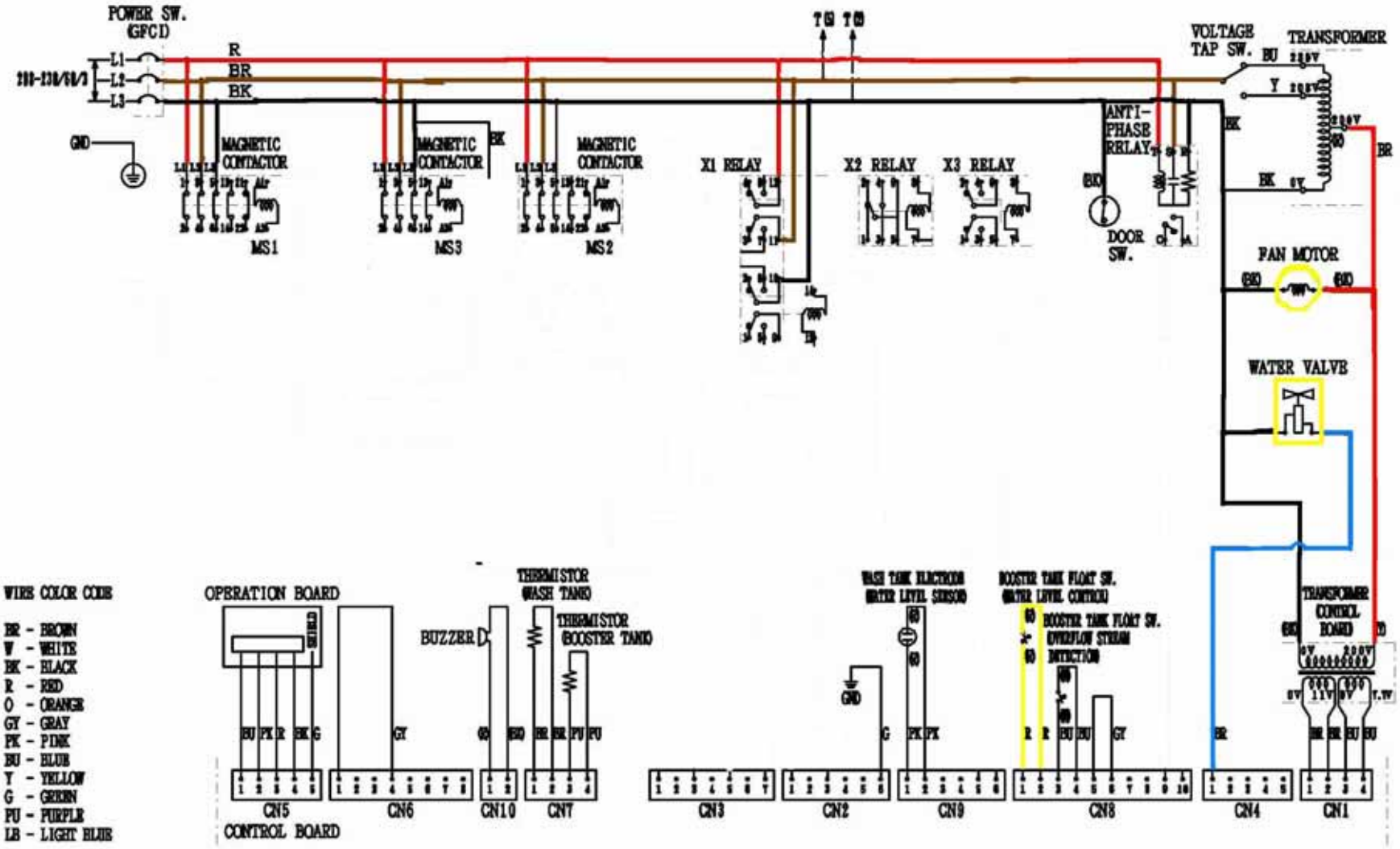
The major inputs and outputs (ex. connectors) are laid out on the Control Board as follows.



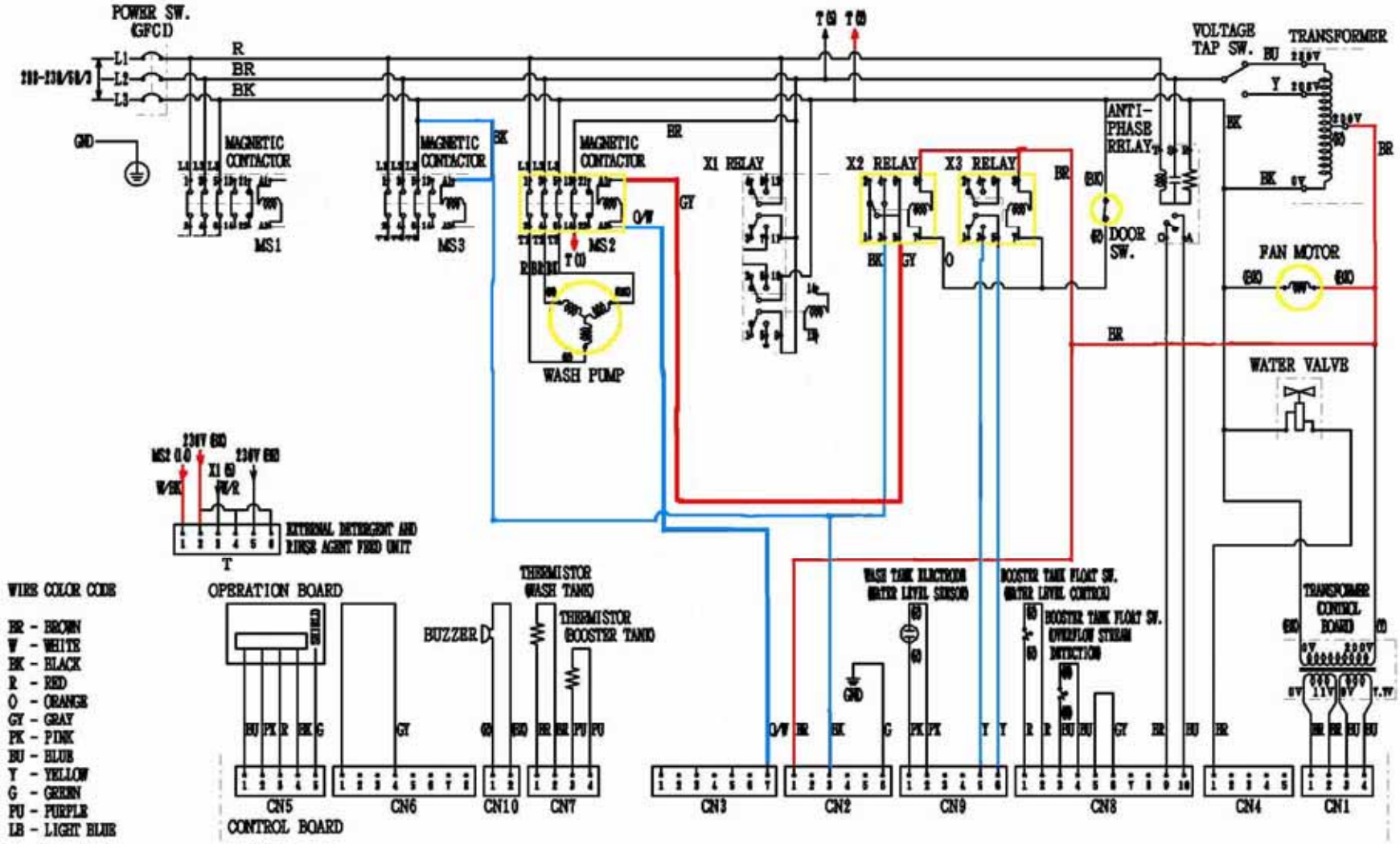
INPUT / OUTPUT DIAGRAM



FILL CYCLE


POWER SW.
(GPCI)
L1
L2
L3
R
BR
BK
GND
MAGNETIC CONTACTOR
MS1
MAGNETIC CONTACTOR
MS3
MAGNETIC CONTACTOR
MS2
X1 RELAY
X2 RELAY
X3 RELAY
ANTI-PHASE RELAY
DOOR SW.
VOLTAGE TAP SW.
TRANSFORMER
FAN MOTOR
WATER VALVE
TRANSFORMER CONTROL BOARD
WIRE COLOR CODE
BR - BROWN
W - WHITE
BK - BLACK
R - RED
O - ORANGE
GY - GRAY
PK - PINK
BU - BLUE
Y - YELLOW
G - GREEN
PU - PURPLE
LB - LIGHT BLUE
OPERATION BOARD
BUZZER
THERMISTOR (WASH TANK)
THERMISTOR (BOOSTER TANK)
WASH TANK ELECTRODE WATER LEVEL SENSOR
BOOSTER TANK FLOAT SW. WATER LEVEL CONTROL
BOOSTER TANK FLOAT SW. OVERFLOW STEAM DETECTION
CN5
CONTROL BOARD
CN6
CN10
CN7
CN3
CN2
CN9
CN8
CN4
CN1

WASH CYCLE


POWER SW.
GFCD
L1
L2
L3
R
BR
BK
GND
MAGNETIC CONTACTOR
MS1
MS3
MS2
WASH PUMP
X1 RELAY
X2 RELAY
X3 RELAY
ANTI-PHASE RELAY
DOOR SW.
VOLTAGE TAP SW.
TRANSFORMER
FAN MOTOR
WATER VALVE
EXTERNAL DETERGENT AND RINSE AGENT FEED UNIT
OPERATION BOARD
BUZZER
THERMISTOR (WASH TANK)
THERMISTOR (BOOSTER TANK)
WASH TANK ELECTRODE (WATER LEVEL SENSOR)
BOOSTER TANK FLOAT SW. (WATER LEVEL CONTROL)
BOOSTER TANK FLOAT SW. (OVERFLOW STREAM DETECTION)
TRANSFORMER CONTROL BOARD
CN5
CN6
CN10
CN7
CN3
CN2
CN9
CN8
CN4
CN1
CONTROL BOARD
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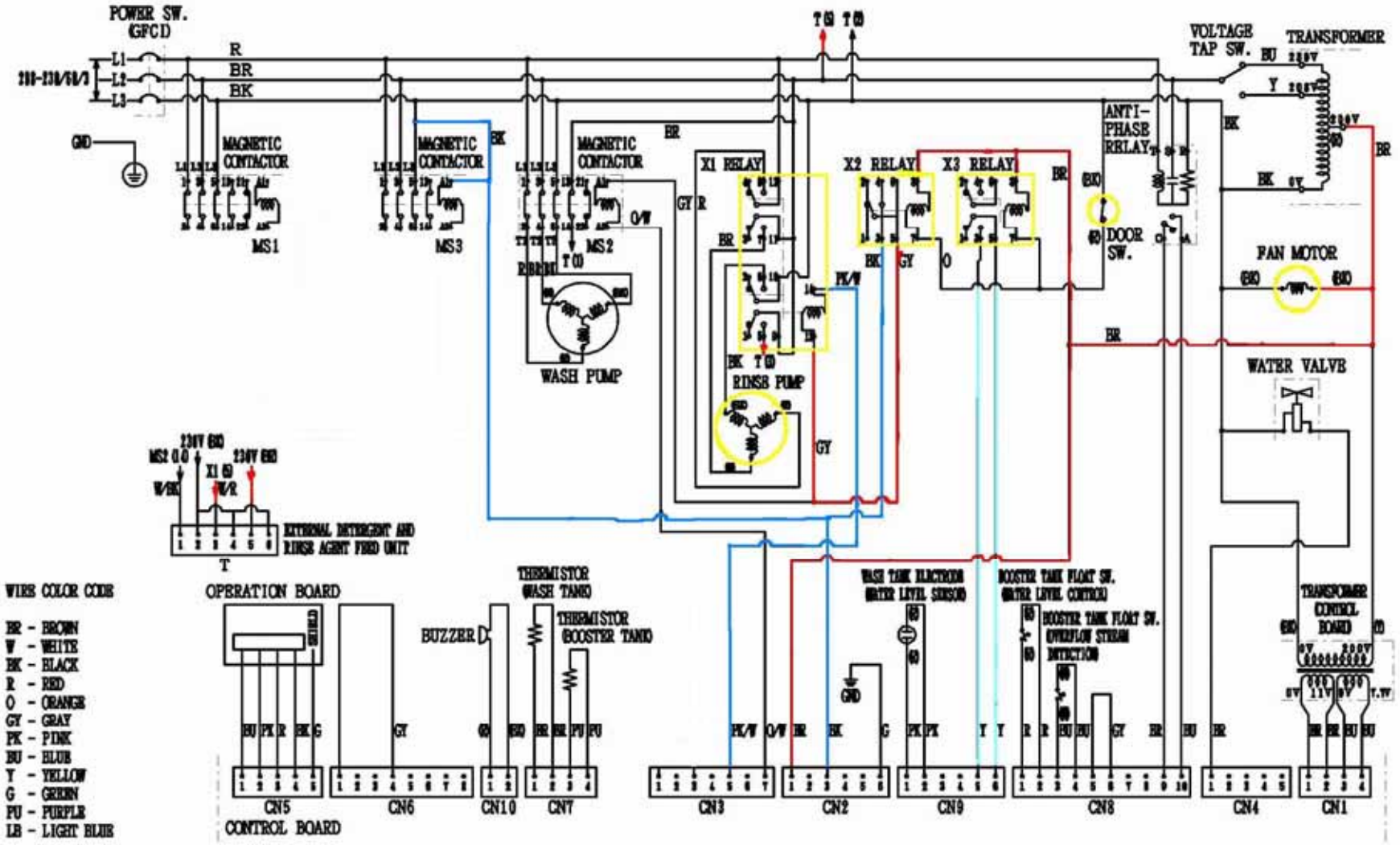
RINSE CYCLE


POWER SW.
(GFCD)
L1
L2
L3
R
BR
BK
MAGNETIC CONTACTOR
MS1
MS3
MS2
WASH PUMP
X1 RELAY
X2 RELAY
X3 RELAY
RINSE PUMP
ANTI-PHASE RELAY
VOLTAGE TAP SW.
TRANSFORMER
DOOR SW.
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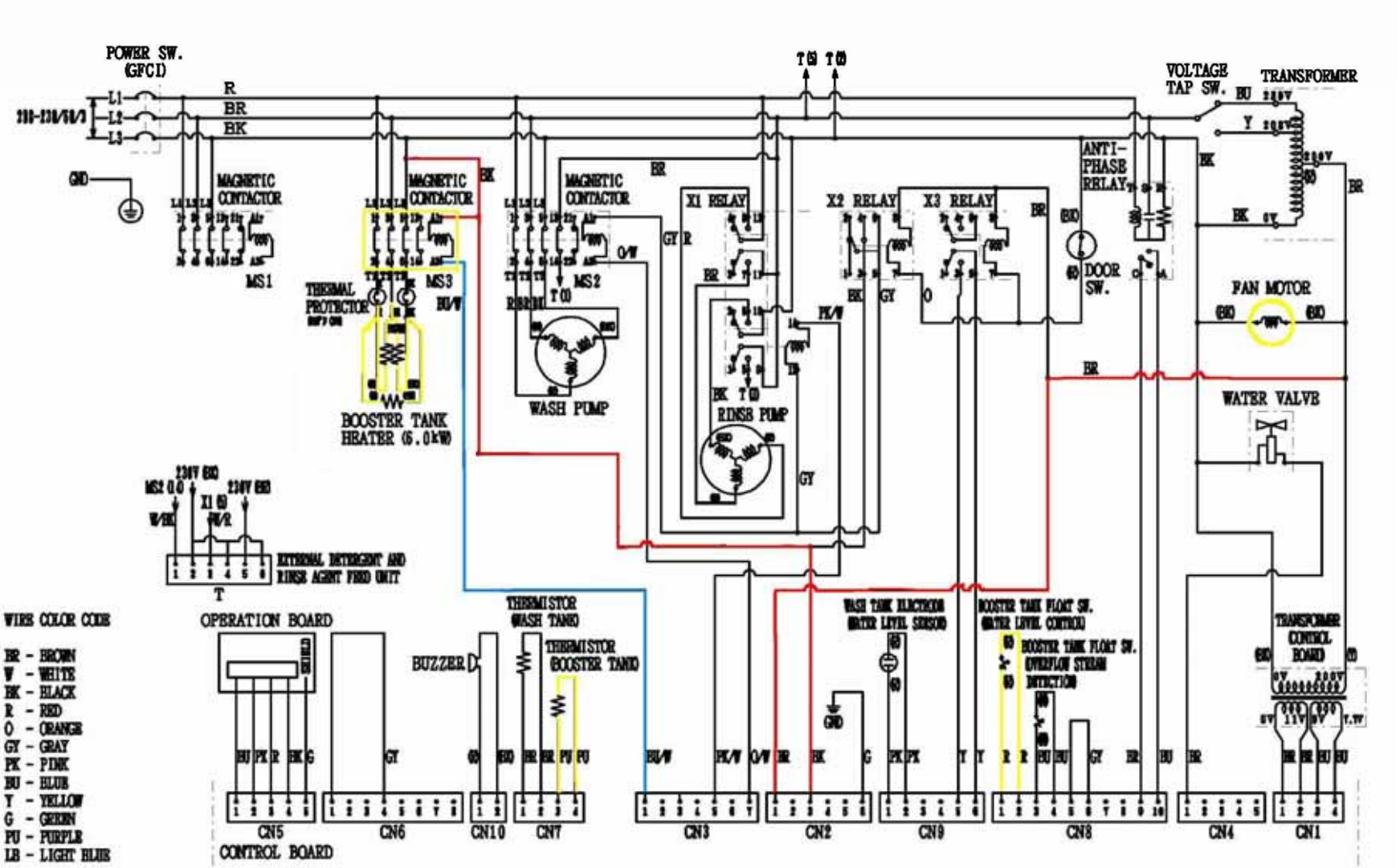
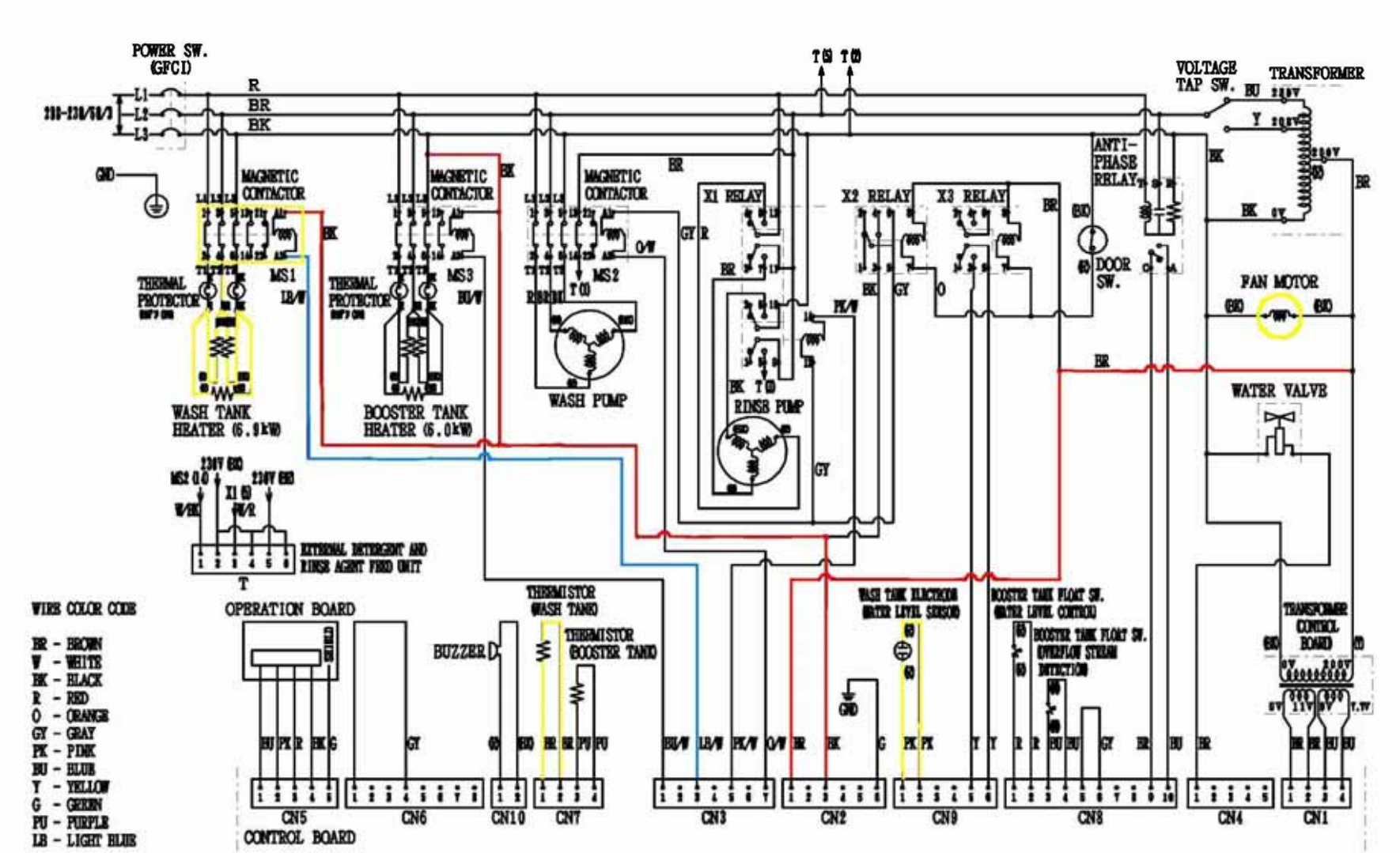
BOOSTER HEATER



WASH TANK HEATER



Tech Support hopes that this gives you a good understanding of the basic layout and operation of the Dishwasher JWE units. If you have any questions concerning this or any other technical information please send e-mail to techsupport@hoshizaki.com or call the Technical Support Department at 1-800-233-1940.