

# Hussmann<sup>®</sup> Impact<sup>™</sup> Hot Food Merchandiser

MODEL WDCHI, SSWHI, TSWHI, CSWHI

Service Manual

Serial Numbers 121736 and Higher



*Fresh ideas in foodservice equipment*

# Warranty Information

## LIMITED ONE YEAR WARRANTY

**BKI** (The "Company") warrants to the original purchaser/user, that at time of shipment from the Company factory, this equipment will be free from defect in materials and workmanship. Written notice of a claim under this Warranty must be given within **ONE YEAR AND THREE MONTHS** from date of shipment from the factory. Defective conditions caused by abnormal use or misuse, lack of maintenance, damage by third parties, alterations by unauthorized personnel, acts of God, failure to follow installation instructions or any other events beyond the control of the company will **NOT** be covered under Warranty. The obligation of the Company under this Warranty shall be limited to repairing or replacing (at the option of the company) any part that is defective in reasonable opinion of the Company. The user will have the responsibility and expense of removing and returning the defective part to the Company as well as the cost of reinstalling the replacement or repaired part.

**IN NO EVENT SHALL THE COMPANY BE LIABLE FOR LOSS OF USE, LOSS OF REVENUE OR LOSS OF PRODUCT OR PROFIT OR FOR INDIRECT OR CONSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO, FOOD SPOILAGE OR PRODUCT LOSS. WARRANTY DOES NOT COVER GLASS BREAKAGE. THE ABOVE WARRANTY IS EXCLUSIVE AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE EXCLUDED INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY SHALL APPLY ONLY WITHIN THE CONTINENTAL UNITED STATES, ITS TERRITORIES, AND POSSESSIONS AND IN CANADA.**

## LIMITED NINETY DAY LABOR WARRANTY

All labor necessary to repair or replace factory defective parts will be performed, without charge, to the end user, by service personnel of a **BKI** Authorized Distributor during the first ninety days after the date of installation of the new equipment.

**Replacement parts:** Any appliance replacement part, except lamps and fuses, which proves to be defective in material or workmanship within 90 days from date of original installation will be repaired or replaced without charge F.O.B. Factory, Simpsonville, S.C. or F.O.B. authorized distributor.

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## Introduction

Congratulations! You have chosen a Hot Food Merchandiser. It consists of thermostatically controlled hot food waterless wells, canopy heaters/lighting, customer side curved glass service door with lift hardware, operator side service doors, bumpers, splashguards and electronic controls.

This unit is manufactured by BKI which assures you of the finest in design and engineering -- that it has been built with care and dedication -- using the best materials available. Attention to the operating instructions regarding proper installation, operation, and maintenance will result in long lasting dependability to insure the highest profitable return on your investment.

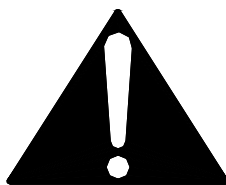
### **NOTICE**

PLEASE READ THIS ENTIRE MANUAL BEFORE OPERATING THE UNIT. If you have any questions, please contact your BKI Distributor. If they are unable to answer your questions, contact the BKI Technical Service Department, toll free: 1-800-927-6887. Outside the U.S., call 1-864-963-3471.

This unit is to be sealed to the floor after installation to conform to NSF requirements. (Dow Corning RTV #732 Multi purpose Sealant.)

## Safety Precautions

Always follow recommended safety precautions listed in this manual. Below is the safety alert symbol. When you see this symbol on your equipment, be alert to the potential for personal injury or property damage.



## Safety Signs and Messages

The following Safety signs and messages are placed in this manual to provide instructions and identify specific areas where potential hazards exist and special precautions should be taken. Know and understand the meaning of these instructions, signs, and messages. Damage to the equipment, death or serious injury to you or other persons may result if these messages are not followed.

### **⚠ DANGER**

This message indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

### **⚠ WARNING**

This message indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

### **⚠ CAUTION**

This message indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

### **NOTICE**

This message is used when special information, instructions or identification are required relating to procedures, equipment, tools, capacities and other special data.

## Safe Work Practices



### Beware of High Voltage

This equipment uses high voltage. Serious injury can occur if you or any untrained or unauthorized person installs, services, or repairs this equipment. Always Use an Authorized Service agent to Service Your Equipment



### Keep this manual with the Equipment

This manual is an important part of your equipment. Always keep it near for easy access.

If you need to replace this manual, contact:

**BKI**

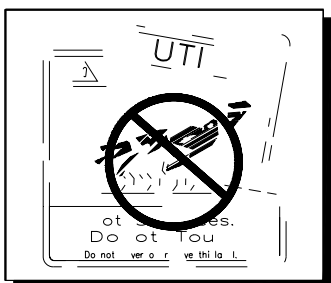
Technical Services Department  
P.O. Box 80400  
Simpsonville, S.C. 29680-0400  
Or call toll free: 1-800-927-6887  
Outside the U.S., call 864-963-3471



### Protect Children

Keep children away from this equipment. Children may not understand that this equipment is dangerous for them and others.

NEVER allow children to play near or operate your equipment.

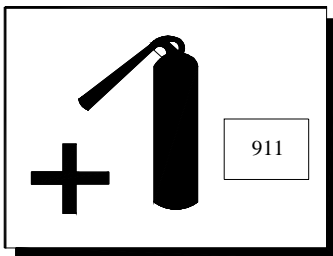


### Keep Safety Labels Clean and in Good Condition

Do not remove or cover any safety labels on your equipment. Keep all safety labels clean and in good condition. Replace any damaged or missing safety labels. Refer to the Safety Labels section for illustration and location of safety labels on this unit. If you need a new safety label, obtain the number of the specific label illustrated on page 5, then contact:

**BKI**

Technical Services Department  
P.O. Box 80400  
Simpsonville, S.C. 29680-0400  
Or call toll free: 1-800-927-6887  
Outside the U.S., call 864-963-3471

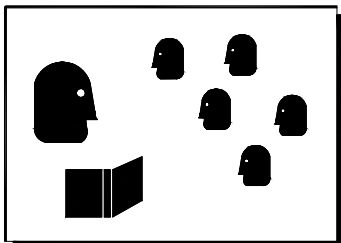


## Be Prepared for Emergencies

Be prepared for fires, injuries, or other emergencies.

Keep a first aid kit and a fire extinguisher near the equipment. You must use a 40-pound Type BC fire extinguisher and keep it within 25 feet of your equipment.

Keep emergency numbers for doctors, ambulance services, hospitals, and the fire department near your telephone.







## Know your responsibilities as an Employer

- Make certain your employees know how to operate the equipment.
- Make certain your employees are aware of the safety precautions on the equipment and in this manual.
- Make certain that you have thoroughly trained your employees about operating the equipment safely.
- Make certain the equipment is in proper working condition. If you make unauthorized modifications to the equipment, you will reduce the function and safety of the equipment.

### Safety Labels

HI0017

 **KEEP FINGERS AND OBJECTS CLEAR OF THIS AREA, WHEN CLEANING GLASS**
 **MANTENGA SUS DEDOS Y OTROS OBJETOS FUERA DE ESTA AREA, CUANDO LEVANTA EL VIDRIO.**
 **ELOIGNER DOIGTS ET AUTRES OBJECTS DE CE SECTEUR DURANT L'OUVERTURE DES VITRINES**


0425327

HI0018

**IMPORTANT**

REPLACE CYLINDERS USING TOOL #0425326  
CYLINDER RODS MUST POINT DOWN.

**IMPORTANTE**

REPLACE LOS CILINDROS USANDO LA HERRAMIENTA #0425326. LOS VASTAGOS DE LOS CILINDROS DEBEN APUNTAR HACIA ABAJO.

**IMPOR TANT**

UTILISER L'OUTIL #0425326 POUR REMPLACER LES CYLINDRES. LE BOUT ETROIT DU CYLINDRE DOIT ETRE VERS LE BAS.




**TOOL PART NO.**  
0425326

0425328

(NEAR CYLINDER RODS)

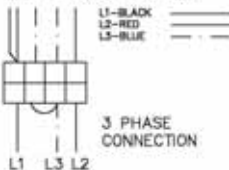
N0451

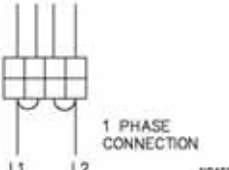
 **CAUTION**

THIS MACHINE CAN BE INSTALLED EITHER 1 OR 3 PHASE. PLEASE NOTE HOOK-UP BEFORE APPLYING POWER.

L1-BLACK  
L2-RED  
L3-BLUE

3 PHASE CONNECTION





N0451

(IN REAR OF UNIT)

N0516

This machine is intended for use with pre-packaged foods only.

N0516

(IN REAR OF UNIT)

N0202



**DANGER**

**HIGH VOLTAGE.**  
Turn power off before servicing.  
May have more than one disconnect switch.  
Do not cover or remove label. N0202

(IN REAR OF UNIT)



## Installation

### NSF Certification

This merchandiser is manufactured to meet ANSI/National Sanitation Foundation (NSF®) Standard #7 requirements. Proper installation is required to maintain certification.

### Location

This merchandiser is designed for displaying products in air-conditioned stores where temperature is maintained at or below the ANSI/NSF-7 specified level and relative humidity is maintained at or below 55%.

This merchandiser is sensitive to air disturbances. Air currents passing around the merchandiser will seriously impair its operation. Do NOT allow air conditioning, electric fans, open doors or windows, etc. to create air currents around the merchandiser.

The product should always be maintained at 145° F to maximize its display life.

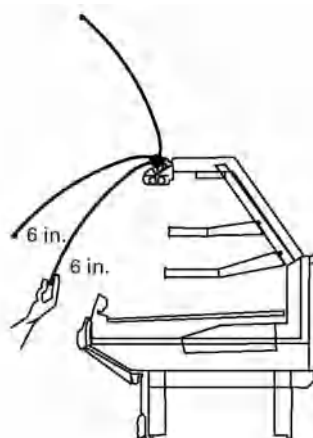
### **CAUTION** Read before raising front glass.

The top cylinders, which allow the raising and lowering of this glass, have been carefully installed and tested for the proper tension before shipment. However, during shipment and storage, the lubricant inside the cylinders may have settled. This settling can cause excessive or uneven tension on the glass to the point of breakage.

**To avoid any damage, please do the following before completely raising the front glass.**

1. Slowly raise and lower each glass section 6 times to a height of 6 in. (152 mm).
2. Increase the height to about 12 in. (305 mm) and raise and lower the glass 6 times.
3. Then raise the glass to the full extension and lower.

This should release any settled lubricant in the cylinders and prevent any stress on the front glass.



### **WARNING**

Do NOT remove shipping braces until the merchandisers are positioned for installation.



## Shipping Damage

**YOU** are responsible for filling all freight claims with the delivering truck line. Inspect all cartons and crates for damage as soon as they arrive. If damage to cartons or crates is found, or if a shortage is found, note this on the bill of lading (all copies) prior to signing.

If damage is found when the equipment is opened, immediately call the delivering truck line and follow up the call with a written report indicating concealed damage to your shipment. Ask for an immediate inspection of your concealed damage item. Packaging material **MUST** be retained to show the inspector from the truck line.

### **CAUTION**

#### **Do not walk or put heavy object on top of merchandisers.**

Damage to the merchandisers and serious personal injury could occur. Merchandisers ARE NOT STRUCTURALLY DESIGNED TO SUPPORT EXCESSIVE EXTERNAL LOADING such as the weight of a person. Do not place heavy objects on the case.

## Shipping Braces

**Note:** Be careful not to damage the factory-installed end while moving the case. Make sure that tools are positioned past the end and beneath the merchandiser's support bar.

Move the fixture as close as possible to its permanent location and then remove all packaging and shipping braces. Check for damage before discarding packaging. Remove all separately packed accessories such as kits, and shelves.

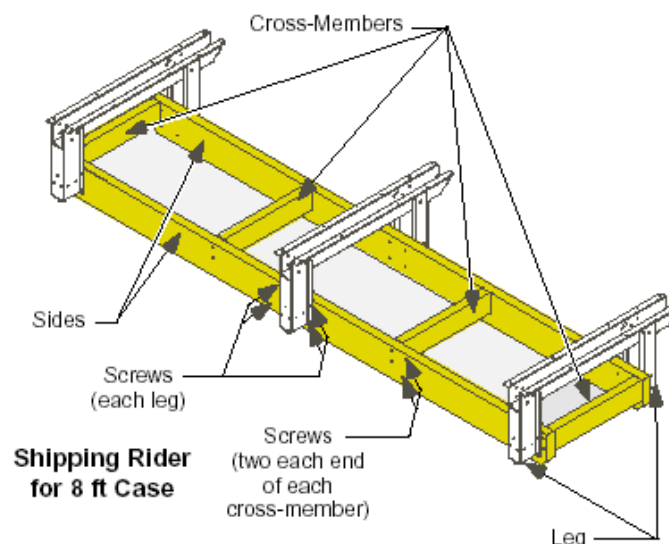
Remove all nut retainers used with shipping braces. NSF certification requires the use of ANSI Standard nuts and bolts with not more than 2 threads showing after installation.

## Shipping Rider

Each case is shipped on a rider to protect factory-installed legs, and to make positioning the case easier. Remove the rider after the case has been positioned.

**Note:** Once the rider is removed, the case must be lifted –NOT PUSHED– to reposition.

To remove the rider, remove screws attaching each leg to rider. Remove screws holding rider cross-members, then slide cross-members out from between sides. Once cross-members are out, slide the sides out.



## Case Leveling

Merchandisers must be installed level to ensure proper operation. During all steps of setting, joining and leveling cases, close attention to glass position and operation must be maintained. Please review all steps and photos before making any adjustments. DO NOT make any glass adjustments until individual case is set and level.

## Preparation

1. Using store blueprints, measure off and mark on floor the exact dimensions/locations of the case footprint.
2. Snap a chalk line for the front and rear positions of the base legs.
3. Mark the location of each joint from front to back lines.
4. **FLOORS ARE NOT LEVEL!!!** When working with two or more cases to be joined, the whole lineup must be leveled on the same plane, left to right and front to back. This means that the entire lineup must be brought up to the level of the highest case in the lineup.

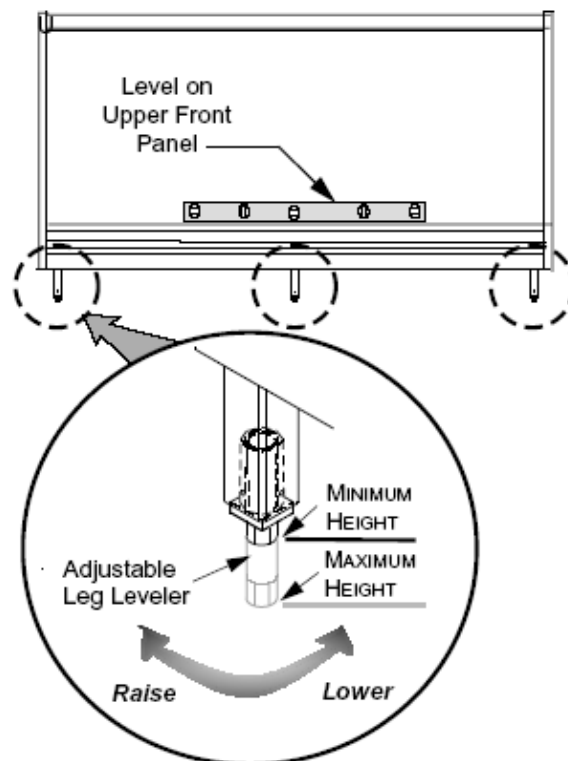
Along the lines previously marked, find the highest point of the floor by:

- Walking the floor and noticing any dips or mounds;
- Using a string level; and
- Using a transit.

## Leveler Adjustment

Position the first case at the highest point. Set a long level (4 ft [1220 mm] or more) on the upper front panel of the case. Use an open-end wrench to turn leg levelers until the case is level from end to end and from front to back. Check all 6 legs on 8 ft (2438 mm) cases, or 8 legs on 12 ft (3658 mm) cases.

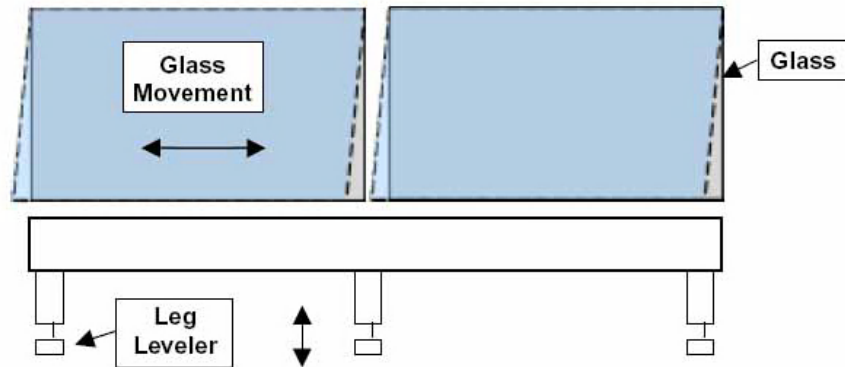
**Note:** To avoid removing concrete flooring, begin lineup leveling from the highest point of the store floor



**Attention to glass position is critical during the leveling process.**

Adjusting leg levelers will affect the position of the glass. Make certain that the glass is square with the case, avoiding interference with other glass and case ends.

If the glass is still out of alignment, refer to the following *Glass Positioning* instructions.



**CAUTION** Glass must be properly supported when adjusting.

***Glass Positioning***

Follow the procedures below to improve the opening and closing of the case front glass.

1. Ensure the case has been leveled according to the Case Leveling procedure.
2. Ensure that the glass handle is installed correctly.

Verify the glass is bottomed out the length of the handle. A bowed handle indicates the glass may not be bottomed out at the center of the handle.

The handle must be removed before it can be repositioned. The handle is held in place with silicone that must be completely removed from the handle and the glass. Remove the handle by pulling it away from the glass (do not use tools to pry this loose). A damaged or bent handle must be replaced. Apply new silicone into the handle and firmly press onto the glass.



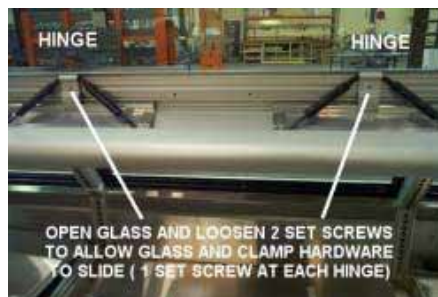
3. Ensure that the glass is seated in the clamp hardware correctly.

Verify glass is bottomed out in clamp hardware.

If the glass is not bottomed out in the clamp hardware it can be re-positioned as follows:



- a. Remove the glass and clamp hardware from the case by opening the glass and loosening set screws in hinge, (Metric 3 millimeter set screws).



- b. Slide the glass and clamp hardware to the side, out of the hinges, and lay them on an appropriate work surface.

**Note:** adjacent glass must be closed.

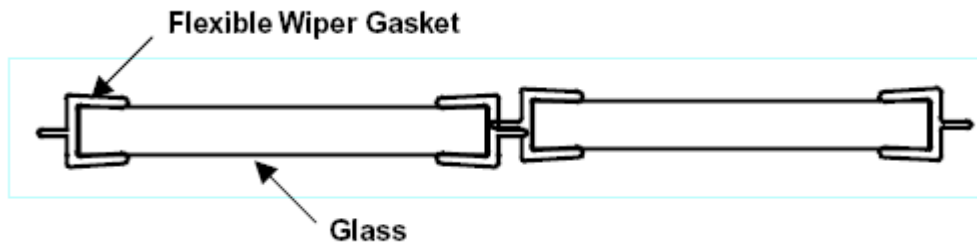
- c. Loosen the 8 set screws on the underside of the clamp hardware.
  - d. Push the clamp hardware onto the glass until bottomed out.
  - e. The clamp hardware must overhang the glass by an equal amount on each side.
  - f. Tighten set-screws and re-install on case.
4. Slowly open and close the glass to make sure that it is not hitting the end or adjacent glass. If the glass is hitting the end or adjacent glass it may not be positioned correctly from left to right. This can be adjusted as follows:



- a. Loosen the 2 screws holding the hinge to the clamp hardware (Metric 3 millimeter screws).
- b. Slide the clamp hardware to either side as needed.

- c. Tighten the screws and check glass for proper operation.
5. Slowly open and close the glass to make sure that it is still not hitting adjacent glass.

Each glass has been shipped with a flexible wiper gasket attached to each side. These are designed to overlap each other, sealing the gap between the glass and allowing side-to-side glass adjustment. After all glass has been adjusted as defined in Step 4, the flexible portion of one gasket at a joint may be trimmed with a razor knife. Be sure that the remaining wiper gasket seals the gap. Verify proper operation.



### Raising/Lowering Glass Using Adjustment Bolt

If the glass still does not open or close correctly, adjustment of the top frame may be necessary.

This case is equipped with an adjustment bolt at the top rear of the case to raise or lower the glass. This allows for improvements in the glass operation and sealing. The following outlines how to access the adjustment bolt. The top must be free to move as the adjustment bolt is turned.

1. Loosen joining or end bolts at top of case, (2 at each end of case).



2. If caulk or silicone has been applied between case joints or ends in the top area it must be removed.
3. Remove rear doors.

4. Remove screws at top of rear doorframe. The bottom screws do not need to be removed.



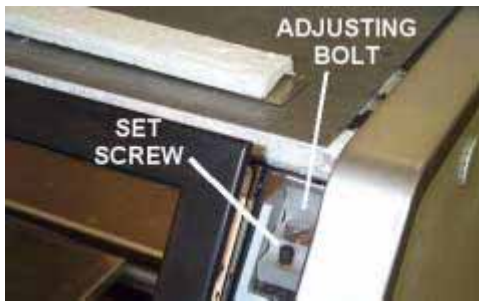
5. Pull back the top of the doorframe approximately 2 inches. This will allow clearance for removal of the stainless steel top liner and trim pieces.



6. Some models have a Phillips truss head screw holding the stainless steel liner to the trim. These screws are visible from the rear of the case to the side of the door frame. These must be removed.
7. Remove stainless steel top liner by grabbing the rear flange and pulling back. Note: It is possible to access the adjusting bolt by using a small swivel socket without removing the stainless top liner. To do this, the stainless steel trim and foam noted in Step 8 must be removed.
8. Remove stainless steel trim pieces and foam insulation on each side of the doorframe.



9. The set screw and adjusting bolt are now accessible.
  - The set screw must be backed out before turning the adjusting bolt, (1/8 inch set screw). The set screw serves as a positive stop.
  - The adjusting bolt should be turned no more than a half-turn before inspecting glass position and operation.
  - Turning the adjusting bolt clockwise will raise the front glass.
  - Turning the adjusting bolt counter-clockwise will lower the front glass.
  - Once the glass position is set, tighten the set screw (positive stop).

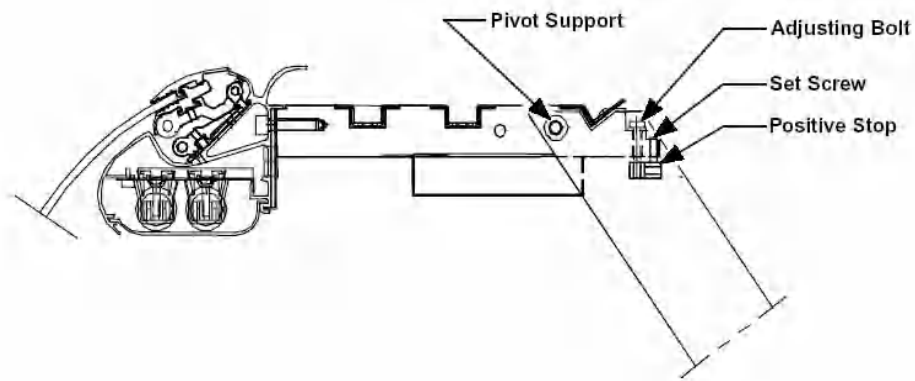


10. Once glass is positioned and operating correctly, re-install components and hardware removed.

**Note:** the doorframe is designed to have a tight fit. A putty knife between the top of the frame and the insulated panel will help guide it into position.

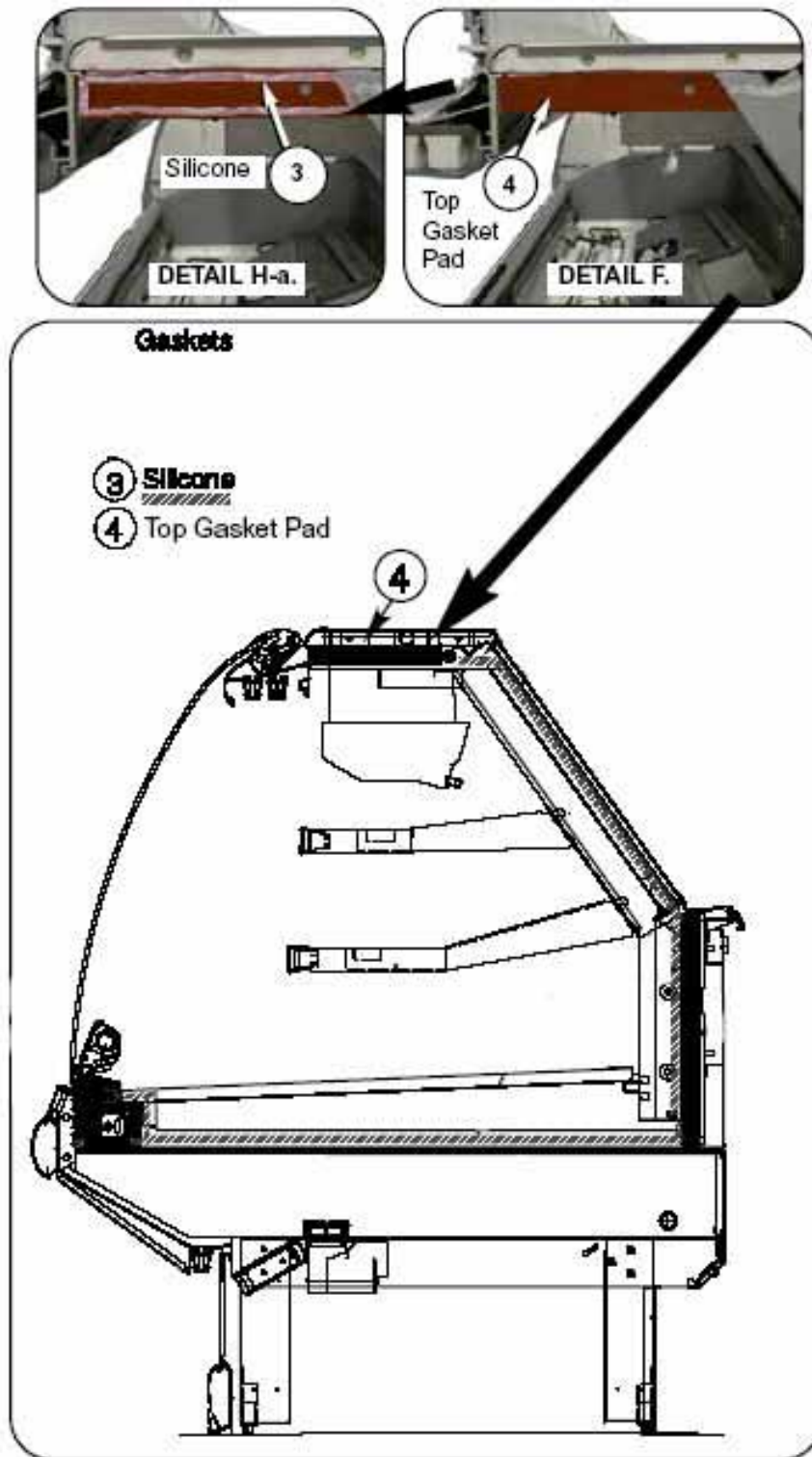
11. Re-apply caulk or silicone as required.

12. Verify glass is positioned and operating correctly.



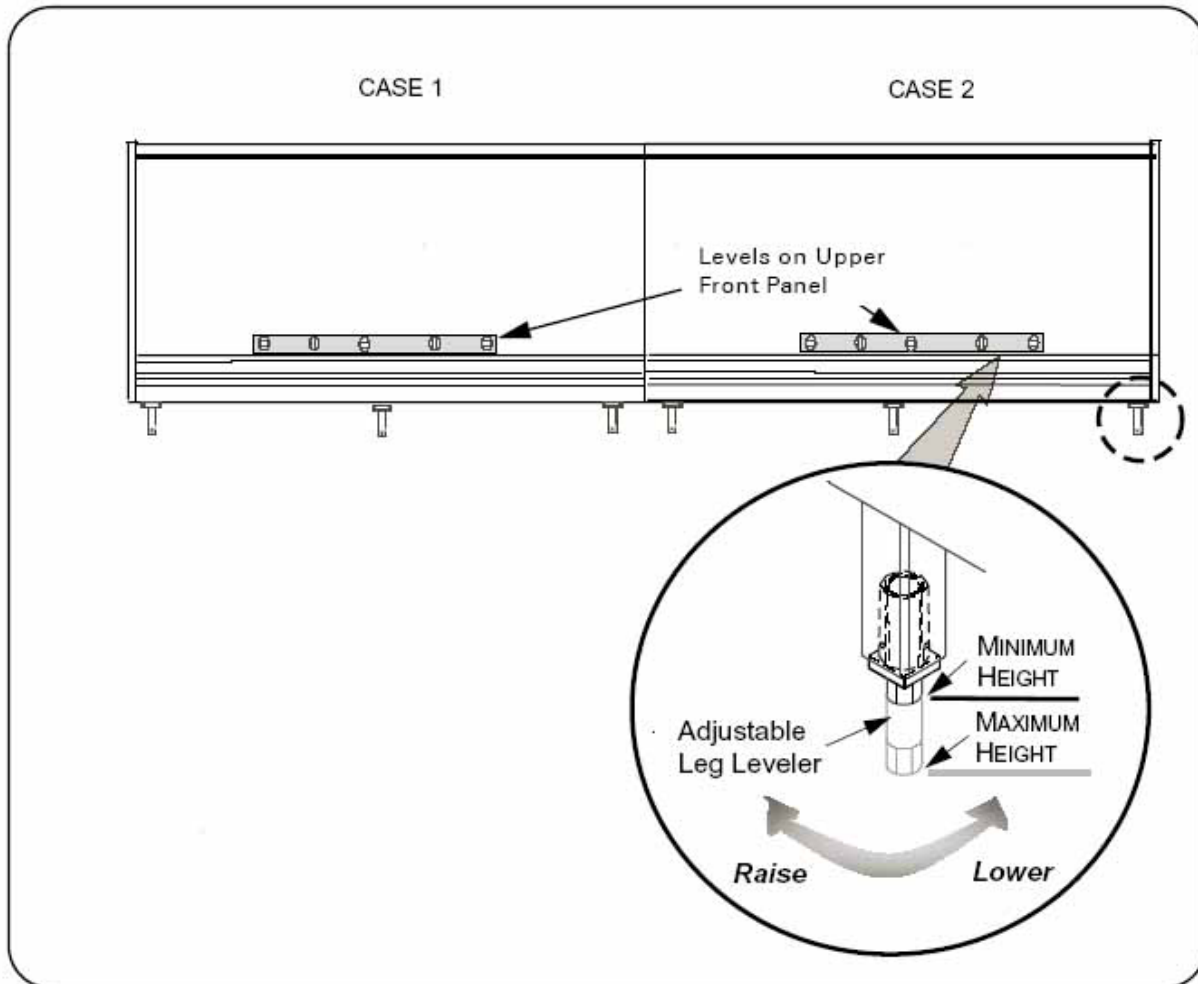
## Joining Instructions

1. Install the Top Gasket Pad (Item 4 and DETAIL F) and apply Silicone (Item 3 and DETAIL H-a).

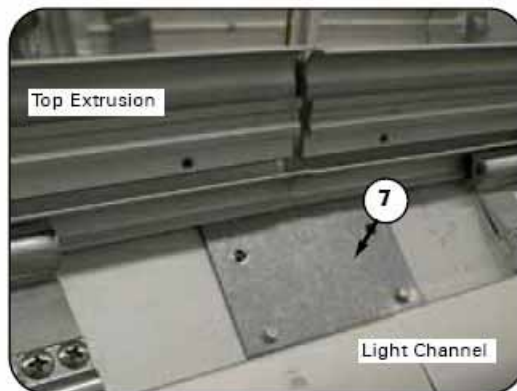




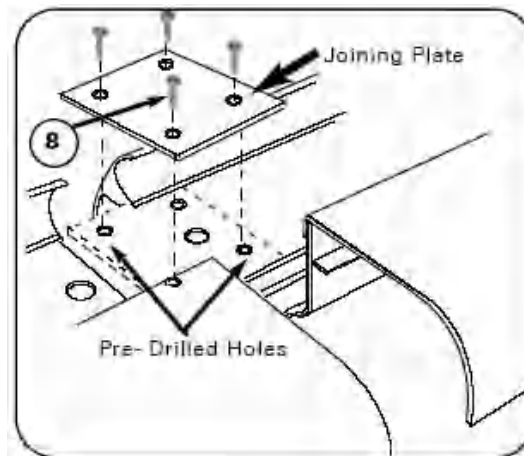
2. The complete lineup must be leveled to the highest point of the floor. After the first merchandiser has been set, position the second so the end frames touch.
  - a. Set a long level (4 foot or more) on the upper front panel of the merchandisers. Adjust case height by rotating the Adjustable Leg Leveler until the merchandisers are flush and level.
  - b. Also check each joint area to be sure that the panels of adjoining merchandisers are flush to each other.



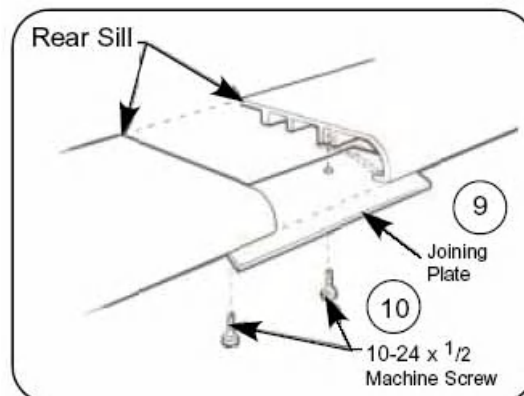
- Align the top extrusion and insert Joining Plate (Item 7).



- Use 8-18 x 3/8 Truss Head SM Screws (Item 8) to fasten the plate using the predrilled pilot holes as shown below.



- Align the Rear Sill and attach Joining Bracket (Item 9) with 10-24 x 1/2 Washer Head Machine Screws (Item 10). Use only specified fasteners. Longer screws will penetrate the Rear Sill causing damage.



6. Bolt the cases together according to the sequence illustrated below.

**Note: Make sure that no more than (2) threads are exposed when the cases are bolted together. If this does occur, the bolt should be shortened, replaced with a shorter bolt or capped off according to NSF specifications.**



**⚠ WARNING**

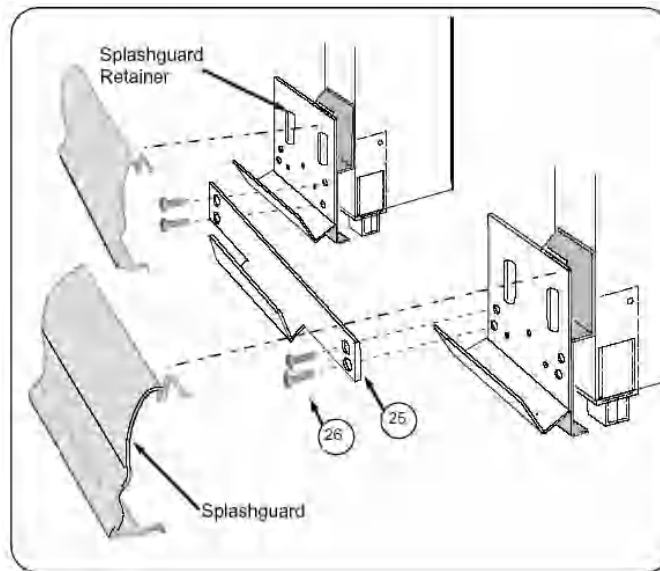
Use caution when installing fasteners around wiring.

- a. Fasten the fronts together using 5/16-18 x 1 Hex Head Cap Screws, 5/16 Flat Washers and 5/16 Lock Washers.
- b. Fasten the rear of the cases together at two locations shown above using 5/16-18 x 1 Hex Head Cap Screws, 5/16 Flat Washers, 5/16 Lock Washers and 5/16-18 Hex Nut.
- c. Fasten the top rear of the cases together using 5/16-18 x 3 1/2 Cap Screws, 5/16 Flat Washers, 5/16 Lock Washers and 5/16-18 Hex Nut.

7. Apply a smooth continuous bead of silicone over the Exterior Top Joint (A.) of the cases. Continue sealing down the Rear Mullion Joint (B.) of the cases and finally seal the Rear Sill Joints (C.), as illustrated below.



8. Install the Splashguard Joint Support (Item 25) to the splashguard retainer using #8 x 1/2 Hex Head Sheet metal Screws (Item 26).



## Wiring

### **⚠ WARNING**

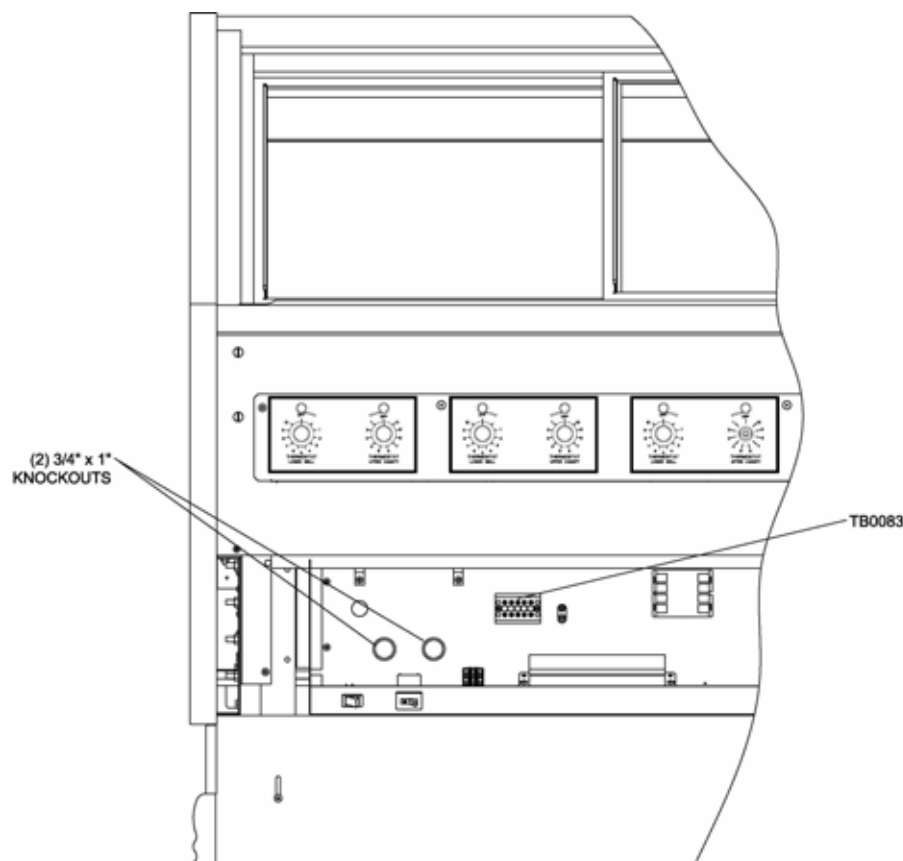
Electrocution, equipment failure or property damage could result if an unlicensed electrician performs the electrical installation. Ensure that a licensed electrician performs the electrical installation.

A wiring diagram for the specific model is shipped with the merchandiser. The wiring diagram provides electrical specifications, an electrical schematic and a parts list. Refer to this wiring diagram and the merchandiser serial number plate for electrical information.

Field wiring must be sized for the components amperes printed on the serial number plate. Actual ampere draw may be less than specified.

All electrical connections should be in compliance with the NEC and all applicable local codes by a licensed electrician. Refer to the wiring diagram furnished with your merchandiser for the electrical specifications.

Follow the steps below to connect the power supply to the merchandiser. Refer to the figure below.

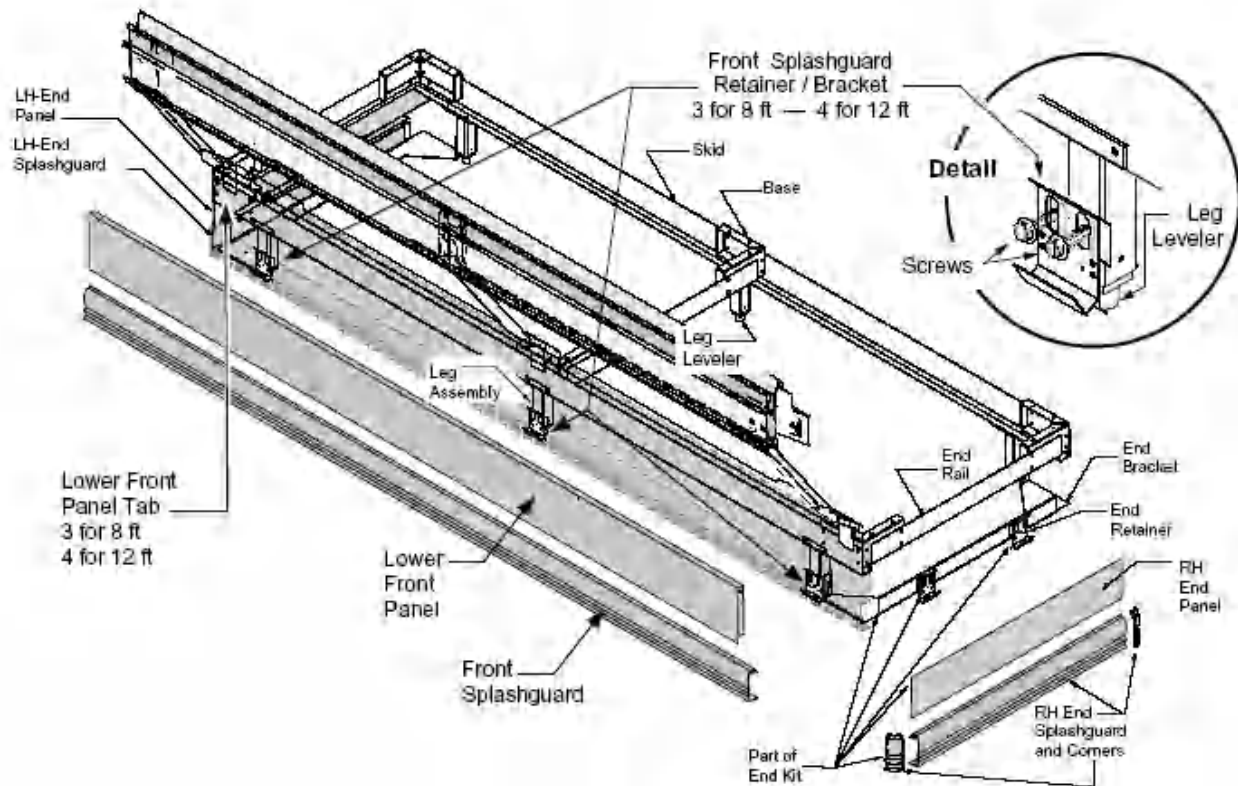


1. Remove the electrical raceway cover.
2. Two  $\frac{3}{4}$ " x 1" knockouts are provided for routing of power supply wiring. Route power supply wiring through the knockout holes.
3. A power supply terminal block (TB0083) is located on the electrical raceway. Connect the wiring to power supply terminal block (TB0083) according to the schematic provided.
4. Reattach the electrical raceway cover.

## Installing Splashguard And Lower Front Panel

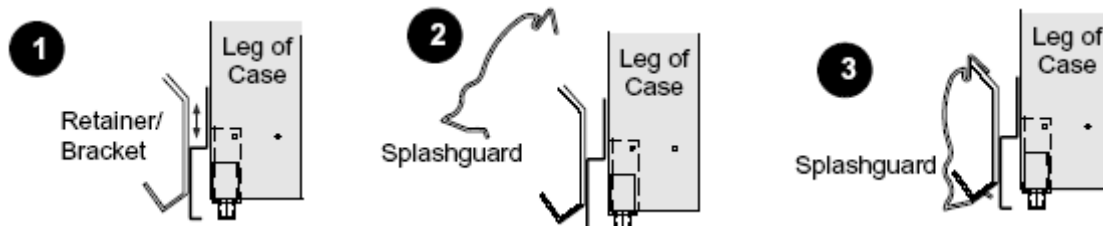
Make certain that the end assemblies; end splashguards and end panels have been installed according to the End Kit instruction.

The splashguard and lower front panel are shipped inside each case. **After** merchandisers have been leveled, joined and electrical work has been completed, install the splashguard and lower front panel.



### Splashguards

1. At front of merchandiser, attach a splashguard retainer/bracket to each leg with sheet metal screws.
2. Position top of splashguard over the top edge of the retainer/bracket as shown below.
3. Push the lower edge of the splashguard toward the bottom of the bracket until it snaps into place.

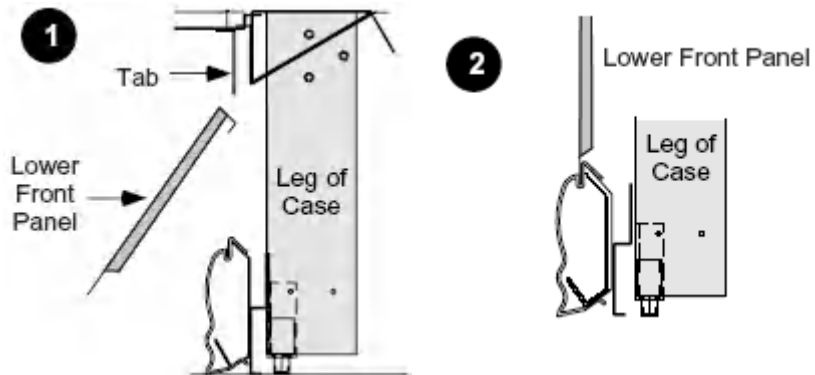


### Lower Front Panel

1. Position the lower front panel with the top angled as shown in the illustration. Tabs extending from the upper front assembly are designed to fit into the slots on the top of the lower front panel.

2. Once the top is positioned, lift the panel up and drop it into the groove at the top of the splashguard.

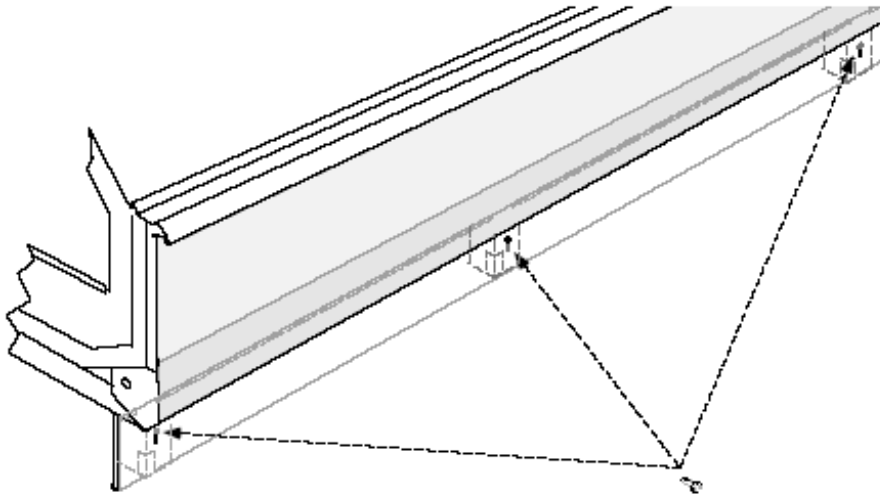
Do not use additional fasteners or sealant to hold splashguards or panels in place. To meet NSF cleaning requirements, splashguards and panels must be removable without tools.



### ***Installing Bottom Rear Panel***

For fixed installation:

1. Align slots in bottom rear panel with center of legs.
2. Drive a hex head sheet metal screw through each slot into each leg.

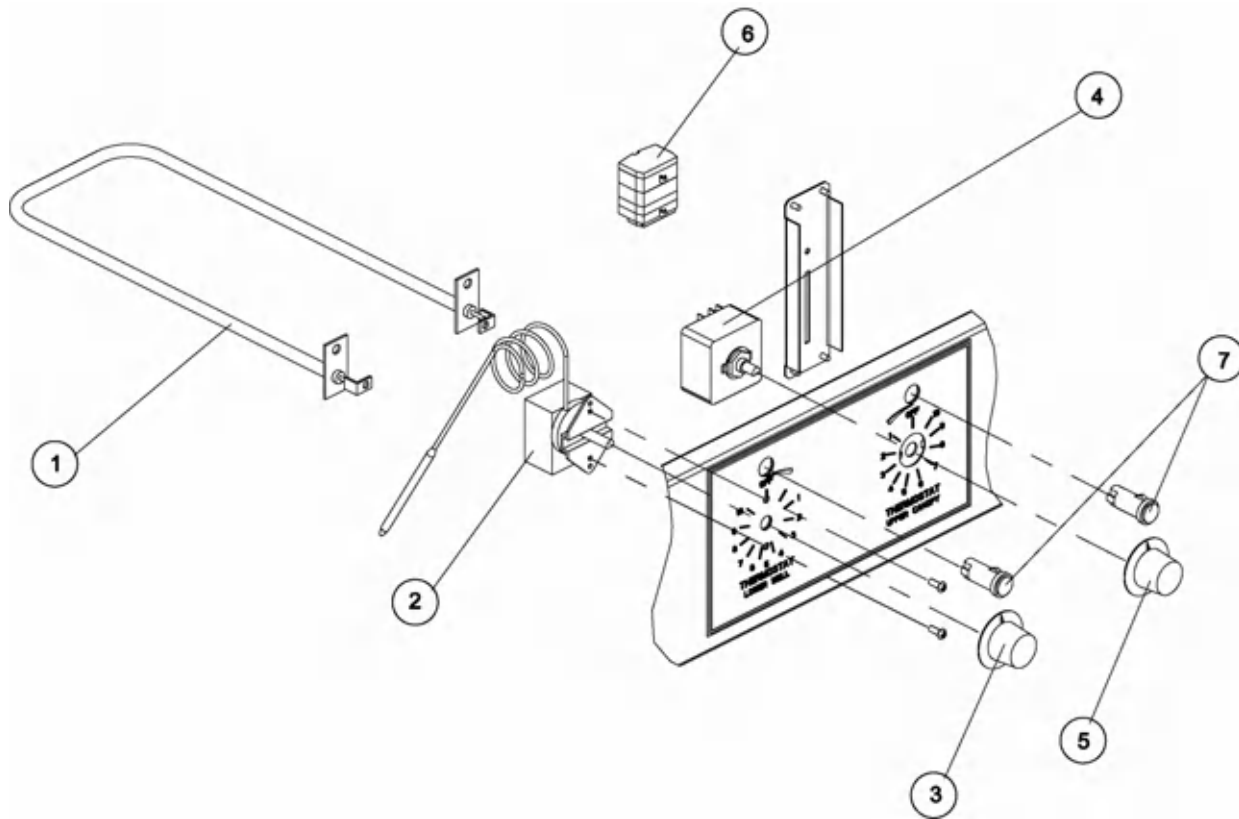




## Replacement Parts

Use the information in this section to identify replacement parts. To order replacement parts, call your local BKI sales and service representative. Before calling, please note the serial number on the rating tag affixed to the unit.

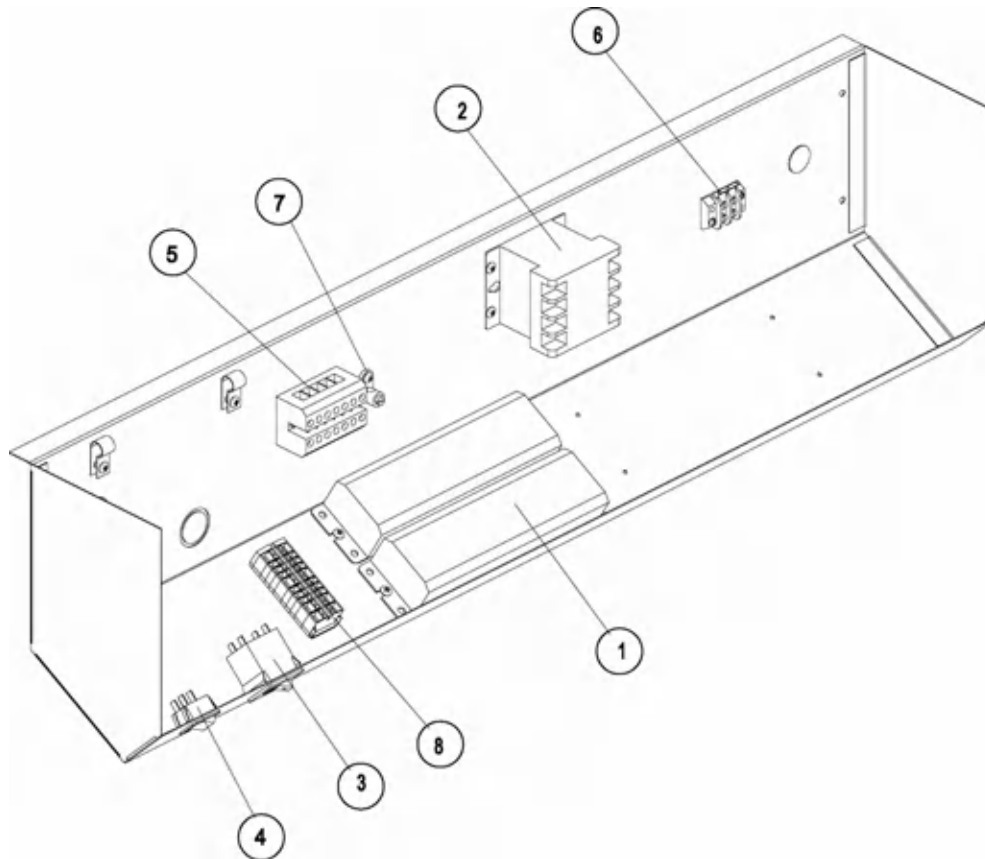
### Control Plate



ITEM #	PART #	DESCRIPTION
1	C0285	CALROD, 208V 1000W
	C0286	CALROD, 240V 1000W
	C0296	CALROD, 208V 1112W
	C0298	CALROD, 240V 1112W
2	T0095	THERMOSTAT, 250V 450 DEG
3	K0049	KNOB (FOR T0095)
4	S0141*	SWITCH, INFINITE 240V-1245W
5	K0040	KNOB (FOR S0141)
6	TB0064	TERM BLOCK 4 CONDUCTOR CTR
	TB0065	TERM BLOCK 4 CONDUCTOR W/MTG FOOT
	TB0066	TERM BLOCK 2 CONDUCTOR CTR
	TB0067	TERM BLOCK 2 CONDUCTOR
	TB0068	TERM BLOCK END PLATE
	TB0069	TERM BLOCK JUMPER BAR
7	PL0004	PILOT LIGHT, ROUND 250V

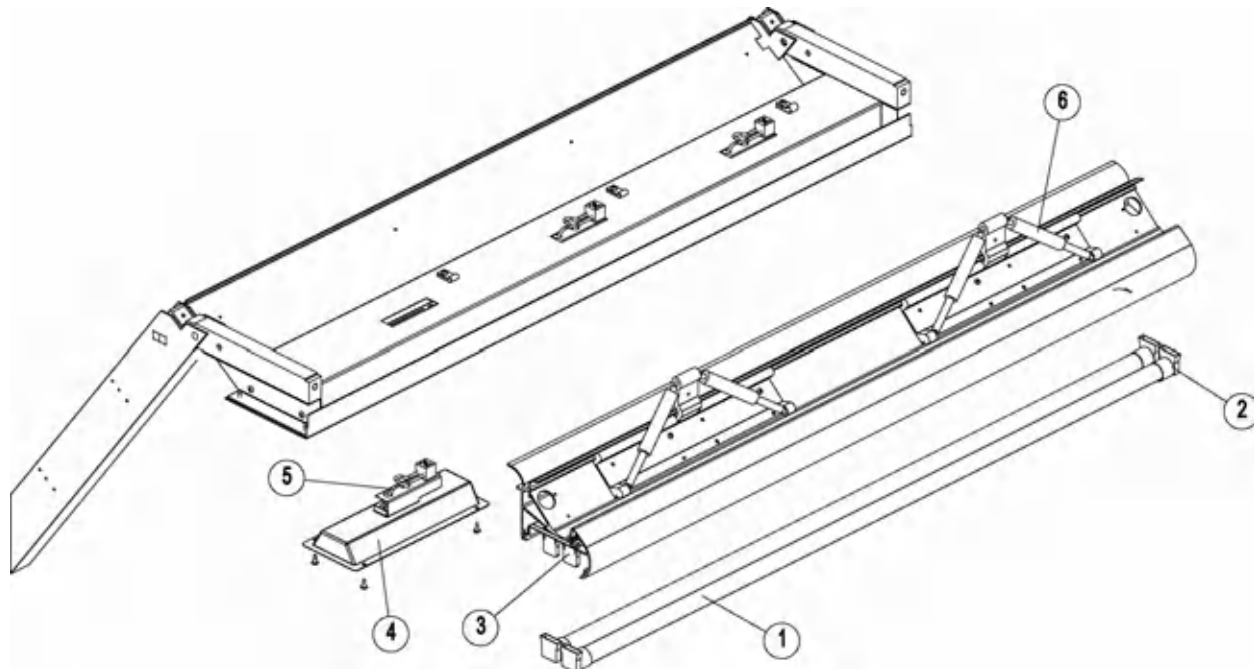
\* - Replace S0141 with assembly AN6778710S containing the S0141 switch, B0058 bracket and NUT282 nut.

**Electrical Raceway**



ITEM #	PART #	DESCRIPTION
1	B0084	BALLAST, 3XF32T8 OR 2XF40T8
2	R0150	RELAY, 4 POLE 208-240 60 HZ
3	CB0065	BREAKER, CIRCUIT 2.5A 250V 2P
4	S0356	SWITCH, ROCKER 16A 250V
5	TB0083	TERM BLOCK MDM10/5 70A 600V
6	TB0024 TB0025-2	TERM BLOCK JUMPER TERM BLOCK
7	F0111	TERMINAL GROUNDING LUG
8	TB0066 TB0064 TB0065 TB0068	TERM BLOCK 2 CONDUCTOR CTR TERM BLOCK 4 CONDUCTOR CTR TERM BLOCK 4 CONDUCTOR W/MTG FOOT TERM BLOCK END PLATE

### Canopy & Lift Hardware

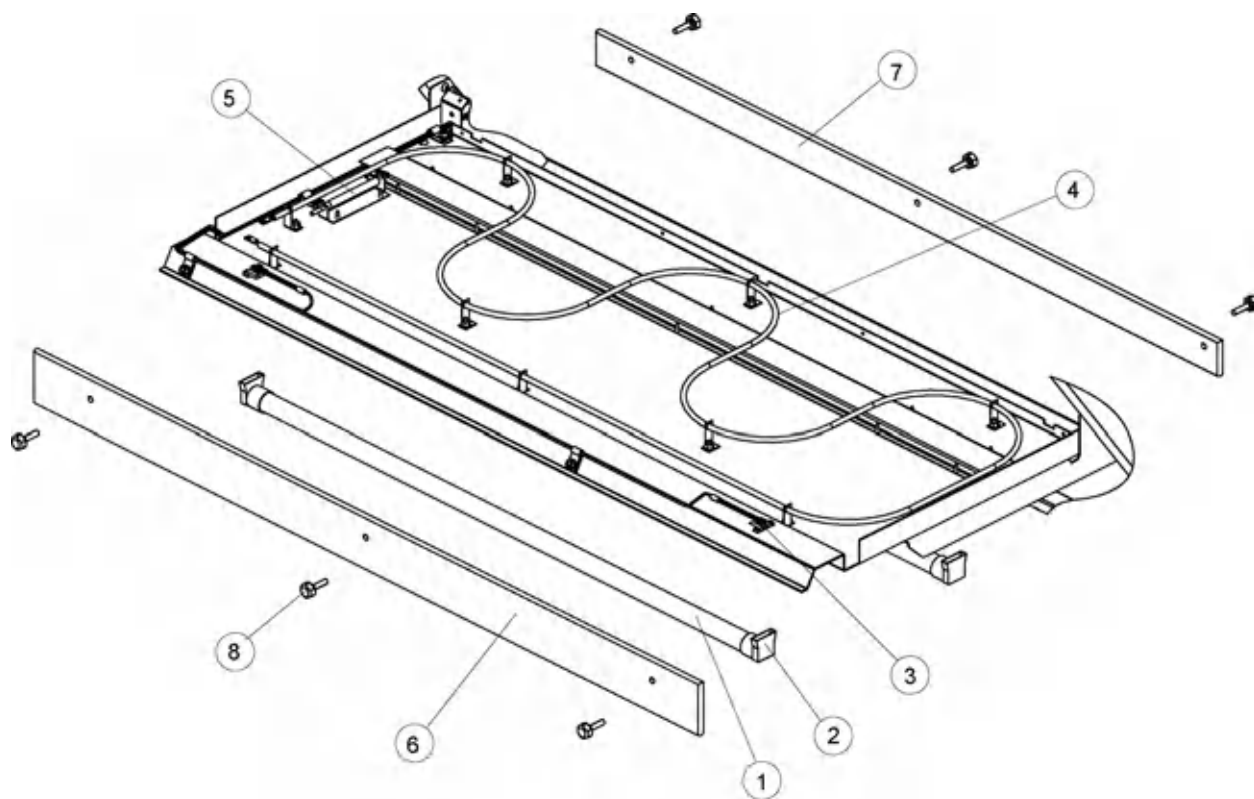


ITEM #	PART #	DESCRIPTION
1	FL0038* FL0040*	LAMP, FLUORESCENT F32T8/TL835/HV/ALTO LAMP, FLUORES F25T8/TL835
2	HI0014	LAMPHOLDER SHROUD, HI TEMP
3	HI0013	HARNESS, 8FT LIGHT CHANNEL
4	C0057	CERAMIC HEATER 400W FULL SIZE 220/240V
5	I0029	FIBERGLASS SLEEVING SIZE 2 3.5"
6	HI0105** HI0108** VH0432** VH0433**	GAS RAM 400N HUSSMANN IMPACT GAS RAM 100N HUSSMANN IMPACT GAS RAM 200 RADIAL HDWE GAS RAM 300N RADIAL HDWE

\* - To maintain NSF compliance, replace with BKI lamps only

\*\* - Requires HI0110 Installation Tool

### Heated Shelf



ITEM #	PART #	DESCRIPTION
1	FL0041* FL0042* FL0043*	LAMP, FLUORESCENT GS U83001F25/T8 830 LAMP, FLUORESCENT GS U83321F32/T8 830 LAMP, FLUORESCENT GS U84001F40/T8 830
2	HI0014	LAMPHOLDER SHROUD, HI TEMP
3	HI0013	HARNES, 8FT LIGHT CHANNEL
4	C0081 C0082 C0085 C0086	CALROD, 208V 1000W TSW4/8 SHELF CALROD, 208V 1500W TSW6 SHELF CALROD, 240V 1000W TSW4/8 SHELF CALROD, 240V 1500W TSW6 SHELF
5	T0006	THERMOSTAT, 110/208 300 DEG
6	G0108 G0110 G0112 G0113	GUARD, FRONT SHELF TSW 48" GUARD, FRONT SHELF TSW 72" CASE GUARD, FRONT SHELF DRTSW 48" GUARD, FRONT SHELF DRTSW 72"
7	G0109 G0111	GUARD, REAR SHELF TSW4-8 GUARD, REAR SHELF TSW6
8	K0050	KNOB (FOR T0006)

\* - To maintain NSF compliance, replace with BKI lamps only.

## Wiring Diagrams

Refer to the table below to find the wiring diagram associated with your unit.

<b>Wiring Diagram</b>	<b>Drawing #</b>	<b>Figure #</b>	<b>Page #</b>
Model SSWHI-4/CSWHI-4 208/220/240	SB68294600	Figure 1	28
Model SSWHI-6/CSWHI-6 208/220/240	SB68294700	Figure 2	29
Model SSWHI-8/CSWHI-8 208/220/240	SB68294800	Figure 3	31
Model TSWHI-4 208/220/240	SB68295100	Figure 4	33
Model TSWHI-6 208/220/240	SB68295200	Figure 5	34
Model TSWHI-8 208/220/240	SB68295300	Figure 6	36
Model WDCHI-3 208/220/240	SB68293600	Figure 7	38
Model WDCHI-4 208/220/240	SB68293700	Figure 8	39
Model WDCHI-4/2L	SB68294000	Figure 9	40
Model WDCHI-4/2R 208/220/240	SB68294100	Figure 10	42
Model WDCHI-4/4L 208/220/240	SB68294200	Figure 11	44
Model WDCHI-4/4R 208/220/240	SB68294300	Figure 12	46
Model WDCHI-5 208/220/240	SB68293800	Figure 13	48
Model WDCHI-6/2L 208/220/240	SB68294400	Figure 14	50
Model WDCHI-6/2R 208/220/240	SB68294500	Figure 15	52
Model WDCHI-7 208/220/240	SB68293900	Figure 16	54

Figure 1. Model SSWHI-4/CSWHI-4

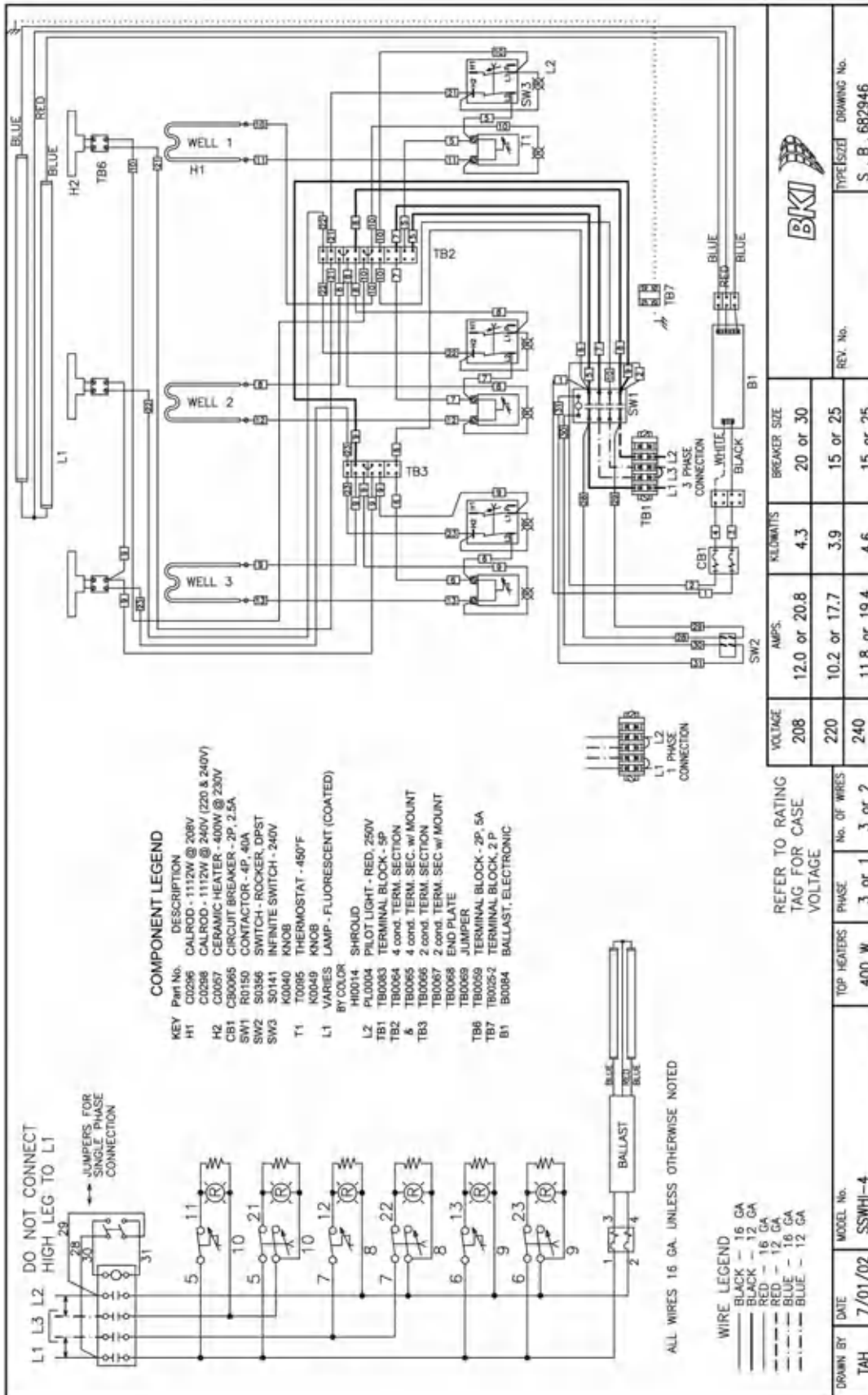


Figure 2. Model SSWHI-6/CSWHI-6 (Sheet 1 of 2)

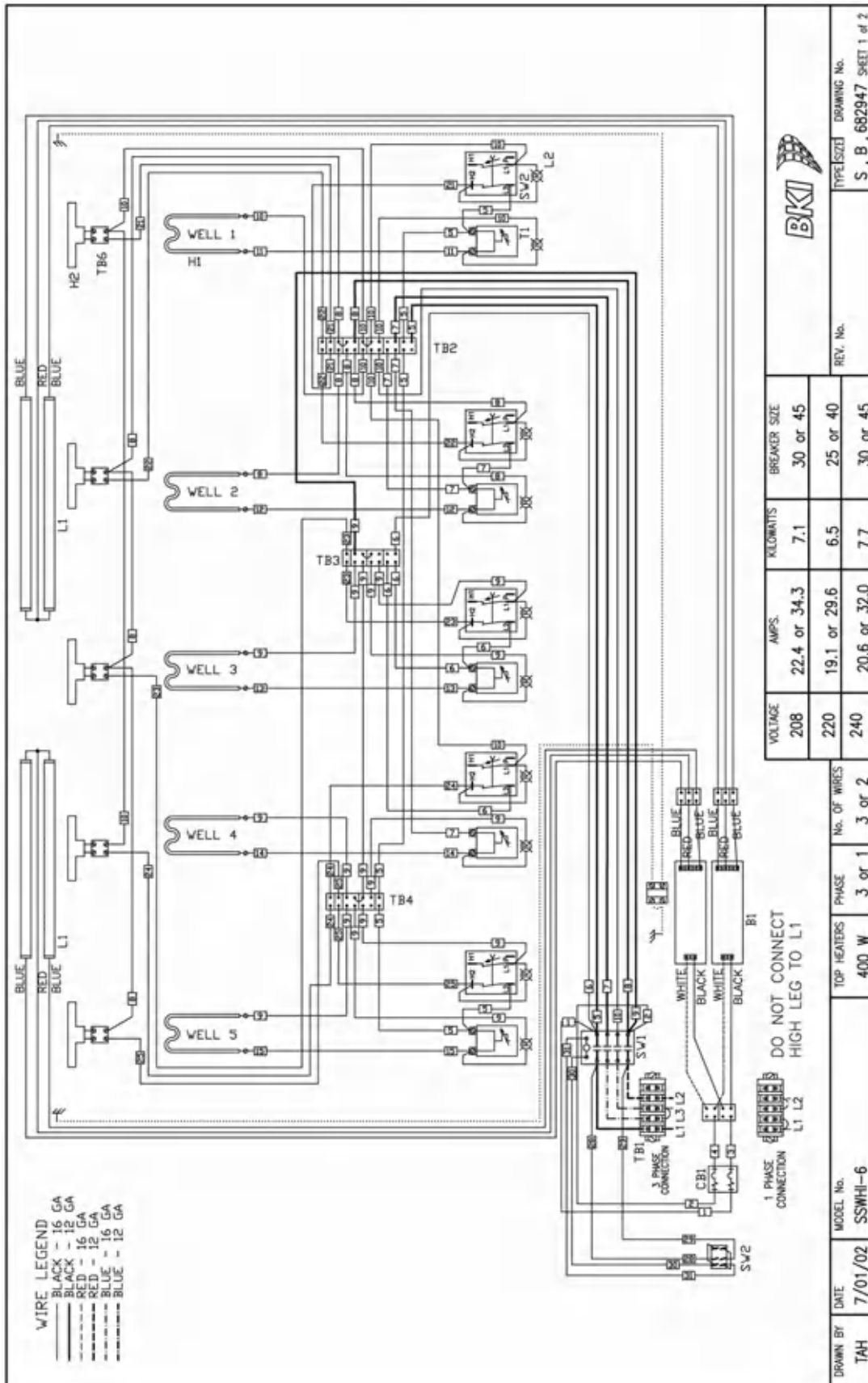


Figure 2. Model SSWHI-6/CSWHI-6 (Sheet 2 of 2)

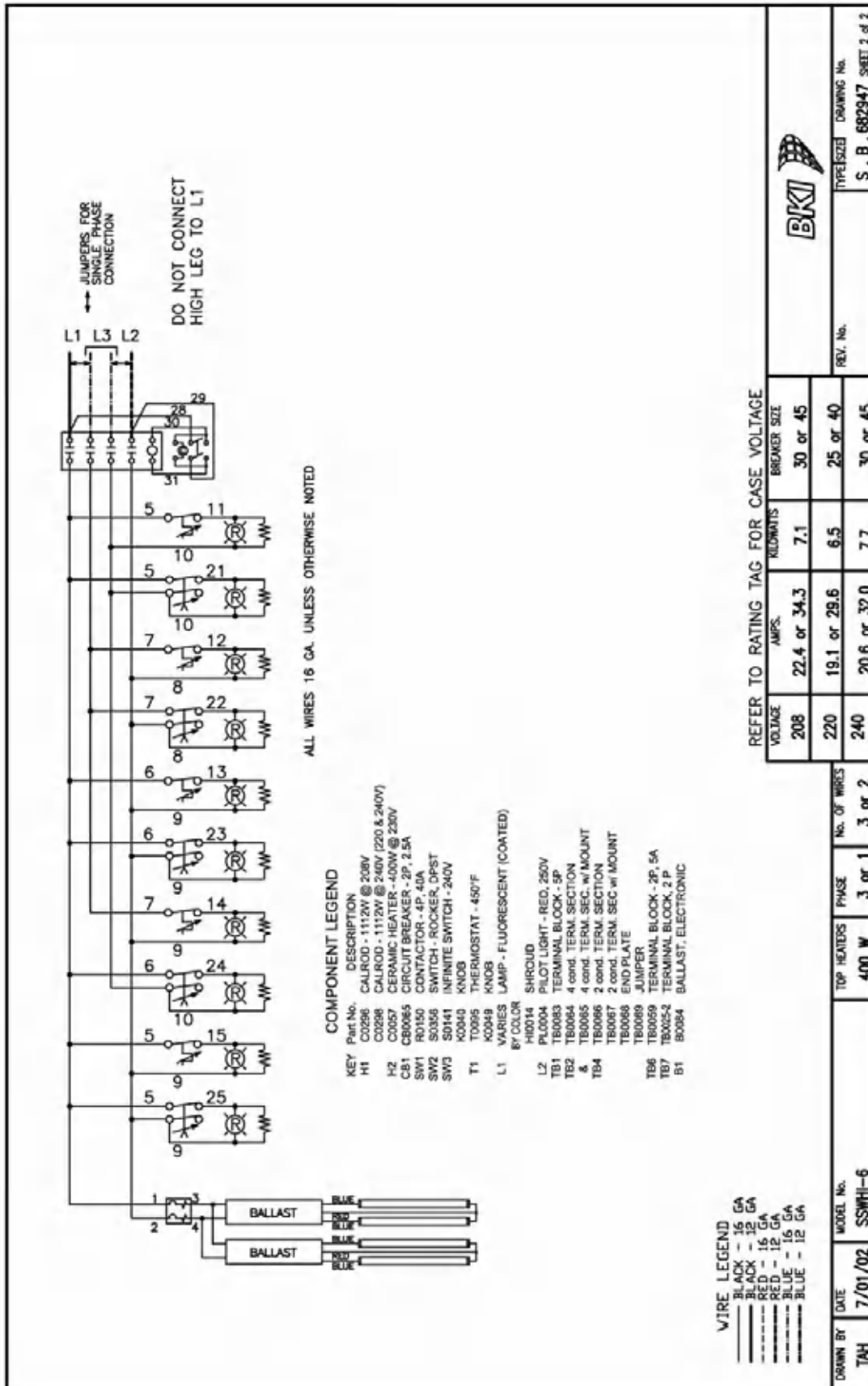




Figure 3. Model SSWHI-8/CSWHI-8 (Sheet 1 of 2)

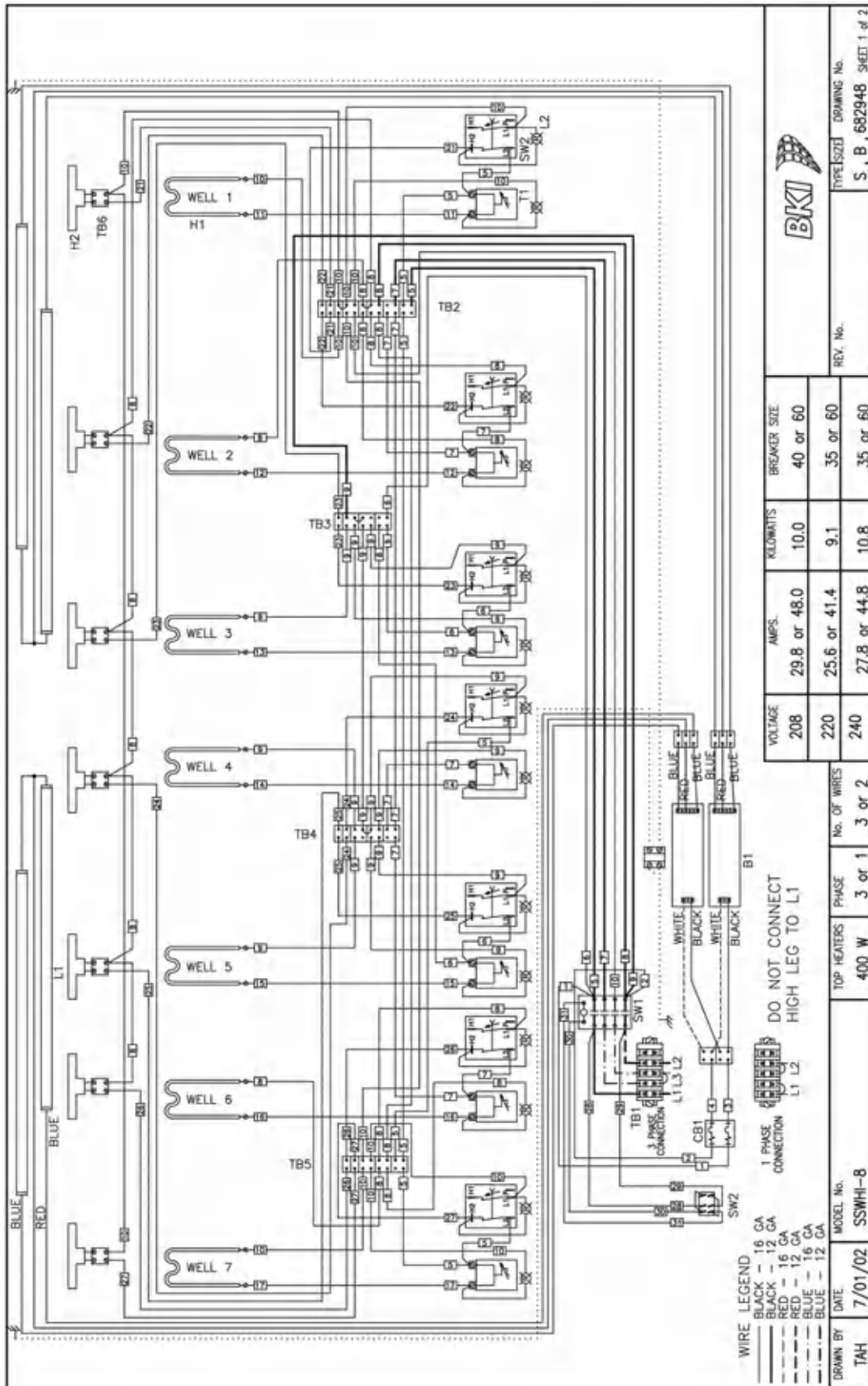


Figure 3. Model SSWHI-8/CSWHI-8 (Sheet 2 of 2)

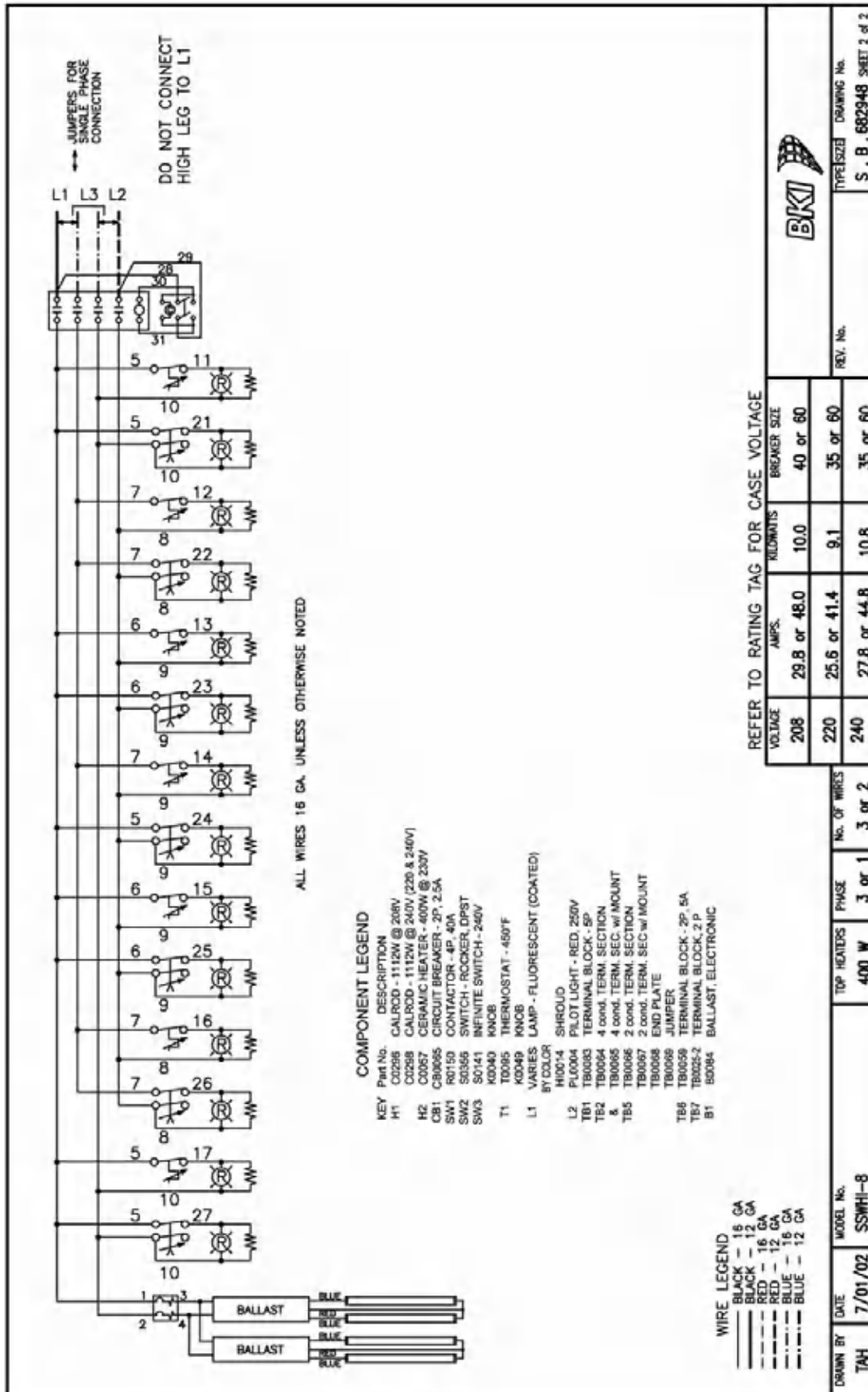


Figure 4. Model TSWHI-4

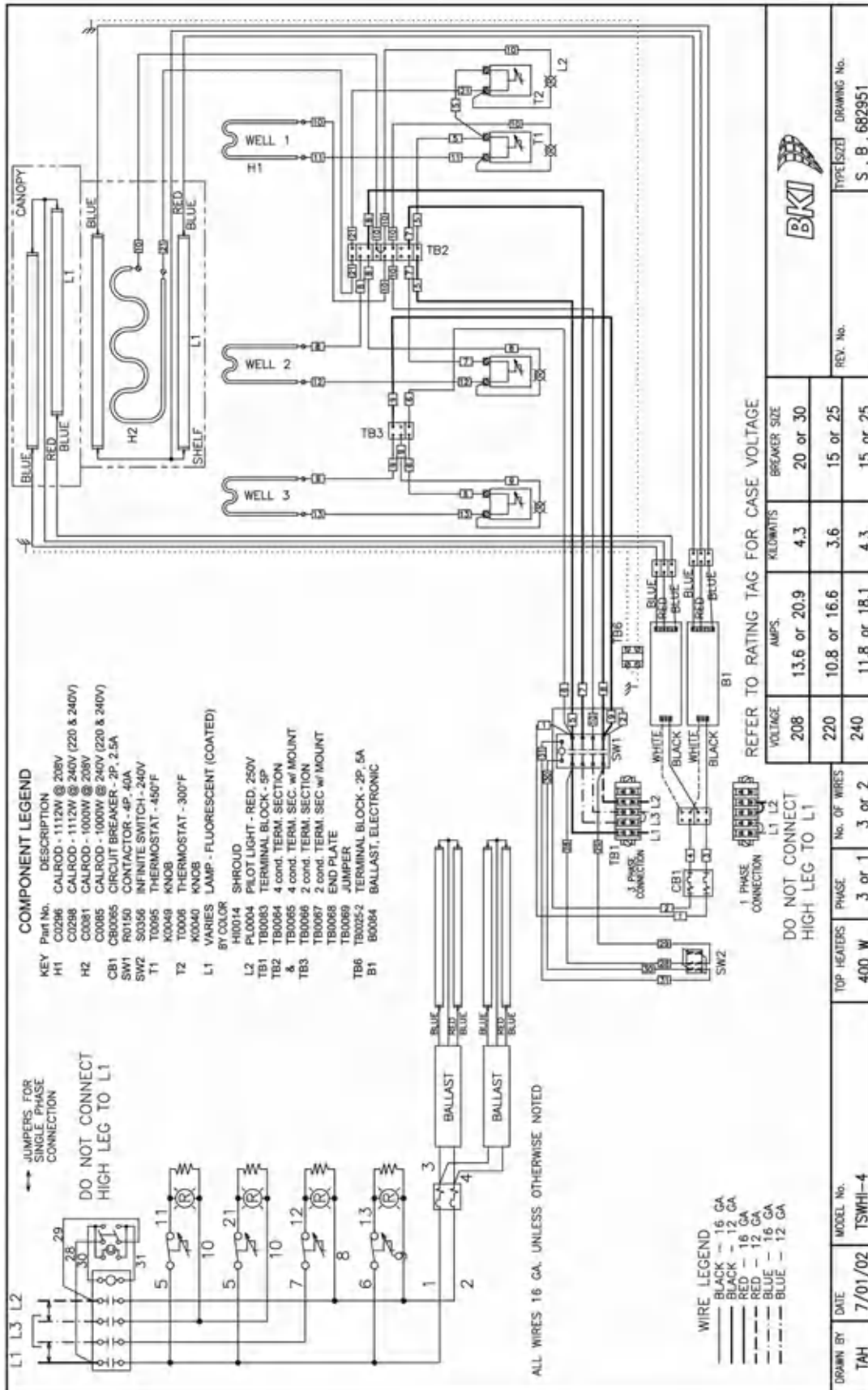


Figure 5. Model TSWHI-6 (Sheet 1 of 2)

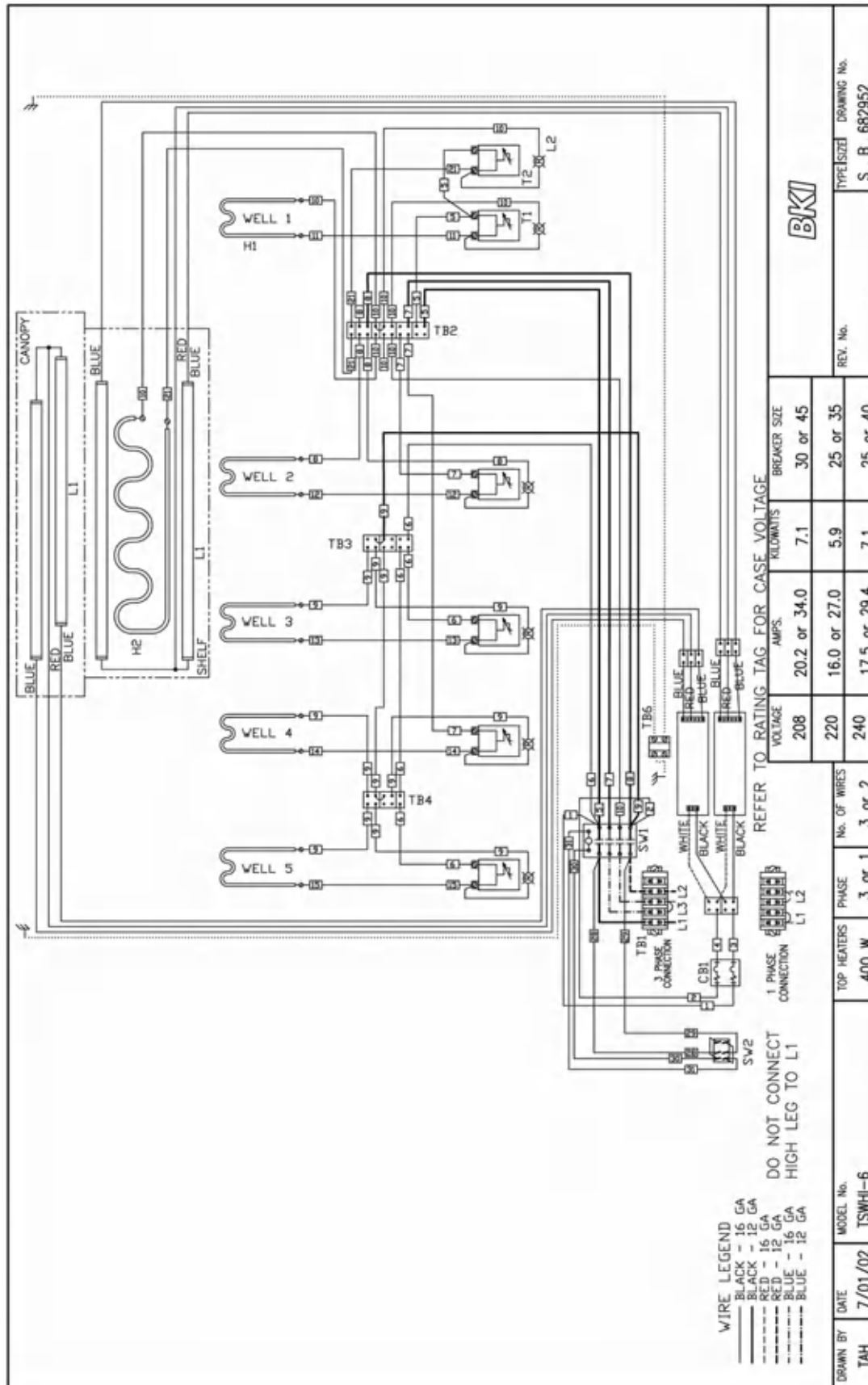


Figure 5. Model TSWHI-6 (Sheet 2 of 2)

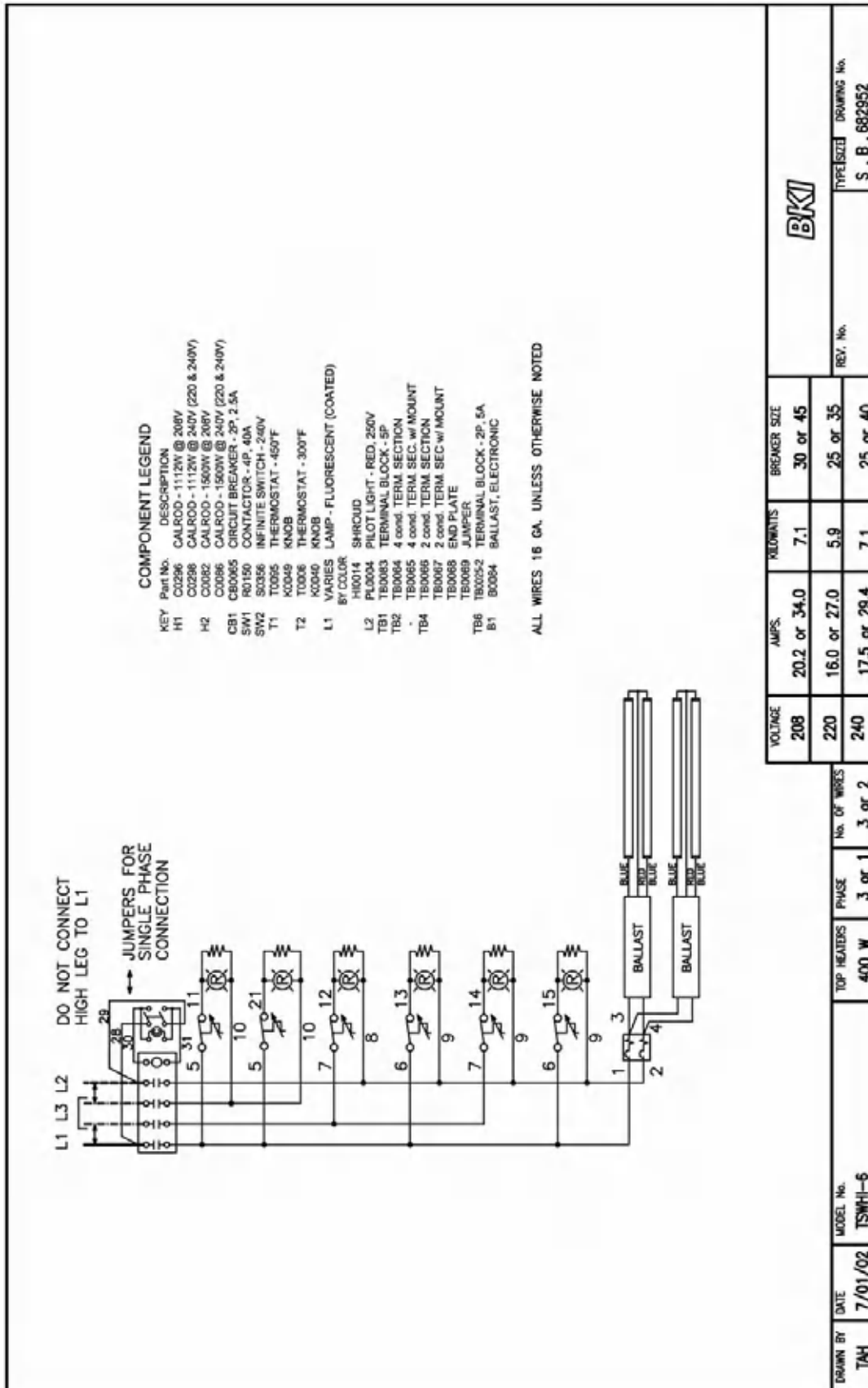


Figure 6. Model TSWHI-8 (Sheet 1 of 2)

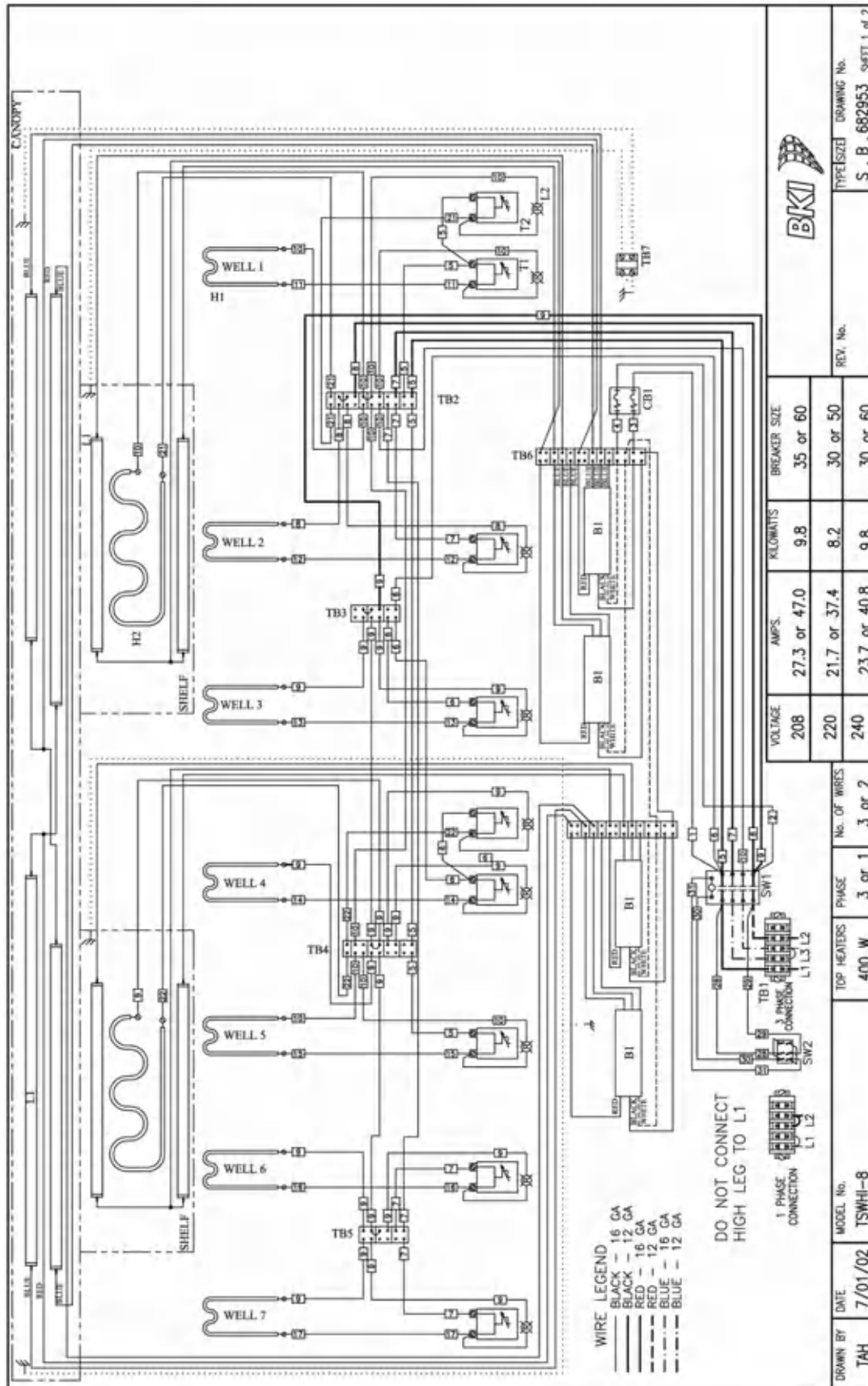


Figure 6. Model TSWHI-8 (Sheet 2 of 2)

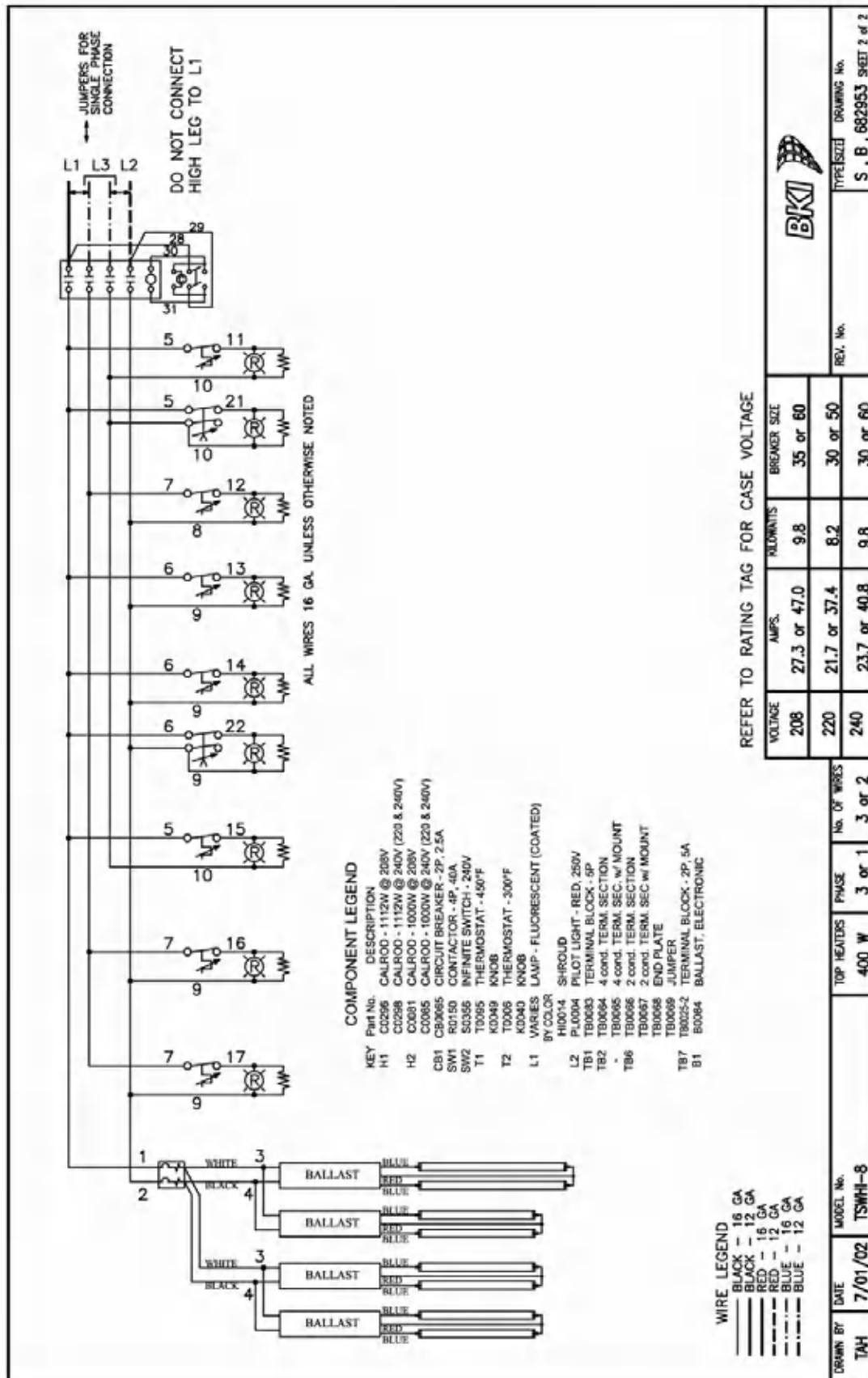


Figure 7. Model WDCHI-3

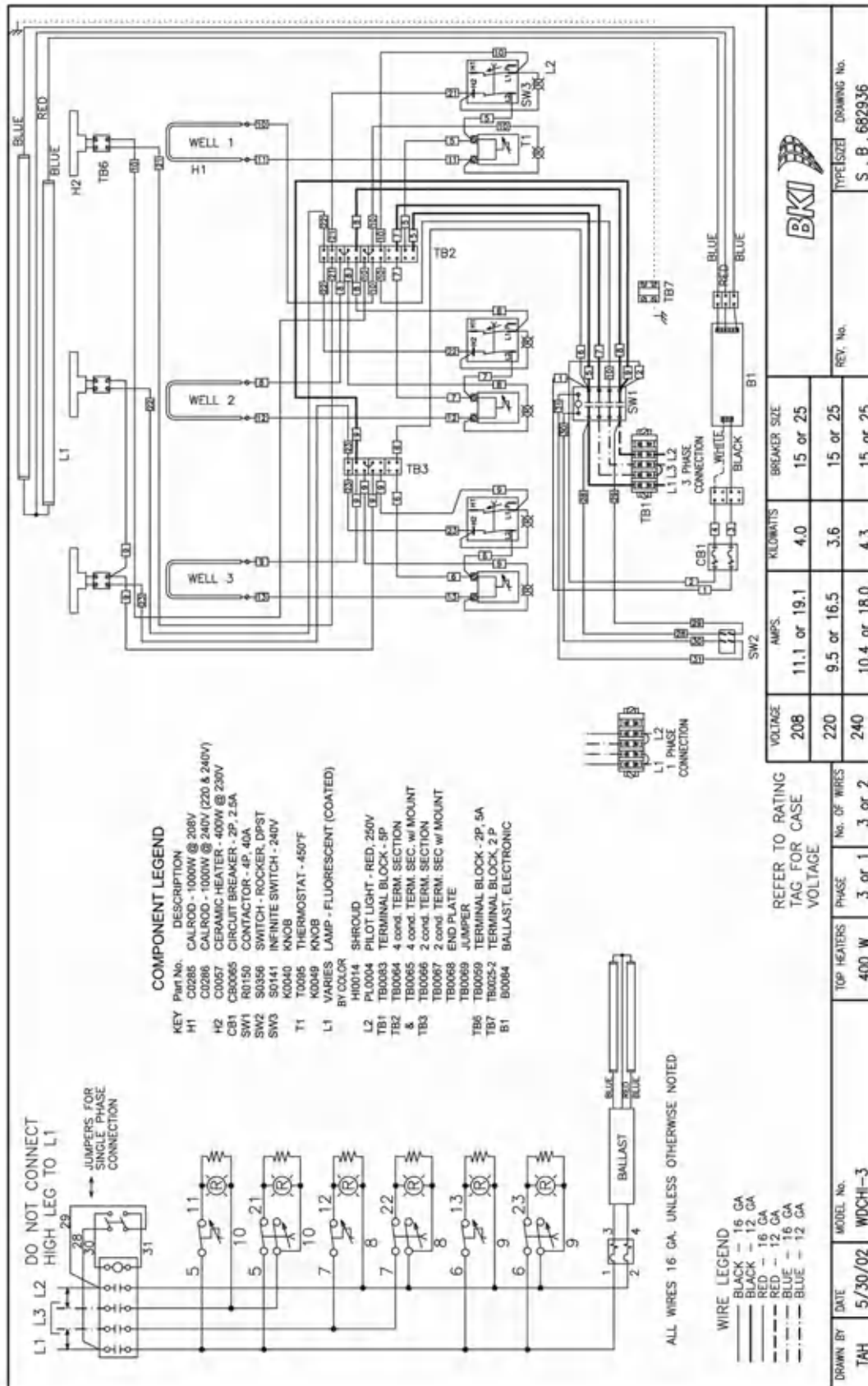
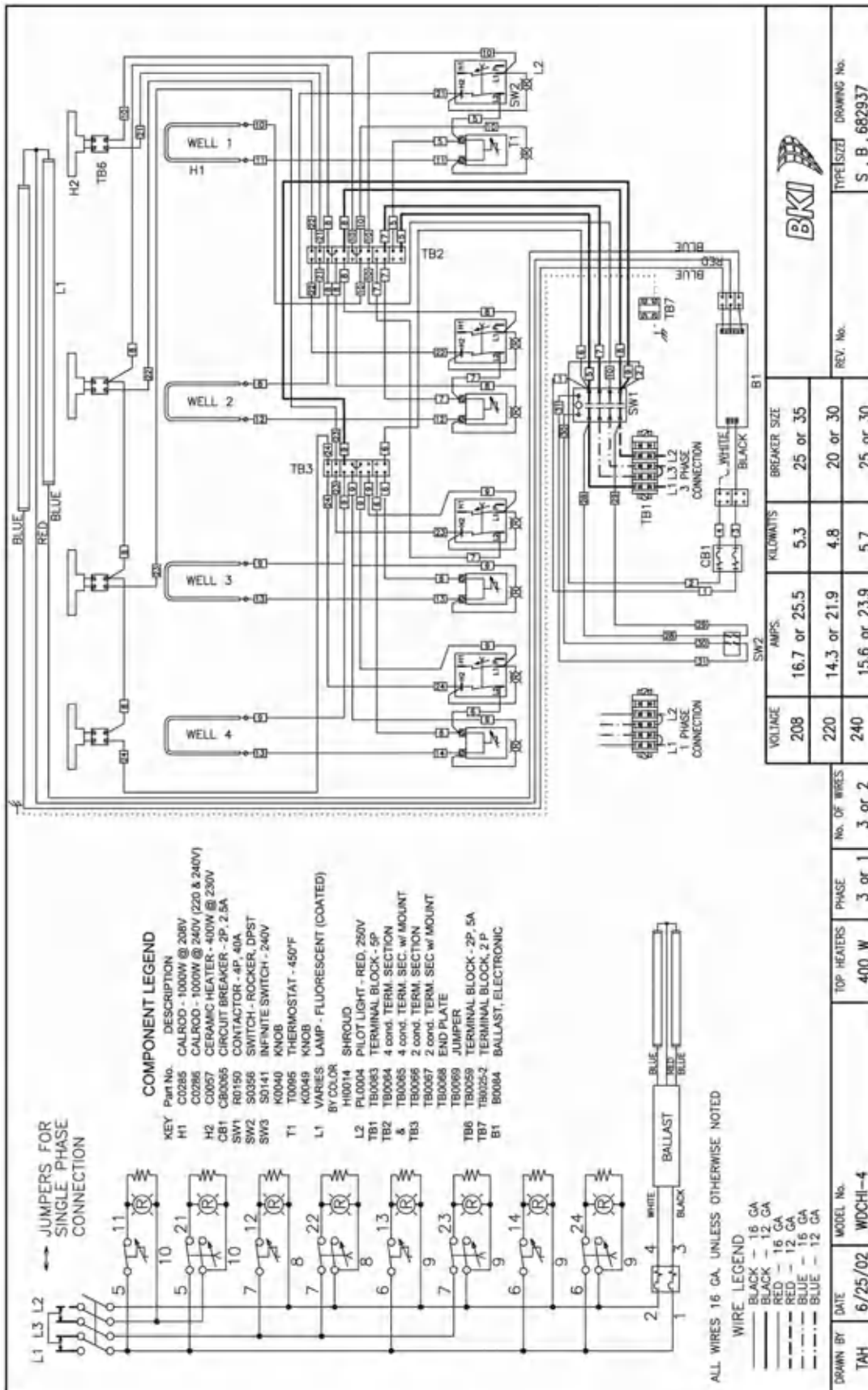




Figure 8. Model WDCHI-4



		TYPE/SIZE		DRAWING No.																	
		S, B		682937																	
<table border="1"> <thead> <tr> <th>VOLTAGE</th> <th>AMPS</th> <th>KILOWATTS</th> <th>BREAKER SIZE</th> </tr> </thead> <tbody> <tr> <td>208</td> <td>16.7 or 25.5</td> <td>5.3</td> <td>25 or 35</td> </tr> <tr> <td>220</td> <td>14.3 or 21.9</td> <td>4.8</td> <td>20 or 30</td> </tr> <tr> <td>240</td> <td>15.6 or 23.9</td> <td>5.7</td> <td>25 or 30</td> </tr> </tbody> </table>	VOLTAGE	AMPS	KILOWATTS	BREAKER SIZE	208	16.7 or 25.5	5.3	25 or 35	220	14.3 or 21.9	4.8	20 or 30	240	15.6 or 23.9	5.7	25 or 30	REV. No.				
	VOLTAGE	AMPS	KILOWATTS	BREAKER SIZE																	
	208	16.7 or 25.5	5.3	25 or 35																	
220	14.3 or 21.9	4.8	20 or 30																		
240	15.6 or 23.9	5.7	25 or 30																		
<table border="1"> <thead> <tr> <th>TOP HEATERS</th> <th>PHASE</th> <th>No. OF WIRES</th> </tr> </thead> <tbody> <tr> <td>400 W</td> <td>3 or 1</td> <td>3 or 2</td> </tr> </tbody> </table>	TOP HEATERS	PHASE	No. OF WIRES	400 W	3 or 1	3 or 2															
TOP HEATERS	PHASE	No. OF WIRES																			
400 W	3 or 1	3 or 2																			
DRAWN BY	DATE	MODEL No.																			
TAH	6/25/02	WDCHI-4																			

Figure 9. Model WDCHI-4/2L (Sheet 1 of 2)

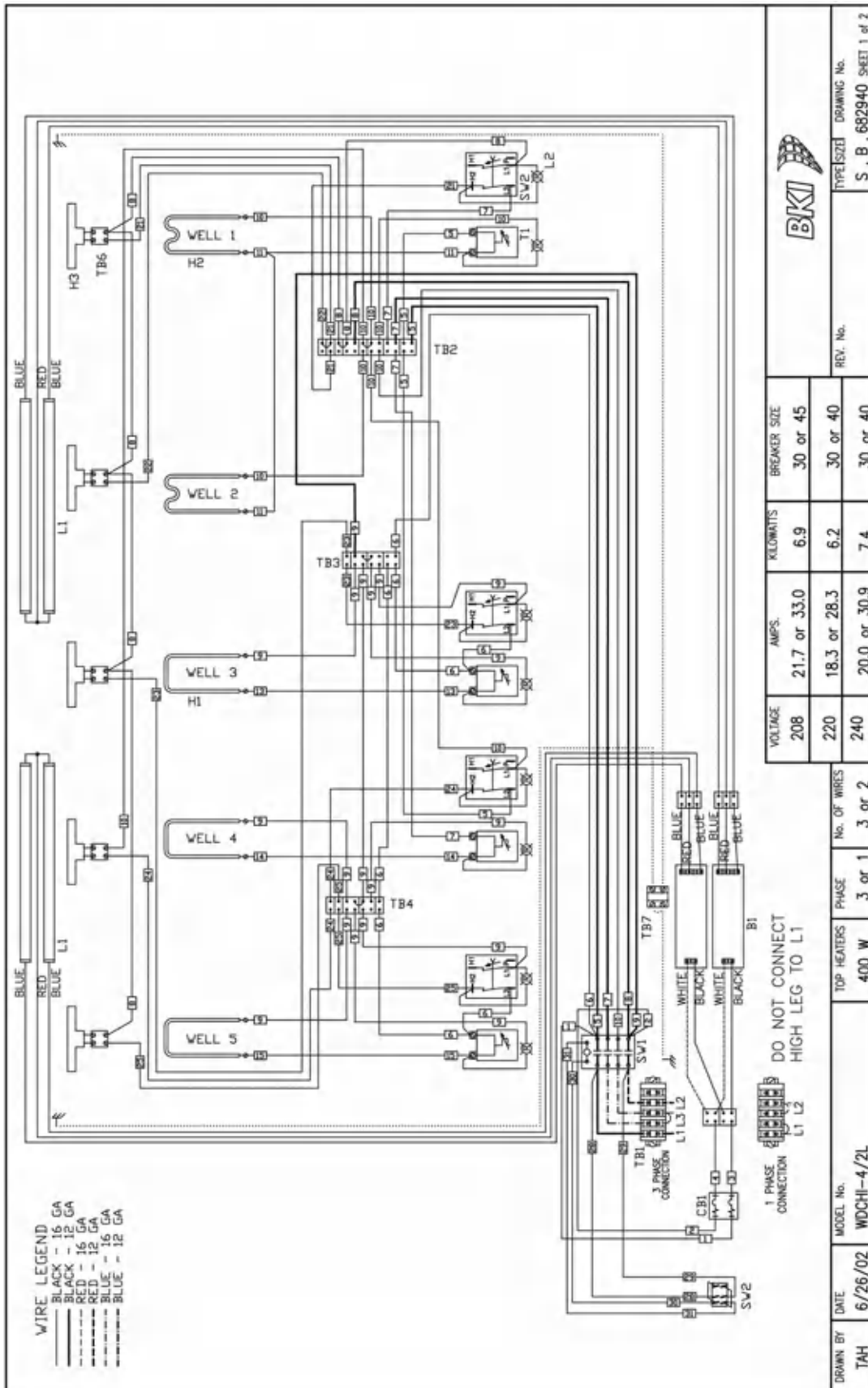


Figure 9. Model WDCHI-4/2L (Sheet 2 of 2)

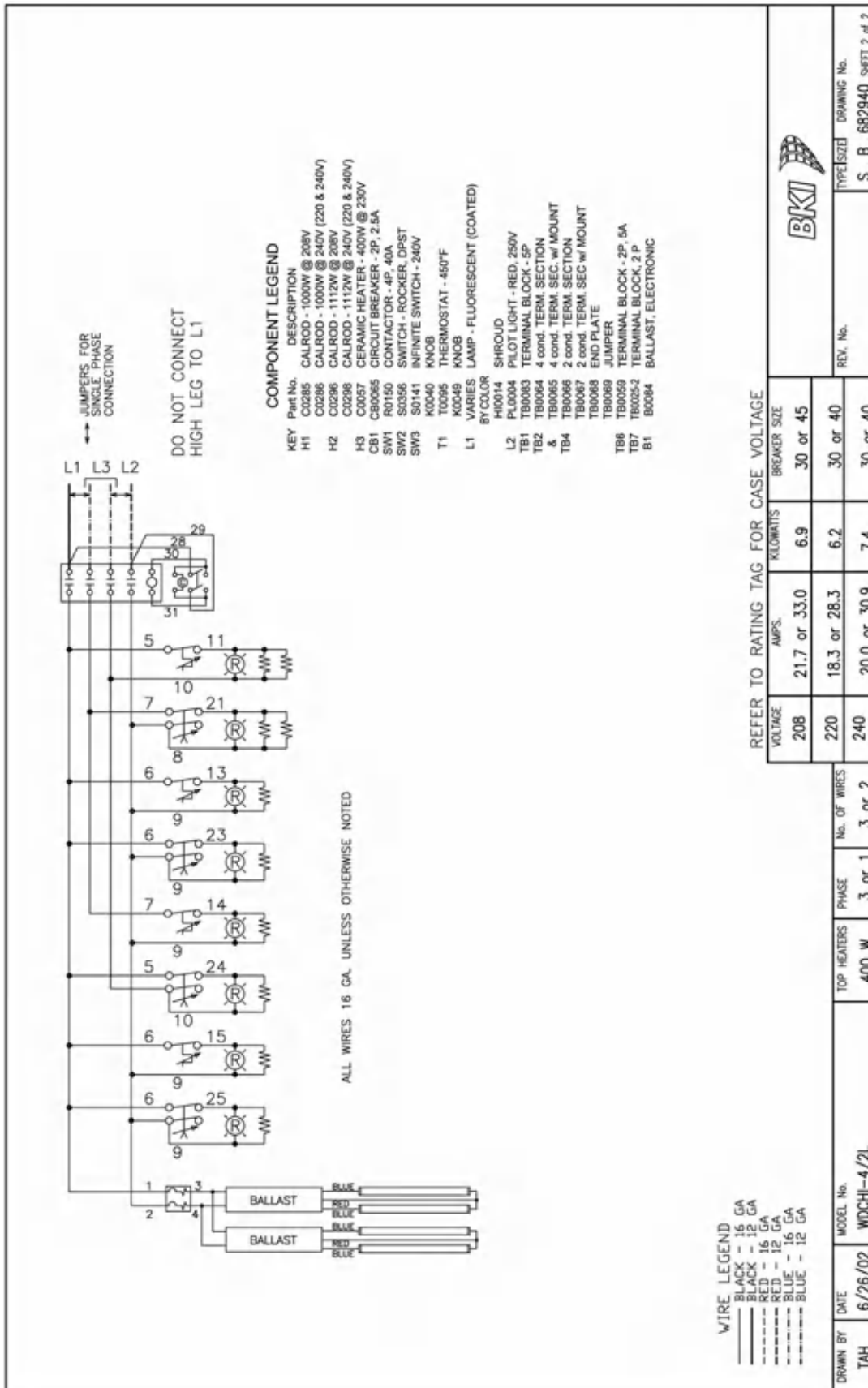


Figure 10. Model WDCHI-4/2R (Sheet 1 of 2)

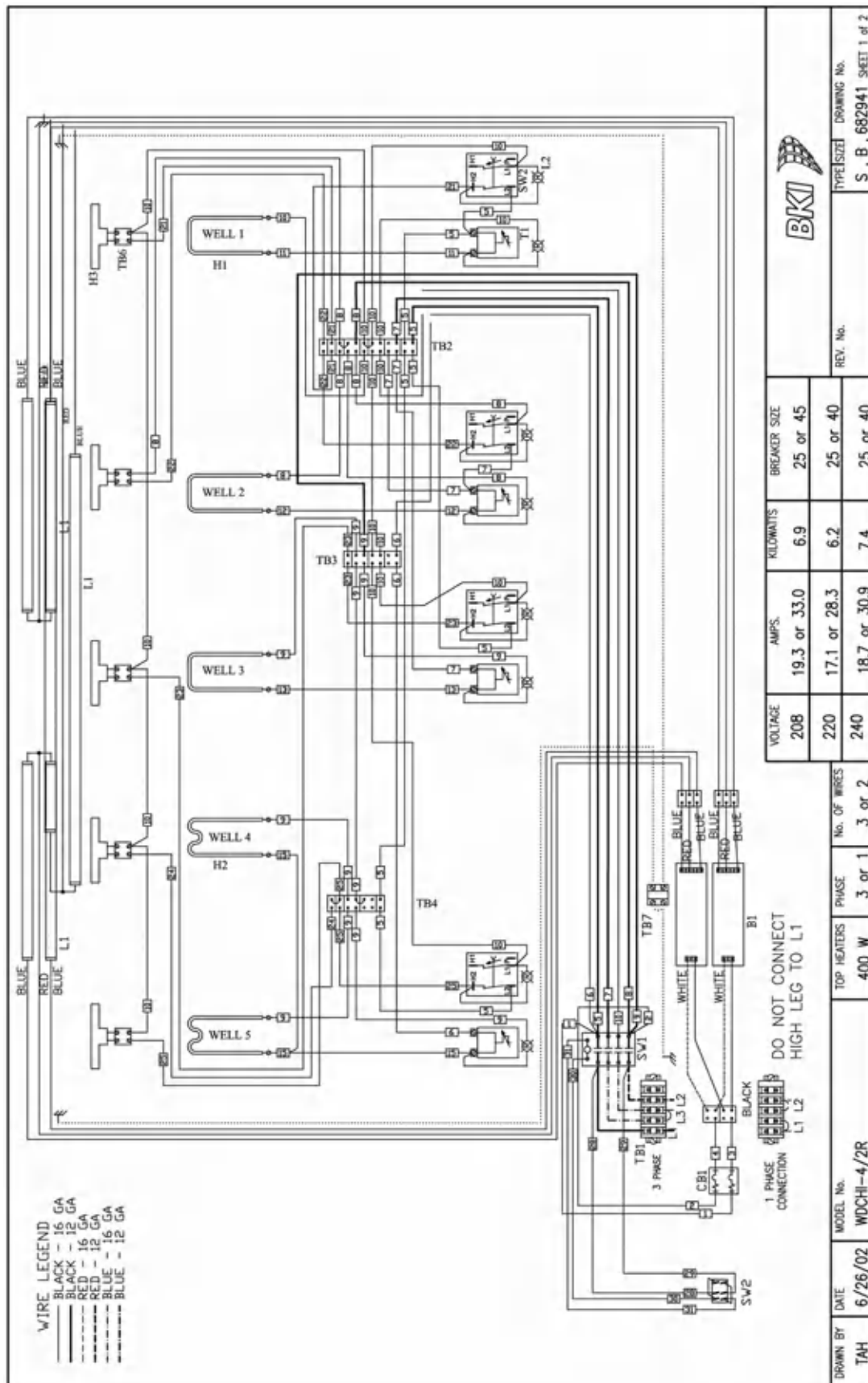


Figure 10. Model WDCHI-4/2R (Sheet 2 of 2)

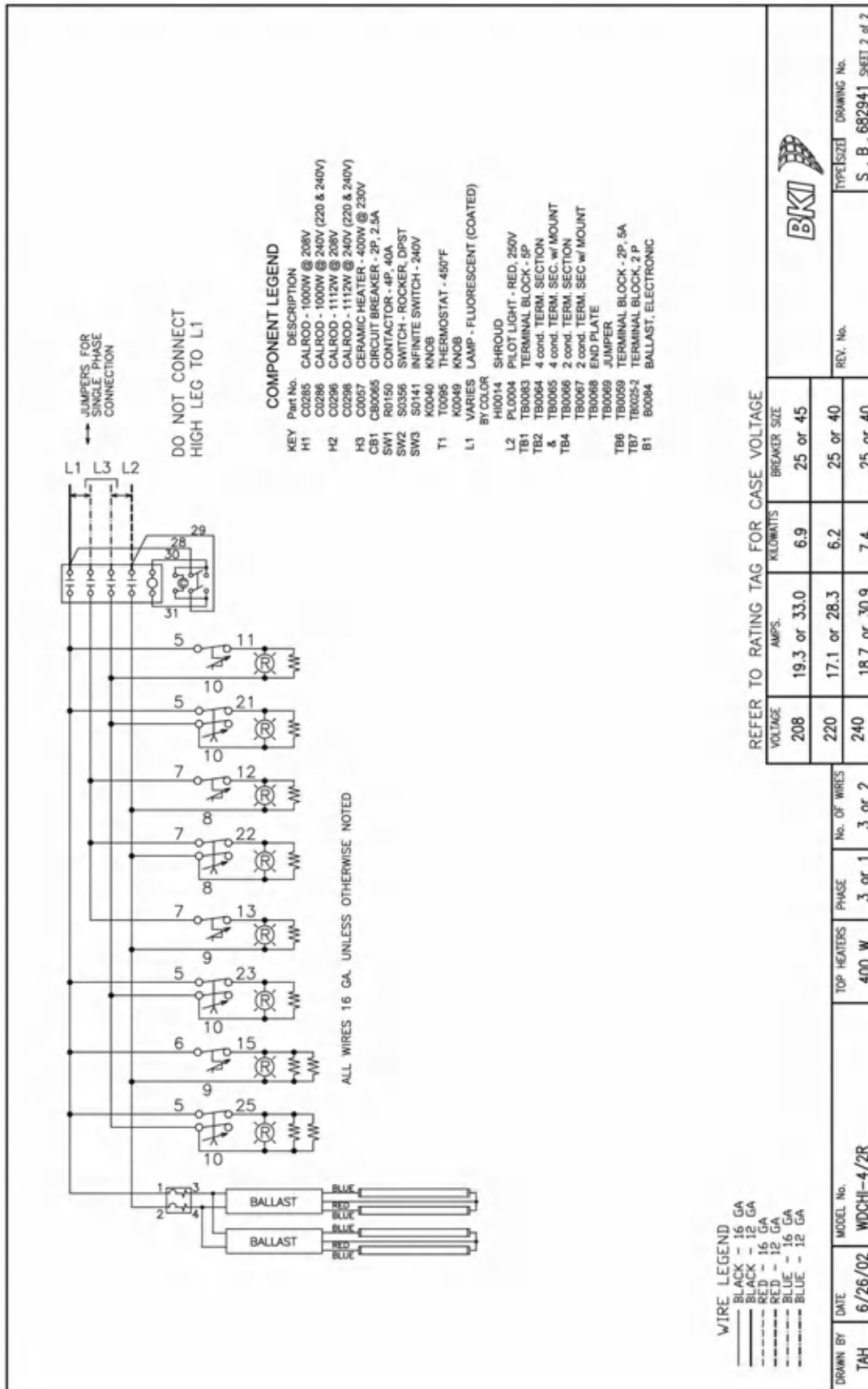
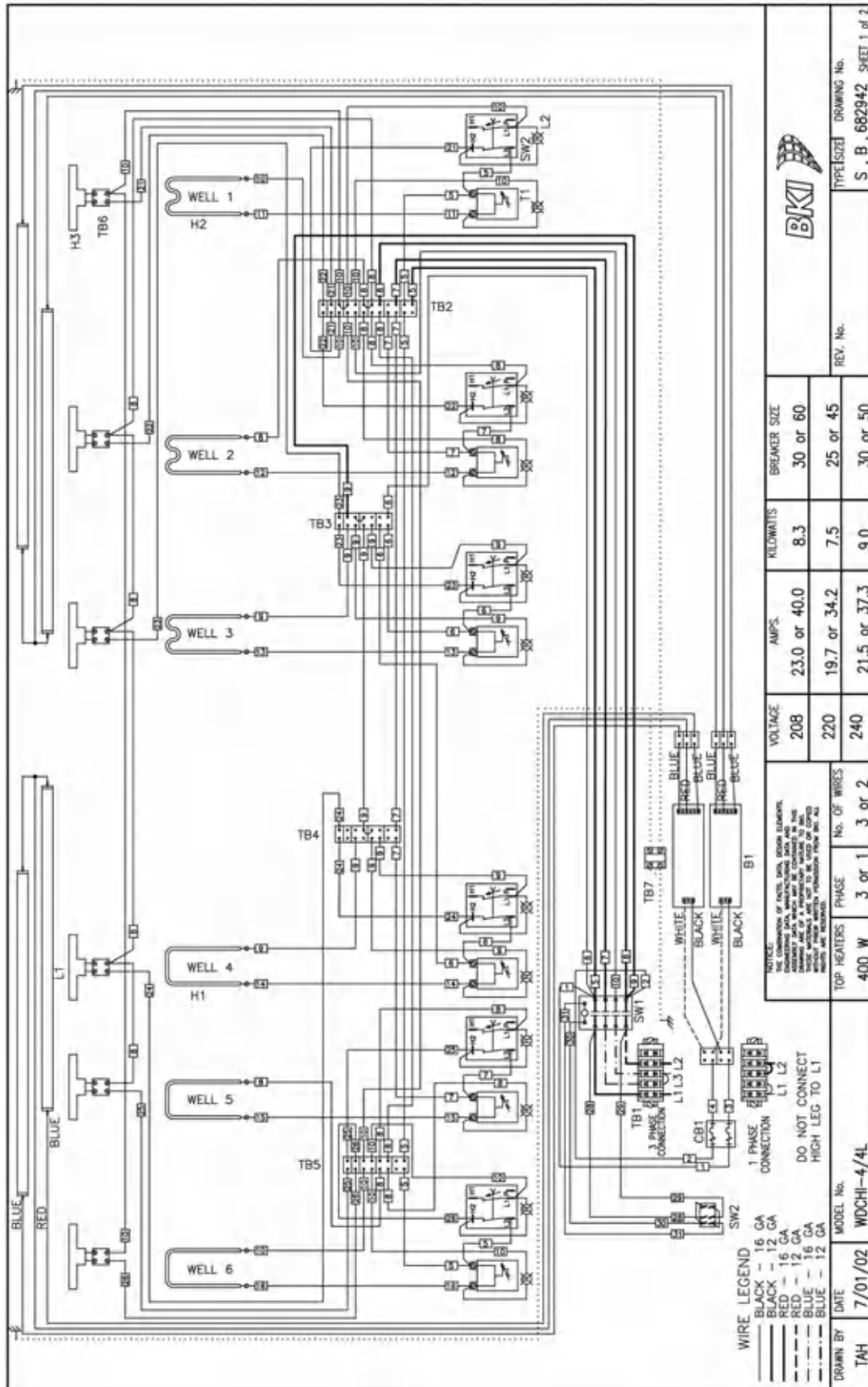


Figure 11. Model WDCHI-4/4L (Sheet 1 of 2)



		TYPE SIZE		DRAWING No.			
		S, B		662942 SHEET 1 of 2			
<p>WIRE LEGEND</p> <ul style="list-style-type: none"> <li>— BLACK — 16 GA</li> <li>— BLACK — 12 GA</li> <li>— RED — 16 GA</li> <li>— RED — 12 GA</li> <li>— BLUE — 16 GA</li> <li>— BLUE — 12 GA</li> </ul> <p>DO NOT CONNECT HIGH LEG TO L1</p>	TOP HEATERS	PHASE	No. OF WIRES	VOLTAGE	AMPS.	KILOWATTS	BREAKER SIZE
	400 W	3 or 1	3 or 2	208	23.0 or 40.0	8.3	30 or 60
				220	19.7 or 34.2	7.5	25 or 45
DATE	MODEL No.	REV. No.					
7/01/02	WDCHI-4/4L	S, B, 662942 SHEET 1 of 2					

Figure 11. Model WDCHI-4/4L (Sheet 2 of 2)

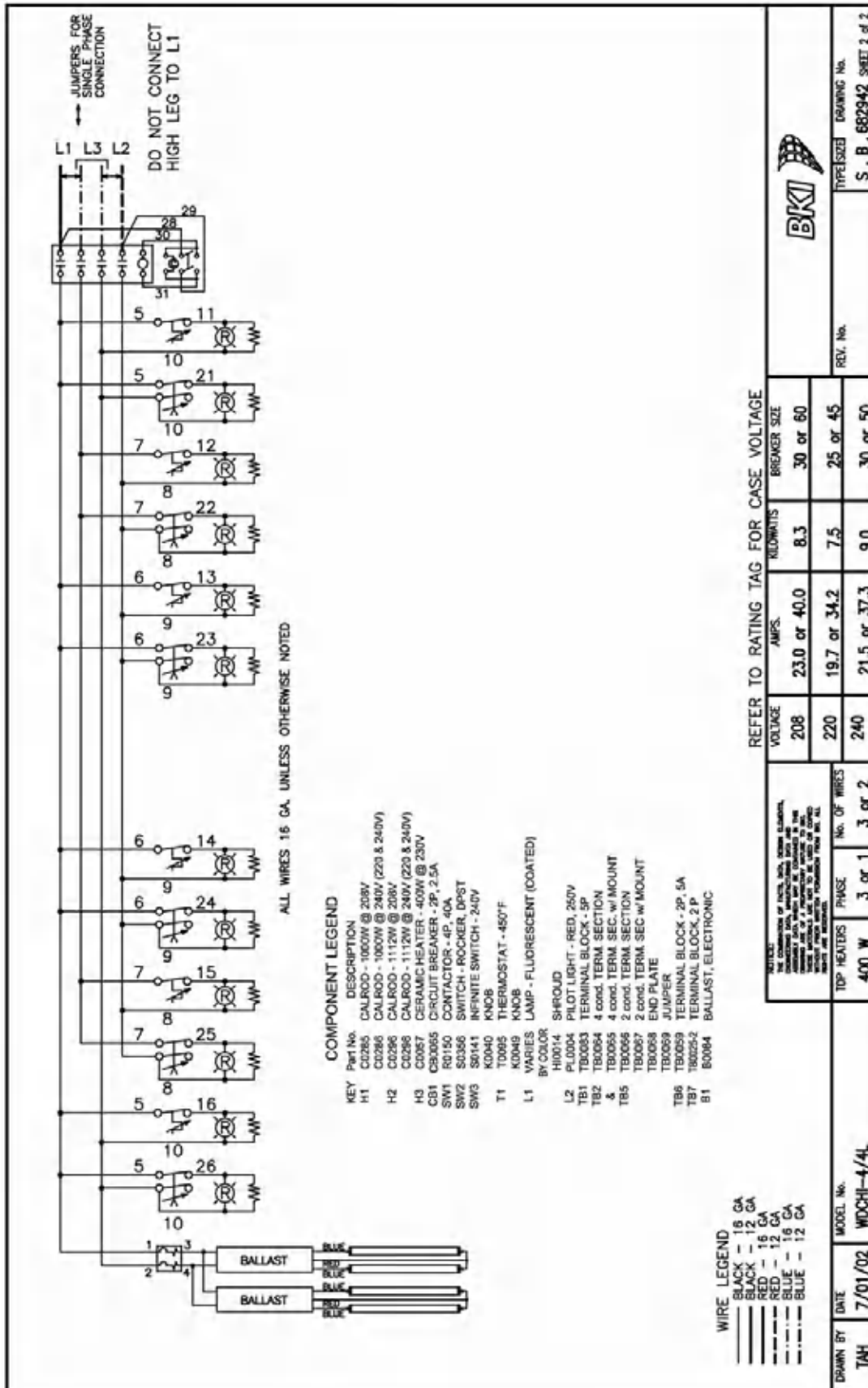


Figure 12. Model WDCHI-4/4R (Sheet 1 of 2)

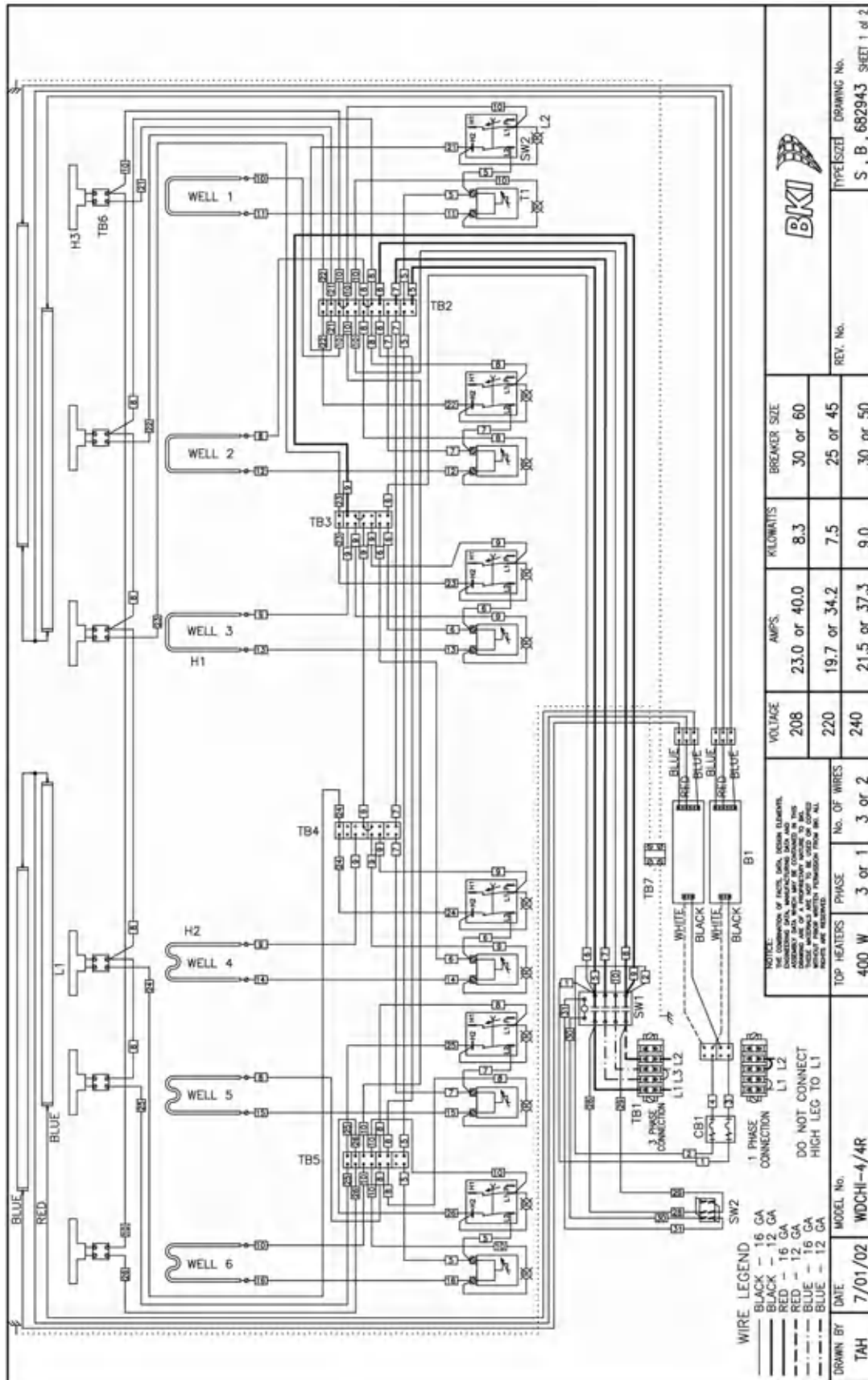




Figure 12. Model WDCHI-4/4R (Sheet 2 of 2)

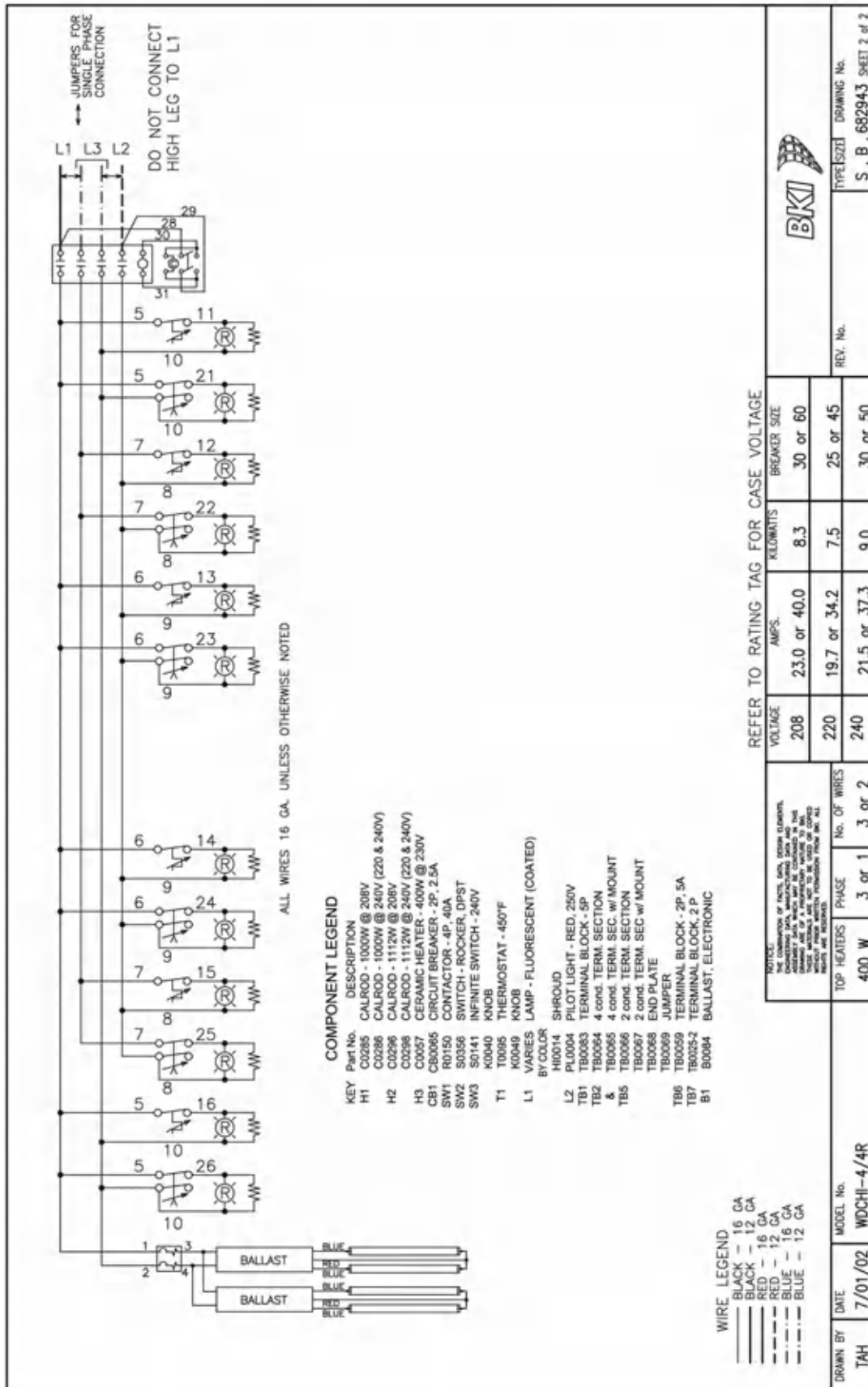


Figure 13. Model WDCHI-5 (Sheet 1 of 2)

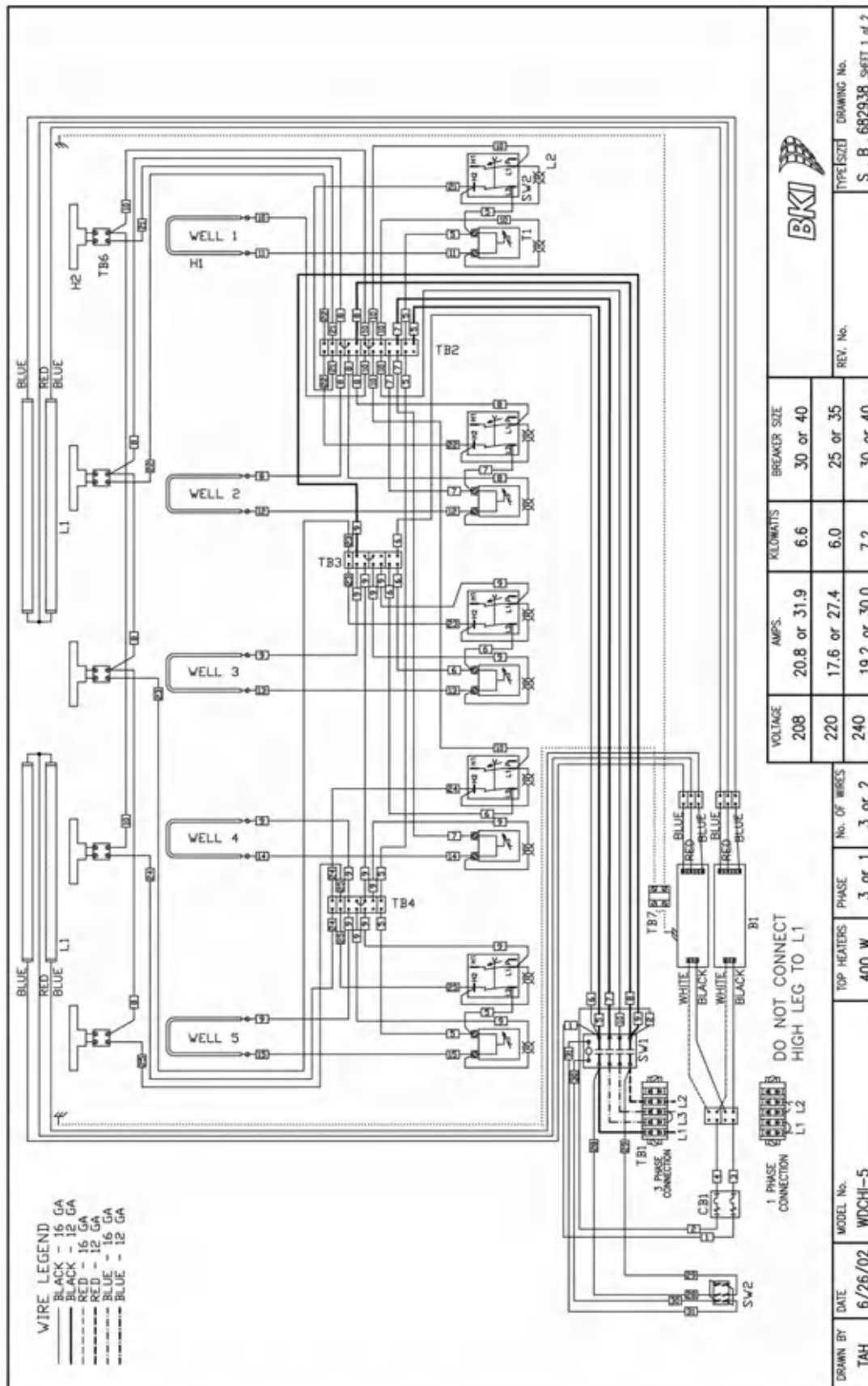


Figure 13. Model WDCHI-5 (Sheet 2 of 2)

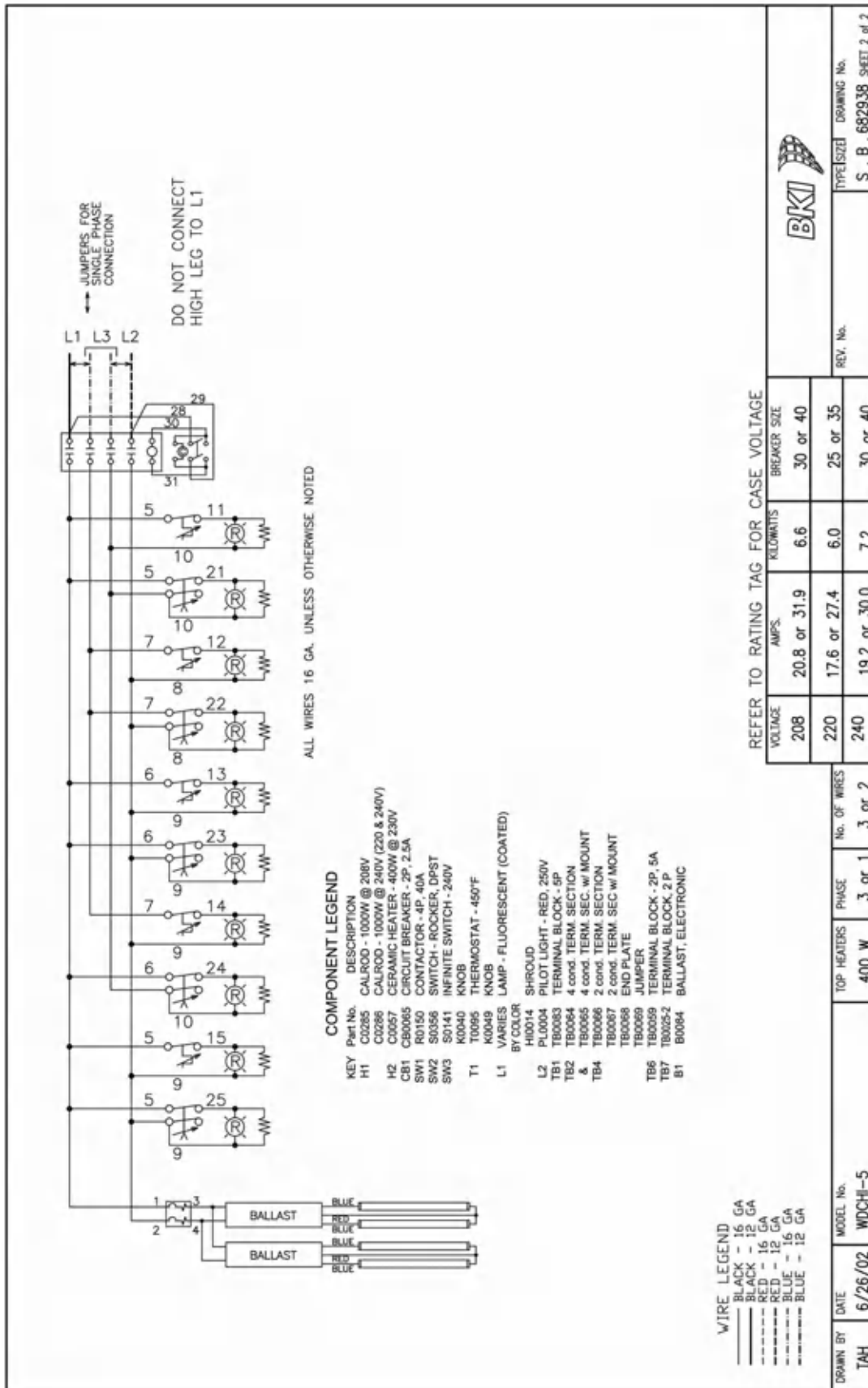


Figure 14. Model WDCHI-6/2L (Sheet 1 of 2)

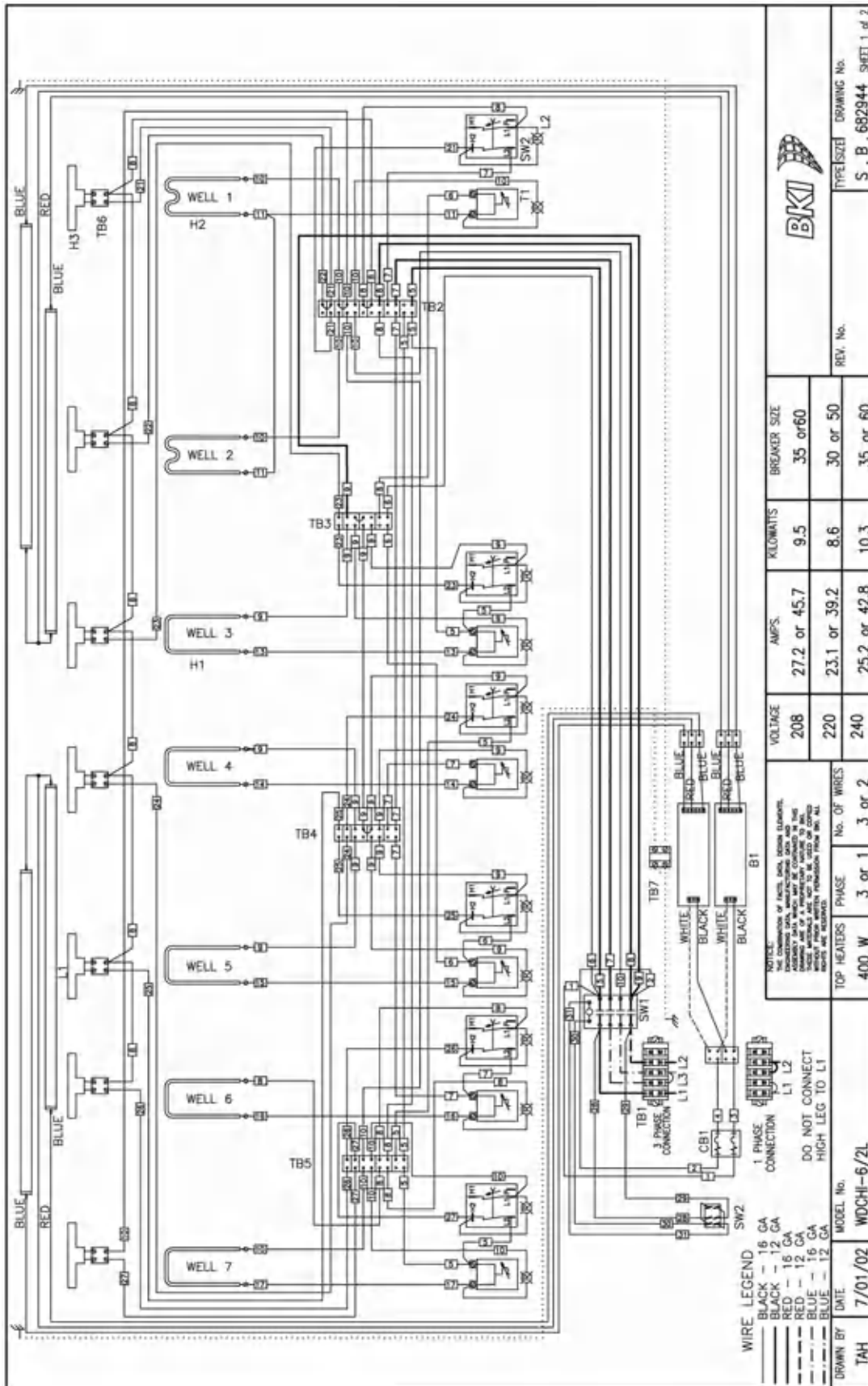


Figure 14. Model WDCHI-6/2L (Sheet 2 of 2)

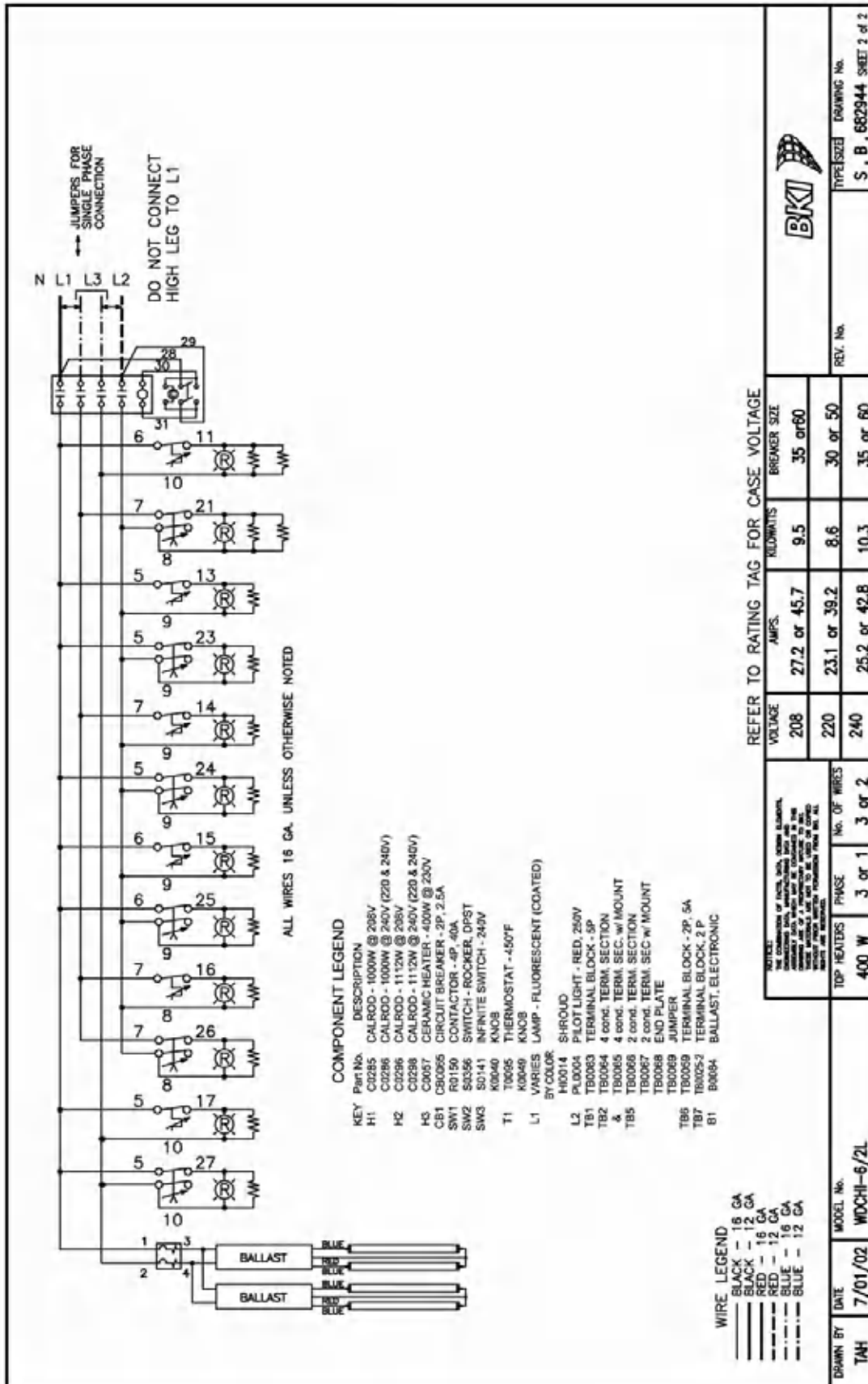
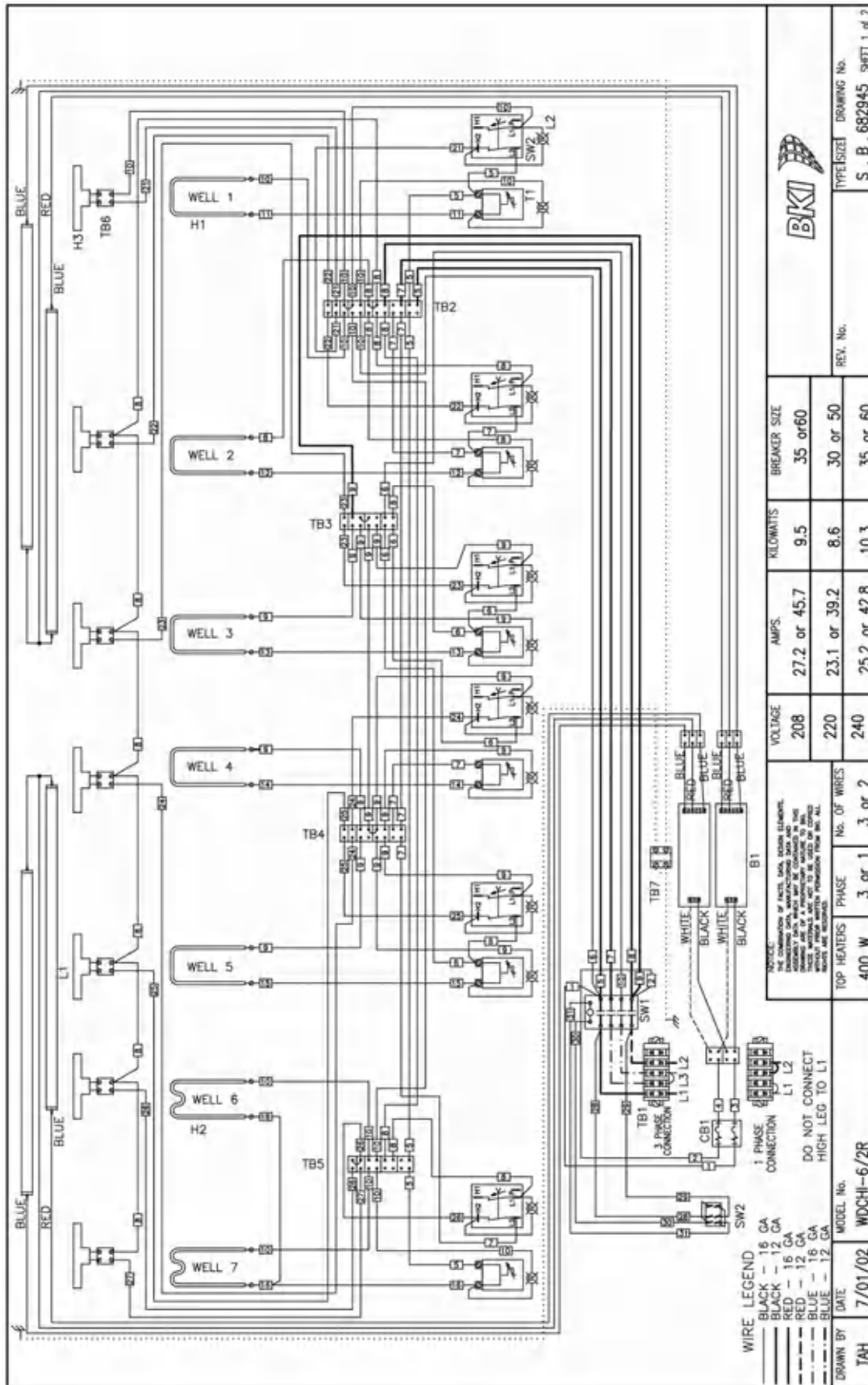


Figure 15. Model WDCHI-6/2R (Sheet 1 of 2)



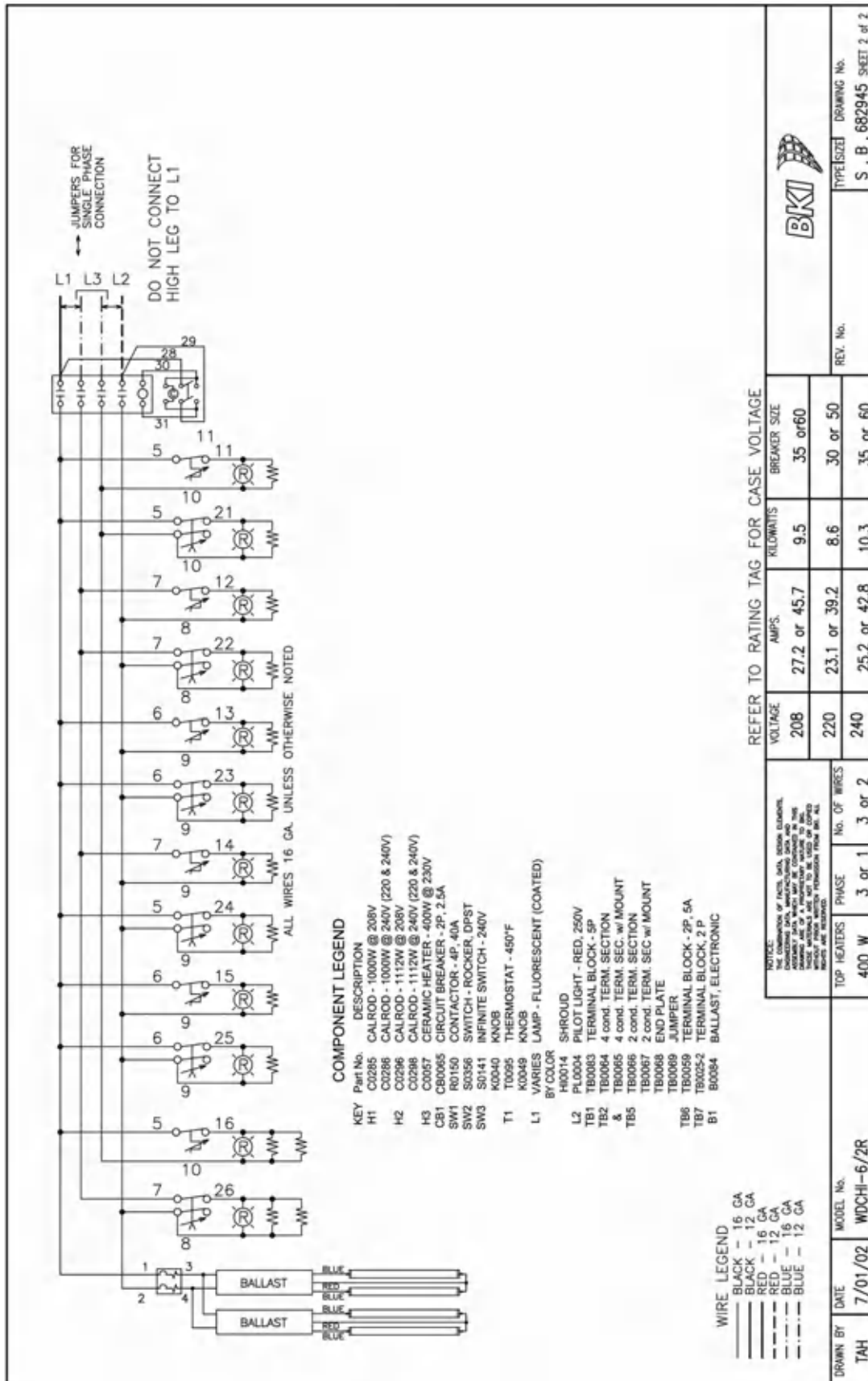
		TYPE/SIZE		DRAWING No.	
		S, B		682945 SHEET 1 of 2	
REV. No.		VOLTAGE		BREAKER SIZE	
		208		35 or 60	
		220		30 or 50	
		240		35 or 60	
TOP HEATERS		PHASE		No. OF WIRES	
400 W		3 or 1		3 or 2	
DRAWN BY		DATE		MODEL No.	
TAH		7/01/02		WDCHI-6/2R	

**WIRE LEGEND**  
 BLACK - 15 GA  
 RED - 16 GA  
 BLUE - 16 GA  
 BLUE - 12 GA  
 BLUE - 16 GA  
 BLUE - 12 GA

**NOTES:**  
 THE CONNECTION OF FACTS DATA, EXCEPT ELEMENTS, IS SUBJECT TO CHANGE WITHOUT NOTICE. THE COMPANY ASSUMES NO LIABILITY FOR ANY DAMAGE TO PROPERTY OR PERSONS ARISING FROM THE USE OF THIS WIRING DIAGRAM. THESE WIRING DIAGRAMS ARE NOT TO BE USED OR COPIED WITHOUT THE WRITTEN PERMISSION FROM BKI. ALL RIGHTS ARE RESERVED.

TB1 3 PHASE CONNECTION  
 TB2 1 PHASE CONNECTION  
 TB3 1 PHASE CONNECTION  
 TB4 1 PHASE CONNECTION  
 TB5 1 PHASE CONNECTION  
 TB6 1 PHASE CONNECTION  
 TB7 1 PHASE CONNECTION  
 SW1 3 PHASE CONNECTION  
 SW2 1 PHASE CONNECTION  
 L1 L2 L3  
 H1 H2  
 WELLS 1-7  
 BLUE RED WHITE BLACK

Figure 15. Model WDCHI-6/2R (Sheet 2 of 2)



**COMPONENT LEGEND**

KEY	DESCRIPTION
H1	CALLROD - 1000W @ 208V
H2	CALLROD - 1000W @ 240V (220 & 240V)
H3	CALLROD - 1112W @ 208V
H4	CALLROD - 1112W @ 240V (220 & 240V)
H5	CERAMIC HEATER - 400W @ 230V
SW1	CIRCUIT BREAKER - 2P, 2.5A
SW2	SWITCH - ROCKER, DPST
SW3	INFINITE SWITCH - 240V
K0040	KNOB
T1	THERMOSTAT - 450°F
L1	VARIABLE LAMP - FLUORESCENT (COATED)
L2	SHROUD PILOT LIGHT - RED, 250V
TB1	TERMINAL BLOCK - 5P
TB2	4 cond. TERM. SECTION & TB0065
TB5	2 cond. TERM. SECTION & TB0067
TB6	2 cond. TERM. SECTION & TB0068
TB7	TERMINAL BLOCK - 2P, 5A
BT	BALLAST, ELECTRONIC

**WIRE LEGEND**

—	16 GA
—	12 GA
—	16 GA
—	12 GA
—	16 GA
—	12 GA

REFER TO RATING TAG FOR CASE VOLTAGE

VOLTAGE	AMPS	KILOWATTS	BREAKER SIZE
208	27.2 or 45.7	9.5	35 or 60
220	23.1 or 39.2	8.6	30 or 50
240	25.2 or 42.8	10.3	35 or 60

TOP HEATERS	PHASE	No. OF WIRES
400 W	3 or 1	3 or 2

DATE	7/01/02	MODEL No.	WDCHI-6/2R
DRAWN BY	TAH	REV. No.	S, B, 682945 SHEET 2 of 2


  
 TYPE/SIZE: S, B
  
 DRAWING No. 682945

Figure 16. Model WDCHI-7 (Sheet 1 of 2)

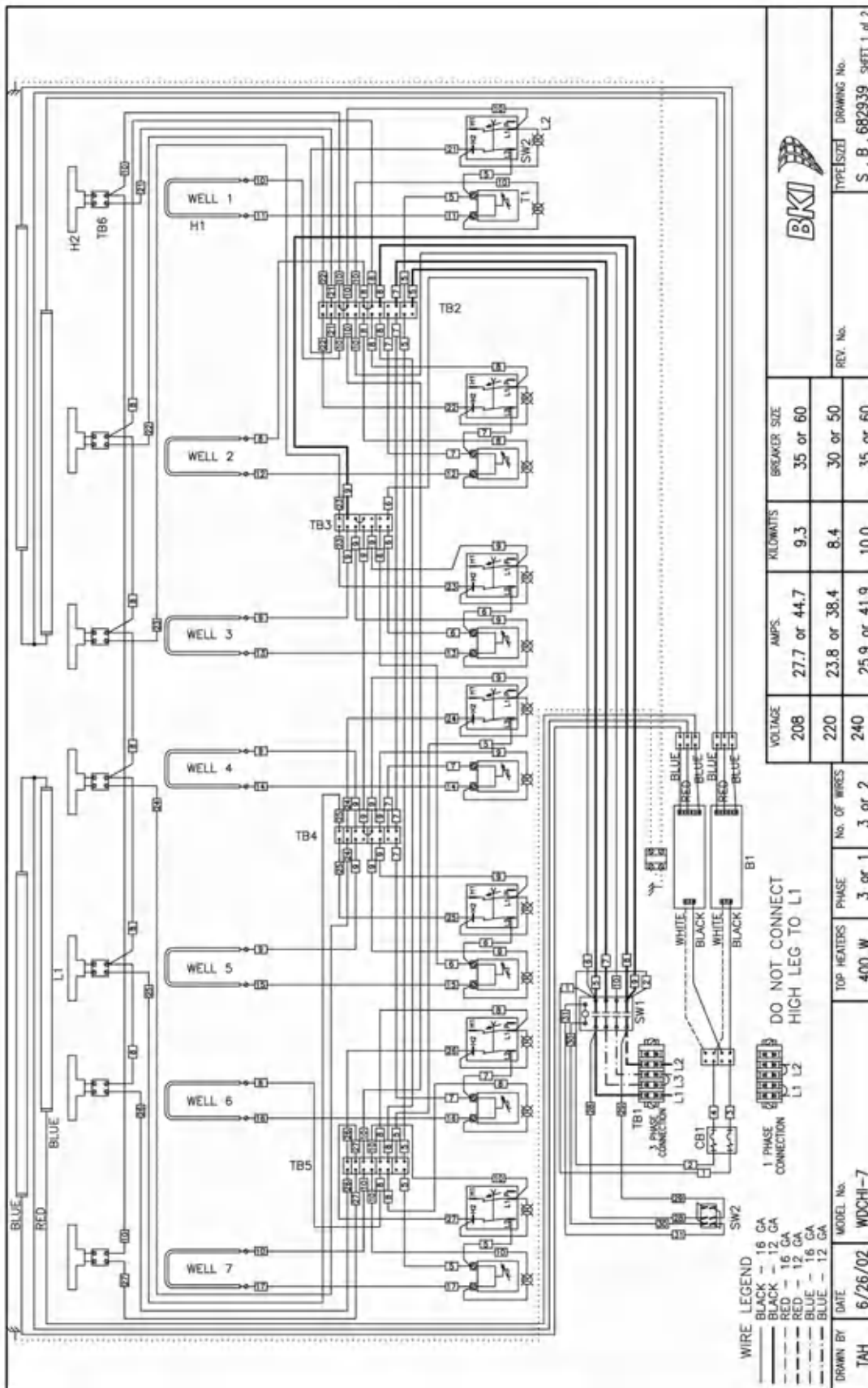
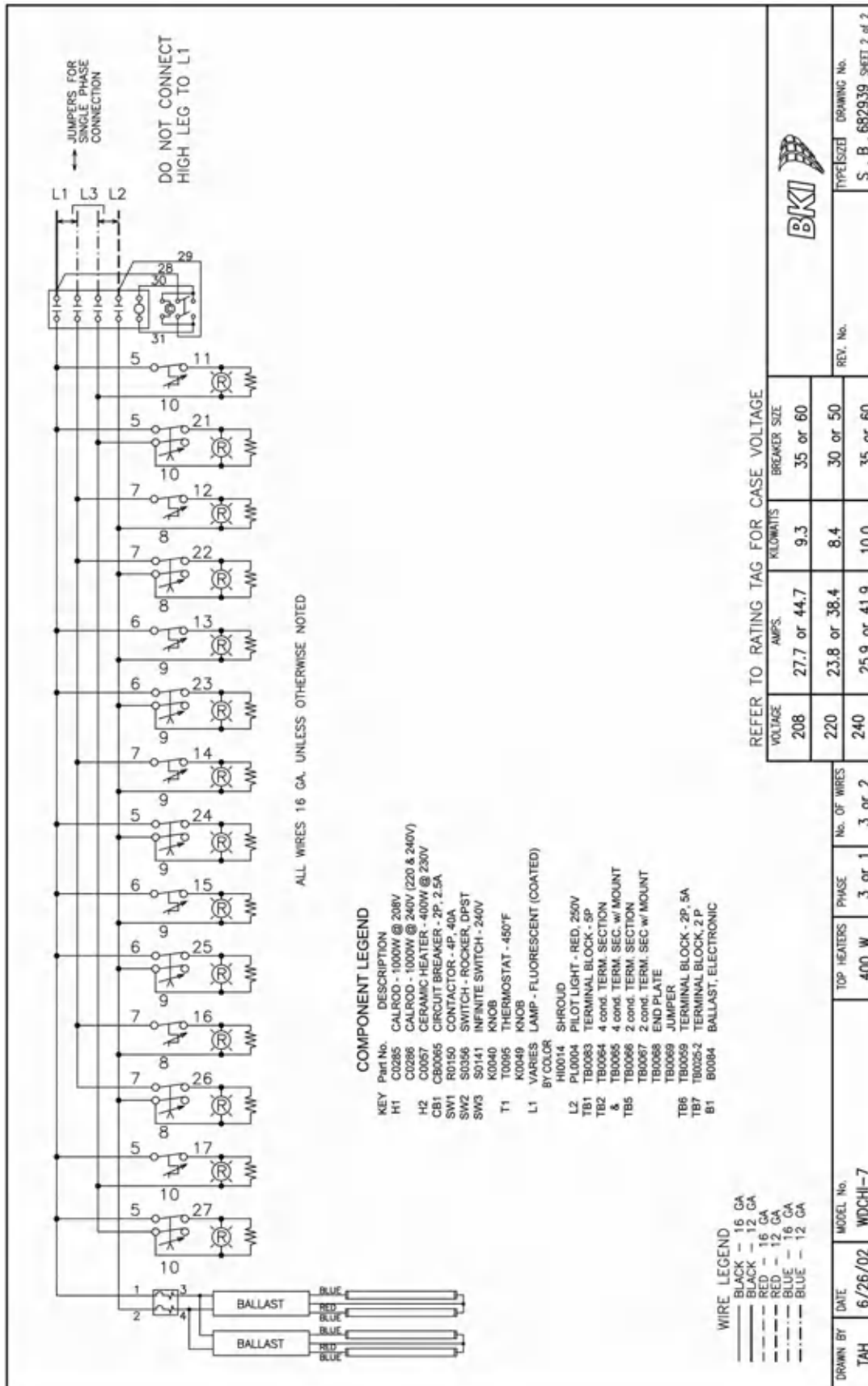




Figure 16. Model WDCHI-7 (Sheet 2 of 2)



## Notes





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