

# Heated Display Merchandiser

MODELS TW-2, TW-3, TW-2D, TW-3D

Service Manual

Serial Numbers 123177 and Higher



## BKI LIMITED WARRANTY

2812 Grandview Dr. • Simpsonville, SC 29680 • USA  
(864) 963-3471 • Toll Free: (800) 927-6887 • Fax: (864) 963-5316

### WHAT IS COVERED

This warranty covers defects in material and workmanship under normal use, and applies only to the original purchaser providing that:

- ☐ The equipment has not been accidentally or intentionally damaged, altered or misused;
- ☐ The equipment is properly installed, adjusted, operated and maintained in accordance with national and local codes, and in accordance with the installation and operating instructions provided with this product.
- ☐ The serial number rating plate affixed to the equipment has not been defaced or removed.

### WHO IS COVERED

This warranty is extended to the original purchaser and applies only to equipment purchased for use in the U.S.A.

### COVERAGE PERIOD

- ☐ Warranty claims must be received in writing by BKI within one (1) year from date of installation or within one (1) year and three (3) months from data of shipment from the factory, whichever comes first.
- ☐ COB Models: One (1) Year limited parts and labor.
- ☐ COM Models: Two (2) Year limited parts and labor. COM convection ovens also have a two (2) year door warranty.
- ☐ CO1 Models: Two (2) Year limited parts and labor. Five (5) Year limited door warranty.
- ☐ BevLes Products: Two (2) Year limited parts and labor.
- ☐ Warranty period begins the date of dealer invoice to customer or ninety (90) days after shipment date from BKI, whichever comes first.

### WARRANTY COVERAGE

This warranty covers on-site labor, parts and reasonable travel time and travel expenses of the authorized service representative up to (100) miles round trip and (2) hours travel time and performed during regular, weekday business hours.

### EXCEPTIONS

Any exceptions must be pre-approved in advance and in writing by BKI. The extended door warranty on convection ovens years 3 through 5 is a parts only warranty and does not include labor, travel, mileage or any other charges.

### EXCLUSIONS

- ☐ Negligence or acts of God,
- ☐ Thermostat calibrations after (30) days from equipment installation date,
- ☐ Air and gas adjustments,
- ☐ Light bulbs,
- ☐ Glass doors and door adjustments,
- ☐ Fuses,
- ☐ Adjustments to burner flames and cleaning of pilot burners,
- ☐ Tightening of screws or fasteners,
- ☐ Failures caused by erratic voltages or gas suppliers,
- ☐ Unauthorized repair by anyone other than a BKI Factory Authorized Service Center,
- ☐ Damage in shipment,
- ☐ Alteration, misuse or improper installation,
- ☐ Thermostats and safety valves with broken capillary tubes,
- ☐ Freight - other than normal UPS charges,
- ☐ Ordinary wear and tear,
- ☐ Failure to follow installation and/or operating instructions,
- ☐ Events beyond control of the company.

### INSTALLATION

Leveling, as well as proper installation and check out of all new equipment - per appropriate installation and use materials - is the responsibility of the dealer or installer, not the manufacturer.

### REPLACEMENT PARTS

BKI genuine Factory OEM parts receive a (90) day materials warranty effective from the date of installation by a BKI Factory Authorized Service Center.

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## Introduction

Congratulations! You have chosen a **Heated Display Merchandiser** that will give you many years of fine service from the original manufacturer, **BKI**.

The BKI name and trademark on this unit 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.

### 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.

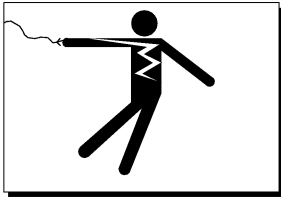
**⚠ CAUTION**

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**

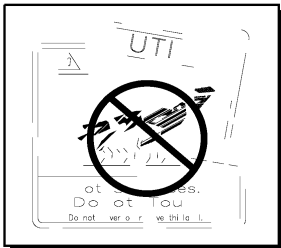
Technical Services Department  
 2812 Grandview Drive  
 Simpsonville, S.C. 29680  
 Or call toll free: 1-800-927-6887  
 Outside the U.S., call 864-963-3471



**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.

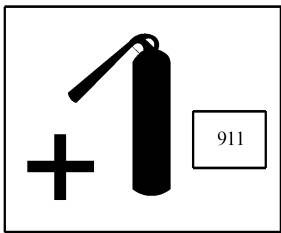


**Keep Safety Labels Clean and in Good Condition**

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 4, then contact:

**BKI**

Technical Services Department  
 2812 Grandview Drive  
 Simpsonville, S.C. 29680  
 Or call toll free: 1-800-927-6887  
 Outside the U.S., call 864-963-3471

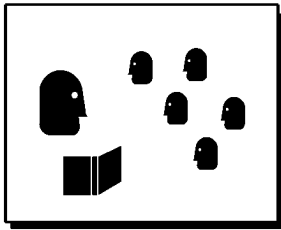


**Be Prepared for Emergencies**

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**

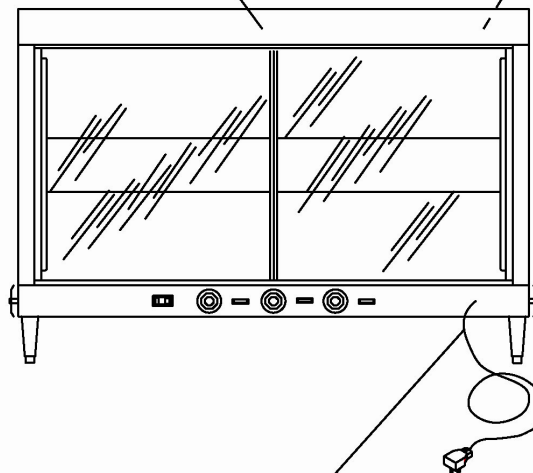
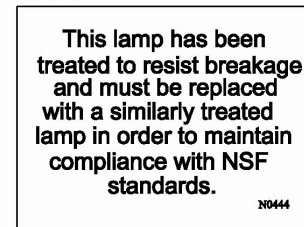
- Make certain your employees know how to operate the equipment.
- Make certain your employees are aware of the safety precautions on the equipment and in this manual.
- Make certain that you have thoroughly trained your employees about operating the equipment safely.
- Make certain the equipment is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

**Safety Labels**

N0200



N0444



N0158



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## Installation

**⚠ WARNING**

Serious injury, equipment damage or death could result if attempting to install this unit yourself. Ensure that an authorized BKI service agent installs the unit.

### ***Instructions For Shipping Damage***

You are responsible for filing all freight claims with the delivering truck line. Inspect all cartons and crates for damage when they arrive. If there is damage noted to shipping crates or cartons, or, if a shortage is found, note this on the bill of lading (all copies) before signing.

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

### ***Electrical Information***

**⚠ WARNING**

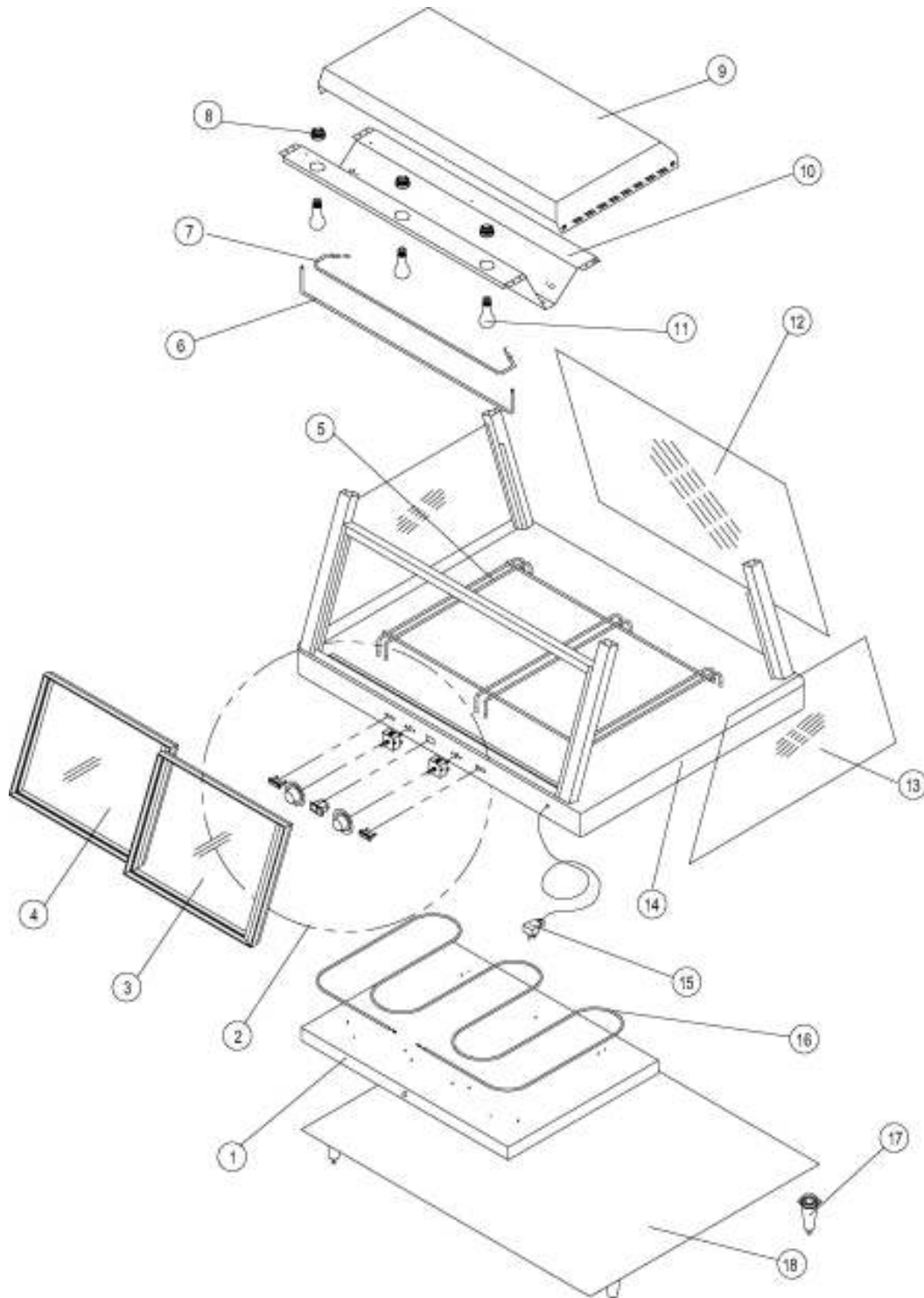
Electrocution, equipment failure or property damage could result if an unlicensed electrician performs the electrical installation. Ensure that a licensed electrician perform the electrical installation in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI NFPA 70-20XX.

This unit, when installed by an authorized BKI service agent, must be wired for use in accordance with all applicable local, state, and federal codes. For specific electrical requirements and connections refer to the wiring diagram attached to the unit or provided in the Service Manual.

## 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.

### TW-2

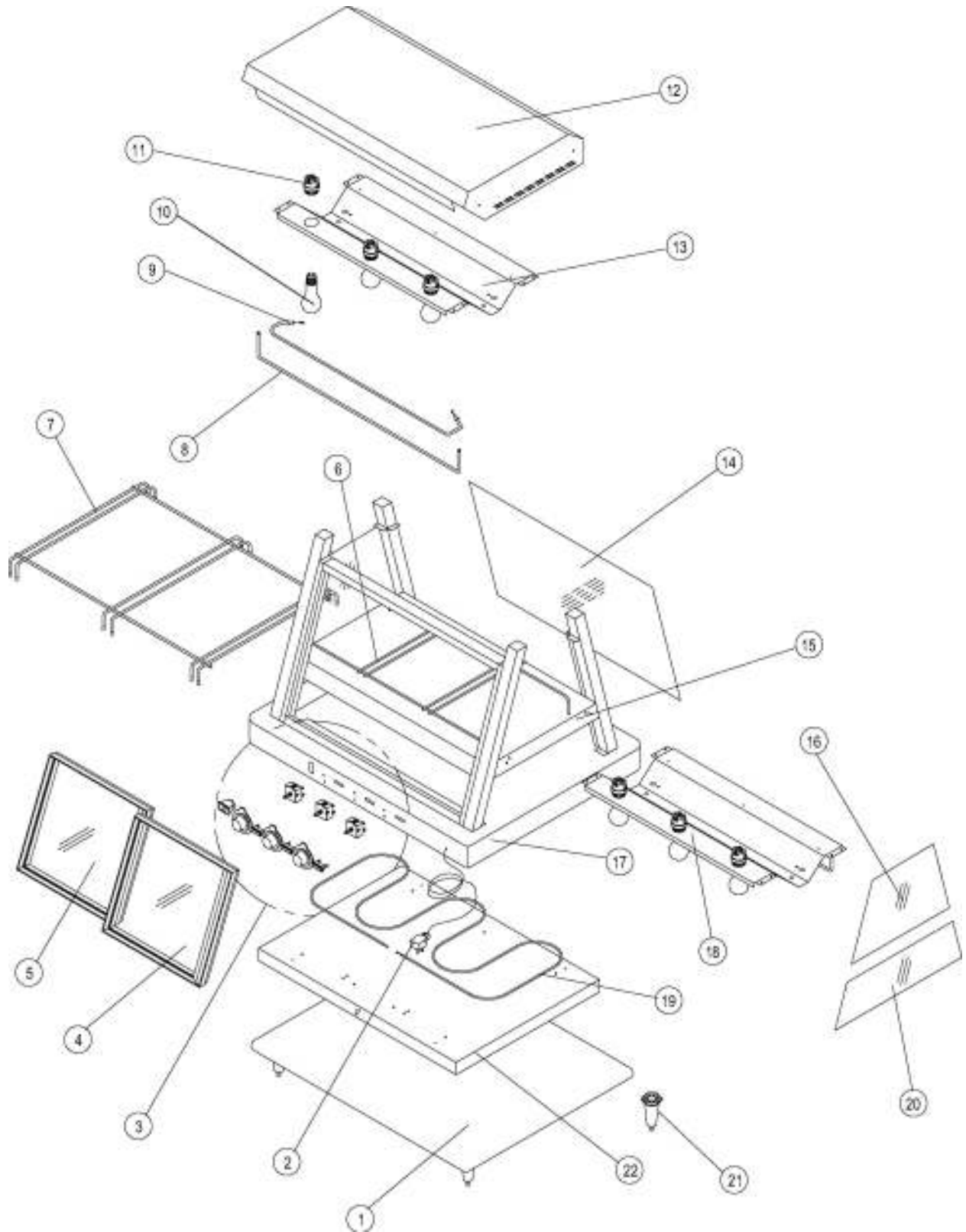


ITEM #	PART #	QTY	DESCRIPTION
1	TWA023	1	CALROD PAN TW-2
2			CONTROL PANEL TW-2
	K0035	2	KNOB, LOW 1-6 HI Z-34620-1220
	PL0005	2	PILOT LIGHT, 125V
	S0102	1	SWITCH, RCKR SPST W/LITE 250V
	S0029	2	SWITCH, INFINITE 120V-1246
3	D0318	1* or 2**	DOOR, LR TW-2 STRETCHED
4	D0319	1* or 2**	DOOR, RF TW-2 STRETCHED
5	R0062	1	RACK, 20 3/8 X 28 3/4
6	TWA043	1	PROTECTOR ROD, TW-2, 2D
7	C0267B	1	CALROD, 120V 480W W/2 TWA026 BRKTS
8	LH0001	3	LAMPHOLDER, RD PORCELAIN
9	WTWA059	1	HOOD WELD, TW2/2D STRETCHED
10	TWA060	1	LIGHT INSERT, TW/D2 STRETCHED
11	B0066	3	BULB, 40A15 130V PTFE COATED
12	GL0157*	1	GLASS, 16 7/16 X 29 5/8 3/16
13	GL0132	2	GLASS, 15 X 13 X 22 7/16
14	WTWA061	1	BASE, TW-2 STRETCHED WELDED
15	CS0005	1	CORD SET, 115V 7'6"
16	C0243	1	CALROD, 120V 600W U1-32-414-2
17	L0041	4	LEG, BLACK HEX FOOT
18	TWA056	1	BASE PLATE, TW/D2 STRETCHED

\* - Used in unit with Solid Front Glass option.

\*\* - Used in unit with Front Glass Doors option.

TW-2D

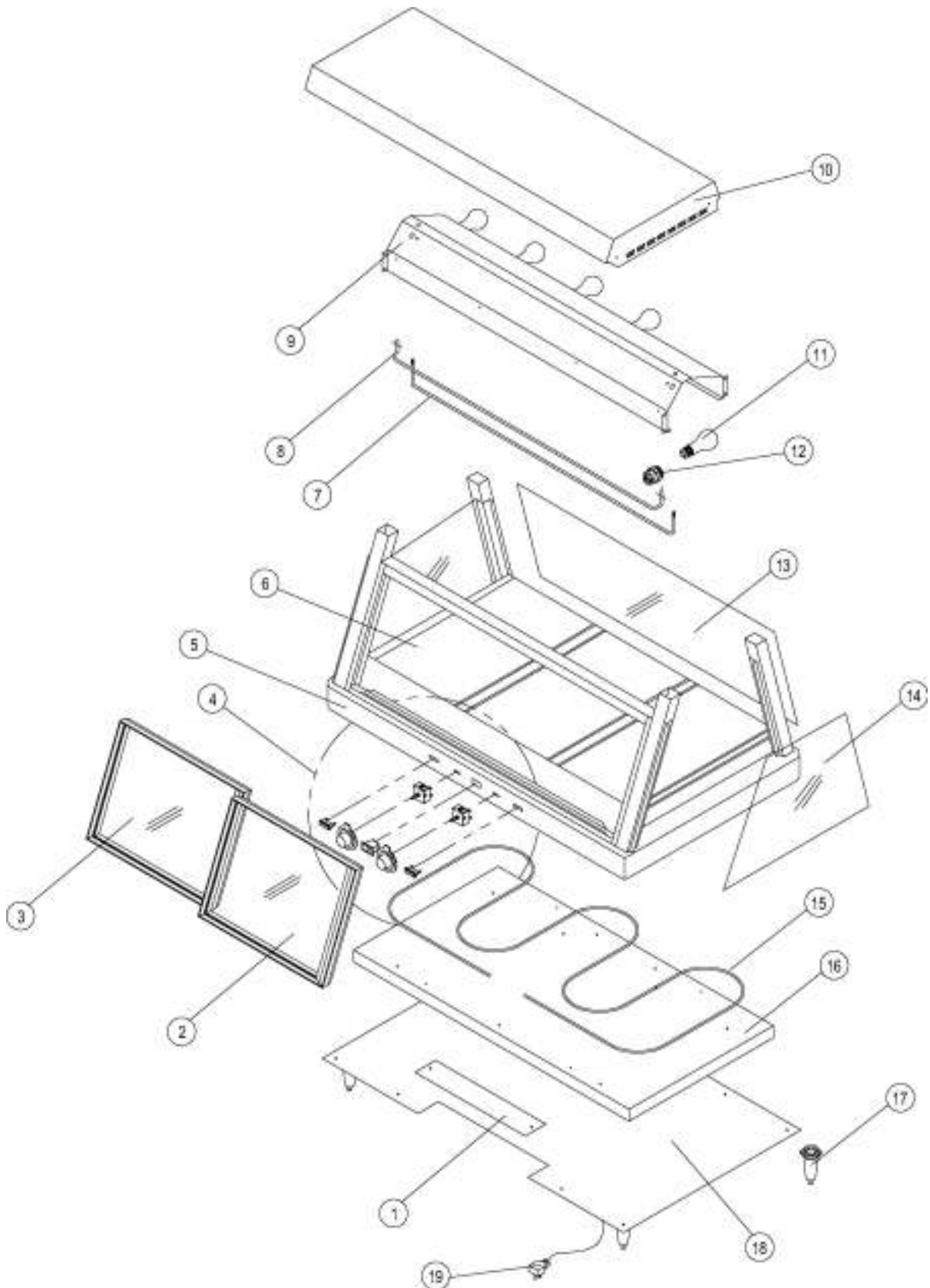


ITEM #	PART #	QTY	DESCRIPTION
1	TWA018	1	BASE PLATE TW-2
2	CS0005	1	CORD SET, 115V 7'6"
3			CONTROL PANEL TW-2D
	K0035	3	KNOB, LOW 1-6 HI Z-34620-1220
	PL0005	3	PILOT LIGHT, 125V
	S0102	1	SWITCH, RCKR SPST W/LITE 250V
	S0029	3	SWITCH, INFINITE 120V-1246
4	D0263	1* or 2**	DOOR, RIGHT FRONT TW2D
5	D0264	1* or 2**	DOOR, LEFT REAR TW2D
6	R0069	1	RACK, MIDDLE DECK PAN TW-2D
7	R0062	1	RACK, 20 3/8 X 28 3/4
8	TWA043	1	PROTECTOR ROD, TW-2, 2D
9	C0267B	1	CALROD, 120V 480W W/2 TWA026 BRKTS
10	B0066	6	BULB, 40A15 130V PTFE COATED
11	LH0001	3	LAMPHOLDER, RD PORCELAIN
12	WTWA019	1	HOOD WELD, TW-2
13	TWA017	1	INSERT TW-2
14	GL0160*	1	GLASS, 20 7/8 X 29 5/8 3/16
15	TWDA043	1	MIDDLE DECK TWD-2 W/GUARDS
16	GL0133	2	GLASS, 8 1/4 X 16 31/32 X 3/16
17	WTWDA041	1	TWD-2 BASE CORNERS WELDED
18	SB5052	1	INSERT ASSY, 120V TW2D
19	C0243	1	CALROD, 120V 600W U1-32-414-2
20	GL0134	2	GLASS, 8 1/4 X 22 3/8X 18 9/16
21	L0041	4	LEG, BLACK HEX FOOT
22	TWA023	1	CALROD PAN TW-2

\* - Used in unit with Solid Front Glass option.

\*\* - Used in unit with Front Glass Doors option.

TW-3

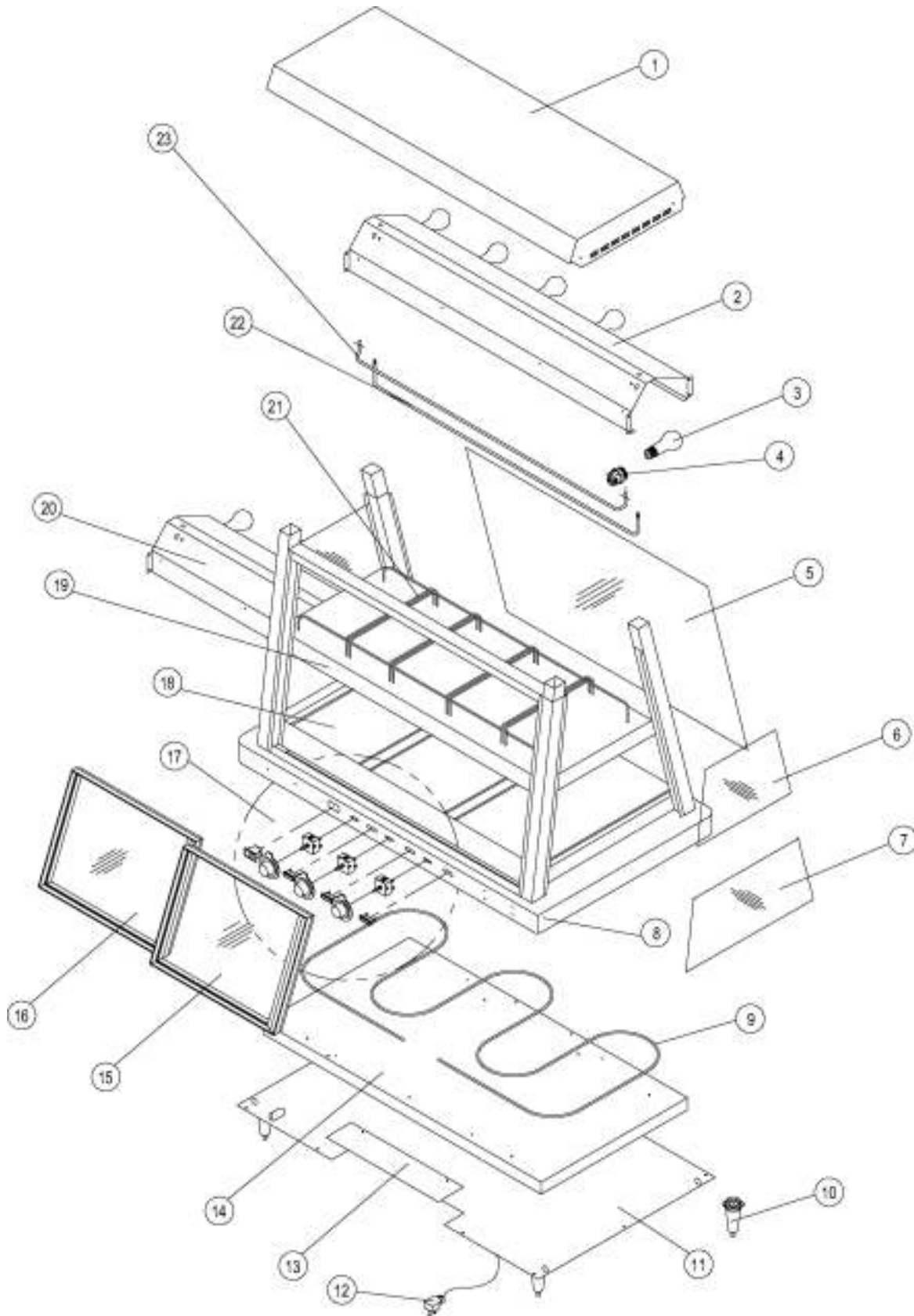


ITEM #	PART #	QTY	DESCRIPTION
1	TWA055	1	ADAPTER PLATE FOR CORD, TW3'S
2	D0259	1* or 2*	DOOR, RH W/BUMPER TW-3
3	D0260	1* or 2*	DOOR, LH TW-3
4			CONTROL PANEL TW-3
	K0035	2	KNOB, LOW 1-6 HI Z-34620-1220
	S0102 or S0103	1	SWITCH, RCKR SPST W/LITE 250V or SWITCH, RKR DPST 15A 250V LAMP
	S0029 or S0141	2	SWITCH, INFINITE 120V-1246 or SWITCH, INFINITE 240V-1245
	PL0003 or PL0005	2	PILOT LIGHT, 250V RECT BLK BEZEL or PILOT LIGHT, 125V
5	WTWA007	1	BASE, TW-3 CORNERS WELDED
6	WTWDA055	1	BOTTOM PAN INSERT CORNER WELD
7	TWA044	1	PROTECTOR ROD, TW-3 3D
8	C0268B or C0302	1	CALROD, 120V 640W or CALROD, 240V 640W
9	TWA004	1	INSERT, TW-3
10	WTWA006	1	HOOD WELD, TW-3
11	B0066 or B0553	5	BULB, 40A15 130V PTFE COATED or BULB, TUFFSKIN 40W 250V
12	LH0001	5	LAMPHOLDER, RD PORCELAIN
13	GL0158	1*	GLASS, 16 7/16 X 40 5/8 3/16
14	GL0132	2	GLASS, 15 X 13 X 22 7/16
15	C0301	1	CALROD, 230V 800W
16	TWA002	1	CALROD PAN, TW-3
17	L0041	4	LEG, BLACK HEX FOOT
18	TWA005	1	BASE PLATE, TW-3
19	CS0005 or CS0023	1	CORD SET, 115V 7'6" or CORD SET, 250V 6' 12/3 SO

\* - Used in unit with Solid Front Glass option.

\*\* - Used in unit with Front Glass Doors option.

TW-3D



ITEM #	PART #	QTY	DESCRIPTION
1	WTWA006	1	HOOD WELD, TW-3
2	TWA004	1	INSERT, TW-3
3	B0066	10	BULB, 40A15 130V PTFE COATED
4	LH0001	5	LAMPHOLDER, RD PORCELAIN
5	GL0159	1*	GLASS, 20 7/8 X 40 5/8 3/16
6	GL0133	2	GLASS, 8 1/4 X 16 31/32 X 3/16
7	GL0134	2	GLASS, 8 1/4 X 22 3/8X 18 9/16
8	WTWDA003	1	BASE WELDED TW3D
9	C0242	1	CALROD, 120V 800W U1-32-414-3
10	L0041	4	LEG, BLACK HEX FOOT
11	TWDA002	1	BASE PLATE, TW-3D
12	SB4752	1	CORD SET ASSY, 120V TW3D
13	TWA003	1	ACCESS PLATE, TW
14	TWA002	1	CALROD PAN, TW-3
15	D0266	1* or 2**	DOOR, LH TW-3D
16	D0265	1* or 2**	DOOR, RH TW-3D
17			CONTROL PANEL
	K0035	3	KNOB, LOW 1-6 HI Z-34620-1220
	S0029	3	SWITCH, INFINITE 120V-1246
	S0102	1	SWITCH, RCKR SPST W/LITE 250V
	PL0005	3	PILOT LIGHT, 125V
18	WTWDA055	1	BOTTOM PAN INSERT CORNER WELD
19	TWDA001	1	MIDDLE DECK TW3D
20	SB4759	1	INSERT ASSY 120V TW3D
21	R0070	1	RACK, MIDDLE DECK PAN TW-3D
22	TWA044	1	PROTECTOR ROD, TW-3 3D
23	C0268B	1	CALROD, 120V 640W

\* - Used in unit with Solid Front Glass option.

\*\* - Used in unit with Front Glass Doors option.

## 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>
TW-2 220V-240V/50hz	TWE1004	Figure 1
TW-2D 220V-240V/50hz	TWDE1005	Figure 2
TW-3 220V/240V	TWE1005	Figure 3
TW-3D 220V-240V/50hz	TWDE1004	Figure 4
TW-3D 220V	TWDE1006	Figure 5

Figure 1. TW-2 220V-240V/50hz

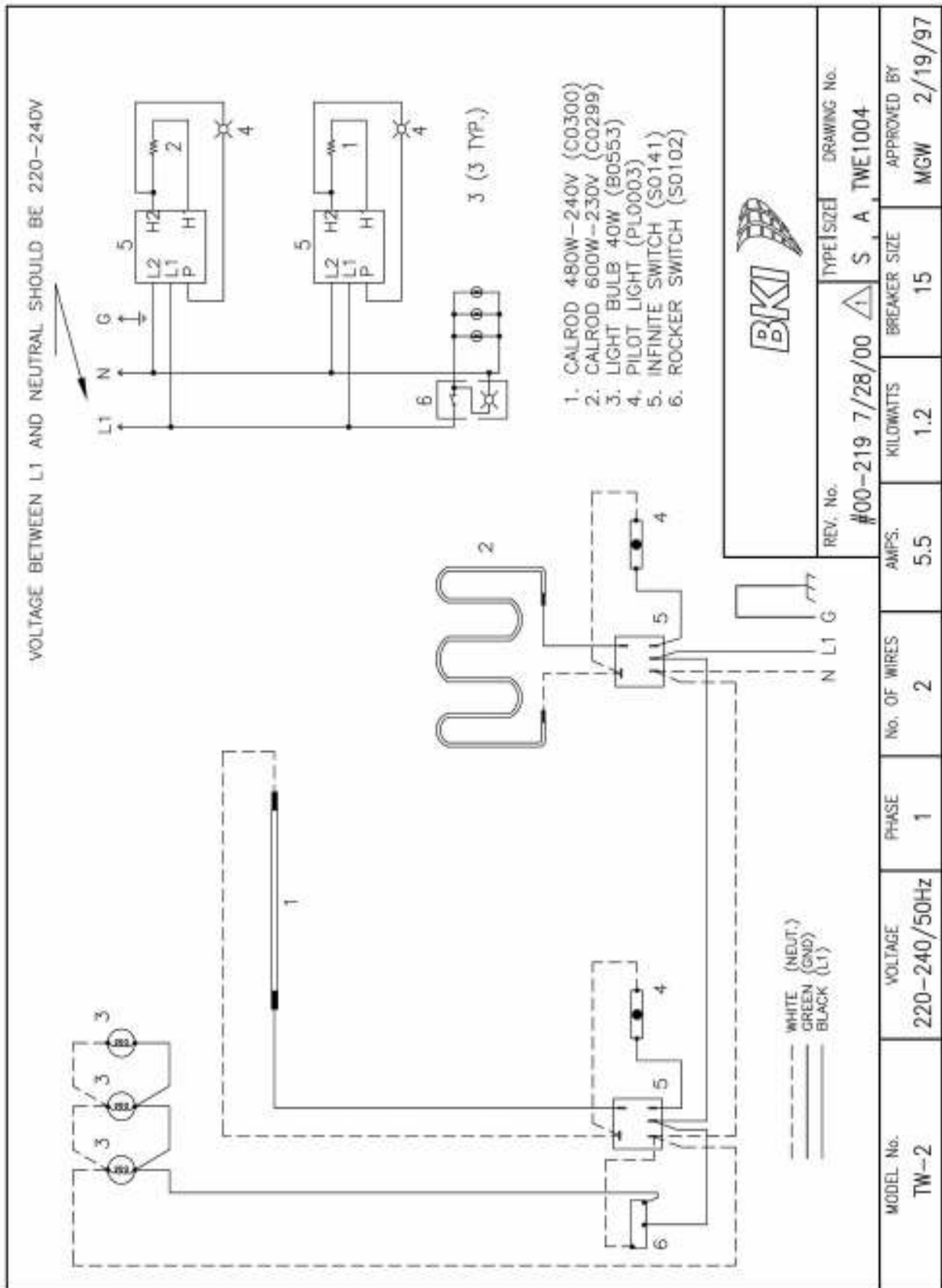


Figure 2. TW-2D 220V-240V/50hz

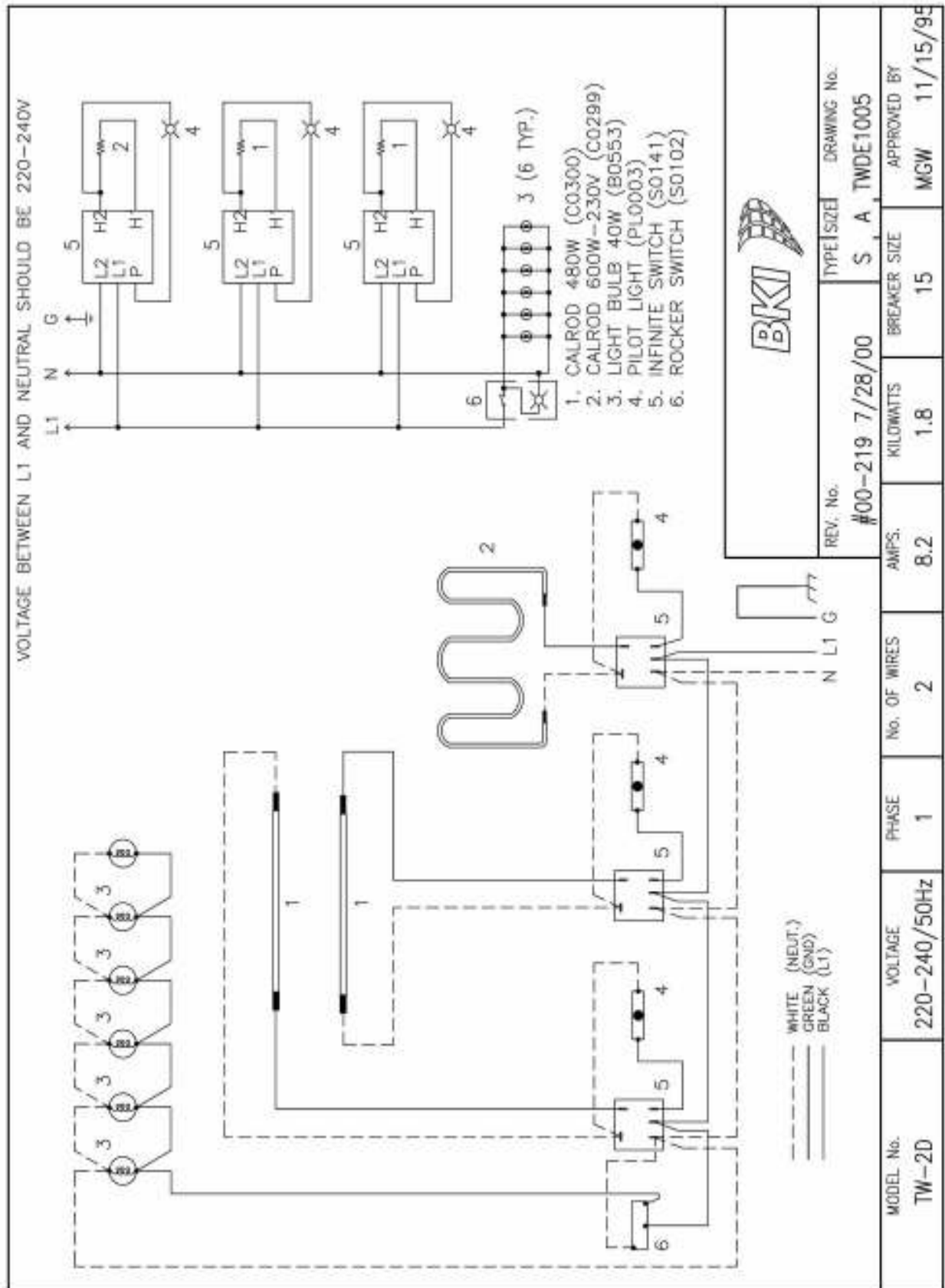


Figure 3. TW-3 220V/240V

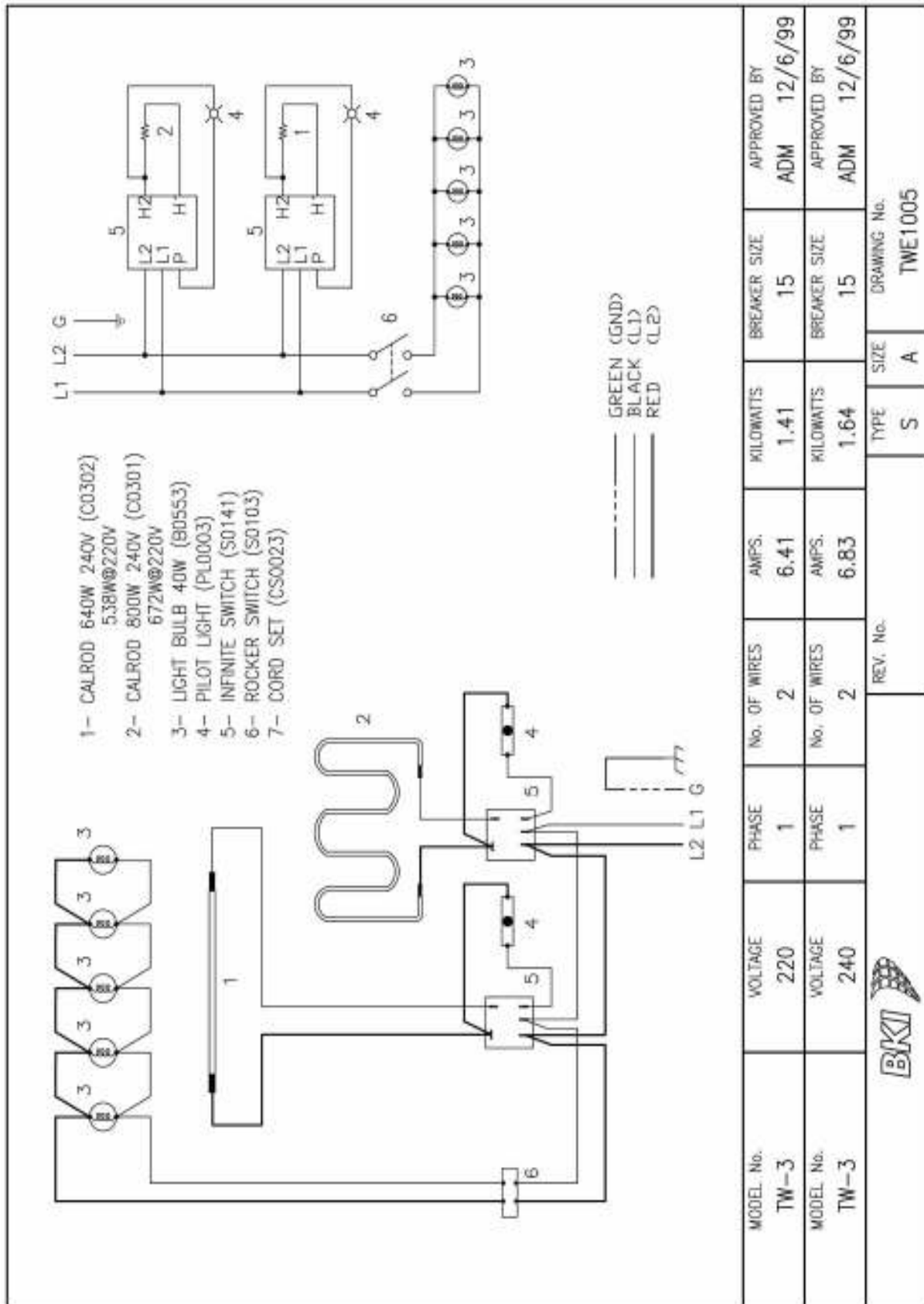


Figure 4. TW-3D 220V-240V/50hz

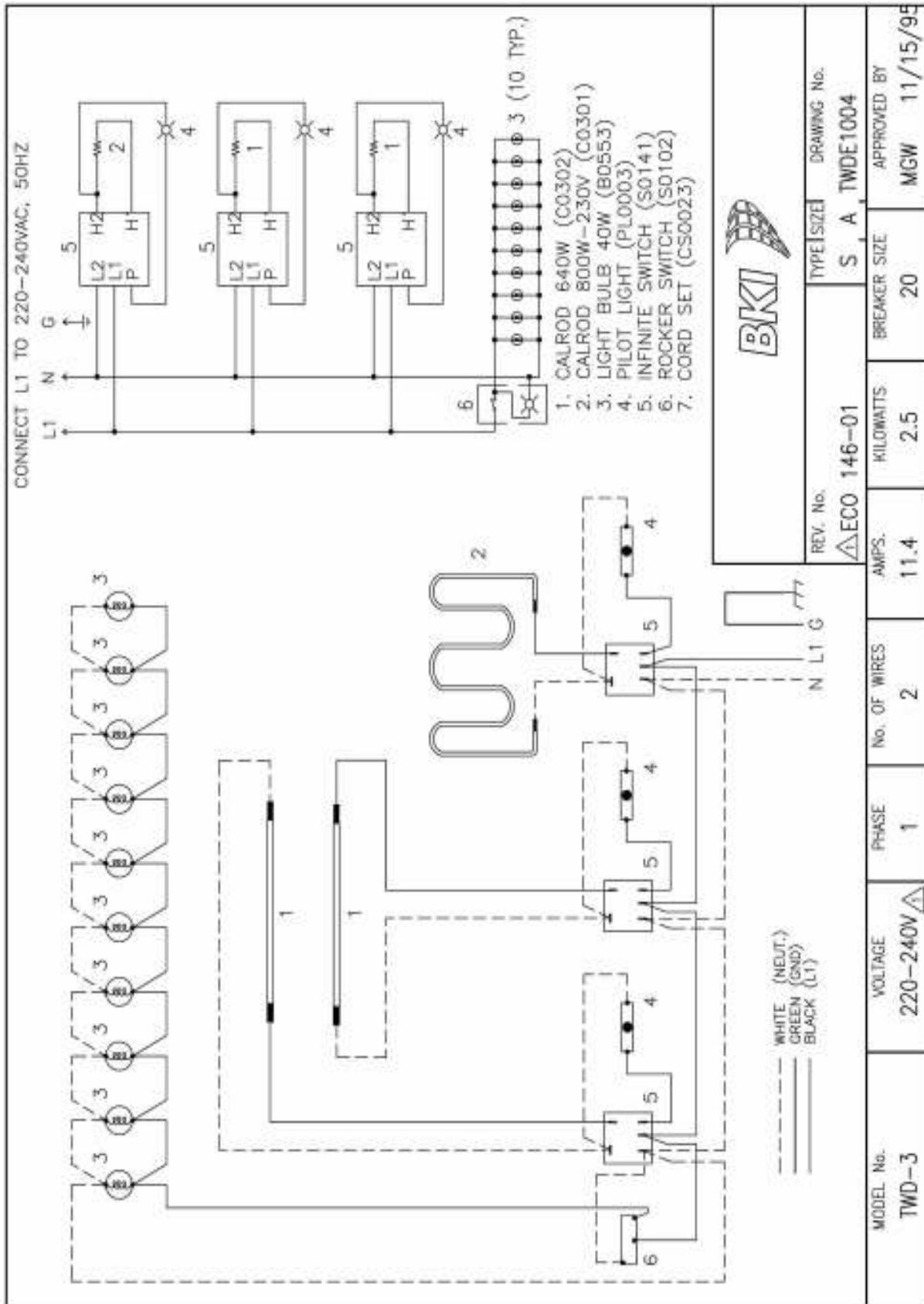
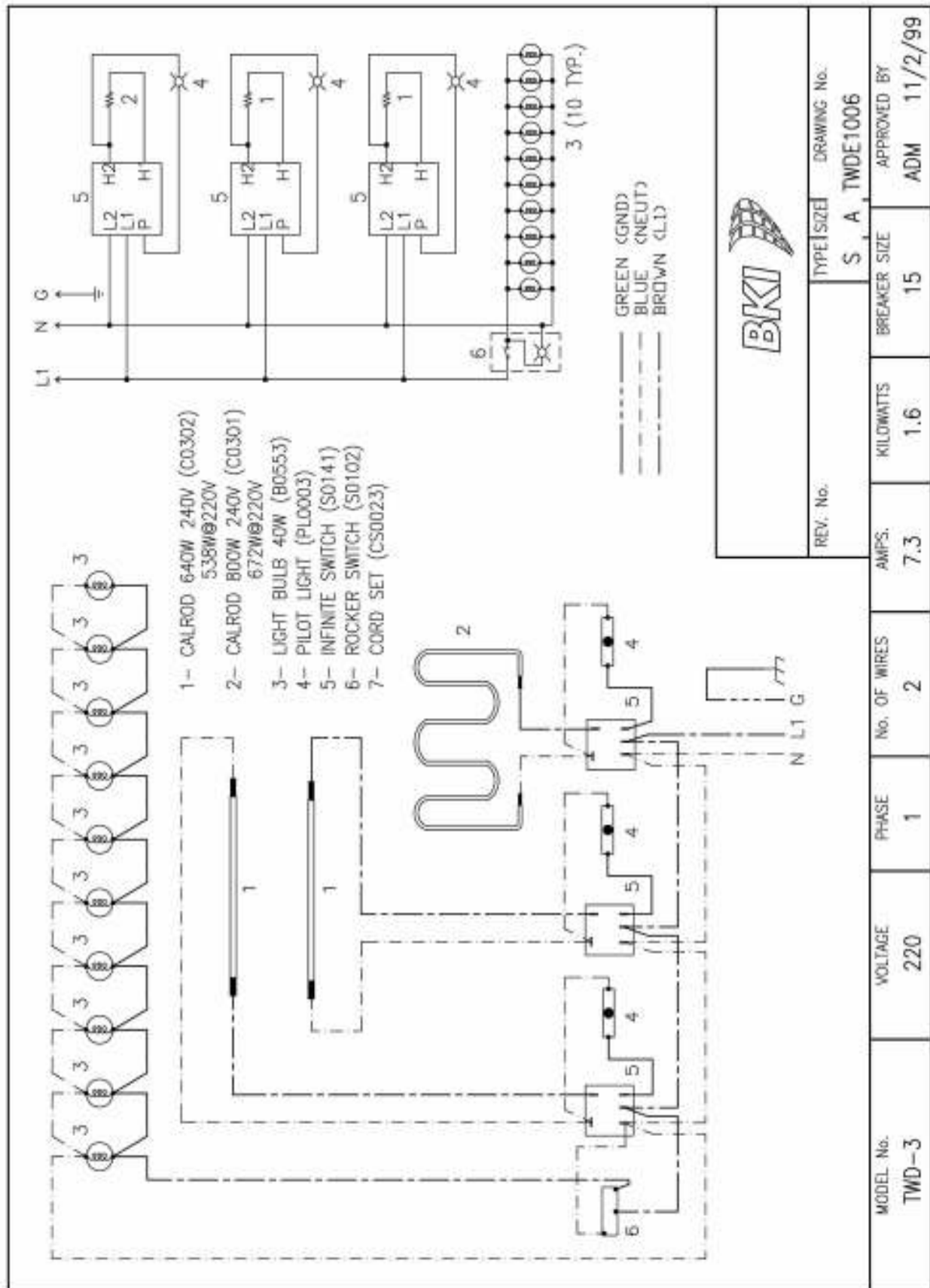


Figure 5. TW-3D 220V



**Notes**



2812 Grandview Dr., Simpsonville, S.C. 29680, USA  
<http://www.bkideas.com>

Made and printed in the U.S.A  
LI0260/0407

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**REVISION HISTORY**

<b><u>REVISION</u></b>	<b><u>DATE</u></b>	<b><u>REVISED BY</u></b>	<b><u>DESCRIPTION</u></b>
01	03/27/13	KW	Initial Release-Supersedes all previous releases