

Statement of Responsibilities

This document is for use by experienced and trained Qualified Cleveland Range, LLC Authorized Service Representatives who are familiar with both the safety procedures, and equipment they service.

Cleveland Range, LLC assumes no liability for any death, injury, equipment damage, or property damage resulting from use of, improper use of, or failure to use the information contained in this document.

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Qualified Cleveland Range, LLC Authorized Service Representatives are obligated to follow industry standard safety procedures, including, but not limited to, OSHA regulations, and disconnect / lock out / tag out procedures for all utilities including steam, and disconnect / lock out / tag out procedures for gas, electric, and steam powered equipment and / or appliances

All utilities (gas, electric, water and steam) should be turned OFF to the equipment and locked out of operation according to OSHA approved practices during any servicing of Cleveland Range equipment

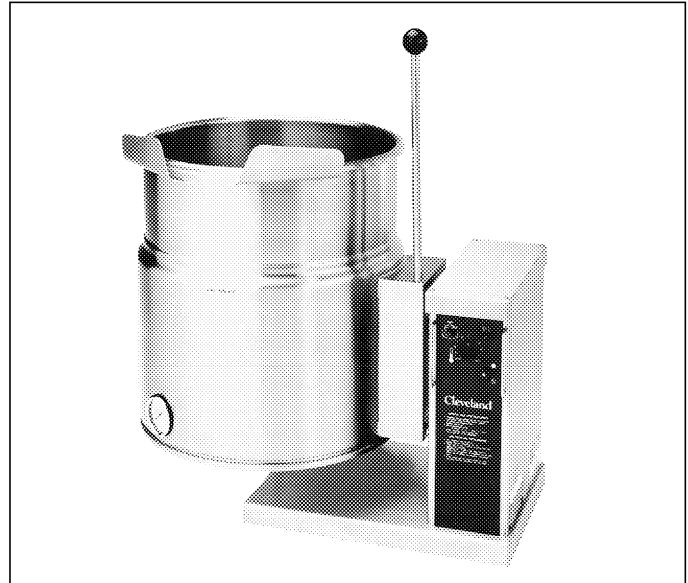
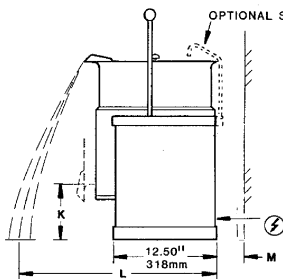
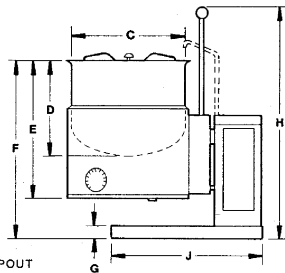
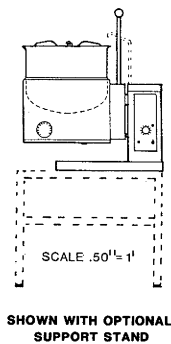
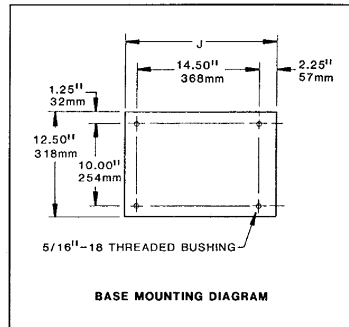
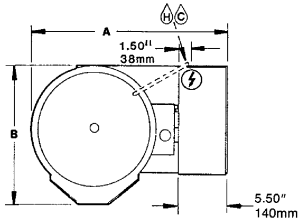
Qualified Cleveland Range, LLC Authorized Service Representatives are obligated to maintain up-to-date knowledge, skills, materials and equipment.

TABLE TYPE, ELECTRIC
SELF-CONTAINED
3, 6 or 12 GALLONS
(11, 23 or 45 LITERS)
2/3 STEAM JACKETED, TILTING
"SPASH PROOF SERIES"

MODELS: KET- 3-T KET-12-T
 KET- 6-T

ITEM NUMBER _____


JOB NAME / NUMBER _____



SHORT FORM SPECIFICATION

Shall be CLEVELAND, electric kettle, Table Type, self-contained, tilting, Model KET - ____ - T; ____ gallons, ____ KW, ____ volt, ____ Hz, ____ - phase, 3 wire and single phase, 2 wire. 2/3 steam jacketed, type 304 Stainless Steel kettle and supports. Jacket rated at 50 psi with Safety Valve. Complete with solid state water level, temperature and safety low water power cut-off, including LED indicators. Lift-off cover, Marine Lock.

| GAL | LITERS | | A | B | C | D | E | F | G | H | J | K | L | M | N |
|-----|--------|----------|--------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|--------------|-------------|--------------|-------------|-------------|
| 3 | 11 | IN mm | 20.00 508 | 14.50 368 | 10.00 254 | 9.00 229 | 14.25 362 | 20.00 508 | 1.50 38 | 28.25 718 | 18.00 457 | 8.50 216 | 24.00 610 | 2.25 57 | 2.00 343 |
| 6 | 23 | IN mm | 23.50 597 | 16.75 425 | 13.38 340 | 11.00 279 | 16.50 419 | 22.75 578 | 1.50 38 | 28.50 724 | 18.00 457 | 6.94 176 | 26.50 673 | 2.75 70 | 2.00 343 |
| 12 | 45 | IN mm | 27.00 686 | 20.00 508 | 16.75 425 | 13.50 343 | 18.56 471 | 24.25 616 | 1.50 38 | 31.50 800 | 18.00 457 | 6.56 167 | 27.00 686 | 5.50 140 | 2.00 375 |

| ELECTRIC ⚡ | | | | | | | | | | | | | Dual Voltage of 220 / 380 (shown on chart) require a four wire, three phase electrical supply. | | | WATER  | | CLEARANCE | | |
|------------------------------------|----|-----|------------|------|------------|------------|------|------------|---------------|------|------------|------------|--|------|------------------|---|------|------------------|------------------------|---|
| ELECTRICAL SUPPLY STANDARD WATTAGE | | | | | | | | | | | | | HIGH WATTAGE | | | | | | 1/2" O.D. copper tube. | RIGHT = 0" LEFT = 0" REAR = See "M" on chart above. |
| 208 VOLTS | | | 240 VOLTS | | | 480 VOLTS | | | 220/380 VOLTS | | | 208VOLTS | | | 240VOLTS | | | | | |
| CAPACITY GALS. LITERS | KW | 1PH | AMS 3PH | KW | AMS 1PH | AMS 3PH | KW | AMS 1PH | AMS 3PH | KW | AMS 1PH | AMS 3PH | KW | PH | AMPS PER LINE | KW | PH | AMPS PER LINE | | |
| 3 | 11 | 4.1 | 19.7 | N/A | 5.5 | 20.7 | N/A | 5.5 | 11.4 | N/A | N/A | N/A | N/A | — | — | — | — | — | — | |
| 6 | 23 | 6.2 | 29.6 | 17.1 | 8.2 | 34.0 | 19.7 | 9.8 | 20.5 | 11.8 | 6.8 | N/A | 10.3 | 9.8 | 3 | 27.3 | 13.0 | 3 | 31.5 | |
| 12 | 45 | 9.8 | 47.3 | 27.3 | 13.0 | 54.5 | 31.5 | 13.1 | 27.3 | 15.8 | 10.9 | N/A | 16.5 | 12.3 | 3 | 34.2 | 16.4 | 3 | 39.4 | |

Cleveland Range reserves right of design improvement or modification, as warranted.

TABLE TYPE, ELECTRIC

SELF-CONTAINED

TWIN: 3, 6 or 12 GALLONS

(11, 23 OR 45 LITERS)

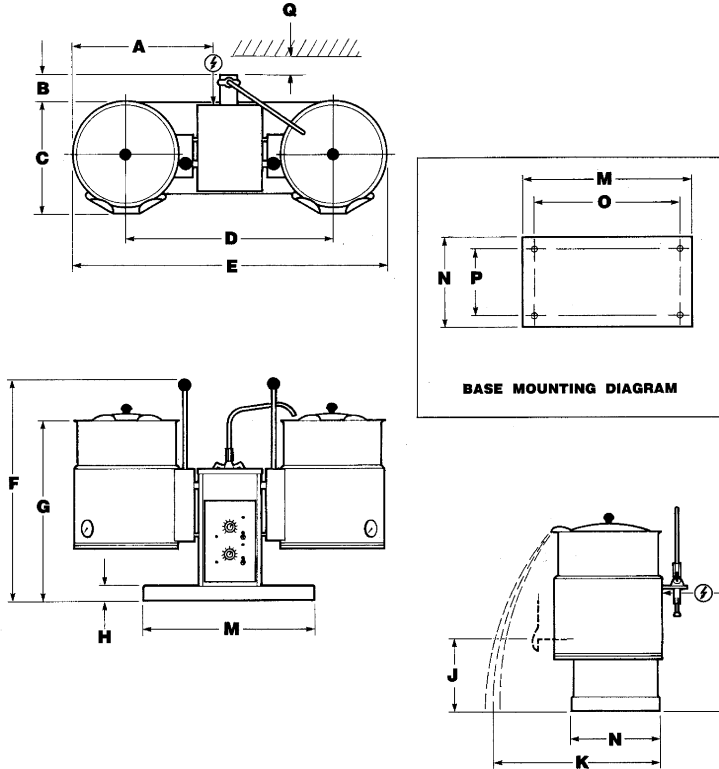
2/3 STEAM JACKETED, TILTING

"SPASH PROOF SERIES"

MODELS: TKET-3-T TKET-12-T
 TKET-6-T

ITEM NUMBER _____

JOB NAME / NUMBER _____




Shown with optional Lift-Off Covers

SHORT FORM SPECIFICATION

Shall be CLEVELAND, electric twin kettles, Table Type, self-contained, tilting, Model TKET - ____ - T; ____ gallons each, ____ KW, ____ volts, ____ Hz, 3phase/3 wire or single phase/2 wire: with Solid State Controls for temperature ($\pm 1^\circ$ C) and Low Water Safety, Large Pouring Lips, Recessed Pressure/Vacuum Gauges, permanently filled Steam Jackets, 50 psi Steam Jacket Ratings and Safety Valves, Lift-Off Covers.

| MODEL NO. | GALS. | LITERS | | A | B | C | D | E | F | G | H | J | K | L | M | N | O | P | Q |
|-----------|-------|--------|----|-------|------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|------|
| TKET- 3-T | 3 | 11 | IN | 15.75 | 4.38 | 14.00 | 21.00 | 34.50 | 22.63 | 20.00 | 1.50 | 8.25 | 24.00 | 13.75 | 18.00 | 12.50 | 14.50 | 10.00 | 2.25 |
| | | | mm | 400 | 110 | 355 | 533 | 875 | 575 | 510 | 38 | 210 | 610 | 350 | 455 | 320 | 370 | 255 | 57 |
| TKET- 6-T | 6 | 23 | IN | 20.75 | 4.38 | 16.75 | 30.00 | 44.00 | 28.75 | 22.75 | 1.50 | 7.00 | 26.50 | 13.75 | 24.00 | 12.50 | 14.50 | 10.00 | 2.75 |
| | | | mm | 525 | 110 | 425 | 760 | 1120 | 730 | 580 | 38 | 180 | 675 | 350 | 610 | 320 | 370 | 255 | 70 |
| TKET-12-T | 12 | 45 | IN | 24.25 | 4.38 | 19.50 | 33.00 | 50.63 | 31.50 | 24.25 | 1.50 | 6.25 | 27.00 | 14.75 | 30.00 | 12.50 | 14.50 | 10.00 | 5.50 |
| | | | mm | 615 | 110 | 495 | 840 | 1285 | 800 | 615 | 38 | 160 | 685 | 375 | 762 | 320 | 370 | 255 | 140 |

| ELECTRIC ⚡ | | | | | | | | | | | | | | WATER  | | | CLEARANCE | | | |
|---|--------|-----------|-----|--------------|-----------|-----|--------------|---------------|-----|--------------|---------------|-----|--------------|---|-----|--------------|--|-----|--------------|-----|
| ELECTRICAL SUPPLY IN STANDARD WATTAGE (S) * or HIGH WATTAGE (H) * | | | | | | | | | | | | | | 1/2" O.D. copper tube. | | | RIGHT = 0" LEFT = 0" REAR = See "Q" on chart above | | | |
| CAPACITY | | 208 VOLTS | | | 240 VOLTS | | | 220/380 VOLTS | | | 240/415 VOLTS | | | | | | | | 480 VOLTS | |
| GALS. | LITERS | * KW | PH. | AMPS PER PH. | * KW | PH. | AMPS PER PH. | * KW | PH. | AMPS PER PH. | * KW | PH. | AMPS PER PH. | * KW | PH. | AMPS PER PH. | * KW | PH. | AMPS PER PH. | |
| 3 | 11 | S 8.2 | 1 | 39.5 | S 10.9 | 1 | 45.4 | S 9.1 | 1 | 41.3 | S 10.9 | 1 | 45.4 | - | N/A | N/A | N/A | - | N/A | N/A |
| | | H 12.4 | 1 | 59.2 | S 16.4 | 1 | 68.0 | S 13.6 | 3Y | 20.6 | S 16.4 | 3Y | 22.8 | S 19.6 | 1 | 41.0 | S 12.0 | 3 | 20.8 | |
| | | S 12.4 | 3 | 34.6 | S 16.4 | 3 | 39.4 | H 21.8 | 3Y | 33.0 | H 26.0 | 3Y | 36.4 | S 19.6 | 3 | 23.6 | | | | |
| | | H 19.6 | 3 | 54.6 | H 26.0 | 3 | 63.0 | | | | | | | | | | | | | |
| | | S 19.6 | 1 | 94.6 | S 26.0 | 1 | 109.0 | S 21.8 | 3Y | 33.0 | S 26.0 | 3Y | 36.4 | S 26.2 | 1 | 54.6 | S 24.0 | 3 | 41.8 | |
| | | S 19.6 | 3 | 54.6 | S 26.0 | 3 | 63.0 | H 27.2 | 3Y | 41.4 | H 32.8 | 3Y | 45.4 | S 26.2 | 3 | 31.6 | | | | |
| | | H 24.6 | 3 | 68.4 | H 32.8 | 3 | 78.8 | | | | | | | | | | | | | |

Cleveland Range reserves right of design improvement or modification, as warranted.

CLEVELAND RANGE KET-T SEQUENCE OF OPERATIONS

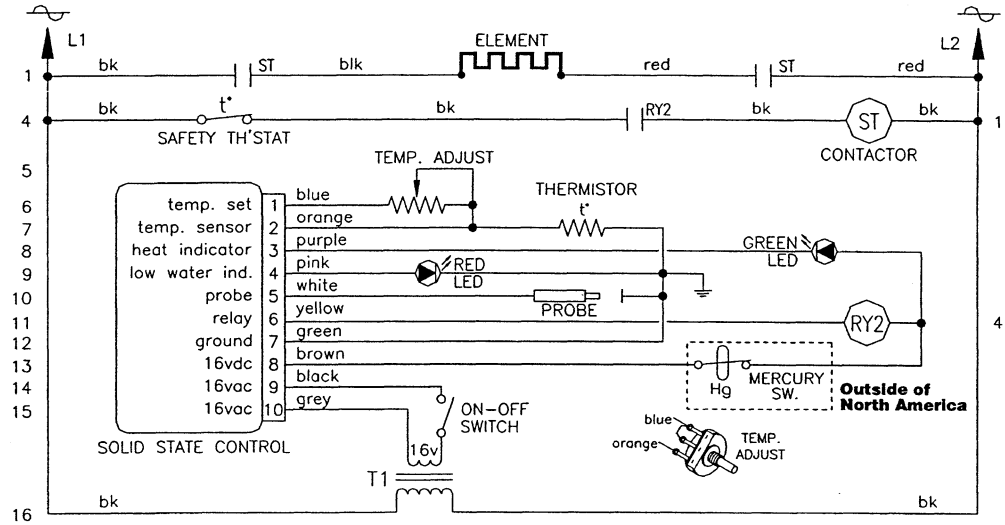
1. To turn the unit on, turn the switch to the on position.
 - Power is sent to primary side of the 120vac/16vac transformer.
 - Power is sent to the normally closed high limit.
 - From the high limit power is sent to the normally open contacts of the 12VDC relay.
2. From the secondary of the transformer 16VAC is sent to the controller.
 - Power is sent to the red LED (low water indicator light) from terminal 4 of the controller.
 - If the water probe is grounded through water the LED will go off.
 - If the water probe is not grounded the LED will remain on and the unit will not heat.
 - If the resistance of the thermistor is higher than the setting of the potentiometer(the unit is calling for heat) then 16VDC is sent to the coil of the relay and the green LED (heat indicator light)
 - The 12VDC relay will close until the unit reaches temperature
3. With the contacts of the relay closed, power is sent to the coil of the contactor(s).
 - The contactor(s) close sending the supply voltage to the element(s).
 - The elements will heat causing the water to boil and steam to be generated.
4. The kettle will heat (build pressure) until the controller is satisfied by the thermistor at the setting of the potentiometer.
 - The controller will then turn off the heat circuit until the temperature of the kettle is below the setting.
 - When the temperature drops below the setting the controller will send 12 VDC to the relay and the heat circuit will be energized again.
5. To turn the unit off, place the switch in the off position.
 - Power will be removed from the controller and the heat circuit will de-energize.

WIRING DIAGRAM

3 Gallon Kettles

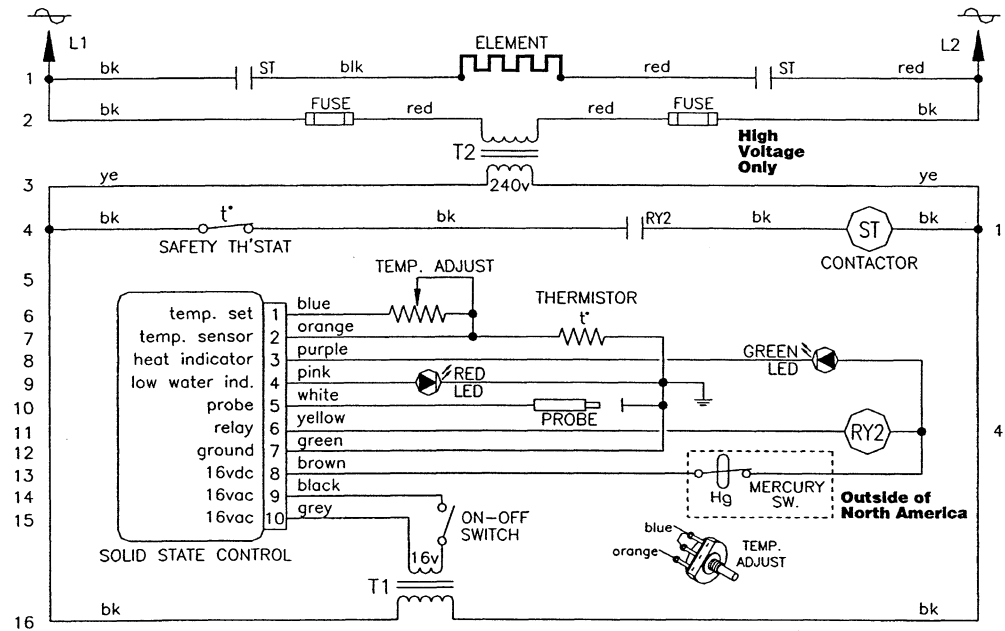
200-240v

Single Phase Only



380-480v

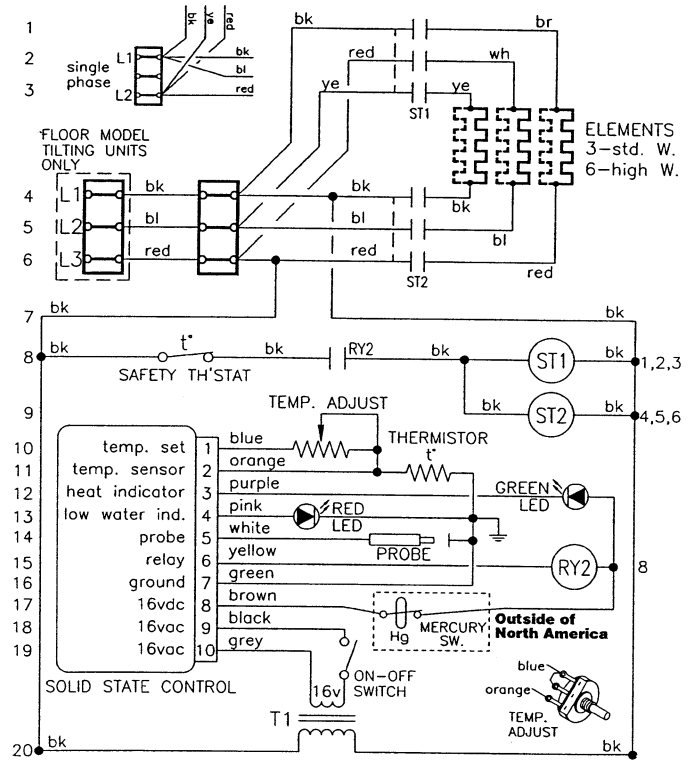
Single Phase Only



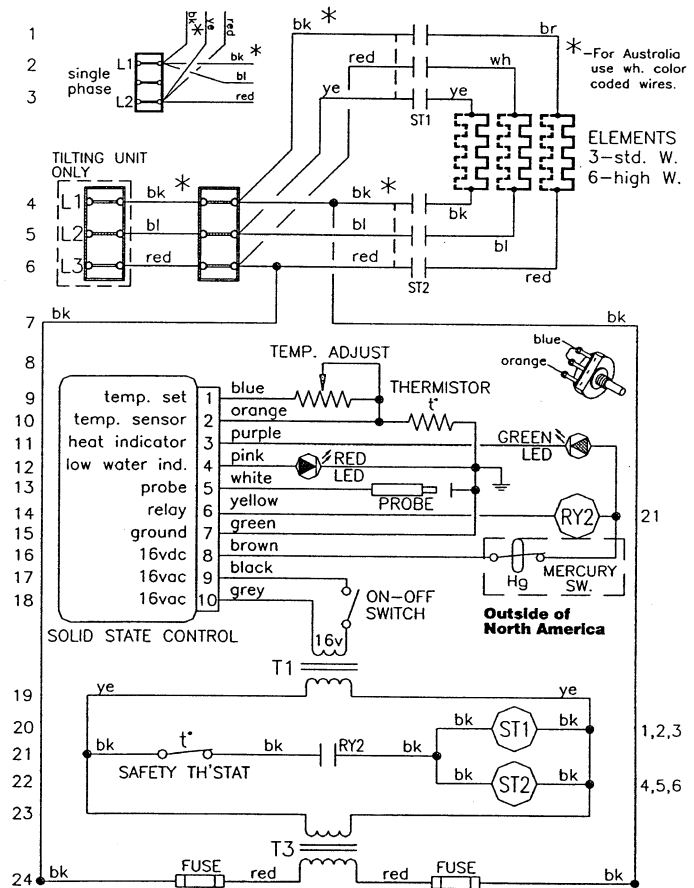
WIRING DIAGRAM

6-20 Gallon

200-240v



380-600v



OPERATING THE KETTLE

DO NOT LEAN ON OR PLACE OBJECTS ON KETTLE LIP. SERIOUS INJURY COULD RESULT IF KETTLE TIPPED OVER, SPILLING HOT CONTENTS.

1. Before turning kettle on, read the Vacuum/Pressure Gauge (4). The gauges needle should be in the green zone. If the needle is in the "VENT AIR" zone, refer to the Kettle Venting Instructions (page 19). Any air that may be present will increase cooking times. Once heated, the kettle's normal maximum operating pressure is approximately 10-12 psi, while cooking a water base product.
2. Ensure that the electrical service to the kettle is turned on at the fused disconnect switch.

| Temperature Control Setting | Approximate Product Temperature | |
|-----------------------------|---------------------------------|-----|
| | °F | °C |
| 1. (Min.) | 130 | 54 |
| 2. | 145 | 63 |
| 3. | 160 | 71 |
| 4. | 170 | 77 |
| 5. | 185 | 85 |
| 6. | 195 | 91 |
| 7. | 210 | 99 |
| 8. | 230 | 110 |
| 9. | 245 | 118 |
| 10. (Max.) | 260 | 127 |

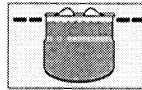
NOTE: Certain combinations of ingredients will result in temperature variations

Temperature Range Chart

3. Preheat the kettle by turning the ON/OFF Switch/Solid State Temperature Control (1) to the desired temperature setting (see above "Temperature Range Chart"). The Heat Indicator Light (Green) (2) will remain lit, indicating the burner is lit, until the temperature setting is reached. When the green light goes off, the heaters are off, and preheating is complete.

NOTE: When cooking egg and milk products, the kettle should not be preheated, as products of this nature adhere to hot cooking surfaces. These types of food should be placed in the kettle before heating is begun.

4. Place food product into the kettle. The Heat Indicator Light (Green) (2) will cycle on and off indicating the elements are cycling on and off to maintain the set temperature.



NOTE: Do not fill kettle above recommended level marked on outside of kettle.

NOTE: The Low Water Indicator Light (Red) (3) should not be lit during kettle operation. This light indicates that the elements have been automatically shut off by the kettle's safety circuit. It is normal for the red light to come on when the kettle is in a tilted position. However, the kettle cannot be operated when the red light remains lit while the kettle is in the upright position. This indicates a low water condition, and water must be added to the reservoir. Refer to Reservoir Fill Procedures on page 19 of this manual for details.

5. When cooking is completed place ON/OFF Switch/Solid State Temperature Control (1) to the "OFF" position.
6. Pour the contents of the kettle into an appropriate container by tilting the kettle forward. Care should be taken to pour slowly enough to avoid splashing off the product.

NOTE: As with cleaning food soil from any cookware, an important part of kettle cleaning is to prevent food from drying on. For this reason, cleaning should be completed immediately after cooked foods are removed. Refer to the Cleaning Instructions (page 6) for detailed kettle washing procedures.

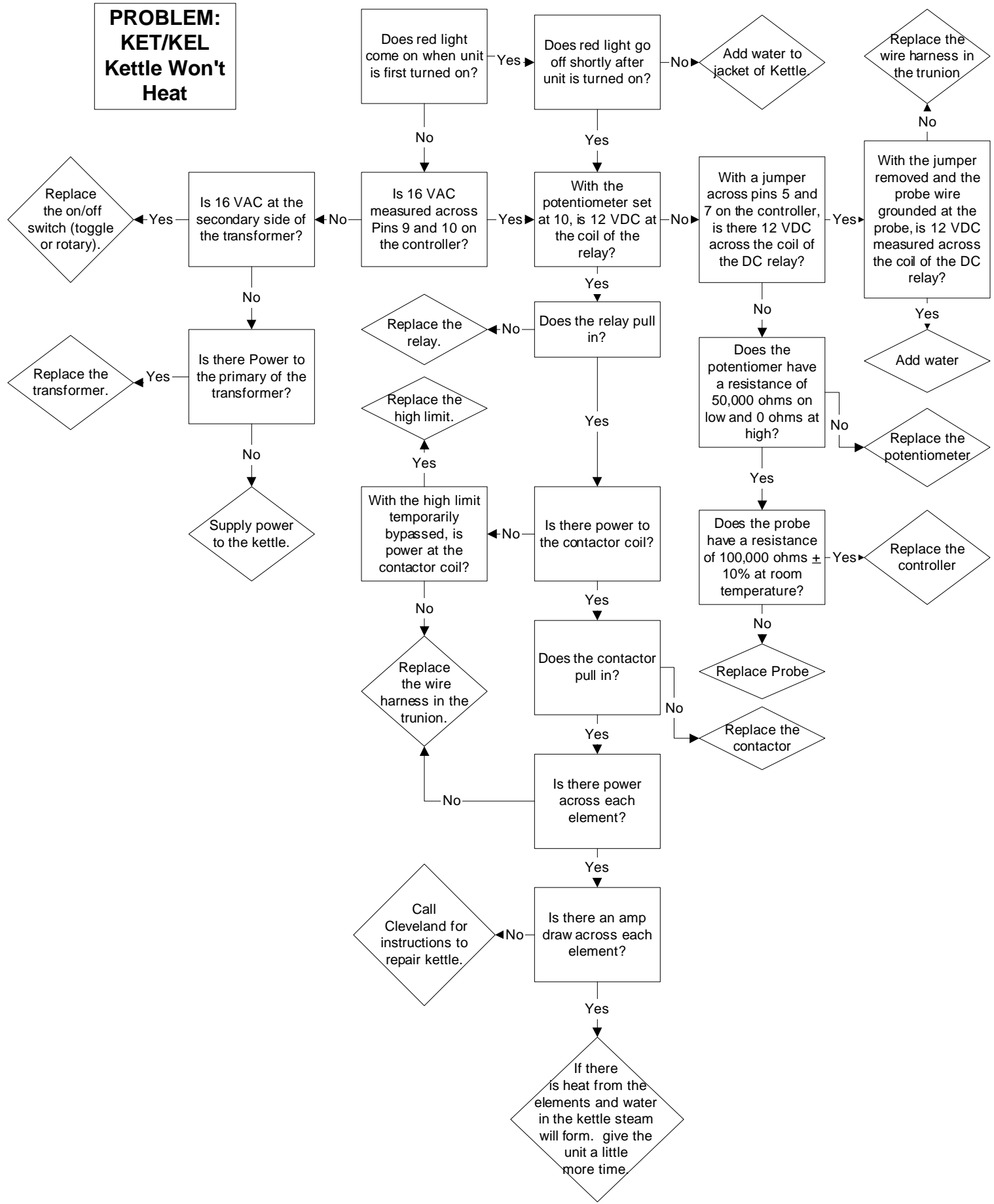
APPROXIMATE BOILING TIMES

| Gals. | Ltrs. | Times in Minutes | | | | | |
|-------|-------|------------------|------|------|---------------|------|------|
| | | Standard Wattage | | | High Wattage* | | |
| | | 208V | 240V | 480V | 208V | 240V | 480V |
| 25 | 95 | 60 | 45 | 60 | 40 | 30 | 30 |
| 40 | 150 | 60 | 50 | 75 | 40 | 30 | 30 |
| 60 | 225 | 100 | 75 | 75 | 50 | 40 | 40 |
| 80 | 300 | 130 | 100 | 100 | 65 | 50 | 50 |
| 100 | 375 | 160 | 120 | 120 | 80 | 60 | 60 |

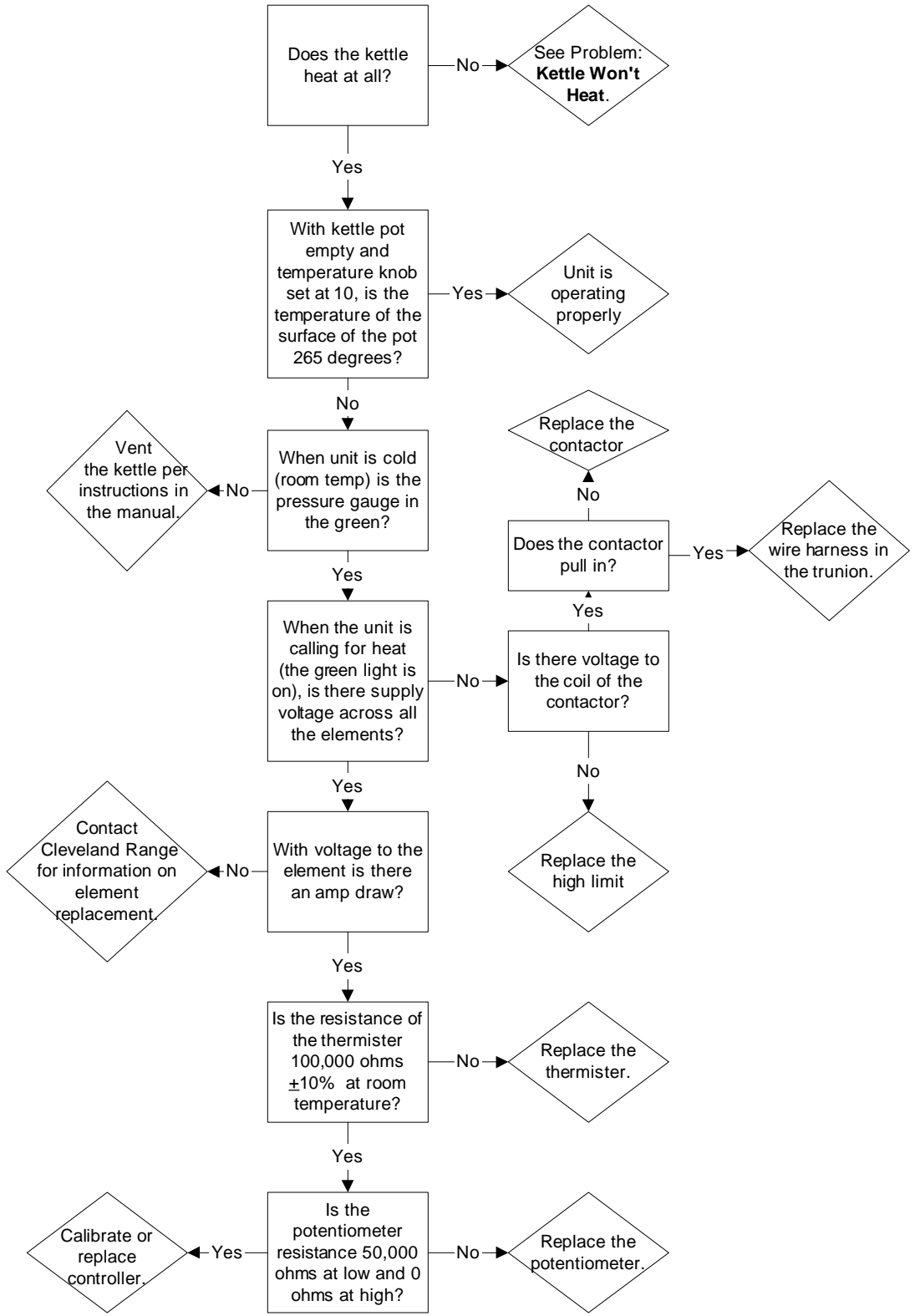
*High Wattage is only available with 3 phase units.

The accompanying chart shows approximate times required for electric kettles of various capacities to boil water. The ON/OFF Switch/Solid State Temperature Control (1) must be set at "10" (Max.) throughout the heatup period. Water will boil about 1/3 faster if the kettle is filled only to the outer steam jacket's welded seam, resulting in a kettle filled to 2/3 capacity.

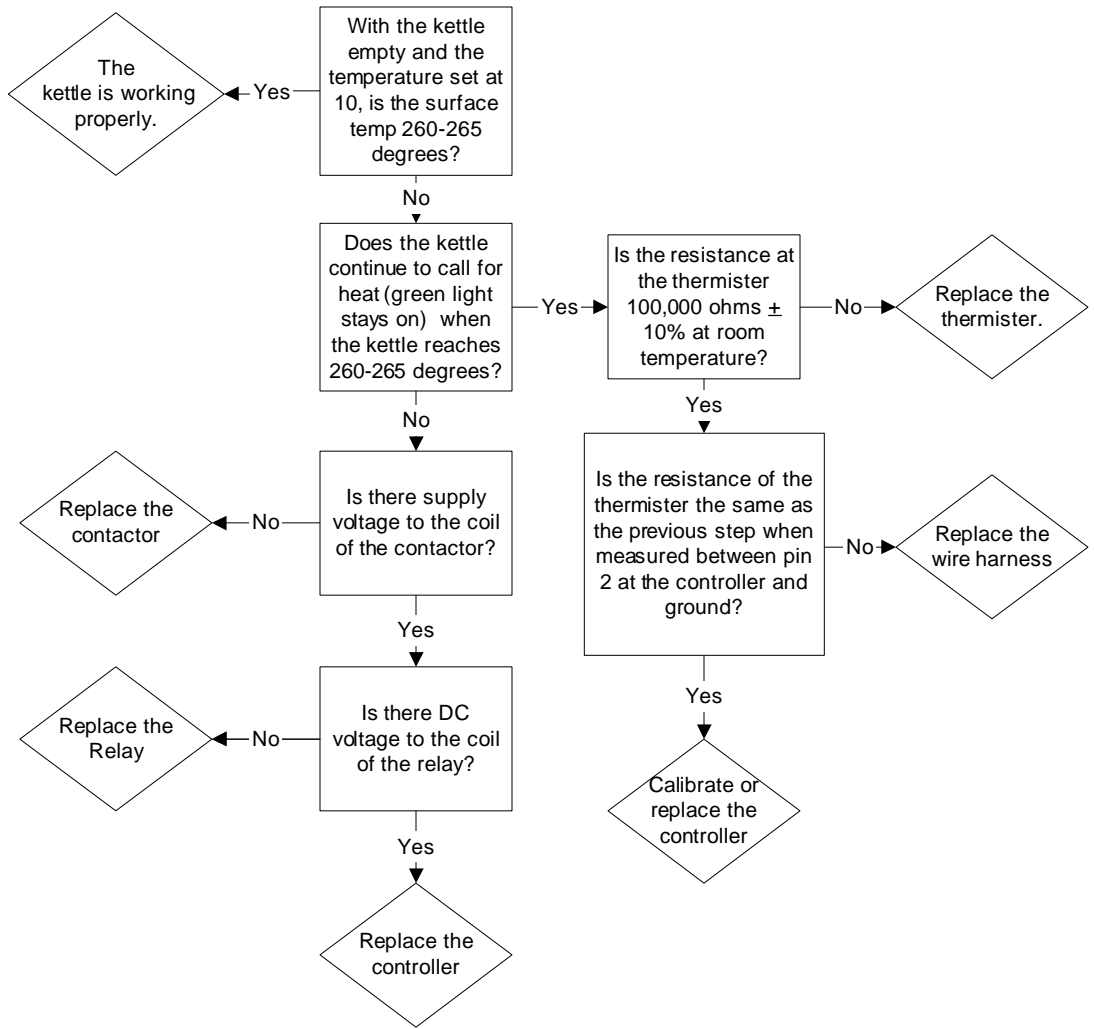
**PROBLEM:
KET/KEL
Kettle Won't
Heat**



**PROBLEM:
KET/KEL
Kettle Not
Hot Enough**



**PROBLEM:
KET/KEL
Kettle Gets
Too Hot**



PROBLEM: Red Add Water LED Stays On

