

INSTRUCTION MANUAL for BCR SERIES STABILINE® POWER CONDITIONERS

Superior Electric reserves the right to make engineering refinements on all its products. Such refinements may affect information given in instructions. Therefore, **USE ONLY THE INSTRUCTIONS THAT ARE PACKED WITH THE PRODUCT.**

INSPECTION

When unpacking the BCR Series STABILINE Power Conditioner, examine it carefully for any indication of shipping damage. The "Damage and Shortage" instruction packed with the unit outlines the procedure to follow if any parts are damaged or missing.



BCR Series Regulators are listed by Underwriters Laboratories, Incorporated.



THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut 06010

DESCRIPTION

BCR Series STABILINE Power Conditioners are extremely fast acting voltage regulators that also provide isolation and noise attenuation for all-around conditioning of power lines. They have a correction rate of one step per cycle for small voltage changes and three steps per cycle for changes requiring three or more steps. Each voltage regulation step will change the output voltage by approximately 1.5%, 3% or 6% of the selected nominal output, depending on the model selected.

A BCR Series Power Conditioner will maintain an output voltage of 115, 210 (tap marked 208), 220, 230 or 240 volts a-c within the rated accuracy of the model selected (see chart below) for all line variations. All BCR Series units have load regulation of less than 1.6% for unity power factor and less than 2.4% for 0 power factor leading or lagging loads. The output is isolated from the input with an effective capacitance of less than 5 picofarads.

RATINGS

| INPUT VOLTAGE | OUTPUT VOLTAGE TAP | RATED OUTPUT kVA | ACCURACY | TYPE | WEIGHT | |
|--|------------------------------|------------------|----------|----------|--------|-----|
| | | | | | lb. | kg. |
| 208 (163-235) 220 (172-246) 230 (180-256) 240 (190-265) | 115, 208, 220, 230 or 240 | 5.0 | ±1.5% | BCR1205U | 370 | 168 |
| | | 5.0 | ±3% | BCR3205U | 355 | 161 |
| | | 5.0 | ±6% | BCR6205U | 335 | 152 |
| 208 (163-235) 220 (172-246) 230 (180-256) 240 (190-265) | 115, 208, 220, 230 or 240 | 7.5 | ±1.5% | BCR1207U | 440 | 200 |
| | | 7.5 | ±3% | BCR3207U | 420 | 191 |
| | | 7.5 | ±6% | BCR6207U | 390 | 177 |

BCR Series STABILINE® Power Conditioners

SPECIFICATIONS

| | |
|--|--|
| Efficiency (at 1.0 Power Factor, Full Load, 60 Hertz) | 91% minimum |
| Input Current (No Load) | 3 amperes or 5 amperes max., depending on model |
| Line Frequency | 47 to 63 Hz |
| Output Voltage Regulation | |
| Line | ±1.5%, ±3% or ±6%, depending on model |
| Load | |
| 1.0 Power Factor | less than 1.6% |
| 0 Power Factor | less than 2.4% |
| Load Power Factor | 0 lagging to 0 leading |
| Harmonic Distortion | 1.5% max., worst case |
| Capacitance (Input to Output) | 5 picofarads max. |
| Maximum Input Transient | 3000 volts peak; 25 joules at 1 per second |
| Transverse Mode Attenuation | 55dB typical |
| Ambient Temperature Range | 0°C to +40°C |

THEORY OF OPERATION

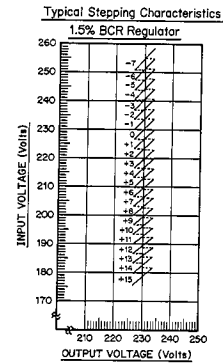
BCR Series STABILINE Power Conditioners regulate AC voltage by synchronously switching primary windings of a series of buck-boost (B-B) transformers at zero waveform crossing. The correction voltage provided at the secondaries of the B-B transformers automatically increases or decreases the input voltage. The voltage amplitudes at the secondaries of the B-B transformers are arranged in a binary fashion (each one is two times larger than the last) to provide good resolution over a large range with few switching devices. Solid-state switches are used to switch the primary windings of the B-B transformers.

The regulated output from the secondaries of the B-B transformers is fed to the input of a multitapped isolation transformer, the primary of which is also used as a step-down transformer to supply the solid-state switches. This transformer provides isolation between line and load as well as the ability to tap-select the nominal input and output voltages. Suppressor networks are added to provide transverse-mode noise attenuation.

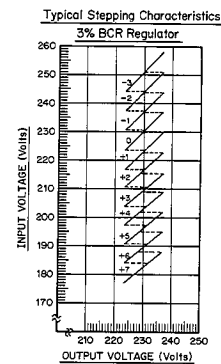
The control unit for the switching action uses two input signals. The first signal, from the clock generator, insures that each step occurs at zero waveform crossing. The second signal is from the output voltage detector and it is used to determine whether the output is within regulation or if correction is required. If correction is needed, the direction and amplitude of the correction are determined and two binary counters, the outputs of which control the solid-state switches, are gated to step up or down until the output is within regulation. This gating only occurs when allowed by the clock generator. If the amplitude of the error is great enough to require three or more steps, the counter will change three times each time the clock generator allows correction.

Switching characteristics for BCR Series units are shown in Figure 1 for 1.5% accuracy models, Figure 2 for 3% accuracy models or Figure 3 for 6% accuracy types. The graphs show characteristics for a selected nominal input and output of 230 volts. In each Figure, the numbered diagonal solid lines represent the states or conditions in which the power conditioner will be satisfied. If the input voltage varies beyond the limits of the existing state of the unit, the control unit will switch it to the next state as represented by the broken horizontal lines. Note that the unit will step to the center of the next state. The states in Figures 1, 2 and 3 are numbered and have a plus

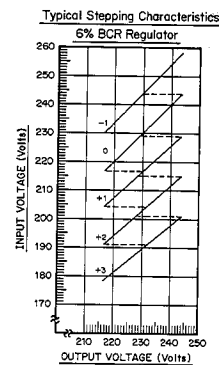
or a minus sign. The sign indicates the direction of the step (plus for boost, minus for buck) and the number indicates the number of steps from the "Feedthrough" (no correction) state.



SWITCHING CHARACTERISTICS
1.5% ACCURACY MODELS
FIGURE 1

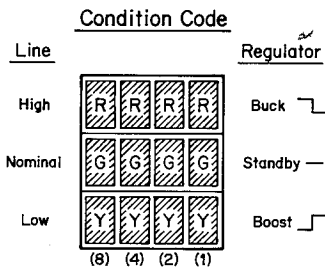


SWITCHING CHARACTERISTICS
3% ACCURACY MODELS
FIGURE 2



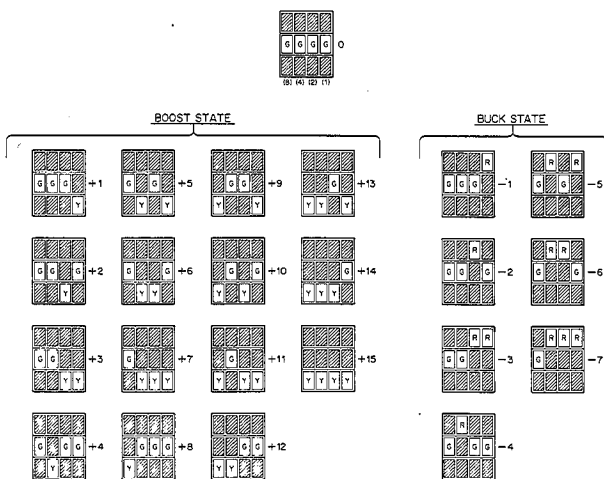
SWITCHING CHARACTERISTICS
6% ACCURACY MODELS
FIGURE 3

BCR Series units have front panel indicators which use a binary number (base 2) to show the current operating state. The indicator uses an array of light emitting diodes (LED's) which are only visible when on. The LED's are arranged in three horizontal rows of four LED's each. The top row is red and indicates the binary number (on = 1, off = 0) corresponding to the buck (-) state of the BCR unit. The bottom row (yellow) indicates the boost (+) state binary number in the same way (on = 1, off = 0). The green LED's in the center row indicate what bits do not have a "1" in either the buck or the boost state. The decimal (base 10) value for each bit or digit of the binary number is shown under the LED's. The green LED's will be on for all bits when in the feedthrough (no correction) state and can also be used to insure the correct count is shown.



CONDITION CODE DISPLAY
FIGURE 4

Figure 5 show all possible states of the Condition Code indicator. Only 1.5% accuracy models are capable of all of the states shown, since 3% and 6% accuracy models have fewer buck and boost states.



POSSIBLE CONDITION CODE STATES
FIGURE 5

MECHANICAL INSTALLATION

A BCR Series Power Conditioner is designed for floor mounting and must be securely fastened in place using the 7/16" (11.2mm) diameter mounting holes provided in the base of the unit. Mounting hole locations are shown in Figure 6.

When mounting the unit, allow a minimum clearance of 4 inches in front and in back and 2 inches on each side to allow proper air flow for convection cooling.

ELECTRICAL INSTALLATION

To gain access to the terminal board, remove the two fasteners which hold the front panel in position and remove the front panel. Four knockouts (two for each terminal board) are provided on the rear of the unit for wire entry. When running the input lines from the knockout to the input terminal board, be sure they are routed over the metal bracket which is incorporated to prevent the wires from contacting the buck-boost transformer located below the input terminal panel.

Connect the input to the terminals labeled "INPUT LINE" and select the input voltage range by moving the P74 lead and lug to the appropriate input voltage tap (see Figure 7). When mounting the lug on the input voltage tap, be sure the round projection on the lug fits into the hole provided on the terminal board so that the lug will be prevented from turning.

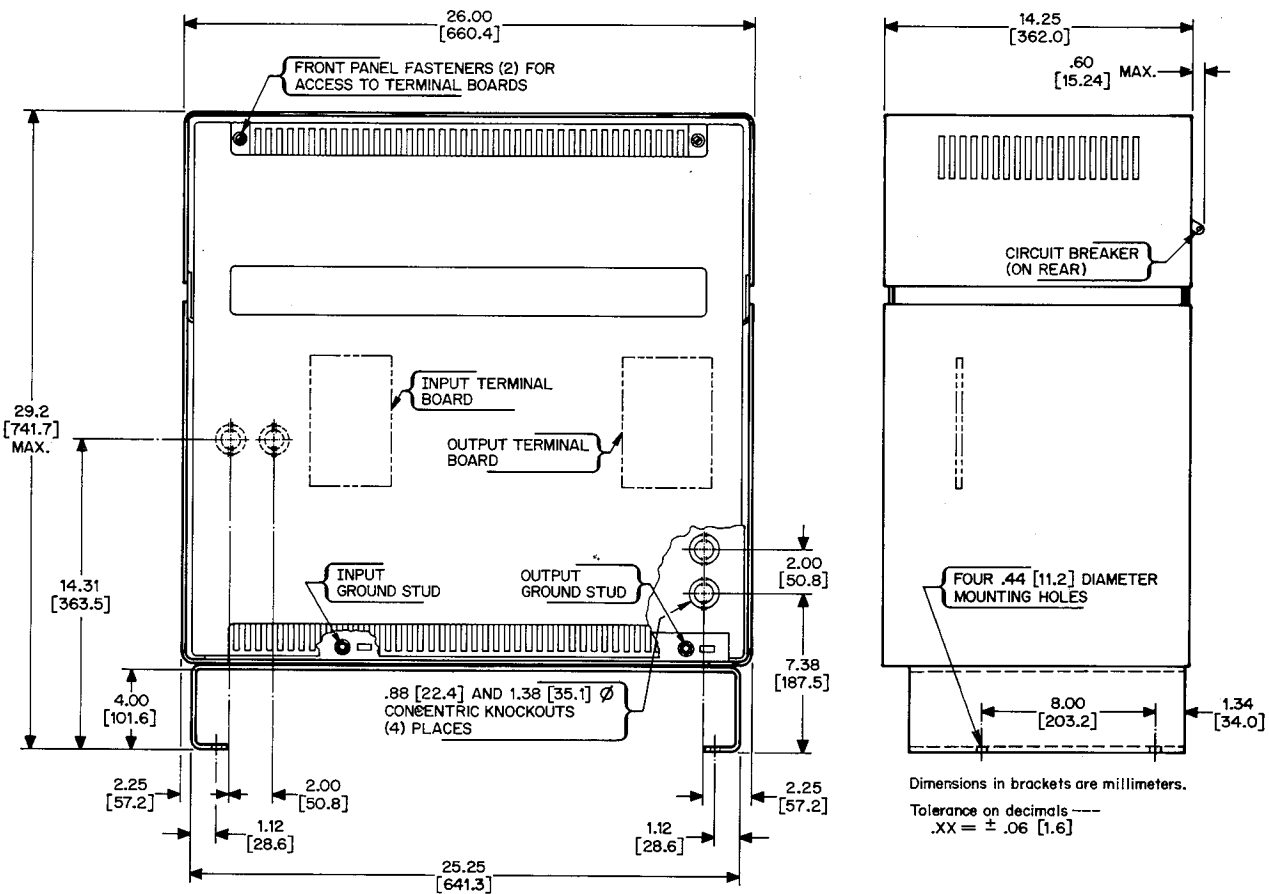
Connect the load to the appropriate output terminals as shown in Figure 7. Be sure that the two jumper links on the output terminal board are connected as specified in the chart in Figure 7.

Be sure to connect both the input and the output grounds to one of the ground studs on the BCR series unit.

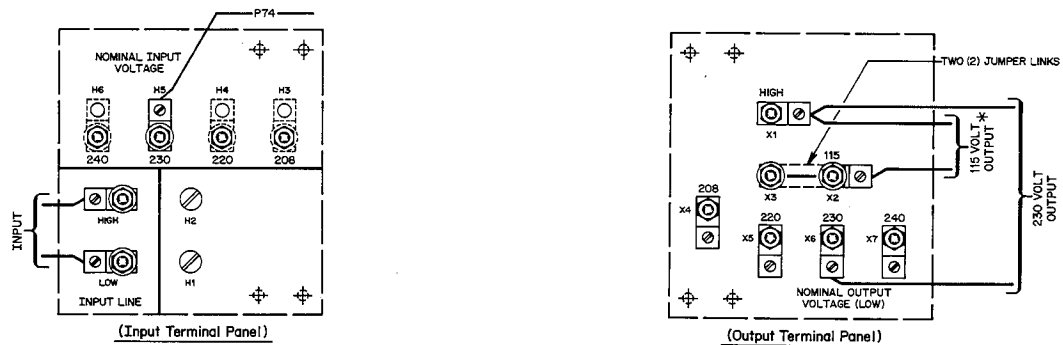
NOTE: The output voltage is isolated from the input voltage and, therefore, is "floating". To provide a reference to earth ground, connect any output terminal to a ground stud.

After completing and checking all input and output connections, place the front panel in position and tighten its two fasteners.

Energize the input line to the power conditioner and turn the unit on by placing the handle of the circuit breaker, located on the rear of the cabinet, in the upper position. The Condition Code LED's on the front panel should light, indicating that the power conditioner is operating.



DIMENSIONS
FIGURE 6



Connections shown are for a nominal input of 230 volts. For nominal inputs other than 230 volts, remove the P74 lead and its lug from terminal H5 and connect it to the appropriate terminal as shown in the table below. When installing the P74 lead on the terminal, be sure the round projection on the lug is fitted into the hole provided on the terminal panel so the lug will be prevented from turning. Only the P74 lead is changed to select the input nominal.

INPUT CONNECTIONS

| Nominal (Volts) | Input Voltage | | Terminal Select for P74 Lead |
|-----------------|---------------|--|------------------------------|
| | Range (Volts) | | |
| 208 | 163-235 | | H3 |
| 220 | 172-246 | | H4 |
| 230 | 180-256 | | H5 |
| 240 | 190-265 | | H6 |

Connections shown are for a nominal output of 230 volts. For nominal outputs other than 230 volts see the table below for load and jumper connections.

OUTPUT CONNECTIONS

| Output Voltage Tap | Load Terminals | | Jumper Link Connections |
|--------------------|----------------|-----|-------------------------|
| | High | Low | |
| *208 | X1 | X4 | X2 to X3 |
| *220 | X1 | X5 | X2 to X3 |
| *230 | X1 | X6 | X2 to X3 |
| *240 | X1 | X7 | X2 to X3 |
| 115 | X1 | X2 | X1 to X3 X2 to X6 |

*A 115 volt load may also be connected to X1 and X2 when the unit is connected for 208 thru 240 volt operation. This 115 volt load must not exceed one-half the unit's total KVA rating and the sum of the combined loads must not exceed the total KVA rating of the unit.

INPUT/OUTPUT CONNECTIONS
FIGURE 7

MAINTENANCE AND TROUBLESHOOTING

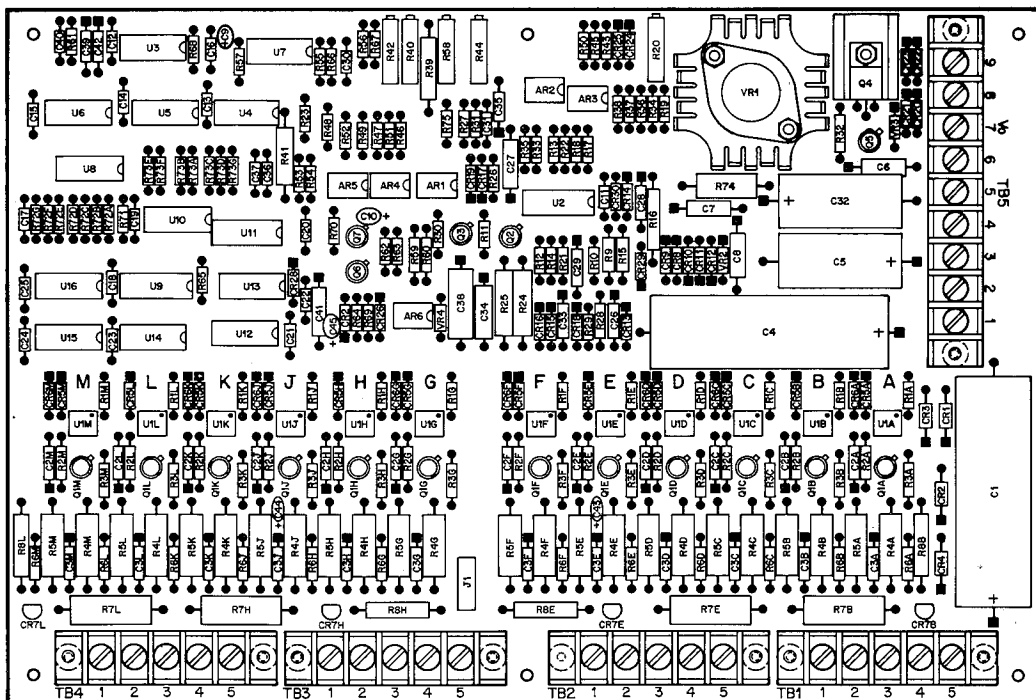
WARNING: Voltages are present inside this unit which can cause injury. Therefore, only persons qualified to service electrical equipment should perform trouble shooting procedures on the BCR series Power Conditioner.

When installed and operated as described in these instructions, a BCR Series STABILINE Power Conditioner will normally provide years of trouble-free service with little or no attention. If a malfunction does occur, perform the following checks to locate and correct the problem.

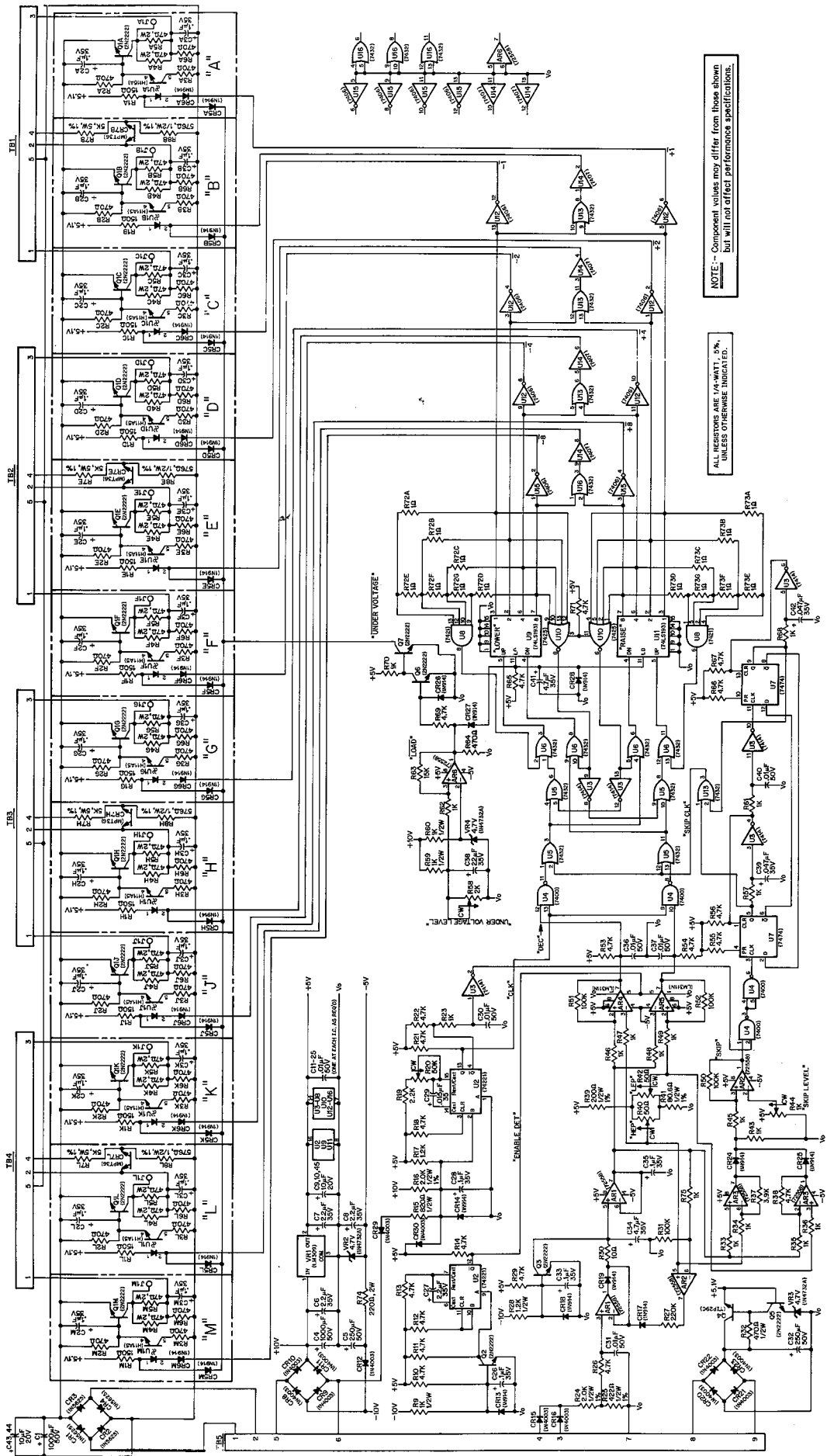
1) Check the 200mA Slo-Blo fuse located by the right-hand, top corner of the control board (see drawing below). If this fuse is blown, the condition code display will not operate.

- 2) Check the power input to the unit to be sure the voltage is within the range specified for selected input voltage tap.
- 3) Check the load connected to the power conditioner to be sure its output kVA rating is not being exceeded.
- 4) Check the circuit breaker located on the rear of the unit to be sure it is on.

If the preceding checks do not locate the cause of the problem, it will be necessary to return the unit to the factory for service.



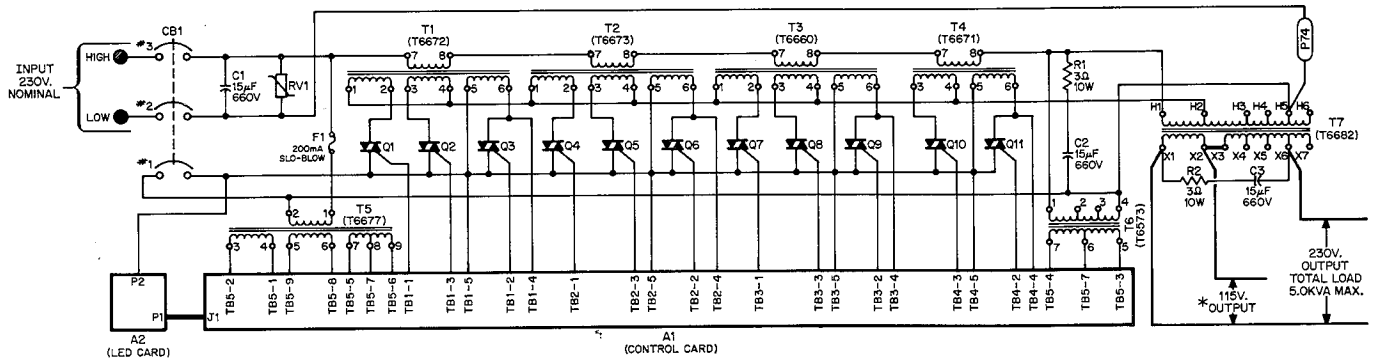
**CONTROL BOARD
COMPONENT LOCATIONS**



NOTE: Component values may differ from those shown but will not affect performance specifications.

ALL RESISTORS ARE 1/4WATT 1% UNLESS OTHERWISE INDICATED.

CONTROL BOARD SCHEMATIC DIAGRAM



Connections shown are for nominal input of 230 volts (178-258V). For nominal inputs other than 230 volts, the P74 lead must be removed from terminal H5 of T7 (T6682) and connected to terminal shown below. Only P74 lead is changed—all other leads remain on H5.

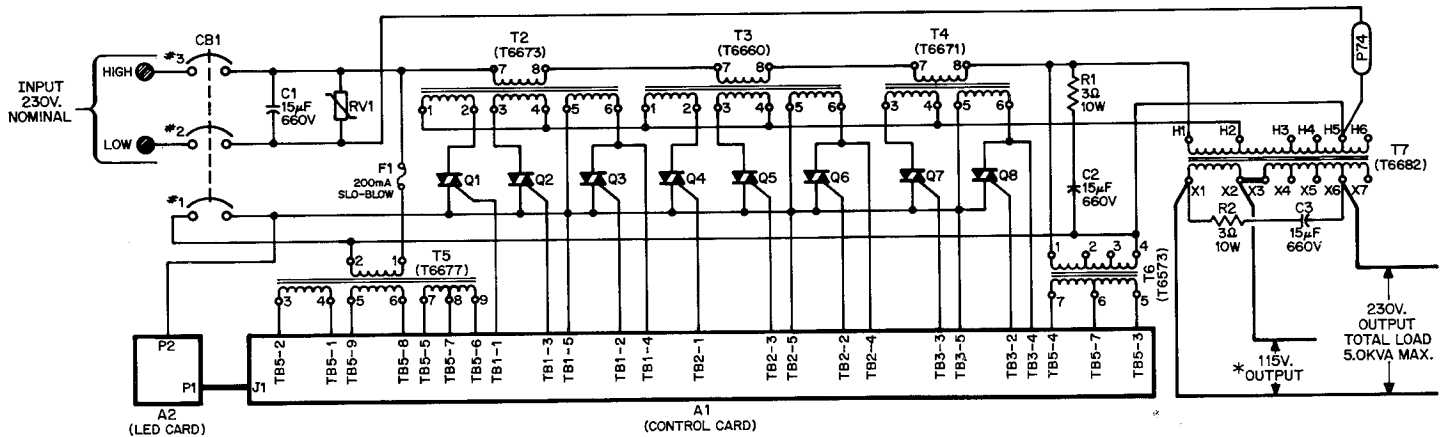
| Input Connections | Terminal Select For P74 Lead |
|-----------------------------|------------------------------|
| Input Voltage Nominal Range | |
| 208V. (163-235V) | H3 |
| 220V. (172-246V) | H4 |
| 230V. (180-256V) | H5 |
| 240V. (190-265V) | H6 |

Connections shown are for nominal output of 230 volts. For nominal outputs other than 230 volts, use lead and jumper connections shown below.

| Output Connections | Load Terminals | Jumper Link | |
|--------------------|----------------|-------------|-----------------------|
| Output Voltage | High | Low | |
| * 208V. | X1 | X4 | X2 to X3 |
| * 220V. | X1 | X5 | X2 to X3 |
| * 230V. | X1 | X6 | X2 to X3 |
| * 240V. | X1 | X7 | X2 to X3 |
| 115V. | X1 | X2 | X1 to X3 and X2 to X6 |

* A 115 volt load may also be connected to X1 and X2 when the unit is connected for 208 thru 240 volt operation. This 115 volt load must not exceed 50% of the total KVA rating of the unit, and the sum of the combined loads must not exceed the total KVA rating of the unit.

**SCHEMATIC DIAGRAM
BCR1205U**



Connections shown are for nominal input of 230 volts (178-258V). For nominal inputs other than 230 volts, the P74 lead must be removed from terminal H5 of T7 (T6682) and connected to terminal shown below. Only P74 lead is changed—all other leads remain on H5.

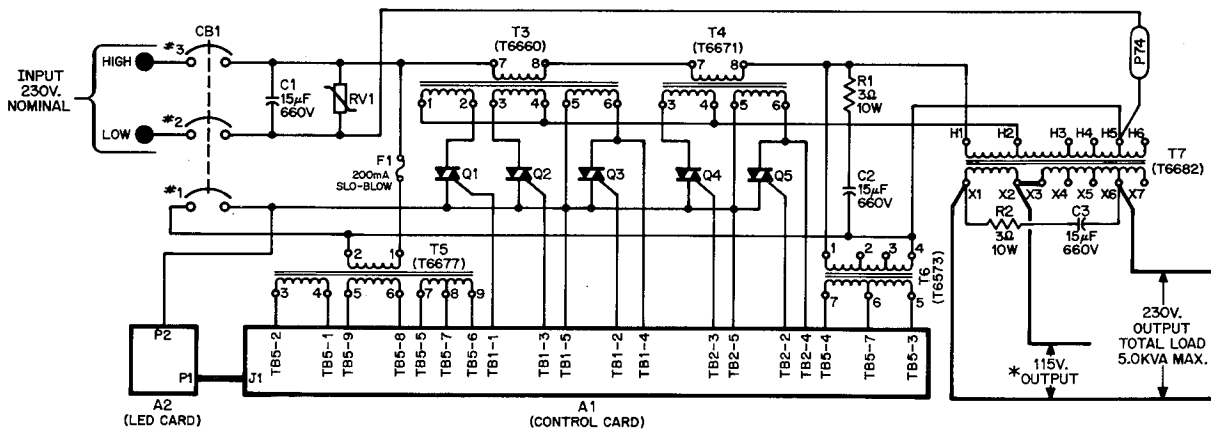
| Input Connections | Terminal Select For P74 Lead |
|-----------------------------|------------------------------|
| Input Voltage Nominal Range | |
| 208V. (163-235V) | H3 |
| 220V. (172-246V) | H4 |
| 230V. (180-256V) | H5 |
| 240V. (190-265V) | H6 |

Connections shown are for nominal output of 230 volts. For nominal outputs other than 230 volts, use lead and jumper connections shown below.

| Output Connections | Load Terminals | Jumper Link | |
|--------------------|----------------|-------------|-----------------------|
| Output Voltage | High | Low | |
| * 208V. | X1 | X4 | X2 to X3 |
| * 220V. | X1 | X5 | X2 to X3 |
| * 230V. | X1 | X6 | X2 to X3 |
| * 240V. | X1 | X7 | X2 to X3 |
| 115V. | X1 | X2 | X1 to X3 and X2 to X6 |

* A 115 volt load may also be connected to X1 and X2 when the unit is connected for 208 thru 240 volt operation. This 115 volt load must not exceed 50% of the total KVA rating of the unit, and the sum of the combined loads must not exceed the total KVA rating of the unit.

**SCHEMATIC DIAGRAM
BCR3205U**



Connections shown are for nominal input of 230 volts (178-258V). For nominal inputs other than 230 volts, the P74 lead must be removed from terminal H5 of T7 (T6682) and connected to terminal shown below. Only P74 lead is changed—all other leads remain on H5.

Input Connections

| Input Voltage Nominal Range | Terminal Select For P74 Lead |
|-----------------------------|------------------------------|
| 208V. (163-235V) | H3 |
| 220V. (172-246V) | H4 |
| 230V. (180-256V) | H5 |
| 240V. (190-265V) | H6 |

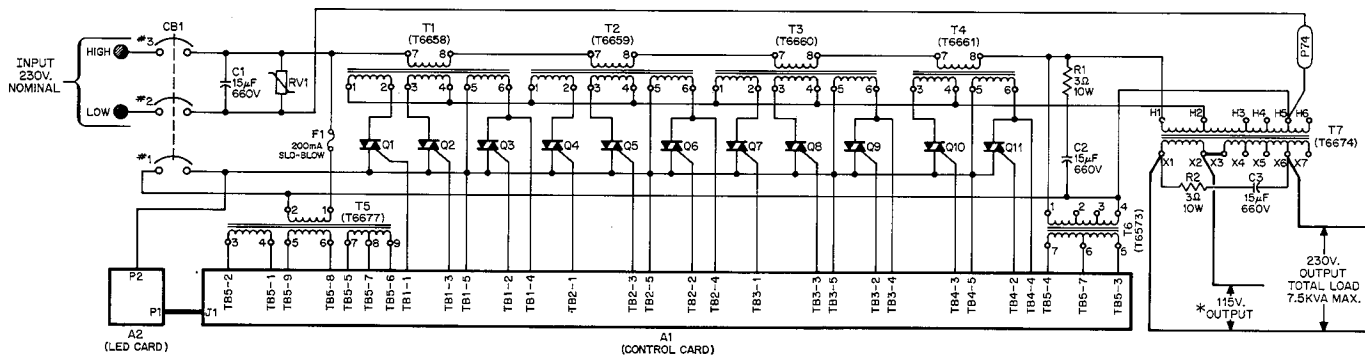
Connections shown are for nominal output of 230 volts. For nominal outputs other than 230 volts, use lead and jumper connections shown below.

Output Connections

| Output Voltage | Load Terminals | | Jumper Link |
|----------------|----------------|-----|-----------------------|
| | High | Low | |
| * 208V. | X1 | X4 | X2 to X3 |
| * 220V. | X1 | X5 | X2 to X3 |
| * 230V. | X1 | X6 | X2 to X3 |
| * 240V. | X1 | X7 | X2 to X3 |
| 115V. | X1 | X2 | X1 to X3 and X2 to X6 |

* A 115 volt load may also be connected to X1 and X2 when the unit is connected for 208 thru 240 volt operation. This 115 volt load must not exceed 50% of the total KVA rating of the unit, and the sum of the combined loads must not exceed the total KVA rating of the unit.

**SCHEMATIC DIAGRAM
BCR6205U**



Connections shown are for nominal input of 230 volts (178-258V). For nominal inputs other than 230 volts, the P74 lead must be removed from terminal H5 of T7 (T6674) and connected to terminal shown below. Only P74 lead is changed—all other leads remain on H5.

Input Connections

| Input Voltage Nominal Range | Terminal Select For P74 Lead |
|-----------------------------|------------------------------|
| 208V. (163-235V) | H3 |
| 220V. (172-246V) | H4 |
| 230V. (180-256V) | H5 |
| 240V. (190-265V) | H6 |

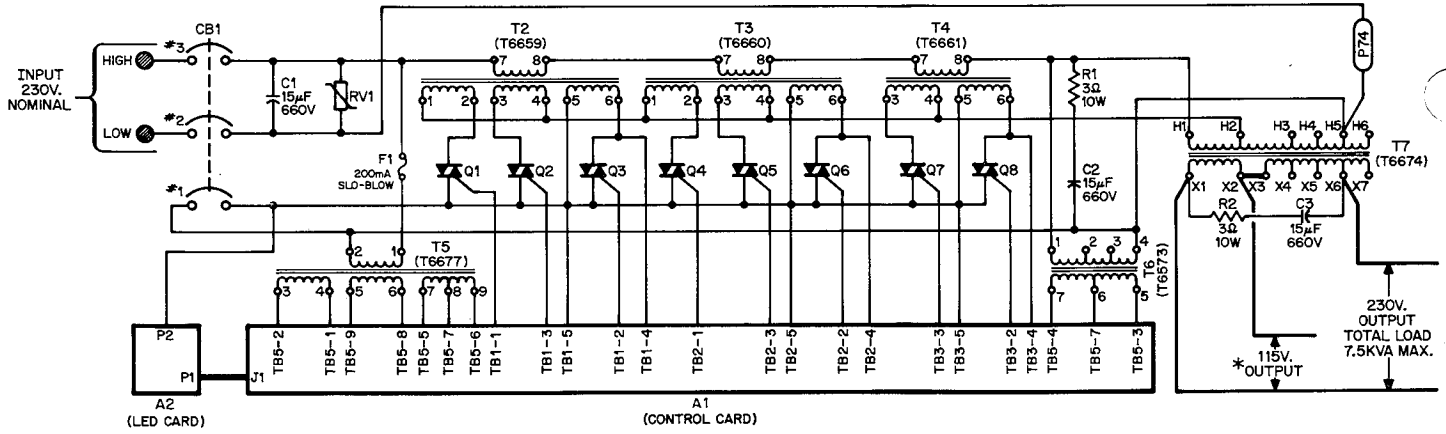
Connections shown are for nominal output of 230 volts. For nominal outputs other than 230 volts, use lead and jumper connections shown below.

Output Connections

| Output Voltage | Load Terminals | | Jumper Link |
|----------------|----------------|-----|-----------------------|
| | High | Low | |
| * 208V. | X1 | X4 | X2 to X3 |
| * 220V. | X1 | X5 | X2 to X3 |
| * 230V. | X1 | X6 | X2 to X3 |
| * 240V. | X1 | X7 | X2 to X3 |
| 115V. | X1 | X2 | X1 to X3 and X2 to X6 |

* A 115 volt load may also be connected to X1 and X2 when the unit is connected for 208 thru 240 volt operation. This 115 volt load must not exceed 50% of the total KVA rating of the unit, and the sum of the combined loads must not exceed the total KVA rating of the unit.

**SCHEMATIC DIAGRAM
BCR1207U**



Connections shown are for nominal input of 230 volts (178-258V). For nominal inputs other than 230 volts, the P74 lead must be removed from terminal H5 of T7 (T6674) and connected to terminal shown below. Only P74 lead is changed—all other leads remain on H5.

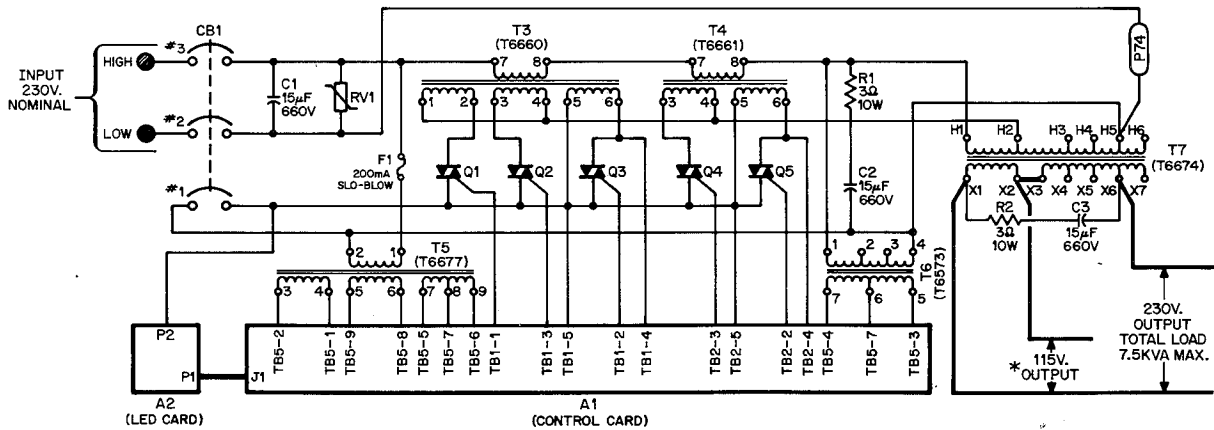
| Input Connections | |
|-----------------------------|------------------------------|
| Input Voltage Nominal Range | Terminal Select For P74 Lead |
| 208V. (163-235V) | H3 |
| 220V. (172-246V) | H4 |
| 230V. (180-256V) | H5 |
| 240V. (190-265V) | H6 |

Connections shown are for nominal output of 230 volts. For nominal outputs other than 230 volts, use lead and jumper connections shown below.

| Output Voltage | Load Terminals | | Jumper Link |
|----------------|----------------|-----|-----------------------|
| | High | Low | |
| * 208V. | X1 | X4 | X2 to X3 |
| * 220V. | X1 | X5 | X2 to X3 |
| * 230V. | X1 | X6 | X2 to X3 |
| * 240V. | X1 | X7 | X2 to X3 |
| 115V. | X1 | X2 | X1 to X3 and X2 to X6 |

* A 115 volt load may also be connected to X1 and X2 when the unit is connected for 208 thru 240 volt operation. This 115 volt load must not exceed 50% of the total KVA rating of the unit, and the sum of the combined loads must not exceed the total KVA rating of the unit.

SCHEMATIC DIAGRAM BCR3207U



Connections shown are for nominal input of 230 volts (178-258V). For nominal inputs other than 230 volts, the P74 lead must be removed from terminal H5 of T7 (T6674) and connected to terminal shown below. Only P74 lead is changed—all other leads remain on H5.

| Input Connections | |
|-----------------------------|------------------------------|
| Input Voltage Nominal Range | Terminal Select For P74 Lead |
| 208V. (163-235V) | H3 |
| 220V. (172-246V) | H4 |
| 230V. (180-256V) | H5 |
| 240V. (190-265V) | H6 |

Connections shown are for nominal output of 230 volts. For nominal outputs other than 230 volts, use lead and jumper connections shown below.

| Output Voltage | Load Terminals | | Jumper Link |
|----------------|----------------|-----|-----------------------|
| | High | Low | |
| * 208V. | X1 | X4 | X2 to X3 |
| * 220V. | X1 | X5 | X2 to X3 |
| * 230V. | X1 | X6 | X2 to X3 |
| * 240V. | X1 | X7 | X2 to X3 |
| 115V. | X1 | X2 | X1 to X3 and X2 to X6 |

* A 115 volt load may also be connected to X1 and X2 when the unit is connected for 208 thru 240 volt operation. This 115 volt load must not exceed 50% of the total KVA rating of the unit, and the sum of the combined loads must not exceed the total KVA rating of the unit.

SCHEMATIC DIAGRAM BCR6207U

WARRANTY AND LIMITATION OF LIABILITY

The Superior Electric Company (the "Company"), Bristol, Connecticut, warrants to the first end user purchaser (the "purchaser") of equipment manufactured by the Company that such equipment, if new, unused and in original unopened cartons at the time of purchase, will be free from defects in material and workmanship under normal use and service for a period of one year from date of shipment from the Company's factory or a warehouse of the Company in the event that the equipment is purchased from the Company or for a period of one year from the date of shipment from the business establishment of an authorized distributor of the Company in the event that the equipment is purchased from an authorized distributor.

THE COMPANY'S OBLIGATION UNDER THIS WARRANTY SHALL BE STRICTLY AND EXCLUSIVELY LIMITED TO REPAIRING OR REPLACING, AT THE FACTORY OR A SERVICE CENTER OF THE COMPANY, ANY SUCH EQUIPMENT OR PARTS THEREOF WHICH AN AUTHORIZED REPRESENTATIVE OF THE COMPANY FINDS TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP UNDER NORMAL USE AND SERVICE WITHIN SUCH PERIOD OF ONE YEAR. THE COMPANY RESERVES THE RIGHT TO SATISFY SUCH OBLIGATION IN FULL BY REFUNDING THE FULL PURCHASE PRICE OF ANY SUCH DEFECTIVE EQUIPMENT. This warranty does not apply to any equipment which has been tampered with or altered in any way, which has been improperly installed or which has been subject to misuse, neglect or accident.

THE FOREGOING WARRANTY IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, and of any other obligations or liabilities on the part of the Company; and no person is authorized to assume for the Company any other liability with respect to equipment manufactured by the Company. The Company shall have no liability with respect to equipment not of its manufacture. THE COMPANY SHALL HAVE NO LIABILITY WHATSOEVER IN ANY EVENT FOR PAYMENT OF ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, DAMAGES FOR INJURY TO ANY PERSON OR PROPERTY.

Written authorization to return any equipment or parts thereof must be obtained from the Company. The Company shall not be responsible for any transportation charges.

IF FOR ANY REASON ANY OF THE FOREGOING PROVISIONS SHALL BE INEFFECTIVE, THE COMPANY'S LIABILITY FOR DAMAGES ARISING OUT OF ITS MANUFACTURE OR SALE OF EQUIPMENT, OR USE THEREOF, WHETHER SUCH LIABILITY IS BASED ON WARRANTY, CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL NOT IN ANY EVENT EXCEED THE FULL PURCHASE PRICE OF SUCH EQUIPMENT.

Any action against the Company based upon any liability or obligation arising hereunder or under any law applicable to the sale of equipment, or the use thereof, must be commenced within one year after the cause of such action arises.

The right to make engineering refinements on all products is reserved. Dimensions and other details are subject to change.



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TWX: 910-444-4125

IN CANADA
The American Superior Electric Company, Ltd.
38 Torlake Crescent
Toronto, Ontario M8Z 1B3
Tel: (416) 255-2318
TELEX: 06-967806

IN EUROPE
Superior Electric Nederland B.V.
Koperwerf 33
2544 EM The Hague, Netherlands
Tel: (070) 679590
TELEX: 31436 Supe nl
Cable: SUPELEC

**IN COLORADO, NEW MEXICO, TEXAS (West),
UTAH, WYOMING**
William J. Purdy Company
1327 South Inca Street
Denver, Colorado 80223
Tel: (303) 777-1411

IN NORTHERN CALIFORNIA
(Zip Codes 932, 934 and 936 through 961)
IN NEVADA (Zip Codes 893, 894, 895, 897 and 898)
William J. Purdy Company*
770 Airport Blvd.
Burlingame, CA 94010
Tel: (415) 347-7701
TWX: 910-374-2353

IN GEORGIA, ALABAMA
Jarrett Engineering Sales, Inc.*
Suite 210
120 Copeland Road
Atlanta, GA 30342
Tel: (404) 256-0378

IN VIRGINIA, D.C., MARYLAND, DELAWARE
(Zip Code 199)
Gans & Pugh Associates, Inc.*
2062 14th Street, North
Arlington, VA 22201
Tel: (703) 527-3262
TWX: 710-955-9830

IN IOWA, KANSAS, NEBRASKA, MISSOURI (West)
SPS Associates Ltd. †
2024 N. W. 92nd Ct.
Des Moines, IA 50322
Tel: (515) 225-0607

IN HAWAII
B. F. Wittenberg Company*
2831 Awaawaloa
Honolulu, Hawaii 96819
Tel: (808) 833-1602

IN UPPER NEW YORK STATE (Zip Codes
120-123 and 128-149)
Ross Equipment Company, Inc.**
30 Rockwood Place
Rochester, NY 14610
Tel: (716) 271-5660

(Zip Codes 120-124 and 128-149)
R. L. Kistler, Inc.*
300 Buell Road
Rochester, NY 14624
Tel: (716) 436-1940

IN FLORIDA
Voltage and Light Controls, Electrical Connectors
G.F. Bohman Associates, Inc.
130 North Park Avenue
Apopka, FL 32703
Tel: (305) 886-1882
TWX: 810-862-0831

Motors and Motion Control Products
Bredesen & Associates
1650 N. E. 26th Street
Ft. Lauderdale, FL 33305
Tel: (305) 566-3289
TELEX: 51-4588

STABILINE AC Voltage Monitors
Power Solutions Inc.
118 N. E. 2nd Street
Boca Raton, FL 33432
Tel: (305) 368-3922

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* STABILINE product line only.
** Motion Control products only.