SOLID-STATE AC POWER CONTROLLER

MOTOR-RATED

COLE PARMER MODEL NO. 2604-00
BARNANT MODEL NO. 800-1302
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WARRANTY

The Manufacturer warrants this product to be free from significant deviations from published specifications. If repair or adjustment is necessary within the warranty period, the problem will be corrected at no charge if it is not due to misuse or abuse on your part as determined by the Manufacturer. Repair costs outside the warranty period, or those resulting from product misuse or abuse, may be invoiced to you.

*The warranty period for this product is noted on the Warranty Card.*

PRODUCT RETURN

To limit charges and delays, contact the seller or Manufacturer for authorization and shipping instructions before returning the product, either within or outside of the warranty period. When returning the product, please state the reason for the return. For your protection, pack the product carefully and insure it against possible damage or loss. Any damages resulting from improper packaging are your responsibility.

TECHNICAL ASSISTANCE

If you have any questions about the use of this product, contact the Manufacturer or authorized seller.
**SAFETY PRECAUTIONS**

We give the following suggested practices to ensure safe and reliable installation and success.

If you are uncertain as to the meaning of these Precaution statements or are otherwise uncertain as to the limits of safe application, consult your dealer for technical advice before proceeding.

**DANGERS:** Always provide ancillary protection device such as a fuse or circuit breaker to the electrical load being controlled. It is possible, for example, that the controller may be inadvertently programmed to deliver “100%” Power (about 11 amperes) where only “20%” (about 2 amperes) would represent a safe continuous rating. In this example, the application of excess power to a heating mantle could result in excess temperatures which could result in an unsafe condition due to fire hazard, an unexpected or premature chemical reaction, or a whole host of other problems.

Avoid applications where spillage, soaking, immersing, or excess liquid come in contact with the controller and its power outlet socket.

**WARNING:** There are no user serviceable parts in this solid-state controller. If repairs are required, contact your dealer.

**CAUTIONS:** Avoid any temperature or electrical environment outside of the recommended ranges given in this manual.

*If temperature control is desired, but cannot be safely obtained by manual techniques, we recommend the use of a “fail-safe” controller with a feedback temperature sensor such as the COLE-PARMER Series 2155/2186 Temperature Controllers.*

*This controller is not intended to be used with Fluorescent lighting or with other electrical arc discharge devices.*

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**SPECIFICATIONS**

Output Voltage

<table>
<thead>
<tr>
<th>Control Range:</th>
<th>2–98% of input voltage at maximum rated load of 11A (single turn potentiometer)</th>
</tr>
</thead>
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Max. Load Current:

<table>
<thead>
<tr>
<th>(At 23°C Amb.):</th>
<th>15A (Intermittent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Continuous Watts:</td>
<td>1265</td>
</tr>
<tr>
<td>Circuit Breaker:</td>
<td>15A</td>
</tr>
<tr>
<td>Power:</td>
<td>115V AC +/− 15V AC, 60 Hz</td>
</tr>
<tr>
<td>Furnished with 6-ft. 3-wire, grounded line cord</td>
<td></td>
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</tbody>
</table>

Environmental Temperature, Operating: 0°C to 40°C (32°F to 104°F)

| Storage: | –25°C to 65°C (-13°F to 149°F) |
| Construction: | Aluminum enclosure, baked epoxy, heavy-duty heat sink |
| Dimensions: | 6 in W x 5-3/8 in D x 3-1/2 in H |
INTRODUCTION
This Power Controller is intended to be used in a variety of experimental, process laboratory and engineering applications involving the controlled delivery of significant amounts of AC (Alternating Current) power to heating mantles, heating tapes, various controllable light sources, AC induction and “Universal” motors. When properly used and applied, this controller will perform dependably for thousands of hours.

GENERAL
All solid-state circuitry means reliable, trouble-free operation—no wear-prone relays or heat-generating power resistors. Handsome, compact design and easy to operate. Rubber feet permits use as a portable controller. Range of control is 2 to 98% of input voltage. Its output is protected through a circuit breaker. The unit is motor-rated and designed to comply with UL Standard For Safety 244A for Solid-State Controls for Appliances.

APPLICATION DATA
Precise voltage and power control permits use of fixed speed AC induction motors in variable speed applications. This controller meets rigid standards for regulating power to all kinds of laboratory and industrial devices, this includes universal motors up to 1/2 hp.

The unit is also ideal for controlling immersion heaters and high intensity lamps (up to 1265 watts), plus flexible electric heating tapes. The new heat sink design provides optimum heat dissipation.

The separate voltage and ON/OFF controls prevent the output voltage setting from being affected when the unit is turned ON and OFF. This is an advantage in applications requiring a fixed startup voltage.

CAUTION: This controller is not intended to be used with Fluorescent lighting or with other electrical arc discharge devices.

INSTALLATION
Plug the grounded power cord into a 115V AC outlet.
Plug in the cord from the controlled device at the standard 15 ampere receptacle.
The controller is furnished with mounting hardware and a TEMPLATE for easy, permanent wall or counter mounting.

OPERATION
The output voltage control dial is graduated from 0 to 100 for reference purposes. Where high precision isn't essential, the dial graduations are close to percentage values for voltage output. When used in precision motor speed control applications, read the speed with a tachometer as you adjust the controller.

Here’s the simple operating procedure:
• Press the POWER SWITCH to the ON position. The built-in pilot light will denote the ON status.
• Adjust the output voltage control dial to the desired level.

FAIL-SAFE OPERATION
An overload condition will automatically shut down the controller.

Note: The pilot light will remain on when the circuit breaker trips.
• Correct the problem, then press the circuit breaker button (located on the left side) to restore operation.

MAINTENANCE/SERVICE
The rugged enclosure is resistant to standard cleaners and solvents.

WARNING: There are no user serviceable parts in this solid-state controller. If repairs are required, contact your dealer.