## Warrick ${ }^{\circledR}$ Series A and AM Solid-State Alternators Installation and Operation Bulletin

This bulletin should be used by experienced personnel as a guide to the installation of series A and AM Solid-State Alternators. Selection or installation of equipment should always be accompanied by competent technical assistance. We encourage you to contact Gems Sensors or its representative if further information is required.

## Specifications

## Control Design:

Series A: Open circuit board
Series AM: Module in clear Lexan ${ }^{\circledR}$ plug-in style housing. Housing carries no NEMA rating.
Contact Ratings: 10 Amp @ 120 VAC, resistive; 10 Amp @ 24 VAC, resistive. Mechanical: 5 million operations. Electrical: Minimum 100,000 operations at rated load.
Supply Voltage: 120, 24 VAC models, plus $10 \%$, minus $15 \%$; $50 / 60 \mathrm{~Hz}$.
Supply Current: 20 mA @ 120 VAC; 80 mA @ 24 VAC
Temperature: $-40^{\circ}$ to $150^{\circ} \mathrm{F}$., Ambient
Terminals:
Series A: 1/4" spade
Series AM: \#6-32 screw-type with pressure clamps
Listings: UL recognized; Industrial Motor Controls (508)


## Installation

## Series A: Open Circuit Board

1. Drill and tap four \#6-32 holes in customer-supplied backplate, using stick-on template supplied with alternator.
2. Install alternator using four $5 / 8$ " $\# 6-32$ screws in appropriate enclosure.
3. Wire alternator per wiring diagram, following N.E.C. and local codes. Use appropriately sized spade terminals.

## Series AM: Module

1a) Octal Socket: Install socket in appropriate enclosure using two \#6 or \#8 metal screws.
1b) DIN Mount Socket: Install socket on appropriate rail (DIN mount) in appropriate enclosure. 2. Wire socket per wiring diagram, following N.E.C. and local codes.
3. Install alternator into socket.

## Operation

## Single Switch

On initial power-up, one of the two LED's will be lit, indicating which load circuit is scheduled to operate next. On closing switch, that load will be activated. On opening switch, that load will de-energize and the second LED will be lit, indicating that the second load is scheduled to operate on the next closing of the switch.

## Dual Switch

On closing switch \#1, the lead load will activate. If this load cannot satisfy demand, switch \#2 (located at another level or pressure) will close; activating the lag load. Both loads will now be activated. Both will remain activated until switch \#2 opens (de-activating the lag load). Once both switches \#1 and \#2 open, the system will return to normal alternation. This device does not provide a latching function.

## Power Outage Time Delay

If system has experienced a power outage and both lead and lag switches have been activated; on return of power, an optional time delay will prevent both loads from starting at the same time. A 15 -second delay will occur between load starts.

## Dimensional Diagrams



## Wiring Diagrams



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