

# Intellipump

Mechanical Alternator Pump Controller

## OPERATION MANUAL

Dated: 4/3/03

Supersedes: None

Document No.: IPMA-OM-01

Page 1 of 1

### Panel Operation Manual

Turn HOA switch to the hand position. The corresponding pump will start and the run light will light. The only system protective device available in this mode is the motor starter protector, which, when tripped, will shut down that pump.

### Panel Operation Automatic

For normal operation, the motor starter protector connection must be set to ON or must be bypassed with a wire jumper. The pump Thermal connections must also be connected or bypassed with a wire jumper. The HOA switches (front panel or board mounted) must be set to the Auto position for the mechanical alternator logic to function.

### Normal Float Ball Operation

If mechanical alternator moves from position #1 to position #2, then a single pump will be called for. If this condition is repeated, the controller will cycle one pump at a time, alternating between the two pumps.

If the alternator moves from position #1 to position #3, both pumps will be called for.

If the high level float is made, indicating high level, the high level light will flash, and the buzzer will sound. To silence the buzzer, press the silence switch, which is located on the front of the panel or the controller.

### Float Ball Logic Operation

If the position #1 contactor fails, and the float ball rises until position #2 is reached, after 20 seconds Intellipump will pull in contactor #2 and produce an alarm code indicating which contactor is out of sequence and not operating. The pump fail light will come on after that 20 seconds, and reset after the fault condition is corrected. An LED on the control board indicates the code. The number of flashes followed by a pause will be your code. This code is repeated until the inoperable contactors are shown to be good by returning to a normal operation sequence. The alarm codes are noted on the controller board front label, and are as follows:

1 = Float Position #1 Fault

2 = Float Position #2 Fault

3 = Float #1 & #2 Fault

If only the High Level float is made, both pumps will be called for, and the high-level alarm light will flash, and the buzzer will sound. Both pumps will enter a timer sequence, which prohibits short cycling of the pump motors. Upon high-level alarm returning to the open position, the contactors will continue for 5 minutes and then drop out. This also makes the alarm blinker flash 3 times. To reset blinker, mechanical alternator needs to go from position #3 to position #1.

### Pump Fail Operation

The Intellipump can be configured to signal a Pump Fail condition. A Fail condition can occur if the overload, pump thermal, or auxiliary connection opens. If a pump is called for, but a Pump Fail condition occurs, the controller will automatically call for the other pump. The Pump Fail Alarm is a time-delayed operation; this is done to allow the controller to verify pump operation via a check valve limit switch or auxiliary starter contact. A Pump Fail condition is indicated by an LED on the controller, an optional front panel light, and also activates a set of Normally Open contacts.

### Seal Fail Operation

The seal fail connections on the Intellipump monitors the resistance of the pump motor Seal Fail probe. If the resistance of the probe drops below a preset point, a Seal Fail condition occurs. This is indicated by an LED on the control board, and optional light on the front of the enclosure. A Seal Fail condition will also activate a set of Normally Open contacts that can be used in conjunction with additional control equipment.

### Jumper Settings

Currently there are NO jumper settings available on the intellipump mechanical alternator.