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Instruction Manual

Single Phase Pressure Makeup Jockey Pump Controller

Model HJ601

Single Phase Jockey Pump Controller

A. Receiving, Handling, and Storage

1. Immediately upon receipt, unpack and inspect the Controller for damage that may have occurred during shipment. If damage or rough handling is evident, file a damage claim with the transportation carrier.
2. If the Controller must be stored, cover it and place in a clean, dry location. Avoid unheated locations where condensation can result in damage to the insulation or corrosion of metal parts.

B. Inspection and Installation Instructions

1. Consult the motor nameplate to determine voltage and horsepower rating and compare with the Controller nameplate for matching data.
2. Toggle the switches without power to see that they operate freely.
3. Check the wiring and component mountings for loose fasteners resulting from vibration during shipping.
4. Mount the Controller securely to a firm or solid, non-combustible surface so that the Controller is not subject to much vibration. Excessive vibration may cause erratic operation of the pressure switch.

WARNING: Isolate power source before connecting power leads to prevent shock or accident hazard.

5. Ensure the toggle switches are in the OFF/RESET and AUTO positions.
6. Connect the incoming power wire to the top side of the terminal strip L1 and L3. Connect the motor leads to terminals T2 and T3. Refer to schematic for terminal connections.
7. Connect the water pressure sensing line to the pressure switch fitting on the bottom of the Controller cabinet. Refer to NFPA 20 for information on installation of the sensing line.

C. Preliminary Test and Adjustments

1. Check incoming power for correct voltages before closing the MPCB motor protector.
2. Adjust the pressure switch set points to meet water system requirements.

To adjust ALCO pressure switch settings, facing the scale, turn the LEFT (range) screw on top of the switch to adjust the pointer to desired Stop Pressure Cutout setting. Turn the RIGHT (differential) screw on top of the switch to adjust the desired Differential Start Pressure setting. (STOP PRESSURE SETTING – DIFFERENTIAL = START PRESSURE SETTING).

*Adjustment of the left range screw changes both Stop and Start Settings.

*Adjustment of the right differential screw changes the Stop Setting only.

The scale values on the pressure switch are only for orientation purposes only. During testing of the Controller, verify the pressure switch settings by referring to the system pressure gauge. Readjust settings as necessary to obtain desired STOP and START settings.

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3. Verify the motor operates as follows:

- a) Close and latch the cabinet door.
- b) Move SW-1 to the ON position.
- c) Move SW-2 to the MANUAL/HAND position. Observe the motor rotation and move the switch back to the AUTO position.
- d) If the motor does not start, check the power source and motor connections.

D. Sequence of Operation

Manual Start Operation

Moving the SW-2 selector switch to the MANUAL/HAND position connects power to the motor. The associated pump motor starts and runs until the toggle switch returns to the AUTO position (if system pressure is up) or SW-1 is switched to the OFF position.

Automatic Operation

Moving the SW-2 selector switch to the AUTO position causes the motor to start when the pressure switch contacts close.

When the system water pressure drops below the START pressure setting of the pressure switch the switch closes to power the motor. After the water pressure rises above the STOP pressure setting, the pressure switch contacts open to cut power to the motor.

E. Maintenance and Servicing

WARNING: To prevent shock or accident hazard isolate power circuits. Only trained personnel should be authorized to perform maintenance inside cabinet.

1. A routine planned maintenance schedule should be established to inspect and clean the Controller.
2. Observe proper safety precautions when performing maintenance on the Controller. For inspections, move SW-1 to the OFF position. Note wiring on line side of SW-1 is still hot.
3. Check components for loose mounting and for loose wiring.
4. Inspect power connections for evidence of overheating. If connections are tight, check the Controller and motor loads for proper ratings.
5. Placing the selector switch in the MANUAL/HAND position bypasses the pressure switch. If the motor runs in the MANUAL/HAND mode but not in AUTO, the pressure switch is faulty.

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Replacement Parts List

Symbol	Description	
CB1 (For HJ601, 1/2HP, 120V)	Starter Switch ON/OFF RESET	Motor Protector, 9.0-12.5 Amps
CB1 (For HJ601, 3/4HP, 120V)	Starter Switch ON/OFF RESET	Motor Protector, 12.5-16 Amps
M	Contactor	Contactor, 17 Amp 3 Pole
PS	Pressure Switch ALCO	Pressure Switch, 5.8 – 230 psi
SW-1	Starter Switch ON/OFF RESET	Selector Handle, On/Off
	Starter Switch ON/OFF RESET	Shaft for Selector Handle, 5x120mm
	Starter Switch ON/OFF RESET	Shaft Coupler
SW-2	Selector Switch MANUAL/AUTO	Selector Switch, 3 Position with 2-N/O Contacts