O & M Manual
MN124001EN

Eaton jockey lite
Pressure switch based jockey pump controller

Powering Business Worldwide

Contents

1. Introduction

1.1 Safety

This technical document is intended to cover most aspects associated with the installation, application, operation, and maintenance of the jockey lite jockey pump controllers. It is provided as a guide for authorized and qualified personnel only in the selection and application of the jockey lite controllers. If further information is required by the purchaser regarding particular installation, application, or maintenance activity, please contact an authorized eaton representative or the installing contractor.

1.2 Warranty

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1.3 Safety precautions

All safety codes, safety standards, and/or regulations must be strictly observed in the installation, operation, and maintenance of this device. The jockey lite jockey pump controller is of an Across-the-Line starting method.

⚠ CAUTION

Completely read and understand the material presented in this document before attempting installation, operation, or application of the equipment. In addition, only qualified persons should be permitted to perform any work associated with this equipment. Any wiring instructions presented in this document must be followed precisely. Failure to do so could cause permanent equipment damage.

2. Installation and electrical connections

2.1 Installation and mounting of the controller

Carefully unpack the controller and inspect thoroughly. It is recommended that the controller is located as close as is practical to the motor it controls.

The controller is not free standing and must be bolted securely to a wall. For dimensional and weight data please refer to the respective data sheets for the jockey pump controller.

2.2 System pressure connection

The jockey pump controller is equipped with a pressure transducer. The controller is provided with a ¼" npt female system pressure connection located on the bottom, external side of the enclosure.

Note: Water lines to the pressure transducer must be free from dirt and contamination. The pressure should not exceed what the pressure transducer is rated for.

2.3 Electrical connections

All electrical connections should meet national and local electrical codes and standards.

The controller should be located or so protected that they will not be damaged by water escaping from pumps or pump connections.

Prior to starting, verify the ac line voltage on the nameplate matches the supply voltage onsite. Also verify the motor fla matches the information on the nameplate.

Inspect all electrical connections, components and wiring for any visible damage and correct as necessary. Ensure that all electrical connections are tightened before energizing.

Install necessary conduit using proper methods and tools.

Incoming ac line voltage is clearly marked l1, l2, l3 and ground, located at the top of the motor circuit protector.

2.4 Electrical checkout instructions

⚠ CAUTION

The following procedures should be carried out by a qualified electrician familiar with the electrical safety procedures associated with this product and its associated equipment.

2.4.1 Motor rotation check

With the controller energized, move the H-O-A selector switch to "hand" and then back to "off" immediately to check the direction of the motor and pump rotation. If rotation direction is not correct, open the motor circuit protector and reverse the phase sequence of the load terminals of the contactor t1, t2, t3 or at the motor terminals.

2.4.2 Starting and stopping

Energize the controller. With the H-O-A selector switch set to "auto", if the system pressure is below that of the pressure switch set-point pressure, the pump will start. The pump will stop when the system pressure is above the stop point (start pressure + differential) of the pressure switch. If the optional running period timer is included, the pump will run for the set time and then stop, provided the pressure is above the pressure stop point. For manual operation, set the H-O-A selector switch to "hand" to start the pump and "off" to stop the pump.

2.4.3 Motor circuit protector / overload relay trip setting

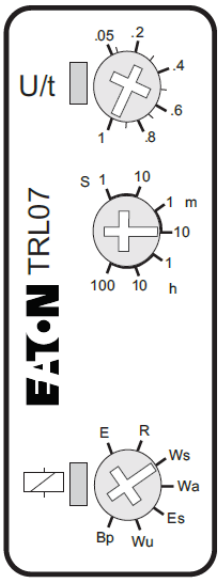
The trip setting should be set to match the motor nameplate full load amps.

2.4.4 Circuit breaker trip settings

When a Circuit Breaker is installed, the trip setting must be set as indicated on the chart on the inside of the controller.

2.4.5 Run period timer (optional)

Adjust the run period timer dial to the desired run time setting. Three rotary adjustment dials are provided on the front of the timer.



Adjustment Range
Factory Default = 1

Time Range
Factory Default = 10 m

Function
Factory Default = Ws

(Ws) Single shot - leading edge with control input

The supply voltage, U, must be constantly applied to the device (green LED U/t illuminated).

When the control contact, S, is closed, the output relay, R, switches into the "on" position (green LED U/t illuminated) and the set interval begins (green LED U/t flashes).

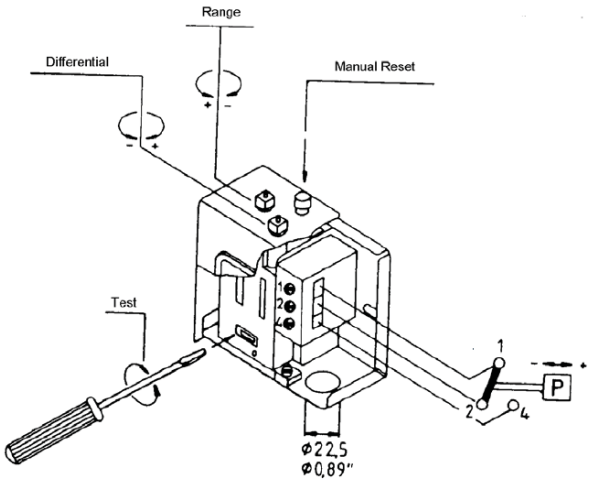
After the interval has expired (green LED U/t illuminated), the output relay switches to to the "off" position (yellow LED not illuminated).

During the interval, the control contact can be operated any number of times.

A future cycle can only be started when the cycle run has been completed.

2.4.6 Pressure switch setting instructions

Before attempting to set the pressure switch, de-energize the jockey pump controller by opening the motor circuit protector or the circuit breaker. This is done for safety and so that the jockey pump will not start and interfere with the adjustment procedure.



1. Set the differential adjustment on the pressure switch to minimum by turning the differential adjusting screw fully counter clockwise. Set the operating pressure to well below the required pump starting pressure. Turn the range adjusting screw clockwise to reduce the pressure and observe the scale on the switch.

2. Bleed the fire protection water system until the pressure is reduced to the required pump starting pressure. Hold this pressure by closing the drain valve.

3. Slowly rotate the range adjusting screw counter clockwise until a click is heard from the pressure switch. The switch is now set to the required pump starting pressure.

4. If it is necessary to re-adjust the differential, the operating pressure of the switch will also be changed and should be reset.

Note: The cut-in (start point) pressure is the cut-out (range adjusting setting) pressure minus the differential setting.

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