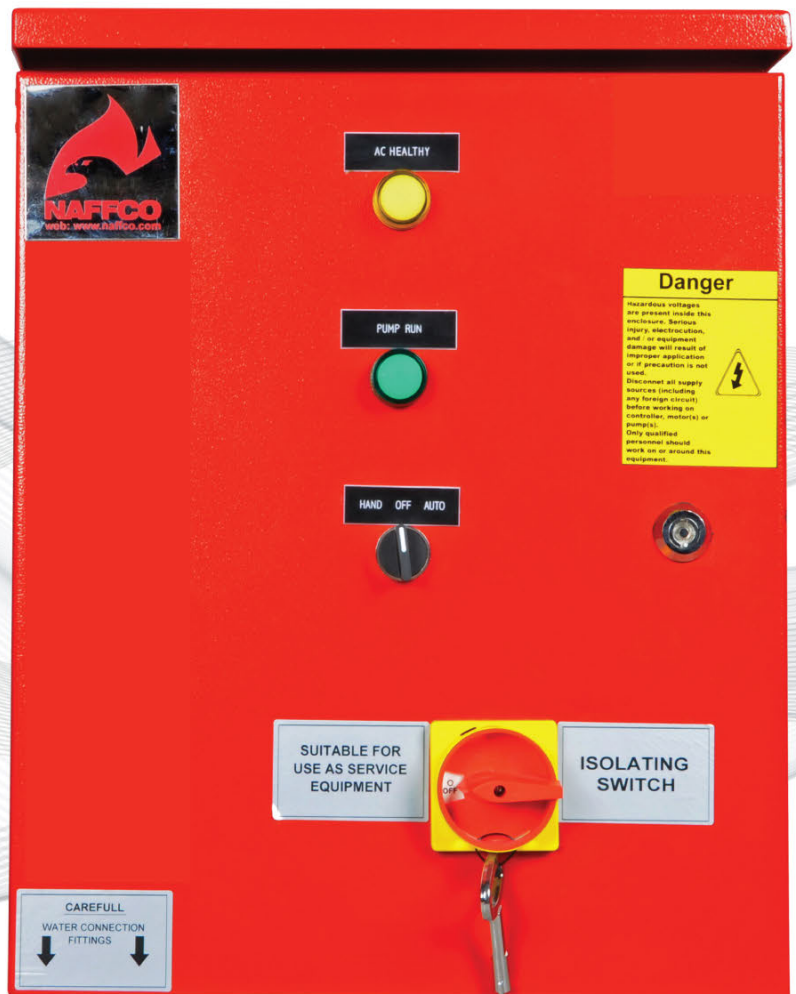


JOCKEY CONTROLLER

INSTALLATION, OPERATION &
MAINTENANCE MANUAL



JOCKEY CONTROLLER

INSTALLATION OPERATION AND MAINTENANCE INSTRUCTIONS



1. GENERAL

Jockey pump controllers, are installed in the same system as Main fire pump Controllers. Their primary function is to maintain normal water pressure which may fluctuate slightly due to small leaks in the system and therefore prevent short cycling of the main fire pump. The jockey pump controller automatically starts the jockey pump motor when the water pressure drops below a set level.

2. HANDLING

- Upon receiving, the controller should be carefully unpacked and inspected for any damage that may have occurred during shipment. If damage of any sort is evident, file a damage claim with the after sales team.
- Controller must be stored in a clean and covered place. Avoid locations that may cause condensation which may result in damage to the insulation or corrosion of metal parts.



Fig. No. 01

3. INSPECTION AND INSTALLATION

- Consult the motor nameplate to determine voltage, current and horsepower rating and compare with Controller nameplate for matching data.
- Exercise all relays, switches and contactors without power to see whether they operate freely.
- Check panel wiring and component mountings for loose fasteners resulting from vibration during shipping.
- 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. The area must be free from dripping and spraying water.
- **WARNING: ISOLATE POWER SOURCE BEFORE CONNECTING POWER LEADS TO PREVENT SHOCK OR ACCIDENTAL HAZARD**
- Connect the water pressure sensing line to the pressure switch fitting on the bottom of the controller cabinet. Kindly refer to NFPA 20 for information on installation of the sensing line.
- Before any electrical work is done on the controller make sure the disconnect switch are in the off position.
- All motor circuit conductors should be sized according to the National Electric Code article 430. Insulation for these conductors should be chosen so it will not be affected by the surrounding environment and protect internal components from drilling chips and debris.



Some of the following precautions must be taken into consideration before startup after long storage:

- Carefully inspect and clean equipment
- Inspect and retighten all electrical connections
- Perform visual inspection of the power contacts of the main contractor, circuitbreaker and disconnect switch.
- Perform a no load test and check all continuities

3. PRELIMINARY TESTS

- Check incoming power for correct voltages on all phases before closing the safety disconnect. Power fuses must be installed unless purchased as a factory option
- Verify that the adjustable current setting of the thermal overload is same as the rated current of the motor
- Check the motor for proper rotation as follows:
 1. Close and latch the cabinet door
 2. Move the toggle switch to the OFF position
 3. Turn the fused disconnect switch to ON
 4. Move the toggle switch to MAN. Observe the motor rotation and move the switch to OFF.
 5. If the motor does not start, open the fused disconnect and recheck power and control connections. If motor rotation is incorrect, reverse motor leads T₁ and T₂.
- The controller may now be placed in the AUTO mode

4. SEQUENCE OF OPERATION

MANUAL START OPERATION

Placing the toggle switch in the **MAN** position directly energizes the starter contactor. The associated pump motor starts and runs until the toggle switch is returned to the OFF position.

AUTOMATIC OPERATION

Placing the toggle switch in **AUTO** causes the controller to sequence according to the logic determined by the control circuit devices: pressure switch with differential adjustment, optional run period timers or customer supplied remote control contacts.

When the system water pressure drops below the **START** pressure setting of the pressure switch the switch closes to energize the contactor and optional run timer. The contactor contacts close to start the motor across the line.

When water pressure rises above the **STOP** pressure setting of the pressure setting of the pressure switch, the contactor opens the motor circuit. If a minimum run time relay is installed, the contactor remains energized until the time on that relay has elapsed, even if the pressure switch opens first. Moving the toggle switch to the OFF position de-energizes the contactor, overriding the run time relay.



5. MAINTENANCE AND SERVICING

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

A routine planned maintenance schedule should be established to inspect and clean the controller.

- Observe proper safety precautions when performing maintenance on the controller. For inspections , open the safety disconnect switch to restrict all power to the L1, L2, L3 terminals.
- Visually inspect all devices for loose mounting or assembly fasteners. Inspect all wiring for loose terminal fasteners.
- Inspect electrical power connection for evidence of overheating. If connections are tight, check the controller and motor loads for proper ratings
- If operation problems occur, review the operation description and note at which stage the controller malfunctions. This may identify the faulty components.
- Placing the toggle switch in the MAN position bypasses most control circuits and permits the power circuits to be tested more easily. If the motor runs in the MAN mode but not in AUTO, check the components and control circuits with an ohmmeter.
- If the motor does not run in the MAN position, check the fuses, the fused disconnect switch , contactor and thermal overload with an ohmmeter

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NOTES

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NOTES

Project Name :

Location :

Commissioned By :

Date of Commissioning :

Signature of Commissioning Engineer :



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In line with NAFFCO policy for continuous product development, NAFFCO has the right to change specifications without prior notice.

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