AQMatic

Series 962 Stager Controller

Circuit Board and Keypad Replacement Instructions

CAUTION

Before the membrane keypad is installed onto your control, please note that the stainless steel dome switches in your keypad can easily be damaged resulting in switch failure.

<u>DO NOT</u> bend or flex the keypads during assembly, or press the buttons until after the keypads are installed and mounted on the flat hard surface of the control.







The 962 circuit board contains electrostatic sensitive devices (ESD), and is sensitive to static damage. Anti-static handling guidelines should be followed at all times. Proper handling may include the use of a grounding wrist strap and/or anti-static mat. Care should be taken not to touch circuit board components.



<u>RISK OF ELECTRICAL SHOCK</u>. REMOVE POWER TO CONTROLLER PRIOR TO PERFORMING ANY OF THE STEPS BELOW

(These instructions should be performed by qualified personnel that are familiar with all applicable electrical safety guidelines, as well as electrostatic sensitive device (ESD) handling procedures)

<u>Removal Instructions</u> (See Figure 1)

- 1. Open controller door by loosening the 2 fasteners on the right side. While looking at the inside door of the control enclosure, disconnect the membrane keypad tail connection from the 962 circuit board (H9). Disconnect the power plug (P1) and all header connections at the top of the circuit board (H1,H2, H3, H4, H8, H10). Disconnect the 2 motor connections (H6 & H7).
- 2. From the front of the control enclosure, carefully peel off the old membrane keypad being careful not to damage the enclosure surface or the circuit board beneath. (Note: To help with the alignment of the new keypad, you can lightly mark the 4 corners of the existing keypad with a pencil prior to removal).
- 3. While holding the circuit board, use a phillips screwdriver to remove the 4 circuit board mounting fasteners. Remove the circuit board.

Installation Instructions (See Figure 1)

- 1. Remove the new circuit board assembly from the anti-static packaging being careful to follow anti-static precautions and align the 4 mounting posts with the 4 mounting holes of the control enclosure.
- 2. Use the 4 circuit board mounting fasteners from step 3 above to mount the new circuit board. *Be careful not to over tighten and strip the plastic mounting standoffs of the circuit board. Also, verify that the mounting fasteners are flush with the front of the enclosure face inside the countersunk mounting holes. If the screws are not flush, increase the 45-degree chamfer until they are.* (*Note: Do not tighten the fasteners completely until step 3 has been performed*).



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- 3. Align the membrane keypad over the circuit board and slide the keypad tail through the opening of the circuit board and connect it to H9. (*Note: Verify that the enclosure surface is clean and free of grease, oil, dirt, scratches, etc....)*
- 4. Remove the adhesive liner on the back of the keypad and carefully align the keypad to the enclosure with proper alignment to the circuit board lighting beneath. (*Hint*: Lightly place only 1 or 2 corners 1st and verify alignment). If alignment is correct, carefully press the entire keypad to the enclosure to form a seal around the circuit board opening.
- 5. Re-connect the circuit board connections as shown in Figure 1.
- 6. Return electrical power to the controller and verify proper operation. <u>CAUTION</u>: HIGH VOLTAGE IS PRESENT AT TERMINAL STRIP TB-1 OF THE CONTROLLER ONCE POWER IS APPLIED.

Testing Instructions

Perform the following test to verify proper keypad and circuit board operation:

- 1. Disconnect the power connector from P1 on back of circuit board.
- 2. Press and HOLD the "SET" key on the keypad and, at the same time, re-connect the P1 power connector.
- 3. Release the "SET" key on the keypad. A self-test will begin and the display will light each LED of the display in turn and then display the software version (ie, 1.3) momentarily. A number "1" will then be displayed. This is asking you to press button #1 of the keypad starting at the far left (*⇐, Left Arrow Button*). Press each button of the keypad in turn from left to right. The display will change to a 2, 3, 4 and 5. Once the "REGEN" button is pressed, the "5" will disappear and the control will resume normal operation.
- 4. <u>IMPORTANT</u>: Close and secure the controller door by tightening the 2 fasteners on the right side.

(If any of the above steps do not perform as specified, re-check the keypad tail and wiring connections (H1-H10) and repeat. If they still do not function correctly, contact the factory)





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