

TECHNICAL MEMORANDUM

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TOPIC: Task Master III Cycle-relay Programming Supplement

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The Task Master III (TM-III) control valve must be programmed before it can be put into service. Also, under some circumstances, it may be necessary to re-program the controller. Use this guide to properly program the controller in a TM-III valve.

Before beginning any programming, determine the valve application. For softeners, there are three basic modes.

- 1) Single or multiple vessels with TIMED regeneration.
- 2) Single vessels with DEMAND regeneration.
- 3) Twin Alternating vessels with DEMAND regeneration.

NOTE: An ERCt "timed" regeneration controller CANNOT be programmed to accept a flow meter and a demand regeneration program. An ERCd controller is required for demand or flow meter operation.

Refer to the wiring diagrams on page 11 and 12 of the TM-III O & M manual (WKI No.: 900401) for proper installation of Shut-Off Kits and flow meter.

SEE TM-III PROGRAMING GUIDE FOR BASIC PROGRAMING

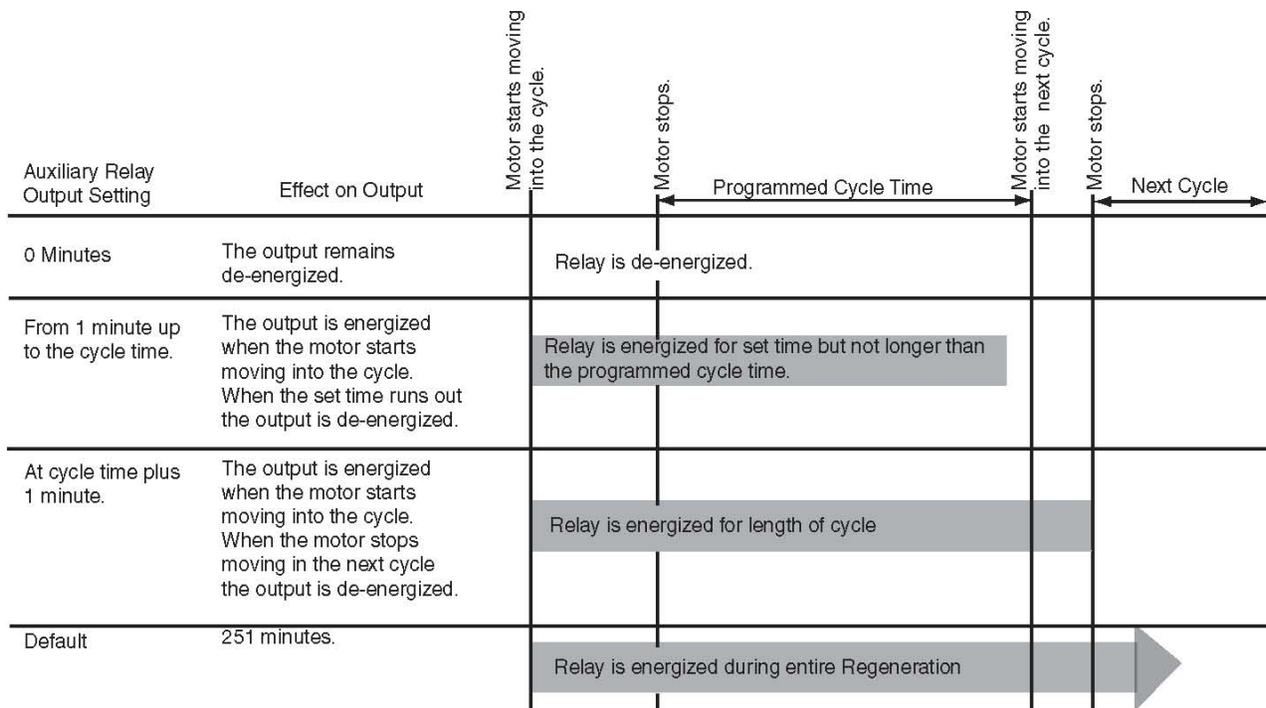
ALL SYSTEMS

AUXILIARY RELAY PROGRAMING

There are two auxiliary relays on circuit board of the PRIMARY valve. Either or both of these relays can be programmed to be energized or denergized for all or part (beginning at the start of the cycle) of any regeneration cycle. Relay "A" is accessed by using "TB2" on the right hand side of the board. Relay "B" is attached to "TB3" near the top of the board. Refer to Figure 21 in the TMIII manual.

Note: AUXILIARY RELAYS ARE NOT PROGRAMABLE ON TWIN ALTERNATING SYSTEMS.

The default setting is for both relays to be energized during the entire regeneration cycle. This means that each cycle and each relay must be programmed separately. If you want a relay to be energized only during cycle 2, that relay time for cycle 2 is set to match the cycle time for cycle 2, and the relay time for all other cycles must be set to "0".



To program the auxiliary relay(s):

1. First enter the “Cycle time programming” mode by pressing the square SET button and the UP together for 5 seconds. Refer to section 12 in the TMIII O&M manual.
2. “C1” or another cycle number will appear on the bottom left corner of the screen. Use the “up” or “down” button to move to the desired cycle.
3. Use the square “set” button at this time to set or change the duration of this cycle.
4. See table B in the programming guide for recommended cycle times.
5. Or press the “regeneration” button, and the letter “A” or “B” will show on the left side of the display indicating the relay to be programmed. Use the “up” or “down” button to chose which relay to program. Each relay is programmed independently, so if either relay is not programmed, it will remain at the default value or at the last programmed value for that relay.
6. Press the “set” button. The auxiliary output time will flash. Use the arrows to change the flashing numbers to the desired time.
7. Press the “set” button again to lock in the desired time.
8. If desired, use the “regen” button to choose the next relay. And repeat step 5.
9. Press the “regen” button to return to the cycle screen.
10. Scroll up or down and repeat process for each cycle