

ADDENDUM, FLUSH MANIFOLD, LM-7XX

Installer Programming & Operating Instructions

ES103 Flush Manifold Option

This information applies to use of the ES103 in conjunction with an FM-700 series flush manifold. The FM-700 is described in the document entitled Manual, Flush Manifold, LM-7xx, part number 20-07539-00. Please read this document prior to programming the ES103. The FM-700 series flush manifold is not equipped with a flow switch.

WARNING: All installations without the flow switch should not run bleach and sour into the manifold. One of these products must be directly fed to the washer or a separate manifold must be used.

• To enable flush manifold operation, you must enter a non-zero flush time via ES103 installer menu system:

1. Enter password to gain access to the installer menus.
2. Tab through the menu system using the NEXT key, until "FLu" is displayed.
3. Press the ENTER key to display the flush time. Use the NEXT and UP ARROW keys to set the flush time to the desired amount in seconds. Press the ENTER key when done. NOTE: If a flush time of zero is entered, flush manifold operation is disabled.
4. To exit the installer menu, tab down until "End" is displayed. Press the ENTER key to return to user mode (normal end-user operating screen).

NOTE: Flush time refers to the amount of time the flush manifold solenoid remains ON following pump amount dispensing (see below).

• ES103 Operation with Flush Manifold Enabled

1. With flush manifold operation enabled, the ES103 dispenses only one product at one time. Dispensing events that become triggered or are otherwise scheduled to take place, but which occur during an interval in which the ES103 *already* has a dispensing event in progress, are placed in a queue. The ES103 maintains a first-in, first-out memory for this purpose, which "plays back" queued dispensing events in the order in which they were received.
2. If more than one pump is programmed to commence operation at the same exact time, the lowest number (leftmost) pump will operate first, and the highest number pump will operate last.
3. Each dispensing event consists of the following sequence:
 - (a) **Pre-flush period:** Flush manifold solenoid turns ON, pump remains OFF, for three seconds.
 - (b) **Dispensing period:** At the end of (a) dispensing begins, and continues for the amount of time programmed for that pump. Flush manifold solenoid remains ON during this time.
 - (c) **Post-flush period:** Following dispensing, the flush manifold solenoid remains in the ON for the programmed flush period.

NOTE: If at the end of (b) there are other dispensing requests waiting to be executed, step (c) will not occur. Steps (a) and (b) will repeat for the next-in-line pump, followed by step (c). Because step (a) always occurs first, there will always be a pre-flush period of three seconds between dispensing events.