84-65-31
USM Kit Instructions
DEMA Engineering Company, St. Louis, MO

Read this instruction sheet completely before installing the Universal Select Module - USM. Before opening the DEMA® Laundry Master enclosure all power should be turned off. All installations must be in accordance with city, county, state, parish or provincial electrical codes and should be performed by a certified electrician. **The use of a licensed electrical contractor for installation is recommended.**

This kit is designed to add or replace a USM on an existing DEMA® Laundry Master unit, model 842, 844, 845, 846, or 844P.

Installation Procedure
1. Select a location to mount the USM where the laundry machine operator can easily access the control buttons. It can be mounted with the self-adhesive Velcro that is included in the hookup kit.
2. The USM can be connected to an IQ-80, IQ-81, IQ-85 or the STU by use of the supplied RJ-45 communication cable. The communication cable between the IQ-80, IQ-81 or IQ-85 board, the STU and the USM can be subjected to electrical interference when not installed properly. When securing the RJ45 patch cord between the On-Premise Laundry Controller and the Laundry Master, avoid sharp edges, electrical motors and relays; additionally, do not run parallel to electrical power lines and conduit.
3. Upon power up the USM assembly will begin to count up from x00 to xFF (where "x" is the version number), indicating that the USM is being updated by the control board it is attached too. After this is finished, the IQ-81 or IQ-85 board formula display should coincide with the formula indicated on the USM. The IQ-80 board will only show the least significant digit of the USM display. The decimal point in the lower right corner of the display will be on when connected to a 20 or 30 formula dispenser. It will be off for nine formula dispensers.

USM Programming
The USM may be used with any DEMA nine, twenty, or thirty formula laundry dispenser. If some formulas are not active, the inactive formulas may be disabled. All nine formulas may be active when used with nine formula dispensers. All twenty formulas may be active when used with twenty formula dispensers. Any twenty formulas may be active when used with thirty formula dispensers. The bleach defeat function may also be disabled. When connected to a twenty or thirty-formula dispenser the USM may be configured to show the load count value for each formula.

Programming the active formulas on the USM
Note: DEMA recommends this method only be used for nine formula dispensers. For twenty or thirty formula dispensers, make the formulas active or inactive at the dispenser. Before programming, power up the IQ-80 or IQ-85 and STU, hook up the USM and change the formula at least once using the USM™ to assure proper operation.
1. Apply power to the Laundry Master system. The USM should display a formula.
2. Disconnect the RJ45 patch cord from the USM™.
3. Press and hold the Bleach Defeat button on the USM™ and plug the RJ45 cable assembly into the RJ45 female connector on the USM™.
4. When the display on the USM shows three dashes, release the button. The display will change to formula 1 with one of the decimal points illuminated.
5. Pressing the Bleach Defeat button will alternate between the right and left decimal points. The left decimal point indicates the formula is active. The right decimal point indicates the formula is inactive and will be skipped when scrolling through formulas during operation.

6. Use the Up and Down arrows to select each formula and make it active or inactive.
7. Press "Stop" to return to run mode.

Programming the bleach defeat and load count display on the USM
1. Apply power to the Laundry system. The USM should display a formula.
2. Disconnect the RJ45 patch cord from the USM.
3. Press and hold the Up button on the USM™ and plug the RJ45 cable assembly into the RJ45 female connector on the USM.
4. When the display on the USM shows dashes, release the button. The display will change to bL- with one of the decimal points illuminated.
5. Pressing the Bleach Defeat button will alternate between the right and left decimal points. The left decimal point indicates Bleach Defeat is active. The right decimal point indicates the Bleach Defeat button is inactive.
6. The Up or Down button may be used to change to the load count active display. The display will change to LC- with one of the decimal points illuminated.
7. Pressing the Bleach Defeat button will alternate between the right and left decimal points. The left decimal point indicates Load Count display is active. The right decimal point indicates the Load Count display is inactive.
8. Press "Stop" to return to run mode.

Resetting all formulas back to the factory default
1. Power up the dispenser and STU as described earlier in these instructions.
2. Plug an RJ45 cable assembly into an RJ45 female connector located on the IQ-85 or the STU.
3. Press and hold the Down button on the USM and plug the RJ45 cable assembly into the RJ45 female connector on the USM.
4. When the display on the USM shows dashes, release the button.
5. For nine formula dispensers, all nine formulas will be active. For twenty formula dispensers, all formulas will be active. For thirty formula dispensers the first ten formulas will be active. The Bleach Defeat and Load Count display will be active. The USM will return to run mode.

Changing the formula numbers displayed on the USM
1. Apply power to the Laundry system. The USM will display a formula.
2. Disconnect the RJ45 patch cord from the USM.
3. Press and hold the UP and Down buttons on the USM™ and plug the RJ45 cable assembly into the RJ45 female connector on the USM.
4. When the display on the USM shows dashes, release the buttons. The display will change to "F01".
5. "F01" is formula 1. Pressing the Bleach Defeat button will change the display to "A01". This is the display value, or Alias, for formula 1.
6. The Up and Down buttons may be used to change the display value to any number from 01 through 99. When the desired display value is reached, press the bleach defeat to return to the formula number display.
7. Use the up and down buttons to select another formula. Repeat the above procedure until all desired display values are set.
8. When finished press the Stop button to return to normal operation.

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Operation

- **Formula Buttons:** Change to a desired formula by simply pressing the "up" or "down" buttons next to the formula display. The formula display will show an "F" followed by the formula number. The DEMA® Laundry system is set to run. When connected to a twenty or thirty formula dispenser with the Load Count display set to active, the display will alternate between the formula number and the load count number.
- **Emergency Stop:** Pressing the "Stop" button on the USM will stop any active pumps or the flush. The stop LED will be illuminated. Changing formula will reset the Stop condition.
- **Bleach Defeat Button:** Pressing the Bleach Defeat button on the USM will activate the bleach defeat function. A second press will de-activate the Bleach Defeat.

Return Policy

No merchandise may be returned for credit without DEMA® Engineering Company's written permission. Return Merchandise Authorization (RMA) number required in advance of return.

Warranty

DEMA® products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacture. This limited warranty does not apply to any products, which have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, improper voltage supply, physical abuse or misapplication. Rubber and synthetic rubber parts such as "O"-rings, diaphragms, squeeze tubing, and gaskets are considered expendable and are not covered under warranty. This warranty is extended only to the original buyer of DEMA® products. If products are altered or repaired without prior approval of DEMA®, this warranty will be void.

Defective units or parts should be returned to the factory with transportation prepaid. If inspection shows them to be defective, they will be repaired or replaced without charge, F.O.B. factory. DEMA® assumes no liability for damages. Return merchandise authorization number to return units for repair or replacement must be granted in advance of return.