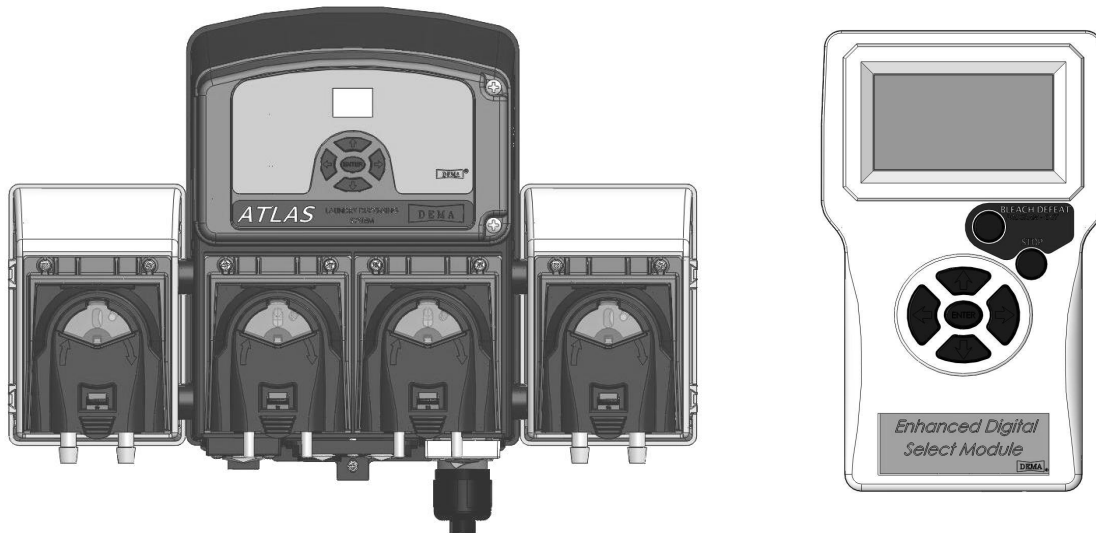


DEMA ENHANCED DIGITAL SELECTION MODULE II



Overview

The Enhanced Digital Selection Module II or EDSM II is a handheld programming module for the 844P DEMA Atlas Series of Laundry dispensers. The EDSM II can be used to program the Atlas, transfer programs from one Atlas to another, and can be used to program off-site.

Warnings



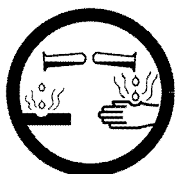
Installation of DEMA products must meet all applicable electrical codes and regulations established by national, city, county, parish, provincial or other agencies. It is possible that electrical codes and regulations require that a certified electrical contractor or engineer perform the electrical installation. For questions, contact a certified electrician.



ALL ELECTRICAL POWER MUST BE TURNED OFF TO THE DISPENSER AND TO THE APPLIED MACHINE.



All installations must conform to local plumbing codes and use approved backflow prevention devices. A pressure indicating tee is to be installed with existing faucets according to local plumbing codes in the state of Wisconsin and any other state that requires the use of a pressure indicating tee.



ALWAYS WEAR PROTECTIVE CLOTHING AND EYEWEAR WHEN WORKING WITH CHEMICAL PRODUCTS.

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Specifications

Packing List

	PART NO.	NOMENCLATURE	QTY.
A.	84-65-38	EDSM II Control Kit	1
B.	84-27-4	6 Foot RJ-45 Patch Cable	1

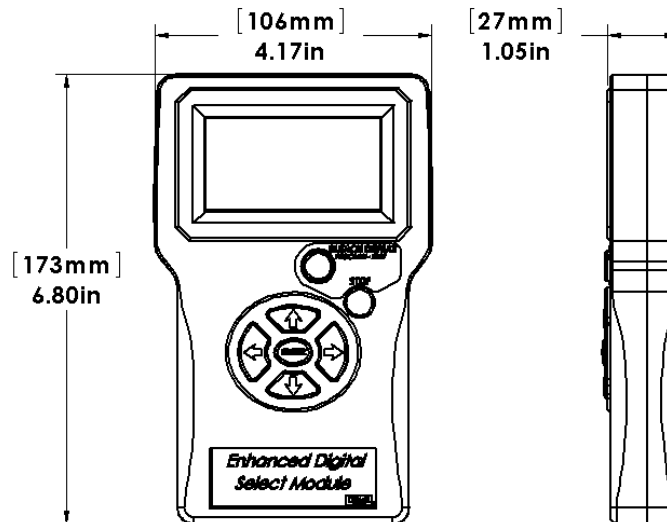
Operational Requirements

The STU (Signal Transfer Unit) must be connected between the IQ-85 (844P) board and the laundry machine.

The EDSM II can be connected to the IQ-85 board or to the STU board with an RJ-45 Patch Cable.

The EDSM II will be powered through the RJ-45 cable from either the control board or STU board.

Overall Size & Weight



Parts List

This is a list of replacement parts that may be necessary to have the EDSM II function properly.

Part No.	Description	Contains
84.65.6	STU Replacement Kit	STU Assembly, Velcro, Inst. Sheet
84.27.3	RJ-45 Cable	25 foot patch cable
84.27.4	RJ-45 Cable	8 foot patch cable
84.27.5	RJ-45 Cable	50 foot patch cable
84.27.6	RJ-45 Cable	75 foot patch cable
84.65.28	IQ-85 Replacement Board for Atlas	IQ-85 control board

Installation

The STU (Signal Transfer Unit) must be connected between the IQ-85 (844P) board and the laundry machine.

- If the STU is not already wired to the laundry machine, determine whether the 844P will be operated in the NORMAL, RELAY or SEQUENCE mode. Then wire the STU to the laundry machine as shown in the **STU Wiring Configuration** charts in the Atlas Installation Instructions (I-907).
- Next, connect the STU to the IQ-85 board with an RJ-45 Patch Cable.
NOTE: The STU must be connected to the IQ-85 board for the EDSM II to work.
- Finally, connect the EDSM II to the IQ-85 or the STU board with an RJ-45 Patch Cable.

Up to thirty formulas may be programmed into the EDSM II. Most of the action screens are intuitive and easily understood. You can always use the **PROGRAM-EXIT** button (Bleach Defeat button) to back out of a display or to keep going backward until you find the display you are looking for. Use the **ENTER** button to activate the display that is shown on the EDSM II screen.

The buttons on the face of the EDSM II are as follows:

- **BLEACH DEFEAT (*Program-Exit*)**
Pressing this button will toggle the Bleach pump 'off' or 'on'.
Otherwise, it is used as a **PROGRAM-EXIT** button to 'back up' one screen at a time in order to get back to the previous menu screen.
- **STOP**
Used to, immediately, stop a pump while in operating mode.
Used to edit custom Formula, Chemical and Account Type names in the program mode.
- **ENTER**
Used to 'go to' the next screen or to take an action that is shown on the display screen.
When a value is keyed into the EDSM II, the ENTER button must be pressed for the value to be programmed.
- **DIRECTION ARROWS (↑ ↓ ← →)**
Are used intuitively to increase or decrease display numbers or to move about the display.

When the dispenser is powered up, the EDSM II screen will activate. The following information will be displayed:

- Formula number.
- Total load count of the displayed formula.
- All of the pumps indicated by a pump number. The EDSM II will show six pumps no matter how many pumps are actually being used.
- The formula 'name' (i.e. *Sheets-White*).
- The product being dispensed (or if a pump is not presently running, the last product dispensed (i.e. *Sour*).
- BLEACH DEFEAT status (i.e. *Off*)

Note: When in this initial display mode, depressing the left arrow key several times will *darken* the display. Depressing the right arrow key several times will *lighten* the display.

***** IMPORTANT *****

BEFORE USING THIS PRODUCT, PLEASE READ THE NOTE BELOW AND CLEAR ALL PROGRAMS ON INITIAL USAGE OF THIS PRODUCT.

ON THE VERY FIRST USAGE OF THE EDSM II (NEW OUT OF THE BOX) CONNECT THE EDSM II TO THE LAUNDRY SYSTEM AS DESCRIBED ABOVE. POWER IT UP, ENTER PROGRAMMING AND PROCEED TO THE UTILITY MENU. "CLEAR ALL PROGRAMS" BEFORE USING THE EDSM II FOR THE FIRST TIME. THIS WILL ONLY NEED TO BE DONE AT INITIAL USAGE. IT IS NOT NECESSARY TO CLEAR ALL PROGRAMS AFTER THE INITIAL CLEARING. SEE PROGRAMMING SECTION BELOW TO NAVIGATE TO UTILITY MENU. PAGES 9 AND 10 OF THIS INSTRUCTION MANUAL SHOW THE OPTIONS AND HOW TO "CLEAR ALL PROGRAMS."

ALWAYS SEND A PROGRAM FILE FROM AN EDSM II TO EVERY ATLAS THAT IS BEING SET UP. THE EDSM II THAT IS BEING USED TO SEND THE FILE MUST HAVE BEEN CLEARED AT INITIAL USAGE AS DESCRIBED IN THE PREVIOUS PARAGRAPH. THE PROGRAM FILE CAN BE A FILE THAT CONSIST OF NO SET UP OR A PROGRAM FILE THAT WAS USED ON A PREVIOUS SETUP

Operation

How to Program the Unit. Before using this product, clear all programs.

EDSM II V2.1
ENTER ACCESS OR
USER ACCESS CODE
= 0000
↑
PRESS ENTER TO PASS
PRESS EXIT TO RETURN

DO YOU WANT TO SYNC
WITH THE DISPENSER?
➔ NO (SKIP)
UPDATE REMOTE
UPDATE DISPENSER

➔ FOLDER 1
FOLDER 2
FOLDER 3
FOLDER 4
FOLDER 5
FOLDER 6
FOLDER 7
FOLDER 8

MAIN
➔ SETUP
CONFIGURE
UTILITY
PRIME PUMP
CALIBRATE

- 1) Press ENTER to access programming.
- 2) Use the right and left buttons to navigate to the 4 digits and use the up and down buttons to change the digits so that they read the 4 digit numeric code. The factory default code is 0000. (See Set Access Code for detailed information)
- 3) Press ENTER.
- 4) Using the up and down arrow buttons select the desired Program to ENTER and modify. Each program can have up to 30 Formulas. When you ENTER a Program all changes that you are making are modified in that program. Also when going to the Utility menu the Sending and Capturing features are sending and capturing the program that has been entered.
- 5) Using the up and down arrow buttons select the appropriate sync option.
- 6) Press ENTER.
Note: If the remote is entering programming for the first time since it was last powered up the DO YOU WANT TO SYNC screen will be displayed. Otherwise this screen will be skipped and the MAIN MENU will be displayed.
- 7) Using the up and down buttons select an area to ENTER and begin setup or programming.
- 8) Press ENTER.

The illustrations and text in the preceding pages discuss the various menus, programming and set up procedures.

Main Menu

Move the cursor up and down to the desired menu and press ENTER. The following pages in this instruction manual describe the function and how to program the features within the various menus.

SETUP

- ➔ *Clear Load Counts*
- Pump Volume
- Formula Lockout
- Set Sequence (Drain)
- Set Units
- Test Formulas

CLEAR LOAD COUNTS?

YES Clear Loads

➔ No (exit)

(All Dispenser load counts
to be cleared)

Pump Volume

FORMULA = 01 ←

Use Arrow Keys
Press ENTER to Select

F01	L1	L2	Del
P1	▶000	000s	000s
P2	000	000s	000s
P3	000	000s	000s
P4	000	000s	000s
P5	000	000s	000s
P6	000	000s	000s
P7	000s		Time

Setup Menu

Move the cursor to each menu selection and press ENTER to modify. See details below of each menu option.

Clear Load Counts

- 1) The Load Count screen is self explanatory. Select with the arrow then press ENTER. This will clear and reset the load counts in all of the formulas back to zero.

Pump Volume

First Screen – Selecting formula to be programmed.

- 1) Select the Formula number with the up and down buttons.
- 2) Press ENTER. The next screen will display the level 1 and 2 and delay settings.

Second Screen – Pump run and delay times and flush time.

- 3) Each programmable field shown on this screen represents LEVEL 1, LEVEL 2 and DELAY for each pump. Pumps are listed on the left side P1-P7. **Note:** P7 is the flush when flush system is activated.
- 4) Using the arrow keys navigate to the desired location to be programmed.
- 5) Press the ENTER key and the first zero far right of that field will begin to flash. Move the cursor under the desired digit to make adjustments of 0-9. Set the values so that the three character field shows the desired value. (i.e. 023 or 115) The units available are s = seconds, ml = milliliters and oz = ounces. Units can be changed in the Units selection menu. *Note: ml and oz require the use of the calibration system – see calibration section for instruction.*
- 6) Press the ENTER key and that value will be stored.
- 7) Repeat these steps to set other values on this screen.
- 8) Use the PROGRAM –EXIT button to back out to the previous screen to move to a new formula.

*Level Mode is automatically turned “on” when a value is entered into any L2 setting

FORMULA LOCKOUT

➔ FORMULA= 03
Select, Press ENTER

TIME in MINS = 23

Press ENTER to Save

FORMULA LOCKOUT

FORMULA= 03
Select, Press ENTER

➔ TIME in MINS = 23 ↑

Press ENTER to Save

SET SEQUENCE

➔ FORMULA = 03
SEQUENCE = 04

* * * *

1 2 3 4 5 6 7 F

Press ENTER to Save

SET SEQUENCE

FORMULA = 03
➔ SEQUENCE = 04

* * * *

1 2 3 4 5 6 7 F

Press ENTER to Save

SET SEQUENCE

FORMULA = 03
SEQUENCE = 04

* * * *

1 2 3 4 5 6 7 F
↑

Press ENTER to Save

Formula Lockout

- 1) Using the up and down buttons select the Formula number. Press ENTER.
- 2) Using the arrow buttons move the cursor to the two digit selection and make adjustments 0-9. Set the values to read the desired LOCKOUT time in minutes.
- 3) Press ENTER to save.
- 4) Input the same information for the other Formulas.
- 5) Use the **PROGRAM-EXIT** button to back up to the SETUP screen.

Set Sequence

Note: In order to use the sequence mode the STU must be wired for the SEQUENCE MODE as shown in the 844P Atlas installation manual.

- 1) Press ENTER and use the up or down buttons to select the Formula number.
- 2) Press ENTER and use the up or down buttons to select the sequence 'event' (1 thru 16) closest to the time activation of the selected pump.
- 3) Press ENTER and use the left and right buttons to select the pump to be activated and press the up arrow to select it. An * will appear above the selected pump (to deselect press the down arrow). Up to three pumps may be selected to run at the same time.

Note: The 'F' means 'Final Event', (not Flush) and it must be selected when finished. The final event is used to reset the sequence system on the last trigger signal from the laundry machine.

To check the sequence programming, perform steps 1 and 2 and scroll thru the events looking for the "*" above the appropriate pumps.

```

SET UNITS

Set Units to:
  → TIME
    ENGLISH
    METRIC

Press ENTER to Save

```

```

TIME                →--DATA
ACCEPTED--

```

```

ENGLISH / METRIC
  ↓

```

```

--DATA ACCEPTED--

WARNING !!
Pumps must be
calibrated before
using the volume
feature.

```

```

FORMULA TEST
  ↑
Formula = 1
  ↓
← Pump 1 Level 1 →

```

Set Units

- 1) Move the cursor up and down to the desired unit of measure. Time = seconds, English = Fluid Ounces, and Metric = milliliters.
- 2) Press ENTER to set the desired units.

Note: If English or Metric units are selected, a reminder to calibrate the pumps will be displayed, and the system will switch over the pump calibration screen. See Page 13 for more information on Calibration.

Test Formulas

This feature allows each pump and flush to be tested manually. The function of this feature will allow the programmed amount of pump run time and flush time to be operated manually.

- 1) Move to the desired formula using the “up” and “down” buttons.
- 2) Move to the desired Pump and Level using the “right” and “left” buttons.
- 3) Press the “ENTER” button and the pump will run the amount of time that has been programmed for the selected formula/pump level.

CONFIGURE

- ➔ *Set Level Mode*
- Set Operate Mode
- Set Flush Mode
- Load Count Select
- Bleach Def Select
- Set Default Formula
- ENTER Program Names

LEVEL MODE

- Set Level Mode
- ➔ Off
- On
- Press ENTER to Save

OPERATE MODE

- Set operate mode
- ➔ NORMAL
- RELAY
- SEQUENCE
- Press ENTER to Save

FLUSH MODE

- Set Flush Mode
- ➔ ON
- OFF
- Press ENTER to Save

Configure Menu

Move the cursor to each menu selection and press ENTER to modify. See details below of each menu option.

Set Level Mode

- 1) The Level Mode allows you to choose multiple levels of pump programming. Select ON or OFF with the up and down buttons.
- 2) Press ENTER.

***Level Mode is automatically turned on when a value is added to the L2 setting under the Pump Volume setting.**

***Load Count Pump resets Level Mode**

Set Operate Mode

- 1) Use the up and down buttons to select the desired operation mode.
- 2) Press ENTER.

Note:

- NORMAL = programmed formulas into DEMA laundry dispenser, use remote or Auto Formula Select to select formulas.
- RELAY = formulas are programmed into the laundry machine and only a flush is programmed into the DEMA laundry dispenser.
- SEQUENCE = uses a single trigger signal from laundry machine and Normal programming features.

Set Flush Mode

- 1) The Flush mode is used in conjunction with a flush manifold system. Select the ON or OFF with the up and down buttons
- 2) Then press ENTER.

LOAD COUNT PUMP

➡FORMULA = 01
Select, Press ENTER

PUMP NUMBER = 4

Press ENTER to Save

LOAD COUNT PUMP

FORMULA = 01
Select, Press ENTER

➡PUMP NUMBER = 4

Press ENTER to Save

BLEACH DEFEAT PUMP

No Bleach Pump Active

Use up or down arrow keys
SAVE --- press ENTER

SET DEFAULT FORMULA

Go to the formula
after each load count

NO DEFAULT FORMULA

Use Arrow KEYS
Press ENTER to Select

Load Count Select

- 1) Select the Formula with up and down buttons.
- 2) Press ENTER.
- 3) Select the Load Count Pump with the up and down buttons.
- 4) Press ENTER to save.

Note: Each formula has a specific load count pump. It is necessary to program a load count pump for each formula to be used in application. The Load Count Pump resets the Level Mode. It is recommended that the last pump to be used on each formula is designated as the Load Count Pump.

Bleach Def Select

- 1) No Bleach Pump Active is the default.
- 2) Press up or down arrows to select bleach pump.
- 3) Press ENTER to save.
- 4) This activates the Bleach defect button on USM, EDSM OR EDSM II. If no Bleach Pump Active, then this button is not functional during normal operations.

Note: Only one bleach pump can be selected for each DEMA laundry dispenser.

Default Formula

Default formula is an optional feature that can allow the system to automatically change to a known formula after the load count pump is run. It can be used as a formula that would be safe for any type of load in the event that the end user does not change the formula when necessary.

- 1) Select the Formula that will be the default formula with up and down buttons. One of the choices is "NO DEFAULT FORMULA" if you do use a default formula.
- 2) Press ENTER to save.

FACTORY DEFAULT
➔ YES RESTORE
NO (exit)

WARNING*****WARNING
YOU ARE ABOUT TO
RESET EVERYTHING

YES RESET MEMORY
NO (EXIT)
WARNING*****WARNING

PRIME PUMP
PRIME PUMP 1
↑
↓
Press ENTER to start
or stop pump

CALIBRATE
➔ Pump 1 00.0 oz/min
Pump 2 00.0 oz/min
Pump 3 00.0 oz/min
Pump 4 00.0 oz/min
Pump 5 00.0 oz/min
Pump 6 00.0 oz/min
Press ENTER to Start

Calibrating Pump 1
ENTER to continue

Factory Default – Resetting a single chemical program

- 1) Use the Up and Down buttons to select yes.
- 2) Press ENTER – The “Restoring Factory Defaults – Please Stand By” screen will display. Allow the EDSM II to finish this process before pressing any buttons. Utility screen is displayed the process is complete.

Note: This will reset the current program to its original condition from DEMA. All programming setups and stored files are removed. This will only reset the single program that was entered which could have been any program 1-8. To reset every formula, use Clear All Formulas. This change only applies to the EDSM II not the IQ-85 board. To reset the IQ-85 transfer the selected program file from the EDSM II to the IQ-85.

Clear All Programs- Resets every chemical program to its original condition from DEMA. All settings and data will be lost. Use only for a new install or a clean EDSM II.

Prime Pump Menu

- 1) Use the up and down arrows, select the pump to prime.
- 2) Press ENTER button to start the pump.
- 3) Press ENTER button to stop the pump.

Calibration Menu

Note: When you ENTER the calibration system the “Set Units” screen will appear. It is necessary to choose English (oz) or metric (ml). Once the units have been chosen press ENTER to set and proceed to calibration screen.

It will be necessary to measure the output of the pump with either a measuring cup or graduated cylinder.

Calibration step 1

- 1) Using the up and down buttons, select the pump to be calibrated.
- 2) Press the ENTER button to start the pump. With the measuring cup or graduated cylinder start collecting the media.
- 3) Press the ENTER button to stop the pump when the desired volume of measurement is achieved. This volume does not need to be specific to the application. To improve accuracy, pump a minimal of 8 oz or 250ml. The more that is pumped the better the accuracy.

ENTER volume pumped

Vol pumped = 30.0



Press ENTER to Save
Press EXIT to Cancel

CALIBRATE

➔ Pump 1 14.5.oz/min
Pump 2 00.0 oz/min
Pump 3 00.0 oz/min
Pump 4 00.0 oz/min
Pump 5 00.0 oz/min
Pump 6 00.0 oz/min
Press ENTER to Start

Calibration step 2

- 1) Using the left and right buttons navigate the various digits and use the up and down buttons to change the numbers to read the amount of volume dispensed from the previous step.
- 2) Press ENTER to save the value.
- 3) The EDSM II will display the pump rate on the calibration screen.
- 4) Repeat this process for the remaining pumps.

Note: It is possible to manually change the pump rates on the calibration screen.

Manually Set Pump Rate

- 1) Simply move the cursor to the desired pump
- 2) Press the right arrow button. The far right digit will begin to flash.
- 3) Use the up and down arrows to change values and the left and right arrows to move the cursor to other digits.

Troubleshooting

Symptom	Probable Cause	Remedy
The EDSM II is not powering up	<ol style="list-style-type: none">1. There is no power to the unit it is connected to.2. One of the RJ-45 cables is not fully plugged in or damaged.	<ol style="list-style-type: none">1. Check to make sure power is going to the Laundry Unit itself.2. Check the RJ-45 Cables to make sure it is hooked up from the EDSM II to the Control Board or from the EDSM II to the STU to the Control Board. Check the cables for damage. Replace if necessary.

Warranty

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 three years from the date of manufacture. This limited warranty does not apply to products that 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 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.

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