



## ELx405™ with *Ultrasonic Advantage*™

### An Unsurpassed Advancement in Microplate Washing

#### Using *Ultrasonic Advantage*

The onboard **AUTCLEAN (AUTCL)** function in the Utility menu enables you to create (“define”) and run an ultrasonic cleaning program that includes one or more cleaning “loops.” Use multiple loops if you want to clean with more than one type of fluid.

<b>AUTOCLEAN Parameter</b>	<b>Selectable Range</b>
Number of Loops	1-10 loops
Duration of each loop	1-60 minutes
Supply bottles	A-D for valve modules

#### Prepare the Waste and Supply Bottles

Empty the waste bottle. Ensure that there is a **sufficient volume** of deionized water and detergent in the supply bottle(s).

An AUTOCLEAN program initially primes the system with 200 ml of fluid from the supply bottle specified for Loop 1; each cleaning loop fills the reservoir with approximately 93 ml of fluid. Priming with 200 ml is always done for each successive loop in models without the valve module, and in models with the valve module, if the valve selection changes between loops.

#### Define a Cleaning Program

From the washer’s main menu, follow the path below:

Washers not equipped with the **external valve module**:

```
UTIL → AUTCL → DEFINE →  
AUTOCLEAN NUM LOOPS: Enter 01 to 10 loops →  
LOOP <loop number> DURATION: Enter 01 to 60 minutes →  
OK TO SAVE PROGRAM? YES
```

Washers equipped with the **external valve module**:

**UTIL → AUTCL → DEFINE →**  
AUTOCLEAN NUM LOOPS: Enter **01** to **10** loops →  
LOOP <loop number> DURATION: Enter **01** to **60** minutes →  
LOOP <loop number> VALVE: Select **A, B, C,** or **D** →  
OK TO SAVE PROGRAM? **YES**

### **Run a Cleaning Program**

From the washer's main menu, select **UTIL → AUTCL → RUN.**

The program begins with a priming sequence. When priming is complete, the manifold lowers into the reservoir, the washer dispenses approximately 93 ml of fluid, and cleaning LOOP 01 begins. When the loop is complete, the washer aspirates the fluid from the reservoir. If another loop is specified in the program, the washer is primed (only if valve selection changes or if operating without the valve module), fluid is dispensed, and the next loop begins. This process is repeated until all loops are complete.

❖ **Models without the valve module:** If more than one cleaning loop is defined, the washer will pause between loops and display "CONNECT SUPPLY <next loop number>" to allow you to switch supply bottles. Press the ENTER key to resume cleaning.

While the program is running, the ultrasonic cleaner will pulse on and off approximately every ten seconds (a 50% duty cycle), and you will hear a periodic "hissing" sound indicating the ultrasonic energy is present.

When **PROGRAM COMPLETE** appears, select **REPEAT** to run the program again, or select **STOP** and press the **Main Menu** key.

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