

# Sprite TL Quick Start Guide

with 115 VAC Power Cord and 4-Conductor Signal Cable

## Reference Manual Sprite TL



Online and downloadable Product Manuals and Quick Start Guides are available at [www.HydroSystemsCo.com](http://www.HydroSystemsCo.com). Please check online for the latest version of this Reference Manual.



### **WARNING:**

The Sprite TL Quick Start Guide is intended to be installed by experienced installers, in accordance with all applicable electrical and plumbing codes.

All dish machine and dispenser power must be disconnected during installation and/or any time the dispenser cabinet is opened.

**NOTE:** Always use proper lockout tagout procedures when servicing the dispenser.

## Preface

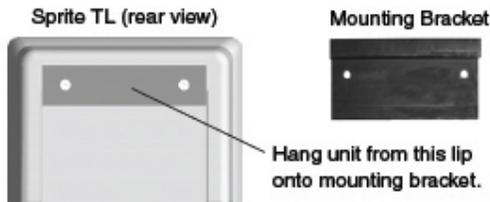
This manual has been written and illustrated to present the basic installation, operation and servicing instructions of the Sprite TL Warewash Dispensing System. Guidelines will be suggested in reference to the preferred method of installation, however, the variety of equipment and the surrounding environment will dictate the actual installation of the Sprite TL.

# Installation

## Mechanical Installation

**NOTE:** Choose a suitable mounting location that: (1) Provides the machine operator with access to the dispenser front panel and (2) is within close proximity to the washer and product containers.

### Unit Mounting



1. Mount unit in suitable location with mounting bracket and hardware provided.
2. Discharge tubing: Cut tubing (not provided) to appropriate length and connect from discharge pump (right side) to washing machine inlet port (liquid products).
3. Product intake tubing: Cut tubing (not provided) to appropriate length and connect from intake pump (left side) to product container.

## Electrical Installation

**NOTE:** The Sprite TL is double-insulated. No earth/ground connection is provided or required. Signal wiring is via one cable that is routed to the signal wiring location in the machine.

### 115 VAC

Plug power cord into 115V outlet.

### Signal Wiring

Input signal wire pairs are optically isolated signal inputs that accept signal voltages ranging from 24-240VAC (or 24VDC).

- Violet and white/violet = Signal 1
- Yellow and white/yellow = Signal 2

Signal wiring only applies to Automatic & Sequence Modes. Signal inputs are ignored in Push-Button Mode. (See "USER MODE" on page 7 for an explanation of operating modes.)

### Automatic Mode (AU)

Connect violet and white/violet signal wires to supply signal wiring connections for pump 1 (left pump). Connect yellow and white/yellow signal wires to supply signal wiring connections for pump 2 (right pump).

### Sequence Mode/Occurrence (oc)

Connect signal wire pairs to washing machine fill valves (i.e. violet and white/violet to cold fill valve coil and yellow and white/yellow to hot fill valve).



### CAUTION:

All high voltage wiring must be performed with the cable provided and be enclosed in flexible conduit, seal-tite or other housing approved for damp locations.

Installation should be performed only by experienced installers in accordance with all applicable electrical and plumbing codes.

Disconnect all wash machine and dispenser power during installation or at any time the dispenser cabinet is opened.

Always verify all voltage sources with meter.

# Maintenance & Specifications

Routine maintenance includes wiping dispenser clean with a damp cloth and periodically replacing Pump Tube.

## Spare Parts

Pump Tube, Detergent, EPDM, (incl. Barb Fittings) 10 pk.	13-07028-10
Pump Front (incl. Captive Screw)	13-06398-00
Pump Spinner	13-06396-00
PC Board (incl. Upper Cabinet Front)	13-06393-110
Power Transformer	13-06394-00
Pump Motor Assembly (left)	13-06523-01
Pump Motor Assembly (right)	13-06524-01

## Specifications

Size	6" W x 8.875" H x 4.88" D (15.24 cm W x 22.7 cm H x 12.38 cm D)
Weight	5.98 lbs. (2.71 kilos)
Temperature	120° F Maximum
Power	90 to 130 VAC, 50/60 Hz. 0.5 amps (max.)
Pump Flow Rate	5.25 oz./minute (156 mls./minute)

**NOTE:** Specifications subject to change without notice.

Refer to “Programming Menu Screens” on page 6 for information on moving through the programming menus.

## Input Installer Password

A password is required for access to programming. The factory pre-set password is 123. To change the password, see “Password Edit–Pin” on page 5.

**NOTE:** You have 10 seconds to input the correct password. An incorrect password returns you to the Home Screen.

To input the password:

1. Press and hold ENTER for two seconds to access the Password input screen.
2. Press SCROLL to change the blinking digit to the desired value. Press NEXT to move to the next digit.
3. Repeat for next two digits, then press ENTER when correct password displays.

## Prime Pump “P-1”

Press SCROLL to select pump number. Press ENTER to turn pump on. Press ENTER again to turn the pump off. Pump prime is automatically ended after 5 minutes if pump is left on.

## Clear Load Counter “CLr”

Display toggles every two seconds between CLr and load count (all formulas). Press ENTER to reset.

## Operating Parameters “oP”

Display toggles every two seconds between oP and the current selection. Press ENTER to select Au (Automatic), Pb (Push Button), or oc (Occurrence/Sequence) mode of dispenser operation. (See “USER MODE” on page 7 for information on the three operating modes.)

## Lockout Period “LP”

Press ENTER to view the lockout period, in minutes. Input is the same as Password input. 000 = Lockout off.

**NOTE:** In Sequence Mode, program the lockout period to be longer than the TOTAL of all programmed pump run and delay times. The lockout period should approximately match the washer cycle time to run a complete load.

## Formula Program “F-1”

Press SCROLL to select the formula number (1-4) to program. Press ENTER to move through the Formula Program menu loop (P1, D1, A1, Fin) for that formula.

## Pump Amount “P1A”

The display toggles every 2 seconds between the stored run time (in seconds) for the selected pump number and Pxx.

1. Press SCROLL to select the desired pump number
2. To set pump run time, press and hold ENTER for two seconds to start pump (display increments in seconds while pump runs).
3. When desired time/volume is reached, press ENTER again to stop the pump and set the value.
4. Repeat for all desired pumps within the current formula selection.

## Delay Time “D1A”

Press SCROLL to select pump number that needs a delay time, then press ENTER. Input delay time (same input method as Password input), in minutes.

## Assign Pump “A1A”

(Only active in Sequence Mode.) Assign pump numbers to signal sequence occurrences.

1. Press SCROLL to select pump number, then press ENTER to access occurrence input screen (oc).
2. Press SCROLL to assign the signal occurrence for the previously selected pump number.
3. Press ENTER to return to “F-1.”

## Finish Program “Fin”

Press ENTER at this screen to return to the F-1 formula number selection screen in the main menu loop.

## Filter Duration “Fd”

Press ENTER to set Signal Filter Duration (same input method as Password input) in seconds (0-19, default 3).

**NOTE:** In Sequence Mode, set a Filter Duration time that is long enough to filter out extra fill signals that may occur as the washer calls for more water, etc. Typically, leave at default setting for Automatic Mode.

## User Prime “uPr”

Every two seconds the screen toggles between UPr and current User Prime setting (on or off). Press ENTER to change this setting.

## Password Edit “Pin”

Choose any three-digit number as a new password. Press SCROLL to change the blinking digit to the desired value. Press NEXT to move the blinking digit. Repeat for all digits. then press ENTER to set the new password.

**NOTE:** Be sure to make note of any password changes! Access to Programming is not available if the password is lost!

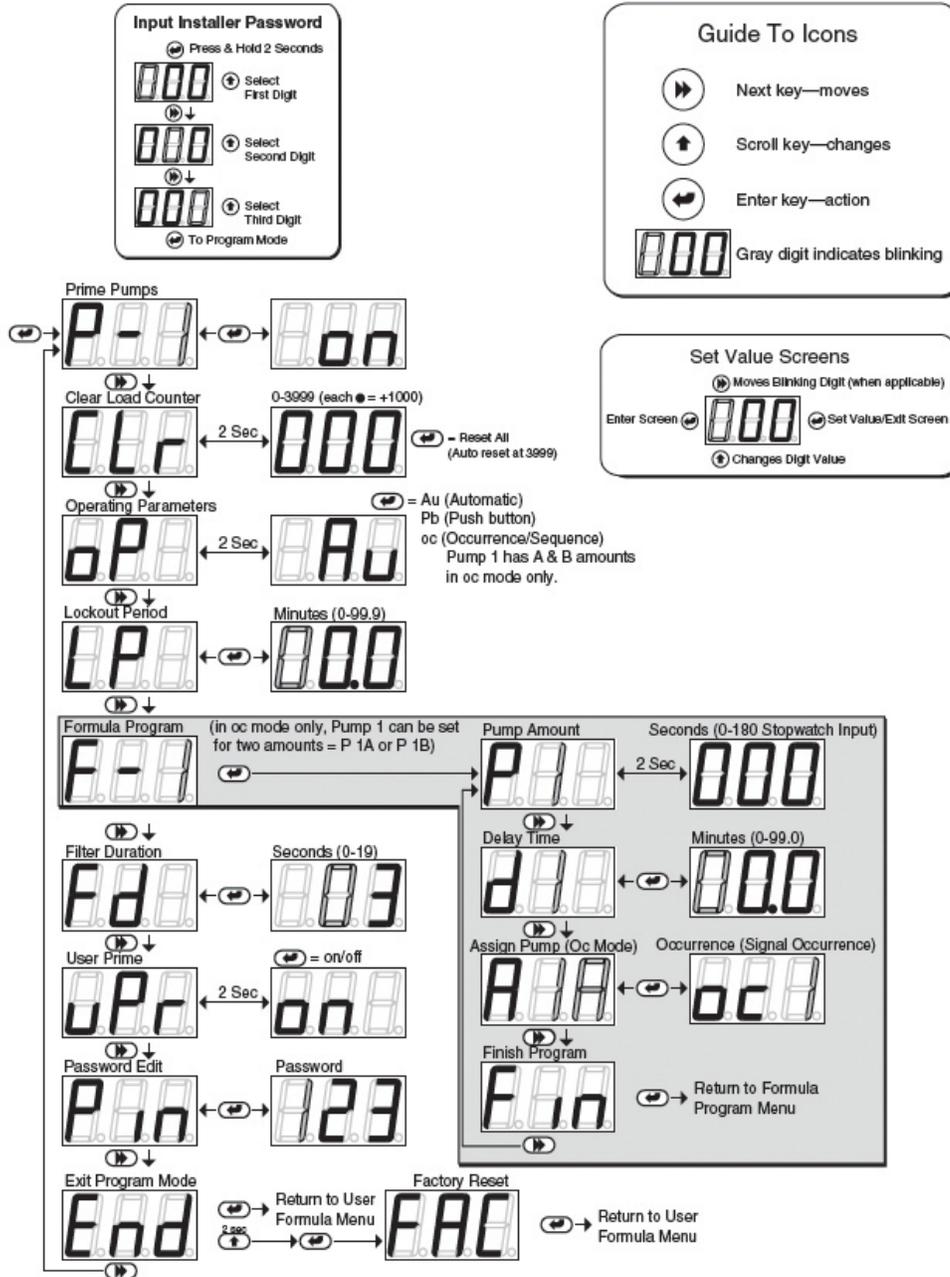
## Exit Program “End”

Press ENTER to exit Programming and return to User Mode.

## Restore Factory Defaults

To clear all values and restore factory settings, press and hold SCROLL for 2 seconds, then press ENTER (while still pressing SCROLL). “FAC” displays to indicate that you have restored factory settings and cleared the dispenser’s memory (including counter reset to zero). Press ENTER again to return to User Mode.

## Programming Menu Screens



# Programming

## User Mode

The Sprite TL dispenser offers three modes of operation:

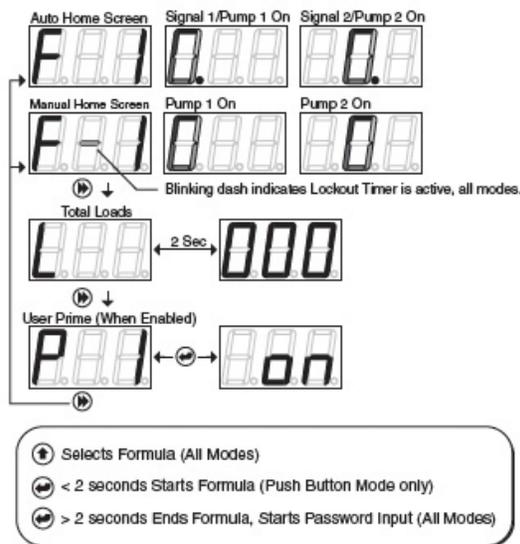
**Automatic Mode** runs each pump program (program = delay time + run time) once, when it receives a qualified signal to the respective signal input. The Lockout Timer begins when the first pump program starts (start of delay time). During the lockout period, a pump may only run once (regardless of number of signals received). Signal status, lockout status and pumps running display.

**Sequence/Occurrence Mode** is an automatic logic in which signals from input numbers 1 and 2 act as a single-logic input signal. Signal occurrences are counted to determine when each pump runs, based on pump-assignments made in Formula Programming (screen "A1A"). Simultaneous input signals count as one signal occurrence. Pump 1 has two programmable amounts, A and B, which are treated as separate programs. Signal status, lockout status and pumps running display.

**Push Button Mode** relies on the user to start the wash formula program. The user selects the formula number, then starts the wash formula program by pressing and releasing ENTER within 2 seconds. Pumps run based on programmed delay and run times. During the lockout time, all start-button presses are ignored (except Password input). Pumps running and lockout status display.

**NOTE:** Password input and User Prime (if enabled) will reset lockout timer and end wash load.

## User Menu Screens



## Formula Selection

From a Home Screen, press SCROLL to select programmed formulas (1-4).

## View Load Counter

From a Home Screen, press NEXT once to display "L". Load counter (all formulas) will toggle between "L" and load count since Load Counter was last cleared.

## Prime Pumps (when enabled)

1. From a Home Screen, press NEXT twice to display "P1."
2. Press SCROLL to select pump number to prime.
3. Press ENTER to turn selected pump on or off.

**NOTE:** Prime Pumps is only available when unit is not in a lockout timer period.

## Password Access to Programming

When Formula Selection displays, press and hold ENTER for 2 seconds. To input password, follow the instructions in “Input Installer Password” on page 4.

## Start Formula

From a Home Screen, press and release ENTER within 2 seconds to trigger manual dispensing.

**NOTE:** To terminate wash formula before end of lockout period, press and hold ENTER for longer than 2 seconds, release, and wait 10 seconds for screen to revert to Home Screen.

## Limited Warranty

**Seller** warrants solely to **Buyer** the Products will be free from defects in material and workmanship under normal use and service for a period of one year from the date of completion of manufacture. This limited warranty does not apply to (a) hoses; (b) and products that have a normal life shorter than one year; or (c) failure in performance or damage caused by chemicals, abrasive materials, corrosion, lightning, improper voltage supply, physical abuse, mishandling or misapplication. In the event the Products are altered or repaired by **Buyer** without **Seller's** prior written approval, all warranties will be void. **No other warranty, oral, express or implied, including any warranty of merchantability or fitness for any particular purpose, is made for these products, and all other warranties are hereby expressly excluded.**

**Seller's** sole obligation under this warranty will be, at **Seller's** option, to repair or replace F.O.B. **Seller's** facility in Cincinnati, Ohio any Products found to be other than as warranted.

## Limitation of Liability

Seller's warranty obligations and Buyer's remedies are solely and exclusively as stated herein. Seller shall have no other liability, direct or indirect, of any kind, including liability for special, incidental, or consequential damages or for any other claims for damage or loss resulting from any cause whatsoever, whether based on negligence, strict liability, breach of contract or breach of warranty.