

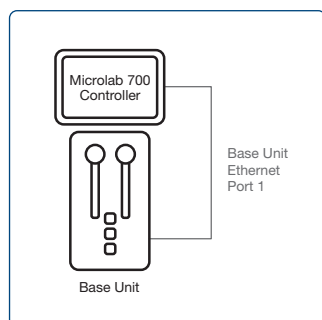
## Microlab<sup>®</sup> 700 Series Quick Start Guide

Congratulations to user's purchase of a Hamilton Microlab 700 instrument. To learn about proper care and maintenance of user's investment, please take the time to read the manual, including the warranty information. Hamilton Company would like to thank you for purchasing the Microlab 700.

### A Hardware Configuration

#### A.1 Initial Setup

1. Unpack the Microlab 700 and verify all the parts accordingly with checklist from the pack.
2. When selecting a location for Microlab 700, choose a clean, dry, level area and away from hazardous chemicals, radiation, and/or hazardous biological substances. Leave enough space around the unit for ventilation. Make sure there is power source nearby to connect the power cord.
3. Place the syringe drive unit in the desired location. Place the controller on top of the pump and connect the pump and controller with the Ethernet cable.

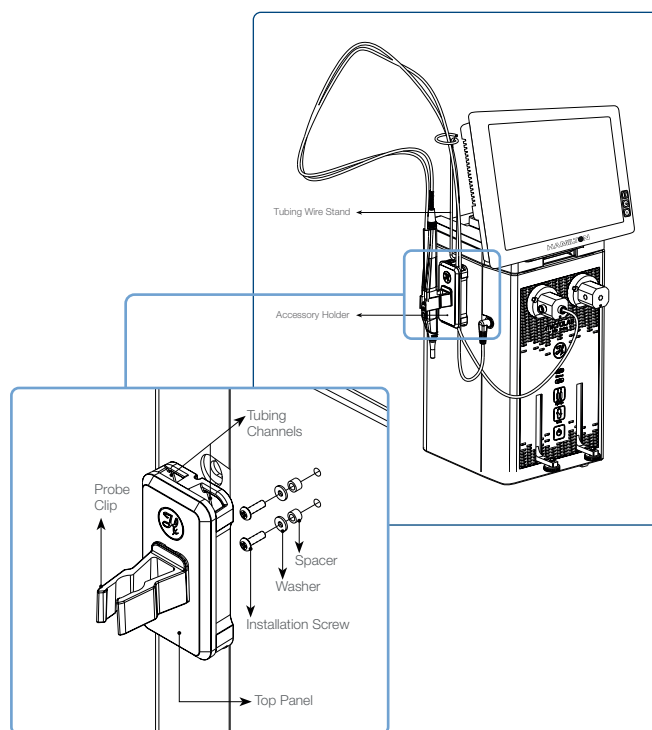


#### 4. Holder Accessory Installation

Order separately P/N: 61710-01

- Select the side of the instrument where you would like the Accessory Holder to be attached and remove the plastic screw plugs.
- Place a washer and then a spacer onto each of the installation screws
- Insert each screw assembly into the screw holes on the side of the instrument and tighten with a screwdriver.


- Attach the accessory holder panel onto the screw assembly. There are cutouts on the back of the accessory holder panel. Place the rounded portion of the cutout on the screws and push the assembly down for final assembly.




5. Power the pump and controller by plugging the power supply into an outlet and then into the input on the back of the syringe drive unit. Press the power button on the front of the syringe drive and wait for the system to boot up.

## A.2 Syringe Installation

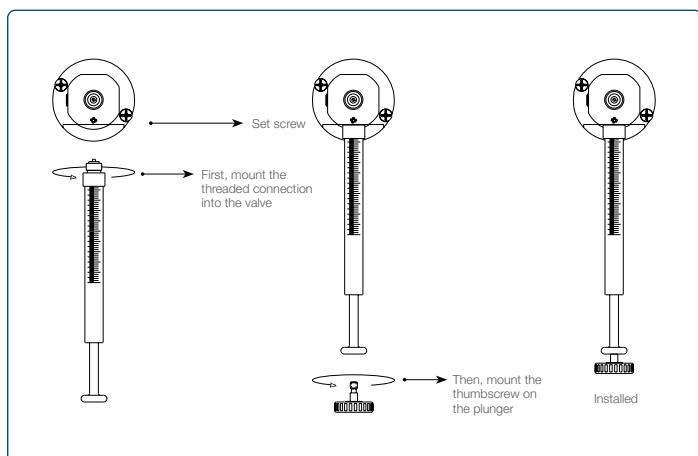
1. Condition the syringes

 **NOTE:** Before inserting the plunger into the syringe barrel, the plunger tip needs to be conditioned. To condition the plunger tip, first wet the tip and insert into the glass barrel, stroke the syringe ten times while applying steady and even pressure, avoiding twisting movements.

2. Press and hold the Prime button for three seconds. After three seconds the syringe drives will initialize and then both drives will move downward. Continue to hold the Prime button until the syringe drive has moved down approximately halfway. Release the Prime button and the syringes will stop.
3. Insert the syringe into the valve and turn the glass barrel clockwise until it is finger tight.

 **NOTE:** For 10, 25, 50 and 100  $\mu\text{L}$  syringes, a small PTFE washer is provided. This washer should be placed on the top of the syringe to create a seal between the valve and the syringe termination. When the plunger is at the zero line a small piece of the plunger tip will stick out the top of the syringe to align the washer, while the syringe is tightened into the valve.

4. Pull the plunger down to the drive stem and fasten the thumbscrew to the plunger. Hold the plunger and gently screw the thumbscrew into the threaded plunger end. Make sure this is finger tight. The syringe should now be properly attached to the Microlab 700.
5. (Optional) Each pump comes with an Allen wrench in the accessory box. This Allen wrench may be used to secure the set of screws on the valve(s) to hold the syringe(s) in place. Make sure not to overtighten. Overtightening the set of screws may cause the syringe(s) to crack.



## A.3 Tubing Installation



1. The Microlab 700 instrument uses 12 and 18 gauge tubing for dispensing applications. The tubing comes in two different types, fill and dispense. The fill tubing has a blunt end and is designed to go into a reservoir of liquid. The dispense tubing has a tapered tip and is designed to minimize droplet formation.
2. Before installing the tubing, it is recommended that tubing fittings not be wet to ensure the best possible seal.
3. Make sure the tubing is free of crimps or blockages. Crimping or blocking within the tubing may cause leaks or air bubbles. If the tubing is damaged, do not use it and replace it with new tubing.
4. Determine which type of valve configuration is the best to be used.
5. Insert the dry tubing fitting into the appropriate threaded valve port and tighten the fitting finger tight.



☆ **IMPORTANT!** Never tighten too hard the tubing. Over tightening may result in damage to the valve and/or the tubing.

**Installation of the Hand Probe:** Hand probe receptacles are located on the left and right side of the drive unit. The trigger wire for the hand probe or foot switch may be inserted into either of these receptacles. The dispense tubing (12 or 18 gauge) may be threaded through the hand probe. Thread the dispense tubing through the hand probe and clips that connect the trigger wire and dispense tubing. Lastly, attach the trigger wire to the probe receptacle on the side of the pump.

## B Software Configuration

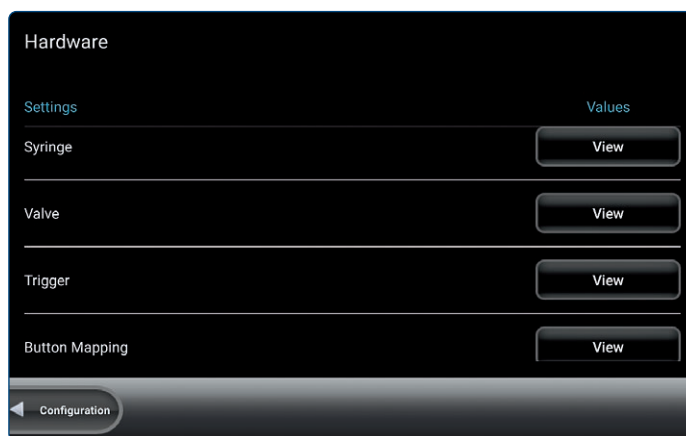
### Advanced and Premium Operation

The Advanced Microlab 700 Controller features a touch-screen with a custom designed user interface (UI). The UI will enable a variety of advanced applications and Custom Method programs.

The Premium version of the Microlab 700 instrument activates access to the LyncStore 700 software. LyncStore 700 synchronizes the data of Microlab 700 instrument and enables instrument configuration and control from a remote server.


> [Hamilton Lync Store 700 \(mllyncstore700.com\)](http://Hamilton Lync Store 700 (mllyncstore700.com))

1. Using the touchscreen controller, navigate to the Configuration Screen, then select Hardware and set the Syringe volume and Valve type\*.



\*Trigger and Button Mapping setup is optional.

2. Prime Pump - The easiest way to prime the Microlab 700 is by pressing the *Prime button* on the front of the instrument. If a defined number of priming cycles or a custom flow rate is desired, please see section 18.1 from the User Manual.

 **NOTE:** Prime is required to clean the tubes from any air bubbles and by doing that make workflow precise, as expected.

Open YouTube from your PC/Mobile Phone and search for Microlab700 – Basic Instrument Installation or scan the QR code enclosed.



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