

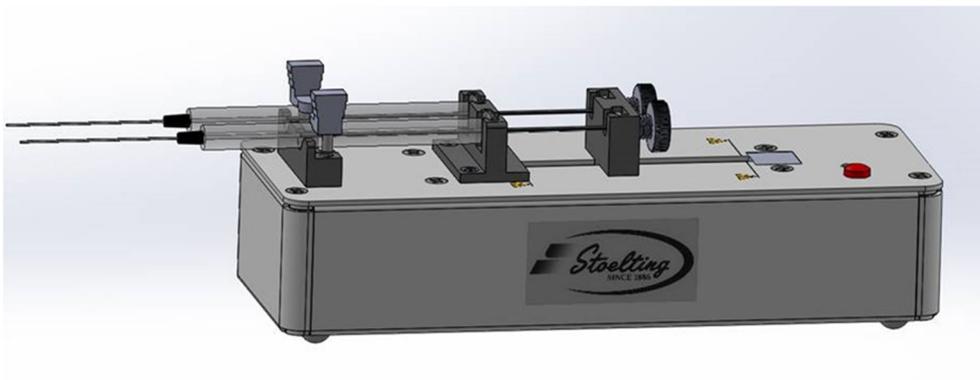
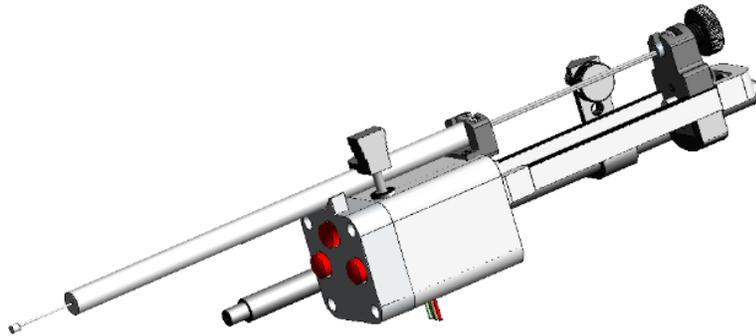


QSI

Quintessential Stereotaxic Injector

Quick Starter Guide

Product No. 53311/ 53312/53325



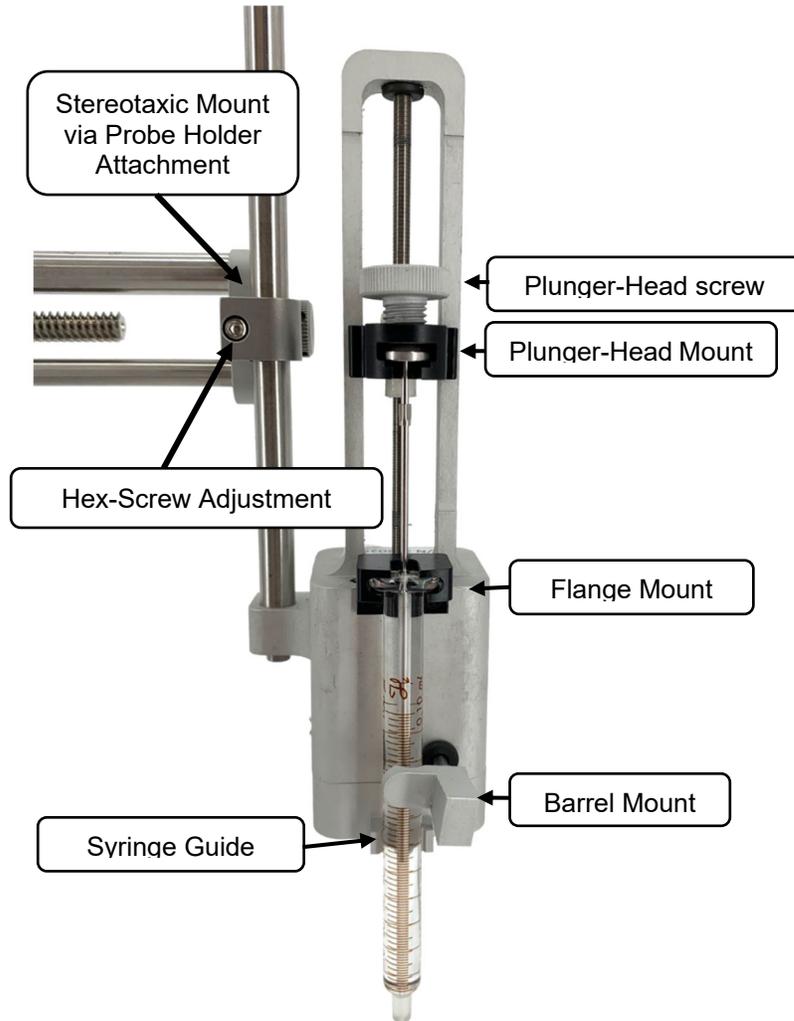


1. Mount QSI injector

Loading the Syringe

The syringe drive (what we typically refer to as the QSI Head) uses a universal adaptor system that's designed to make it compatible with most Hamilton™ syringe types (e.g., Hamilton™ 700, 7000, Neuros and Gas-Tight (1700) Series syringe), ranging in size from 0.5 to 250 µl.

The syringe is secured into the QSI head using our 3-point mounting system which ensures a proper and secure fit. The syringe must be mounted properly to guarantee that the injector functions properly (see image below).



Plunger-Head Mount. Plunger heads vary between syringe types. The plunger mount is designed to accept a variety of plunger-head types (flat and rounded) and sizes. The Plunger-

Head Screw (attached to the Plunger-Head Mount) tightens to make sure that the plunger head remains secure with no up and down movement of the plunger within the mount. The Plunger-Head Mount also acts with the QSI motor to drive the plunger when injecting or withdrawing through the syringe.

Flange Mount. The syringe flange is simply inserted into the Flange Mount (refer to image below). The Flange Mount firmly holds the syringe in place and prevent the syringe from sliding.

Barrel Mount. Two parts make up the Barrel Mount. The Syringe Guide and the Spring-Loaded Syringe Holder. The syringe guide prevents side-to-side movement of the syringe barrel, and the spring-loaded holder prevents the syringe from lifting.



To attach a syringe

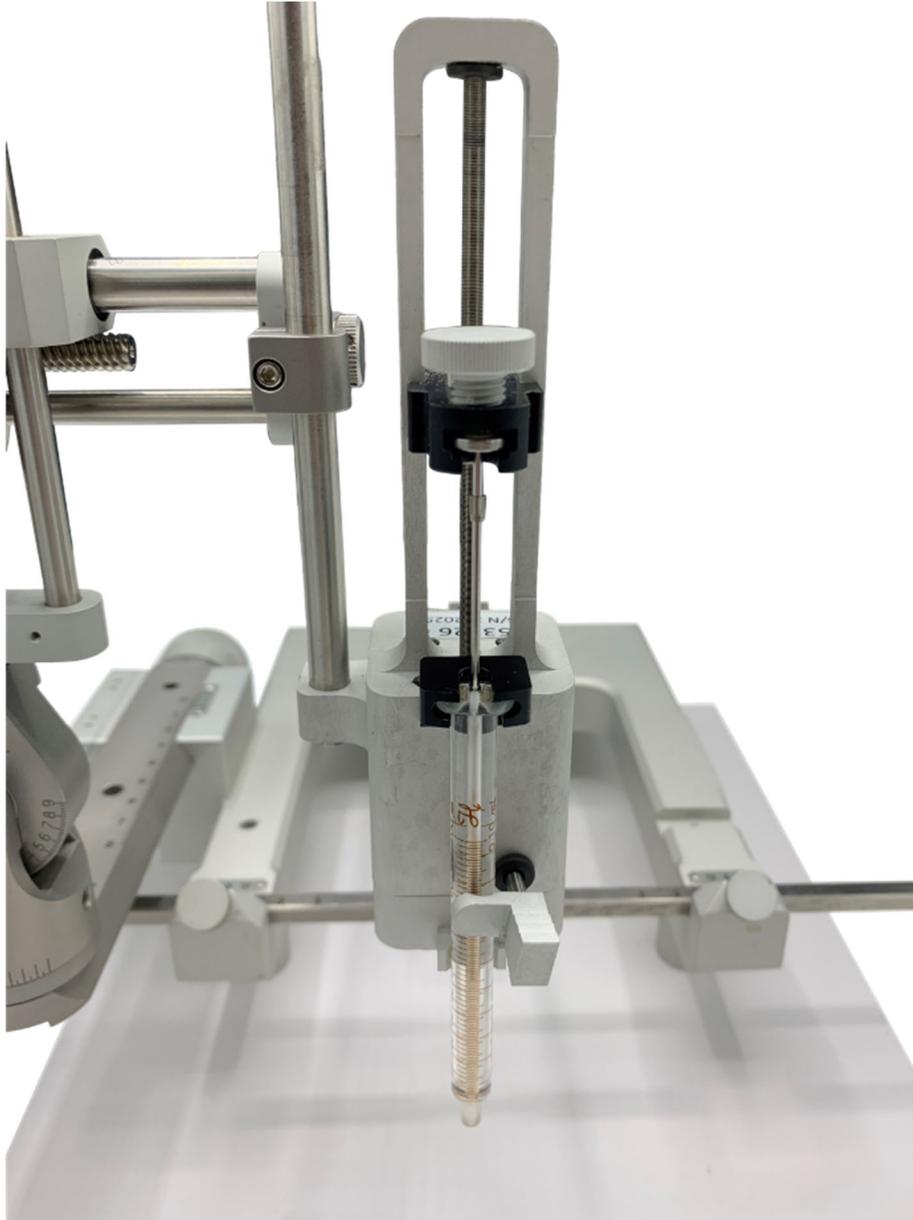
1. Adjust the position of the Plunger-Head Mount so that the distance between the Plunger-Head Mount and the Flange Mount matches the distance of the flange and plunger head of your syringe. You'll adjust this distance using the QSI Controller.
2. Loosen the Plunger-Head Screw
3. Twist the Spring-loaded piece of the Barrel Mount so that the Syringe Guide is clear, and the barrel of the syringe is not impeded.
4. Simultaneously place the barrel of your syringe in the Syringe Guide, insert the syringe's flange into the Flange Mount and insert the syringe's plunger head into the Plunger-Head Mount. Your syringe should be perpendicular and straight in line with the QSI Head (see image above).
5. Pull and twist the Spring-Loaded Barrel Mount so that the groove of the mount sits on the syringe barrel. Once in place release the Barrel Mount to hold the syringe barrel.
6. Tighten the Plunger-Head Screw onto the plunger head. The plunger should remain straight.

Attaching the QSI Head to the Stereotaxic

Stereotaxic Mount. The QSI Head is attached to the stereotaxic using our standard, universal Probe Holder Attachment. The one-screw design makes for quick and secure attachment.



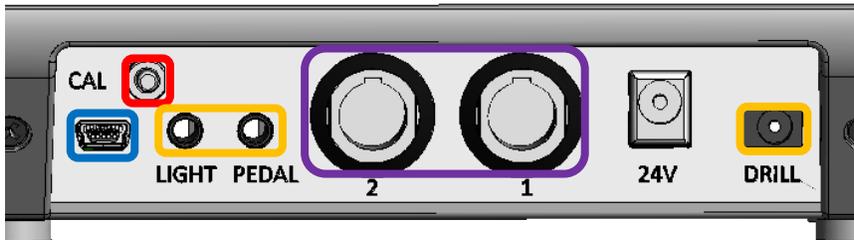
Hex Screw Adjustment. Use the Hex-Screw Adjustment (see image above) on the Probe Holder Attachment to position the QSI Head. We suggest the QSI Head be mounted in the orientation shown in the image below, but the QSI can be rotated, lifted, or lowered to meet your specific requirements. Loosen the hex screw to position the QSI and then tighten it again when properly adjusted.







2. Connect cables to the control box



Ports Defined:

Cal = Pressing this during power up will enable screen calibration mode

USB = This port is only used for production programming

Light = LED light

Drill = Drill output port

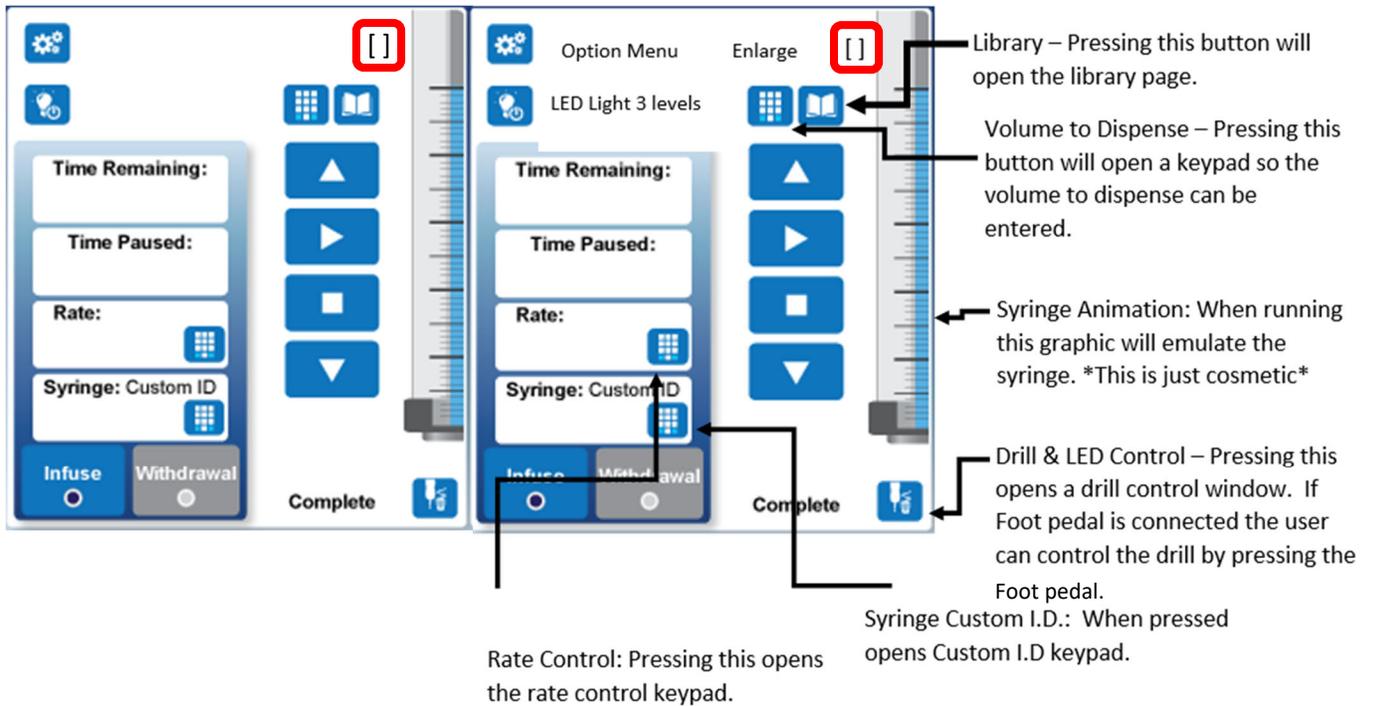
Pedal = Drill control with foot pedal.

1 & 2 = QSI Syringe control ports

24V = Power Input



3. Know your Controller display



4. Choose Single or Dual mode

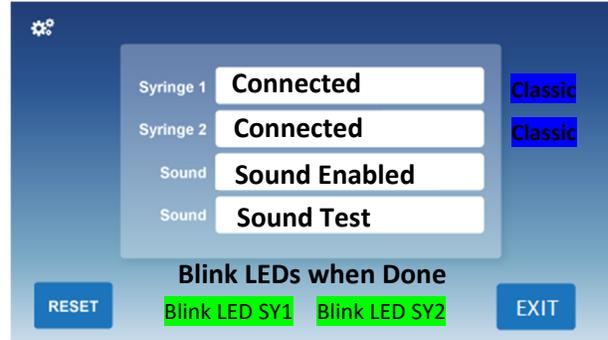
The controller display has two models, to accommodate Single or Dual QSI injector head connection. The Single Syringe screen has the same function as the Dual (dual injector heads) Screen. Single screen is preferred for single injector head. Shown in the picture above is dual mode.

To temporarily change between single and dual modes, simply tap on the “[]” (see above. Left for syringe 1 and right for syringe 2). You should be able to change to single mode (see bottom picture on the next page. Similarly, tap the “[]” on the single mode will switch the display to dual mode.)

Setting **default mode**: tap  on the top left corner on the dual mode or  on the single mode.



A syringe selection screen will appear. Please indicate how many and which syringe (injector) is connected on the back panel of the controller box (see page 5)



Classic model is for the older Stoelting injector without the LED option. If you are using an old injector head, tap the bottom and it will highlight as **Classic**

Classic

Blink LED SYS1, SYS2 = LED will blink when finished with the injection.

Reset: Pressing the RESET button will reset the library back to the factory default. The system will go through a RESET sequence and take about 1 minute to finish.

5. Syringe Set-up:

- You can choose syringe settings from the built-in library. You will find many frequently used syringes models are included in the library for the ease of use. To access the library, please tap library icon  for library control screen (below)





→Select syringe size (example.5uL, highlight pink)

→Choose available syringe from library.

- **Saving a Custom Syringe** (for specific syringes that are not built in the library)

→Select syringe size

→Press one of the Custom locations

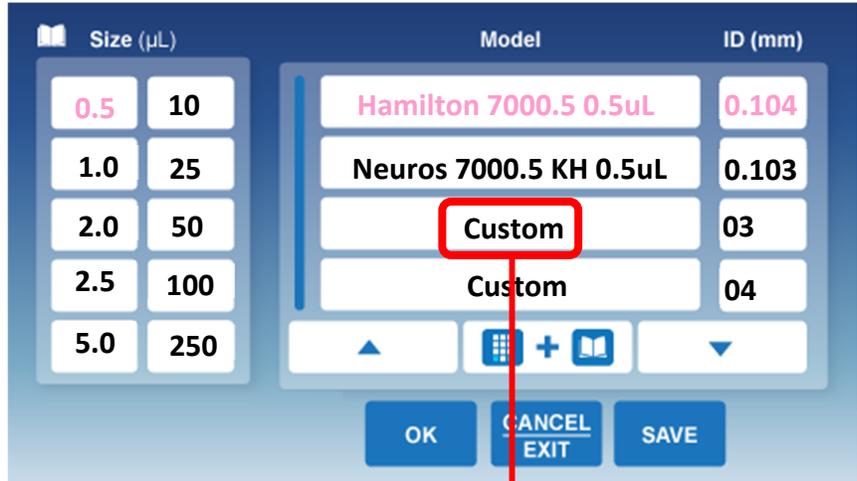
→Press the + icon (a keyboard window will open)

→type in syringe name and SAVE

→type in I.D. (mm) of the syringe and SAVE (this will bring you back to the Library Control Screen and you will see your custom syringe highlighted)

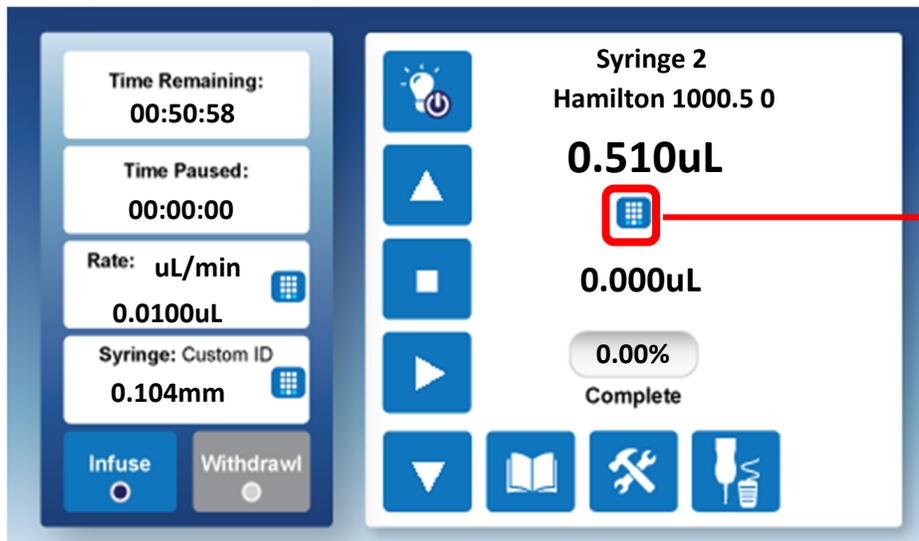
→press SAVE to save the syringe profile inside internal Memory

→OK



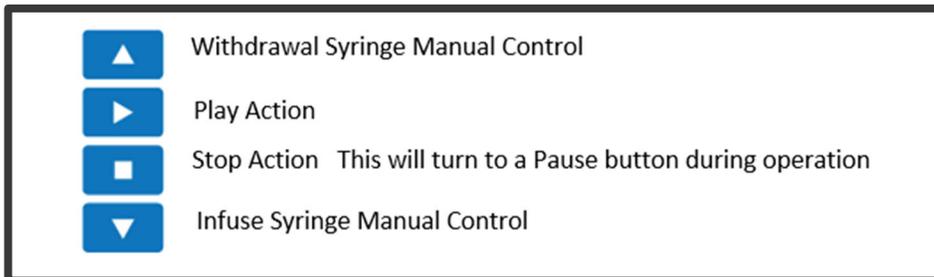
6. Injection Set-up:

Picture shows Single screen control (recommended for single injector head use):





- Each keypad icon  on the display represents an option to open the keypad to enter parameters.
- When the corresponding button is pressed, a keypad will pop up so the value can be entered. The **SAVE button** must be pressed to save the value entered. To return to the main screen press the Exit button.
- The MAX and MIN values will be displayed so the user knows the limits of the syringe and injector. If an incorrect value is entered an Error message will pop up. Max and Min values are calculated based off the Syringe's ID (Inside Diameter).
- **Actions bottoms:**



7. Accessories:

Drill, drill holder, and drill Bits: 51555M
Foot Pedal: 52701F



8. Troubleshooting Guide:

- Screen does not turn on.
 - Make sure the correct 24v power source is plugged in
 - Make sure the connection is secure
 - Toggle the power switch
- Screen does not register finger presses.
 - Power OFF the device
 - While OFF, hold down the CAL button at the rear of the device
 - While holding down the CAL button, power on the display and continue to hold the button as it turns on
 - Once the device is on, let go and calibration should begin
- Syringe seems to be moving in the opposite direction that is select.
 - In the option menu make sure the correct syringe model is selected. If you have the older syringe injector, make sure you select classic. If you have the new syringe, (with the 3 LED under it) make sure classis is NOT SELECTED.

9. SPECS:

- Power Supply:

Manufacturer Product Number SDI65-24-UD-P5R

Description AC/DC DESKTOP ADAPTER 24V 65W

Approval Agency CB Scheme, CCC, CSA, EN, FCC, IEC, PSE, RCM, UL

- Syringe Range
 - Maximum Diameter: 3.0 mm
 - Min Diameter: .103 mm
 - Number of syringe Channels: 2
 - Number of LED Channels: 3
 - Drill Control: 1