

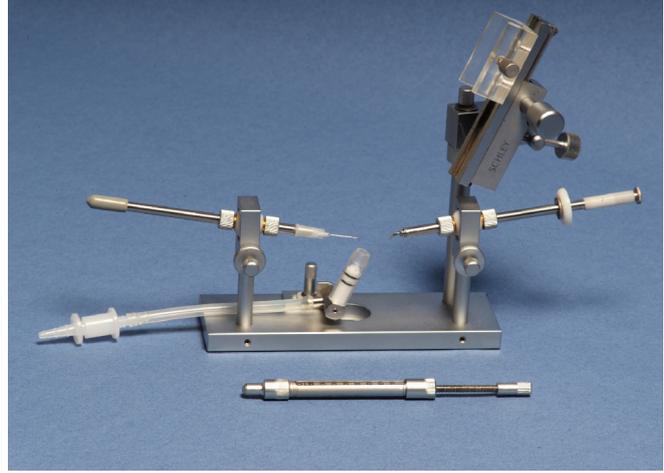
HONEY BEE INSEMINATION SERVICE
SCHLEY INSTRUMENTS

honeybeeinsemination.com

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STANDARD MODEL I02



ECONOMICAL MODEL I01

The Schley Insemination Instruments are precision machined, highly adjustable and provide precision in fine and accurate movements with high repeatability and low maintenance. The instruments consist of a sturdy base supporting; ball & socket assemblies to provide smooth movement of hooks – a ventral hook and pressure grips forceps or perforated sting hook; a syringe manipulator and syringe; and a queen holder assembly - including the set of queen & backup tubes. Parts are made of stainless steel material and the base is brass with a plated finish. The choice of various types of syringes can be used with both models: the standard Schley syringe, The Harbo large capacity syringe and the Schley modified Harbo - type of syringe.

STANDARD MODEL I02

The standard Model 102 instrument has a heavy, sturdy base for stability. The ball & socket hook holder assemblies are heavy duty with moveable columns for easy adjustments. The queen bee holder assembly is also moveable for easy adjustments. The instrument comes with the forceps pressure grip hook and the standard Schley syringe, unless otherwise specified. The perforated sting hook and the standard Harbo large capacity syringe are compatible and available.

ECONOMICAL MODEL I01

The Model 101 instrument is lighter in weight, has a flat base that can be securely screwed in place for stability. The ball & socket hook holder assemblies are smaller with fixed columns in perfect alignment. The queen bee holder assembly is simplified, although adjustable. Choice of sting hooks - the forceps pressure grip hook or perforated sting hook are available. Choice of the syringe type is also available - the standard Schley syringe or the Schley modified Harbo - type of syringe. The standard Harbo large capacity syringe is also compatible and



STANDARD MODEL I02

Basic Instruments Parts

Both Instrument models have similar functional parts.

- 1 - Stand base
- 2 - Left support post with hook holder, ball bearing block
- 3 - Right support post with hook holder, ball bearing block and syringe manipulator.
- 4 - Queen holder assembly with CO₂ connection
- 5 - Schley Insemination syringe with glass tip
- 6 - Micromanipulator drive for the syringe
- 7 - Ventral hook
- 8 - Pressure grip forceps hook with press button control

To clean the instruments use a damp cloth with alcohol.



The Schley large capacity syringe (modeled after the Harbo syringe)

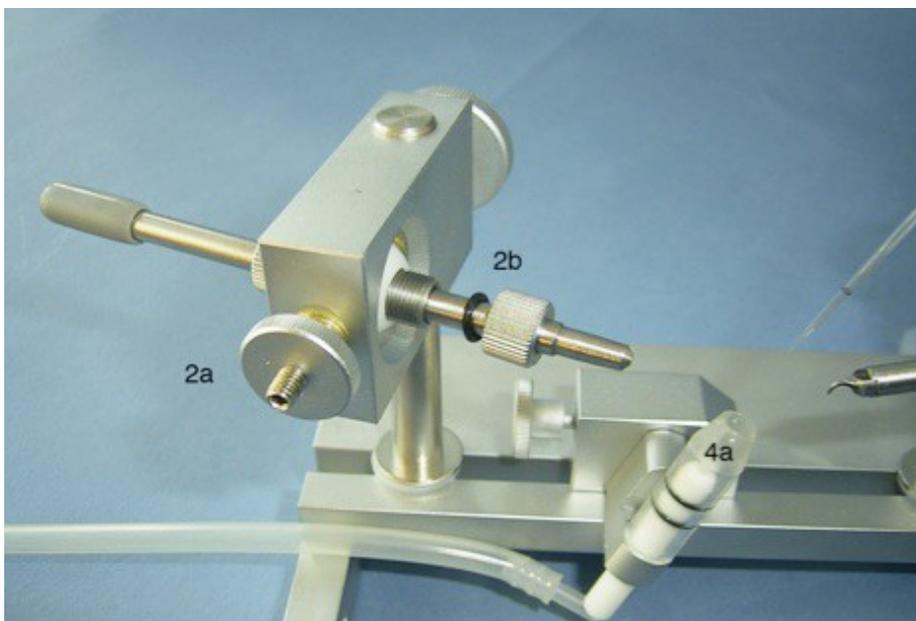
To measure the semen dosage in the 1 cm glass tube, a single or partial rotation equals:

$$\frac{1}{2} = 6 \mu\text{l}$$

$$\frac{3}{4} = 8-9 \mu\text{l}$$

$$1 = 12 \mu\text{l}$$

The Harbo Large Capacity Syringe (not pictured) has a micrometer to accurately measure the semen dosage. The tip connection provides flexibility of the tip. This syringe is compatible with both instruments. Please see the instruction manual for details.



Tension Adjustment of the Hooks, Model 102

2a: Screw to adjust tension on the ball.

2b: Two O Rings secure each hook. Grease these with silicone.



Tension Adjustment of the Hooks, Model 101

To adjust the ball tension for the hook holder block - Loosen the screw, press down on the block support and tighten at the desired tension.

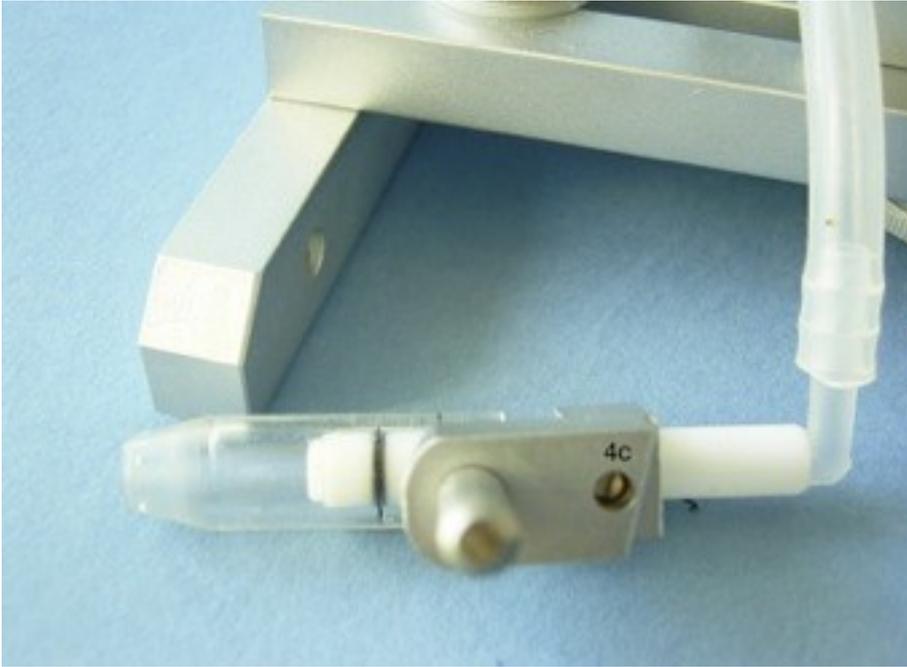


Height Adjustment of Queen Holder Tube, Model 102

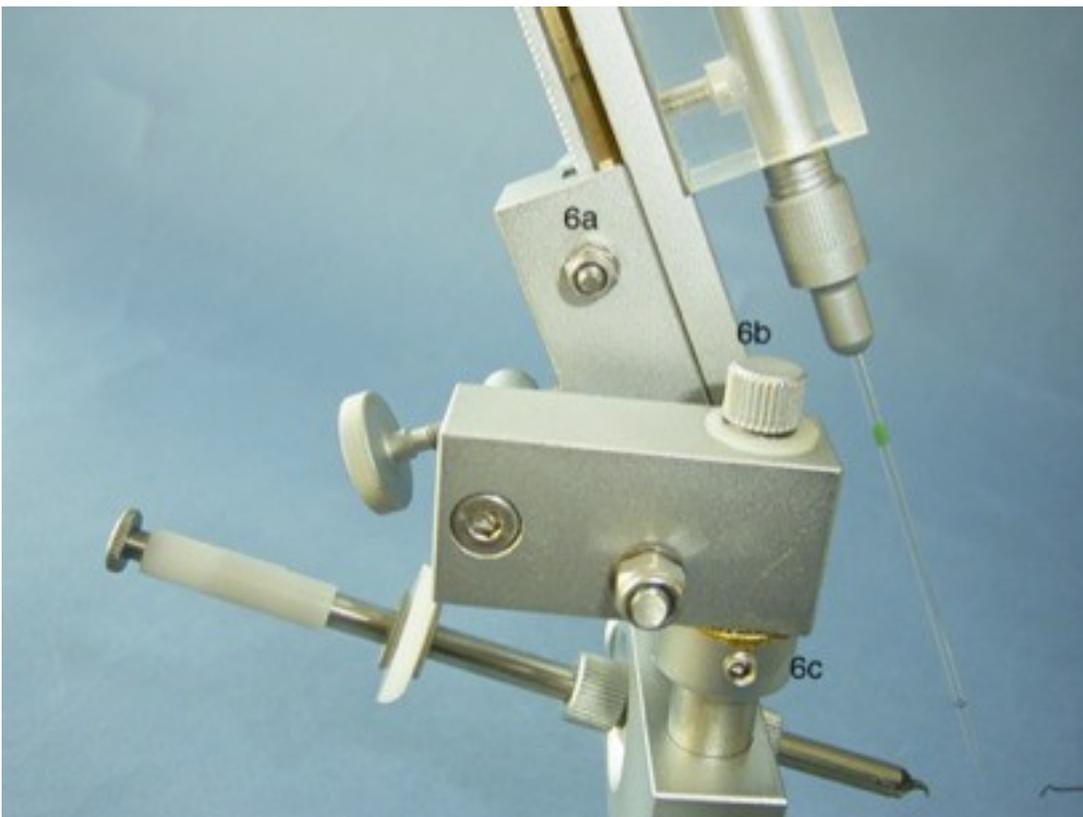
4a: The CO₂ delivery tube is adjustable in height.

4b: The queen holding tubes are made of acrylic.

Clean queen tubes with soap and water.



4c: The height of CO₂ delivery tube is adjustable in height, secured by the set screw in the Model 102 instrument.



Syringe Drive Tension Adjustment

6a: To adjust the syringe drive tension - Turn this nut counterclockwise to tighten and clockwise to loosen.

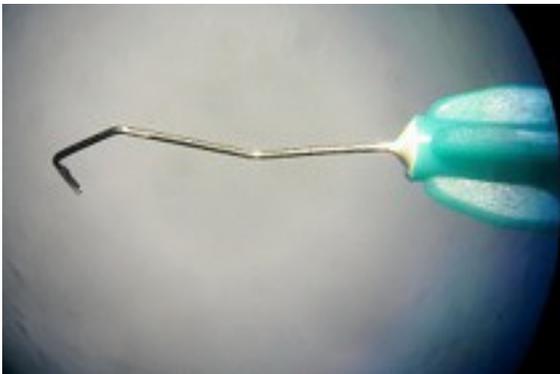
6c: Block support ring. Do not adjust too tightly.



6b: The lock washer under the screw reduces the rotary motion. The side screw serves this same function.

Ventral hook.

Clean with alcohol



Dorsal Perforated Hook.

Clean with alcohol



Dorsal Pressure Grip Forceps

Clean with alcohol and dry.

For storage, coat with silicone grease.



To adjust the Micromanipulator syringe drive tension in the standard older model instrument (which lacks the 6a adjustment screw):
Remove the drive screw and place pressure on the spring disk while tightening the set screw.