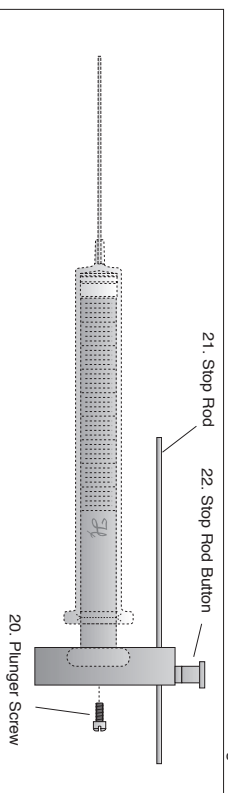
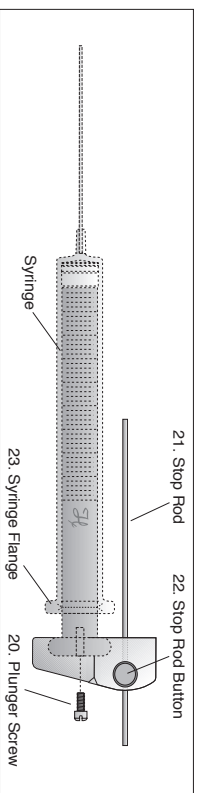


INSTALLING CHANEY ADAPTER Part Number 14340

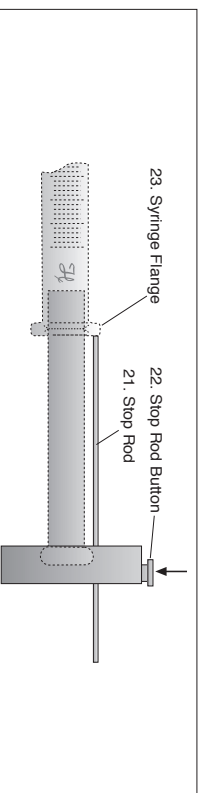
Install Chaney Adapter (part number 14340) on any Hamilton Series 1000 GASTIGHT™ syringe.

Follow these steps to install the Chaney adapter (part number 14340). Refer to Figures 8-10 for part numbers (in parentheses) in the text.

1. Attach the Chaney adapter to the syringe's plunger button with the plunger screw (20) (Figures 8 and 9).



2. Set and hold the plunger at the desired syringe volume (Figure 10).
3. Adjust the stop rod (21) to the predetermined volume by first loosening the stop rod button (22) (turns counterclockwise). Press in the stop rod button, and move the stop rod up or down so that it just contacts the syringe flange (23).



4. Tighten the stop rod button to secure the stop rod.
- To operate the Chaney adapter:
1. Withdraw the plunger to overflow the syringe, and press the stop rod button (22).
 2. Push the plunger forward until the rod contacts the syringe flange.
 3. Release the spring-loaded button, and push the plunger forward to dispense the syringe contents.

ORDERING INFORMATION

Description	Part Number
Chaney Adapter (for 1800 Series GASTIGHT or 800 Series MICROLITER Syringes)	32146
Chaney Adapter (for 900 Series MICROLITER Syringes)	32148
Chaney Adapter (for 1000 Series GASTIGHT Syringes)	14340
Stop Collar Set Screw for Part Numbers 32146 and 32148	16204

RETURN OF GOODS

Hamilton Company's return and repair policy is written to protect its employees from potentially hazardous materials (eg. serum, radioactive materials, carcinogenic chemicals, etc.) or any substance that may cause them partial or permanent disability during the inspection or repair process. In returning a product, the customer acknowledges that the product is free from any hazardous materials. Furthermore, the customer assumes responsibility should the returned product be determined to be hazardous.

GASTIGHT is a trademark of Hamilton Company.

HAMILTON
THE MEASURE OF EXCELLENCESM

Hamilton Company 4707 Energy Way Columbia, PA 17211 USA Tel: +1-717-856-8990 Fax: +1-717-856-7299 Telephone: +1-717-858-3000 e-mail: sales@hamiltoncompany.com	Hamilton Bonaduz AG CO, Box 25 Bonaduz/Svitooland CH-7650 Bonaduz Tel: +41-81-660-0070 Fax: +41-81-660-0070 e-mail: hamcomp@bonaduz.hamilton.ch
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CHANEY ADAPTERS

Part Numbers 32146, 32148, and 14340

Congratulations! You have purchased the finest quality precision fluid management device available today. We at Hamilton Company combine top quality materials with skilled workmanship, ensuring the highest possible performance level of every precision fluid device we manufacture. With proper care and handling, Hamilton's Chaney adapters will provide unsurpassed performance in precision liquid handling year after year.

The Hamilton Chaney Adapter is a device that assures repetitive and identical syringe plunger location. It eliminates subjective errors when setting a syringe plunger at a specific volume.

Hamilton Company manufactures several types of Chaney adapters for various applications and syringe models. Each reproducibility adapter is available as an optional accessory for syringes purchased separately.

When you select a syringe for installation into a Chaney adapter, Hamilton recommends that the maximum pre-set volume not exceed 80% of the total volume of the syringe. This will facilitate greater ease when handling the syringe. By using 80% or less of the syringe's scale length, the overall length of the syringe (with the Chaney adapter attached) is less cumbersome. Furthermore, the overflow-stop-inject sequence is quicker.

NOTE: While a Chaney adapter insures repetitive plunger placement, other conditions may affect sample volume delivery: sample viscosity, syringe and needle size, temperature, rate of injection, syringe filling techniques, and the condition of the syringe. Also, the Chaney adapter will not prevent plunger bending that may result from an improperly maintained syringe.

WARRANTY STATEMENT

Hamilton Company unconditionally guarantees its products to be free of defects in materials and workmanship. Any product which fails due to such defects will be repaired or replaced at our discretion without cost, provided the device is returned with an explanation. It is the Chaney of the purchaser to determine the suitability of application and material compatibility of the products based on the published specifications of the products.

Syringes and needles manufactured by Hamilton Company are intended for scientific research and laboratory use only and are not intended for human in vivo use.

INSTALLING CHANEY ADAPTER Part Number 32146

Install Chaney Adapter (part number 32146) on any Hamilton Series 800 MICROLITER syringe, or any Hamilton Series 1800 GASTIGHT™ syringe. This model uses a collar and a rod plunger assembly to control volume. The rod plunger assembly replaces the standard plunger assembly.

Follow these steps to install the Chaney adapter (part number 32146). Refer to Figures 1-4 for part numbers (in parentheses) in the text.

1. Unscrew the syringe barrel (1) from the holder assembly (2). This will expose the plunger (3).
2. Unscrew the plunger (3) from the plunger stem (4) being careful to not misplace the PTFE and metal washers (if present).
3. Loosen the friction screw (5), and remove the plunger stem (4).

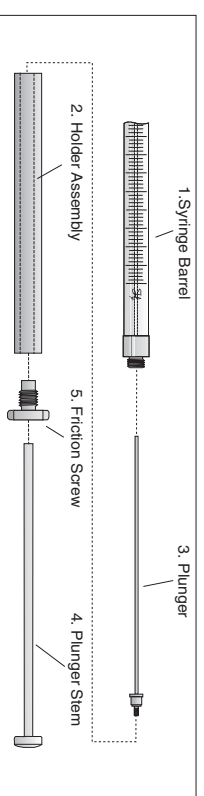


Figure 1

4. Push the new plunger stem (6) through the holder assembly, and retighten the friction screw (Figure 2).

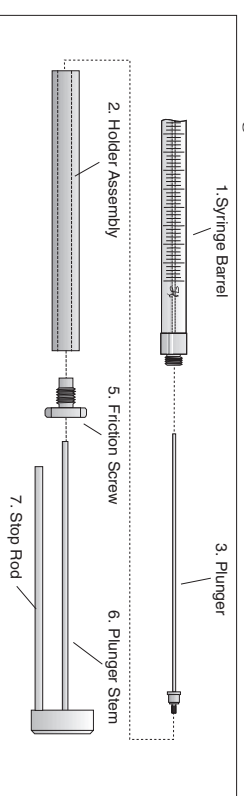


Figure 2

5. Reassemble the PTFE and metal washers (if present) onto the syringe plunger, and thread the plunger onto the plunger rod.
- NOTE: Be sure to pre-wet the PTFE plunger tip of a GASTIGHT syringe before installing the plunger into the syringe barrel.**
6. Insert the plunger into the barrel and thread the syringe barrel into the holder assembly (Figure 3).
 7. Loosen the screw (9) on the stop collar (8), and slip the collar over the syringe barrel and onto the holder.
 8. To set the desired delivery volume:
 - a. Pull out the plunger to the required volume. Bring the collar in contact with the stop rod (7) (Figure 4).
 - b. Tighten the stop collar screw (9).

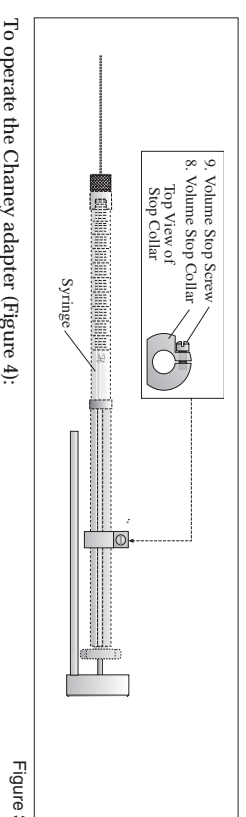


Figure 3

To operate the Chaney adapter (Figure 4):

1. Overfill the syringe.
2. Slightly rotate the plunger so the stop rod (7) collides with the stop collar (8).
3. Again rotate the plunger so the stop rod clears the stop collar.
4. Inject your sample.

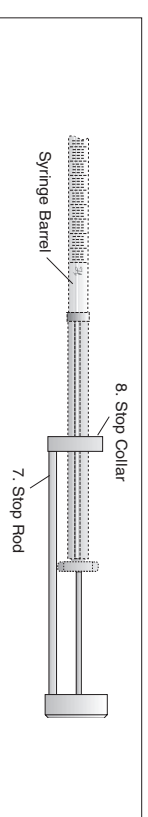


Figure 4

INSTALLING CHANEY ADAPTER Part Number 32148

Install Reproducibility Adapter (part number 32148) on any Hamilton Series 900 MICROLITER syringe. This model uses a collar and a stop rod assembly to control volume. Follow these steps to install the Chaney adapter (part number 32148). Refer to Figures 5, 6, and 7 for part numbers (in parentheses) in the text.

NOTE: DO NOT handle the plunger shaft with your fingers. Oils and dirt from your skin may cause the plunger to freeze in the syringe. Wipe the plunger with a lint-free tissue.

NOTE: When installing Chaney adapters on several MICROLITER syringes at one time, do not interchange plungers. Plungers are not interchangeable.

1. With the plunger removed, place the syringe on a clean, dust-free surface.
2. Insert the plunger (10) into the Chaney adapter. With the plunger button (11) within 1/2" of the Chaney adapter block (12) tighten the plunger set screw (13) (Figure 5).

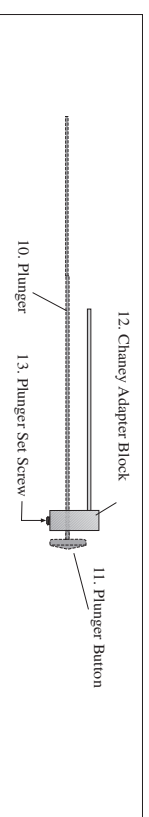


Figure 5

3. Loosen the stop collar set screw (15), and slip the stop collar (14) over the syringe barrel and onto the holder (16) (Figure 6).

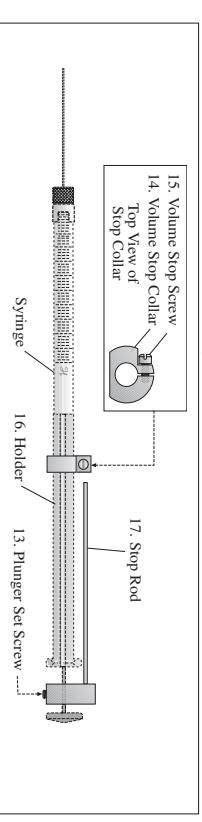


Figure 6

4. After wiping the plunger with a lint-free tissue, insert it into the syringe barrel.
5. To set the volume, pull out the plunger until you can read the required volume. Bring up the stop collar until it just touches the stop rod (17). You may need to rotate the syringe so the stop rod will contact the wide part of the stop collar (Figure 7).

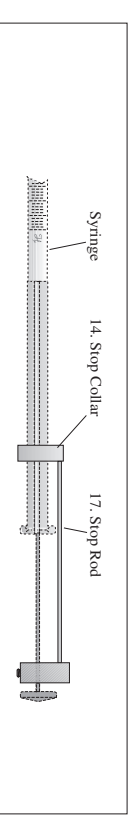


Figure 7

6. Tighten the stop collar screw (15).

To operate the Chaney adapter:

1. Overfill the syringe.
2. Rotate the plunger so the stop rod (17) collides with the stop collar (14).
3. Again rotate the plunger so the stop rod clears the stop collar.
4. Inject your sample.