Product Instructions: 25 mm & 13 mm Discrete Sample Cuvette Holder Set (Part No. 10-AU-030) AND 25 mm Discrete Sample Cuvette Holder (Part No. 10-AU-027)

## **PACKING DATA**

- 1- 25 mm cuvette holder body (cylindrical, black body with one rounded side and three flat sides containing windows).
- 1- 13 mm cuvette holder body (fits inside 25 mm holder body). (10-AU-030 only.)
- 5- 13 x 100 mm borosilicate cuvettes. (10-AU-030 only)
- 5- 25 x 150 mm borosilicate cuvettes.
- 1- Tall Light Cap
- 1- Short Light Cap (10-AU-030 only)

### You will also need:

- 5/32" Allen wrench.
- You may need to order quartz cuvettes (for applications with excitation wavelengths shorter than 340 nm).
- You may need a small amount of silicone lubricant.

#### A. Removing an older cuvette holder or flowcell:

(Refer to the figures at the end of these instructions for locations of various components.)

- 1. Turn off the power and drain the system (if the continuous flow system is being used). If present, remove all connections from the Intake and Exhaust Fittings (see Figure 2).
- Remove the 8 socket cap screws that retain the Sample Compartment Cover. If the gasket under this cover sticks, remember that it is glued to the <u>cover</u>. Inserting a thin knife gently between the gasket and the Sample Compartment Casting should be sufficient.
- If you are switching <u>applications</u> (i.e., from rhodamine to chlorophyll, etc.), note that you will have to readjust the Sensitivity Adjustment Knob and switch the lamp. Please refer to your Model 10-AU user's manual.
- Note on lamps: Note that readings on a given fluorometer are affected by the unique properties of the individual lamp installed. If the lamp has been installed and you want to maintain calibration, you should mark the lamp so that it may be returned to its original position. A dab of nail polish on the lower base of the lamp works well. However, the lamp does not need to be removed to install cuvette adapters.

# 4. Cuvette Holder Removal

- a. Using the Allen wrench, loosen the Upper and Lower Set Screw, <u>making sure</u> they are no longer extending into the flow cell chamber.
- b. If the 10-AU-030 (13 & 25 mm Cuvette Holder Set) or the 10-AU-027 (25 mm Cuvette Holder) is in place, push the cuvette holder out through the opening in the top of the sample compartment.
- With the 10-AU-030 (13 & 25 mm Cuvette Holder Set), if you are simply changing from 25 mm discrete samples to 13 mm discrete samples, or vice versa, then the 13 mm holder slips inside the 25 mm holder. To ensure proper alignment, the metal pin on the top lip of the 13 mm portion fits into the groove on the top lip of the 25 mm body.
  - c. Wipe up any spilled liquids.



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## 5. Continuous-Flow Cuvette System (One-Piece) Removal (See Figure 2)

- a. Remove any plumbing adapters from the upper part of the flowcell.
- b. Using the Allen wrench remove the handle mount and disconnect the temperature probe from the connector on the instrument.
- b. Using the Allen wrench, loosen the Upper Set Screw and the Lower Set Screw.
- c. Carefully push the entire flow cell down and out through the bottom opening of the instrument. Both ends of the flow cell body are sealed with large O-rings, so the body will be snug. Rotate the flow cell body gently to free it, and if necessary for removal, use a little silicone lubricant, or remove the O-rings.
- Wipe up any spilled liquids. If any old desiccant bags are in place, remove and discard them.

# B. 25 mm & 13 mm Cuvette Holder Installation (10-AU-030)25 mm Cuvette Holder Installation (10-AU-027)

- When taking discrete readings with the cuvette adapter, the Light Cap must cover the opening in the top of the Sample Compartment and any test tube samples to get accurate readings.
  - 1. Locate the larger diameter long cylinder. Note that it has an o-ring on each end to ensure a snug fit. If necessary, lubricant the o-rings with a small amount of silicone lubricant.
    - Orient the holder so the rounded side is facing to the left, farthest from the lamp. If oriented correctly, the word FRONT should be inscribed into the side of the adapter facing you. Insert the adapter into the top opening of the sample compartment and push down until the upper lip is flush with the top opening. Center the oval slits from top to bottom inside the compartment, and make sure the front face is precisely parallel to the front of the instrument. One oval slit should be precisely parallel to the lamp, and another parallel to the back of the instrument.
  - 2. Tighten the Lower Set Screw <u>only</u> so it is snug, but do not over-tighten. <u>DO NOT TIGHTEN</u> the upper set screw; it may damage the holder. Just tighten it enough to clear the sample compartment cover and leave it loosely in place.
  - T change from the 25mm to 13mm adapter, simply insert the smaller diameter piece inside the larger piece, and align it by slipping the metal pin on lip of the 13 mm portion into the groove on the lip of the 25 mm portion.
  - 4. Put the Sample Compartment cover in place and install all 8 socket cap screws very loosely. Progressively tighten all screws until they are snug, but not dead tight. Verify that the excitation and emission filter paddles are in position and properly secured.
  - 5. If you have changed cuvette size you will have to readjust the Sensitivity Adjustment Knob. (See the Model 10-AU user's manual.)
  - 6. Calibrate the fluorometer. (See the Model 10-AU user's manual).



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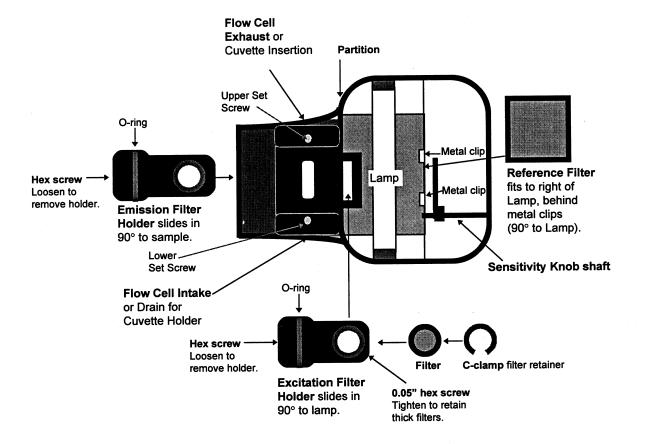
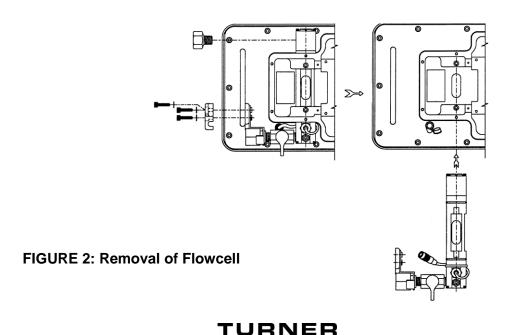


FIGURE 1: Sample Compartment with Cover Removed



**DESIGNS**