

Sample Probe Replacement 3D3700

Reference: Use this instruction with replacement part 3D3700 (stainless steel) or 4D3102 (non-metallic), and any of the following models of Advanced Instruments, Inc. or Fiske Associates® osmometer or cryoscope:

Advanced Instruments Inc.

4250 Cryoscopes (Serial Suffix E - W)
4D3 Cryoscopes (Serial Suffix E - W)
3250 Osmometers (Serial Suffix C - T)
3D3 Osmometers (Serial Suffix C - T)

Fiske Associates

Mark 2 Cryoscopes
Mark 3 Osmometers

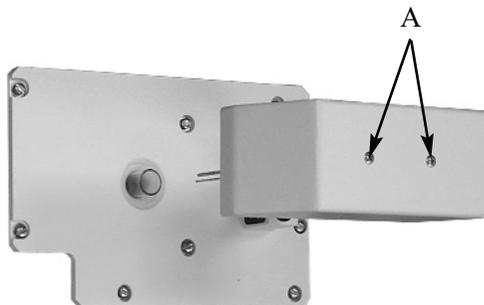
Tools Needed: Phillips screwdriver, flat-bladed screwdriver, probe alignment tool and instructions (included).

CAUTION: Improper connections may cause damage to the instrument.

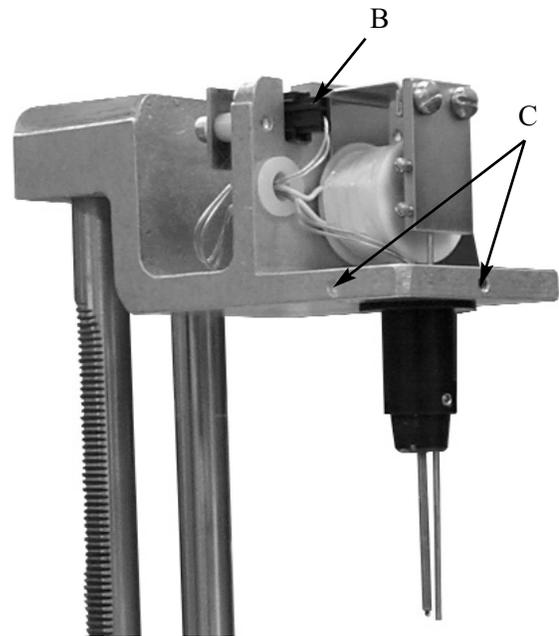


Instruction:

1. Place an empty sample tube in the freezing chamber to catch any extraneous material that might fall in.



2. Turn off the power and unplug the instrument.
3. Remove the two screws from the head cover (A) and lift off the head cover.
4. Unplug the sample probe connector from the head transition board (B).
5. Loosen the two mandrel setscrews (C).



6. Lower the probe and mandrel together, down over the stir/freeze wire.
7. Push the connector and lead wires of the new sample probe up through the hole in the sample head, and raise the mandrel so that the stir/freeze wire extends down through the stir/freeze wire channel in the mandrel.



**ADVANCED
INSTRUMENTS, INC.**

Two Technology Way / 781-320-9000
Norwood, Massachusetts 02062, USA
800-225-4034 Fax: 781-320-8181
www.aicompanies.com

For additional information or technical assistance,
please contact Advanced Instruments Hot-Line®
Service Center (U.S. 1-800-225-4034, outside North America +US 1-781-320-9000). (3255/4D35/MK05 Service Manual)

3DP700 Rev2
Page 1 of 2

8. Seat the mandrel firmly up into the mandrel hole, with the stir/freeze wire channel perpendicular to the front edge of the chassis and no gaps between the flange and the underside of the chassis.
9. Without overtightening (*overtightening can damage the mandrel*), re-tighten the two mandrel setscrews to hold the mandrel in place.

Note: The probe length is factory-adjusted to the mandrel, and should not require further adjustment.

10. Use the probe alignment tool and instructions to properly position the probe and stir/freeze wire.
11. Plug the sample probe connector into the head transition board.
12. Arrange the probe leads so that they will not touch the clapper or be pinched by the head cover, and replace the cover.
13. Plug in the power cord and turn on the instrument.
14. Set the sample bin number (see the following procedure).
15. Calibrate the instrument. (Recalibration is required each time the sample probe is replaced.)

Set Sample Bin Number

1. If there is a Supervisor/Operator keyswitch, turn it to the Supervisor position (if required).
2. Press **TEST**. Press < or > to select “**Probe Bin Test**”, and then press **START**.

3. Place a sample of Probe Bin-Setting Fluid into the freezing chamber.
4. At “[**START**] Ready?”, press **START**.
5. At the end of the test, record the sample probe resistance and the bin number, and then press **STOP**. The display will change to “**Probe Bin Test**”.

To set the correct sample bin number, follow steps 6-8.

If the current sample bin number matches the number just recorded, press **STOP** *twice* to exit the menu.

6. Press **SETUP**. The Supervisor/Operator keyswitch must be in the Supervisor position.
7. At “**Select Setup Item**”, press < or > to select “**Select Sample Bin #**”, and then press **START**.
8. If the current sample bin number is not the same as the one recorded in step 5, enter the correct number, press **ENTER**, and then press **STOP** *twice* to exit the menu.