

BIOCHROM ANTHOS FLUIDO 2

DEFINING A PROCEDURE



1. Fill wash and rinse bottles with appropriate solutions Up to three wash bottles can be connected to the instrument.
2. Connect waste, rinse and wash (1, 2 and/or 3) bottles to the instrument using the color-coded tubing. Ensure that the tubing is clean and secured to the bottles as well as to the port at the back of the instrument (e.g. Wash 1 is connected to Wash 1 port on the back of the instrument). Check the levels of fluid in each of the bottles.
 - ✓ It is critical not to run the instrument dry.
3. Connect the instrument to the power source. Turn on the instrument.
 - ✓ Please consult the user's manual for important safety information.
4. The main menu is displayed upon start-up. Selections in the display can be made by using the keypad directly below the screen (fig. 1). Options within the main menu:

Run Procedure>Prime/Rinse>Def Procedure>Def Cycle>Def Plate>Setup>Service

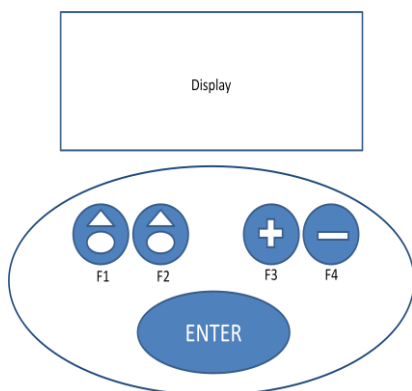


Figure 1. Fluido 2 Keypad and Display

The keypad is used to select choices that are presented on the screen directly above the key. For simplicity, keys will be referred to as F1-F4 from left to right. To select option, highlight with the cursor and press enter. To opt out of any menu, press the key below **esc** (escape). To return to the previous option press the key below **<<**.

5. Before entering **Define Procedure**, the plate and cycles must be defined.
6. Select **Def Plate** in main menu. Press enter to confirm each setting:
 - >**Name**: scroll through alphanumeric menu using the F3 and F4 key. Use the F2 key to select.
 - >**Plate format**: (8-, 12- or 16-strip) strip refers to rows in the plate
 - >**Well shape**: flat or round bottomed.

The selection of flat-bottomed plate opens the menu for cross-wise aspiration. We recommend this feature for the most complete aspiration.

>Flat: Cross-wise Aspiration

Cross-wise aspiration is a process whereby the aspiration needles touch down first at the front of the well and then lifts up slightly before moving across the well and then touching down at the back of the well, thus the front of the well and the back of the well must be defined. The needles aspirate fluid during the entire procedure:

>Side Position Front

>Side Position Rear

- ✓ ▼ (F1) key moves the needle to the current vertical position.
- ✓ **Mov** (F2) key moves the needles to the current horizontal position.
- ✓ F3 and F4 keys change the horizontal position in increments of 0.1 millimeters (mm). Positive increments move the plate back so that the manifold is closest to the front of the well, negative increments moves the plate forward so that the manifold is closer to the back of the well.
- ✓ Enter to confirm choices.

>Round

If a round bottom plate or a 384-well plate is selected then the aspiration needle touches down only in the centre of the well.

>**Center Position:** The center position is set identically to the side position front and rear.

>**Aspiration ht:** Next, the aspiration height will be set.

F1 key and the aspiration needles will go down to the bottom of the well and stop. F3 and F4 keys to move the vertically.

Note: Do not set the aspiration height at the very bottom of the well but rather a 0.3 mm above the bottom to avoid scraping the needles on the bottom of the well.

>**Disp. Pos:** Position the manifold so that the dispense needle is near the centre of the well.

>**Bottom Disp Ht:** Defines vertical position only if bottom dispense is selected in the define cycle. Alternatively, select overflow. See fig 2.

>**Ovflow Disp. Ht:** Defines the vertical position only if overflow dispense is selected when defining the cycle. See fig 2.

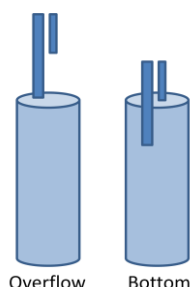


Figure 2. Needle Positioning in Wash Modes

Aspirating and dispensing needle positions in an overflow or bottom wash type. Note that in the overflow wash position, the needles hover above the well whereas in the bottom wash position the aspirating needle is in the well.

7. Define Cycle(s) to be used in procedure. Select **enter** to for **<new>** cycle.

>**Name**. Select F2 (**Chg**). Scroll through A-Z and 0-9 using the F3/F4 keys. Use F2 (**Sel**) to select letter or number. Select enter to go to the next definition.

>**Aspiration Time** (up to 5 sec.) Time taken for each strip to be aspirated.

>**Aspir Speed** (low/medium/high) Aspiration speed can be adjusted to allow for more or less gentle aspiration.

>**Disp Volume**: 0-2000 uL in 50 uL increments

>**Disp Power (high/med/low)** Power can be adjusted for a more or less gentle dispense.

>**Wash Mode (Overflow/Bottom)**.

Overflow and bottom are two methods for washing the wells. During an overflow wash, aspiration does not occur until dispensing is completed because the aspiration needles hover above the well.

>**Shaking Time** (up to 10 sec in 1 sec increment)

>**Shaking Intensity (low/medium/high)**

>**Minimum Soak Time** (up to 1000 sec, 10 sec increment)

Note: If dispense is not desired simply select 0 for the volume. Likewise if shaking or soak is not desired, select 0 time.

8. Define Procedure

>**Name** Select F2 (**Chg**). Scroll through A-Z and 0-9 using the F3/F4 keys. Use F2 (**Sel**) to select letter or number. Select enter to go to the next definition.

>**Liquid** (Wash 1/2/3). Select the wash to use during the procedure.

>**Cycle1** (up to 8 per procedure) Select cycle(s) to be used.

>**Final Asp Time**. This option defines the time needed for the last aspiration

>**Final Asp Speed**. This allows you control the time of the final aspiration. Up to 5.0 sec/well

>**Processing Mode: Plate or Strip**. If strip is selected than each step of the protocol is executed in one strip before moving to the next. For example: aspiration, dispense, shaking and aspiration will occur one strip at a time. Alternatively, the entire plate is processed during each step before progressing through the program.

>**Is the Plate Inserted?** Prompts user to check if plate is inserted before procedure starts.

>**Ask Strip Nr**: This feature can be used to wash part of a plate separated by strip