

Title: Bio-Tek Elx808UI Automated Microplate Reader Standalone SOP

Approvals:

Preparer: ___ Ellery Raitt _____	Date ___ 28Feb05 _____
Reviewer: ___ Deb Audino _____	Date ___ 28Feb05 _____
Reviewer: ___ Sonia Wallman _____	Date ___ 28Feb05 _____

1. Purpose:

1.1. Operation of the Bio-Tek Elx808UI Automated Microplate Reader.

2. Scope:

2.1. Applies to the Bio-Tek Elx808UI Automated Microplate Reader for performing optical density testing on solutions.

3. Responsibilities:

- 3.1. It is the responsibility of the course instructor/lab assistant to ensure that this SOP is performed as described and to update the procedure when necessary.
- 3.2. It is the responsibility of the students/technicians to follow the SOP as described and to inform the instructor about any deviations or problems that may occur while performing the procedure.

4. References:

4.1. Bio-Tek Automated Plate Reader Operators Manual

5. Definitions:N/A

6. Precautions:N/A

7. Materials:

- 7.1. samples, standards and controls to be tested
- 7.2. micropipettor.
- 7.3. 96-well microplate (U, V, or flat-bottom wells are acceptable).

8. Procedure:

8.1. Preparation

- 8.1.1. Assemble samples to be tested. A minimum of 100µL for each well is required.
- 8.1.2. Load samples into microplate starting at the top left corner (location A1). Load proceeding samples down the microplate, B1, C1, D1, etc. Refer to Figure 1 for a map of the microplate.

8.2. Operation

- 8.2.1. Turn the power switch to the ON position (located on the rear of the right side panel). The equipment will perform a system self-test to verify that the components are operating properly and that the internal software has not been corrupted (less than one minute).
- 8.2.2. Press the **READ** key on the bottom right corner of the control pad or press the corresponding softkey for **READ** below the LCD display. See Figure 2.
- 8.2.3. Type in "01" to select assay number 01, Quick Read assay (if not already selected). Press **Enter** to continue.
- 8.2.4. Select either **Single** or **Dual** wavelength and press Enter.
Note: If Dual wavelength is selected, the previous wavelength setting for Single will be used for the measuring wavelength. The second wavelength will be the reference wavelength.

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- 8.2.5. Press the softkey corresponding to the wavelength to be used. Press **Enter**.
- 8.2.6. Type in the number of samples to be tested. The samples will be measured starting with well A1, then B1, C1, etc. If more than 8 samples were loaded, the machine will automatically move to column 2 and begin measuring at well A2.
- 8.2.7. Press **Enter** to continue.
- 8.2.8. Open the lid to the carrier and load microplate into reader. Well A1 must be located in the top left corner. See Figure 3.
- 8.2.9. Close the cover and press the **READ** key on the control pad.
- 8.2.10. When the reader has completed the measurements, data will automatically be sent to printer.
- 8.2.11. When finished, turn the power off.

9. Attachments:

- 9.1. Figure 1: Microplate Map
- 9.2. Figure 2: Control Pad
- 9.3. Figure 3: Loading a Microplate

10. History:

Name	Date	Amendment
Ellery Raitt	03Mar05	Initial release

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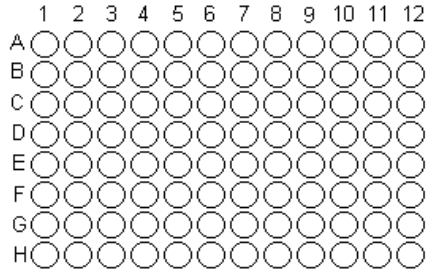


Figure 1: Microplate Map



Figure 2: Control Pad

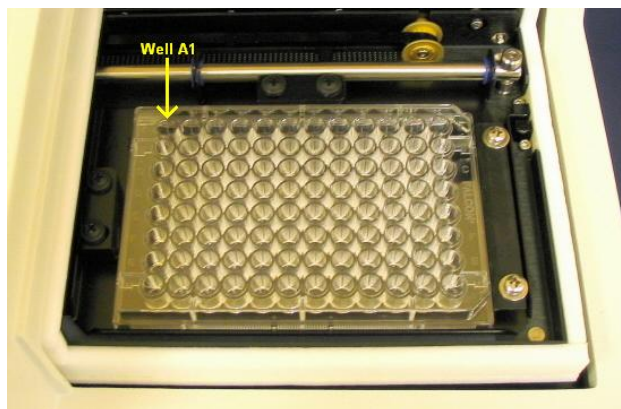


Figure 3: Loading a Microplate