

# Calibrating a Fluorescence or Absorbance Module

for the GloMax<sup>®</sup>-Multi+ Detection Systems

## INTRODUCTION

Factory-installed luminescence, fluorescence and absorbance heads are calibrated at the factory and do not need to be calibrated in the lab. However, if you purchase and install the Fluorescence or Absorbance Module separately or purchase a custom fluorescence optical kit, follow these steps to calibrate the module or fluorescence optical kit before the first use.

#### SUPPLIES

A calibration plate is provided with each detection module. One plate works for all fluorescence optical kits and the Absorbance Module.

#### PROTOCOL: FLUORESCENCE CALIBRATION

IMPORTANT: Throughout the calibration process, the Plate Adapter should be in the 96-well plate orientation, and the Microplate Sample Tray Cover should be removed until calibration is complete.

This protocol can be used to calibrate GloMax<sup>®</sup>-Multi+ Fluorescence Module (Cat.# E8051) with GloMax<sup>®</sup>-Multi Optical Kits (Cat.# E8917, E8921, E8922, E8923, E8924).

- 1. Using the touchscreen software, set up a fluorescence run and select the correct optical kit. Select only well A1 in the plate layout. **Note:** Each optical kit must be calibrated separately.
- 2. Insert the fluorescence optical kit.
- 3. Press the "Door" button. Verify that the Plate Adapter is in the correct configuration for 96-well plates and that the Microplate Sample Tray Cover has been removed. Insert the calibration plate with the notched corner of the plate inserted in the A1

position. Press the "Door" Button. Press the "Start" button.

- 4. The software will prompt you to calibrate the instrument. Press "OK" to open the door.
- 5. Press "Continue" to close the door and calibrate.

Position Calibration			
C There is a new filter installed. Press OK to open door and insert calibration plate.			
ОК			
Position Calibration			
Press Continue to close the door and calibrate.			
Continue			



6.	The calibration will occur automatically.	Position Calibration Calibrating instrument. Please wait
7.	Once the calibration is complete, you will be prompted to open the door and insert the plate for reading. Press "OK".	Position Calibration Press OK to open door and insert the plate for reading. OK
8.	<b>Leave</b> the calibration plate inside the tray and press "Continue" to read the plate.	Position Calibration Press Continue to close the door for reading. Continue

9. Repeat these steps for all new fluorescence optical kits.

## **PROTOCOL: ABSORBANCE CALIBRATION**

IMPORTANT: Throughout the calibration process, the Plate Adapter should be in the 96-well plate orientation, and the Microplate Sample Tray Cover should be removed until calibration is complete.

This protocol can be used for calibrating GloMax<sup>®</sup>-Multi+ Visible Absorbance (Cat.# E8061) and UV-Visible Absorbance (Cat.# E9061) Modules.

1. Using the touchscreen software, set up an absorbance run and select only well A1 in the plate layout.

**Note:** It does not matter which wavelength is selected before calibration. Calibration can be performed with any wavelength. A single calibration applies to all other wavelengths installed or on the filter paddles.

- 2. Press the "Door" button. Verify that the Plate Adapter is in the correct configuration for 96-well plates and that the Microplate Sample Tray Cover has been removed. Insert the calibration plate with the notched corner of the plate inserted in the A1 position. Press the "Door" Button. Press the "Start" button.
- 3. The software will prompt you to calibrate the instrument. Press "OK" to open the door.

Position Calibration			
<u>i</u>	There is a new filter installed. Press OK to open door and insert calibration plate.		
	ОК		



## **Application Notes AN184**

reading.

Continue

4. Press "Continue" to close the door and calibrate. Position Calibration Press Continue to close the door i and calibrate. Continue Position Calibration 5. The calibration will occur automatically. Calibrating instrument. Please wait... 6. Once the calibration is complete, you will be prompted Position Calibration Press OK to open door and insert to open the door and insert the plate for reading. i the plate for reading. Press "OK". OK 7. Leave the calibration plate inside the tray and Press Continue to close the door for press "Continue" to read the plate. i

## **CONTACT INFORMATION**

Have questions? Please contact:

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# **RELATED PRODUCTS**

PRODUCT	CATALOG#
GloMax <sup>®</sup> -Multi+ Fluorescence Module	E8051
GloMax <sup>®</sup> -Multi+ Visible Absorbance Module	E8061
GloMax <sup>®</sup> -Multi+ UV-Visible Absorbance Module	E9061
GloMax <sup>®</sup> -Multi Optical Kit AFC -Fluorescence	E8917
GloMax <sup>®</sup> -Multi Optical Kit Blue-Fluorescence	E8921
GloMax <sup>®</sup> -Multi Optical Kit UV	E8922
GloMax <sup>®</sup> -Multi Optical Kit Green-Fluorescence	E8923
GloMax <sup>®</sup> -Multi Optical Kit Red-Fluorescence	E8924