Promega

GloMax

QC Test Plate for GloMax® Instruments

This product is used to perform Verification Tests for GloMax® Instruments. Tests include instrument linearity, sensitivity and precision of each detection mode, cross-talk, light leak, plate tray sensing, as well as the heater and shaker functions, if applicable. Upon completion, a test report can be exported in PDF format that includes summary and detail for each test performed.

The QC Test Plate (Cat.# GM9000) is manufactured by Phosentix LLC. It is calibrated for GloMax® Instruments at Promega Corporation. The calibration should be checked annually by sending it to Promega.
Contact **Techserv@promega.com for assistance.**

Note! This product communicates with GloMax® tablet PC through a Bluetooth connection. For proper communications you will need a Surface Pro 5, or newer, tablet and GloMax® Software version 4.2 or higher.

Storage Case

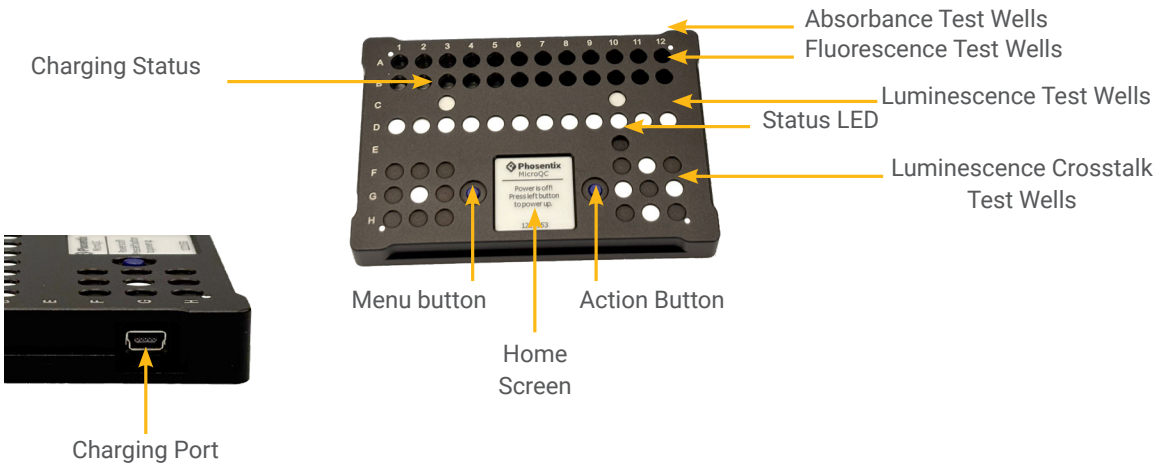
QC Test Plate

USB Memory Stick containing the Technical Manual

USB Charging Cable

Overview of the QC Test Plate

The 2 blue buttons on the test plate are the only controls for the QC Test Plate.



Materials Needed for Running Verification Tests

- QC Test Plate for GloMax® Instruments (Cat.# GM9000)
- 96-well Aperture (for GloMax® Discover and Explorer systems)
- White, opaque-bottom, 96-well plate
- GloMax® Software version 4.2 or higher
- Surface Pro 5 Tablet, or newer
- GloMax software Scaling Factor set to “1”. (Administrator Preferences → Scaling Factor)

Note!

Use the provided USB Charging Cable to ensure the test plate is at least 50% charged. The Charging Status light will illuminate ***green*** when fully charged. It does not remain illuminated while in use.

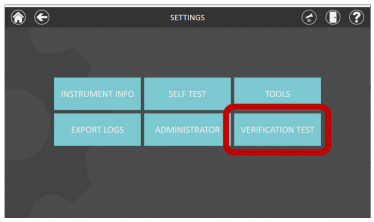
Storage

When not in use, store the QC Test Plate inside the provided plastic bag and case to keep it clean. Dust and debris on the QC Test Plate can affect its performance.

Running Verification Tests

1. Before beginning the procedure, ensure the 96-well Aperture is installed (for GloMax® Discover and Explorer instruments).
2. From the GloMax® Software, navigate to the ***Settings*** screen, then select ***Verification Test***
3. To **turn ON** the QC Test Plate, press and hold the left blue button until well C10 briefly illuminates ***blue***. The home screen will be shown a few seconds later.
4. Follow the screen prompts in the GloMax® Software. Begin with Step 1 “Connect Plate & Read Values”. Select ***RUN*** to begin. Do not insert the QC Test into the instrument until prompted to do so.
   a. Enter the Serial Number of the QC Test Plate. It is located on the Home screen.
   b. Calibration values will then populate on the right side of the GloMax®Software screen.
5. Select ***RUN*** to begin the desired tests and follow the screen prompts in the GloMax® Software. When finished, Select ***Export Report*** to view a PDF test summary and details.

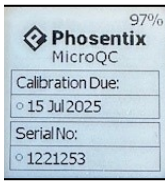
2.

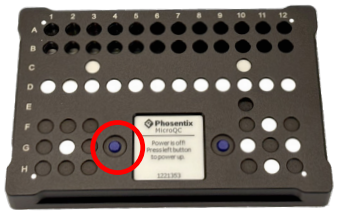


3.

Powered OFF

Home





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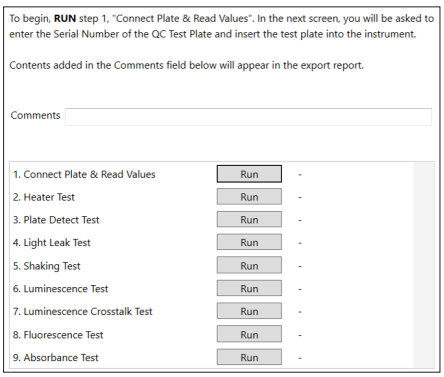


Heater Test (for GloMax® Discover and Explorer instruments)

To avoid damage, do not insert the QC Test Plate inside the instrument when running the Heater Test.

This test will only run if the instrument's starting temperature is less than 34°C. The instrument fan will turn off during the test.

1. Select ***RUN*** to begin the Heater Test.

Plate Dectect Test

When running the Plate Detect Test there should not be a plate in the plate tray of the instrument when the procedure is started.

1. Select ***RUN*** to begin the Plate Detect Test.
2. Select ***Test: Plate Absent.*** The system should confirm the absence of a plate.
3. Next select ***Open/Close Door*** and insert an empty white opaque-bottom 96-well plate into the instrument.
4. Next select ***Test: Plate Present.*** The system should confirm the presence of a plate.

Light Leak Test

This test uses an empty white, opaque-bottom, 96-well plate. If a plate is not already in the instrument, please insert one into the instrument prior to running this test.

1. Select ***RUN*** to begin the Light Leak Test.
2. If the Light Leak Test fails, please check that the front access panel is installed properly for GloMax® Discover or Explorer instruments. For GloMax® Navigator instruments, ensure that the the door is fully closed.

Shaking Test (for GloMax® Discover and Explorer instruments)

To avoid damage, do not instert the QC Test Plate into the instrument when running the Shaking Test.

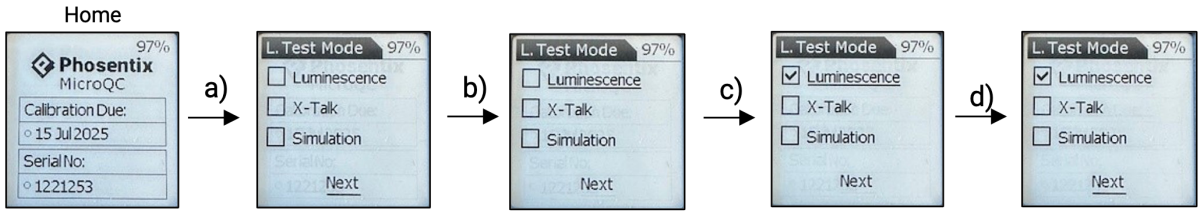
This test will only run if the instrument's starting temperature is less than 34°C. The instrument fan will turn off during the test.

1. Select ***RUN*** to begin the Shaking Test.

Luminescence Test

The QC Test Plate must be set to "Luminescence" mode prior to beginning this test. To do this:

1. Press the left blue button to navigate to the "L.Test Mode" screen.
2. Press the right blue button once to toggle to the "Luminescence" selection.
3. Press the left blue button once to select "Luminescence".
4. Press the right blue button **three times** to navigate to "Next".
5. Press the left blue button to advance to the Home screen (this locks the screen and prevents accidental changes to the screen).



f) From the GloMax® Software, select ***Open/Close Door*** and insert the QC Test Plate into the instrument.

g) Ensure the 96-well aperture is installed (for GloMax® Discover or Explorer instruments).

h) Select ***RUN*** to begin the Luminescence Test.

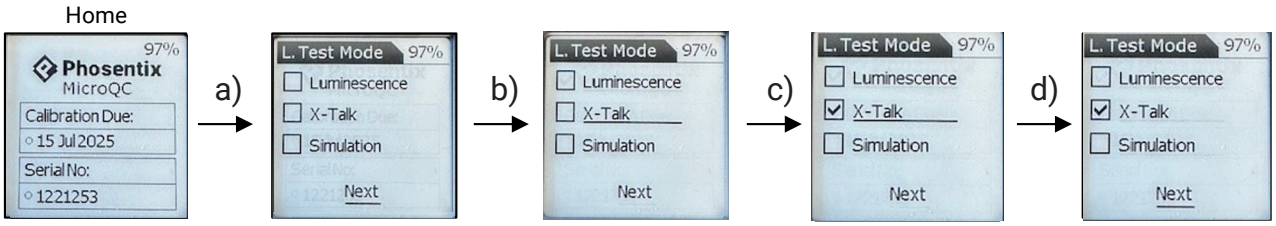
Cross-Talk Test

The QC Test Plate must be set to "X-Talk" mode prior to beginning this test. To do this:

1. If the QC Test Plate is already inside the instrument, remove it.
2. Press the left blue button to navigate to the "L.Test Mode" screen.
3. Press the right blue button twice to toggle to the "X-Talk" selection.
4. Press the left blue button once to select "X-Talk".
5. Press the right blue button twice to navigate to "Next".
6. Press the left blue button to advance to the Home screen (this locks the screen and prevents accidental changes to the screen).

Note!

Make sure only 1 mode is selected at a time. If both Luminescence and X-Talk are selected an error will occur.



7. From the GloMax® Software, select Open/Close Door and insert the QC Test Plate into the instrument.
8. Ensure the 96-well aperture is installed if using a GloMax® Discover or Explorer instrument.
9. Select ***RUN*** to begin the Cross-Talk Test.

Fluorescence Test (for GloMax® Discover and Explorer instruments)

The QC Test Plate must be powered OFF prior to beginning this test to ensure the Luminescence wells are not emitting light during this test.

a) Press and hold the left blue button to power OFF the QC Test Plate.

b) Next select ***Open/Close Door*** and insert the QC Test Plate into the instrument.

c) Select ***RUN*** to begin the Fluorescence Test

Absorbance Test (for GloMax® Discover and Explorer instruments)

The QC Test Plate must be powered OFF prior to beginning this test to ensure the Luminescence wells are not emitting light during this test.

a) Press and hold the left blue button to power OFF the QC Test Plate.

b) Next select ***Open/Close Door*** and insert the QC Test Plate into the instrument.

c) Select ***RUN*** to begin the Absorbance Test

Note! When finished, export the report, Power OFF the QC Test Plate and follow the storage instructions listed above.

Symptom	Resolution
QC Test Plate will not turn on	Battery is too low to power on. Use the provided USB Charging Cable to charge the plate.
QC Test Plate loses power before Verification Tests are complete	Battery is too low. Verify battery has at least 50% charge before beginning
Cannot connect to tablet PC	Verify tablet is a Surface Pro 5 or newer
Plate not detected	Verify a 96-well plate is loaded in the instrument
Luminescence Test failed	Verify the 96-well Aperture is loaded in the instrument (for GloMax® Discover and Explorer instruments) Verify the 96-well plate is a white, opaque-bottom plate
Cross-Talk Test failed	Verify the 96-well Aperture is loaded in the instrument (for GloMax® Discover and Explorer instruments) Both Luminescence and X-Talk are selected on the QC Test Plate. Only 1 can be selected at a time for valid results.
Light Leak Test failed	Verify the front access panel is installed properly (for GloMax® Discover and Explorer instruments) or that the door if fully closed (for GloMax® Navigator)
Test failure	Verify the Scaling Factor setting is set to “1”. Administrator → Preferences → Scaling Factor

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