



Reference 3020/3020AE™

## QUICK-START GUIDE



## Guide #2 Potentiostat Calibration

# Calibrating your Reference 3020/3020AE Potentiostat

**1** When possible, connect the **Chassis Ground** on the back of your potentiostat to a known, good earth ground.



## **2** Instructions for the Reference 3020 and 3020AE (steps 2-4)\*

Connect the cell cable to the **200  $\Omega$  Calibration Cell** included with your instrument.

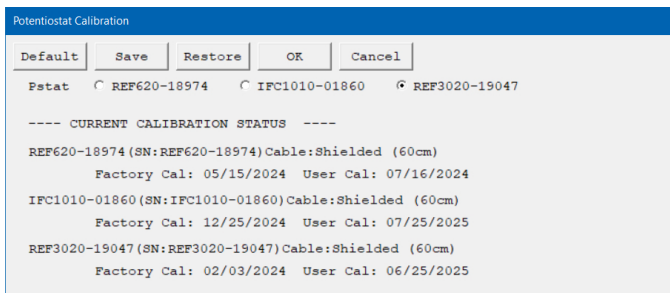


**3** Place the **Calibration Cell** inside the **Calibration Shield**, close the lid, and connect the black floating-ground lead of your cell cable to the Shield's grounding post.



# 4

Open the Gamry Framework™ software. Go to the menu and select **Experiment > Utilities > Calibrate Instrument**.



Choose your potentiostat and click the **OK** button. Make sure that all **Performance Tips** are true before continuing.

The **Cell Required** window appears. The resistor value listed for your Calibration Cell may vary, depending on your potentiostat. Make sure to use the correct Calibration Cell. Click **OK** to start the calibration procedure.



Regardless of a successful or failed Calibration, a summary file is stored in your **My Gamry Data** directory. In case of a failed calibration, you can use this file when contacting Gamry's **Technical Support** (see next page).

# 5

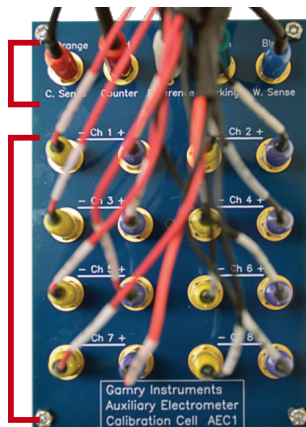
## Instructions for the Reference 3020AE only (steps 5-6)\*

Connect the **Auxiliary Electrometer Calibration Cell AEC1**.

1. Connect the five regularly colored leads of the potentiostat's cell cable to the top jacks.
2. Connect the multiple pairs of sense leads for the AE channels 1-8 to the array of 16 jacks.



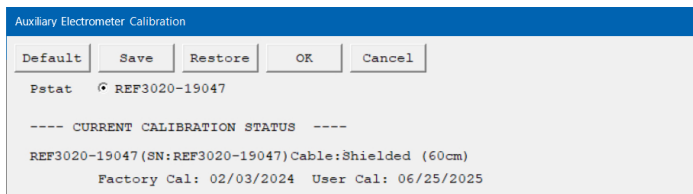
The pairs of sense leads are labeled with the AE channel number (1-8) and polarities. Make sure to match the leads to the correct jacks.



\* Please note that your cell cables and dummy cells may look different from the images shown.

# 6

Open the Gamry Framework™ software. Go to the menu and select **Experiment > Utilities > Aux Electrometer Calibration**.



Auxiliary Electrometer Calibration

Default Save Restore OK Cancel

Pstat REF3020-19047

---- CURRENT CALIBRATION STATUS ----

REF3020-19047 (SN: REF3020-19047) Cable: Shielded (60cm)

Factory Cal: 02/03/2024 User Cal: 06/25/2025

Choose your potentiostat and click the **OK** button. After you confirm several instructional messages, the calibration proceeds automatically, and you are notified if the calibration is successful.

## Troubleshooting a Failed Calibration



Calibration is used to check the potentiostat's health and to "zero" its many instrument circuits to your test environment. A warning does not necessarily indicate a critical failure. Gamry's technical support team can use the calibration information to determine the source of the warning.

1. Double-check the following:
  - The regular connections are made to a **200  $\Omega$  Calibration Cell**.
  - Confirm all channels and polarities for the **AEC1 Calibration Cell**.
  - The floating-ground cable is connected to the **Calibration Shield**.
  - If possible, **Chassis Ground** is attached to a known and good earth ground.
2. Click the **Retry** button in the error dialog box to restart the rest of the calibration. Click the **Ignore** button for any other calibration warnings that may appear, and continue to the next step.
3. After a failed calibration attempt:
  - Locate the summary file of the calibration in your **My Gamry Data** directory. The filename should look similar to the example below, depending on the instrument: Calibration Results PC5-#####.txt
  - Go to Gamry's website and fill out the **Technical Support** contact form: <https://www.gamry.com/support-2/contact-technical-support/>

Don't forget to attach the Calibration summary file you located earlier.