



Reference 3000™

Potentiostat/Galvanostat/ZRA

- High Power
- Fully Featured
- High Accuracy
- High Speed
- Versatile Software
- Electrically Isolated
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*Premium Performance for
High Power Electrochemistry*

GAMRY
INSTRUMENTS
The Innovation You Expect.



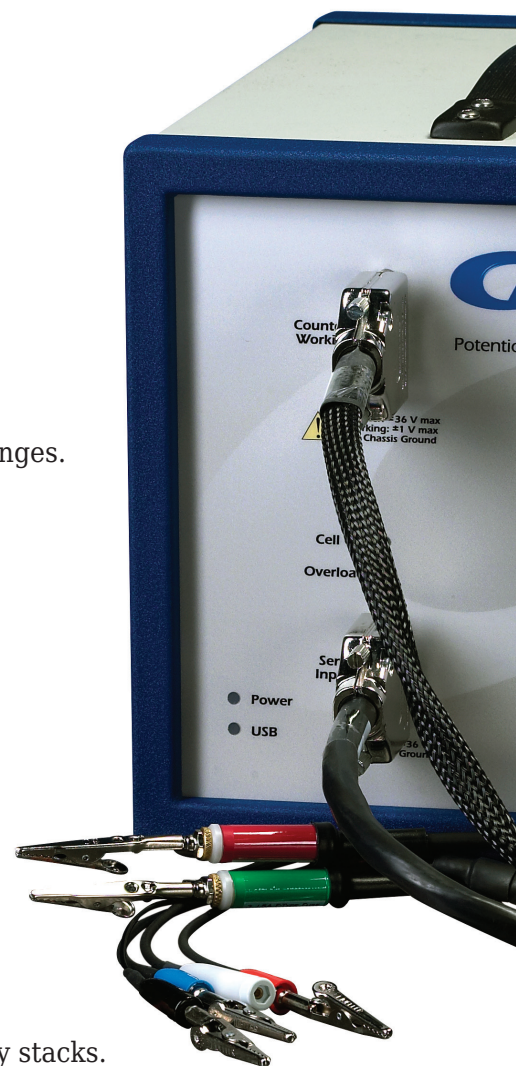
Reference 3000™

Outstanding Capability Out of the Box...

- **Dual Power Mode**
3A/15V compliance or 1.5A/32V compliance.
- **Noise and Ripple <10 μ V rms**
Lowest noise specification of any commercial potentiostat.
- **Wide Range Current Measurement**
11 decade current ranges from 3A to 300 pA.
- **3 Decade Dynamic Current Range Boost**
DC Subtraction and x100 Gain for 3 pA full-scale.
- **100 aA (1 x 10⁻¹⁶ Amps) Current Resolution**
For demanding low-current experiments.
- **3½ Decade Dynamic Voltage Measurement**
DC Subtraction and x400 Gain for 30 mV to 12V full-scale ranges.
- **Electrical Isolation**
Easy operation with grounded electrodes.
Isolated power and communications.
- **Outstanding Front-End Specs for Accuracy and Speed**
>10¹⁴ Ω Input Impedance
<0.2 pF Input Capacitance
<10 pA Input Current
- **High Performance EIS**
Built-in EIS performs from 10 μ Hz to 1 MHz with < 1% error.
- **Multichannel Potentiostat Systems**
Up to 24 Reference 3000s run from one computer.
- **Secondary High Voltage, Full Compliance, Electrometer**
32 V compliance for controlling and measuring multicell battery stacks.

...And Powerful Options!

- **Optional 8 Channel Auxiliary Electrometer**
For measuring voltages within multicell stacks or multiple voltages in a single cell.
- **Add-On 30 Amp Current Booster**
Develop the newest generation of electrochemical power devices. Measure impedances to 10 μ Ohms or better!



Overview



The Reference 3000 continues Gamry's tradition of building *high performance, affordable potentiostat/galvanostat/ZRAs* for demanding laboratory applications.

With ample compliance voltage and *11 decades of current measurement* from 3A full scale to 300 pA (to 3 pA with 100X gain), the Reference 3000 handles the full range of laboratory electrochemistry.

The Reference 3000 can operate as a potentiostat, galvanostat, ZRA, or FRA. It handles 2, 3, and 4 electrode measurements with ease, even dual reference electrode membrane measurements.

Like our Reference 600 potentiostat, the Reference 3000 maintains the high level of functionality you need in a modern lab.

- Electrical Isolation from Earth Ground
- A 3rd channel Auxiliary Input with Full Gain and Offset Control
- Thermocouple Temperature Measurement
- Both Current Interrupt and Positive Feedback iR Compensation
- Embedded Floating Point CPU
- Auxiliary Analog Output and Digital I/O
- External Signal Input, I&E Monitor Outputs



Weighing in at only 7 kg, the Reference 3000 packs tremendous capability into a *small footprint*. It easily interfaces to your lab computer or notebook via an industry standard USB cable.

The Reference 3000 Handles High Current Applications Like...

Batteries	Electroplating
Fuel Cells	Electrowinning
Super Caps	Industrial Electrolysis

...and Low Current Ones Like...

Corrosion	Bioelectrochemistry
Sensors	Physical Electrochemistry
Coatings	Microelectrode Studies

...and Everything In Between!

