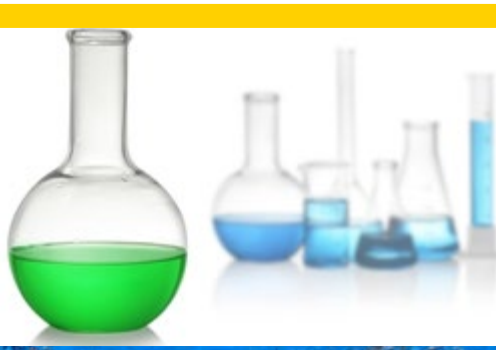
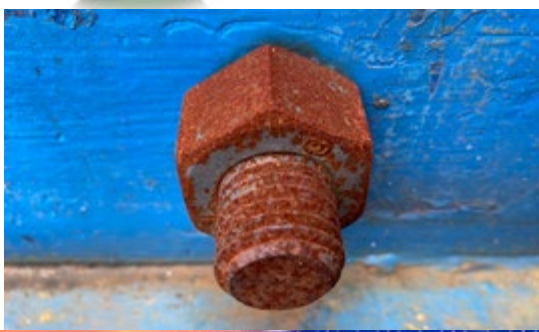
# Premium multichannel Potentiostats.

High-performance, high modularity, multi-channel instruments with 7 MHz capability and Quality Indicators for advanced EIS research.





# **Premium** measurement tools for electrochemists.

## VSP-300

Compact, six channel, research-grade potentiostat/galvanostat

**Voltage:** ±10 V, ±48 V with booster
**Current:** ± 500 mA down to 100 pA
**EIS:** Up to 7 MHz

**BioLogic's VSP-300 is a state-of-the-art research grade potentiostat/galvanostat/FRA boasting an impressive array of specifications.**

- Flexible, modular potentiostat/galvanostat incorporating the latest state-of-the-art technology
- Features 6 slots: choose from from 1 to 6 channels
- Each channel board can accommodate an ultra-low current cable and can connect to a high-current booster kit*
- Connect up to 4 booster boards in parallel (up to 40 A)
- Each channel board can be equipped with an Analog Ramp Generator
- Multiple user system: connect to multiple computers via LAN

*Four booster kits are available: ±10 A/ [-1;6] V, ±4 A/ [-3;14] V, ±2 A/±30 V and ±1 A/±48 V.

## **Add-ons:** Instruments that grow with your needs

| Options | Specification | Application |
|---|---|---|
| ULC (ultra-low current) | LC option | Provide 100 fA accuracy for analytical electrochemistry and corrosion |
| Booster | 1 A/48 V<br>2 A/30 V<br>4 A/14 V<br>10 A/6 V<br><br>HCV-3048*<br>Connect up to 4 units | Battery, supercapacitor, fuel cell, electroplating & electrolysis<br>Supercapacitor or fuel cell characterization<br>Battery testing<br>Battery pack characterization<br>Large battery cells supercapacitors, or fuel cell characterization |
| EIS | EIS option | Validation of EIS measurements possible with VMP-3e/VSP-3e (Quality Indicators) |
| ARG | True linear (analog) voltage ramp | Allow fast scan rate up to 1 MV/s to detect/characterize short lifetime species.<br>Ensures smooth voltage scan |

## Powerful, proprietary functionality unique with EC-Lab©...

### Modify-on-the-fly

This unique functionality gives freedom and control; enabling users to build experiments without having to anticipate and plan experiments from scratch. This leads to:

- Easier management of long-term experiments
- Increased creativity
- Easier set-ups

### Display & Embedded Analysis

- Global view
- Multigraph
- Improved visibility of data for easier monitoring
- EIS data modeling (Z Fit)
- CV data modeling (CV Fit)
- Range of fitting tools
- Data export

## VMP-300: The ultimate multichannel potentiostat

**Voltage:** ±10 V, ±48 V with booster
**Current:** ± 500 mA down to 100 pA
**EIS:** Up to 7 MHz

**The VMP-300 is the most modular chassis in BioLogic's Premium range, with 16 slots for potentiostats/galvanostats/EIS boards and/or booster boards.**

- Combine channels to meet specific needs, reach high currents, or drive multiple measurements simultaneously across all channels
- 7 MHz EIS option and ultra-low current option available
- Multiple user system: connect to multiple computers via LAN
- Each channel board can be equipped with an Analog Ramp Generator

## BP-300: High-performance bipot, perfect for RRDEs & IDAs

**Voltage:** ±10 V, ±48 V with booster
**Current:** ± 500 mA down to 100 pA
**EIS:** Up to 7 MHz

**A versatile potentiostat capable of generating any bipot measurement, such as Rotating Ring Disk Electrode (RRDE) and InterDigitated Array (IDA) electrodes.**

- ARG provides an analog voltage scan of up to 1 MV/s with an acquisition time down to 1 µs
- Also includes one 2A/30V booster - perfect for electrolysis in the most resisitive media
- CE to Ground mode: perfect for RRDEs & IDAs
- Option to use as a dual channel, multichannel potentiostat, controllable by one or more computers

## ...and the ability to get more out of your experiment

### Energy-specific features

- <2 µs switching time from Potentiostat to Galvanostat
- Manage 3 electrode cell/control between positive and negative
- C-rate calculation and use in next technique
- Safety limits
- High density of channel (upright design or 16 channel chassis)

### Advantages

- Higher-quality measurements
- Online processed data
- Easier management of long-term experiments
- Easier set-ups

### Ethernet capable/Buffer

- Facilitate group-working. Share instruments and experiments on your local area network (LAN)
- Built-in buffer protects precious experimental data against PC crashes or electrical blackouts
- Easier management of long-term experiments
- Safer/more reliable data transfer

# Overview.

**ENERGY STORAGE & CONVERSION**
Batteries
Fuel cells & electrolyzers
Supercapacitors
Photovoltaics
Redox Flow Batteries
**RESEARCH ELECTROCHEMISTRY**
Analytical Electrochemistry
Sensors
**CORROSION**
**MATERIALS SCIENCE**

Multi-channel **Premium** is a range of high-performance, high modularity instruments with 7 MHz capability and Quality Indicators for advanced EIS research. Ethernet-connectivity facilitates group working, and increased dynamic range enables high-precision scanning of current/voltage frequencies.

Multi-channel **Premium** instruments are designed for the most demanding needs of academia and industry. Built around a modular design the VSP-300, BP-300 and VMP-300 will grow with your research needs and help you expand new scientific frontiers.

| | BP-300 | VSP-300 | VMP-300 |
|---|---|---|---|
| Max channel | 2 | 6 | 16 |
| Max current | 10A on channel 1<br>500 mA on channel 2<br>Each channel upgradeable up to 120 A with four HCV-3048. | ±500 mA (standard)<br>up to 120 A with four HCV-3048 | ±500 mA (standard); up to 120 A with four HCV-3048 |
| Voltage | ±10 V; ±48V with 1A/48 V booster | ±10 V; ±48V with 1A/48 V booster | ±10 V; ±48V with 1A/48 V booster |
| Impedance | 7 MHz (3%, 3°) down to 10 µHz; 3 MHz (1%, 1°) | 7 MHz (3%, 3°) down to 10 µHz; 3 MHz (1%, 1°) | 7 MHz (3%, 3°) down to 10 µHz; 3 MHz (1%, 1°) |
| EIS QI | Yes | Yes | Yes |

**Innovation is engrained in our commercial DNA.**
The first multi-channel computer-controlled potentiostat (MacPile, 1991), Ethernet connectivity and Embedded EIS are just some of the BioLogic innovations helping scientists around the globe. Our high-quality, high-performance instruments have been designed to withstand the rigors of time and the laboratory and give scientists increased freedom, flexibility and creativity. **www.biologic.net/about us**

Brochure EC-BR-034 - b released on March 2020 - Specifications and pictures subject to change.

**www.biologic.net**

**Shaping the future.**
**Together.**