POTENTIOSTAT/GALVANOSTAT WITH WAVEFORM GENERATOR

N600-HAB151

APPLICATIONS

- Current Testing
- Coulometry
- Corrosion
- Physical Electrochemistry
- Voltammetry
- Polarization

Model N600-HAB151 is designed to provide a complete potentiostat/galvanostat/function generator instrument for electrochemical research. It offers a high quality portable system capable of voltammetry, coulometry, automatic polarization and other studies. This unit incorporates features from both the **N600-HA151B Potentiostat and the N600-HB111A Function Generator**. The potentiostat/galvanostat portion with a maximum output of ±15V/±1A and six current ranges (the lowest range:±10μA) is adequate for most electrolysis tests and corrosion studies.

Also included in this portion are an external control input, a current detecting filter, and warning lamps for "OUT-OF-CONTROL", "POTENTIAL-OVER", and "CURRENT-OVER". The function generator portion utilizes analog circuitry to yield smooth slopes. It also offers a wide scanning speed range (0.1mV/sec.~5000V/min) and a potential setting range of -5.0V to +5.0V. The STOP, HOLD, and REVERSE buttons are also included. This model consists of a potentiostat, a galvanostat, an electrometer, and a function generator. The function generator portion is connected to the rest of the unit via the ON/OFF switch.

As a Potentiostat

(a) Maximum Output	± 15V, ± 1A
(b) Current Measuring Range	± 1A, ± 100mA, ± 10mA, ± 1mA, ± 100μA, ± 10μA (6 ranges)
(c) Maximum Control Potential	± 10V
(d) Control Accuracy	< ± 3mV
(e) Response Time	< 50μsec
(f) Reference Input Impedence	> 10^{10} Ω

As a Galvanostat

(a) Maximum Output	(6 ranges)± 1A, ± 100mA, ± 10mA, ± 1mA, ± 100μA, ± 10μA,
(b) Current Setting Range	± 10V
(c) Current Setting Accuracy	< ± 1% of range full scale
(d) Response time	< 50μsec

As an Electrometer

(a) Input Resistance	> 10^{10} Ω
(b) Bias Current	< 10^{-10} A
(c) Response Time	< 10μsec
(d) Conversion Accuracy	< ± 0.1% of input potential
(e) Potential Display Range	± 2V and ± 10V full scale (Digital Display)

As a Function Generator

(a) Waveforms	Ramp
	One-shot triangle
	One-shot double triangle
	Repetitive triangle
(b) Setting Potentials	
Range	-5,000V ~ +5,000V
Setting	Initial, upper, and lower potentials can be set independently (INITIAL, HIGH, LOW)
(c) Scanning Speed	
Setting 1	1x10^{-1}, 1 x10^{2}, 1x10^{3}, 1x10^{4}
Setting 2	1, 2, 5
Setting Units	mV/sec, 100mV/min
Setting Accuracy	< ± 1% (for x1 ~ x10); < ± 2% (for x10^{-1})
(d) Switches	START/STOP
	HOLD
	(output potential drift < ± 0.001mV/sec)
	REVERSE

Recording Output

(a) Potential Recording Output	Input/output conversion ratio is 1:1
(b) Current Recording Output	1V output for every range full scale