



TRADE AND COMMERCE
CANADA

STANDARDS BRANCH

OTTAWA July 10, 1961.

TYPE APPROVAL

INSTRULAB, INC. - MODEL 101 AND MODEL 201
"EVEN-VOLT" POWER SUPPLIES

The apparatus specified and illustrated herein has been duly approved by the Standards Branch under the provisions of the Electricity Inspection Act, Chapter 94, R.S. 1952, and may be admitted to verification in Canada.

Apparatus Approved: Model 101 and Model 201 "Even-Volt" Power Supplies, manufactured by Instrulab, Inc., Dayton, Ohio, U.S.A., and distributed in Canada by Electrodesign, 35 Mulholland Street, Toronto 19, Ontario.

Rating of Apparatus:	<u>Model 101</u>	<u>Model 201</u>
Output Voltage	1.4 volts DC nominal	1.015 to 1.045 volts DC*
Output Current	5, 6 or 10 ma.#	5, 6 or 10 ma.#
Voltage Regulation	±0.04%	±0.04%
Input Voltage	100 to 135 volts	100 to 135 volts
Temperature Coefficient	±0.25%†	±0.04%†
Temperature Range	0°F to 125°F	0°F to 125°F
Input Frequency	60 cycles	60 cycles

* Output voltage of Model 201 is adjustable over this range

Units are designed for one value of output current only

° Change in output voltage due to change in input voltage from 100 to 135 volts

† Change in output voltage due to change in ambient temperature
from 0°F to 125°F

Description: These units are housed in steel cases. The AC line voltage is reduced by a transformer and is rectified by silicon diodes. This DC voltage is regulated by a 2-stage Zener diode and bridge circuit to give the required output voltage regulation. A trimming potentiometer on Model 201 provides for fine adjustment of the output voltage. Model 101 can be mounted in any position and is designed to fit in present battery space. Terminals are located and spaced so that the unit can be mounted in existing battery holders and terminal brackets. Model 201 is similar to Model 101 but has in addition removable ears on the case for permanent mounting.

In both models the internal resistance values are so chosen that the output voltage is at the specified value only when the current value marked on the nameplate is flowing, so that these units should only be used in recorders that have the same current and voltage rating as marked on the power supply unit.

Model 101 is designed to replace the 1½-volt dry cell used in recording potentiometers that have manual or automatic current standardization. Model 201, in addition to replacing the dry cell as is done by Model 101, because of

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its lower temperature coefficient and hence more stable voltage, is designed to replace the standardizing rheostat and standard cell which may then be removed without affecting the operation or accuracy of the recorder.

This approval covers the use of Model 101 in any suitable presently-approved potentiometer recorder, except the galvanometer bridge type.

This approval also covers the use of Model 201 in any suitable presently-approved potentiometer recorder in which the 1.5-volt dry cell, the standardizing rheostat and the standard cell have been removed.

R. W. MacLean
R. W. MacLean,
Director,
Standards Branch.

Ref: A-907

E. F. Power

E. F. Power,
Chief, Electricity & Gas Division,
Standards Branch.

INSTRULAB, INC. - "EVEN-VOLT" REFERENCE UNIT



