

dial and read

1 to 999,999 ohms

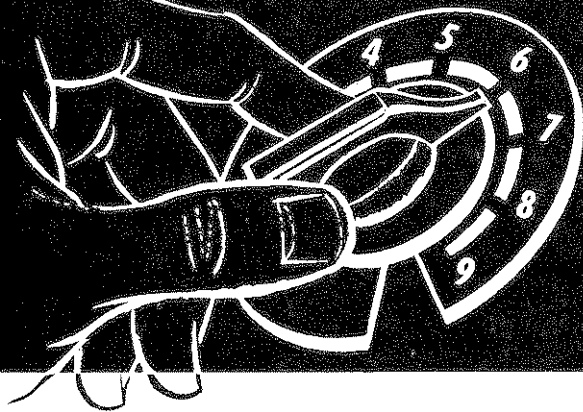


Valuetronics International, Inc.
1-800-851-2258
MASTER COPY

**POWER
RESISTOR
DECADES**

CLAROSTAT

at your fingertips



dial and read with

A must in electronic and electrical work . . . when dealing with known or unknown resistances . . . selected or determined under active operational conditions. Now available in "box" or rack-mounted versions.

The Power Resistor Decades provide a power resistor of any required ohmage from 1 to 999,999 ohms in 1 ohm increments. The ohmage is selected or determined by six front panel dials, and the value is read directly—in sequence—from the dials, thereby simplifying the selection of known or unknown resistances for use in working circuits.

There is no instrument available comparable to Clarostat Power Resistor Decades. They are exclusive Clarostat developments and products. For years the bench version, Model 240-C, has been standard equipment in laboratories, engineering departments, plants, for maintenance and service personnel, schools and other users requiring accurate resistance determinations under load conditions. Now, it is available as a rack mounted unit, Model 250, for the convenience of those desiring a more permanent installation.

GENERAL APPLICATION

Power Resistor Decades are used whenever accurate steps of resistance values between 1 and 999,999 ohms are required—either predetermined or by "closing in". Such a capability is often required in such applications as:

- Calibrations
- Testing procedures
- Bridge circuits
- Experimental work of all types

Instead of lengthy mathematical calculations often followed by "experimentation" for best results, the Power Resistor Decades permit the trying out of a wide range of resistance values until the best performance is obtained—then the reading is taken directly off the dials.

If the desired resistance value is already known, and a resistor of that value is required for given circuit or operating conditions, it is immediately obtainable by simply dialing to that ohmage.

- No need to stock a large amount of power resistors.
- No need to order various resistors and wait for delivery.
- No need to crank out cumbersome formulas.
- Power Resistor decades provide a permanent source of resistors in exactly the right value.

OPERATION

The Power Resistor Decades are identically operated. Each consists of six resistance decades. Each decade is marked (e.g. X-1, X-10, X-100, etc.) to indicate its contributory ohmage. Thus, the extreme right-hand dial, X-1, supplies from 1 to 9 ohms, the next dial adds to 10 to 90 ohms, the next dial 100 to 900 ohms, and so on. Each dial is numbered from 1 to 9, so that to obtain total ohmages the readings are read directly from left to right—obtaining such readings as 278, 304 ohms or any value up to 999,999.

For Known Resistances

Set the dial knobs to the desired resistance value. For ex-

Features

- Provides any ohmage value, in 1-ohm increments, from 1 to 999,999 ohms
- Determines known or unknown resistance values by simply dialing
- Available in bench or rack mounting versions
- Power ratings to 225 watts max at 1000 volts max
- Six decades for quick setting and direct readout
- Used in actual circuits and under "live" conditions
- Two sets of terminals taking banana-plug, spade-lug or plain wire connections
- Adequate ventilation with grill and louvers

ample: 561,231 ohms, set the dial farthest to the left to 5, the next one to 6, the next to 1—and so on.

For Unknown Resistances

To select an unknown resistance—such as for a load resistance in a power supply, set all dials to 9 then connect your leads (Caution: do not exceed 1000 volts across terminals or the current rating of each decade—see current rating section.) You now have 999,999 ohms in the circuit. With suitable meters connected in the circuit, you can reduce the resistance until the desired voltage and current are obtained. All switches are of the shorting type to maintain resistance in the circuit when switching.

HANDY CONNECTIONS

The instrument is supplied with a pair of terminals on each side. The top terminal of each pair is common, and so is the bottom terminal of each pair—so that connections can be made at either end of the instrument. Binding posts accommodate wire-lead, spade-lug or banana-plug connections. Model 250 has two sets of identical terminals, current and resistance terminals provide front and rear hookup.

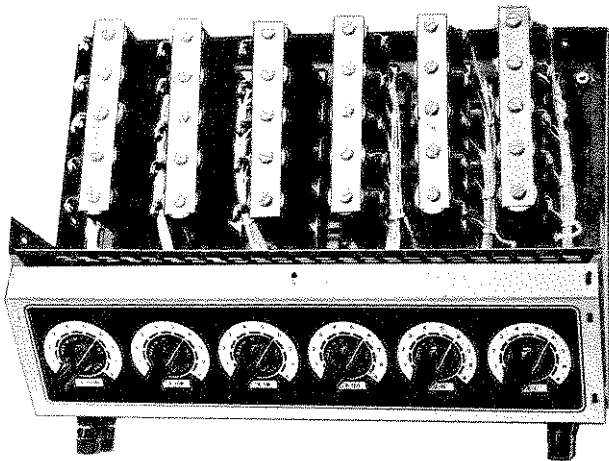
RACK-MOUNTING VERSION

For use in systems, or in any application not requiring a bench model. The rack version, designated Model 250, is electrically identical to the Model 240-C but has been rear-ranged mechanically to fit into a standard 19" relay rack.

POWER RESISTOR DECADES

the exact resistance you
need, as accurately supplied
by only

GREENOHM "V"® POWER RESISTORS



MAINTENANCE

This instrument is designed and constructed so as to require no maintenance under normal conditions. If the box should be used in extremely humid or corrosive atmospheres, the switch contacts may have to be periodically cleaned in accordance with accepted practice employed by the relay industry. Use of burnishing tools, or a clean, fine-textured kraft paper is recommended.

If, through misuse or abuse, replacements are required—refer to the accompanying parts list. If desired, Clarostat will gladly repair damaged or defective Power Resistor Decades at cost.

SPECIFICATIONS

RESISTANCE RANGE:

1 ohm to 999,999 ohms in 1-ohm increments; no open circuit between steps. Six dials, respectively X-1, X-10, X-100, X-1K, X-10K and X-100K, total up any ohmage within range. Positive detent action clicks in and holds each knob at the selected setting.

TOLERANCE:

Decade No. 1	5%	Decade No. 4	2%
Decade No. 2	2%	Decade No. 5	2%
Decade No. 3	2%	Decade No. 6	2%

POWER RATING:

Dissipates up to 225 watts max. or 1000 volts DC, or 660 volts AC, max. per decade. Grilled bottom, plus louvered sides and top provide adequate ventilation. Glass insulated wire withstands elevated temperatures. Baffle plate protects the switch assembly from heat.

MAXIMUM CURRENT RATINGS:

Decade No. 1	5.0 amp	Decade No. 4	0.15 amp
Decade No. 2	1.5 amp	Decade No. 5	0.05 amp
Decade No. 3	0.5 amp	Decade No. 6	0.005 amp

RESISTANCE ELEMENTS:

Clarostat GREENOHM "V"® Power Resistors are used throughout. These components are wire-wound power resistors on ceramic tubes and vitreous coated, providing the most rugged, long-lasting, trouble-free power resistor available. The resistors are mounted in rigid metal supports.

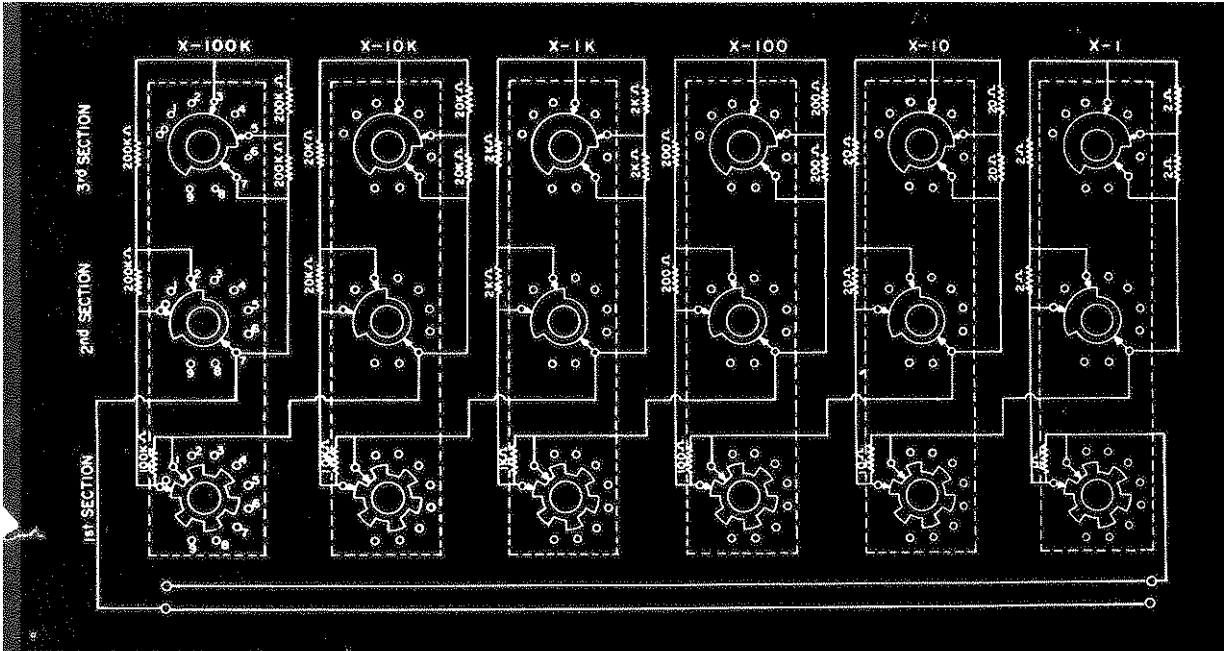
RACK MOUNT:

Dimensions:	(Model 240-C)	13" long x 8½" deep x 5¾" high
	(Model 250)	19" long x 13¼" deep x 7" high
Weight:	(Model 240-C)	11 lbs.
	(Model 250)	18½ lbs. approx.



**REPAIR
PARTS
LIST**

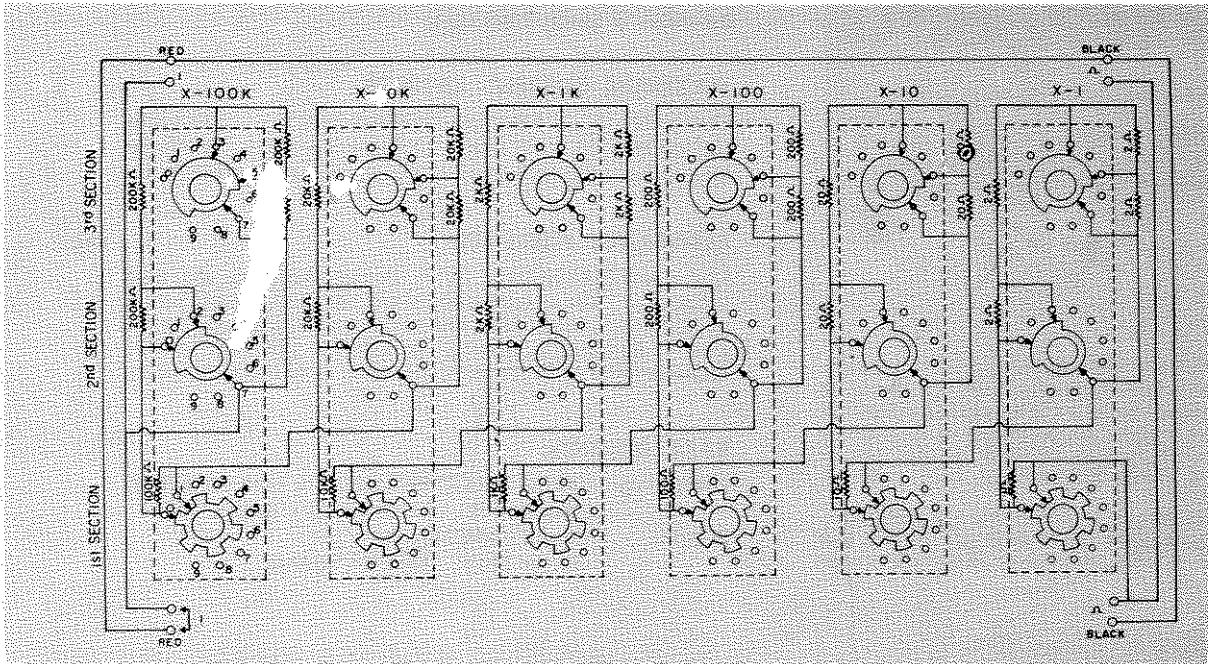
Part No.	Description	Part No.	Description
01206301	Mounting Bracket	01615101	Pointer Knob
01209701	Dial Panel	25238201	Resistor Bank Assembly (Range 1)
01266401	Binding Post (Red)	25238202	Resistor Bank Assembly (Range 2)
01266402	Binding Post (Black)	25238203	Resistor Bank Assembly (Range 3)
01270601	10-Position Rotary Switch	25238204	Resistor Bank Assembly (Range 4)
01522401	Decade Box Chassis	25238205	Resistor Bank Assembly (Range 5)
01522501	Decade Box Cover	25238206	Resistor Bank Assembly (Range 6)



MODEL 240C

NOTES:

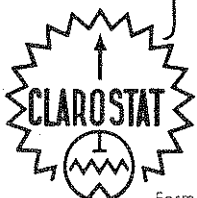
1. Switch rotors shown in extreme counter-clockwise position for zero resistance.
2. 2nd & 3rd section rotors break contact before 1st section rotors makes its contact.



MODEL 250

**REPAIR
PARTS
LIST**

Part No.	Description	Part No.	Description
02000701	Dial Panel	02016501	Pointer Knob
02000503	Binding Post (Red)	25468401	Resistor Bank Assembly (Range 1)
02000501	Binding Post (Black)	25468402	Resistor Bank Assembly (Range 2)
02000502	Binding Post (Red)	25468403	Resistor Bank Assembly (Range 3)
	W/Swing-out Jumper		
02000301	10-Position Rotary Switch	25468404	Resistor Bank Assembly (Range 4)
02001401	Decade Box Chassis	25468405	Resistor Bank Assembly (Range 5)
02001601	Decade Box Cover	25468406	Resistor Bank Assembly (Range 6)



CLAROSTAT MFG. CO., INC.
DOVER, NEW HAMPSHIRE