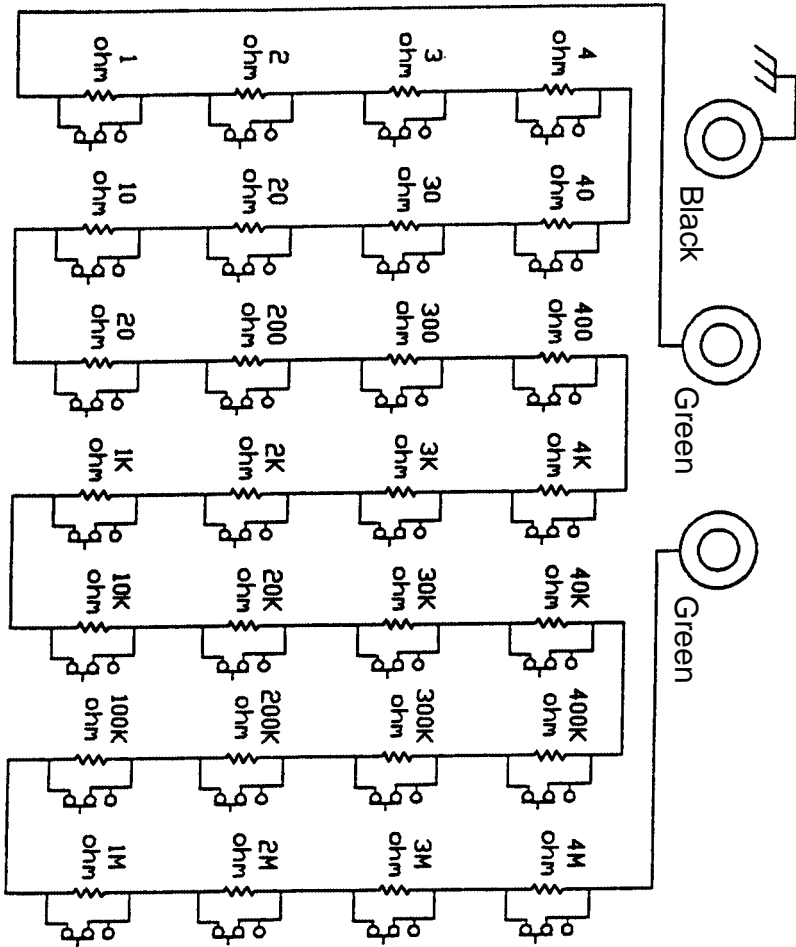


### Schematic Diagram



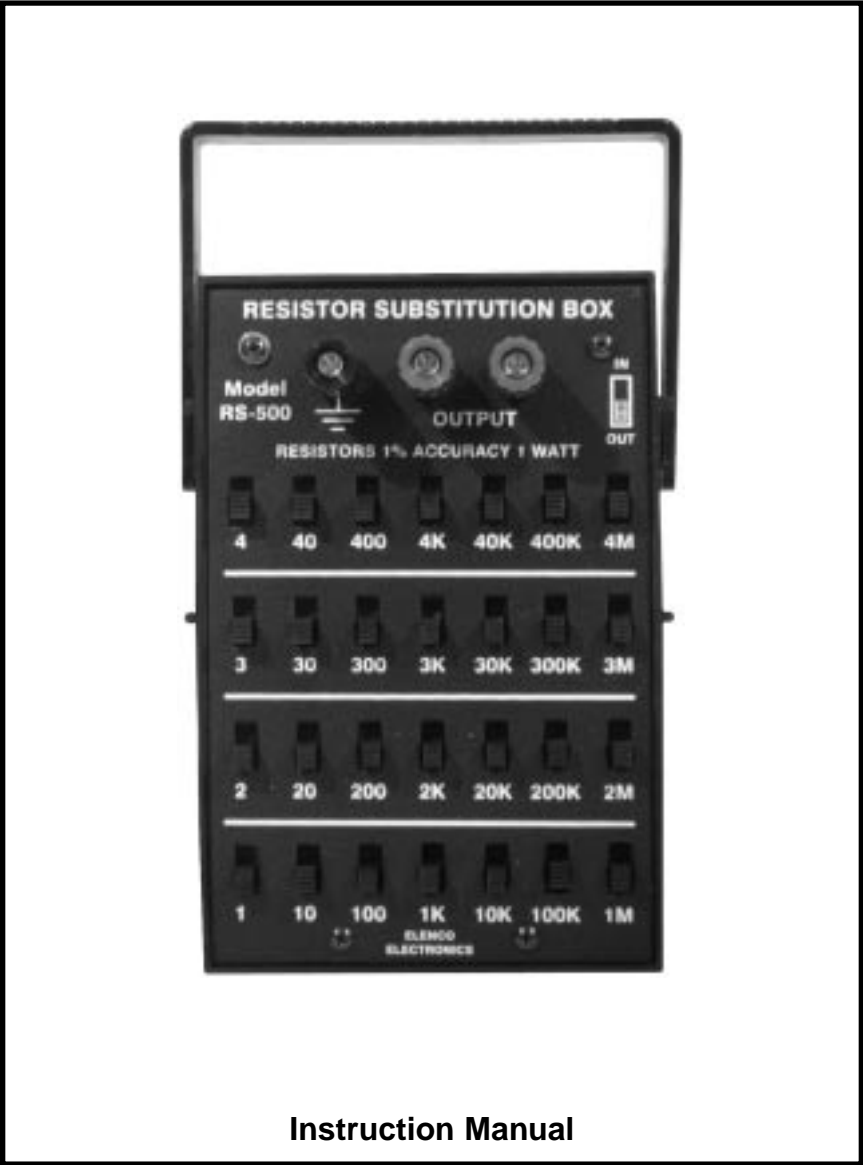
REV-A

### Elenco Electronics, Inc.

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# RESISTANCE SUBSTITUTION BOX

## Model RS-500



Instruction Manual

## Elenco Electronics, Inc.

## INTRODUCTION

The RS-500 Resistance Substitution Box is a convenient instrument for determining the desired resistance values in circuits under design or test. The resistance obtainable is from  $0\Omega$  to  $11,111,110\Omega$  in 1 ohm steps. All resistors are precision 1% resistors.

## OPERATION

All of the resistors are wired in series. A switch on the front panel shorts each resistor. Putting the switch in the ON (up) position removes the short and places the resistor across the output terminals. The two green binding posts serve as the output terminals. The black binding post is tied to the front panel. To place any resistance across the output terminals turn ON those switches that add up to the desired resistance. For example, for  $5,071\Omega$ , turn on the  $3k\Omega$ ,  $2k\Omega$ ,  $40\Omega$ ,  $30\Omega$  and  $1\Omega$  switches.

## TWO YEAR WARRANTY

All Elenco models are guaranteed for two full years on all parts and service. For the first 3 months, your power supply is covered at absolutely no charge. For the remaining 21 months, a nominal service charge is required to cover shipping and handling.

When returning merchandise for repair, please include proof of purchase, a brief letter of explanation of problem, and sufficient packing material. Before returning any merchandise please call our service department at (847) 541-3800 to obtain a return authorization number (RMA).

Service Department

## PARTS LIST

RESISTORS					
Qty	Description	Part #	Qty	Description	Part #
<input type="checkbox"/> 1	$1\Omega$ 1% 2W	111033	<input type="checkbox"/> 1	$3k\Omega$ 1% 1W	143032
<input type="checkbox"/> 1	$2\Omega$ 1% 2W	112033	<input type="checkbox"/> 1	$4k\Omega$ 1% 1W	144032
<input type="checkbox"/> 1	$3\Omega$ 1% 2W	113033	<input type="checkbox"/> 1	$10k\Omega$ 1% 1W	151032
<input type="checkbox"/> 1	$4\Omega$ 1% 2W	114033	<input type="checkbox"/> 1	$20k\Omega$ 1% 1W	152032
<input type="checkbox"/> 1	$10\Omega$ 1% 2W	121033	<input type="checkbox"/> 1	$30k\Omega$ 1% 1W	153032
<input type="checkbox"/> 1	$20\Omega$ 1% 2W	122033	<input type="checkbox"/> 1	$40k\Omega$ 1% 1W	154032
<input type="checkbox"/> 1	$30\Omega$ 1% 2W	123033	<input type="checkbox"/> 1	$100k\Omega$ 1% 1/2W	161031
<input type="checkbox"/> 1	$40\Omega$ 1% 2W	124033	<input type="checkbox"/> 1	$200k\Omega$ 1% 1/2W	162031
<input type="checkbox"/> 1	$100\Omega$ 1% 1W	131032	<input type="checkbox"/> 1	$300k\Omega$ 1% 1/2W	163031
<input type="checkbox"/> 1	$200\Omega$ 1% 1W	132032	<input type="checkbox"/> 1	$400k\Omega$ 1% 1/2W	164031
<input type="checkbox"/> 1	$300\Omega$ 1% 1W	133032	<input type="checkbox"/> 1	$1M\Omega$ 1% 1/2W	171031
<input type="checkbox"/> 1	$400\Omega$ 1% 1W	134032	<input type="checkbox"/> 1	$2M\Omega$ 1% 1/2W	172031
<input type="checkbox"/> 1	$1k\Omega$ 1% 1W	141032	<input type="checkbox"/> 1	$3M\Omega$ 1% 1/2W	173031
<input type="checkbox"/> 1	$2k\Omega$ 1% 1W	142032	<input type="checkbox"/> 1	$4M\Omega$ 1% 1/2W	174031

## MISCELLANEOUS

Qty	Description	Part #
<input type="checkbox"/> 1	PC Board	517011
<input type="checkbox"/> 28	Switch Slide DPDT	541023
<input type="checkbox"/> 1	Front Panel	614103
<input type="checkbox"/> 1	Case	623003
<input type="checkbox"/> 4	Spacer $7/16"$ x $1/4"$	624120
<input type="checkbox"/> 4	Spacer $4-40$ x $1/2"$	624431
<input type="checkbox"/> 1	Binding Post Black	625031
<input type="checkbox"/> 3	Lockwasher, Binding Post	625031LW
<input type="checkbox"/> 3	Nut, Binding Post	625031HN
<input type="checkbox"/> 2	Binding Post Green	625033
<input type="checkbox"/> 4	Screw $4-40$ x $1/4"$ Flat Head	641434
<input type="checkbox"/> 4	Screw $4-40$ x $3/4"$ Pan Head	641483
<input type="checkbox"/> 3	Washer Flat $1/8"$	645600
<input type="checkbox"/> 1	Lockwasher #4 Internal	646402
<input type="checkbox"/> 3	Lockwasher #4 External	646405