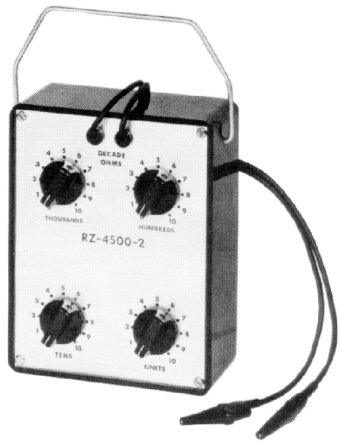
JOHNSON CONTROLS

RZ-4500
Precision Decade Box

The RZ-4500 Precision Decade Box is a variable resistance source for field calibration of Cybertronic® control and indication systems. The decade box provides precision resistance values used in operational checkout and adjustment procedures. The RZ-4500 is furnished in a lightweight enclosure of molded black plastic that has a metal handle. The face panel is brushed aluminum. Two permanently attached leads connect the decade box to the terminals, jacks, or wires of the unit being calibrated. The leads have alligator clips.

The RZ-4500 has four decade switches, each with eleven positions marked "0" to "10". Each switch and each switch position makes available a different precision resistance value. The "units" dial can be rotated in one-ohm steps to any resistance value from 0 through 10 ohms; the "tens" dial will give 0 through 100 ohms resistance in ten-ohm steps, and so forth.

Sudden, large resistance changes from a decade box may cause excessive and damaging surge currents in the device or system being calibrated and should be avoided. Each RZ-4500 decade switch has eleven positions so that the component or system can be protected from drastic resistance changes. For example, to switch from 963 ohms to 1063 ohms, two methods may be used. The "hundreds" dial can be turned to "0" and the "thousands" dial to "1"; the resistance connected to the device or system changes from 963 ohms, to 63 ohms, and then to 1063 ohms. Or, preferably, the "hundreds" dial can simply be switched from "9" to "10", thus avoiding the risk of component damage.



RZ-4500 Decade Box

Specifications

Product	RZ-4500 Precision Decade Box
Range	0 to 11,110 Ohms (In 1-Ohm Steps)
Accuracy*	±0.5% for Units Decade
	±0.25% for Tens Decade
	±0.1% for Hundreds & Thousands Decades
Power Rating	1 Watt Maximum
Dimensions & Net Shipping Weight	5-11/16 in. (144 mm) W by 6-7/8 in. (175 mm) H by 3 in. (76 mm) D & 2.5 lbs (1.13 kg)

***Plus 0.4 ohms maximum lead and switch contact resistance.**

The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

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Notes

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