

Resistance Decade Box

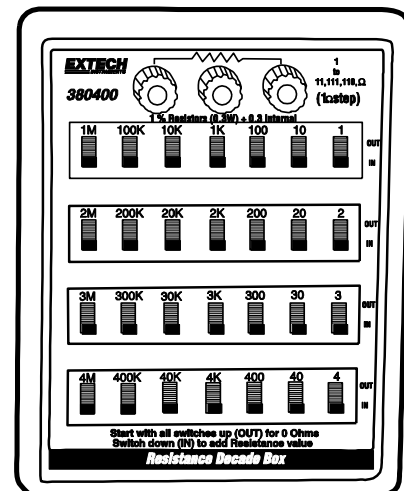
Model 380400

Introduction

Congratulations on your purchase of the Extech 380400 Resistance Decade Box. This device offers 7 decades of resistance ranges from 1 to over 11MOhms (in 1Ohm steps). Slide switches allow easy addition and subtraction of resistance values. Binding posts (3) offer simple and secure connections. Careful use of this decade box will provide years of reliable service.

Specifications

Resistance ranges	1 to 11,111,110 Ohms in 1 Ohm steps
Internal Resistance	0.3 Ohms
Power	0.3W Resistors
Connection	Three (3) binding posts
Accuracy	$\pm(1\% \text{ Reading}) + 0.3 \text{ Ohms}$
Operating conditions	Temperature: 32 to 122°F (0 to 50°C) / Humidity: < 80%RH
Dimensions/Weight	5.79 x 4.61 x 1.3" (14.7 x 11.7 x 3.3cm) / Approx. 0.69 lbs. (312g)



Operation

Binding Post Connections

The binding posts can be used for connections in several ways:

1. A banana plug can be inserted directly into the posts.
2. Bare wire can be threaded through the post after it has been unscrewed. Once the bare wire is threaded, tighten the posts as necessary.
3. Alligator clips can be used but use caution not to strip the post threads or plastic post housing.

The resistance output is available on the RED and the BLACK binding posts. The WHITE post is case ground and is typically not used. Connect the positive lead of the device under test to the RED post. Connect the negative lead to the BLACK post. Use the WHITE grounding post only if the device under test will be grounded to the 380400 case.

Range Selection

The 28 front panel switches are used to select the resistance that will be available on the RED and BLACK terminals. When a switch is set to the IN position, the value printed above the switch is added to the total resistance available at the posts. When the switch is set to OUT it is excluded from the total resistance. If all of the switches are set to OUT, the total output resistance is zero (+ 0.3Ohms internal resistance – approx.).

For example, if the desired output value is 10.5KOhms, set the following switches to the IN position: 10K, 400Ohms, and 100Ohms.

Testing

This device can be used to verify the calibration integrity of MultiMeters, LCR meters, Calibrators, etc. Connect as described above in the Binding Post Connection section. Set the resistance switches to output the desired resistance. Ensure that the voltage supplied by the device under test does not overload the 0.3W internal resistor power rating. The device under test should read the value of resistance selected on the tester. If it does not, the device under test may need calibration, adjustment, or repair.