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**uxcell a13081500ux0324**

# Instruction Manual for uxcell 3296W-104 100K Ohm Trimmer Potentiometers

*Model: a13081500ux0324*

## PRODUCT OVERVIEW

The uxcell 3296W-104 100K Ohm Trimmer Potentiometer is a three-terminal resistor designed for precise resistance adjustment. It features a continuously adjustable tapping point controlled by the rotation of a screw or knob. These cermet potentiometers are ideal for use in device interiors or on Printed Circuit Boards (PCBs) where fine resistance tuning is required. They are designed for through-hole DIP mounting.

This package includes 10 pieces of the 3296W-104 model, each with a resistance value of 100K Ohm and a tolerance of  $\pm 10\%$ . They are rated for 1/2W power and can withstand up to 500V.

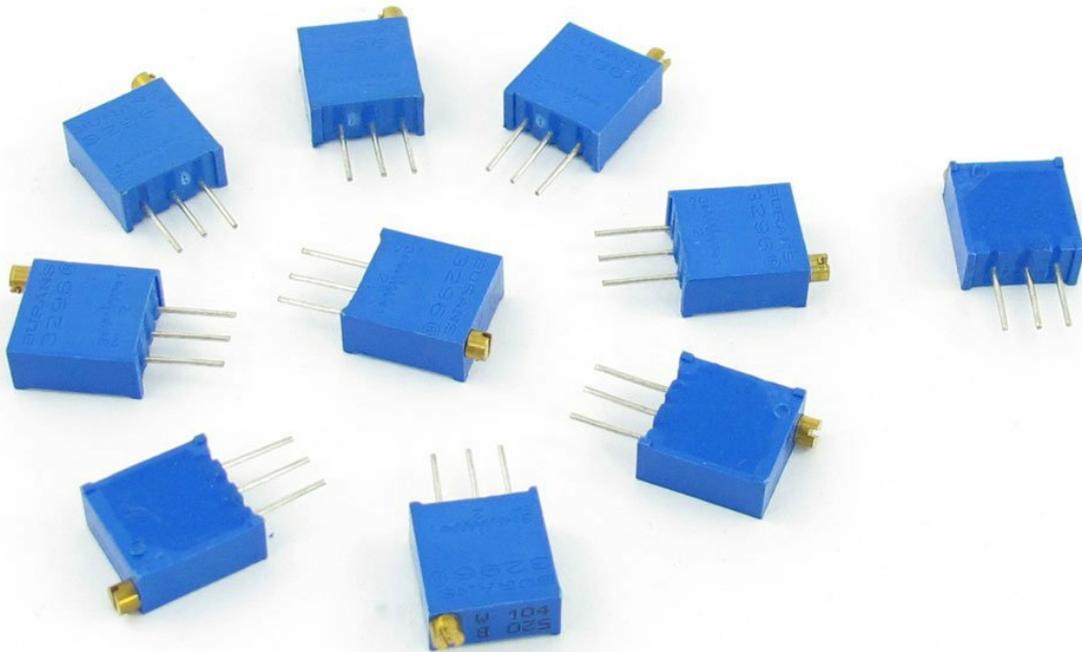


Image: A set of ten uxcell 3296W-104 100K Ohm Trimmer Potentiometers. These small, blue, rectangular components have three metal pins extending from one side and a small adjustment screw on the top surface.

## SETUP AND INSTALLATION

These potentiometers are designed for through-hole mounting on Printed Circuit Boards (PCBs). Follow these steps for proper installation:

1. **Identify Pins:** The 3296W-104 potentiometer has three pins. Typically, the two outer pins are connected to the ends of the resistive track, and the center pin is the wiper. Refer to your circuit diagram for specific pin assignments.
2. **Prepare PCB:** Ensure your PCB has three corresponding holes for the potentiometer's pins, spaced appropriately for DIP mounting.
3. **Insert Potentiometer:** Carefully align the pins of the potentiometer with the holes on the PCB. Gently push the component until it sits flush against the board surface.
4. **Solder Connections:** Solder each pin to its respective pad on the underside of the PCB. Ensure strong, clean solder joints to prevent intermittent connections.

5. **Verify Installation:** After soldering, visually inspect the connections for any shorts or cold solder joints.

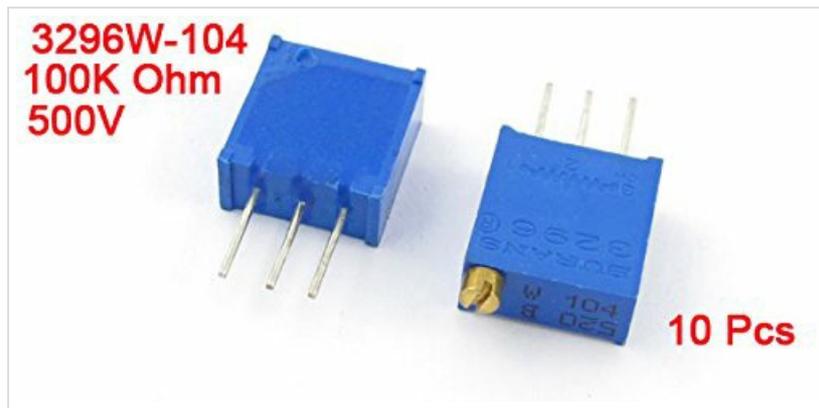


Image: A close-up of two uxcell 3296W-104 potentiometers. One is oriented to show the top adjustment screw and the "104" marking, indicating 100K Ohm. The other shows the side profile with its three pins.

## OPERATING INSTRUCTIONS

The 3296W-104 potentiometer is adjusted via a top-mounted screw. This allows for fine-tuning of resistance within a circuit.

- **Adjustment:** Use a small screwdriver (typically a Phillips head) to turn the screw on the top of the potentiometer.
- **Resistance Change:** Turning the screw will move the internal wiper, changing the resistance between the wiper pin and the two outer pins. The resistance change is linear over 25 turns.
- **Monitoring:** It is recommended to monitor the resistance or the circuit's behavior with a multimeter or oscilloscope while making adjustments to achieve the desired value.
- **Multi-Turn Design:** Being a 25-turn potentiometer, it offers high precision for setting specific resistance values. Avoid forcing the screw beyond its mechanical limits at either end of its travel.

## MAINTENANCE

Cermet potentiometers like the 3296W-104 are generally low-maintenance components. However, consider the following for optimal performance and longevity:

- **Environmental Conditions:** Store and operate the potentiometers in a clean, dry environment. Avoid exposure to excessive dust, moisture, or corrosive substances.
- **Cleaning:** If necessary, gently clean the exterior of the potentiometer with a soft, dry cloth. Do not use liquid cleaners or solvents that could penetrate the housing.
- **Physical Damage:** Avoid applying excessive force to the adjustment screw or the pins, as this can cause internal damage or break solder joints.

## TROUBLESHOOTING

If you encounter issues with your potentiometer, consider these common troubleshooting steps:

- **No Resistance Change:**
  - Check solder joints for continuity.
  - Ensure the potentiometer is correctly wired into the circuit.

- Verify the adjustment screw is not at its mechanical limit.
- Test the potentiometer independently with a multimeter to confirm its functionality.

- **Intermittent or Erratic Readings:**

- Inspect for cold solder joints or loose connections.
- Check for debris or contamination near the adjustment mechanism.
- The potentiometer might be faulty; replace if necessary.

- **Physical Damage:**

- If pins are bent or the housing is cracked, the component may be compromised and should be replaced.

## SPECIFICATIONS

Attribute	Value
Product Name	Cermet Potentiometer
Model	3296W-104
Resistance Value	100K Ohm
Tolerance	±10%
Rated Power	1/2W
Withstand Voltage	500V
Adjustment Type	Top Adjustment
Mounting Type	Through Hole (DIP)
Turn Number	25
Resistance Change Type	Linear
Temperature Coefficient	±100ppm/°C
Resistive Material	Cermet
Body Size (L*W)	9.5 x 9.5mm (3/8" x 3/8")
Total Length	18mm (5/8")
Color	Blue
Weight	8g (for 10 pieces)
Package Content	10 x Cermet Potentiometer

## WARRANTY AND SUPPORT

Specific warranty information for the uxcell 3296W-104 100K Ohm Trimmer Potentiometers is not provided in the product details. For any support inquiries or warranty claims, please refer to the original point of purchase or contact uxcell directly through their official channels.

You can visit the [uxcell Store on Amazon](#) for more information or to find contact details.