

Eaton BR250

Eaton BR250 2" 50 Amp Double Pole Interchangeable Circuit Breaker User Manual

Model: BR250

INTRODUCTION

This manual provides essential information for the safe and effective use of the Eaton BR250 2" 50 Amp Double Pole Interchangeable Circuit Breaker. This device is designed to protect electrical circuits from overcurrents and short circuits, ensuring the safety of your electrical system and connected appliances. Please read this manual thoroughly before installation or operation.



Image: Front-side view of the Eaton BR250 circuit breaker, showing the 'On/I' and 'Off/O' labels, '50' amp rating, and Eaton branding.

SAFETY INFORMATION

WARNING: Electrical work can be hazardous. Improper installation or maintenance can result in serious injury or death. Always consult a qualified electrician for installation and service. Ensure power is disconnected at the main service panel before performing any work on electrical circuits.

- Always turn off the main power supply at the circuit breaker panel before installing, removing, or servicing circuit breakers.
- Use appropriate personal protective equipment (PPE), such as insulated gloves and safety glasses.
- Verify that the circuit breaker rating (amperage and voltage) matches the requirements of the circuit and load it will protect.

- Do not use damaged or modified circuit breakers.
- Ensure all connections are tight and secure to prevent overheating.

SETUP AND INSTALLATION

The Eaton BR250 is a plug-in mount, double-pole circuit breaker designed for use in compatible Eaton BR series load centers. Professional installation by a licensed electrician is highly recommended.

1. **Power Disconnection:** Locate the main service panel and turn off the main breaker to completely de-energize the panel. Verify power is off using a voltage tester.
2. **Panel Access:** Carefully remove the cover of the electrical panel.
3. **Breaker Placement:** Identify an available space in the load center for a 2-inch double-pole breaker. The BR250 is designed to plug directly onto the bus bar.
4. **Wiring:**
 - Connect the two hot wires (typically black and red for 240V circuits) to the screw terminals on the circuit breaker. Ensure the wires are stripped to the correct length and inserted fully into the terminals.
 - Tighten the terminal screws to the specified torque. Refer to the breaker's label for torque specifications.
 - Connect the neutral wire to the neutral bus bar and the ground wire to the ground bus bar in the panel.
5. **Mounting:** Align the circuit breaker with the bus bar and firmly push it into place until it is securely seated.
6. **Panel Reassembly:** Replace the panel cover, ensuring all wires are clear and not pinched.
7. **Power Restoration:** Turn the main breaker back on.



Image: Close-up view of the Eaton BR250 circuit breaker's terminal screws, where electrical wires are connected.



Image: Front view of the Eaton BR250 circuit breaker, displaying technical specifications such as Type BR250, C250, 120/240V, Cu/Al #6 Max. Wire, HACR Type, 2 Pole, J-969, E7819-T, LR43556 Disj., and UL Listed mark.

OPERATING INSTRUCTIONS

The Eaton BR250 circuit breaker features a simple toggle switch for operation.

- **To Turn ON:** Push the toggle handle firmly to the "ON/I" position.
- **To Turn OFF:** Push the toggle handle firmly to the "OFF/O" position.
- **Tripped Breaker:** If an overcurrent or short circuit occurs, the breaker will automatically trip to the center position (between ON and OFF). To reset a tripped breaker, first push the handle completely to the "OFF/O" position, then push it to the "ON/I" position. If the breaker immediately trips again, there is still a fault in the circuit that needs to be addressed by a qualified electrician.

MAINTENANCE

Circuit breakers generally require minimal maintenance. However, periodic inspection is recommended to ensure continued safe operation.

- **Visual Inspection:** Annually, with the main power off, visually inspect the circuit breaker for any signs of damage, discoloration, or loose connections.
- **Panel Cleanliness:** Keep the electrical panel area clean and free from dust, debris, and obstructions.
- **Professional Check:** Consider having a qualified electrician inspect your electrical panel and circuit breakers every

few years.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Circuit breaker trips frequently.	Overloaded circuit, short circuit, ground fault, or faulty appliance.	Unplug appliances from the circuit. Reset the breaker. If it trips again, consult an electrician.
Breaker does not reset.	Persistent fault in the circuit or a damaged breaker.	Ensure the handle is pushed fully to the OFF position before attempting to reset. If it still won't reset, do not force it; contact an electrician.
No power to circuit after resetting breaker.	Main breaker tripped, loose wiring, or internal breaker failure.	Check the main breaker. If it's on, contact a qualified electrician for diagnosis.

SPECIFICATIONS

Feature	Detail
Brand	Eaton
Model Name	Eaton BR250 2" 50 Amp Double Pole Interchangeable Circuit Breaker
Part Number	BR250
Current Rating	50 Amps
Voltage	240 Volts
Number Of Poles	2
Circuit Breaker Type	Standard
Mounting Type	Plug-In Mount
Material	Plastic
Item Dimensions (LxWxH)	15 x 1 x 3 inches
UPC	0786676363051



Image: Bottom view of the Eaton BR250 circuit breaker, displaying the current interrupting rating of 10,000 Amps and torque specifications for wire connections.



Image: Back view of the Eaton BR250 circuit breaker, showing a barcode with UPC 0786676363051 and a label indicating it was 'Assembled in Dominican Republic'.

WARRANTY INFORMATION


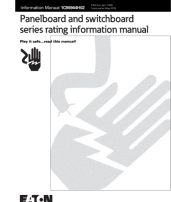

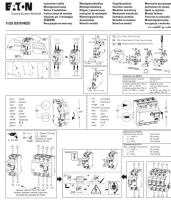

Eaton products are typically covered by a manufacturer's warranty. For specific warranty terms and conditions applicable to your BR250 circuit breaker, please refer to the documentation included with your purchase or visit the official Eaton website. Warranty details may vary by region and product type.

CUSTOMER SUPPORT

For technical assistance, product inquiries, or to locate a service provider, please contact Eaton customer support directly. You can find contact information and additional resources on the official Eaton website: www.eaton.com.

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Always consult a qualified electrician for electrical installations and repairs.

Related Documents - BR250

 <p>Installation and Operating Instructions for E-VAC Enclosed Indoor HV Vacuum Circuit Breaker</p> <p>EATON</p>	<p>Eaton E-VAC HV Vacuum Circuit Breaker Installation and Operating Instructions</p> <p>This guide provides essential installation, operation, maintenance, and technical details for the Eaton E-VAC Enclosed Indoor High Voltage Vacuum Circuit Breaker (Model IL550-0501001E), ensuring safe and efficient use in industrial and power grid applications.</p>
 <p>Panelboard and switchboard series rating information manual</p> <p>EATON</p>	<p>Eaton Panelboard and Switchboard Series Rating Information Manual</p> <p>This manual from Eaton provides detailed information on applying series ratings for panelboards and switchboards, covering UL and code issues, application examples, and comprehensive rating tables for various voltage and equipment combinations.</p>
 <p>Retrofit Interior Kits</p> <p>EATON</p>	<p>Eaton Retrofit Interior Kits: Upgrade Electrical Panels Safely & Cost-Effectively</p> <p>Eaton's Retrofit Interior Kits provide a cost-effective and safe solution to upgrade outdated electrical panels in homes and apartments without removing the existing enclosure. Learn about features, specifications, and ordering.</p>
 <p>EATON</p> <p>Magnum LV-Air Circuit Breaker</p>	<p>Eaton Magnum LV-Air Circuit Breaker User Manual (1812.900A)</p> <p>Comprehensive user manual for the Eaton Magnum LV-Air Circuit Breaker (model 1812.900A), detailing installation, operation, maintenance, troubleshooting, and renewal parts. Covers fixed and drawout configurations with electronic tripping systems.</p>
 <p>EATON</p> <p>11/25 IL019140ZU</p>	<p>EATON 11/25 IL019140ZU Instruction Leaflet: RCCB and RCBO Installation Guide</p> <p>Detailed installation instructions and technical specifications for EATON PL6, PL7, HN, PF6, PF7, and HNC series Residual Current Circuit Breakers (RCCBs) and Residual Current Breakers with Overcurrent Protection (RCBOs), including wiring diagrams and electrical data.</p>
 <p>LG & PD3 frame circuit breaker instruction leaflet for walking beam interlock</p> <p>EATON</p>	<p>LG & PD3 Frame Circuit Breaker Walking Beam Interlock Installation Instructions</p> <p>Instruction leaflet detailing the installation, assembly, and adjustment of the Eaton LG & PD3 frame circuit breaker walking beam interlock. Includes parts list, diagrams, and safety warnings.</p>