Eaton CH120

Eaton Cutler-Hammer 20A 1-Pole Circuit Breaker CH120 Instruction Manual

Model: CH120

1. Product Overview

The Eaton Cutler-Hammer CH120 is a 20 Amp, 1-pole circuit breaker designed for use in residential and light commercial electrical panels. This device provides essential overcurrent protection for electrical circuits, safeguarding wiring and equipment from damage due to excessive current flow. It features a quick make, quick break switch mechanism, an inverse time element tripping operation, and a trip-free handle for enhanced safety and reliability. The CH120 is UL Listed, HACR rated, meets NEMA standards and Federal Specifications, and is CSA certified. It is rated for 120 Volts AC and has a 10,000 AIR (Ampere Interrupting Rating).

Figure 1: Front view of the Eaton Cutler-Hammer CH120 circuit breaker, showing the "OFF" position and 20 Amp rating.

2. Important Safety Information

WARNING: Electrical shock hazard. Installation and servicing of this circuit breaker must be performed by a qualified electrician in accordance with all applicable national and local electrical codes. Failure to follow these instructions can result in serious injury, death, or property damage.

- Always disconnect power at the main service panel before working on electrical circuits or equipment.
- Verify that the power is off using a voltage tester before touching any wires or components.
- Do not install this device in wet or damp locations unless specifically rated for such environments.

- Ensure proper wire gauge is used for the circuit's amperage rating.
- Never bypass or tamper with the circuit breaker's protective mechanisms.
- This circuit breaker is designed for 120V AC applications. Do not use it in higher voltage systems.

3. Installation Instructions

This section provides general guidelines for installing the CH120 circuit breaker. Consult a qualified electrician for professional installation.

1. **Prepare the Panel:** Ensure all power to the electrical panel is turned off at the main disconnect. Open the panel cover.
2. **Identify Slot:** Locate an available slot on the bus bar within the electrical panel.
3. **Connect Load Wire:** Connect the circuit's hot (load) wire to the terminal screw on the circuit breaker. Tighten the screw securely to the manufacturer's specified torque.
4. **Install Breaker:** Position the circuit breaker onto the bus bar. The clip on the back of the breaker should engage with the bus bar. Press firmly until the breaker is fully seated and locked into place.
5. **Verify Connections:** Double-check all wire connections for tightness and proper seating.
6. **Close Panel:** Replace the panel cover.
7. **Restore Power:** Turn on the main power disconnect to restore power to the panel.

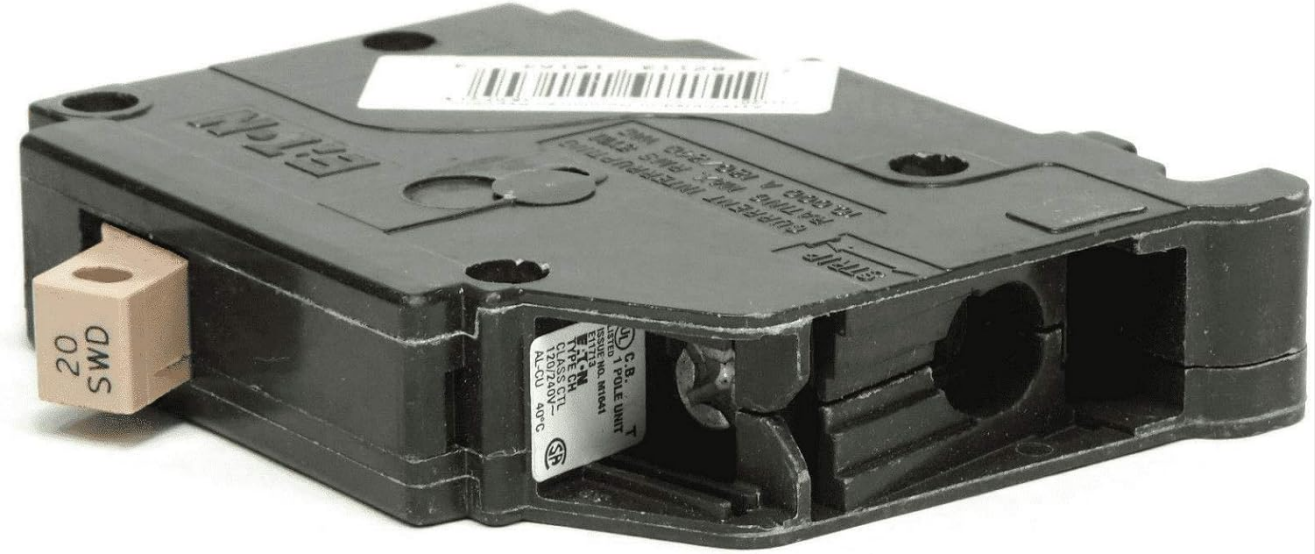


Figure 2: Side view of the CH120 circuit breaker, illustrating the terminal for wire connection and the bus bar clip.

4. Operating Instructions

The Eaton Cutler-Hammer CH120 circuit breaker operates with a simple ON/OFF toggle switch.

- **To Turn ON:** Push the toggle handle firmly to the "ON" position. Power will be supplied to the connected circuit.
- **To Turn OFF:** Push the toggle handle firmly to the "OFF" position. Power to the connected circuit will be disconnected.
- **Trip Condition:** If an overload or short circuit occurs, the breaker will automatically "trip" to the center position (between ON and OFF). This indicates that the circuit has been interrupted for safety.
- **Resetting a Tripped Breaker:**

a. First, move the handle completely to the "OFF" position.
b. Identify and correct the cause of the trip (e.g., unplug overloaded devices, fix short circuits).
c. Then, push the handle firmly to the "ON" position. If the breaker immediately trips again, do not attempt to reset it further. Consult a qualified electrician.

Figure 3: A CH120 circuit breaker with an attached tag, often used for inventory or identification purposes, showing the "OFF" position.

5. Maintenance

Circuit breakers are generally maintenance-free devices. However, periodic inspection by a qualified electrician is recommended to ensure continued safe operation.

- **Visual Inspection:** Periodically inspect the circuit breaker for any signs of physical damage, discoloration, or loose connections.
- **Testing:** While not typically required for residential breakers, some commercial applications may require periodic testing. Consult local codes and a qualified electrician.
- **Cleaning:** Ensure the area around the circuit breaker in the panel is free from dust and debris. Do not use liquids to clean inside the electrical panel.

6. Troubleshooting

If you experience issues with your CH120 circuit breaker, consider the following:

Problem	Possible Cause	Solution
Breaker trips frequently.	Overloaded circuit, short circuit, ground fault, or faulty appliance.	Unplug devices from the circuit. If it still trips, there may be a wiring issue or a faulty appliance. Consult an electrician.
Breaker will not reset.	Persistent overload or short circuit, or internal breaker fault.	Ensure all devices are unplugged from the circuit. If it still won't reset, do not force it. Contact a qualified electrician immediately.
No power to circuit, but breaker is ON.	Loose connection, faulty wiring, or issue with the appliance/fixture.	Verify connections (with power off). Check the appliance/fixture. If the problem persists, consult an electrician.

Note: For any persistent electrical issues, always consult a qualified electrician. Do not attempt repairs if you are not qualified.

7. Product Specifications

Feature	Specification
Brand	Eaton (Cutler-Hammer)
Model Number	CH120
Current Rating	20 Amps
Number of Poles	1
Voltage Rating	120 Volts AC
Circuit Breaker Type	Standard (Thermal-Magnetic)
Mounting Type	Wall Mount (Panel Mount)
Interrupting Rating (AIR)	10,000 Amps
Certifications	UL Listed, HACR Rated, NEMA Standards, CSA Certified
Item Weight	4.2 ounces
Product Dimensions	8 x 6 x 2 inches (Approximate packaging dimensions)
Material	Copper (Internal components)

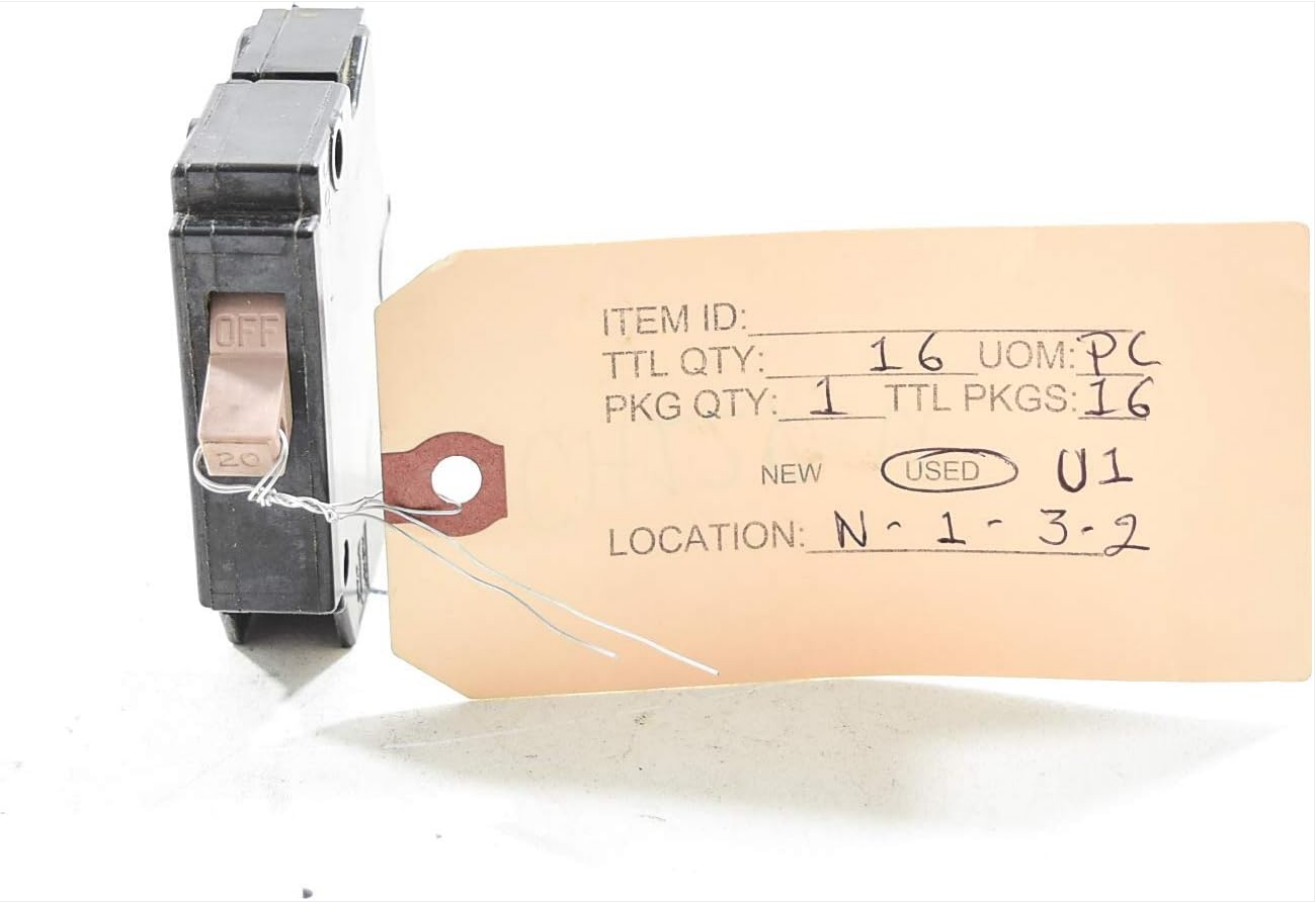


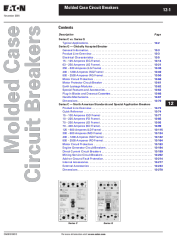
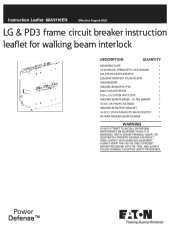
Figure 4: A CH120 circuit breaker with an inventory tag displaying item ID, quantity, and location, indicating its readiness for distribution.

8. Warranty and Support

For specific warranty information regarding your Eaton Cutler-Hammer CH120 circuit breaker, please refer to the documentation provided with your purchase or visit the official Eaton website. For technical support, installation assistance, or to report a product issue, please contact Eaton customer service or a qualified electrical professional.
Eaton Customer Service: Refer to the official Eaton website for contact details.

Related Documents - CH120

	Eaton Magnum LV-Air Circuit Breaker User Manual (1812.900A) 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.

	Eaton E-VAC HV Vacuum Circuit Breaker Installation and Operating Instructions 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.
	Eaton Series G & C Molded Case Circuit Breakers: 15-2500A UL, CSA, IEC Comprehensive catalog detailing Eaton's Cutler-Hammer Series G and Series C Molded Case Circuit Breakers (MCCBs). Covers product specifications, electrical characteristics, applications, and selection guides for breakers ranging from 15 to 2500 amperes, compliant with UL, CSA, and IEC standards.
	Eaton Power Secure Selection Guide: Circuit Breakers and Motor Control Solutions Discover Eaton's comprehensive Power Secure Selection Guide, featuring Air Circuit Breakers (PSL Series), Molded Case Circuit Breakers (PDC, BZM Series), Miniature Circuit Breakers (E6X Series), and D-Line Series for Motor Control & Protection. Find detailed product specifications, technical data, and selection information for electrical distribution and protection needs.
	Installation Instructions for Eaton Series NRX Breaker and Trip Unit Remote Mount CAM Module Adapter This document provides installation instructions for the Eaton Series NRX Breaker and Trip Unit Remote Mount CAM Module Adapter (IL019001EN). It details kit contents, connection procedures to the NRX circuit breaker and CAM module, and includes descriptions of diagrams illustrating the setup. Essential for proper remote mounting of CAM modules with Series NRX breakers.
	LG & PD3 Frame Circuit Breaker Walking Beam Interlock Installation Instructions 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.