

CBT-1203 QUICK REFERENCE

Variable Voltage Circuit Breaker
Timer and Power Supply

Control Power Receptacle

Receptacle for control power output cable used to control circuit breaker operation.

Contact Receptacle

Receptacle for contact cable used to monitor circuit breaker main contact status.

Display

Displays test subject contact positions, operation times, and bounce times. (In milliseconds)

Reset Switch

Clear the current readings and reset the unit for a new test.

Protective Ground

Protective Ground connection for the timer.

Main Power Input

120VAC/60Hz input for timer.

Report Printer

Thermal printer for printing timing reports.

PC Connection

USB receptacle for PC connection.

Main Power Switch

Protective device and switch for main power.

Variable Control Power

Controls the output of the variable control power when the variable voltage switch is switched on.

Aux. Power Input/Output

Auxiliary input for voltages other than 0-120VAC or 0-125VDC (250V Maximum) or output matched to control power output to test voltage or operate circuit breakers.

Charging Motor Switch

Supplies power to the charging motor circuit when switched on.

Scroll/Select Switch

General operation switch. Rotate to scroll, press to select.

Internal/Aux Select

Select between Aux input or internal source for control power

Control Power Select

Select between VAC or VDC output

Close Pushbutton

Supplies power to close circuit when pressed to close the circuit breaker.

Open/Trip Pushbutton

Supplies power to open/trip circuit when pressed to open the circuit breaker.



OPERATING PROCEDURE

SAFETY PRECAUTIONS

- Ensure that electrical equipment being tested is de-energized.
- Ensure all personnel are a safe distance away from the electrical equipment before performing any operation.
- Ensure all electrical connections are secure in their correct positions and isolate any unused connections to prevent arcing and potential damage to the CBT-1203 and/or electrical equipment.

WARNING:

This timer is designed for use on modern spring charging circuit breakers with charge, trip, and close current **not exceeding 10 Amps** and a max voltage of 250 Volts. Improper use will damage this piece of equipment and void warranty.

OPERATING INSTRUCTIONS

1. Connect control power output cable to breaker secondary plug using breaker specific plug (If purchased) or universal clips and install on circuit breaker. If using universal clips, consult breaker manual for proper wiring diagram.
2. Connect the contact cable and attach contact clamps on corresponding phase bus/connections.
3. Toggle the CBT-1203 main power switch to ON position.
4. Use the control power select switch and dial to select appropriate control voltage or AUX to use auxiliary input (250V MAX.). Check breaker nameplate and/or manual for proper control voltage.

5. To vary the output voltage, rotate Variable Control Power knob, and verify control voltage on screen.
6. Toggle the charging motor switch to the ON position to charge the operating mechanism springs, if needed. Toggle the switch off after the operation is complete.
7. Press the Open/Trip or Close Button to perform the corresponding function.

ATTENTION:

After each open/trip or close operation the display will hold the current results until RESET is pressed. DO NOT perform another test until after pressing the RESET button or results may be lost.

8. For an Open/Trip operation, the time when the coil is energized until the contacts part is displayed in milliseconds for each phase.
9. For a Close operation, the time when the coil is energized until the contacts first touch is displayed in milliseconds on the top line. If contact bounce is present, the bounce time will be displayed on the bottom line.
10. Select SAVE to store results in the CBT-1203 internal memory.
11. Press the reset button to exit the result screen and prepare for next test.

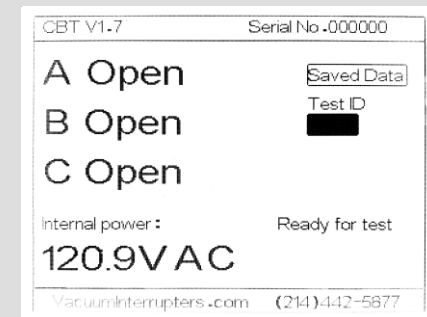
TEST MANAGEMENT

1. To view saved tests, use the Scroll/Select button to highlight and press the 'Saved Data' virtual button.
2. To print, use "Scroll/Select" to highlight and press the 'Print' virtual button.

3. To delete, use "Scroll/Select" to highlight and press the 'Del' virtual button.
4. To navigate to older tests, use "Scroll/Select" to highlight and press the 'Prev' virtual button.

ATTENTION:

If equipment being tested is non-latching, such as an electrically-held contactor, close times will be replaced with open/trip times on the display after the close button is released. Close times can be found at the number 2 location in the log after test.



TROUBLESHOOTING

Problem	Solution/Reason
Breaker will not operate.	Check connection(s) to breaker secondary plug.
	Check that proper voltage setting is selected on the Control Power Output Switch.
	If AUX is selected, check that the input voltage is correct.
	Consult breaker manual for info regarding any interlocks that may be in place.
One or more test results missing from display.	Check the plug connections to contact clamps.
	Check that contact clamps are making contact with bus.

For technical support call: (214)442-5877