

Functional test procedure for circuit breakers

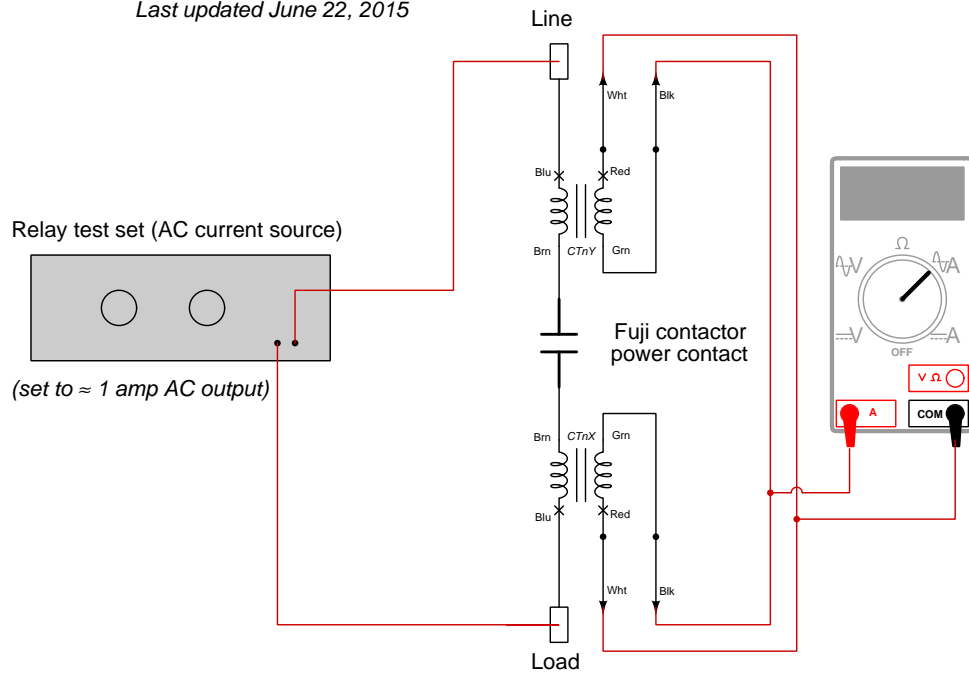
These tests should be performed in the order listed! If a test calls for a connection to be made that is non-momentary, you should leave that connection complete for all subsequent tests. All tests shall be performed by making connections at the ends of the control and CT cables, to ensure these cables are tested as well as the circuit breaker's internal components.

Note that schematic diagrams showing connections for the CT polarity tests are shown on the following pages.

Test	Expected result	Result
Apply power to 24 VDC station power terminals	Green light on and red light off	
Momentarily energize “close” coil	Red light on and green light off	
Resistance between ϕ A line and load terminals	$\approx 0 \Omega$	
Resistance between ϕ B line and load terminals	$\approx 0 \Omega$	
Resistance between ϕ C line and load terminals	$\approx 0 \Omega$	
Resistance of 52b auxiliary contact terminals	$\infty \Omega$	
Perform CT polarity test on ϕ A, windings aiding	0 amp	
Perform CT polarity test on ϕ B, windings aiding	0 amp	
Perform CT polarity test on ϕ C, windings aiding	0 amp	
Perform CT polarity test on ϕ A, windings opposing	$2 \times I_{in}$	
Perform CT polarity test on ϕ B, windings opposing	$2 \times I_{in}$	
Perform CT polarity test on ϕ C, windings opposing	$2 \times I_{in}$	
Momentarily energize “trip” coil	Green light on and red light off	
Resistance between ϕ A line and load terminals	$\infty \Omega$	
Resistance between ϕ B line and load terminals	$\infty \Omega$	
Resistance between ϕ C line and load terminals	$\infty \Omega$	
Resistance of 52b auxiliary contact terminals	$\approx 0 \Omega$	

Current transformer polarity test setup current transformer secondary windings aiding

Last updated June 22, 2015



Current transformer polarity test setup current transformer secondary windings opposing

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