

RCDs can be used as part of an installation design to enable the requirements of fault protection or additional protection to be met.

Earth fault loop impedance test should be done and verified as acceptable before RCDs are tested. (proving there is an earth path to drop current onto)

BS 7671 is a minimum standard and only mandates that all RCDs are tested under and AC test current.

IF the RCD tester is being used has settings for additional types of RCDs it is advisable to carry the optional test below.

RCDs should be tested on both the positive (0°) and negative (180°) half cycles of the AC supply with the highest tripping time recorded.

The test button on the RCD should be pressed to ensure the RCD is working before testing.

Required tests.

RCD type	Instrument setting	Applied current	Max. tripping time	
			Non-delay	S type or time-delay
All	Type AC	AC 1 x I Δn	300 ms	500 ms

Optional tests.

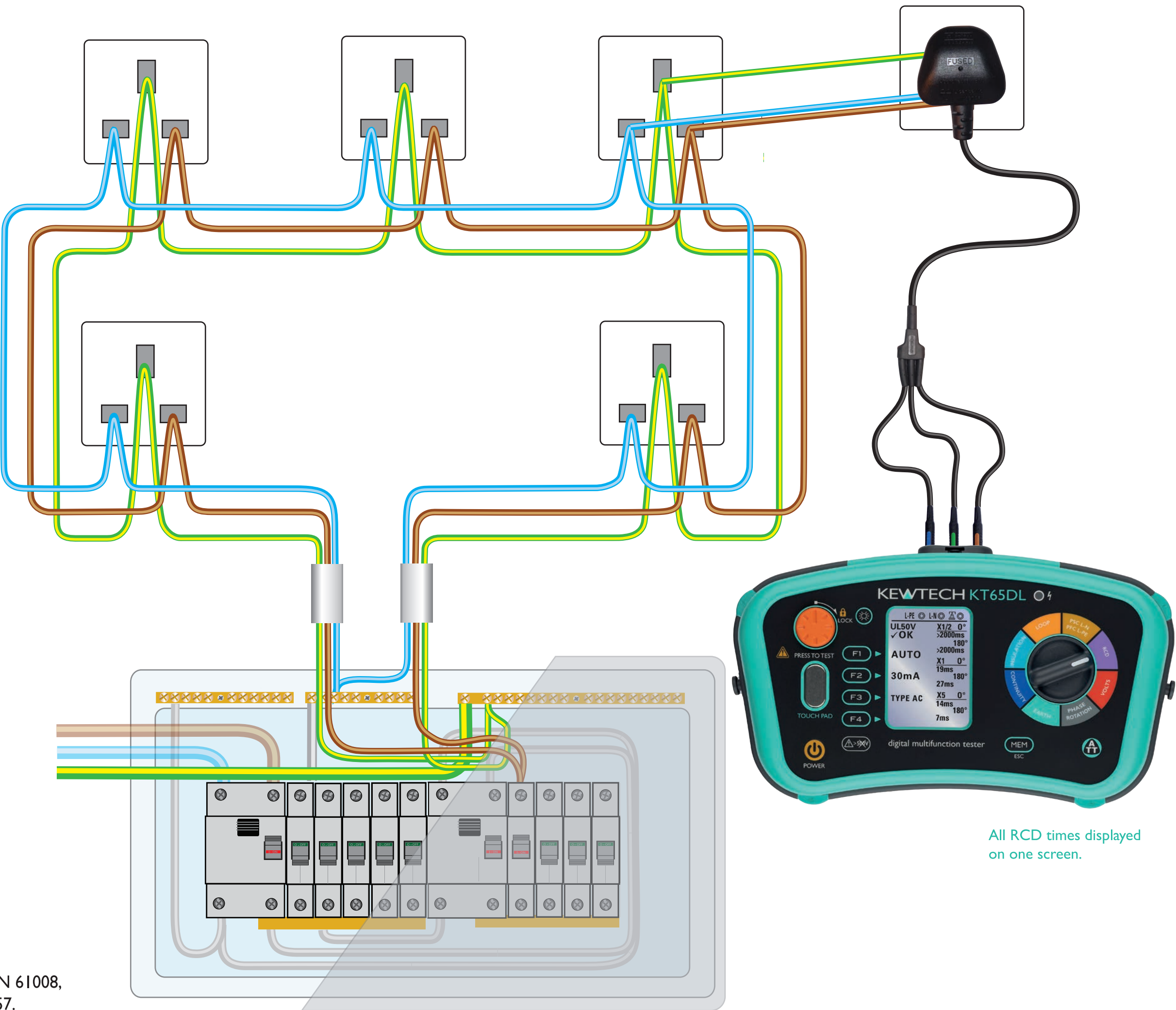
RCD type	Instrument setting	Applied current	Max. tripping time	
			Non-delay	S type or time-delay
All	Type AC	½ x I Δn	No trip	No trip
All RCDs with I Δn ≤ 30 mA	Type AC	5 x I Δn or 250 mA (if declared by RCD manu.)	40 ms	150 ms
All RCDs with I Δn > 30 mA	Type AC	5 x I Δn	40 ms	150 ms
Type A, F or B	Type A (after type AC tests)	½ x I Δn	No trip	No trip
		1 x I Δn	300 ms	500 ms
		5 x I Δn	40 ms	150 ms
Type B	Type B (after type AC & A tests)	2 x I Δn	300 ms	500 ms

NB: These values comply to RCDs designed to the Harmonised Standards: BS EN 61008, BS EN 61009, BS EN 60947-2 and using test equipment designed to BS EN 61557.



Scan to view video

Kewtech 'Clear Thinking' diagrams are schematics to aid the understanding of electrical testing. Ensure proper safety procedures are taken before testing.



Note: When carrying out live testing cover must be closed

All RCD times displayed on one screen.

Johnny Ace says:  
Remember to test the correct operation of the RCD 'Test Button' and record the result along with the highest x 1 measurement.

