

Using CopperPro's K-Test for Resistive Fault Location

When a double sided fault is present on a pair, the K-Test method of resistance fault locating can be used in situations where a spare pair or spare wire is not available. The only requirement is a strap (shorting tip and ring) at the far end of the test pair during the test process.

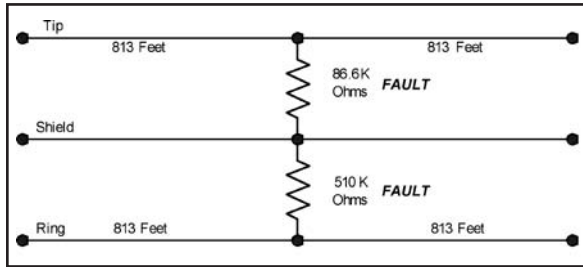


Figure 1. Setup – A spool of 3 pair, 22 AWG, 813 feet long. Looping the cable back at the end provides a convenient place to place simulated faults. One of the pairs was used to “simulate” a shield. Setup: A spool of 3 pair, 22 AWG, 813 feet long. Looping the cable back at the end provides a convenient place to place simulated faults. One of the pairs was used to “simulate” a shield.

Using the CopperPro™ Loop Qualification Tester – The following snapshots show the procedure for running a K-Test RFL on the Fluke Networks CopperPro test set.

Voltage	Shorts & Grounds	Opens	R.F.L.
Load Coils	Leakage Stress	Loop Devices	Tracing Tone
VF Noise	VF Loss	VF Long. Balance	Send VF Tone
POTS Auto Test	Dial-up Tests	Terminated VF Tests	Monitor Line

(Measure Distance to Resistance Fault Using Strap)

Press TEST to Start

POTS	XDSL	TDR	Setups
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Figure 2. Step 1 – Go to the POTS toolbox, select and run the R.F.L test.

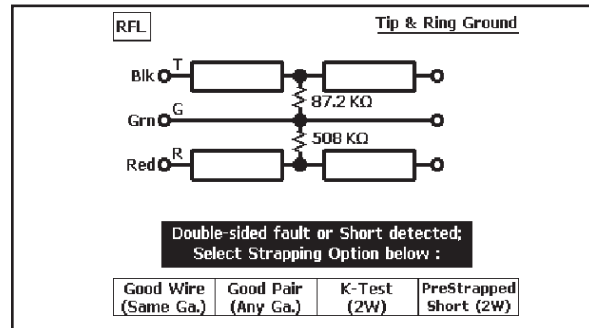


Figure 3. Step 2 – The CopperPro tester finds both resistive faults. Select and run the K-Test.

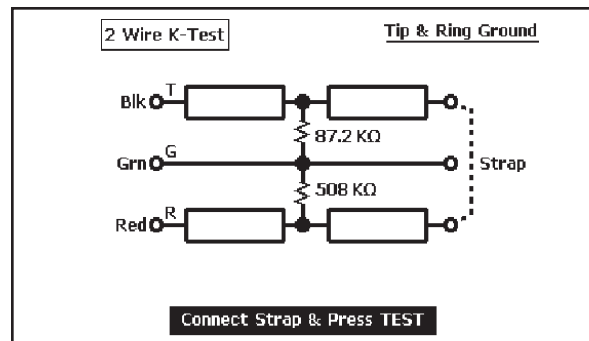


Figure 4. Step 3 – Strap the far end of the test pair as shown. Press TEST.

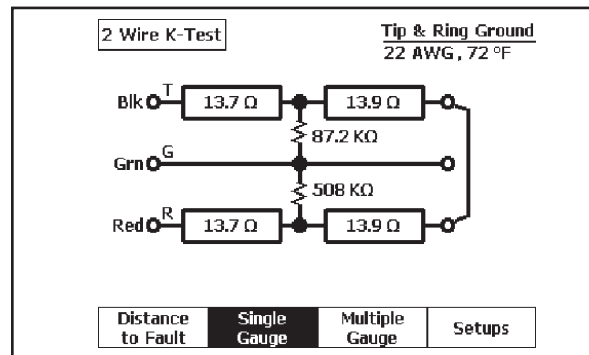


Figure 5. Step 4: Change the AWG to 22 using Setup. It is single gauge. Press Distance to Fault.



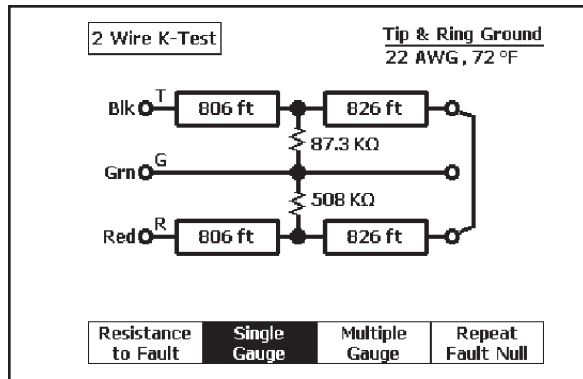


Figure 6 Step 5 – Distances to the faults are shown. As you can see, these measurements are close to the actual test pair lengths and fault locations.

The CopperPro family of loop testers from Fluke Networks provides all technicians working in the outside plant a full complement of testing, fault locating and qualification capabilities in a single, rugged, handheld test set. The CopperPro tester is easy to use. Fast. And it offers more capability than any other single loop test set.

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Printed in U.S.A. 2/2006 2548245 A-EN-N Rev A