Opens: The TS100 PRO shows the distance to the first open it detects. If the wire pair has no fault, the TS100 PRO shows the distance to the end of the pair.

Shorts: If there are one or more shorts on the pair, the TS100 PRO beeps and shows the distance to the closest short.

Bridge Taps: The TS100 PRO shows the distance to the bridge tap. To see the length of the bridge tap, press ▲. To see the total length of the cable, press ▲ again.

Load Coils: The TS100 PRO cannot test past a load coil and shows the distance to the coil.

Out-of-Range: If the conductors are too long to measure, the TS100 PRO shows -Err.

Standard VOPs

See back of TS100 PRO for standard VOP and Users Guide for instructions on determining a cable's actual VOP value.

To set the VOP, turn on the TS100 PRO while holding down ▲ or ▼. The display alternates between the measured length and the VOP setting.

To change VOP, press ▼ to increase, or ▲ to decrease the VOP value shown. To exit VOP adjustment mode, turn off tester.

CAUTION: Refer to the Users Guide for all safety guidelines.

PN 3850767 October 2011, Rev. 1 10/11

FLUKE networks

TS®100 PRO Cable Fault Finder

Users Card

Normal Test Mode

When you power on the tester, it is in **NORMAL** test mode. Unit has a deadzone of zero.

To turn on 50·foot deadzone test mode (50 feet or 15 meters from tester), press ▼.

To turn on the bridge tap filter (BT FILTER), press ▼ again once the tester is in deadzone test mode. Press ▼ again to return to normal test mode.

Deadzone Test Mode

Deadzone test mode ignores the first 50 feet of cabling when testing a cable. The purpose of this mode is to allow you to skip events in the first 50 feet (15 meters) from a terminal or cross box - events such as splices or other expected or visually apparent events on the cable.

To enter the 50·foot deadzone test mode from normal test mode, press ▼. Ifyou are in feet mode, the display will show d**50** and then the TDR results. If you are in meters mode, the display will show d**15** and then the TDR results..

If the cable you are testing measures less than 50 feet (15 meters), the tester is unable to report any events and will display -Err since it is unable to see the end of the

cable. To measure a cable length shorter than 50 feet or to locate events in the first 50 feet (15 meters), return to Normal Mode by pressing ▼ twice.

Bridge Tap Filter Test Mode

Bridge tap filter test mode skips the first bridge tap on a cable to locate the second bridge tap on the cable. The first bridge tap could be located anywhere on the cable. To "see" past the first bridge tap, activate the bridge tap filter.

To enter the bridge tap filter test mode from normal test mode, press ▼ twice. The red BT FILTER LED will be lit.

To exit bridge tap filter test mode, press ▼ once. The red BT FILTER LED will go off.

User Application Notes

On certain types of cables with bridge taps, TS100 PRO reports bridge tap location and bridge tap length correctly, but reports cable length as -Err (cable too long). In certain circumstances, TS100 PRO may not always be able to determine length due to impacts of the tap on TDR signal, such as excessive loss.

To detect bridge taps on 24 wire gauge cabling, bridge tap length must be at least 10% of distance to bridge tap. For example, if distance to bridge tap is 3,000 feet, then the minimum bridge tap must be at least 300 feet to be detected. Bridge tap detection may also vary based on specific cable characteristics.

When testing into a DSLAM or certain CPE (Customer Premise Equipment), the TS100PRO may add 1000 feet to 3000 feet to the actual cable length. To maximize accuracy, it is recommended that the user disconnect CPE prior to testing. Ideally, the TS100PRO should be used on non-terminated cables.

Terminations: Devices connected to the wires under test (such as telephone sets, fax machines, or modems) may cause the TS100 PRO to show -Err.

Turning on the TS100 PRO: Press the **ON/AUTOTEST** key. The display shows 8888 during the self test.

Tone: The TS100 PRO has the SmartTone™ Positive ID tone circuit. When the TS100 PRO is connected to a wire pair, it automatically injects an identification tone that has five different frequency cadence options. To change the frequency cadence, momentarily short then open the far end of the wire pair under test.

Locating Faults: The TS100 PRO shows the distance to the closest fault (short) on the wire pair. If there is no fault, the TS100 PRO shows the distance to the end of the pair.

The default Velocity of Propagation (VOP) of 66 is usually sufficient to find the fault. For greater accuracy, set the tester's VOP per the Users Guide or this card.