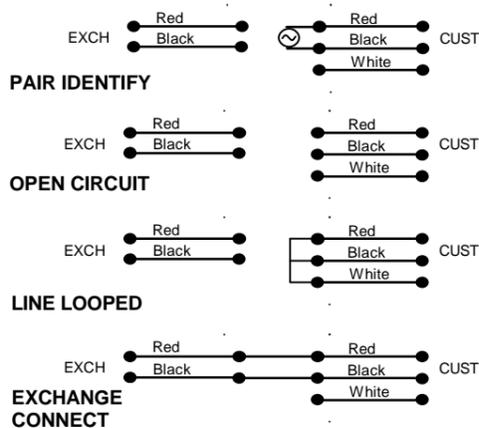


TX935 CABLEMATE-PLUS

Cablemate comprises two components:

- (a) **Probe** – used for tone search, cable pair identification and to control the mode of the Oscillator unit.
- (b) **Oscillator** – provides 'pair identify' signal to line. Also, on receiving signals sent from the probe, the oscillator will switch directly to the mode selected, **Pair Identify, Open Circuit, Short Circuit** or **Exchange Connect**. The Red LED indicates power is on and the battery is OK. At switch-on the LED should light continuously for 2 seconds, then flash once per second indicating that it is ON. If the LED flashes rapidly at switch-on then the battery needs replacing.



Note: Switch on always selects Pair Identify Mode.

PAIR IDENTIFICATION

- Insert an Oscillator lead into LINE1 to turn the Oscillator on, then connect the LINE1 lead to the Customer's line. Insert an Oscillator lead into EXCH and connect the EXCH lead to the Exchange side of the line. If two or three lines are required at the same time, then insert Oscillator leads into LINE2 and LINE3, and connect LINE2 and LINE3 leads to the spare lines. The Warble Tone will start when the Oscillator is turned on. If two or three lines are used, the Warble Tone will rotate from LINE1 (1 Beat Warble) to LINE2 (2 Beat Warble) and LINE3 (3 Beat Warble) with 7.5 seconds time out on each line. The tone can be monitored using the Probe.
- Move to the far end of the line and use Probe tip to identify cable pair carrying the Oscillator Signal. The Probe sensitivity can be selected by pressing the TONE button. The pair can be verified by checking for a null (minimum signal) between the wires carrying the tone. No null will be found if the pair is unbalanced.

LINE TESTING

- Identify the pair at the customer end and mark PAIR1, PAIR2 and PAIR3 if using three lines at the same time.
- Insert Probe lead and connect to the identified pair. Wait for the correct Warble Tone on the connected pair if using more than one line. Press a

Probe button to change the Oscillator to the selected mode.

- Open Circuit.** Oscillator tone is disconnected and line is left open circuit. After disconnecting Probe lead from line, insulation resistance tests may be done on the open line.
- Short Circuit.** Oscillator tone is disconnected and line is looped. White wire is also shorted to line. After disconnecting Probe lead from line, loop resistance may be measured.
- Exchange Connect.** Oscillator tone is disconnected and line is connected through to exchange. Green LED on Probe indicates that 48Vdc is connected to line. Red LED on Probe indicates that the Probe lead is connected in reverse to 48Vdc line.
- When tests are completed, if a further line is to be checked then set the Oscillator back to Warble Tone mode. The Oscillator will then rotate between the lines so that a further line can be selected and checked. Repeat steps (1) to (5) above.

FAULT LOCATION

Two Wire Test

Used with a single pair containing one good wire and the faulty wire.

- Disconnect the EXCH lead from the exchange.
- Connect LINE1 Oscillator lead to the pair under test (white lead not used).
- At the customer end identify the pair and press OPEN to disconnect the oscillator from line.
- Disconnect Probe Lead and test the line to identify the faulty wire.
- Press SHORT to loop line then carry out fault location.

Three Wire Test

- Insert the White lead into the Oscillator.
- As for Two-Wire Test but connect the LINE1 lead to a good pair and the White lead to the faulty wire. Note that in Short Circuit Mode, all three wires are looped at the Oscillator.

Pulse Echo Test (PET or TDR)

The loop / unloop facility can be used to calibrate a PET for length of line to Oscillator.

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