



#### Applications:

- Pre-commission testing
- Installation test results
- Locate installed loops
- Fault diagnosis/field service

The LTM-2000 Loop Test Meter is a second-generation field service device suitable for in-pavement loop analysis. It has three main functionalities for testing in-pavement loops: Q Meter, 500V Insulation Test and Loop Finder.

#### Key Features:

- Measure loop resistance, inductance, device-dependent resonance frequencies and Q factor
- Loop and feeder cable to earth insulation resistance up to 200 M $\Omega$
- Automatic connection checking for short circuit and incorrect loop connections
- Locate energised loops in road via Loop Finder Probe (included) at up to 110 km/hr
- Locate winding position to  $\pm 5$  cm
- Audible feedback
- Graphical LCD display with selectable backlight
- USB charging with up to 50 hours battery life on full charge (backlight and test mode dependent)
- Ruggedised enclosure.

### Q Meter

- Resistance measuring:  $1 \Omega \pm 3\%$  to  $10 \Omega \pm 3\%$  (optimised range)
- Inductance measuring:  $100 \mu\text{H} \pm 5\%$  to  $400 \mu\text{H} \pm 5\%$  (optimised range)
- Tuned frequency: 50 kHz to 120 kHz (optimised range)
- Q factor: 15 to 50 (optimised range)
- Vehicle detection graph: 0 km/hr to 110 km/hr (optimised range 0 km/hr to 60 km/hr).

### Insulation Test

- Loop to earth insulation resistance:  $10 \text{ M}\Omega$  to  $200 \text{ M}\Omega$  (optimised range)
- Test voltage: 500V (nominal).

### Loop Finder

- Recommended probe height from pavement: 100 mm to 300 mm (optimised range)
- Winding finder accuracy: 0 mm to 50 mm
- Vehicle sweep speed: 0 km/hr to 110 km/hr (optimised range 10 km/hr to 40 km/hr).

### Loop Finder Probe

- Cable length: 1500 mm
- Weight: 320 g
- Inductance: 1 mH
- Plug type: RCA phono.

### Environmental, Power and Physical Specification

- Physical dimensions: 100 mm (W) x 185 mm (H) x 45 mm (D)
- Weight: 400 g
- Display: 128 x 65 pixel transfective LCD display, backlit
- Interface: Push-button user interface
- Terminals: 2x banana (Q Meter and Insulation Test), 1x RCA socket (Loop Finder), 1x micro USB (charging)
- Power Supply: Rechargeable battery, Li-ion, 5 Vdc, 2600 mAh
- Operational temperature:  $-20^\circ\text{C}$  to  $70^\circ\text{C}$ .