Model 6000
Multi-Function Telephone Network Analyzer

FEATURES/KEY BENEFITS

- **Diagnostic and fault location functions in one instrument** – Integrated testing system enables the technician to diagnose and locate faults with one easy to use, high quality instrument.

- **Diagnostic Test Package** – Identify conditions on the line that can adversely affect service using the following diagnostic tools:
  Multi-Meter – Measure AC volts, DC volts, foreign battery, resistance and insulation resistance.
  Pair Quality Tests – Measure loop current, noise metallic, power influence and longitudinal balance.

- **Fault Location Test Package** – Restore existing service quicker or reclaim unused lines for new service with accurate fault location tools:
  Time Domain Reflectometer (TDR) – Accurately locate opens, shorts, water in cable, bad splices and cable damage with the same full-function TDR found in Riser Bond's stand-alone instruments.
  Resistance Fault Locator (RFL) – Three test modes. Locate resistance faults on a pair or on a single conductor.
  Stress TDR – This exclusive feature enhances the instrument's ability to locate faults due to moisture in the cable.
  Open/Capacitance Meter – Measure capacitance to the end of the pair or locate fault caused by an open circuit.

- **Ease-of-Use Features** – The soft-key menu's intuitive left-to-right operation guides the technician through logical testing steps to diagnose and locate faults. Most tests are performed using the same connection to the line.

- **Auto-Test and Fault Analysis Functions** – Press the Auto-Test key to perform a series of basic diagnostic tests. The Fault Analysis function will then suggest the appropriate fault location tool to use to most effectively locate the problem.

- **SUPER-STORE Waveform Data Storage** – Analyze TDR waveforms in a more convenient time or place. The instrument also stores Auto-Test records.

- **WAVE-VIEW Software** – View, manipulate, print and archive TDR waveforms on your computer. Document plant, certify new builds, and store waveforms for later comparisons.

- **Optional Oscillator and Probe** – One unassisted technician working at a distance from the exchange can disconnect a customer's service, identify the cable pair, open and close the circuit, and reconnect the customer after desired tests are complete.

- **Large LCD Display** – Test results and interpretive information are presented in an easy to read format on a screen that is larger than those found on many competitive units.

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Model 6000
Integrated test solution

Product Specifications

Physical Dimensions
Main instrument without carrying case & accessories:
Height: 6.93 inches (176 mm)
Width: 10.71 inches (272 mm)
Depth: 3.15 inches (80 mm)
Weight: 4.8 pounds (2.2 kg)
Main instrument with carrying case and accessories:
Height: 7.80 inches (198 mm)
Width: 11.18 inches (284 mm)
Depth: 7.0 inches (178 mm)
Weight: 7.9 pounds (3.6 kg)

Power
Internal: Rechargeable, 7.2 V Nickel metal hydride battery pack
External: 12 VAC or VDC, 1250mA power supply
Operating Time: Greater than 5 hours, continuous without backlight

Environment
Operating temperature: 0°C (+32° F) to +50°C (+122° F)
Storage temperature: -20°C (-4° F) to +60°C (+140° F)
Humidity: 95% maximum relative humidity, non-condensing IEC 68-2-3
Vibration: IEC 68-2-6
Shock (Bump): IEC 68-2-29, 40g, 6ms, 1000 shocks in each axis
Drop: IEC 68-2-27, 1m free fall, packaged in carry case
Moisture rating: IP 54

Display
320 x 240 dot-matrix, liquid crystal display (LCD) with CCFL backlighting

Multi-Meter
DC Voltage: *0 to 400V*
Resolution: 0.1V
Accuracy: 1%±0.1V
AC Voltage: *0 to 400V*
Resolution: 0.1V
Accuracy: 2%±0.1V
Foreign Battery: *2 to 400V*
Resolution: 0.1V
Accuracy: 1%±0.1V
Resistance:
0 to 1999.9Ω
Resolution: 0.1Ω
Accuracy: 0.2%±0.2Ω
2kΩ to 10kΩ
Resolution: 1Ω
Accuracy: 0.2%±1Ω

Insulation Resistance
Voltages: 50V/100V/250V/500V
0Ω to 9.99MΩ
Resolution: 0.01MΩ
Accuracy: 2%±0.01MΩ
10MΩ to 99.9MΩ
Resolution: 0.1MΩ
Accuracy: 4%
100MΩ to 999MΩ
Resolution: 1MΩ
Accuracy: 10%

Open/Capacitance Meter
0 to 1000 ft (0 to 100 m)
Resolution: 1 ft (0.1 m)
Accuracy: 2% ±3 ft (1 m)
1000 ft to 10,000 ft (100 m to 1,000 m)
Resolution: 10 ft (1 m)
Accuracy: ±3%
10,000 ft to 100,000 ft (1000 m to 10,000 m)
Resolution: 100 ft (10 m)
Accuracy: ±5%
100,000 ft to 150,000 ft (10,000 m to 50,000 m)
Resolution: 1000 ft (100 m)
Accuracy: ±8%

0 to 9.99nF
Resolution: 0.01nF
Accuracy: 2% ± 0.06nF
10.0 to 99.9nF
Resolution: 0.1 nF
Accuracy: ±3%
100 to 999nF
Resolution: 1 nF
Accuracy: ±5%
1000 to 2000nF
Resolution: 1 nF
Accuracy: ±8%

Pair Quality
Loop Current: *0 to 120mA*
Resolution: 0.1mA
Accuracy: 5% ±0.2mA
Noise Metallic: *0 to 50 dBrnC*
Resolution: 1 dB
Accuracy: ±2 dB
Power Influence: *40 to 100dBrnC*
Resolution: 1 dB
Accuracy: ±2 dB
Longitudinal Balance: *40 to 62dB*
Resolution: 1 dB
Accuracy: ±2 dB

Time Domain Reflectometer (TDR)
loaded and non-loaded cable
Maximum Ranges:
Live waveform:
63,700 feet (19,400 meters) at 99.0% VOP
38,600 feet (11,700 meters at 60.0% VOP
Range varies with VOP. Maximum testable cable length varies with pulse width and cable type.
Stored waveform:
11,900 ft (3,600.0 m) at 99.0% VOP
7,200 ft (2,200.0 m) at 60.0% VOP
Range varies with VOP.
Horizontal Resolution:
Up to 2,000 ft (610 m): <.25 ft (.07 m) at 99.0% VOP
<.07 ft (.02 m) at 30.0% VOP
Over 2,000 ft (610 m) 1 ft. (.1 m) at any VOP
Vertical Resolution: 14 bits with 137 dots displayed
Vertical Sensitivity: Greater than 65 dB
Output Signal: Pulse widths of 2ns, 25ns, 100ns, 500ns, 1.5µs, 4.4µs and 330µs
Output Balance: Variable, from 80Ω to 120Ω
Velocity of Propagation:
Two user-selectable display formats.
VOP (%): Non-loaded cable: 30.0% to 99.0%
Loaded cable: 0.8% to 20.0%
V/2: Non-loaded cable: 147.5 to 486.9 ft/µs
(45.0 to 148.4 m/µs)
Loaded cable: 3.9 to 98.4 ft/µs
(1.2 to 30.0 m/µs)

Input Protection: 400 VAC or VDC up to 60 Hz
Distance Accuracy: *Accuracy will vary with cable VOP and cable type.* +/- .5 ft (.15 m) plus +/- .01% of reading

Software Noise Filters
Standard: 8x, 50/60 Hz

Optional: 4x, 8x, 16x, 32x, 64x, 128x, 50/60 Hz

Resistance Fault Locator (RFL)
Location Range: 0 to 150 kft (0 to 45 km)
Resistance fault range: 0 to 50MΩ
Accuracy
3-Wire Test: ±0.25% of DTS plus ±0.4Ω
4-Wire Test: ±0.25% of DTS plus ±0.25Ω
Kupfmuller Test: ±1.0% of DTS plus ±1Ω
Storage
Standard: 8 Auto Test and TDR waveform records
Optional: 32 Auto Test and TDR waveform records

Riser Bond Oscillator and Probe
Communications for: short pair, open pair, exchange connect, disconnect, pair identification tone

Accessories:
Standard: Operator's Manual, 12VDC charger, nylon carry/ accessory bag, shoulder strap, 2 sets telco connection leads plus ground lead, pair shorting strap, VOP card.
Optional: Extended waveform storage, extended TDR noise filters, Extended Warranty.

Technological advances allow changes in specifications and/or components. Changes may be made without notification.

MAINTAINING THE CONNECTION
At Riser Bond Instruments, our first commitment is to you, our customer.

We start with product. Riser Bond builds our entire line of high-performance test equipment to meet your unique needs. And then we back them all with training, technical support, and the most comprehensive customer service and warranty in the industry.

When you choose Riser Bond, you have decades of product design knowledge and field experience inside every one of our state-of-the-art test instruments, and a guarantee of expert service after the sale. Riser Bond...
maintaining the connection.

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World leaders

Radiodetection is a proud member of the SPX group of companies, which provide technical products and service solutions worldwide.

Radiodetection and its associated companies specialize in the design and manufacture of products for the location and maintenance of underground pipes and cables. Our aim is to be viewed as the supplier of choice of 'high performance' quality equipment using advanced product technologies. We are also committed to both design innovation and customer support.

Technical support

Radiodetection equipment users have easy access to technical support. A call to your regional representative, or the Radiodetection head office, will put you in contact with our team of field-experienced technical experts.

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Radiodetection has a team of factory-trained service technicians and dedicated service facilities. Turnaround is fast, and costs are very competitive.

Training

Product training for your operators and training personnel is available on your site, or at Radiodetection's headquarters. Training is with qualified instructors and each trainee receives a certificate to confirm they have received the training.

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