

## PrimeTest 200

### 3 – in – 1 Electrical Safety Multi-Tester

The next generation of hand-held tester – the first ever tester to combine the function of these separate testers into 1 instrument:

***PAT Tester + Installation Checker + DMM = PrimeTest 200***

Gives you even greater efficiency, speed of testing and convenience!

Combine the testing requirements needed of a PAT tester, Installation checker and DMM and you have the PrimeTest 200. The ergonomically designed hand-held unit, with integral rubber bumpers, gives you the ability to perform 10 tests including temperature (via a module) and is capable of testing all 230V portable electrical appliances and IT equipment.



Suitable for those working in the service and repair industry for vending, white goods, audio visual, office equipment, catering and for electricians and electrical contractors.

### Features

- Rotary switch test selection
- Single Test button action
- Tests Class I and Class II equipment including IT and business equipment
- Extension and IEC Lead tests
- Insulation, Continuity, Socket polarity and RCD tests
- Loop resistance indication without RCD trip
- Voltage (AC and DC)
- Temperature Measurement (with optional accessory module using a type K thermocouple)
- LCD display with analogue bar graph and back light
- Battery life indicator
- Lead compensation up to 10Ω for Earth continuity & low resistance measurement
- Continuity buzzer
- Lock to hold a measurement on the display
- Auto power off when not in use
- Supplied with batteries, lead set, IEC lead, instruction manual and deluxe carry case with shoulder strap



## Primetest 200 Technical Specification

### Pat Tests

#### Earth Continuity

|                                   |                                  |
|-----------------------------------|----------------------------------|
| Output Current (Load $2\Omega$ ): | +/- 200mA DC                     |
| Test Voltage (o/c):               | > 4VDC                           |
| Test Duration (Class I test):     | 2s                               |
| Range & Accuracy:                 | 0.01 - $20\Omega$ +/-5% 2 counts |
| Max. Resolution:                  | 0.01 $\Omega$                    |
| Analog Bar Graph:                 | 0 to $20\Omega$                  |
| Bar Graph Accuracy:               | 10%                              |
| Pass Value (Class I test):        | 0.2 $\Omega$                     |

#### Insulation Test

|                                       |  |
|---------------------------------------|--|
| Test Voltages:                        | 500VDC @ 1mA nominal,<br>< 2mA (s/c)   |
| Test Voltage Accuracy:                | +20%, -0%  |
| Duration (Class I or Class II tests): | 2s   |
| Auto Range:                           | 2.00M $\Omega$ , 20.0M $\Omega$ 200M $\Omega$  |
| Accuracy:                             | $\pm$ 2% +2 digits, 2M $\Omega$ 20M $\Omega$ ,<br>200M $\Omega$ ranges   |
| Resolution:                           | 0.01M $\Omega$ from 0 to <2.00M $\Omega$<br>0.1M $\Omega$ from >2.0M $\Omega$ to <20.0M $\Omega$<br>1M $\Omega$ from 20 M $\Omega$ to <200M $\Omega$ |
| Analog Bar Graph:                     | 0 to 200M $\Omega$   |
| Bar Graph Accuracy:                   | 10%  |
| Pass Value:                           | 2M $\Omega$  |

#### IEC Lead Test

|                |   |
|----------------|---|
| Test Voltage:  | 9VDC  |
| Test Duration: | 2s  |
| Test:          | Live / Neutral Checks for o/c,<br>s/c and crossed |

### Dmm Measurements

#### Continuity

|                                   |          |
|-----------------------------------|----------|
| Output Current (Load $2\Omega$ ): | 200mA DC |
| Test Voltage (o/c):               | > 4VDC   |

|                     |  |
|---------------------|--|
| Range:              | 0.01 – 20k $\Omega$ , auto ranging at appropriate points.  |
| Accuracy:           | $\pm 2\%$ +/-2 counts to 20 $\Omega$<br>$\pm 5\%$ +/-2 counts to 20k $\Omega$  |
| Resolution:         | 0.01 $\Omega$ from 0.01 $\Omega$ to 19.99 $\Omega$<br>1 $\Omega$ from 20 $\Omega$ to 1999 $\Omega$<br>10 $\Omega$ from 2.00 k $\Omega$ to 20.00 k $\Omega$ |
| Analog Bar Graph:   | 0 to 20k $\Omega$  |
| Bar Graph Accuracy: | 10%  |

**Insulation Test:** see under PAT tests

### **Voltage Measurement**

|                     |                                   |
|---------------------|-----------------------------------|
| Range & accuracy:   | 250V AC/DC to 400Hz; 2% +2 counts |
| Resolution:         | 1V                                |
| Analog Bar Graph:   | 0 to 600V                         |
| Bar Graph Accuracy: | 10%                               |
| Visible Warning:    | $\leq 30V$ AC or DC at inputs     |
| Accuracy:           | +/- 2% of reading +/- 2counts     |

### **Temperature Measurement**

|                  |                               |
|------------------|-------------------------------|
| Measuring Range: | -50°C to 400°C                |
| Accuracy:        | +/- 5% of reading +/- 2digits |
| Resolution:      | 0.1°C                         |

## **Powered Tests**

### **Touch Current**

|                     |   |
|---------------------|---|
| Test voltage:       | Supply Voltage, max current 10A                 |
| Test Duration:      | 2s – 30s nominal                                |
| Range & Accuracy:   | 0.1 – 3.5mA; +/- 10% of reading $\pm 2$ digits  |
| Resolution:         | 0.01mA  |
| Frequency Response: | DC – 2.5KHz<br>(Defined in BS E61010) (Annex A) |
| Pass Value:         | 0.25mA  |

### **Differential Leakage**

|                               |  |
|-------------------------------|--|
| Test Voltage:                 | Supply Voltage, max current 10A            |
| Test Duration:                | 2s – 30s nominal                           |
| Range Accuracy:               | 0.1 – 20mA; +/- 5% of reading +/- 2 digits |
| Conductor Current Resolution: | 0.01mA                                     |

Frequency Response: 40Hz – 2.5 kHz  
Pass Value: 0.25mA

### **Rcd Test**

Test Current: 30mA a rms sinusoidal, starting on a zero crossing at 0° followed by 180°  
Test Current Accuracy: +5%, -0%  
Test Duration: 500 ms maximum if RCD does not trip  
Display Range: 0 – 500ms  
Accuracy: +/- 10% of reading +/- 2 digits  
Resolution: 1ms  
Interlock: Test inhibited if Phase – Neutral or Phase - Earth voltage is not correct or a voltage over 40 V exists between neutral and protective earth  
Pass Value: 200mS

### **Power Socket Test**

Input voltage range: 100 – 240V AC max current 10A  
Voltage potential: Indicates configuration of:  
Line potential phase to earth  
Line potential phase to neutral  
Line potential neutral to earth

Earth Loop Resistance Check: The earth loop resistance is automatically measured when the mains, is detected and the unit is in the RCD switch position.  
Ranges:  $<2\Omega$   $<10\Omega$   $<20\Omega$   $<50\Omega$   $<100\Omega$   $>100\Omega$

### **General**

Power Source: 6 x AAA Type disposable Cells  
Incoming Supply voltage: 240ac 50Hz mains input, max current 10A  
Dimensions & Weight: 11cm (w) x 5.5cm (d) 27 cm (l); 800g