Max. Potential Spike Resistance

Spike resistance that will introduce + 1% error is:-		$\begin{array}{cccc} 20 \ \Omega \ \text{range} & 10 \ \text{k}\Omega \pm 1 \ \text{k}\Omega \\ 200 \ \Omega \ \text{range} & 25 \ \text{k}\Omega \pm 3 \ \text{k}\Omega \\ 2 \ \text{k}\Omega \ \text{and} \ 20 \ \text{k}\Omega \ \text{range} & 100 \ \text{k}\Omega \pm 10 \ \text{k}\Omega \\ (\text{These are loop resistances, therefore the resistance under test must be subtracted from these figures).} \end{array}$	
Max. Output Voltage		50 V	
Display		3 ¹ / ₂ digit LCD, maximum reading 1999	
Temperature Effect		<±0,2%/°C over the temperature range -15 °C to +55 °C)
Temperature Range	Operating Storage	-15 °C to +55 °C (0 °C to +55 °C for DET5/2D) -40 °C to +70 °C (for DET5/2D, without batteries)	
Humidity	Operating Storage	95% RH max. at 40 °C 93% RH max. at 55 °C	
Flash Test		3 kV a.c.	
Voltage Withstand		In the event of a system fault the instrument will withstand 240 V a.c. applied between any two terminals	i.
Fuses	DET3/2, DET5/2 and DET5/2D	100 mA ceramic HBC 20 mm x 5 mm IEC 127/1 (for current source protection) Internal 100 mA ceramic HBC 20 mm x 5 mm IEC 127/7 (for potential circuit protection) Internal 100 mA ceramic HBC 20 mm x 5 mm IEC 127/7 (for 3/4 terminal switch circuit protection)	1
	DET 5/2 Charger Cord	Fused plug (when applicable) 3 A fuse to BS 1362.	
10	DET5/2 only	50 mA ceramic HBC 20 mm x 5 mm IEC 127/1 for 240 V a.c. supply, 100 mA ceramic HBC 20 mm x 5 mm IEC 127/1 for 120 V a.c. supply (for circuit protection during battery charging). Internal 1 A ceramic HBC 20 mm x 5 mm IEC 127/1 (for battery protection)	g

Power Supply	DET3/2 DET 5/2	Internal hand-cranked a.c. generator (Minimum cranking speed 160 r.p.m.) Internal rechargeable sealed lead acid cells 12 V, 0,8 Ah capacity. Battery voltage range over which basic accuracy is monthering 40.0 V to 12 E V
Battery life	DET5/2D	Typically 80 x 3 min tests (4 hours' continuous use). Battery charging time, 10 hours max. (from completely exhausted). Charging supply required, 200 V to 255 V a.c. or 100 V to 130 V a.c. 50 Hz/60 Hz. 6 x 1 5 V alkaline hattery cells IEC L 86 type. Battery
Battery life	DE 13/20	voltage range over which basic accuracy is maintained, 6 V to 10 V. 50 x 3 min tests (2% hours' continuous use): at 0 °C. 15 x 3
2410.9 100		min tests (45 minutes' continuous use).
Safety		The instruments meet the requirements for double insulation to IEC 1010-1 (1995), EN61010-1 (1995).
E.M.C.		In accordance with IEC61326 including Amendment No.1
Dimensions	DET3/2 DET5/2 and DET5/2D	210 mm x 128 mm x 125 mm (8¼ in x 5 in x 5 in approx.) 180 mm x 128 mm x 125 mm (7 in x 5 in x 5 in approx.)
Weight	DET3/2 DET5/2 DET5/2D	1 kg (2¼ lb approx.) 1,4 kg (3 lb approx.) 0,82 kg (1¼ lb approx.)

Cleaning Wipe disconnected instrument with a clean cloth dampened with soapy water or isopropyl alcohol (IPA).

ACCESSORIES

SUPPLIED	PART NUMBER	U.S. OPTIONS Cat	t. Number
User Guide Power cord (Battery charging DET Four right angled terminal adaptors	6171-524 5/2)	Standard Accessory Kit Canvas case containing:- 2 x 20 in rods, leads	250579
OPTIONAL Vinvl Carrving Case	6420 - 111	(25,50 &100 ft)	
Four Terminal Earth Testing Kit Carrying bag containing:- Club hammer, $4 \times spikes$ 3 m (x2) cable and 30 m	6310 - 755	Deluxe Accessory Kit Padded case to hold instrument, 2 x 20 in rods, leads (25,50 &100 ft)	250581
Four Terminal Compact Earth Testing Kit Compact carrying bag containing:- 4 x push in spikes, 3 m, 15 m, 30 m	6210 - 161	Soil Resistivity Kit Padded case to hold instrument, 4 x 20 in rods and test leads (4 x 50ft)	250586
and 50 m of cable on cable tidy.	,		
Three Terminal Compact Earth Testing Kit Compact carrying bag containing:- 3 x push spikes, 3 m, 15 m and 30 m of cable on a cable tidy.	6210 - 160		
Publications			

'Getting Down to	Earth'	AVTM25-TA

Note:- Any unauthorised prior repair or adjustment will automatically invalidate the warranty.

 It is advisable that, when working with the DET5/2 instrument, the battery is fully charged before embarking upon a test sequence. It can be extremely inconvenient if the battery voltage becomes too low while a field test is in progress. Similarly, with the DET5/2D new battery should always be available.

DISPLAY SYMBOLS

The 3½ digit l.c.d. shows the reading directly and the operator can simply refer to the range switch position for the units of measurement. The instrument's display symbols can also help the operator make certain that the reading is valid. The meaning of each display symbol is given in the following paragraphs.

Low Generator Cranking Speed (DET3/2)

If the generator handle on the DET3/2 is turned too slowly such that there is insufficient output for a test to be performed properly, an arrow ' \leftarrow ' appears on the left of the display pointing at the 'Rev/Min Lo' mark on the graphics panel. Any reading on the display should be ignored and the generator turned faster until the arrow disappears before a measured value is accepted.

Low Battery Voltage (DET5/2 and DET5/2D)

Similarly on the DET5/2 and DET5/2D, if the battery voltage is too low the arrow on the left of the display will appear pointing at the ' - Lo' mark on the graphics panel. In this case the batteries hold only enough power for possibly one or two more measurements and must be recharged (DET5/2) or replaced (DET5/2D) before further tests are undertaken.

Pics in here

Fig. 4 Low cranking speed and low battery voltage indications.

Reverse Polarity

When the potential test leads are reversed with respect to the current test leads, the reading on the