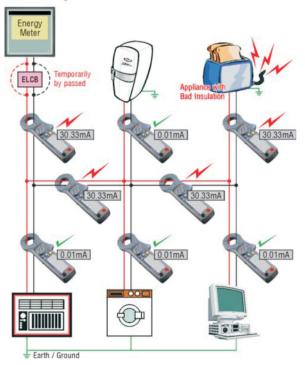




# **Fault Tracing of Live Installation**



### **Features**

- 10μA Ultra High Resolution
- Large Conductor Diameter (30mm)
- AC Current in 5 Ranges (40mA, 400mA, 4A, 40A, 60A)
- Wide Frequency Response (40Hz ~ 1KHz)
- AC A, AC V,  $\Omega$  and Continuity
- Large 3¾ Digit LCD (4000 Count)
- 40 Segment Fast Bargraph Display (30 times/sec.)
- Data Hold and Max/Min Hold
- Relative Measurement
- 600 Vrms Overload Protection in Resistance Range

# **General Specifications**

Jaw Opening Cable Dia 30mm. max. (approx.)

Battery Type Two 1.5V SUM-3

**Display** 3 ¾ LCD with 40 Segment Bargraph

**Range Selection** Manual **Overload Indication** OL

Power Consumption 15mA (approx.)
Low Battery Indication B

Low Battery Indication
Sampling Time

3 time/sec. (display)

 $\begin{array}{ll} 30 \text{ time/sec. (bargraph)} \\ \textbf{Operating Environment} & -10^0 \text{ to } 50^\circ \text{C, RH} < 85\% \\ \textbf{Storage Environment} & -20^\circ \text{C to } 60^\circ \text{C, RH} < 75\% \\ \end{array}$ 

 Altitude
 up to 2000M

 Dimensions
 210 x 72 x 36 mm

Weight 210gms Including Battery (approx.)

Accessories Carrying Case x 1, Users Manual x 1,

Battery (installed), Test Leads x 1 pair

# Specifications (23°C ± 5°C)

AC Current	C Current			
Range	Resolution	Accuracy		
		50/60 Hz	Wide (40Hz ~ 1KHz)	
40 mA	10 μΑ			
400 mA	100 μΑ	1.00/ -1 2.1	2.0%	
4 A	1 mA	$\pm 1.0\%$ rdg $\pm 3$ dgts	$\pm 2.0\%$ rdg $\pm 5$ dgts	
40 A	10 mA			
60 A (0 ~ 50A)	100 mA	$\pm 1.5\%$ rdg $\pm 3$ dgts	±3.0%rdg ± 5dgts	
60 A (50 ~ 60A)	100 mA	$\pm 3.0\%$ rdg $\pm 5$ dgts	±3.5%rdg ± 5dgts	

Though the Meter can Display upto 400A, the Calibration is valid upto 60A

Resistance ( $\Omega$ ) and Continuity (Open Voltage 0.4V)				
Range	Resolution	Accuracy	Beeping	OL Protection
$40 \sim 400\Omega$	0.1Ω	$\pm$ 1.0%rdg $\pm$ 2dgts	<38.0 Ω	AC 600V

AC Voltage (Input Impedance : 10 M $\Omega$ )				
		Ассі	Overload	
Range	Resolution	50/60 Hz	40 ~ 1 KHz	Protection
400V	0.1V	±1.5%rdg ± 2dgts	± 2.0%rdg ± 4dgts	AC 800V

# AC Leakage Current of Earth / Ground Out of Balance Leakage Current AC Load Current

 $3\phi 3W$ 

Note: Specifications are subject to change.

Application

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The faults in any Electrical System are unavoidable. Earthing plays an important role in Generation, Transmission & Distribution for safe and proper operation of any Electrical Installation.

Clamp-On Earth / Ground Resistance Tester has long jaw suitable for Earthing Strip of 65mm x 32mm. It completely eliminates the use of ground and auxiliary rods thus saving lot of time and avoiding shutdown. Calibration check can be verified by using the Resistance Verification Plate provided. This is an extremely handy instrument especially at place where it is next to impossible to measure Earth / Ground Resistance by conventional methods. Substantial time saving and easy operating justify the investment in these instruments.

### **Features**

- Non Contact Ground Resistance Measurement
- No Auxillary Electrodes Needed
- Data Storing Memory
- Data Hold, Noise Signal
- Ground Resistance Measurement  $0.01\Omega \sim 1000\Omega$
- Suitable for Earthing Strip of 65mm x 32mm
- Leakage Current (0.5mA ~ 30.00A)
- Auto Ranging
- Continuity Loop Test
- Auto Power Off

# **General Specifications**

Jaw : 65 x 32 mm Approx.

Conductor Size : Φ65 mm \* 32 mm

Battery Type : 1.5V (AA) x 4 (Alkaline)

Display : 4 Digit 9999 counts LCD

Range Selection : Auto

Memory : 99 Sets

Overload Indication : OL

Low Battery Indication : B

Operating Environment : -10°C ~ 55°C

Dimensions : 293 x 90 x 66 mm

Weight : 1250 gms Including Battery (approx)
Accessories : Resistance Verification Plate x 1,

Battery 1.5V (AA) x 4 (Installed), User Manual x 1, Carry Bag x 1

Configurable Alarm : Resistance :  $1 \sim 199\Omega$ 

Current: 1~499mA

# **Electrical Specifications** (23°C ± 5°C)

Ground Resistance (Auto Range)			
Range	Resolution	Accuracy of Reading	
0.010 ~ 0.099 Ω	0.001 Ω	± (1%+0.01 Ω)	
$0.10 \sim 0.99 \Omega$	0.01 Ω	$\pm (1\% + 0.01 \Omega)$	
1.0 ~ 49.9 Ω	0.1 Ω	$\pm (1.5\% + 0.1 \Omega)$	
$50.0 \sim 99.5 \Omega$	0.5 Ω	$\pm (2\% + 0.5 \Omega)$	
100 ~ 199 Ω	1 Ω	$\pm (3\% + 1 \Omega)$	
200 ~ 395 Ω	5 Ω	± (6%+5Ω)	
400 ~ 590 Ω	10 Ω	$\pm (10\% + 10 \Omega)$	
600 ~ 1000 Ω	20 Ω	$\pm (20\% + 20 \Omega)$	

Ground & Leakage Current: Auto Ranging, 45/65Hz, RMS 17708C			
Range	Resolution	Accuracy of Reading	
0 ~ 80 mA	0.05 mA	± (2.5% + 1 mA)	
80 mA ~ 650 mA	0.5 mA	$\pm (2.5\% + 2 \text{ mA})$	
650 mA ~ 4 A	5 mA	± (2.5% + 10 mA)	
4 A ~ 30 A	10 mA	± (2.5% + 20 mA)	

# 17708B, 17708C

Note: Specifications are subject to change.

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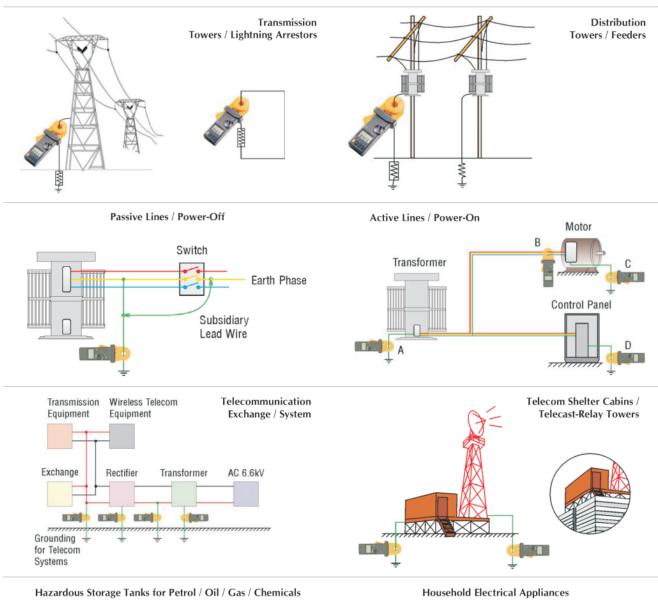
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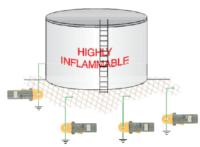


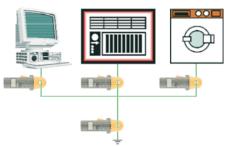


### **Applications**

Hazards due to improper earth / ground happen around us everyday. Systems are becoming more and more complex and faults in any system are unavoidable. Every electrical equipment, appliance or network must be properly earthed to allow a low resistance path for dissipation of leakage current into the earth. MECO Clamp-On Earth / Ground Resistance Tester can measure accurately within a few minutes the ground resistance & AC current (load & leakage) of all types of installations by just clamping to the grounding lines without disconnecting the circuit or driving auxiliary electrodes. A few of the applications have been illustrated below:







Note: Specifications are subject to change.

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- Non Contact Ground Resistance Measurement
- No Auxiliary Electrodes Needed
- Recording / 116 Sets of Memory
- Ground Resistance Measurment  $0.025\Omega \sim 1500\Omega$
- Suitable for Ground Wire upto  $\Phi$  23mm 17708D
- Suitable for Ground Wire upto Φ 34.5mm 17708E
- Leakage Current (0.300mA ~ 30.00A) 17708D Leakage Current (0.300mA ~ 35.00A) 17708E
- Programmable High & Low Alarm
- Programmable Data Logging
- Auto Range
- Continuity Loop Test
- Auto Power Off

### **General Specifications**

Jaw Opening : 23 mm approx. 17708D 38 mm approx. 17708E

: 9V (Alkaline) Battery Type

: 4 Digit 9999 Counts LCD Display

: Auto Range Selection Overload Indication : OL

Power Consumption : 40mA (approx.)

Low Battery Indication : B

Operating Environment :  $0^{\circ} \sim 50^{\circ}$ C, RH < 85% Storage Environment : -20°C ~ 60°C, RH < 75% : 257 x 100 x 47 mm 17708D Dimensions 276 x 102 x 51 mm 17708E

: 670 gms Including Battery (approx.) 17708D Weight 790 gms Including Battery (approx.) 17708E

: Resistance Verification Plate x 1, Accessories

Battery (installed) x 1, User Manual x 1, Carry Box x 1, Cleaning Brush x 1

# Electrical Specifications (23°C ± 5°C)

Range	Resolution	Accruacy of Reading <sup>1,2</sup>
$0.025 \sim 0.250 \Omega$	0.002 Ω	$\pm$ 1.5%rdg $\pm$ 0.05 $\Omega$
$0.251 \sim 1.000 \Omega$	0.02 Ω	$\pm$ 1.5%rdg $\pm$ 0.05 $\Omega$
$1.001 \sim 10.00 \Omega$	0.02 Ω	$\pm$ 1.5%rdg $\pm$ 0.1 $\Omega$
$10.01 \sim 50.00 \Omega$	0.04 Ω	$\pm$ 2.0%rdg $\pm$ 0.3 $\Omega$
$50.01 \sim 100.0 \Omega$	0.04 Ω	$\pm$ 2.0%rdg $\pm$ 0.5 $\Omega$
100.1 ~ 200.0 Ω	0.4 Ω	$\pm$ 3.0%rdg $\pm$ 1.0 $\Omega$
$200.1 \sim 400.0 \Omega$	2 Ω	$\pm$ 5.0%rdg $\pm$ 5 $\Omega$
$400.1 \sim 600.0 \Omega$	5 Ω	$\pm$ 10%rdg $\pm$ 10 $\Omega$
600.1 ~ 1500 Ω	20 Ω	± 20%rdg

- 1. Loop resistance noninductive, external field < 50A/m 17708D or < 200A/m 17708E, external electrical field < 1V/m, conductor centered.
- 2. Resistance Measurement Frequency: 3.333KHz

Ground & Leakage Current: Auto Ranging, 50/60Hz, TRMS, Crest Factor < 3.0 for 17708D or < 3.5 for 17708E		
Range	Resolution	Accruacy of Reading
0.300 ~ 1.000 mA	0.001 mA	± 2.0%rdg ± 0.05mA
1.00 ~ 10.00 mA	0.01 mA	± 2.0%rdg ± 0.03mA
10.0 ~ 100.0 mA	0.1 mA	± 2.0%rdg ± 0.3mA
100 ~ 1000 mA	1 mA	± 2.0%rdg ± 3mA
0.200 ~ 4.000A	0.001A	± 2.0%rdg ± 0.03A
4.00 ~ 30.00A (4680)	0.01A	± 3.0%rdg ± 0.03A
1.00 ~ 35.00A (4680B)	0.01A	± 3.0%rdg ± 0.03A

Accuracy of Resistance Calibration Plate: ±1% Data Logging Capacity: 116 Records Data Logging Interval: 1 ~ 255 Seconds

17708D, 17708E

Note: Specifications are subject to change.

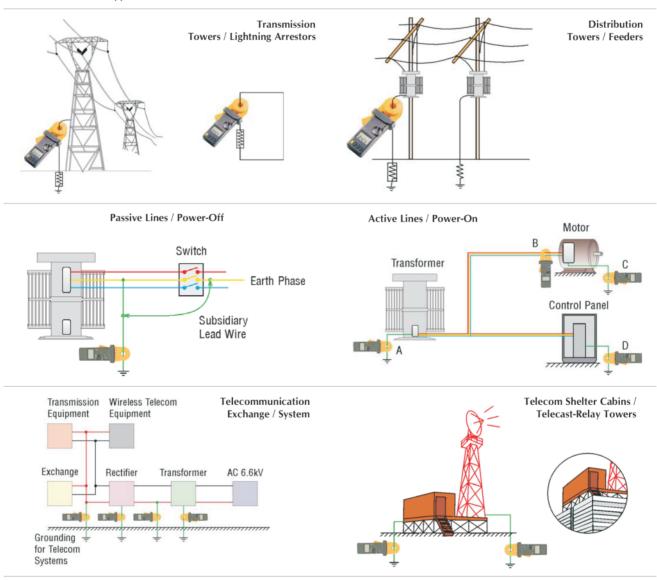
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# **Applications**

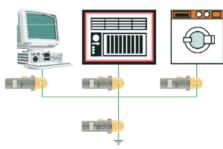
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Hazardous Storage Tanks for Petrol / Oil / Gas / Chemicals



**Household Electrical Appliances** 



Note: Specifications are subject to change.

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