

# **Test & Measurement**

# **Hoyt Various Instruments**

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## 6500 LC Loop Calibrator

#### **Features**

- 4-20mA (1kΩ load, 24V Loop Supply).
- 0.025% Basic Accuracy.
- Simple Operation Interface.
- Auto Ramp and Step Functions.
- 0-20mA, 0-24mA selectable.
- Incremental percentage setting : 0-100%.
- Warning beeper when output is open.
- 0-24 V output.
- The minimum load of  $20k\Omega$  on voltage mode.

### **Specifications**

#### DC Current (1kΩ Max Load, 24v Loop Supply)

Range	0-4mA	4-20mA	20-24mA
Resolution	1uA		
Accuracy	±0.025%±10uA	±0.025%±5uA	±0.025%±5uA

Beeper warning when output circuit is open and specified output voltage > 24V

### DC Voltage (Approx. 10MΩ load)

Range	0-4V	4-20V	20-24V
Resolution	1mV		
Accuracy	±0.05%±10mV	±0.05%±5mV	±0.05%±5mV

Beeper warning when voltage is short and specified output current is > 24mA

#### General

Power consumption 150 mA at 24V 1k $\Omega$  load Operating temperature  $0^{\circ}$  C -  $40^{\circ}$  C

Operating humidity  $\leq$  80% R.H. Storage temperature  $-10^{\circ}$  C  $-50^{\circ}$  C Storage humidity  $\leq$  85% R.H.

Dimensions  $160(L) \times 100(W) \times 38(D)mm$ 

Weight (battery included) Approx. 350g

Power source 9V(6LF22) x 1 Alkaline battery

Safety standard EN 61326-1

### **Accessories**

Instruction manual

Adapter Soft pouch Battery



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## 2330 LX Light Meter

### **Features**

- Wide range of measurements, up to 40000 lux and 4000 fc
- 0.01 lux and 0.001 fc resolution for accurate low- light measurements
- Light sensor cover is included for preserving sensor life
- Auto off function
- Data hold function
- Low battery indication
- Over range indication
- Auto or manual ranging
- Calibration mode is provided
- 9V battery system
- Selection key for lux or fc
- Spectral sensitivity close to CIE photopic curve
- Ideal tool for workplace, clean-room and computer room light testing
- Video, photographic, office, classroom, and architectural uses

## **Specifications**

Measuring ranges	39.99 / 399.9 / 3999 / 39990 lux 3.999 / 39.99 / 399.9 / 3999fc
Resolution	0.01 lux - 10 lux 0.001 fc - 1 fc
Accuracy	±(3%rdg+5dgt) Calibrated to standard incandescent lamp, 2856°K
Display	4000 count LCD
Photo sensor	Silicon photodiode

### General

 $\begin{array}{lll} \text{Operating conditions} & 0^{\circ}\text{C} \sim 40^{\circ}\text{C} < 80 \ \% \ \text{R.H.} \\ \text{Storage conditions} & -10^{\circ}\text{C} \sim 50^{\circ}\text{C} < 80 \ \% \ \text{R.H.} \\ \text{Dimensions} & 194(\text{L}) \times 62(\text{W}) \times 34(\text{D})\text{mm} \\ \text{Weight} & \text{Approx. 245g (battery included)} \\ \text{Power source} & 9V \ (6F22) \times 1 \\ \text{Safety standard} & \text{EN } 61326-1 \\ \end{array}$ 

#### **Accessories**

IInstruction manual Carry case Battery

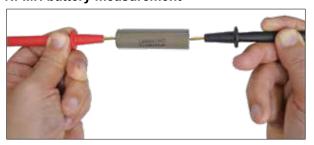


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#### Li-ion battery measurement



#### Ni-MH battery measurement



## 6470 BT Battery Tester

The 6470 BT battery resistance tester can measure rechargeable battery resistance and DC voltage on a line.

The resistance measurement signal uses a 1kHz AC frequency. Using the 4-wire measurement method when measuring secondary batteries, including Ni-cd, Ni-MH, Li-ion.

#### **Features**

- 2000 counts.
- DC Voltage measurement.
- 4-wire resistance measurement.
- Data hold function.
- Low battery indication.
- 9V DC power supply.
- Measure battery types: Li-ion, Ni-Cd, Ni-MH
- Simple operation.
- Lead resistance and contact resistance eliminated.

## **Specifications**

All at 23°C±5°C, ≤80%R.H.

#### **DC Voltage**

Range	2V	20V	100V
Resolution	1mV	10mV	100mV
Accuracy	±(1%rdg+1dgt)	±(1%rdg+1dgt)	±(1%rdg+1dgt)

#### Resistance

Range	200mΩ	2000mΩ	20Ω
Resolution	$0.1 m\Omega$	$1m\Omega$	$10m\Omega$
Accuracy	$\pm$ (3%rdg+3dgt) >10m $\Omega$	±(3%rdg+3dgt)	±(3%rdg+3 dgt)

#### General

Low battery " sign appears on the display when the indication battery voltage drops below accurate operating

level

Dimensions  $192(L) \times 88.6(W) \times 45.2(D)$ mm Weight Approx. 360g (battery included)

Power source 9V (6F22) × 1

Safety standard EN 61010-1 CAT I 100V

EN 61326-1

#### **Accessories**

IInstruction manual Test leads Battery Holster (optional)



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### **Application Example**

The appliance is plugged into the mini appliance checker, then the probe make contact with the protective conductor.

Other appliance checking: Washing Machine, Toaster, Iron, Dish Washer, Stove.

## 880 AT Mini Appliance Checker

#### **Features**

- The Mini Appliance Checker 880 AT is a simplified version of an appliance tester which use low voltage and low current to perform its checks.
- It has been designed to be low cost and simple to use, but still has all the necessary basic functions to check a normal appliance.
- It has been designed to be utilized by people who need to check the good status of insulation and plug wiring, for example, before delivery of an appliance to a customer.
- This Mini Appliance Checker also can be utilized to confirm the problematic status of an appliance which need servicing.

## **Specifications**

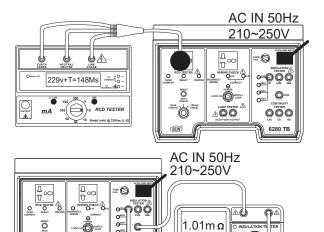
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	The L-E led will lit when the resistance between Line to Earth is lower than $1M\Omega$ ±5%.
Resistance Ranges	The N-E led will lit when the resistance between Neutral to Earth is lower than $1M\Omega\pm5\%$ .
	The EARTH BOND led will lit when the resistance between the EARTH to the Probe is higher than $10\Omega\pm5\%$ .
Test Current	Line to Earth test current is 9uA maximum.  Neutral to Earth test current is 9uA maximum.  Earth to Probe test current is 2.3mA maximum.
Maximum Output Voltage	9V rm
Response Time	0.1secs nominal
Voltage Withstand	6V AC between any two terminals
Battery Low Indication point	7V nominal

#### General

Operating Temperature	-15 °C to + 55 °C
Storage Temperature	-20 °C to + 70 °C
Size	72mm x 150mm x 36 mm
Material	ABS
Weight	Approx.194g (with battery)
	(less carrying case)
Display	LEDs
Battery	9V(6F22) x 1
Safety standard	EN 61326-1



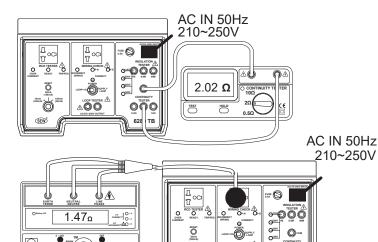


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LOOP TESTER



## 6280 TB Test Box

6280 TB is an ideal tool which provides verifications of Insulation testers, Continuity testers, RCD testers and Loop testers.

#### **Features**

- Wide range of operating voltage from AC 210V/50Hz to 250V/50Hz.
- For checking AC voltage.
- For checking a RCD tester's test current & time in mA(ms).
- For checking a loop tester.
- For wiring check (Phase, Neutral, Earth).
- For checking continuity.
- For checking insulation (The maximum is 1.2kV).
- For checking UK16th edition.

## **Specifications**

#### **RCD Testing**

Range	10mA @ 150ms 30mA @ 150ms 150mA @ 30ms
Accuracy	± 10%

### Insulation Testing

Range	$1M\Omega$ / $9.9M\Omega$ / $99M\Omega$
Accuracy	± 1%
Max. testing	1.2kV

### **Continuity Testing**

Range	$0.5\Omega$ / $2\Omega$ / $10\Omega$
Accuracy	$\pm~0.05\Omega$ / $\pm~0.1\Omega$ / $\pm~0.2\Omega$
Max. testing	300mA

## **Loop Testing**

Range	Supply Loop / Supply Loop $+1\Omega$
Accuracy	$0.45\Omega\pm0.05\Omega/1.45\Omega\pm0.05\Omega$

#### General

Dimension 330(L)x260(W)x160(D)mm Weight Approx. 2570g

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## 1027 TK Electrical Test Kit

1027 TK is an electrical technician's kit which provides the electrical testing needs for installation, plant maintenance and repair of electrical systems.

### Kit includes:

- High quality carry case.
- 189 DM Digital Multimeter



• 888 PMR Phase Sequence / Motor Rotation Tester



189 DM autoranging digital multimeter with 11 functions including AC/DC voltage, Capacitance, Frequency, Resistance, AC/DC current.....etc.

888 PMR phase rotation and motor rotation tester.

• LVD-15 Low Voltage Detector



LVD-15 non-contact voltage detector (50 ~1000 Vac) + flashlight.



## 188 FFF Circuit Breaker Identifier

### **Features**

- The 188FFF is a Fuse and Fault Finder which comprises of two parts : The Receiver and the Transmitter.
- The Transmitter, draws a current from the mains supply circuit to which it is connected to. The Signal
- Current from the Tx is at about 10kHz. The Transmitter is powered by the mains and requires no batteries.
- The 10kHz signal current generated by the Transmitter is then searched(sniffed) by the Receiver to detect the Fuse, Circuit Breaker or the faulty circuit.
- The Receiver is a tuned circuit which has it's center frequency tuned to about 10kHz. The sensor is located in the tip of the Receiver.
- The amplitude of the received signal is shown on a bar-graph type Leds.
- The more Leds ON, the stronger the signal.
- The Receiver uses one 9V battery.

## **Specifications**

#### Receiver

Tuner circuit mid frequency	10kHz
Bar graph leds	9
Battery indicator led	1
On button	1
Off button	1
Buzzer	1
Auto-off(Min) approx	1
Material	Polycarbonate / ABS
Dimensions	200(L) × 50(W) × 40(D)mm
Weight (battery included)	Approx. 112g
Power source	9V(6F22) × 1
Safety standard	EN 61010-1
	EN 61326-1

#### **Transmitter**

Working voltage	110 to 240 Vac (50/60Hz)	
Frequency of sourced signal	10kHz	
Dimensions	60(L) × 50(W) × 30(D)mm	
Weight Approx.	134g	
Connection	Specify type of plug	



## 190 CBI Circuit Breaker Identifier

- 190 CBI is an easy tool to find the circuit breaker or fuse supplying electrical power to an outlet or lighting fixture. Just plug the transmitter into the outlet.
- Use the receiver to scan the circuit breaker panel box. An audible tone will be clearly heard when the right circuit breaker is scanned.
- The plug of transmitter is changeable. The plug of transmitter could be changed for customers' requirement from different countries.

## **Specifications**

Operation voltage: 110~120 VAC 220~240 VAC

Operation frequency: 50 / 60 Hz

Transmitter power: Powered by wall outlet

Receiver power: 9V(6F22) × 1 Safety standard: EN 61010-1 EN 61326-1

#### Accessories

Instruction manual

**Battery** 



## 191 CBI Circuit Breaker Identifier

- 191 CBI is an easy tool to find the circuit breaker or fuse supplying electrical power to an outlet or lighting fixture. Just plug the transmitter into the outlet.
- Use the receiver to scan the circuit breaker panel box. An audible tone will be clearly heard when the right circuit breaker is scanned.
- The plug of transmitter is changeable. The plug of transmitter could be changed for customers' requirement from different countries.

### **Specifications**

Operation voltage: 220~240 VAC
Operation frequency: 50 / 60 Hz

Transmitter power: Powered by wall outlet

Receiver power: 9V(6F22) × 1 Safety standard: EN 61010-1 EN 61326-1

### **Accessories**

Instruction manual Battery









## **TEL5 GFCI Socket Tester**

### **Features**

- Fast, easy wiring check.
- Easy to read light indication.
- Confirm the correct wiring of AC socket.
- Test GFCI for correct wiring & operation.
- Detect 5 wiring faults.
- GFCI circuit trips to confirm the tester is working.
- The testing current for GFCI is about 8mA.

## **Specifications**

Voltage 125V System voltage frequency 50-60Hz Case material ABS

Dimensions 87(L)x48(W)x31(D)mm

Weight Approx. 40g

## Wiring Check Table Condition

0	0	0	Correct Wiring
0	0	0	Open Ground
0	0	0	Open Neutral
0	0	0	Open Hot
	0	0	Hot & Ground Reverse
	0	0	Hot & Neutral Reverse

## ALS-1, ALS-2 AC Line Separators



\*Types C, G & I plugs include a universal adapter

With the aid of the AC line separator, the AC current from any appliance can be determined by plugging the appliance directly into the separator.

By doing so, you are able to separate the neutral from hot live conductor. The advantage of using this separator allows the appliance to remain plugged in, thus providing a constant current and separation of the conductors.

1. ×1 - used for direct reading.

2. ×10 - used for actual readings multiplied by factor of 10.

The separator also includes a voltage check function. The opening specification is 0.95"×0.95".

