



## **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 20kΩ 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	150mA at 24V 1kΩ load
Operating temperature	0° C - 40° C
Operating humidity	≤ 80% R.H.
Storage temperature	-10° C - 50° C
Storage humidity	≤ 85% R.H.
Dimensions	160(L) × 100(W) × 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



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### 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

Operating conditions	0°C ~ 40°C < 80 % R.H.
Storage conditions	-10°C ~ 50°C < 80 % R.H.
Dimensions	194(L) x 62(W) x 34(D)mm
Weight	Approx. 245g (battery included)
Power source	9V (6F22) × 1
Safety standard	EN 61326-1

### Accessories

- Instruction manual
- Carry case
- Battery



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## 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	0.1mΩ	1mΩ	10mΩ
Accuracy	±(3%rdg+3dgt) >10mΩ	±(3%rdg+3dgt)	±(3%rdg+3 dgt)

#### General

Low battery indication	"  " sign appears on the display when the battery voltage drops below accurate operating level
Dimensions	192(L) × 88.6(W) × 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

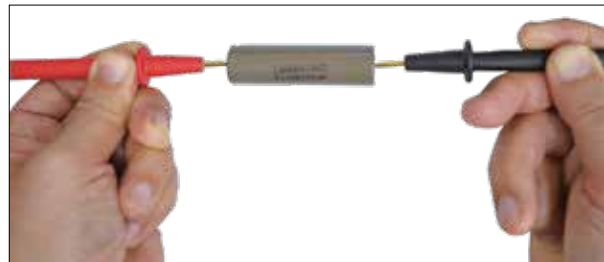
### Accessories

Instruction manual  
Test leads  
Battery  
Holster (optional)

#### Li-ion battery measurement



#### Ni-MH battery measurement



## 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

#### Electrical

Resistance Ranges	The L-E led will lit when the resistance between Line to Earth is lower than $1M\Omega \pm 5\%$ .
	The N-E led will lit when the resistance between Neutral to Earth is lower than $1M\Omega \pm 5\%$ .
	The EARTH BOND led will lit when the resistance between the EARTH to the Probe is higher than $10\Omega \pm 5\%$ .
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



#### 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.

# Various Instruments



## 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	1MΩ / 9.9MΩ / 99MΩ
Accuracy	± 1%
Max. testing	1.2kV

#### Continuity Testing

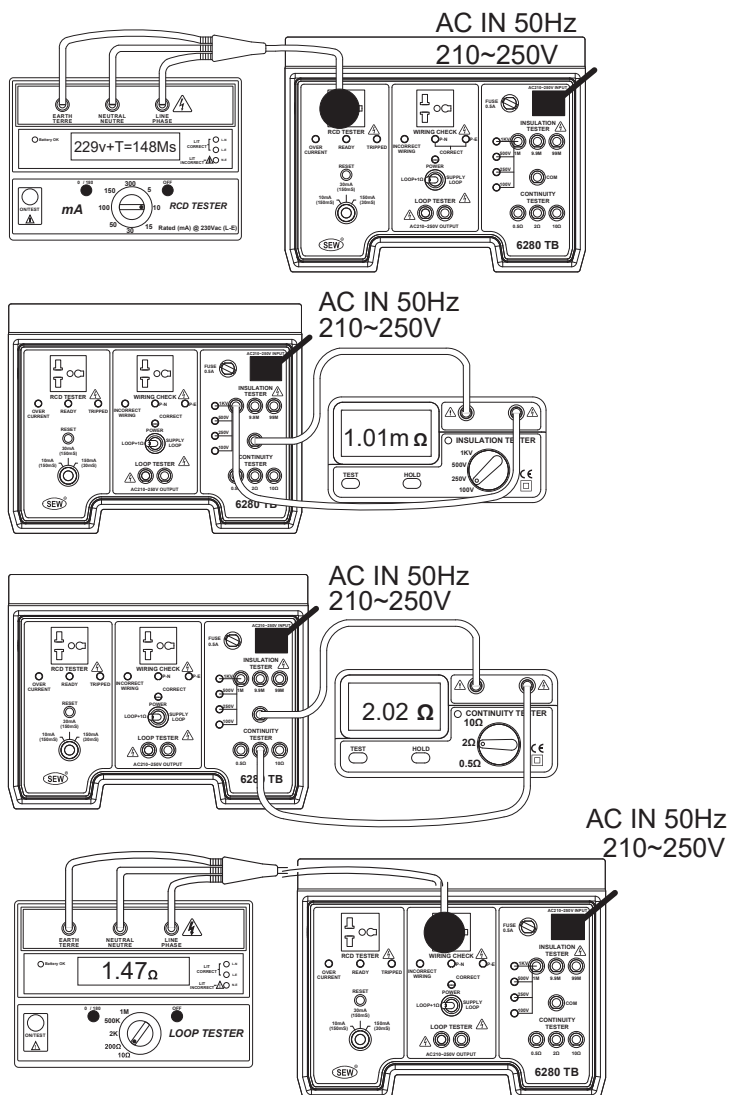
Range	0.5Ω / 2Ω / 10Ω
Accuracy	± 0.05Ω / ± 0.1Ω / ± 0.2Ω
Max. testing	300mA

#### Loop Testing

Range	Supply Loop / Supply Loop +1Ω
Accuracy	0.45Ω ± 0.05Ω / 1.45Ω ± 0.05Ω

#### General

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





## 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
- LVD-15 Low Voltage Detector



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



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888 PMR phase rotation and motor rotation tester.



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

# Various Instruments



The 188 FFF 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 its 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 is. 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

## 188 FFF Circuit Breaker Identifier

### Finding Circuit Breaker

Use the tip of the Sniffer to scan the circuit breakers. Please note that the Sniffer is designed to be held vertically for the vertical circuit breakers and horizontally for the horizontal circuit breakers

### Make Sure All The Circuit Breakers Are On

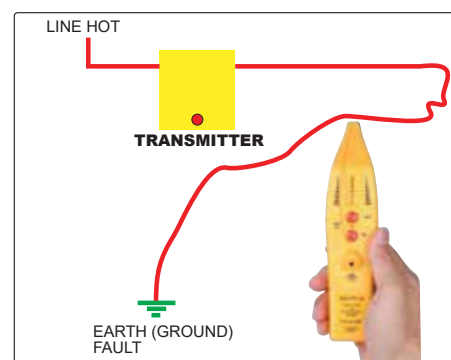
Now, for example, start scanning from the top left row, then go down etc..., But you can scan the breakers in any order. While you are scanning, observe the bar-graph and listen to the buzzer.



The Circuit breaker that supplies the Transmitter circuitry is the one, that (when pointed out by the tip) has the most LEDs lit on the bar-graph and the fastest buzz.

### Finding Earth Fault

To find an earth fault, or the trace faulty wire, you must connect the transmitter in serie with the fault. For example, you have a short between Line and Earth, but you don't know where the short is. Connect the Transmitter, using an adaptor, in serie, in the line. If the Protection device trips, then you will have to bypass the protection device for the duration of this test. Use the optional leads for this use.





## 190 CBI, 191 CBI Circuit Breaker Identifiers

- 190 CBI and 191 CBI have the same shape but different Specifications.

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. It is not necessary to shut off power to find the right circuit breaker or fuse.

190 CBI is an ideal tool for both automated office environments where disruption of power is not practical, as well as in residential applications. The plug of transmitter is changeable. The plug of transmitter could be changed for customers' requirement from different countries.

Quickly identifies and locates 110~125 VAC circuit breakers and fuses. It is not necessary to interrupt power.

Audible tone generated when matching breaker is located.

It is an easy way to identify location of circuit breaker on the circuit breaker panel box which is connected to a specific outlet.

### Specifications

	190 CBI	191 CBI
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



190 CBI



191 CBI

## 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

○	●	●	CORRECT WIRING
○	●	○	OPEN GROUND
○	○	●	OPEN NEUTRAL
○	○	○	OPEN HOT
●	○	●	HOT & GROUND REVERSE
●	●	○	HOT & NEUTRAL REVERSE



# Various Instruments

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

ALS-1



ALS-2



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(Type B)

\*Universal Adapter



(Type C)

(Type G)

(Type I)

Model ALS-1: Available only with Type B plug.  
Model ALS-2: Available with Types B, C, G and I plugs.

\*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.  $\times 1$  - used for direct reading.
2.  $\times 10$  - used for actual readings multiplied by factor of 10.

The separator also includes a voltage check function. The opening specification is 0.95"  $\times$  0.95".

