

# TEST INSTRUMENTS



# MT-8100 Butt Set



## Features:

- High impedance monitor
- Line voltage test
- Line Continuity test
- Polarity indication
- Two-way hands-free speakerphone
- Tone and pause operation
- Speed dialing
- Last number redial
- PBX pause button
- Mute switch
- Electronic adjustable Volume
- Auto power off
- Low battery indication
- Audible ring
- Extra large steel locking belt clip
- Angled bed of nails and RJ11 plug



Waterproof



Dustproof

Drop Protection

Rugged

Exterior

Voltage Test



Line Voltage test



Line Continuity Test

Polarity LED Indicator

IEC/EN 60529  
IP54



Electronic Adjustable Volume



Angled Bed of Nails



Replaceable & Durable Hanger

Electrical	
Loop limit	2 KΩ maximum at 48 VDC (nominal 20 mA minimum loop current)
DC resistance	
Talk mode	300Ω typical
Monitor impedance	39kΩ nominal at 1 kHz
Rotary dial output	
Pulsing rate	10pps±0.8pps
Percent break	61%±2%
Interdigit interval	1000 ms typical
Leakage during Break	>50 kΩ
DTMF output	
Tone frequency error	±1.2% maximum
Tone level	-8±2dBm combined (typical)
High versus low tone difference	4 dB maximum
Memory dialing	
Memory capacity	13 memories including M1, last number redialing
Digit capacity	16 digits per memory
PBX pause duration	4 seconds
Line voltage test	5 Phase AC/DC voltage indication (under 24V, 24~100V, 101~150V, 151~200V, more than 200V)
Monitor amplifier	9V transistor; provides 25 hours continuous use, typical
Power source	Continuous use, typical
Automatic power shut off (Monitor type)	After 5 min. of no audio signal
Speaker phone levels	Electronically adjustable
Power source	Battery (9V) 6F22 (Not included)
Physical	
Measurement	230 × 82 × 89mm (9-1/16" × 3-15/64" × 3-1/2")
Weight	635g typical
Water resistance	Dust protection & Waterproof tested to an IEC/EN 60529 IP54 rating
Cord sets	Angled bed of nails and RJ11 plug
Environmental	
Temperature	Operating: 0 to 50°C Storage: -10 to 60°C
Altitude	To 10,000 feet (3,000M) max
Relative humidity	5 To 95%



## MT-8001 Butt Set



Rests easily on shoulder



Polarity LED indications

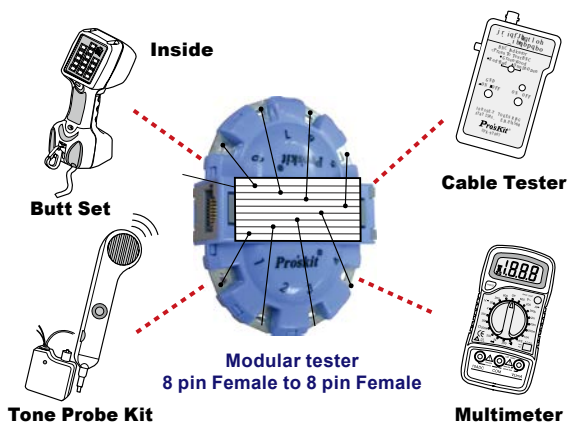


### High impedance monitor, Polarity indication

- Recognized as the new industry standard, the MT-8001 butt set provides superior quality at an affordable price.
- With its high impedance monitor for data safe operation, technicians can clip onto a line in Monitor mode without disrupting existing traffic.
- Prokit's unsurpassed protection standards and durability assure the butt set will keep working even in the toughest environments.
- New weatherproofing provides enhanced resistance to severe weather conditions.

Electrical	
Loop limit	2 kΩ maximum at 48 VDC (nominal 20 mA minimum loop current)
DC resistance	
Talk mode	300Ω typical
Monitor impedance	39kΩ nominal at 1 kHz
Rotary dial output	
Pulsing rate	10pps±0.8pps
Percent break	61%±2%
Interdigit interval	1000 ms typical
Leakage during break	>50 kΩ
DTMF output	
Tone frequency error	±1.2% maximum
Tone level	-8±2dBm combined (typical)
High versus low tone difference	4 dB maximum
Memory dialing	
Memory capacity	12 memories plus last number redialing
Digit capacity	16 digits per memory
PBX pause duration	4 seconds
Monitor amplifier power source	9V transistor; provides 25 hours continuous use, typical
Speaker levels	Low, medium, high
Automatic power shut off	After 5 min. of no audio signal
Speaker phone levels	Low, medium high
Power source	Shared line and battery power
Physical	
Length	10-1/4 inches (26.0 cm)
Width	2-3/4 inches (7.0 cm)
Height	3-1/2 inches (8.90 cm)
Weight	560 g typical
Environmental	
Temperature	Operating: 0 to 50°C Storage: -40 to 66°C
Altitude relative humidity	To 10,000 feet 5 to 95%
Individual packing	Color box

## MT-8091 In-Line Modular Adapters (4/6/8 Pin 3 In 1)



### Features:

- The MT-8091, In-line Modular Adapter allows in-line testing for any plug/jack combination. It includes two 4-pair jacks plus a modular cord terminated with 4-pair "universal" plug for accessing any standard 6- or 8-position jack.
- Individual conductors are broken out by pin number and correspond to eight separate test pads.
- Test equipment can be securely attached to the test pads using alligator clips.
- For quick reference in the field, USOC, T568A, and T568B wiring charts are printed right onto the body.

Individual packing		Blister card	
	6 pin Female to 8 pin Male		8 pin to 8 pin 205mm
			8 pin to 6 pin 205mm
	4 pin Female to 8 pin Male		8 pin to 4 pin 205mm

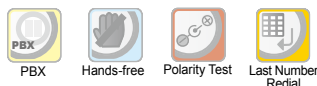
## MT-8006B Data Diver

LCD display, Talk/Monitor, Polarity indication, Power saving, Hands-Free



### Features:

- LCD display for dialing number, Caller ID, Clock and other information
- Smart power saving enables battery life up to 6 months
- 12 phone number memory for speed dialing
- 16 dialing number memories
- Tone (DTMF) and pulse operation
- Up to 32 digits phone number memory for speed dialing key
- Pre-dialing and last number redial function
- PBX pause key, insert a PBX pause in stored numbers
- Telephone line polarity indicators
- Low battery indication
- Backlight function
- RJ-11 port for easy test leads change
- Ringer and voltage LED indication
- Angled bed of nails and RJ-11 plug



Electrical	
Loop limit	2 K $\Omega$ maximum at 48 Vdc (nominal 20 mA minimum loop current)
DC resistance	
Talk Mode	300 $\Omega$ typical
Monitor impedance	>39k $\Omega$ nominal at 1 KHz
Rotary dial output	
Pulsing rate	10pps+0.8pps
Percent break	60/40 $\pm$ 2%
Inter digit interval	1000 ms typical
Leakage during Break	>130 K $\Omega$
DTMF output	
Tone frequency error	$\pm$ 1.5% maximum
Tone level	-8 $\pm$ 2dBm combined (typical)
High versus low tone Difference	4 dB maximum
Memory dialing	
Memory capacity	12 memories
Digit capacity	16 digits per memory
PBX pause duration	1~3.6 seconds
Power source	4pcs 1.5V AAA batteries (not included)
PHYSICAL(Hook included)	
Measurement	218.5 $\times$ 69.5 $\times$ 49mm (8.6" $\times$ 2.7" $\times$ 1.9")
Weight	208g typical
Individual packing	Color box



Telephone line testing



High impedance monitor



Accessories: Angled Bed of Nail and headset

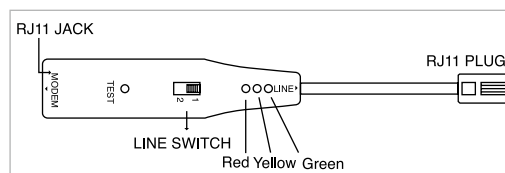
## NT-6006 Dual Telephone Line Tester

### Features:

This tool is for testing the condition of dual telephone line jacks. Multi-color LED indicator light alerts to okay line, reversed line, AC Voltage present and dead line. Fits in shirt pocket.

- Dual telephone line tester that troubleshoots common problem conditions with standard single or dual-line telephone hook-ups.
- Compact unit easily plugs into any single or dual-line telephone jack.
- Tests for three wiring conditions: correct, reversed and AC voltage presence.

Individual packing: Blister card



# MT-7071 LCD Cable Length Toner & Probe Kit



## Cable Length Measurement up to 1200M

Measuring cable length to the opens up to 1200M without remote attached

## Calibration Parameters

It can determine actual Calibration parameters with known length of cable for cable length test, allows setting 1-7 calibration parameters.

## Wire Tracing up to 3KM

Easily track wire directly in connection with live telecommunication equipment and router.

## Cable Mapping & Status Indication up to 610M

Display the result of cable mapping and troubleshoot wiring for continuity, short, open and crossover.

## Max. support 8 remote units

For cable mapping on RJ45 LAN cable Cat 5, 5e, 6, (UTP), RJ11/12 Telephone cable Cat. 3 (2/4/6 pin) & BNC connector coaxial cable.

## Non Contact Voltage Detection

Tests voltage from 90 ~ 1000V before testing for circuit protection.



### MT-7071

Including Transmitter, receiver and standard remote unit, RJ45 cable patch cord, RJ11/12 cable patch cord, Alligator clips patch cord, Earbud, carrying bag.



### MT-7071K

Including Transmitter, receiver, standard remote unit and 8PCS remote unit (ID#1-ID#8), RJ45 cable patch cord, RJ11/12 cable patch cord, Alligator clips patch cord, Earbud, carrying bag.



Detects AC Voltage



Wire Tracing



LED light for user convenience



Max support to 8 remote units (optional)



Locate break point and length measurement



Verify LAN/ Telephone/ Coaxial cable condition

MT-7071 Toner specifications	
Cable types tested	RJ45 Lan cable Cat 5, 5e, 6, (UTP/STP), RJ11/12 Telephone cable Cat 3 (2/4/6 pin), Coaxial cable & normal solid/ Stranded wire by alligator clips patch cord
Cable test modes	580/1160 Hz two-note tones for location and isolating cables, wire mapping for validate (detects wire continuity, shorts, opens, mis-wired, crossover) and open length tested
Measurement technology	Cable capacitance method
Max. distance to open for test	1,200 meter (4,000 feet/1,300 yard), approx
Min. distance to open for test	2 meter (6.8 feet/ 2.2 yard)
Typical accuracy of length test	2~10 meter (6.8~33 feet/2.2~11yard) for reference 10~610 meter (33~2000 feet/ 11~666 yard.): $\pm 5.0\%$ 610~1,200 meter (2000~4000feet/ 666~1300 yard.) for reference, Default measuring Cat.5e cable
Calibration accuracy of length test	10~610 meter (33~2,000 feet/11~666 yard) $\pm 3.0\%$ , standard cable:10~50meter(33~164 feet/11~55 yard), Default measuring Cat.5e cable
Resolution & Unit of length test	0.1 meter/ feet/ yard, Rate:1~3 sec./time
Calibrating parameters memory	1~7 sets, allowing rewrite by new calibrating parameters
Max. distance of transmission & cable map	$\geq 3$ km (580/1160 Hz) & 610 meter (2,000 feet/666 yard)
Min. distance of cable map	Twisted Pair:1Meter (3 feet/ 1yard), normal wire:1.25Meter (4feets/1.35yard)
Cable map & Shielded indication	LCD 1~8 & G
Other functions	Continuity test, Current protection< 5 mA & voltage protection AC 60V or DC 48V, Live telecommunication equipment test and router test, Auto power off, Low battery display
Dimension (L×W×D)	138×80×35 mm
MT-7071 Receiver specifications	
Signal status indication	580/1160 Hz
NCV indication & LED illumination	1 LED (AC90~1000V) & 1 LED
Dimension (L×W×D)	198×45×33 mm
MT-7071 Remote unit specifications	
Remote unit	1 pc, max. support to 8 pcs (optional remotes: MT-7071U)
Compatible connectors	RJ45(8 pin), RJ11/12(6 pin), BNC connectors
Remote unit dimension (L×W×D)	90×32×30mm
Individual packing	Color box



## MT-7028 Network Toner & Probe Kit



### Wire Tracing up to 3KM

The tone and probe kit let you easily tracking wire directly in connection with live telecommunication equipment and router

### Cable Mapping & status Indication up to 300M

- Fast/Slow scan function for choosing
- Display the result of pin to pin cable mapping
- Display cable status and troubleshoot wiring for continuity, shorts, opens and crossover.

### Non Contact Voltage detection

Tests voltage from 90 ~ 1000V, special design to make sure the power is off before testing for circuit protection

### Energy saving

Automatically powers off after 1 hour of no operation

### Polarity indication

Identify the telephone line polarity easily

MT-7028 Transmitter specifications	
Tone frequency	1kHz
Max. distance of transmission & Cable map	≥ 3km & 300m
Tone mode	Hi/Low two-note tone
Compatible connectors	RJ45(8 pin)/RJ11(6 pin) compatible connectors for RJ45(8 pin), RJ11/12(6P/2C/4C/6C) cable map and RJ45 tone, RJ-11(6 pin) connectors for RJ11/12(6P/2C/4C/6C) tone
Cable types tested	RJ45 Lan cable Cat 5, 5e, 6, 7 (UTP/STP), RJ11/12 Telephone cable Cat 3 (6P/2C/4C/6C)
Continuity test	1 LED (≤300Ω), Coaxial cable & normal solid/Stranded wire by alligator clips patch cord.
Cable map & Shielded indication	8 LEDs & 1LED , Fast/Slow dual speed
Phone line polarity indication	1 Dual color LED
Other function Live telecommunication equipment test and router test	Live telecommunication equipment test and router test, Voltage protection AC 60V or DC 48V, Auto power off, Low battery display
MT-7028 Receiver specifications	
Frequency & Compatible connectors	1kHz & RJ45(8 pin)/RJ11(6 pin)
Signal status indication	1 LED & Buzzer, ear bud jack
Cable map & Shielded indication	8 LEDs & 1LED
NCV indication & LED illumination	1 LED (AC90~1000V) & 1 LED
Battery type	DC 9.0V (NEDA 1604/ 6F22 DC9V ×1pcs)
Dimension (L×W×D)	198×45×33 mm
Individual packing	Color box



Product Video



RJ45 cable patch cord, RJ11 cable patch cord, alligator clips patch cord, ear bud, pouch bag



Detects AC voltage from 90 to 1000V



Verify LAN/telephone cable condition



Wire tracing

## MT-7059 LCD Multifunction Cable Tester



**LCD display, Wire tracing, LAN cable mapping, 9 different tone cable status indication**



MT-7059 Transmitter specifications	
Indicator	LCD 53X25mm, with back light
Tone frequency	225kHz
Max. distance of transmission	2km
Max. distance of cable map	300m
Max. working current	≤70mA
Tone mode	9 Tone adjustable
Compatible connectors	RJ45(8 pin) / RJ11(6 pin) / BNC / USB / IEEE 1394
Continuity test	LCD (SHORT)
Max. signal voltage	1.5Vp-p
Function selection	3 Push button & 1 Power switch
Function and faults LCD display	LCD display(Wiremap, Tone, Short, Noadapter, UTP, STP, Low battery)
Cable map indication	LCD (#1~#8)
Shielded indication	LCD (#9)
Voltage protection	AC 60V / DC 42V
Low battery display	LCD (6.5V)
Battery type	DC 9.0V(NEDA 1604/6F22 DC9V ×1pcs)
Dimension (LxWxD)	185X80X32mm
MT-7059 Receiver specifications	
Frequency	225kHz
The Max. working current	≤70mA
Ear jack & LED illumination	1 & 2 LEDs
Battery type	DC 9.0V(NEDA 1604/ 6F22 DC9V×1)
Dimension (LxWxD)	218X46X29mm
MT-7059 Remote unit specifications	
Compatible connectors	RJ-45(8 pin), RJ-11(6 pin), BNC, USB, IEEE 1394
Dimension (LxWxD)	107X30X24mm
Individual packing	Color box

### Features:

- The wire can be tracked directly in connection with Ethernet service, router, and PC terminal
- Validate and troubleshoot wiring on RJ11/RJ45 cables, Coaxial cable, USB cable, IEEE 1394 cable
- Test cable status for continuity, shorts, opens, miswired, crossover
- 9 different tones selection for convenience use under different environment condition



Wire Tracing



Accessories: earphone, RJ-45 cable, pouch bag



## MT-7068 All-in-One Toner & Probe Kit



**VDV Tester (Voice/Data/Video)**

### Features:

- Validate and troubleshoot wiring on RJ11/RJ45 cables, USB, F, BNC and RCA connectors.
- Detects telephone and Ethernet service, indicates polarity and active line numbers on voice circuits, and active pair number on Ethernet circuits
- Ideal for all maintenance fields of telecommunication, networking, datacom, Audio/Video, Cable TV and all weather cabling, etc.
- Locates cables quickly and easily
- Overcome noise and save time
- Tone on live networks safely and effectively
- Verify conductor continuity with cable map



### MT-7068-T Transmitter Specifications

Tone frequency	1KHz
Tone mode	ONE/TWO-note tone
Compatible connectors	RJ-45/RJ-11/USB/F/BNC/RCA/Alligator Clips
Continuity test	<300Ω
Talk battery voltage	6V into 600Ω
Function selection	5-position rotary switch
Cable map indication	8 LED indicators
Voltage protection	100V
Low battery display	6.5V
Battery type	9V (6F22)
Dimension (LxWxD)	140x70x30mm

### MT-7068-R Receiver Specifications

Frequency	1KHz
Compatible connectors	RJ-45/RJ-11/USB/F/BNC/RCA
Ear jack	1
Signal status indication	8 LED indicators
Cable map indication	8 LED indicators
Low battery display	6.5V
Battery type	9V (6F22)
Dimension (LxWxD)	250x52x33mm
Individual packing	Color box



Copper cabling detecting, including shielded (STP) and UTP cable



10 Base-T or 10/100 Base-T datacom networks



Locates and isolates cables quickly and easily



Accessories :  
1 zipper bag,  
2 RJ-45 cables,  
2 BNC connectors,  
2 RCA connectors.

## 3PK-NT023N Tone and Probe Kit



### Wire Tracing, Polarity indication

Use it on de-energized AC wire, telephone/twisted pair wire, all voice and data category rated cable, speaker wire, virtually any cable or wire!

### Features:

- Fast, accurate wire identification
- Rugged industrial design
- Sends tone to identify wires
- Three selectable tone outputs
- Two-line polarity indication
- Continuity test
- Adjustable volume control
- Visual signal strength indication
- Powerful speaker for noisy environments
- Recessed telephone test set connectors
- Battery: 9V(6F22)

Individual packing: Blister card



Packaged in a soft nylon carrying case.



## ▶ MT-7062 HDMI Cable Tester



### HDMI Cable mapping

- Test all HDMI cables with Type A to A, A to C and C to C connectors
- Design with loopback function allows test HDMI type A to A, A to C on main unit.
- Automatically fast & slow scan for testing all conductors status in a cable, Manual test for step by step detecting individual conductors for intermittent faults.
- Automatically detect wiring on HDMI type A or type C condition in straight, short, open, crossover in all RGB conductors.
- Quickly troubleshoot and verify HDTV installation and DIY termination in the field.

Cable versions support	HDMI Cables with type A & C connectors conforming to 1.0, 1.1, 1.2, 1.3, 1.3a, 1.3b, 1.3c, 1.4, 1.4a, category 1 and category 2 cables
Support test (master unit and remote unit)	19 pin-to-pin wire map and shielding detection
Test interface of Master unit	HDMI (type A) ×2, Mini HDMI (type C) ×1
Test interface of Remote unit	HDMI (type A) ×1, Mini HDMI (type C) ×1
Test Mode	Fast scan / Slow scan / Step by step
Beeper indication	Yes
Low battery indication	6.0V
Power source	DC 9V ×1 (not included)
Dimensions	Master unit: 103×66×27mm, Remote unit: 103×35×27mm
Environment	Operation: 0°C to 40°C (32°F to 104°F) <80%RH Storage: -10°C to 50°C (14°F to 122°F) <70%RH
Weight	130g (not include battery)
Package	Blister Card



## ▶ MT-7058 Mini Lan Cable Tester



### RJ45, RJ-11/RJ-12, BNC cable tester, Voltage detector

- Automatically detect good connections, opens, crossed wires & split pairs
- Pin to pin cable map indicator
- Main unit and remote allow one person operation
- Circuit protection design for both units
- Long cable test more than 300 meters



Accessory

Specifications	
Function	Ground or shielded test
	Test RJ45 TIA568A/B (AT&T) 258A), 10 Base-T, Token ring, RJ-11/RJ-12 USOC and coaxial BNC cable
	Non-contact detector(AC60V~240V 60Hz)
	Low battery indicator, Beeper indicator
Size	100×60×24.5 mm
Power	12V AE23 x 1pcs
Accessories	Pouch bag x 1, BNC connector x 1
Individual packing	Blister card



RJ11 cable test



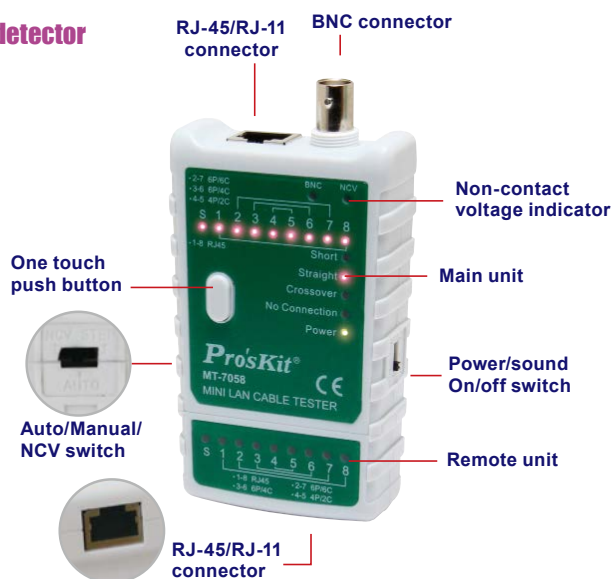
Non-contact voltage detection



RJ45 cable test



BNC cable test



## ▶ MT-7057 Cable Sniffer-Remote



### RJ45, RJ-11/RJ-12, BNC, USB tester

- Simple one push-button operation.
- Power supplied by a 9V battery (Not included).
- Palm size design, easy to carry around.
- Detects open, short, miswired and cross-connected wire.
- Protect itself against damage from line voltage.
- Four types of connectors provided to test RJ-45, RJ-11, USB and BNC.

Individual packing: Color Box



With RJ-45 connectors



With RJ-11 connectors



With USB connectors



BNC terminator included

Battery Cover





## 3PK-NT015N

## Lan Cable Tester



## For testing RJ45/RJ11/RJ12/BNC Cable

- Open/short wiring test
- Connected wires display
- No wire or termination indication
- Wrong connection/Non-parallel connection
- Ethernet 10 base2 termination value detection
- Battery low indication
- Buzzer inside.
- BNC for testing 10 BASE2 terminator value.
- Isolation resistances 50K ohms test

Individual packing: Blister card



BNC connector included

## MT-7055

## Enhanced Lan Cable Tester



## For testing RJ45/RJ11/RJ12/BNC Cable, TONE generator

## Features:

- Instantly indicates cable type (LAN/TELECOM/COAX) and tests for faults.
- Remote unit display actual pin configuration, detects cable status: straight, open, short and crossover.
- Checks datacom/network, voice/telecom, crossover, shielded and coax cables.
- Tone generator makes tracing cable with a net probe, simple and fast.
- A built-in line tester verifies phone line polarity and detects voltage before it threatens the safety of the tester.
- Battery low indicator prevents misreading results.
- Suitable for residential or commercial application.

Individual packing: Inner box & Color label shrink

## MT-7056

## Lan Cable Tester



## For testing RJ45/RJ11/RJ12/BNC Cable, TONE generator

## Features:

- Scans for continuity, open, short as well as reversal and crossed wiring.
- Features with Auto or Manual scans for pin-out indicators.
- Built-in tone generator for cable tracing & identification.
- The remote terminator can be used to test the existing cable installations.
- Patch panel and wall plates can also be easily tested with the RJ45 adapter cable.
- RJ45 to BNC adapters allows for testing & tracing of BNC cables.
- Battery low indicator prevents misreading results.

Individual packing: Inner box & Color label shrink

## ▶ MT-7051N Multi-Modular Cable Tester

CONT.  
LEDRoHS  
COMPLIAN

### For testing RJ45/RJ11/RJ12/BNC Cable

- Tests RJ45 TIA568A/B (AT&T 258A), 10 Base-T, Token ring, RJ-11/ RJ-12 USOC and Coaxial BNC cable.
- Automatically check cable for continuity, short, open and crossed wire pairs.
- Coaxial cable port identifies cable conditions including shorts, shield opens and center conductor breaks.
- Main unit and remote allow one person testing.
- Power source: DC 9V Battery (Not included)
- Dimension: 102x106x28 (mm)
- Cable not included

Individual packing: Blister card

BNC connector  
included

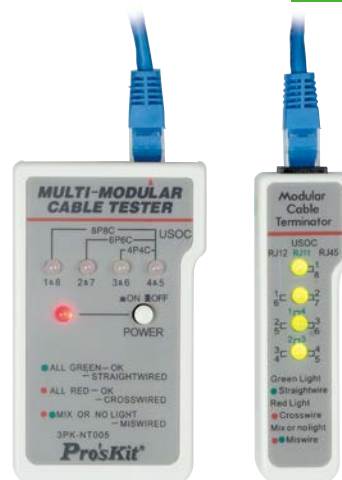
## ▶ 3PK-NT005N Multi-Modular Cable Tester

CONT.  
LEDRoHS  
COMPLIAN

### For testing RJ45/RJ11/RJ12 Cable

- Multi-modular cable tester is applied to quickly test by auto scanning most of modular cable, USOC 4 / USOC6 / USOC 8 terminating with RJ 45, RJ12, and RJ11 modular plug, wires continuity and miss-wiring. It can be also used for testing the cable is crossed pinning or straight through. Moreover, with the remote terminator, it can be further used in remote testing even the cable has been already installed.

Individual packing: Blister card



## ▶ 3PK-NT007N Multi-Network Cable Tester

CONT.  
LEDRoHS  
COMPLIAN

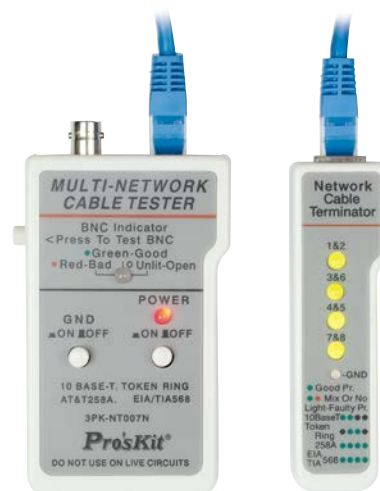
### For testing RJ45/BNC Cable

- Multi-network cable tester is specified to quickly test by auto scanning the wires continuity, mis-wiring and polarization in your network cables, thin Ethernet (BNC)/10 Base-T (UTP/STP)/356A/TIA-568A/TIA-568B/Token Ring. By using the attached remote terminator, you can easily test the cables before or after the cables installed. It also allows you to test the ground of shielded twisted pairs cables.

Individual packing: Blister card



With BNC terminal

For BNC, RJ-45  
twisted pair test

# Pro'sKit® Test Instruments

## Maximum display range and accuracy for digital multimeters and digital clamp meters and environmental meters

**rdg(reading)**  
The value on the digital display, readout.

199.9

**dgt(digit)**  
Indicates the least significant digit.  
It represents the error used for processing fractions when converting from analog to digital.

### Maximum display range

MT-1860/1820: the maximum display range is "5999".  
MT-1232: the maximum display range is "3999".  
MT-1280/1270/1210: the maximum display range is "1999".  
For example of measuring resistance at MT-1232

Resistance	Display	
4000kΩ	4.000MΩ	The range is automatically switched so that the display unit is MΩ or kΩ
4000Ω	4.000kΩ	
40Ω	40.00Ω	The reading is display with three digits.

### Accuracy

When ACV measurement using the MT-1270, the maximum display value is 199.9V, minimum display value is 0.01V.

199.9

### Example

The accuracy of the AC200 V reading is  $\pm(0.8\%rdg+5dgt)$ .  
when measuring AC100V, the accuracy reading display range is 100.9~99.15.  
 $100V \pm (0.8\% + 5dgt)$   
 $= 100 + (0.80 + 0.05) - 100 - (0.80 + 0.05)$   
 $= 100.9 - 99.15$

## SI prefixes

Symbol	Prefixes	Decimal		Units frequently used
		Long Scale	Short Scale	
G	giga	1X1,000,000,00	1X10 <sup>9</sup>	GHz
M	mega	1X1,000,000	1X10 <sup>6</sup>	MΩ, MHz
K	kilo	1X1,000	1X10 <sup>3</sup>	kΩ, kV, kW, kHz
m	milli	1/1,000	1X10 <sup>-3</sup>	mV, mA, mW, mH
μ	micro	1/1,000,000	1X10 <sup>-6</sup>	μV, μA, μW, μH
n	nano	1/1,000,000,000	1X10 <sup>-9</sup>	nA, nF, nH
p	pico	1/1,000,000,000,000	1X10 <sup>-12</sup>	pF, pH

**USB** USB connector



**V** DC voltage

**V** AC voltage

**A** DC current

**A** AC current

**Ω** Resistance

**Hz** Frequency

**+** Capacitance

**∞** Inductor check

**°C/°F** Temperature °C/°F measurement

**°C** Temperature °C measurement

**Hz Duty** Duty cycle

**REL** Relative reference

**•••** Continuity buzzer

**CONT. LED** Continuity check

**▶** Diode test

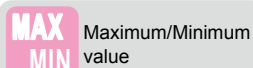
**hFE** Transistor hFE test

**LED** LED test

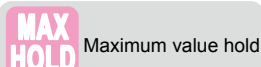
**⚡** Battery check



Backlight



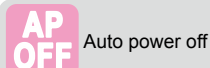
Maximum/Minimum value



Maximum value hold



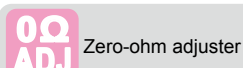
Data hold



Auto power off



Low battery



Zero-ohm adjuster



Output terminal

Most of Pro'sKit® test instruments are approved by CE EN61010-1 CAT II/ CAT III test.

CAT. II Primary circuits or equipments connected to low voltage facilities, such as a standard wall outlet.

CAT. III Equipment used for measurement in building facilities, distribution boards, and circuit breakers.

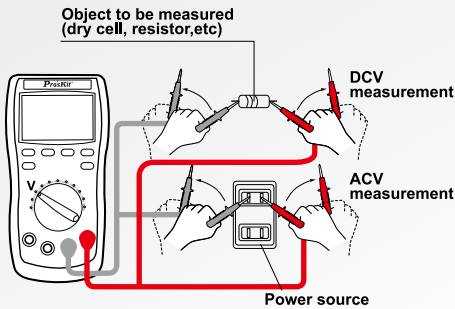




# Test Instruments Technical Basics

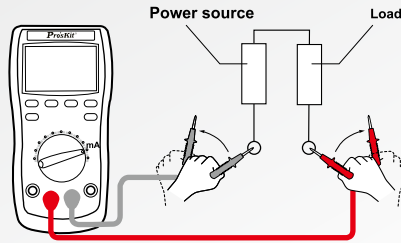
## Measuring method of digital multimeter

### Voltage, Resistance measurement



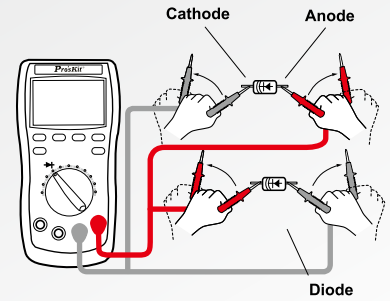
In making measurements, connect your DMM in parallel with an object to be measured. Do not apply signals exceeding the maximum rated input voltage.

### Current Measurement



In making measurements, connect your DMM in series with an object to be measured. Do not apply signals exceeding the maximum rated input current.

### Diode Measurement



When the black test lead is connected to the cathode side of the diode and the red test lead to the anode side, the forward voltage can be measured. On the contrary, if the black test lead is connected to the anode side of the diode and the red test lead to the cathode side, the reverse voltage can be measured and "OL" display appears.

## Clamp Meter

### What Are Clamp Meters?

Clamp meters are a very convenient testing instrument that permits current measurements on a live conductor without circuit interruption.

When making current measurements with the general multimeter, we have to cut wiring and connect the instrument to the circuit for testing as shown in Fig.1, however, we can measure current by simply clamping on a conductor as illustrated with clamp meter as shown in Fig.2.

Using a clamp meter is easy way that we can even measure a large current without shutting off the circuit being tested.

### Clamp Meter Operation

Clamp meter permit to measure current by simply clamping on a conductor without shutting off the circuit being tested, even measure a large current. When making current measurements by a analogue multimeter or digital multimeter, we have to cut wiring and connect the instrument to the circuit for testing. Using a clamp meter, only one conductor is normally passed through the probe; if more than one conductor were to be passed through, the measurement will be very misleading. For measuring current using a clamp meter, clamp one conductor (wire) to be measured. If two wires (parallel lines) are clamped, current measurement cannot be made. Take a measurement at the center of the core of the clamped portion to minimize measuring errors. A line separator is conveniently used in measuring the consumption current of home electric appliances. There are line separators that can amplify measured current 10 times to allow measurement by amplifying current lower than 1A. When DC current (DCA) is measured using a clamp meter for DC current, the current is indicated in a negative value when the direction of the current is reversed. With this function, you could know what situation of your car battery, charge? Or discharge?

### How to Measure DC Current

Clamp on to a conductor just the same way as with AC current measurement using an AC current clamp meter. In the case of DC clamp meters the reading is positive (+) when the current is flowing from the upside to the underside of the clamp meter.

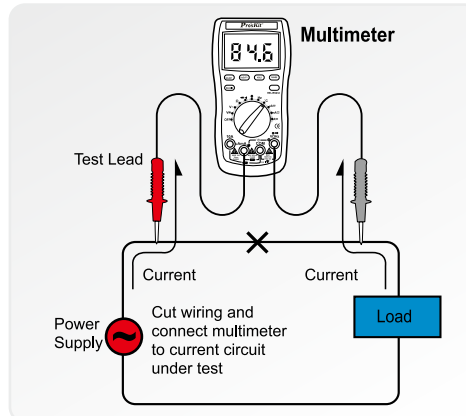


Fig.1 Using multimeter

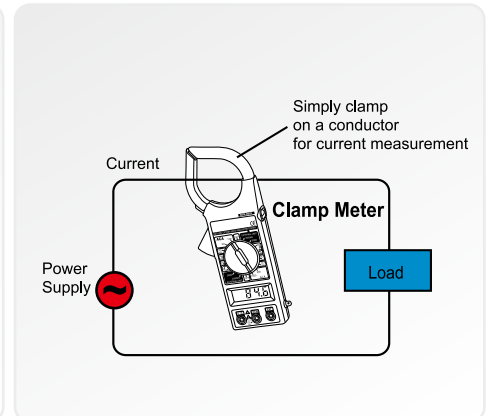


Fig.2 Using clamp meter

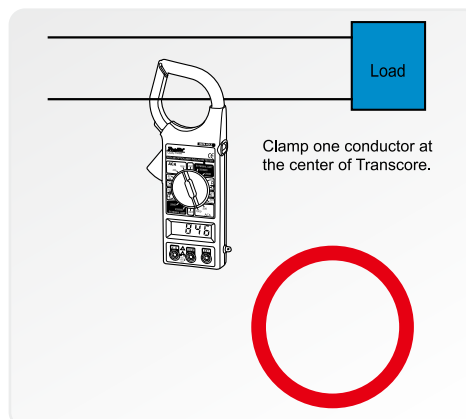


Fig.3 Correct measurement

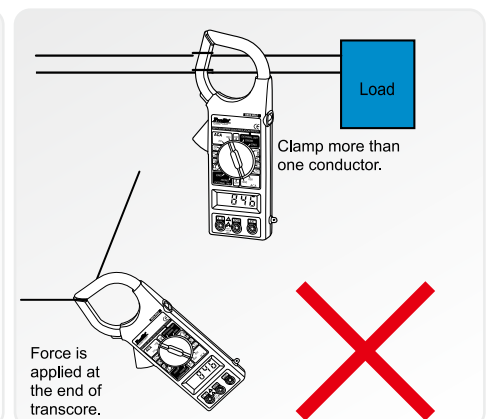
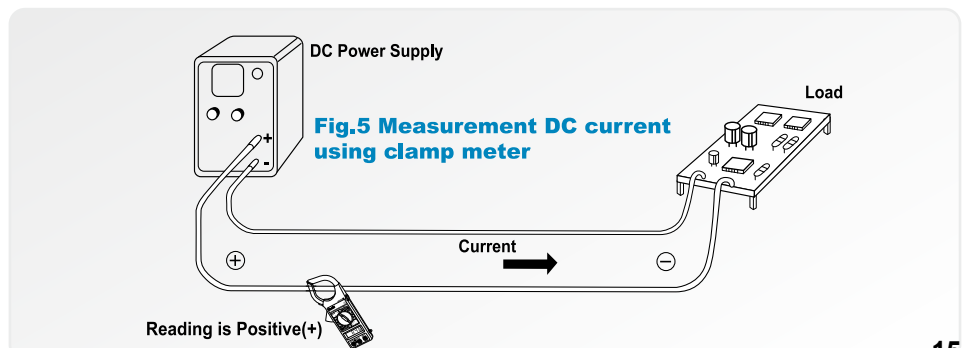


Fig.4 Wrong measurement





## PC LINK SYSTEM

The Professional Multimeter Series comes with USB or RS232 connector to allow you easy connection to PC for monitor measuring data and recording.

### ▶ MT-1860 3 5/6 Dual Display DMM w/ USB Connector & Key Touching



#### USB connector to computer

Features:

- 3 5/6 digits 5999 counts, 0.5% best accuracy.
- Auto range.
- Dual display with analog bargraph.
- Touch keys.
- Extra functions: duty cycle, relative reference, backlight, Max/Min hold, data hold, auto power off, low battery indication.



mini USB connector



Accessories

Specification	
DCV	600mV/6/60/600V $\pm(0.5\%+4d)$ , 1000V $\pm(1.0\%+4d)$
ACV	6/60/600V $\pm(0.8\%+10d)$ , 750V $\pm(1.0\%+6d)$
DCA	60m/600mA $\pm(1.0\%+10d)$ , 6/10A $\pm(1.2\%+10d)$
ACA	60m/600mA $\pm(1.5\%+10d)$ , 6/10A $\pm(2.5\%+15d)$
Resistance	600Ω $\pm(0.8\%+5d)$ , 6k/60k/600k/6MΩ $\pm(0.8\%+4d)$ , 60MΩ $\pm(1.2\%+10d)$
Frequency	10/100/1000/10k/100k/1M/20MHz $\pm(0.3\%+2d)$
Capacitance	40nF $\pm(5\%+30d)$ , 400n/4μ/40μF $\pm(3.5\%+8d)$ , 200μF $\pm(5.0\%+10d)$
Temperature	-20~400°C (0~750°F) $\pm(1.0\%+5d)$ , 400~1000°C (750~1832°F) $\pm(1.5\%+15d)$
Power source	AAA(1.5V)x2pcs (Not Included)
Continuity with beeper	Y
Diode test	Y
Size	185×91×49 mm
Individual Packing	Color box

### ▶ MT-1820 3 5/6 Dual Display DMM w/ USB Connector



#### USB connector to computer

Features:

- 3 5/6 digits 5999 counts, 0.5% best accuracy.
- Auto/Manual both range.
- Dual display with analog bargraph.
- Extra functions: duty cycle, relative reference, Max/Min hold, data hold, auto power off, low battery indication.



Transistor hFE test



mini USB connector



Accessories

Specification	
DCV	600mV/6/60/600V $\pm(0.5\%+4d)$ , 1000V $\pm(1.0\%+6d)$
ACV	6/60/600V $\pm(0.8\%+10d)$ , 750V $\pm(1.0\%+10d)$
DCA	600μ/6000μA $\pm(1.0\%+10d)$ , 60m/600mA $\pm(1.0\%+10d)$ , 6/10A $\pm(1.2\%+10d)$
ACA	600μ/6000μA $\pm(1.5\%+10d)$ , 60m/600mA $\pm(1.5\%+10d)$ , 6/10A $\pm(2.0\%+15d)$
Resistance	600Ω $\pm(0.8\%+5d)$ , 6k/60k/600k/6MΩ $\pm(0.8\%+4d)$ , 60MΩ $\pm(1.2\%+10d)$
Frequency	100/1000Hz $\pm(0.5\%+4d)$ , 10k/100kHz $\pm(0.5\%+4d)$ , 1M/30MHz $\pm(0.5\%+4d)$
Capacitance	40nF $\pm(5\%+30d)$ , 400n/4μ/40μF $\pm(3.5\%+8d)$ , 200μF $\pm(5.0\%+10d)$
Temperature	-20~400°C (0~750°F) $\pm(1.0\%+5d)$ , 400~1000°C (750~1832°F) $\pm(1.5\%+15d)$
Continuity with buzzer	Y
Diode test	Y
Transistor test	Y
Power source	AAA(1.5V)x2pcs (Not included)
Size	192×95×48 mm
Individual Packing	Color box

# LCR METER

**Pro'sKit**® LCR meter is a easy way to measure and analyze inductance (L), capacitance (C), and resistance (R) of passive components and materials accurately. Measured values can be easily read from large LCD display. MT-5211 LCR meter is also provided with a transistor test to check their functionality. Both continuity and diode test are part of the multiple functions of this LCR meter.



Capacitance



Inductance



Resistance

## MT-5211 3 1/2 Digital LCR Multimeter



CAT IV 600V

### Fully featured with LCR & DMM Multimeter

- 3 1/2 digits 1999 counts.
- Dual slope A/D conversion.
- Large backlight LCD display.
- Extra functions: continuity with beeper, diode test, data hold, auto power off, low battery indication, over load indication, backlight, transistor tester.
- Ideal for a wide variety of electrical and electronic testing applications.

Specification	
DC Voltage (V)	200mV/2V/20V/200V±(0.5%+3d), 1000V±(1.0%+5d)
AC Voltage (V)	200mV±(1.2%+3d), 2V/20V/200V±(0.8%+5d), 750V±(1.2%+5d)
DC Current (A)	2mA/20mA±(0.8%+3d), 200mA±(1.2%+4d), 20A±(2.0%+5d)
AC Current (A)	2mA/20mA±(1.0%+5d), 200mA±(2.0%+5d), 20A±(3.0%+10d)
Resistance (Ω)	200±(0.8%+5d), 2K/20K/200K/2MΩ±(0.8%+3d),
Capacitance (uF)	20MΩ±(1.0%+15d), 2000MΩ±(5.0%+reading-10)+20d)
Inductance (L)	20nF/200nF/2uF±(2.5%+20d), 20uF/200uF±(5.0%+5d)
Temperature (T)	2mH/20mH/200mH/2H/20H±(2.5%+20d)
(-20~1000°C)	<400°C±(1.0%+4d), ≥400°C±(1.5%+15d)
Frequency (Hz)	2k/20k/200k/2000K/10M Hz±(1.0%+10d)
Power source	9V 6F22 battery (Not included)
Size(D×W×H) mm	189×97.5×35mm
Accessories	Test lead, thermocouple, test socket
Individual Packing	Color box



Transistor hFE test



DMM test



Accessories



## MT-5110 3 1/2 Capacitance Meter



CAT III 1000V

### Capacitance Measurement 0.1pF~20,000uF.

#### Features:

- 3 1/2 digits 1999 counts.
- High measuring accuracy: ±0.5%.
- Measurements are possible even under a strong magnetic field.
- LCD display for low power consumption and clear readout even in bright ambient light conditions.
- Zero knob: Knob to zero when testing low capacitance.
- Extra function: backlight, low battery indication.

Specification	
Capacitance	200pF ±(0.5%+7d), 2n/20n/200n/2u/20u/200uF ±(0.5%+5d), 2,000uF ±(2.0%+5d), 20,000uF ±(3.0%+10d)
Zero adjustment	Manual (range:±20pF)
Over-input	Display shows "1"
Input overload protections	Y
Sampling time	0~5 second
EN61010-1	CE
Power source	NEDA1604/6F22 (9V) x 1pcs (Not included)
Size	182x90x46mm
Test Lead model no.	MT-9906
Individual Packing	Color box



Capacitance test socket



Test probes, alligator clips





# TRUE RMS METER SERIES

**Pro'sKit®** True-RMS Multimeter is designed for accurate measurements, ideal for a wide variety of electrical and electronic testing applications. All of its inputs are protected to CE, safety rated and 1M drop protection, overload protection ensures uninterrupted operation and long lifetime.

## MT-1710 True-RMS Auto Range Multimeter

CE CAT IV 600V



AC True-RMS test



Transistor hFE test



Accessories



- 3 3/4 Digits 3999 counts.
- 0.5% Best accuracy.
- Both auto and manual range.
- Cat iv 600v safety rated
- AC True-RMS for accurate measurements.
- Extra functions: continuity with beeper, diode test, transistor test, duty cycle, relative reference, data hold, auto power off, low battery indication, input alert, lcd backlight.
- Ideal for a wide variety of electrical and electronic testing applications.

Specification	
DC Voltage (V)	400m/4/40/400V ±(0.5%+4d), 1000V ±(1.0%+6d)
AC Voltage (V) True-RMS	40~1kHz(sine and triangular wave) and 40~200Hz(other wave): 400mV ±(1.6%+8d), 4/40/400/750V ±(1.0%+10d) 200~1kHz(other wave): 400m/4/40/400/750V ±(8.0%+15d)
DC Current (A)	400u/4000uA ±(1.0%+10d), 40m/400mA ±(1.2%+8d), 10A ±(1.2%+10d)
AC Current (A) True-RMS	40~1kHz(sine and triangular wave) and 40~200Hz(other wave): 400u/4000u/40m/400mA ±(1.5%+10d), 10A ±(2.0%+15d) 200~1kHz(other wave): 400u/4000u/40m/400mA/10A ±(8.0%+15d)
Resistance (Ω)	400Ω ±(0.8%+5d), 4k/40k/400k/4MΩ ±(0.8%+4d), 40MΩ ±(1.2%+10d)
Frequency (Hz)	100/1000/10k/100kHz ±(0.5%+10d), 1M/30MHz ±(0.5%+10d)
Capacitance (F)	10n ±(5.0%+20d), 100n/1u/10u/100uF ±(3.5%+8d), 1/10/100mF ±(5.0%+10d)
Temperature (°C/°F)	-20~400°C(-4~752°F) ±(1.0%+5d), 400~1000°C (752~1832°F) ±(1.5%+15d)
Power source	9V (NEDA 1640/6F22) battery (Not included)
Size (mm)	190×95×45 mm
Individual Packing	Color box

## MT-1705 3 1/2 True RMS Multimeter



CE CAT III 600V



AC True-RMS test



Accessories



- 3 1/2 digits 1999 counts.
- 0.5% best accuracy.
- CAT III 600V safety rated.
- Auto polarity indication.
- AC True-RMS for accurate measurements.
- Extra function: continuity with beeper, diode test, data hold, auto power off, low battery indication, overload indication, LCD backlight.
- Frequency and capacitance are auto range.
- Ideal for wide variety of electrical and electronic testing applications.

Specification	
DC Voltage (V)	200mV/2V/20V/200V±(0.5%+3d), 600V±(1.0%+10d)
AC Voltage (V) True-RMS	40Hz-200Hz and 200Hz-1kHz sine and triangular wave: 2V/200V±(0.8%+5d), 600V±(1.2%+10d) 200Hz-1kHz other wave: 2V/200V/600V±(8.0%+15d)
DC Current (A)	20mA/200mA±(1.2%+8d), 10A±(2.0%+5d)
AC Current (A) True-RMS	40Hz-200Hz and 200Hz-1kHz Sine and triangular wave: 200mA±(1.5%+15d), 10A±(3.0%+10d) 200Hz-1kHz Other wave: 200mA/10A±(8.0%+15d)
Resistance (Ω)	200±(0.8%+5d), 20K/200K±(0.8%+3d), 20M±(1.0%+25d)
Frequency (Hz)	10/100/1k/10k/100k/2M Hz±(1.0%+10d)
Capacitance (F)	20nF/200nF/2uF±(3.5%+20d), 20uF/200uF/2000uF±(5.0%+10d)
Power source	3V(1.5VAAA×2) (Not included)
Size (mm)	150×73.5×35 mm
Individual Packing	Color box

## MT-1505 Automatic Pocket Meter

**Pro'sKit® Smart Meters** feature high performance and automatic function selection. When it be connected with measured object, the smart meter will automatically determining the type of object under test and selecting measuring function, **only one touch**, the measuring value display on large LCD for easy reading and analysis.

Smart meters auto selection function is not only provide user simple and quick measuring, also can prevent damage under incorrect operation. Beside, **Proskit®** Smart Meters also got the 600V overvoltage protection function for safety.



### Auto-selection function. Non-contact ACV detector

### Features:

- 3-3/4 digits 3999 counts.
- 0.7% best accuracy.
- Auto range.
- Auto-selection ACV, DCV, Resistance.
- Non-contact voltage detector of ACV.
- Extra functions: auto power off, low battery indication.
- Safety extras such as transient protection to 4 kV and overload protection to either 600 V.

Specification	
DCV	4/40/400V $\pm(0.7\%+4d)$ , 600V $\pm(0.8\%+5d)$
ACV	4/40/400V $\pm(0.8\%+4d)$ , 600V $\pm(1.2\%+4d)$
Resistance	400 $\Omega$ /4k/40k/400k/4M $\Omega$ $\pm(0.8\%+2d)$ , 40M $\Omega$ $\pm(2.0\%+5d)$
Frequency	40Hz $\pm(1.0\%+5d)$ , 400/4k/40k/400k/4MHz $\pm(0.5\%+5d)$ , 10MHz $\pm(1.5\%+5d)$
Capacitance	40n/400n/4 $\mu$ /40 $\mu$ /200 $\mu$ F $\pm(4.5\%+6d)$
EF Detection	15V~55V "- " 30V~85V "- " 55V~145V "- -" Above 120V "- - -"
Continuity with beeper	<100 $\Omega$
Diode test	Range: 0.1-2V , Resolution: 1mV
Power source	IEC-CR2032 (3V)standard button battery x 1 pcs (Not included)
Size	115*57*12 mm
Individual packing	Color box

Non-contact  
detect volts

## Resistance Measurement



## DCV Measurement

**MT-1508 Pocket Autorange Multimeter**

**NON-CONTACT ACV, DETECTOR, LCD backlight, Data hold, Auto power off, Auto range**

### Features:

- Non contact ACV detector.
- Pocket size design for easy carrying.
- Built-in LED flashlight.
- Complies with CE EN61010-1 CATIII 600V Safety rated.
- Auto range function provide accurate, easy to use display with backlight.
- Comes with a backlight, 3 1/2 digits 1999 counts, great to understand reading.
- Extra function: auto power off, low battery indication, data hold, over range indication.

Specification	
DCV	200mV/2V/20V/200V±(0.5%+3d), 600V±(0.8%+5d)
ACV	2V/20V/200V±(0.8%+3d), 600V±(1.0%+5d)
DCA	200µA/2000µA/20mA/200mA±(1.8%+5d)
AVA	200µA/2000µA/20mA/200mA±(2.0%+5d)
Resistance	200Ω/2kΩ/20kΩ/200kΩ/2MΩ±(1.0%+3d), 20MΩ±(1.2%+15d)
Non contact ACV detector	Y
Diode test	Y
Continuity with beep	Y
Certificate	RoHS, CE EN61010-1 CATIII 600V
Battery	2x1.5V AAA
Weight	152g (not including battery)
Dimension	125mm x 60mm x 25mm
Individual packing	Blister card



**MT-1610**

### 3 In 1 Network Digital Multimeter

### 3 in 1 for RJ-11 line test, RJ-45 cable test and DMM functions



# MT-1620

## 5 In 1 Autorange Digital Multimeter

## 5 in 1 for Humidity/Sound level/ Illuminance/ Temperature measurement and DMM functions

**MT-1630**

### 3 1/2 Pen-Style Meter

## Pen type compact in size DMM



Model No.	MT-1610	MT-1620	MT-1630
Certificate	 	 	
Functions			
Digits	3 1/2 digits 1999 counts	3 3/4 digits 3999 counts	3 1/2 digits 1999 counts
Accuracy	0.8% best accuracy	0.7% best accuracy	0.8% best accuracy
DCV	200m/2/20/200V ±(0.8%+2d) , 1000V ±(1.2%+3d)	400m/4/40/400V ±(0.7%+2d), 600V ±(1.0%+2d)	200m/2/20/200/600V ±(0.8%+5d)
ACV	200mV ±(1.2%+3d), 2/20/200V ±(0.8%+3d) , 700V ±(1.2%+5d)	4/40/400V ±(0.8%+3d), 600V ±(1.5%+5d)	2/20/200V ±(1.0%+3d), 600V ±(1.2%+3d)
DCA	200μ/2m/20mA ±(0.8%+3d) , 200mA ±(1.5%+2d), 10A ±(2.0%+5d)	40m/400mA ±(1.2%+3d), 10A ±(2.0%+10d)	20m/200mA ±(1.5%+10d)
ACA	200μ ±(2.0%+3d), 2m/20mA ±(1.0%+3d) , 200mA ±(1.8%+3d), 10A ±(3.0%+5d)	40m/400mA ±(1.5%+5d), 10A ±(3.0%+10d)	20m/200mA ±(3.0%+10d)
Resistance	200Ω ±(0.8%+3d), 2k/20k/200k/2MΩ ±(0.8%+2d), 20MΩ ±(1.0%+2d) ,200MΩ ±(5.0%+10d)	400/4k/40k/400k/4MΩ ±(1.2%+2d), 40MΩ ±(2.0%+5d)	200Ω ±(1.0%+5d), 2k/20k/200k/2MΩ ±(1.0+3d), 20MΩ ±(1.2%+5d)
Extra Function			
Frequency	-	10Hz ±(2.0%+5d), 100/1,000/10kHz ±(1.5%+5d), 100k/200kHz ±(2.0%+5d)	-
Capacitance	-	4n/40n/400n/4μ/40μF ±(3.0%+3d), 200μF ±(8.0%+10d)	-
Temperature	-	-20~0°C ±(5.0%+5d), 0~400°C ±(1.0%+3d), 400~1000°C ±(2.0%+3d)	-
Over range indication	-	-	Yes
Sampling rate	-	-	Approximately 3 times per sec.
Fuse protection	-	-	Yes
Display hold	Yes (only for multimeter)	-	-
Power source	NEDA1604/6F22 (9V) x 1pcs (Not included)	NEDA1604/6F22 (9V) x 1pcs (Not included)	LR44(1.5V)x2 pcs (Not included)
Size	178 x 85 x 48mm	178 x 85 x 48 mm	205 x 35 x 30 mm
Individual packing	Color Box	Color Box	Double blister
Accessories	 RJ-45 / RJ-11 terminal, test lead		



▶ **MT-1217****3 3/4 Auto Range Digital Multimeter**

**Auto Range/Frequency/Capacitance/  
Temperature/DMM All in 1.**

▶ **MT-1270****3 1/2 Digital Multimeter**

**Frequency/Capacitance/  
Temperature/DMM All in 1.**

▶ **MT-1280****3 1/2 Digital Multimeter**

**Capacitance / Temperature**



Model No.	MT-1217	MT-1270	MT-1280
Certificate	CAT III 1000V	CAT III 1000V	CAT III 1000V
Functions			
Digits	3 3/4 digits 3999 counts.	3 1/2 digits 1999 counts.	3 1/2 digits 1999 counts.
Accuracy	0.5% best accuracy.	0.5% best accuracy.	0.5% best accuracy.
DCV	400mV/4V/40V/400V ±(0.5%+4d), 1000V ±(1.0%+6d)	200mV/2V/20V/200V ±(0.5%+3d) 1000V ±(0.8%+10d)	200mV/2V/20V/200V ±(0.5%+3d), 1000V ±(0.8%+10d)
ACV	4V/40V/400V ±(0.8%+6d), 750V ±(1.0%+10d)	2V/20V/200V ±(0.8%+5d) 750V ±(1.2%+10d)	2V/20V/200V ±(0.8%+5d), 750V ±(1.2%+10d)
DCA	400μA/4000μA ±(1.0%+10d), 40mA/400mA ±(1.0%+10d), 4A/10A ±(1.2%+10d)	2mA/20mA ±(0.8%+10d), 200mA ±(1.2%+8d), 10A ±(2.0%+5d)	200μA/20mA ±(0.8%+10d), 200mA ±(1.2%+8d), 20A ±(2.0%+5d)
ACA	400μA/4000μA ±(1.5%+10d), 40mA/400mA ±(1.5%+10d), 4A ±(2.0%+15d); 10A ±(2.5%+15d)	20mA ±(1.0%+15d), 200mA ±(2.0%+5d), 10A ±(3.0%+10d)	20mA ±(1.0%+5d), 200mA ±(2.0%+5d), 20A ±(3.0%+10d)
Resistance	400Ω ±(0.8%+5d), 4k/40k/400K/4MΩ ±(0.8%+4d), 40MΩ ±(1.2%+10d)	200Ω ±(0.8%+5d), 2K/20K/200K/2MΩ ±(0.8%+3d), 20MΩ ±(1.0%+25d), 200MΩ ±(5.0%+rdg-10)+30d]	200Ω ±(0.8%+5d), 2K/20K/200KΩ ±(0.8%+3d), 20MΩ ±(1.0%+25d), 200MΩ ±(5.0%+rdg-10)+10d]
Frequency	400/4K/20KHz ±(0.5%+10d)	20K Hz ±(3.0%+18d)	-
Capacitance	40nF ±(0.5%+30d), 400nF/4μF/20μF ±(3.5%+8d)	2nF ±(2.5%+20d), 20nF ±(2.5%+20d), 200nF ±(2.5%+20d), 2μF ±(2.5%+20d), 20μF ±(5.0%+30d)	20nF ±(2.5%+20d), 20μF ±(2.5%+20d), 200μF ±(5.0%+20d)
Temperature	(-20°C~1000°C) < 400°C ±(1.0%+5d) (-20°C~1000°C) >= 400°C ±(1.5%+15d)	(-20°C~400°C) ±1.0%+5d, (400~1000°C) ±(1.5%+15d)	-20°C~400°C ±(1.0%+5d), 400°C~1000°C ±(1.5%+15d)
Extra function:			
Battery	9V*1(not included)	9V(6F22) (Not Included)	9V(6F22) (Not Included)
Size (HXWXD)mm	182×90×46mm	182×90×46	182×90×46mm
Test leads model no.	MT-9906	MT-9906	MT-9906
Individual packing	Color Box	Color Box	Color Box
Accessories	 Test lead, transistor test socket, thermocouple probe	 Test lead, transistor test socket, thermocouple probe	 Test lead, transistor test socket, thermocouple probe

## ▶ MT-1232

### 3 3/4 Autorange Digital Multimeter

Auto range, Frequency/  
Capacitance/Temperature/  
DMM All in 1.



## ▶ MT-1132

### 3 1/2 Digital Multimeter

LCD backlight, Data hold























































## ▶ MT-1250

### Professional 3 1/2 Digital Multimeter

Reliable-perfect overload with  
PTC, diode and two fuses



Model No.	MT-1232	MT-1132	MT-1250
Certificate	  CAT III 600V	  CAT III 600V	  CAT III 600V CAT II 1000V
Functions	           	          	         
Digits	3 3/4 digits 3999 counts	3 1/2 digits 1999 counts	3 1/2 digits 1999 counts
Accuracy	0.5% best accuracy	0.5% best accuracy	0.5% best accuracy
DCV	400mV/4V/40V/400V ±(0.5%+4d), 600V ±(1.0%+4d)	200mV/2V/20V/200V ±(0.5%+2d), 500V ±(0.8%+5d)	200mV ±(0.5%+1d), 2/20/200V ±(1.0%+2d), 1000V ±(1.5%+2d)
ACV	4V/40V/400V ±(0.8%+6d), 600V ±(1.0%+6d)	200V ±(1.2%+10d), 500V ±(1.2%+10d)	200mV ±(1.0%+3d), 2/20/200V ±(1.5%+3d), 750V ±(2.5%+4d)
DCA	400μA/4000μA ±(1.0%+10d), 40mA/400mA ±(1.0%+10d), 10A ±(1.2%+10d)	200μA/2mA/20mA/200mA ±(1.0%+5d), 10A ±(2.5%+5d)	200μA/2mA/20mA/200mA ±(1.2%+2d), 10A ±(2.0%+3d)
ACA	400μA/4000μA ±(1.5%+10d), 40mA/400mA ±(1.5%+10d), 10A ±(2.5%+15d)	200μA ±(0.8%+5d), 2K/20K/200K ±(0.8%+5d), 2MΩ ±(1.0%+5d)	200μA/2mA/20mA/200mA ±(1.5%+3d), 10A ±(2.5%+5d)
Resistance	400Ω ±(0.8%+5d), 4k/40k/400K ±(0.8%+4d), 4MΩ ±(0.8%+4d), 40MΩ ±(1.2%+10d)		200Ω ±(1.2%+2d), 2k/20k/200k/2MΩ ±(1.0%+2d), 20M Ω ±(2.5%+4d)
Frequency	1/10/100Hz ±(0.5%+10d), 1K/10K/100KHz ±(0.5%+10d), 1/10MHz ±(0.5%+10d)		-
Capacitance	4nF ±(0.5%+9d), 40nF/400nF/4μF/40μF ±(3.5%+8d), 100μF ±(5.0%+8d)		-
Temperature	(-20C~1000C) < 400C ±(1.0+5d), (-20C~1000C) >= 400C ±(1.5+15d)		-
Extra function	   	  	  
Fuse	10A/250V	10A/250V	-
Power source	1.5V AA x 2 (not included)	1.5V AA x 2 (not included)	NEDA1604/6F22 (9V) x 1pcs(Not included)
Size (HXWXD)mm	147 x 78 x 41 mm	147 x 78 x 41 mm	147x75x40 mm
Test leads model no.	MT-9907	MT-9907	-
Individual packing	Color Box	Color Box	Double blister
Accessories	 Test lead, thermocouple probe	 Test lead and transistor test socket	 Test lead

## ▶ MT-1210

### 3 1/2 Compact Digital Multimeter

LCD backlight, Data hold, Best Value



## ▶ MT-1233C

### 3 1/2 Digital Multimeter

LCD backlight, Data hold,  
°C and °F temperature test,  
Palm Size.



## ▶ MT-1233D

### 3 1/2 Digital Multimeter

LCD backlight, Data hold,  
High resistance test,  
Square signal output,  
Palm Size.



Model No.	MT-1210	MT-1233C	MT-1233D
Certificate	CAT II 600V	CAT II 300V	CAT II 300V
Functions			
Digits	3 1/2 digits 1999 counts	3 1/2 digits 1999 counts	3 1/2 digits 1999 counts
Accuracy	1.0% best accuracy	0.5% best accuracy	0.5% best accuracy
DCV	200mV ±(1.0%+2d) 500V ±(1.2%+5d)	200m/2000m/20/200V ±(0.8%+3d), 500V ±(1.0%+3d)	200m/2000m/20/200V ±(0.8%+3d), 500V ±(1.0%+3d)
ACV	200/500V ±(2.5%+10d)	200/500V ±(1.2%+5d)	200/500V ±(1.2%+5d)
DCA	200μ/2mA/20mA/200mA ±(2.0%+5d) 10A ±(3.0%+5d)	2000u/20m/200mA ±(1.2%+5d), 10A ±(2.5%+5d)	2000u/20m/200mA ±(1.2%+5d), 10A ±(2.5%+5d)
Resistance	200Ω/2K/20K/200KΩ ±(1.0%+5d) 2MΩ ±(1.5%+5d)	200Ω ±(1.5%+5d) , 2000/20k/200kΩ ±(1.0%+3d) , 20MΩ ±(1.0%+5d)	200Ω ±(1.5%+5d) , 2000/20k/200kΩ ±(1.0%+3d), 20MΩ ±(1.0%+5d), 200MΩ ±(1.0%(rdg-10)+10d)
Square signal output	-	-	50Hz (5 Vp-p, 50KΩ)
Temperature	-	-40~150°C ±(1.0%+3d), 150~1000°C ±(1.5%+15d)-40~302°F(1.0%+4d), 302~1832°F ±(1.5%+15d)	-
Extra function			
Power source	9V(6F22)×1(Not included)	1.5V AAA x 2 (not included)	1.5V AAA x 2 (not included)
Size (HXWXD)mm	144×70×32mm	130 x 72 x 28mm	130 x 72 x 28mm
Individual packing	Blister card	Double blister	Double blister
Accessories	Test leads	Test leads, thermocouple probe	Test leads



## ▶ MT-3109

**3 3/4 AC/DC Digital Clamp Multimeter**

AC/DC current, Frequency, Capacitance measurement.



DCA measurement



ACA measurement

## ▶ MT-3102

**3 1/2 2A Mini Digital Clamp Meter**

AC current 2A. Temperature measurement



ACA measurement

## ▶ MT-3266

**3 1/2 Hand Held Digital Clamp Meter**

Model No.	MT-3109	MT-3102	MT-3266
Certificate	CAT II 600V	CAT II 600V	CAT II DC 1000V AC 750V
Functions			
Digits	3 3/4 digits 3999 counts	3 1/2 digits 1999 counts	3 1/2 digits 1999 counts
Accuracy	1.0% best accuracy	0.8% best accuracy	0.8% best accuracy
DCV	400m/4V ±(1.0%+3d), 40/400V ±(1.0%+1d), 600V ±(1.0%+5d)	200mV ±(0.8%+5d), 2/20/200V ±(0.8%+3d), 600V ±(1.0%+5d)	1,000V ±(0.8%+2d)
ACV	4/40/400V ±(1.2%+5d), 600V ±(1.5%+5d)	2/20/200V ±(1.2%+5d), 600V ±(1.5%+5d)	750V ±(1.2%+4d)
DCA	40A ±(2.5%+5d), 400A ±(2.5%+3d)		
ACA	40A ±(3.0%+8d), 400A ±(3.0%+5d)	2A ±(3.0%+15d) ≤ 0.4A ±(4.0%+20d), 20A ±(2.0%+10d) ≤ 0.4A ±(3.0%+15d), 200/400A ±(2.0%+5d)	200/1,000A ±(3.0%+5d)
Resistance	400Ω ±(1.2%+5d), 4k/40k/400kΩ ±(1.0%+5d), 4MΩ ±(1.2%+5d), 40MΩ ±(1.5%+5d)	200Ω ±(1.2%+5d), 2k/20k/200kΩ ±(1.0%+3d), 2MΩ ±(1.2%+5d), 20MΩ ±(1.5%+5d)	200Ω ±(1.0%+3d), 20kΩ ±(1.0%+1d)
Frequency	10/100/1k/10k/100k/1MHz ±(0.1%+5d), 10MHz (For reference only)		
Capacitance	40n/400n/4μ/40μF ±(5.0%+10d), 100μF ±(6.0%+10d)		
Temperature		-40~0°C ±(3.0%+4d), 0~400°C ±(1.0%+3d), 400~1000°C ±(2.0%+10d) -40~32°F ±(3.0%+8d), 32~752°F ±(1.0%+6d), 752~1832°F ±(2.0%+18d)	
Extra function			
Power Source	AAA(1.5V) x 3 pcs (Not included)	AAA(1.5V) x 3 pcs (Not included)	NEDA1604/6F22 (9V) x 1pcs(Not included)
Size	203 x 68 x 33 mm	203 x 68 x 33 mm	230 x 70 x 37 mm
Individual Packing	Double Blister	Double blister	Double blister
Accessories		 Test lead and thermocouple probe	 Test lead

## MT-2017 Protective Function Analog Multimeter



CAT II 1000V  
CAT III 500V

### Overload Protection, Gilded test leads, Null DCV

- Comes with foldable stand and hook-up design for convenient use.
- Separately 9V and 1.5V batteries cases, replace battery or fuse more easily.
- Overload protection with two fuses 0.5A & 10A ensures uninterrupted operation and long lifetime.
- Attached 1000V 10A gilded test leads, more stable and reliable.

Specification	
DCV	0.1/2.5/10/50/250V $\pm 3.0\%$ FSD, 1000V $\pm 4.0\%$ FSD
Null DCV	DC $\pm 5V / \pm 25V \pm 5.0\%$ FSD
ACV	10/50/250V $\pm 4.0\%$ FSD, 1000V $\pm 5.0\%$ FSD
DCA	50 $\mu$ A/2.5mA/25mA/250mA $\pm 3.0\%$ FSD, 10A $\pm 4.0\%$ FSD
Resistance	$\times 1(0.2-2k\Omega) / \times 10(2-20k\Omega) / \times 100(20-200k\Omega) / \times 1k(200-2M\Omega) / \times 10k(2k-20M\Omega) \pm 4.0\%$ ARC of scale length
Capacitance	C(R $\times 1k$ ): 2000 $\mu$ F(Approx.) Max
Battery check	1.5V/9V
Transistor hFE test	Y
Diode & LED test	Y
Continuity with beeper	Y
Front Panel Controls	Range selector switch with "OFF" position, 0 $\Omega$ adjust knob
Power source	1.5V AAA x 2pcs and 9V(NEDA1604) x 1pcs
Size	171x108x37 mm
Individual packing	Color box



### Gilded test leads

Attached 1000V 10A gilded test lead, more stable and reliable



### New Mechanism Design

Separately 9V and 1.5V batteries cases, replace battery or fuse more easy  
Foldable stand and hook-up design



## MT-2018 Protective Function Analog Multimeter



### With capacitance measurement

- Overload and mis-used protection via two fuses, oxide varactor & diodes.
- Robust protective holster alongside.
- 20k $\Omega$ /V DC & 9 k $\Omega$ /V AC input sensitivity.
- Adjustable back tilt device with hook-up design.
- Ideal for using in the fields of lab, school, home applications.

Specification	
DCV	0.1/0.5/2.5/10/50/250V $\pm 3.0\%$ FSD, 1000V $\pm 4.0\%$ FSD
ACV	10/50/250V $\pm 4.0\%$ FSD, 1000V $\pm 5.0\%$ FSD
DCmA	50 $\mu$ A/2.5mA/25mA/250mA $\pm 3.0\%$ FSD
Resistance	$\times 1(0.2-2k\Omega) / \times 10(2-20k\Omega) / \times 100(20-200k\Omega) / \times 1k(200-2M\Omega) / \times 10k(2k-20M\Omega) \pm 4.0\%$ ARC
Capacitance	C1(R $\times 1k$ ): 2000 $\mu$ F(Approx.), C2( $\times 50\mu$ A): 0.025 $\mu$ F/0.25 $\mu$ F/25 $\mu$ F $\pm 3.0\%$ FSD(Option MT-2007-C)
Battery Check	1.5V/9V
Transistor hFE test	Y
Diode & LED test	Y
Front Panel Controls	Range selector switch with "OFF" position, 0 $\Omega$ adjust knob
Power Source	1.5V AA x 2pcs and 9V(NEDA1604) x 1pcs
Size	160 x 105 x 40 mm
Individual Packing	Color box



Adjustable back tilt device with hook-up



Test lead



batteries & fuses



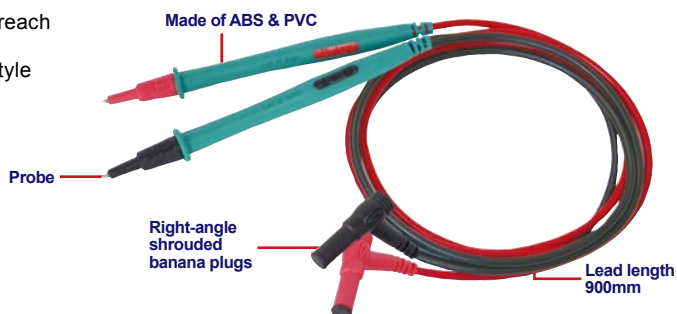
## MT-9906 / MT-9907 Test Lead

- One pair (one red, one black) comfort grip probes with protective cap for user comfort and safety
- Durable quality PVC insulated test leads with right-angle shrouded banana plugs
- Needle tip test probe, allowing easy access of hard to reach test points
- Compatible with most multimeters that accept safety style sheath banana plugs



CAT III 1000V

Model No.	MT-9906	MT-9907
Probe	Ø2x17mm	Ø2x17mm
Hand piece	146mm	129mm
Lead length	900mm	900mm
Plug	Ø4.2x15mm	Ø4.2x15mm
OAL	1120mm	1100mm
Weight	78.5g	74g
Individual Packing	Blister card	



## MT-4615 Anemometer



### Air Velocity, Analog Bar Graphic, Variety of units, Air Volume, LCD Backlight, MAX./MIN value

- Measuring air velocity and air volume.
- Large LCD backlight for easy reading even in dark area.
- Variety of units to choose from.
- Extra functions: Max./Min. value, Low battery indication, Auto power off, Data hold.



**BEST Value**  
Competitive price to market

Specification	
Measuring range	0.8~40m/s
Accuracy	0.80~30.00 m/s, 1.40~108.00 km/h, 1.30~98.50 ft/s, 0.80~58.30 knots, 0.90~67.20 mi/h, 78~5900 ft/min, $\pm(2.0\% + 50D)$ , 30.00~40.00 m/s, 108.0~144.0 km/h, 98.50~131.20 ft/s, 58.30~77.70 knots, 67.20~90.00 mi/h, 5900~7874 ft/min.(only for reference)
Resolution	0.01m/s, 0.01km/h, 0.01 ft/s, 0.01knots, 0.01mile/h, 1ft/min
Unit	Air Velocity, m/s, km/h, mi/h, ft/m, ft/s, knots, Air Volume, CMS (m <sup>3</sup> /s), CMM m <sup>3</sup> /min, CFM (ft <sup>3</sup> /min), 30~40m/s only for reference
Sensor	Conventional arm angle to the impeller
Sampling time	0.4s
Auto power off	10 minutes (adjustable)
Low battery indication	<7V
Operation environment	0~85%RH, 0°C~40°C(no condense)
Fan Operation environment	0~95%RH, -20°C~80°C(no condense)
Storage environment	0~80%RH, -20°C~80°C(no condense)
Operating altitude	Max. 2000m
Power source	9V 6F22 (not included)
Weight	154g (not including battery)
Dimension	170 x 85 x 40mm
Accessories	Pouch bag, user manual
Individual Packing	Double blister

## MT-4617 Light Intensity Meter



### Auto/Manual range, Zero Calibration, Relative & peak value

- Measures the visible light produced by fluorescent lamp, metal-halide lamp, high voltage sodium lamp or electric incandescent lamp.
- Built-in precision photo diode sensor and color correction filter.
- Automatic and manual measured range switching.
- Relative and peak value measurement.
- Measures up to 200,000 lux / 20,000 FC.
- Extra functions: Max./Min. value, Over load indication/Low battery indication, Auto power off, Data hold, Zero calibration.



**BEST Value**  
Competitive price to market

Specification	
Range	20, 200, 2000, 20000, 200000 Lux, 20, 200, 2000, 20000 FC
Ring spectral range	320~730nm
Accuracy	$\pm 3\%$ (When at 2854K calibrated in accordance with the ordinary incandescent) $\pm 6\%$ (when at other visible light source)
Unit	Lux., FC
Sensor	Silicon photodiode
Sampling time	$\geq 2$ times/sec.
Auto power off	After 10 min.
Operation sound	on/off Selection
Low battery indicate	<7V
Operation environment	0~85%RH, -10, 50°C (no condense)
Storage environment	0~70%RH, -10, 50°C (no condense)
Operating altitude	Max. 2000m
Power source	9V (not included)
Weight	154 g (not including battery)
Dimension	170 x 85 x 45mm
Accessories	Storage bag, instruction manual
Individual Packing	Double blister



## MT-4616 Temperature / Humidity / Dew Point Meter



### 99 Data Memories, 3 Types of Temperatures

- Tests ambient temperature, relative humidity, wet bulb, dew point temperature.
- Data memory up to 99 memories.
- Unit °F/°C selection, High Precision & Portable for measuring.
- Extra functions: Max./Min. value, Low battery indication, Auto power off, Backlight, Data hold.

Specification	
Temperature Range	-20~60°C(-4°F~140°F)
Temperature Accuracy	±1°C(0~45°C), ±1.5°C(-20~0°C, 45~60°C)
Humidity Range	0~100%RH
Humidity Accuracy	±3%(20%~80%), ±4%(0~20%, 80%~100%)
Wet Bulb Temperature Range	-20~60°C(-4~140°F)
Wet Bulb Temperature Accuracy	±1°C(0~45°C), ±1.5°C(-20~0°C, 45~60°C)
Dew Point Range	-50~60°C(-58~140°F)
Dew Point Accuracy	±1°C(0~45°C), ±1.5°C(-50~0°C, 45~60°C)
Resolution	0.1°C/°F ; 0.1%
Data Memory	Max. 99 of data
Unit selection	°C / °F
Auto power off	After 30mins, on/off selection
Power source	AAA 1.5V x 4 (not included)
Weight	114g (not including battery)
Dimension	184 x 60 x 29mm
Accessories	Storage Bag, Instruction Manual
Individual Packing	Double blister

**BEST Value**  
Competitive price to market



## MT-4618 Sound Level Meter



### Auto Range, Over Range Indication, Weighted Sound Pressure Frequency

- A & C weighting network selection
- Measuring range from 30 to 130 dB
- LCD display with backlight
- High speed (FAST)/Low speed (SLOW) response rate selection
- Extra functions: Max./Min.value, Data Hold, Auto range, Backlight, Good anti-interference performance, Auto power off

Specification	
Range	30—130dBA, 35—130dBC, 30—80db, 40—90db, 50—100db, 60—110db, 70—120db, 80—130db, 30~130 db is auto range
Accuracy	±1.5dB ( 94dB@1KHz), ±5dB (94dB@8KHz)
Resolution	0.1dB
Response frequency	30Hz — 8KHz
Dynamic sound pressure	50 dB ( at each range) FAST 125ms, SLOW 1sec
Frequency weighting	A and C type
Sensor	Polarized condenser microphone
Sampling Time	2 times/sec. , Analog 20 times/sec.
Operating environment	10~80%RH, 0°C~40°C (Non-condensing)
Storage environment	10~70%RH, -10°C~60°C (Non-condensing)
Low battery indication	<5V
Power source	1.5V AAA battery x 4 (not included)
Weight	174g (not including battery)
Dimension	174 x 60 x 29mm
Accessories	Storage bag, Instruction manual
Individual Packing	Double blister

**BEST Value**  
Competitive price to market



## ▶ MT-4611 Combustible Gas Detector



**BEST Value**  
Competitive price to market



### Sound & light alarm, Quick-response sensor

- Quickly identifies & pinpoints gas leaks, Provides visible & audible alarm.
- Detection at 10% ~ 40% lower explosion limited.
- Adjustable sensitivity setting helps precisely locate leaks.
- Rugged ergonomic & easy-to-use design.
- 35cm flexible probe allows location and detection of leak in hard-to-reach and confined spaces.

Specification	
Sound and LED light alarm	Measuring distance 1 meter, beep about 65dB
Resolution	50 ppm (methane)
Test range	10%—40% LEL
Response time	< 2S (40% LEL)
Sensor	Catalytic combustion
Low battery indicate	<5V
Operation environment	10~90%RH, 0°C~50°C (no condense)
Storage environment	10~70%RH, -10°C~60°C (no condense)
Power source	1.5V / AA battery x 4 (not included)
Weight	290 g (not including battery)
Dimension	Meter, 200x75x50mm, flexible probe, Ø8x350mm
Accessories	Storage bag, instruction manual
Individual Packing	Double blister

## ▶ MT-4612 Infrared Thermometer



**BEST Value**  
Competitive price to market



### Non-Contact Measurement, Fast Response,

- Dual laser for accurately aiming with fast (500 ms) response time.
- Ergonomic design and rugged construction.
- Extra functions: unit selection, Backlight, Auto power off, Low battery indication, Data hold, Max./Min./Average/difference record, High/Low temperature alarm.



Air conditioning



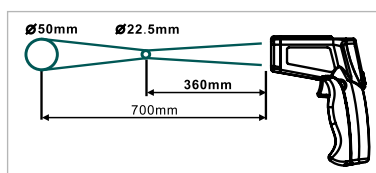
Ice chest



CPU



Power supply



Specification	
Temperature Range	-50°C~580°C(-58°F~1076°F)
Accuracy	±2°C or ±2°F
Distance Spot Ratio	16:1
Emissivity	0.1~1.0
Laser class	Class II, <1mW
Response time & Wavelength	500ms / 8-14μm
Repeatability	±1°C or ±1°F
Resolution	0.1°C
Unit selection	C° / F°
Data memory	9 memories
Laser target point	Dual Laser / can be selected on / off
Storage temperature	-20~50°C(-4~122°F)
Operating temperature	0~50°C, 10~95%RH
Power source	6F22(9V) (not included)
Certificate	CE, RoHS, FCC, FDA
Dimension	175 x 130 x 45mm
Weight	204g (not including battery)
Individual Packing	Double blister

## NT-311 / NT-312 Digital Temperature Humidity Meter

### Temperature, Humidity, Clock, Alarm clock & Calendar

- Economical way to monitor ambient temperature and humidity as well as outdoor temperature via remote temperature probe.
- LCD display for easy to read.
- MAX. and MIN. temperature and humidity memory automatic update functions
- Wall hanging or desk-top stand support.



Model No.	NT-311	NT-312
Temperature range	-10°C to +50°C 14°F to +122°F	Indoor: -10°C to +50°C (14°F to +122°F) ±1°C (±1.8°F) Outdoor: -50°C to +70°C (-58°F to +158°F) ±1°C (±1.8°F)
Humidity range	20%RH to 90%RH	20%RH to 90%RH ±5%RH
Accuracy	±1°C (±1.8°F) / ±5%RH	-
Resolution	0.1°C (0.1°F) / 1% RH	0.1°C (0.1°F) / 1% RH
Battery	1 x AAA battery (not included)	
Dimension	96 x 103 x 20mm	
Individual packing	Blister card	



For Home, warehouse, Internet server center and more

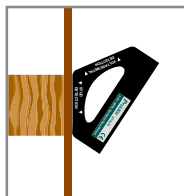
## NT-6352 3 in 1 Metal Voltage Stud Detector

### Fast, accurate, easy to use, LED & buzzer indicators

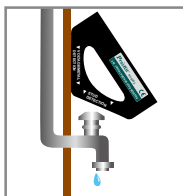
#### Features:

- Combined unit to accurately detect live or dead electricity cables, water or gas pipes and wooden studs or battens
- LED & buzzer indicators
- Depth penetration 18~20mm ( 0.7 to 0.8 inches)
- Use precision screwdriver for easy unit sensitivity adjustment
- Power source: NEDA1604/6F22 (9V) x 1pcs(Not included)
- Size: 178 x 120 x 34.7mm ( 7 x 4.8 x 1.4 inches)

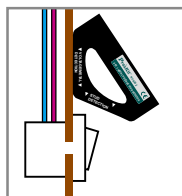
Individual packing: Color box



Wooden stud detection



Metal detection



Wiring detection



## NT-6351 3 in 1 Auto-Detector

#### Features:

- Detects metal pipe, cable, or wood stud behind the paneling, plywood, and flooring up to 3/4 inch thick.
- Compact size, LED indicators for easy-to-use
- Power source: 12V x 1 (included)

Individual packing: Blister card







NT-8540 / NT-8560 / NT-8580

## Laser Distance Measurer



Ideal for measuring factory layout, facilities safety area, trench depth for solar installation, building maintenance, ceilings maintenance, road works, water level, sheet rock measurement.

**Multi-Measurements**
**Extra side key**
**Spray Proof**
**Dustproof**
**BEST Value**

**40M**  
measurement

**60M**  
measurement

**80M**  
measurement

### Outdoor / Indoor use

Comply with IP54 rated as dust-protection and spray-pool.

### Extra side key

One touch extra side key for using easily and quickly.

### Integrated multi-measuring functions

Area, Volume, Pythagorean measurement allows easy measuring in many different applications.

### LCD display

Comes with large LCD display with backlight allows data reading in dark areas.

### Fold-out extension

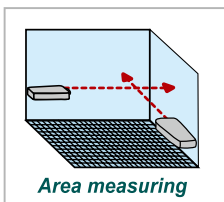
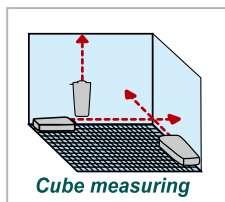
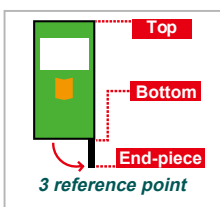
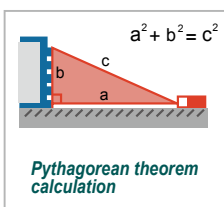
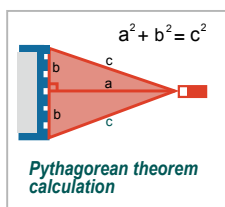
Extension allows off set reference point for convenience.

**AREA**  
measurement

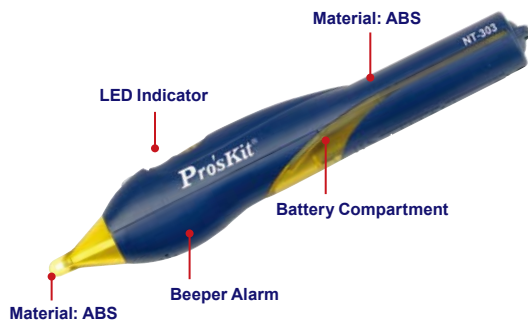
**MAX/MIN**  
measurement

**VOLUME**  
measurement

**Pythagoras 2**  
Calculations  
measurement

**BACKLIGHT**


Model No.	NT-8540	NT-8560	NT-8580
Measuring range	0.2~40M	0.2~60M	0.2~80M
Measuring accuracy	±1.5mm		
LCD display	4-line display with backlight		
Measuring functions	Length / Area / Volume		
Continuous measurement	Yes		
Min, Max measurement	Yes		
Pythagorean 1	Yes		
Pythagorean 2	Yes		
Add/Subtraction	Yes		
Data Memory	20 record		
Unit Selection	M / ft / in / ft+in		
Beep indication	Yes		
Auto power off	After 3min.		
Auto laser power off	30s		
Low battery indication	Y		
Laser class	Class 2		
Laser Power	635 nm≤1mW		
Operation temperature	0°C~40°C		
Storage temperature	-10°C~60°C		
Power source	2 x 1.5V AAA batteries (not included)		
Weight	113g (not including battery)		
Dimension	115 x 52 x 32.5		
Individual Packing	Color box		

▶ **NT-303 Non-Contact Voltage Tester**

Non-contact

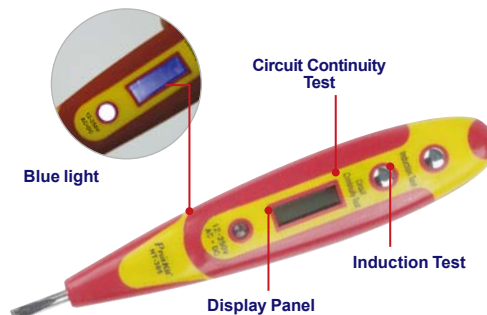


Screwdriver for battery replacement

**Features:**

- Contact - free electrical socket indication at AC voltages between 90V-240V.
- Clear alarm system: flashing LED with beeper alarm.
- Quick and accurate detection of circuit breaks.
- Includes a small screwdriver for easy batteries replacement.
- Pocket pen-type design, easy to carry and store.

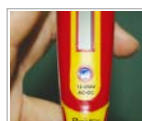
Individual packing: Blister card

▶ **NT-305 Voltage Detector**

Pen size design



Easy operation



Auto-detecting function

**Features:**

- Blue LED inside, measurement can be identified clearly even in dark area
- Auto-detecting function for battery power examination
- Pen-sized, handy tester for quick and easy AC/DC voltage testing.
- AC Voltage Test: 70 to 250 VAC
- DC Voltage Test: Up to 12, 36, 55 VDC
- Great value for money
- Battery : CR927(3V) x 1pcs

Individual packing: Blister card

▶ **NT-306 Non-Contact Voltage Detector**

Red LED and audible alarm if voltage is present



Built-in white LED illumination light



Detects AC voltage from 90 to 1000 VAC

**Features:**

- Built-in white LED illumination light provides convenient work in dark areas.
- Compact size with pocket clip easily fits into pockets or tool pouches.
- Red LED and audible alarm if voltage is present.
- Entire outer surface is non-conductive for safety, helps avoid high voltage shock.
- Powered by two 1.5V AAA batteries (not included)
- CAT IV 1000V Safety rating.
- Applications: Electricians, maintenance staffs, service and safety personnel, and even homeusers.
- Detects AC voltage from 90 to 1000 VAC without metallic contact.

Individual packing: Blister card

▶ **SD-328H Screwdriver Probe Voltage Tester**

Test AC/DC Voltage from 110-250V

**Features:**

- Easy and safe
- Test AC/DC voltage from 110-250V
- Handy pocket screwdriver is a fully functional voltage tester
- Insulated screwdriver shaft
- Convenient screwdriver tip and pocket clip

**Specifications:**

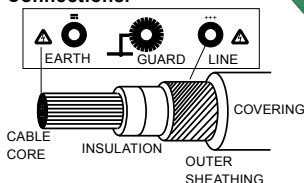
- Power supply: Through the test sample
- Range of measurement: 110-250V AC
- Frequency: 50~500Hz
- Power consumption: <0.5mA
- Over-voltage class: Category III
- Display: Glow lamp
- Degree of contamination: 2

Individual packing: Blister card

## 8PK-4103IN Digital H.V. Insulation Tester


**CAT II**


### Connections:



### Features:

- 2 Lines x 16 Characters large LCD.
- Bar-graph indicates test voltage-rise and decay can be observed during tests.
- Auto Ranging.
- Smart microprocessor controlled.
- Four insulation test voltage: 500V DC(25GΩ), 1kV DC(50GΩ), 2.5kV DC(125 GΩ), 5kV DC(250 GΩ).
- Warning and display of external voltage presence.
- Measure insulation time test.
- Very low battery consumption.
- Extra function: low battery indicator, auto power off, over load protection.

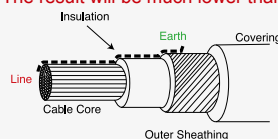
### Specifications:

- Test Voltage(Measuring): 500V DC(25GΩ), 1kV DC(50GΩ), 2.5kV DC(125 GΩ), 5kV DC(250 GΩ)
- Accuracy:  $\pm(5\%+2d)$
- Battery: AA(1.5V)x8 (Alkaline Battery) (Not included)

Individual packing: Color box

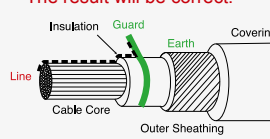
Without Guard Connection, Error Surface Leakage Current Circulate between Line and Earth Test Probes, creating a measurement error.

- The result will be much lower than real.



With Guard Connected, Surface Leakage Current is eliminated by the Guard Test Lead. Therefore Eliminating Measurement error.

- The result will be correct.



## 8PK-ST1520 Digital Earth Resistance Tester



### Features:

- 3 1/2 digit 1999 counts.
- Capable of measuring earth voltage.
- 2mA measuring current permits earth resistance tests without tripping earth leakage current breakers in the circuit under test.
- Extra function: data hold, auto power off, low battery, over range Indication.
- Safety standard: IEC-1010(EN61010), installation Category III.

### Specifications:

- Measurement: Earth Resistance by constant current.
- System: Inverter. 820Hz, 2mA approx.
- Earth Voltage: 0~200V AC, 40~500Hz.
- Earth Resistance Range(Resolution): 0~20Ω(0.01Ω); 0~200Ω(0.4Ω), 0~2000Ω(1.0Ω).
- Accuracy: Earth voltage  $\pm(1\%+2d)$ ; Earth resistance  $\pm(2\%+2d)$  or  $\pm 0.1\Omega$ , which is greater.
- Battery: AA(1.5V)x6. (Not Included)
- Size: 163x100x50mm.

Individual packing: Color box

## 8PK-ST850 Phase Sequence Indicator



### Features:

- Two functions in one unit including open phase and phase sequence.
- Large size alligator clips : able to clip on switch-board terminals easily.
- Identify 3 phase sequence and open phase check.
- Ideal for installing conveyor lines, pump systems and interconnected drivers.
- No exposed metal parts. Safety features are incorporated throughout, including the pushbutton switch designed to minimize damage due to negligence.
- Safety approval: CE marks, IEN 1010 CAT II.

### Specifications:

- Voltage ranges: 90V~600V AC.
- Frequency Response: 50 / 60Hz.
- Size: 134x85x45 mm.
- Cord: 1.1 m each of Red(R), White(S) and Black(T) cord.

Individual packing: Color box



## TE-5305B DC Power Supply

Single output 30V/5A, Linear mode



Specification:	
Power	150W
Display	3 digits green LED ×2set
Display error of voltage	±0.2%+2 digits
Display error of current	±1.0%+2 digits
Constant voltage	
Output voltage	0~30V
Line regulation	≤ 0.01%+3mV
Load regulation	≤ 0.01%+5mV
Ripple voltage	≤ 1.0mV(rms)
Constant current	
Output current	0~5A
Line regulation	≤ 0.2%+3mA
Load regulation	≤ 0.2%+3mA
Ripple current	3.0mA(rms)
Others	
Input voltage	AC220V ±10%, 50/60 HZ
Weight(kg)	5.3kg
Dimension	280x136x160mm

- Unique protective design.
- High quality SMD process.
- Two level of control for current & voltage.
- Automatic temperature & radiation system control.
- Durable and convenient.
- Applicable for school, production line, laboratory, repair center.

Individual packing: Color box



Auto cooling fan



## NT-1933/NT-1934 Receptacle Testers

- Tests for correct wiring, open ground, reverse polarity, open hot, open neutral, hot on neutral, hot and ground reversed with open hot and ground fault interruption in 3-wire, 120VAC circuits
- Model NT-1934 features proper operation GFI receptacles testing.

Individual packing: Blister card



NT-1933



NT-1934



Light pattern indicates condition of wiring.

OPEN GROUND



Ground contact not connected

OPEN NEUTRAL



Neutral contact not connected

OPEN HOT



Hot contact not connected

HOT/GRD REVERSE



Hot and ground contacts interchanged

OPEN NEUTRAL



Hot and neutral contacts interchanged

CORRECT



Receptacle is wired correctly

Red is on    Yellow is on    Light is off

## 6HP-9060 Series Oscilloscope Probe Kit

- Switchable X1/X10/X100 attenuation with reference switch positions.
- Break-resistant center conductor & wide compensation range.
- Flatter response, sharper leading edges.
- Faster rise time and replaceable cable probe head tip and ground lead.
- Max. input voltage: 600V/1200V (DC-peak AC).
- Includes BNC adapter, IC tip, insulating tip & trimming tool.

Individual packing: Pouch bag

Switchable series								
Model No.	Attn.	Readout	Input impedance	Band width	Resetime	Max input V	Compensation range	
6HP-9060	x1	No	1MΩ 90PF	6MHz	58ns	600VDC	NA	
	x10		10MΩ 18PF	60MHz	5.8ns		10-35PF	
6HP-9100	x1		1MΩ 47PF	6MHz	58ns	600VDC	NA	
	x10		10MΩ 16PF	100MHz	3.5ns		10-35PF	
6HP-9150	x1		1MΩ 47PF	6MHz	58ns	600VDC	NA	
	x10		10MΩ 15PF	150MHz	2.3ns		10-35PF	
6HP-9250	x1		1MΩ 47PF	6MHz	58ns	600VDC	NA	
	x10		10MΩ 14PF	250MHz	1.4ns		10-35PF	
6HP-9258	x100			100MΩ 15PF	250MHz	1.4ns	1200VDC	10-35PF
Readout series								
Model No.	Attn.	Readout	Input impedance	Band width	Resetime	Max input V	Compensation range	
6HP-9101R	x10	Yes	10MΩ 16PF	100MHz	3.5ns	600VDC	10-35PF	



6HP-9XXX Series  
(Standard type)



6HP-9XXXR Series  
(With readout functions)

