

Electrical Essentials 4-Piece Tool Kit



Inspect and Troubleshoot Your Home's Electrical Circuits



IRT220
Non-Contact 12:1 Infrared Thermometer

Instantly measure an object's surface temperature without making contact. Use the IRT220 to check the electrical panel for any "hot" circuit breakers or check your heating/cooling vents for proper operation.



CBF200
3-in-1 Circuit Breaker Finder

Enables the safe identification of breaker locations within any electrical panel without removing power, check all your outlets for proper wiring, and test GFCI circuits for proper operation.



MM650
True RMS 6000 Count Digital Multimeter

Perfect for checking voltages and diagnosing common wiring problems: continuity, opens, and shorts. The LoZ function on the MM650 checks for ghost voltages.



TT-290
6-in-1 Multifunctional Pliers

8.5" Long Nose Pliers 6-in-1 functionality: Gripping and Looping, Screw Extractor, Wire Stripping (10-18 AWG Solid 12-20 AWG stranded), Wire Cutting (2.0mm), Screw Shearing (6-32 & 8-32), Crimping.

IRT220 Non-Contact 12:1 Laser IR Thermometer

Instantly measure the temperature with Min/Max of objects without making contact

Features:

- Built-in laser identifies the measurement area
- Backlit LCD display with selectable °F or °C readout
- 0.95 fixed emissivity
- Min/Max to monitor lowest and highest measurement readings
- Automatic Data Hold
- Auto power off after 10 seconds
- Complete with 9V battery
- Optional model complete with Certificate of Traceability to N.I.S.T.
- 1-year warranty

Applications:

- Measure the surface temperature of objects that are too hot to touch or hard to reach
- Measure moving objects



NIST
TRACEABLE
CALIBRATION
AVAILABLE

Specifications

Temperature Range	-4 to 932°F (-20 to 500°C)
Accuracy	±2%
Resolution	0.1°F/°C
Distance to Target Ratio	12:1
Response Time	500ms
Emissivity	0.95 fixed
Power	9V battery
Dimensions	5.4 x 2.9 x 1.5" (137 x 73 x 39mm)
Weight	5.2oz (148.5g)



Ordering Information:

IRT220 Non-Contact 12:1 Laser IR Thermometer
IRT220-NIST IRT220 Including Certificate of Traceability to N.I.S.T.

CE

CBF200 3-in-1 Circuit Breaker Finder

Circuit Breaker Finder, GFCI Receptacle Tester and Non-Contact Voltage (NCV) Detector

Features:

- Safely identify and label breaker locations within any electrical panel without removing power
- Comparison mode helps to identify the correct breaker with the signal strengths are very close
- Detect faulty wiring in 3-wire receptacles
- Lights display 6 wiring faults:
Open Ground, Open Neutral, Hot/Ground Reverse, Open Hot, Hot/Neutral Reverse, Hot on Neutral with Hot Open
- Test GFCI for proper operation
- Built-in Non-Contact Voltage Detector (80-300V, CAT III-300V)
- One person operation
- Includes Transmitter, Receiver and 9V Battery
- cETLus listed



Applications:

- Useful, one person operation tool for residential and commercial electricians, home inspectors, kitchen and bath installers, apartment/condo property managers, DIY'ers and handymen

Specifications

Transmitter	
Voltage	120VAC Single Phase Two Wires (Live, Neutral) with Ground
Frequency	47 ~ 63 Hz
GFCI Leakage Current	7mA @ 120VAC
Safety Standard	CAT II 300V
Receiver	
Battery	9V Alkaline x 1
Auto Shut Down	After 10 minutes without any operation
Non-Contact Voltage Detection	24-300VAC
Safety Standard	CAT III 300V
Transmitter Dimensions	4.7 x 2.5 x 1.3" (118.5 x 63 x 32mm)
Receiver Dimensions	5.1 x 2.4 x 1.5" (130 x 62 x 36.9mm)
Weight	9.8oz (260g)



Ordering Information:

CBF200 3-in-1 Circuit Breaker Finder



MM650 CAT IV True RMS Multimeter

With Low Input Impedance mode (LoZ)

Features:

- True RMS provides better accuracy on non-sinusoidal or noisy waveforms
- Measures AC/DC Voltage and Current, Resistance, Temperature, Capacitance, Frequency, Diode and Continuity
- μ A Current measurement
- Low input impedance (Lo Z) mode for ACV/DCV measurements to identify ghost voltages
- 6000 count high performance multimeter with 61 segment analog bargraph for trending
- Backlit LCD, Buttons, and Switch Selector
- Min/Max/Avg, Peak Hold, Data Hold and Relative mode
- Auto power off and low battery indicator
- Waterproof, meets IP67 standards
- Built-in Flashlight for added safety in dark spaces
- Rubberized overmolded housing provides impact and drop resistance
- Complete with test leads, temperature probe, (4) AAA batteries, and carrying case
- Optional model complete with Certificate of Traceability to N.I.S.T.
- 3-year warranty

Applications:

- Diagnose common wiring problems; Test batteries, solar cells, wall plugs, and power outlets; Check polarity of wires in wiring installations; Measure input and output resistance of circuits (motors, transformers, resistors); Check continuity of wires, circuits

Specifications

Display counts	6000 count + 61 segment analog bargraph
Basic Accuracy	$\pm 0.5\%$
AC/DC Voltage	1000V
AC/DC Current	10A
AC/DC μ A Current	600 μ A
Resistance	60M
Temperature	-4 to 1400°F (-20 to 760°C)
Capacitance	6000 μ F
Frequency	10kHz
Duty Cycle	0.1 to 99.9%
Low impedance (Lo Z) Mode	Yes
Power	(4) AAA batteries
Waterproof	IP67
Safety Category	CAT IV-600V
Dimensions/Weight	6.7 x 3 x 1.8" (170 x 74 x 45mm) / 7.7oz. (218g)

Ordering Information:

MM650 CATIV True RMS Multimeter
MM650-NIST MM650 Including Certificate of Traceability to N.I.S.T.



NIST
TRACEABLE
CALIBRATION
AVAILABLE



Range selector illuminates to allow for easy selection in dark areas



TT-290 6-in-1 Multifunctional Pliers

Needle Nose Plier cuts, strips and crimps

Features:

- Polished, Chrome Vanadium material
- Drop Forged & Heat Treated for exceptional strength & durability
- 6 in 1 Functions
 1. Gripping and Looping
 2. Screw Extractor
 3. Stripping 10-18 AWG Solid 12-20 AWG stranded
 4. Wire Cutting 2.0mm
 5. Screw Shearing: 6-32 & 8-32 screw
 6. Crimping
- Comfortable grip & handle material: Thermoplastic Rubber
- Size: 8.5" (212mm)
- Weight: 282g
- 1 year warranty



Ordering Information:

TT-290 8.5" Multifunctional Pliers