Our mission is to provide quality, innovative toys and educational products that are fun, affordable, engaging, and designed to instill a passion for learning and creating. We’re committed to inspiring imagination, invention, and exploration. We believe the best way to learn is by doing.

From its humble roots in a Chicago-area basement to a leader in the STEM movement, Elenco -- the makers of SNAP CIRCUITS® -- looks ahead to a bright future.

Wheeling, Illinois – History in STEM (Science, Technology, Engineering, Math): In 1972, Elenco’s Co-founder, Gil Cecchin, began building Elenco’s first product, a color bar generator for television repairmen, in his basement in the Chicago suburb of Niles, Illinois. Gil came from a poor, Italian immigrant family and worked his way up to become an electrical engineer at Motorola, with over 25 patents, and leading a team of engineers that made color TV accessible and affordable to consumers. One of Elenco’s first customers was a mail-order, educational provider. Elenco grew in the ‘70s, ‘80s and ‘90s by supplying technical schools, colleges, and high schools across the country with educational kits and products that taught the basics of electronics and engineering. Elenco was STEM before the term “STEM” even existed. Gil wanted to share his passion for electronics and engineering and he felt the best way to learn was by doing. Thus, Elenco’s trademark -- Learn by doing® -- was born.
TRAINERS 3-4
GENERATORS 5-6
MULTIMETERS 7-8
CLAMP METERS & LEAK DETECTORS 9-10
VARIABLE VOLTAGE POWER SUPPLIES 11-12
POWER SUPPLIES 13
DIGITAL LOGIC & PULSER PROBES 14
DATACOM TESTERS 15
FIBER OPTICS 16
BREDBOARD - PROTOTYPE DESIGN AIDS 17
TRAINING COURSES & PROTOTYPING 18-19
COMPONENT KITS 20
HVAC ELECTRICIAN TOOL KITS 21
HVAC ELECTRICIAN TOOLS 22
DELUXE ELECTRONIC & STEM TOOL KIT 23
DELUXE ELECTRONIC TOOL KIT 24
ELECTRONIC TECHNICIAN TOOL KITS 25
TOOLS FOR THE ELECTRONIC & ELECTRICAL INDUSTRY 26
SCREWDRIVERS & NUT DRIVERS 27
SPECIAL TOOLS 28
DATACOM TOOLS 29
TOOL CASES / PARTS BOXES 30
PROBES & TEST LEADS 31
SOLDER STATION & SURFACE MOUNT SOLDERING 32
SOLDERING EQUIPMENT 33-34
SAFETY GLASSES 35
EDUCATION KITS 36
SPECIAL TEST EQUIPMENT 37
TESTERS - KITS 38
POWER SUPPLY KITS 39
MULTIMETER KITS 40
SOLDER PRACTICE KITS & SURFACE MOUNT TECHNOLOGY 41
RADIO KITS W/ TRAINING COURSES 42
Elenco’s advanced designed Digital/Analog Trainer is specially designed for school projects. It is built on a single PC board for maximum reliability. It includes 5 built-in power supplies, a function generator with continuously variable sine, triangular and square waveforms. All power supplies are regulated and protected against shorts. The trainer is mounted in a professional technician tool case made of reinforced metal with heavy-duty handles and locks. The removable, dual-sided tool pallet has many pockets and elastic retainers to hold a broad line of tools and devices. A special ramp in the case will hold the meter of your choice.

**Includes**

- ET-10 IC puller
- SE-1 Solder ease kit
- SH-1 Soldering iron holder
- SP-4 Desoldering pump
- ZD-300C Deluxe soldering iron
- ST-1 Mini diagonal cutters
- ST-2 Mini long nose pliers
- LF-99 Lead-free solder tube
- ST-20 Safety goggles
- ST-30 Premium wire stripper
- ST-75 11 pc. screwdriver bit set
- SW-3 Desoldering wick
- TL-8 Precision screwdriver set

Meter, logic probe, & calculator shown are sold separately

When ordering a meter to be used with the XK-700 Trainer, specify the PSV-50 Kit. It will provide you with the needed Velcro to hold the meter in place.

- Model XK-700 Trainer - Available fully assembled without tools.
- Model XK-700T Trainer - Available with tools as shown - meter, calculator, and logic probe sold separately.
- Model XK-700K Trainer - Available as kit without tools.
- Model XK-700TK - Available as a kit with tools as shown - meter, calculator, and logic probe sold separately.

Available with Tools & Equipment of Your Choice! Call, Fax or E-mail for Quote.
**XK-150 DIGITAL / ANALOG TRAINER**

**DIGITAL TRAINER - FULLY ASSEMBLED**

**Model XK-150**

A low cost, full-function digital/analog trainer that meets the needs of electronic training programs. Rugged construction, can be used as fixed lab equipment or be portable.

---

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>DIGITAL SECTION</th>
<th>POWER SUPPLIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Eight data switches.</td>
<td>• Variable power supply.</td>
</tr>
<tr>
<td>• Two no bounce logic switches.</td>
<td>• +1.25V to 15VDC @ 0.25A.</td>
</tr>
<tr>
<td>• Eight LED readouts, buffered.</td>
<td>• –1.25V to –15VDC @ 0.25A.</td>
</tr>
<tr>
<td>• Clock frequency 1Hz, 60Hz, 1kHz, 100kHz.</td>
<td>• +5VDC @ 0.5A.</td>
</tr>
<tr>
<td>• Clock amplitude 5Vpp square wave.</td>
<td>• +30VAC center-tapped A+ 15VAC @ 0.25A.</td>
</tr>
</tbody>
</table>

### ANALOG SECTION

<table>
<thead>
<tr>
<th>FUNCTION GENERATOR</th>
<th>CASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Function generator - Sine, square wave.</td>
<td>High impact molded case 2” (H) x 11” (W) x 11” (D). With flow-thru cooling to ventilate the power supply.</td>
</tr>
<tr>
<td>• Frequency adjustable in two ranges from 200 - 40kHz.</td>
<td></td>
</tr>
<tr>
<td>• Amplitude Sine 4Vpp.</td>
<td></td>
</tr>
<tr>
<td>• Square 9.5Vpp.</td>
<td></td>
</tr>
</tbody>
</table>

### POTENTIOMETERS

| 2 undedicated potentiometers 1kΩ and 100kΩ. |

### BREDBOARDS

| 1 bredboard, 830 tie points including two bus strips. |

---

**COMPUTER INTERFACE TRAINER**

**MICRO-MASTER® A BASIC COMPUTER TRAINING KIT TO LEARN THE FUNDAMENTALS OF COMPUTERS**

**Model MM-8000K**

Starting from scratch, you build a complete computer system. Our Micro-Master® Trainer teaches you to write into RAMs, ROMs, and run an 8085 microprocessor. You will write the initial instructions in permanent memory in a 2816E^2PROM. Teaches all about input and output ports and computer timers. Complete with 128 page lesson manual, instructions, and experiments.
### 5MHz SWEEP FUNCTION GENERATOR

**WITH BUILT-IN 60MHz FREQUENCY COUNTER**

**Model GF-8056**

- **Frequency Range**: 0.5Hz to 5MHz in 8 ranges
- **Waveforms**: 4 waveforms (sine, square, triangle, DC)
- **Stability**: 0.1% for 15 minutes, 0.2% for 24 hours
- **DC Offset**: Continuously variable ±10V no load
- **Symmetry**: 50% (positive and negative half)
- **Linearity**: <1% 1Hz-100kHz for triangle wave
- **Distortion**: <1%, 1Hz to 100kHz
- **Rise / Fall Time**: <90ns for square wave
- **Output Impedance**: 50Ω <2% accuracy
- **Max. Output**: 20Vpp no load, 10Vpp 50Ω load
- **Min. Output**: 0.1Vpp no load, 0.05Vpp 50Ω load
- **Attenuator**: X20: −26dB (+2% accuracy), X1: 0dB

### MAIN OUTPUT

- **Frequency**: X0.05 - X3.0
- **AC/DC, HF/LF, 100kHz filter switch**
- **EXT counter trigger level control and input attenuator**: −26dB

### SWEEP

- **Output Frequency**: Continuous adjustment 0.2Hz - 100Hz
- **Sweep Speed**: 10ms - 5s, continuously variable
- **Sweep Width**: 1:1 - 1:100 continuously variable
- **Output Waveform**: Linear or log sweep ramp wave

### COUNTER

- **Display**: 5 digit 0.36” red LED display with autorange
- **Resolution**: 0.001Hz
- **Time Base**: 20MHz
- **Accuracy**: <0.002%
- **Max. Input Voltage**: 250Vrms
- **Input Impedance**: 1MΩ <2%
- **Input Frequency**: DC-1kHz variance 1:1, 1:1,000
- **Attenuator**: 0dB, −26dB
- **Gate time**: 0.25s - 10s, auto-setting
- **Sensitivity**: <30mVrms (1MHz)

### SYNC OUTPUT

- **Output Impedance**: 50Ω <2% accuracy
- **Output Level**: TTL level, >3Vpp fixed amplitude
- **Fanout**: >20
- **Rise Time**: <80ns
- **Input Voltage**: 0-10V
- **Input Frequency**: DC-1kHz variance 1:1, 1:1,000
- **Output Amplitude**: 10Vpp (no load) or 5Vpp (1kΩ load)
- **Output Frequency**: Continuous adjustment 0.2Hz - 100Hz
- **Sweep Speed**: 10ms - 5s, continuously variable
- **Sweep Width**: 1:1 - 1:100 continuously variable
- **Output Waveform**: Linear or log sweep ramp wave

### VCF INPUT

- **Input Voltage**: 0-10V
- **Input Frequency**: DC-1kHz variance 1:1, 1:1,000
- **Output Amplitude**: 10Vpp (no load) or 5Vpp (1kΩ load)
- **Output Frequency**: Continuous adjustment 0.2Hz - 100Hz
- **Sweep Speed**: 10ms - 5s, continuously variable
- **Sweep Width**: 1:1 - 1:100 continuously variable
- **Output Waveform**: Linear or log sweep ramp wave

### GENERAL

- **Power Source**: AC 115V / 230V +10%, 50/60Hz, 25W
- **Dimensions**: 10 13/16” (W) x 3 1/2” (H) x 11 13/16” (D)
- **Weight**: 5 lbs. 8 oz.
- **Safety Approvals**: UL, CUL, GS, TUV, CE, IEC1010, EN61010
20Hz - 150kHz Low Distortion Sine/Square Wave Audio Generator

Model GF-800/555

- Sine and square wave generator
- 20Hz to 150kHz in 46 steps
- Low distortion R-C oscillator
- Variable output control
- Low battery indicator
- Compact portable, lightweight

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>x1 range 20Hz to 1.5kHz (23 steps), x100 range 2kHz to 150kHz (23 steps)</td>
</tr>
<tr>
<td>Accuracy</td>
<td>20Hz through 10kHz (+3% or less), 120kHz and 150kHz (+5% or less)</td>
</tr>
<tr>
<td>Output Control</td>
<td>0dB/-20dB attenuator switch and variable amplitude control</td>
</tr>
<tr>
<td>Output impedance</td>
<td>approximately 600Ω</td>
</tr>
</tbody>
</table>

### SINEWAVE CHARACTERISTICS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Voltage</td>
<td>&gt;1.2V rms at max. setting (no load)</td>
</tr>
<tr>
<td>Output Flatness</td>
<td>(short term) 20Hz to 150kHz +0.5dB (reference frequency 1kHz)</td>
</tr>
<tr>
<td>Distortion</td>
<td>200Hz - 15kHz &lt;0.05%, 15kHz-150kHz &lt;0.3%</td>
</tr>
</tbody>
</table>

### SQUARE WAVE CHARACTERISTICS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Voltage</td>
<td>&gt;5V p-p at maximum setting</td>
</tr>
<tr>
<td>Rise &amp; Fall time</td>
<td>Less than 0.5μs</td>
</tr>
<tr>
<td>Sag</td>
<td>Less than 5% at 20Hz (DC coupled)</td>
</tr>
<tr>
<td>Over Shoot</td>
<td>&lt;2% from maximum output</td>
</tr>
<tr>
<td>Duty Ratio</td>
<td>50% +/-5%</td>
</tr>
</tbody>
</table>

### SYNCHRONIZATION CHARACTERISTICS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Voltage</td>
<td>&gt;1.2V rms (no load)</td>
</tr>
<tr>
<td>Output Impedance</td>
<td>1kΩ +/-5% Other specifications same as sinewave characteristics</td>
</tr>
<tr>
<td>Power Source</td>
<td>9V battery</td>
</tr>
</tbody>
</table>

### 1MHz Function Generator

Model FG-500

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waveforms</td>
<td>Sine, Triangle, Square</td>
</tr>
<tr>
<td>Frequency</td>
<td>1Hz - 1MHz</td>
</tr>
<tr>
<td>Impedance</td>
<td>600Ω +/-10%</td>
</tr>
<tr>
<td>Amplitude</td>
<td>Sine/triangle 0-3V, Squarewave 8V (no load)</td>
</tr>
<tr>
<td>Frequency variable range</td>
<td>10:1 or more</td>
</tr>
<tr>
<td>Frequency multiplier</td>
<td>6 decade steps</td>
</tr>
</tbody>
</table>

### SINE WAVE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distortion</td>
<td>Less than 1% (at 1kHz)</td>
</tr>
<tr>
<td>Flatness</td>
<td>+0.5 dB 1Hz-100kHz</td>
</tr>
</tbody>
</table>

### SQUARE WAVE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symmetry</td>
<td>Less than 5% (at 1kHz)</td>
</tr>
<tr>
<td>Rise &amp; Fall time</td>
<td>Less than 300ns (at 1kHz)</td>
</tr>
</tbody>
</table>

### TRIANGLE WAVE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linearity</td>
<td>Less than 1% (up to 100kHz)</td>
</tr>
<tr>
<td>Power Source</td>
<td>9V Battery</td>
</tr>
</tbody>
</table>

Available in Kit FG-500K

---

⚠️ WARNING: Cancer and Reproductive Harm  
www.P65Warnings.ca.gov.
**Compact Multimeter**

**Model M-1000E**

**Features**
- 3 1/2 digit, 2,000 count display
- Transistor test
- Audible continuity
- Diode test
- Overload protection
- Pocket-size

*Available as a kit (M-1008K)*

**Specifications**

<table>
<thead>
<tr>
<th>AC + DC volts</th>
<th>DC: 200mV(+0.25% rdg + 2 digits), 2V-200V(+0.5% rdg + 2 digits); 4V-400V(+1.2% rdg + 10 digits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>+0.25% rdg + 2 digits; 4V-400V(+1.2% rdg + 10 digits)</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.1mV</td>
</tr>
<tr>
<td>Input Impedance</td>
<td>1MΩ</td>
</tr>
<tr>
<td>DC current</td>
<td>200mA, 2mA, 20mA, 200mA, 10A</td>
</tr>
<tr>
<td>Accuracy</td>
<td>200mA, 200mA: +0.5% rdg + 2 digits, 200mA: +1.2% rdg + 10 digits; 10A: +2.0% rdg + 2 digits</td>
</tr>
<tr>
<td>Resistance</td>
<td>200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ</td>
</tr>
<tr>
<td>Accuracy</td>
<td>+0.8% rdg + 2 digits, 2MΩ: +1.0% rdg + 2 digits</td>
</tr>
<tr>
<td>Accessories</td>
<td>Test leads, manual, 9V battery included</td>
</tr>
<tr>
<td>Dimensions / Weight</td>
<td>5&quot; (H) x 2 3/4&quot; (W) x 1&quot; (D) / 4.5 oz.</td>
</tr>
</tbody>
</table>

---

**Autoranging Digital Multimeter**

**Model M-2625A**

**Features**
- 3 3/4 digit, 4,000 count display
- Frequency 5Hz to 10MHz
- Temperature to 752°F
- Rel. / reset mode
- Audible continuity / diode test
- Temperature probe included
- Capacitance to 100μF
- Holster included
- Auto power off & data hold

**Specifications**

<table>
<thead>
<tr>
<th>AC + DC volts</th>
<th>DC: 400mV(+0.5% rdg + 5 digits), 600V: +0.8% rdg + 5 digits; 4V-400V: +1.2% rdg + 10 digits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>400mV: +0.5% rdg + 5 digits, 600V: +0.8% rdg + 5 digits; 4V-400V: +1.2% rdg + 10 digits</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.1mV</td>
</tr>
<tr>
<td>AC + DC current</td>
<td>400mA, 4000mA, 40mA, 40mA, 4A, 10A</td>
</tr>
<tr>
<td>Accuracy</td>
<td>400mA, 4000mA, 40mA, 40mA, 4A, 10A: +2.0% rdg + 5 digits; 40mA, 40mA: +1.5% rdg + 5 digits</td>
</tr>
<tr>
<td>Resistance</td>
<td>400Ω, 4kΩ, 40kΩ, 400kΩ, 4MΩ, 40MΩ</td>
</tr>
<tr>
<td>Accuracy</td>
<td>400Ω: +0.8% rdg + 5 digits, 40kΩ: +1.0% rdg + 5 digits; 400kΩ: +2.0% rdg + 5 digits</td>
</tr>
<tr>
<td>Temperature</td>
<td>–54°F - 292°C, probe included</td>
</tr>
<tr>
<td>Accessories</td>
<td>Test leads, manual, holster, and (2) “AA” batteries included</td>
</tr>
<tr>
<td>Dimensions / Weight</td>
<td>6 1/2&quot; (H) x 3 17/34&quot; (W) x 1 1/2&quot; (D) / 9.2 oz.</td>
</tr>
</tbody>
</table>

---

**Digital Multimeter**

**Model M-1750**

**Features**
- 3 3/4 digit, 4,000 count display
- Frequency to 10MHz
- Capacitance to 200μF
- Diode and transistor test
- Audible continuity
- AC/DC current to 10A
- 3-Way overload protection
- Holster included
- Relative measurement

**Specifications**

<table>
<thead>
<tr>
<th>AC + DC volts</th>
<th>DC: 400mV(+0.5% rdg + 3 digits), 600V: +0.8% rdg + 3 digits; 4V-400V: +0.8% rdg + 3 digits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>400mV: +0.5% rdg + 3 digits, 600V: +0.8% rdg + 3 digits; 4V-400V: +0.8% rdg + 3 digits</td>
</tr>
<tr>
<td>Resolution</td>
<td>100μV</td>
</tr>
<tr>
<td>AC + DC Current</td>
<td>400mA, 4000mA, 40mA, 40mA, 4A, 10A</td>
</tr>
<tr>
<td>Accuracy</td>
<td>400mA, 4000mA, 40mA, 40mA, 4A, 10A: +2.0% rdg + 5 digits; 40mA, 40mA: +1.5% rdg + 5 digits</td>
</tr>
<tr>
<td>Resistance</td>
<td>400Ω, 4kΩ, 40kΩ, 400kΩ, 4MΩ, 40MΩ</td>
</tr>
<tr>
<td>Accuracy</td>
<td>400Ω: +0.5% rdg + 3 digits, 40kΩ: +0.5% rdg + 10 digits; 400kΩ: +2.0% rdg + 5 digits</td>
</tr>
<tr>
<td>Capacitance</td>
<td>400μF, 4kμF, 40kμF, 400kμF, 40μF, 400μF</td>
</tr>
<tr>
<td>Accuracy</td>
<td>400μF: +0.5% rdg + 3 digits, 4kμF: +0.5% rdg + 10 digits; 400kμF: +2.0% rdg + 5 digits</td>
</tr>
<tr>
<td>Frequency</td>
<td>10Hz - 10MHz autoranging</td>
</tr>
<tr>
<td>Accuracy</td>
<td>+0.1% rdg + 2 digits Resolution: 1Hz</td>
</tr>
<tr>
<td>Accessories</td>
<td>Test leads, manual, holster, and (2) “AAA” batteries included</td>
</tr>
<tr>
<td>Dimensions / Weight</td>
<td>6 3/8&quot; (H) x 3&quot; (W) x 1 3/4&quot; (D) / 10.56 oz.</td>
</tr>
</tbody>
</table>
### Digital Multimeter

**Model M-1700**

**Features**
- 3½ digit, 2,000 count display
- Frequency to 15MHz
- Capacitance to 20µF
- Diode and transistor test
- Audible continuity
- AC/DC current to 10A
- 3-way overload protection
- Holster included

### Digital Multimeter

**Model LCM-1950**

**Features**
- Large 1", 3 3/4 digit, 4,000 count display
- Autoranging frequency to 4MHz
- Capacitance to 400µF
- Inductance to 40H
- Resistance to 4000MΩ
- Logic test
- Diode and transistor test
- Audible continuity test
- Holster included

---

### MULTIMETERS

**Digital Multimeter Model M-1700**

**Features**
- Large 1", 3 3/4 digit, 4,000 count display
- Autoranging frequency to 4MHz
- Capacitance to 400µF
- Inductance to 40H
- Resistance to 4000MΩ
- Logic test
- Diode and transistor test
- Audible continuity test
- Holster included

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>AC + DC volts</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>200mV, 2V, 20V, 200V, 600V</td>
<td>DC: +(0.5% rdg + 1 dgt); AC: +(1% rdg + 4 dgt) Resolution 100µV</td>
</tr>
<tr>
<td>2mA, 20mA, 200mA, 10A</td>
<td>AC: +(0.5% rdg + 1 dgt); AC: +(3.0% rdg + 4 dgt) 10A</td>
</tr>
<tr>
<td>20E2, 20E3, 200E2, 20E3, 2ME1, 2ME3</td>
<td>AC: +(0.8% rdg + 3 dgt) Resolution 0.1Ω</td>
</tr>
</tbody>
</table>

**AC + DC current**

<table>
<thead>
<tr>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC: +(1% rdg + 1 dgt); 10A: +(3.0% rdg + 4 dgt) Resolution 100µA</td>
</tr>
</tbody>
</table>

**Resistance**

<table>
<thead>
<tr>
<th>Capacitance</th>
</tr>
</thead>
<tbody>
<tr>
<td>10F - 15MHz autoranging</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC: +(0.1% rdg + 1 dgt) Resolution 10MHz</td>
</tr>
</tbody>
</table>

**Frequency**

<table>
<thead>
<tr>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test leads, holster, manual, 9V battery included</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-90 Case, C-17 Holster</td>
</tr>
</tbody>
</table>

**Dimensions / Weight**

| 6 1/2" (H) x 3 17/34" (W) x 1 1/2" (D) / 9.2 oz. |

---

**Digital Multimeter Model LCM-1950**

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>AC + DC volts</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>4400mV, 4V, 40V, 400V, 1,000V, 750VAC</td>
<td>DC: +(0.5% rdg + 1 dgt); AC: +(1% rdg + 4 dgt) on 400mV - 400V ranges, +(2% rdg + 4 dgt) on 750V range Resolution 100µV</td>
</tr>
<tr>
<td>40mA, 400mA, 10A</td>
<td>AC: +(1% rdg + 4 dgt) on mA range, +(3.5% rdg + 4 dgt) on 1A range Resolution 10µA</td>
</tr>
<tr>
<td>20E2, 20E3, 200E2, 20E3, 2ME1, 2ME3, 4,000ME3</td>
<td>AC: +(3.0% rdg + 4 dgt) on 4000ME3 range Resolution 0.1Ω</td>
</tr>
</tbody>
</table>

**AC + DC current**

<table>
<thead>
<tr>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC: +(1% rdg + 1 dgt) on mA range, +(3.0% rdg + 1 dgt) on 10A range AC: +(1.5% rdg + 4 dgt) on mA range, +(3.5% rdg + 4 dgt) on 10A range Resolution 10µA</td>
</tr>
</tbody>
</table>

**Accuracy**

<table>
<thead>
<tr>
<th>Capacitance</th>
</tr>
</thead>
<tbody>
<tr>
<td>+(0.8% rdg + 4 dgt) on 400E2 range, +(0.8% rdg + 2 dgt) on 40E3 to 4ME3 ranges, +(3.0% rdg + 3 dgt) on 40ME3 range, +(5.0% rdg + 20dgt) on 4,000ME3 range Resolution 0.1Ω</td>
</tr>
<tr>
<td>Accuracy</td>
</tr>
<tr>
<td>+(5.0% rdg + 10 dgt) on all ranges, +(8.0% rdg + 10 dgt) above 100µF Resolution 1pF</td>
</tr>
</tbody>
</table>

**Inductance**

<table>
<thead>
<tr>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC: +(0.1% rdg + 1 dgt) Resolution 10H</td>
</tr>
</tbody>
</table>

**Frequency**

<table>
<thead>
<tr>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>+(5.0% rdg + 2 dgt) on 4H range, +(5.0% rdg + 10 dgt) on other ranges Resolution 1pH</td>
</tr>
</tbody>
</table>

**Accessories**

| Test leads, manual, and 9V battery included |

**Dimensions / Weight**

| 7 3/4" (H) x 3 1/2" (W) x 1 1/2" (D) / 14 oz. |
Digital Capacitance Meter
Model CM-1555

Features
- 3 1/2 Digit, 2,000 count LCD readout with unit indicator.
- Measures capacitors from 0.1pF to 20mF.
- Zero control for test lead compensation.
- Banana jack and special insertion jack included.
- Compact size with tilt stand and holster.

Specifications
- Range: 200pF, 2,000pF, 20nF, 200nF, 2,000nF, 20mF
- Resolution: 0.1pF, 1pF, 10pF, 100pF, 1nF, 10nF, 100nF, 1mF, 10mF
- Accuracy: ±(0.5% rdg + 1 dgt), ±(0.5% rdg + 1 dgt), ±(2.0% rdg + 1 dgt)
- Accessories: Test leads, manual, holster, and 9V battery included
- Dimensions / Weight: 6 3/8” (H) x 3” (W) x 1 3/4” (D) / 10.56 oz.

Compact VOM Analog Multimeter
Model M-105

Features
- 10,000Ω/V DC, AC
- Reads volts, amps, ohms
- 15 ranges
- Pocket size
- Battery test
- Fuse protected
- Safety test leads

Specifications
- DC volts: 2.5, 10, 50, 250, 1000 DC volts ±5% Full Scale Reading (FSR)
- AC volts: 2.5, 10, 50, 250, 1000, AC volts ±5% Full Scale Reading (FSR)
- DC current: 10mA, 250mA, ±5% Full Scale Reading (FSR)
- Ohmmeter: x10, x1k (3.6kΩ Mid Scale) ±5% Full Scale Reading (FSR)
- Battery test: 1.5V (250mA), 9V (10mA)
- Accessories: Test leads, manual, 1.5V “AA” battery included
- Dimensions / Weight: 4 1/2” (H) x 2 1/2” (W) x 1 5/16” (D) / 4.2 oz.

20k/V VOM Analog Multimeter
Model M-1250

Features
- 20,000Ω/V
- 23 ranges
- 3 1/2” meter
- Mirrored scale
- Audible continuity
- Checks transistors/diodes
- 10A DC current
- dB scale
- Battery test
- Safety test leads

Available as kit Model M-1250K

Specifications
- DC volts: 1, 1.5, 2, 5, 10, 50, 250 3% Full Scale Reading (FSR)
- AC volts: 10, 50, 250, 1kV, ±5% Full Scale Reading (FSR)
- DC current: 25mA, 250mA, 10A 3% Full Scale Reading (FSR)
- Resistance: x1, x10, x100, x1k
- Transistor hFE: 0-1000
- Accessories: Test leads, manual, 9V & (2) 1.5V AA batteries included
- Dimensions / Weight: 6” (H) x 3 7/8” (W) x 1 1/2” (D) inches 9.9 oz.
Digital AC Clamp Meter

Model ST-1012

This meter has been designed according to IEC-1010-2-032 concerning safety requirement for handheld current clamps for electrical measurement and test.

Features
- 3½ digit display
- AC current to 1,000A
- AC voltage to 750VAC
- DC voltage to 1,000VDC
- Temperature type K
- Audible continuity
- Data hold
- Diode test
- Zippered case included

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>AC Volts</th>
<th>DC Volts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>200V, 750V</td>
<td>200mV, 2V, 20V, 200V, 1,000V</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±(1.0% rdg + 5dgts); 750V: ±(1.2% rdg + 5dgts)</td>
<td>±(0.5% rdg + 1dgzt); 2V - 200V: ±(0.5% rdg + 3dgts); 1,000V: ±(0.9% rdg + 3dgts)</td>
</tr>
<tr>
<td>AC Current</td>
<td>20A, 200A, 1,000A</td>
<td>20A: ±(4.0% rdg + 5dgts); 200-400A: ±(2.5% rdg + 5dgts); 400-1,000A: ±(3.0% rdg + 10dgts)</td>
</tr>
<tr>
<td>Resistance</td>
<td>200W, 2kW, 20kW, 200kW, 20MΩ</td>
<td>200W: ±(1.0% rdg + 5dgts); 2kW-20MΩ: ±(1.0% rdg + 3dgts)</td>
</tr>
<tr>
<td>Temperature</td>
<td>32°F-753°F ±(1.0%rdg + 3dgts); 754°F-1,382°F ±(2.0%rdg + 3dgts)</td>
<td></td>
</tr>
</tbody>
</table>

Digital AC/DC Clamp Meter

Model ST-3030

This meter has been designed according to IEC-1010-2-032 concerning safety requirement for handheld current clamps for electrical measurement and test.

Features
- 3¾ digit, 4,000 count display
- AC/DC clamp-on meter
- Auto/manual range
- Capacitance
- Diode check/continuity buzzer
- Relative measurement
- Temperature type K
- Frequency
- Data hold
- Back light
- Auto power off
- Zippered case included

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>AC Volts</th>
<th>DC Volts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>4V, 40V, 400V: ±(0.5% rdg + 2dgts); 400mV,600V ±(1.5% rdg + 3dgts)</td>
<td>400mV, 4V, 40V, 400V: ±(0.5% rdg + 2dgts) 600V ±(0.8% rdg + 3dgts)</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±(2.0% rdg + 5dgts); 1,000A: ±(2.5% rdg + 10dgts)</td>
<td>±(1.5% rdg + 5dgts) 1,000A: ±(2.0% rdg + 10dgts)</td>
</tr>
<tr>
<td>DC Current</td>
<td>400A: ±(1.5% rdg + 5dgts) 1,000A: ±(2.0% rdg + 10dgts)</td>
<td>400(1, 4kΩ, 40kΩ, 400kΩ, 4MΩ): +1.0%; 40MΩ: +2.0%</td>
</tr>
<tr>
<td>Resistance</td>
<td>40mF ±(3.0% rdg + 10dgts) 400nF/4μF ±(2.5% rdg + 5dgts) 40/100mF ±(5.0% rdg + 10dgts)</td>
<td>±(5.0% rdg + 10dgts)</td>
</tr>
<tr>
<td>Capacitance</td>
<td>10Hz - 10MHz: ±1.0%</td>
<td>0.1% - 99.9% ±2.0%</td>
</tr>
<tr>
<td>Temperature</td>
<td>58°F - 302°F ±(5% + 2°F) 302°F - 1292°F ±(3% + 2°F)</td>
<td></td>
</tr>
</tbody>
</table>

Halogen Leak Detector

Model WJL-6000

Features
- Detect all kinds of halogen refrigerants.
- Adjusted sensitivity
- Audible & visual leak indicators
- Inner precise IC with Ultra-Low consume circuit design, more stable, longer battery time.
- Tri-color visual display of battery voltage
- Excellent sensor, high sensitivity, longer use time
- Storage pouch included
Triple Output Power Supply

Model XP-770

The XP-770 is a triple-output regulated power supply providing two variable outputs (0-20VDC @ 2A) and one fixed (5VDC @ 3A). Four LCD displays allowing the output voltages and currents to be displayed simultaneously. The variable outputs can work independently, in series, or in parallel modes. The highest output voltage is the sum of twice the voltage value in series mode and the highest output current is the sum of twice the current value when in parallel mode.

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>120/220VAC, 50/60Hz</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>Dual 0-20VDC @ 2A</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>5V @ 3A</td>
</tr>
<tr>
<td>Dimensions / Weight</td>
<td>6½” (H) x 10¼” (W) x 14” (D) / 12 lbs. 14 oz.</td>
</tr>
</tbody>
</table>

0-50VDC @ 3A Power Supply

Model XP-752

The XP-752 has an output of 50VDC @ 3A. Its features include fine and coarse controls for voltage and current, and contains two 3 digit LED Volt / Current meters.

The supply incorporates an externally controlled current cutoff circuit with an LED indicating current overload. Protected against short circuits and overloads.

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>120/220VAC, 50/60Hz</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>0-50VDC @ 3A</td>
</tr>
<tr>
<td>Dimensions / Weight</td>
<td>6½” (H) x 5 1/4” (W) x 11½” (D)</td>
</tr>
<tr>
<td>Weight</td>
<td>13 lbs.</td>
</tr>
</tbody>
</table>

0-30VDC @ 5A Power Supply

Model XP-605

The XP-605 has an output of 30VDC @ 5A. Its features include fine and coarse controls for voltage and current, and contains two analog Volt / Current meters.

The supply incorporates an externally controlled current cutoff circuit with an LED indicating current overload. Protected against short circuits and overloads.

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>120/220VAC, 50/60Hz</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>0-30VDC @ 5A</td>
</tr>
<tr>
<td>Dimensions / Weight</td>
<td>6½” (H) x 5 1/4” (W) x 11½” (D)</td>
</tr>
<tr>
<td>Weight</td>
<td>13 lbs.</td>
</tr>
</tbody>
</table>
Deluxe Battery Eliminator

Model XP-100

This power supply is an ideal bench top battery eliminator. Substitutes a wide variety of batteries including AA, AAA, C, D, and 9V types. The voltage is conveniently selected by a rotary switch. Advanced, solid-state electronics provide both LINE and LOAD regulation of the output voltage. The voltage selector switch is precision-designed so that the output voltage does not increase during adjustment between voltage ranges. Protected against short circuits and overloads.

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th>120VAC 60Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td></td>
</tr>
<tr>
<td>Output Voltage</td>
<td>1.5, 2, 2.2, 3, 4.5, 5, 6, 7.2, 9, 10, 12, 13.8VDC</td>
</tr>
<tr>
<td>Output Current</td>
<td>1A max.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±0.5%</td>
</tr>
<tr>
<td>Dimensions / Weight</td>
<td>3 ¾” (H) x 8 ½” (W) x 7” (D) / 5 lbs.</td>
</tr>
</tbody>
</table>

Triple Output AC/DC Power Supply

Model XP-720

The Model XP-720 has 3 fully regulated supplies: 1.25-15V @ 1A, –1.25 to –15V @ 1A, or (3-30V @ 1A) and 5V @ 3A. It also has 6.3VAC @ 1A and 12.6VAC center-tapped @ 1A.

It features short circuit protection on all supplies.

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th>120VAC 60Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td></td>
</tr>
<tr>
<td>Output Voltage</td>
<td>1.25VDC - 15VDC @ 1A; –1.25VDC - 15VDC @ 1A; 5VDC @ 3A Dual 6.3VAC @ 1A; 12.6VAC @ 1A (center-tapped)</td>
</tr>
<tr>
<td>Dimensions / Weight</td>
<td>3 ½” (H) x 8” (W) x 6 ½” (D) / 7 lbs.</td>
</tr>
</tbody>
</table>

Spectrum Tube Power Supply

Model STPS-1

This power supply provides safe and reliable operation for 10” spectrum tubes. The unique design supplies a voltage that prolongs the life of the spectrum tubes. Specially designed sockets eliminate electrical shock hazards. The unit operates at 120V @ 60Hz.

(Tube not included.)

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th>120VAC 60Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td></td>
</tr>
<tr>
<td>Output Voltage</td>
<td>5,000V without spectrum tube. 1,000V @ 10mA with spectrum tube.</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>10°C to 50°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>–20°C to 60°C</td>
</tr>
<tr>
<td>Dimensions / Weight</td>
<td>13 3/4” (H) x 4 5/8” (W) x 3½” (D) / 4 lbs. 12.8 oz.</td>
</tr>
</tbody>
</table>
4 Fully Regulated Power Supplies in One Unit

Model XP-581A

Features

- 4 DC voltages:
  - 3 Fixed: +5V @ 3A; +12V @ 1A; –12V @ 1A
  - 1 Variable: 0 - 20V @ 2A

- Fully regulated and short protected
- Voltage and current meters
- Ideal for laboratory, service shops and hobbyists
- All metal case
- Low cost and high value

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>115/230VAC ±10% 50/60Hz</td>
</tr>
<tr>
<td>Output Voltage DC</td>
<td>±5VDC, 3A max.</td>
</tr>
<tr>
<td>Output Voltage DC</td>
<td>±12VDC, 1A max.</td>
</tr>
<tr>
<td>Output Voltage DC</td>
<td>0-20VDC, 2A max.</td>
</tr>
<tr>
<td>Current Protection</td>
<td>±5, ±12V Thermal, 0-20V Current limit, fuse for primary AC voltage</td>
</tr>
<tr>
<td>Dimensions / Weight</td>
<td>3 5/8&quot; (H) x 10 3/4&quot; (W) x 10&quot; (D) / 8.11lbs.</td>
</tr>
</tbody>
</table>

AC/DC Variable Power Supply

Model XP-625

The XP625 has a DC output (UN-regulated; UN-filtered) from 0-30 volts at up to 5 amps; and an AC output (UN-regulated; UN-filtered) of 0-40V at up to 5 amps. The voltmeter is used for both 30VDC and 40VAC output voltages. The ammeter only registers the DC output current. The outputs are fuse protected from overload or shorting.

This product is intended for applications where high voltage variance and fluctuations can be tolerated. The voltages produced by this power supply are not filtered or regulated resulting in damage to sensitive devices. The meter displays the average voltage; peak voltages are higher (60V for DC, +/- 60V for AC)

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>120VAC, 60Hz</td>
</tr>
<tr>
<td>Output Voltage DC</td>
<td>0-30VDC, 5A max.</td>
</tr>
<tr>
<td>Output Voltage AC</td>
<td>0-40VAC, 5A max.</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>0-110VAC, 2.5A max.</td>
</tr>
<tr>
<td>Dimensions / Weight</td>
<td>5 3/8&quot; (H) x 7 3/4&quot; (W) x 9 1/2&quot; (D) / 14 lbs. 14 oz.</td>
</tr>
</tbody>
</table>

Fixed Voltage Supply

Model XR-38

Model XR-38 is a 13.8VDC regulated power supply capable of delivering up to 3A of continuous current.

It is ideal for mobile radio, cellular phones, CB or ham radio equipment.

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>120VAC, 60Hz</td>
</tr>
<tr>
<td>Output Voltage DC</td>
<td>13.8VDC</td>
</tr>
<tr>
<td>Output Current</td>
<td>3A continuous, 5A surge</td>
</tr>
<tr>
<td>Dimensions</td>
<td>4 5/16&quot; (H) x 6&quot; (W) x 8 3/16&quot; (D)</td>
</tr>
<tr>
<td>Weight</td>
<td>5 lbs. 8 oz.</td>
</tr>
</tbody>
</table>
Logic Probe

Model LP-560

The LP-560 Logic Probe provides convenient and precise use in the measurement of logic circuits. It displays logic levels (high or low), pulses and voltage transients down to 25 nanoseconds. High intensity LED readouts provide instant response to the logic state.

Features

• Tests all logic families (TTL, LSI, CMOS, ECT)
• Captures pulses to 25ns (20MHz)
• Audio beeper, two tones HI & LOW
• Memory function
• Colored LED’s for different functions
• Input overload protection
• Logic probe is circuit powered
• Reverse polarity protection

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Voltage</td>
</tr>
<tr>
<td>Frequency Response</td>
</tr>
<tr>
<td>Minimum Detectable Pulse Width</td>
</tr>
<tr>
<td>Input Impedance</td>
</tr>
<tr>
<td>Input Overload Protection</td>
</tr>
<tr>
<td>Supply Voltage Protection</td>
</tr>
<tr>
<td>Pulse Indicator Flash Time</td>
</tr>
<tr>
<td>Operating Temperature</td>
</tr>
</tbody>
</table>

Logic Probe & Pulser Combo

Model LP-900/625

A unique two-in-one logic probe & pulser that simplifies troubleshooting and analyzing digital circuits.

Logic Probe Kit

Model LP-525K

Digital Logic Probe in kit form provides convenient and precise use in measurement of logic circuits. It displays logic levels (high or low), pulses and voltage transients down to 25 nanoseconds and a maximum input of 20MHz. Large PC board and detailed manual for fast construction.
**Tone Generator / Probe Set**

**Model TPG-70**

The Model TPG-70 includes both TP-20 (probe) and TG-50 (generator). Technicians and installers can quickly locate wires in applications such as **TeleCom, Networking, CATV, HVAC, Electrical, and Automotive Circuits**.

**Features**
- Use to locate termination point of all types of communication cables.
- Single or dual tone with adjustable volume.
- Audible continuity on telco and bare wires.
- LED signal confirmation.
- Probe works with any tone generator.
- Non-conductive plastic tip for safety.
- Low battery indicator.

**Multi-Network Cable Tester**

**Model TCT-355**

The TCT-355 Cable Tester is a convenient instrument for testing different shielded/unshielded wiring schemed communication cable with RJ11 and RJ45 connectors and coax cables with F and BNC connectors.

**Features**
- Tests RJ45 TIA568A/B (AT&T 258A), 10 Base-T, token ring, RJ11/RJ12, USOC and coaxial BNC cable.
- Automatically check cable for continuity, shorted, 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.
- Terminator and carrying case included.

Requires one (1) 9V battery (part # 590009)
Fiber Optics Voice & Data Kit With Training Course

Model FO-30K
Learn the basics of fiber optics communications while you build this exciting kit. Transmit your voice or a 1kHz signal through the fiber optic cable to a fiber optic receiver. Comes complete with all of the necessary components, including PC boards, microphone, speaker and fiber optic cable. Transmitter and receiver on separate boards, can be located hundreds of feet apart. Use for science projects.

Requires two (2) 9V batteries (part # 590009).

P/N 810020 - Fiber Optic Cable - Sold in spools of 10 feet.

Fiber Optics Tool Kit

Model TK-5000

Features

• C-200 - Case
• ST-92 - Viewing microscope
• C-10 - Parts case
• ST-90 - Fiber continuity tester
• ST-88 - Fiber optical stripper
• ST-91 - Carbide fiber scribe

• ST-340 - Kevlar® scissors
• ST-950 - Hex-type crimping tool
• ST-86 - Polishing pad SC (37.8mm)
• ST-87 - Polishing pad ST (32.8mm)
• ST-89 - Foam swab cleaning kit

Fiber Continuity Tester

Model ST-90
Powerful Krypton light source provides long range over multimode fiber.

Requires two (2) “AA” batteries (included)

Carbide Fiber Scribe

Model ST-91
Wide inclined carbide tip for easy cleaving. Lightweight, pen-size body clips to shirt pocket.

Fiber Optical Stripper

Model ST-88
Strips 125 micron fiber with 250 micron buffer coating without scratching or nicking fiber.
Bredboard - Prototype Design Aids

A broad array of bredboards that provide unlimited freedom in laying out circuits and prototyping. Bredboards are arrayed from 830 tie points up to 3,220 tie points with colored binding posts that simplify identification of voltage points. Base material heavy aluminum, black anodized.

Model 9440 *
Terminals: 3,220 tie points, 504 separate 5 point terminals, plus 14 horizontal bus lines.
Binding Posts: Four coded black, red, yellow, and green.
Dimensions: 8 1/4” W, 9 1/2” L.

Model 9438 *
Terminals: 2,390 tie points, 378 separate 5 point terminals, plus 10 horizontal bus lines of 50 test points each.
Binding Posts: Four coded black, red, yellow, and green.
Dimensions: 7” W, 9” L.

Model 9480WK
9440 bredboard with a JW-350 Jumper Wire Kit.

Model 9488WK
9438 bredboard with a JW-140 Jumper Wire Kit.

Model 9433 *
Terminals: 1,660 tie points, 252 separate 5 point terminals, plus 8 horizontal bus lines of 50 common tie points each.
Binding Posts: Three coded black, red, and green.
Dimensions: 5 1/4” W, 8 1/2” L.

Model 9425 *
Terminals: 830 tie points, 126 separate 5 point terminals, plus 4 horizontal bus lines of 50 tie points each.
Binding Posts: Three coded black, red, and green.
Dimensions: 7 1/4” W, 3 3/4” L.

Model 9483WK
9433 bredboard with a JW-70 Jumper Wire Kit.

Model 9485WK
9425 bredboard with a JW-70 Jumper Wire Kit.

Model 9830 *
830 tie points including four independent common bus lines for easy connections to common lines. Bredboard have interlocking features. Dimensions: 2 1/8” H x 6 1/2” W.

Model 9880WK *
9830 bredboard (830 tie points) with a JW-70 (70 piece) jumper wire kit.

Jumper Wire Kits for Bredboarding

As the primary manufacturer, we can design and manufacture Bredboards with an unlimited number of test points and special connectors. Call us for further information and cost. * Available in retail packaging - See price sheet

Model JW-350 *
350 lengths of pre-stripped, pre-formed #22 solid wire in various colors. 14 different lengths of 25 pieces ea. In a plastic case. Dimensions: 5” H x 10 1/2” W x 1 1/4” D.

Model JW-140 *
140 lengths of pre-stripped, pre-formed #22 solid wire in various colors. Also 14 different lengths of 10 pieces ea. In a plastic case. Dimensions: 2” H x 6 1/2” W x 1 1/2” D.

Model JW-70
70 lengths of pre-stripped, pre-formed #22 solid wire in various colors & lengths. Dimensions: 2” H x 6 1/2” W x 1 1/2” D.

Model JW-30
30 pieces of reinforced, male to male jumpers - 10 pieces ea. of 2”, 4”, and 6”. Assorted colors.
Basic Electronic Experiments

TRANSFORMS ANY STANDARD BREADBOARD INTO AN ELECTRONIC LEARNING CENTER

Model PK-101

The experiments in Model PK-101 require a breadboard (version PK-101B) or can be done on the Elenco® XK-150, XK-550 or XK-700 Trainers. Includes 72 page manual and all parts to perform 50 experiments. No soldering or tools required, all parts included.

Perform 50 Experiments

- Electronic keyboard
- Water alarm
- Finger touch lamp
- Electronic kazoo
- Battery tester
- Magnetic bridge
- Voltmeter
- Morse code
- And a Lot More!

Model PK-101B: Same as PK-101, but includes our 9830 Breadbox (shown on page 17 and a 9V battery).

Basic Electronics with Computer Interface

Model PK-201

Computer interface turns your PC into an oscilloscope and spectrum analyzer. See visually how oscillators and amplifiers work. Analyze your own voice on the monitor.

Over 50 Experiments

- Audio amplifiers
- Oscillators
- Siren
- Space gun
- Burglar alarm
- Speaker microphone
- And a Lot More!

Requires one (1) 9V battery (part # 590009) or power supply.

Before You Learn Electronics, Learn About Electronic Components!

Model ECK-10

28 page manual with dozens of illustrations includes detailed descriptions of all parts, their functions in a circuit, color codes, and five self tests. Over 50 Parts included with this Course!
Basic Parts Kit
Model CK-1000

Specifications

<table>
<thead>
<tr>
<th>Plastic Parts Container</th>
<th>11&quot; x 7&quot; x 1 1/2&quot; - 18 divisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistors: 1/4W, 5%, 5 each</td>
<td>10Ω, 100Ω, 470Ω, 1kΩ, 2.2kΩ, 4.7kΩ, 8.2kΩ, 10kΩ, 18kΩ, 27kΩ, 47kΩ, 82kΩ, 100kΩ, 220kΩ, 330kΩ, 470kΩ, 1MΩ</td>
</tr>
<tr>
<td>Electrolytic Capacitors: 50V Radial - 2 each</td>
<td>1μF, 4.7μF, 10μF, 47μF, 100μF, 470μF, 1000μF (35V)</td>
</tr>
<tr>
<td>Mylar Capacitors: 100V, 10%, Radial DIP - 2 each</td>
<td>.001μF, .0047μF, .01μF, .047μF, .1μF, .33μF</td>
</tr>
<tr>
<td>Ceramic Disc Capacitors: 100V, 10% - 2 each</td>
<td>2.2pF, 4.7pF, 10pF, 22pF, 47pF, 100pF, 220pF, 470pF, 680pF</td>
</tr>
<tr>
<td>Inductors: 1 each</td>
<td>4.7μH, 10μH, 47μH, 100μH, 470μH, 1mH, 10mH, 33mH</td>
</tr>
<tr>
<td>Trimpots: Single Turn - 1 each</td>
<td>500Ω, 1kΩ, 5kΩ, 50kΩ, 100kΩ, 500kΩ, 1MΩ</td>
</tr>
<tr>
<td>Switches: 2 each</td>
<td>Push-button SPST, Slide SPDT, Slide DPDT, 8-position DIP</td>
</tr>
<tr>
<td>LEDs: Standard T1 3/4 size - 4 each</td>
<td>Red, green, white, yellow</td>
</tr>
<tr>
<td>Displays: 2 each</td>
<td>7-segment common cathode, 7-segment common anode</td>
</tr>
<tr>
<td>Integrated Circuits: 2 each</td>
<td>7805, 7812 regulators, 555 timer, LM386 audio amp, 358 Op-amp, 358, LM386N, NE555N, CD4013, CD4017, CD4011, CD4001, CD4081, D4023, CD4070</td>
</tr>
<tr>
<td>Transistors: 2 each</td>
<td>PN2222, PN2907, 2N3055, 2N3904, 2N3906, 4393</td>
</tr>
<tr>
<td>Diodes: 2 each</td>
<td>1N4148, 1N4001, 1N34, 1N4728, 1N4733, 1N4739, 1N4743, 1N4747</td>
</tr>
<tr>
<td>Miscellaneous:</td>
<td>Hook-up wire 5' 22AWG (black, red, orange, yellow, green), Alligator lead sets (red and black), 5V DIP relay, Photo cell, Microphone, Speaker, Buzzer, 9V battery snap, 1.5A 100V bridge, 4A 200V SCR</td>
</tr>
</tbody>
</table>

Hook-Up Wire on Spools
Lead-free Solder - 99.3/.07 rosin core .032” dia.
1lb. spools part #: 551136 - 1LB
Wire in 1,000 and 5,000 ft. spools (20, 22, and 24 gauge) solid or stranded - all colors - available upon request.

#22 Gauge Solid 25ft.
- Black Part #: 884410
- Red Part #: 884420
- Yellow Part #: 884440
- Green Part #: 884450
- White Part #: 884490

#22 Gauge Stranded 25ft.
- Black Part #: 885210
- Red Part #: 885220
- Yellow Part #: 885240
- Green Part #: 885250
- White Part #: 885290

Resistor Kit
365 TOTAL PIECES
Model RK-365
Contains five (5) each of 73 standard values, from 1Ω to 1MΩ - 1/2 watt, 5% tolerance, carbon film.

WARNING: Cancer and Reproductive Harm
www.P65Warnings.ca.gov.
**Combo Kit**
**Model RCK-465**
Contains a resistor kit RK-365 with 5 each of 73 values for a total of 365 pieces and the capacitor kit CAPK100, which contains 21 varieties of capacitors for a total of 100 pieces. Altogether, this kit contains 465 pieces.

**1/4W Carbon Film Resistor Kit**
**Model RK-370**
Contains five each of 74 standard values from 1Ω to 10MΩ 1/4 watt, 5% tolerance, carbon film. 370 pieces total, 74 values. Packaged in a cardboard organizer box.

**LED Assortment Kit**
**Model LEDK80**
Contains a variety of types & colors: small, standard, large, rectangular, bi-color, blinking, ultra bright, red, amber, green, blue, yellow & white. 80 pcs total, 18 varieties. Comes in a cardboard organizer box.

**Hook-up Wire Kit**
**Model WK-103**
Contains three 25 ft. spools of #22 gauge solid wire - Red, yellow, and black in a dispenser box.

**Capacitor Kit**
**Model CAPK100**
Contains ceramic disc, mylar, and electrolytic-type capacitors. 21 varieties, 100 pieces total - 30 ceramic from 10pF to 470pF, 35 mylar from 0.001µF to 0.220µF, and 35 electrolytic from 1µF to 1000µF. Packaged in a cardboard organizer box.

**Diode Kit**
**Model CAPK100**
Contains an assortment of silicon, zener, germanium, bridge, and switching diodes. 80 pieces total, 20 types. Packaged in a cardboard organizer box.

**Transistor Kit**
**Model TRAK-100**
Contains an assortment of transistors, NPN, PNP, FET’s, Darlington, & Power. 100 pcs total, 15 types. Comes in a cardboard organizer box.

**Hook-up Wire Kit**
**Model WK-106**
Contains six 25 ft. spools of #22 gauge solid wire - red, yellow, black, white, green, and blue in a dispenser box.
Electricians General Purpose Tool Kit

Model TK-8000

A heavy-duty tool pouch, designed for electricians and maintenance people, made from a heavy-duty polypropylene material. Includes an adjustable quick-release belt.

Includes

- C-190 Tool pouch
- ST-30Y Wire stripper
- ST-26 Diagonal pliers
- ST-34 Long nose pliers
- ST-71A #2 phillips screwdriver
- ST-72A 1/4” slotted screwdriver
- ST-70 Linesman pliers
- ST-95 8” groove pliers
- ST-38G AC receptacle tester
- ST-156 Electrician knife

HVAC Electricians Master Tool Kit

Model TK-8200

A complete tool kit for the troubleshooting of HVAC systems includes two meters for making all critical voltage, current and temperature measurements. Also includes quality, heavy-duty, large durable tool bag featuring 18 pockets of every conceivable size. It is designed with an open top for ease of access, triple-bottom construction and sturdy handles.

Includes

- C-180 Portable tool bag
- M-2625A Autoranging meter with temperature
- ST-1012 Clamp meter
- ST-97 10” groove pliers
- ND-4 Nut drivers 3/16”, 1/4”, 5/16” 3/8”
- ST-26 Diagonal pliers
- ST-34 Long nose pliers
- ST-125 6 pc. Screwdriver set
- ST-74 AC line splitter
- ST-73 AC voltage detector probe
- ST-32 Inspection flashlight
- ST-38G AC receptacle tester

Bag Dimensions:
7” (H) x 16” (W) x 9 1/2” (D)
AC Voltage Detector Probe
Model ST-73
Detect AC voltages 120/240VAC without contact. Visual and audible indicators. Excellent for voltage tracing circuits.

AC Line Splitter
Model ST-74
For measuring current in plug-in appliances and air conditioners. Splits two conductor line cord for reading at outlets under load. Permits voltage measurements at outlet under active conditions. Direct and 10X sensitivity.

AC Receptacle Tester With Built-in GFCI Tester
Model ST-38G
UL listed. Gives instant display of wiring conditions of any standard 3-wire 110VAC outlet. Also tests GFCI.

Circuit Tester
Model ST-37
AC/DC 80-500 volts. Bright neon indicator, pocket clip, insulated case.
STEM Tool Kit

Model PK-622

The featured ST-43 Tool Bag is made of lightweight and durable polyester provides extra strength and carrying comfort. Adjustable elastic straps for versatility, easy to organize tools inside the bag. Inside walls are made of rigid plastic to ensure no twisting or bending when the bag is fully loaded. Heavy-duty zipper, micro injection plastic handle, durable and comfortable in use. Easy way to reorganize tools and make your own combination tool bag quickly.

Includes:
- ST-43 Tool Bag
- 1PK-125T Tweezer
- SD-202B Screwdriver #1x75mm
- SD-201A Screwdriver -3.0x75mm
- PM-200 Plastic Modeler Slide cutter
- PD-510 Knife
- HAM-3 Hammer
- R006 6” Steel ruler
- K002A Flat file 120mm
- K002B Flat file 120mm

12pc. Computer Service Tool Kit

Model TK-1100

Includes:
- 3/16” nut driver
- 1/4” nut driver
- Driver handle - Fits all bits
- Reversible screwdriver bits T10 & T15.
- Reversible screwdriver bits 3/16” & 1/4”
- Reversible screwdriver bits #1 & #2 phillips
- ST-17 Tweezers
- ET-14 IC inserter 14-16 pin
- ET-10 IC puller
- ST-101A 1/8” slotted screwdriver
- ST-101B #0 phillips screwdriver
- PR-3 3-prong parts retriever

In Black Vinyl Zippered Case
Dimensions: 8 3/8” x 6” x 1 3/8”
2-Year Warranty on all tools.

Model TK-1100A: Same TK-1100 with spare parts tube, but without the IC inserter.
Deluxe Electronic Tool Kit

Model TK-3000

A professional technician service tool kit in a metal reinforced tool case with heavy-duty handle and locks. A removable, double-sided pallet handles most of the tools listed below with more room for tools and parts in the lower half. A special ramp in the tool case will lock your meter of choice in place.

Includes

- ZD-300C Deluxe 25W soldering iron
- SH-1 Soldering iron holder
- ST-1 Mini diagonal cutters
- ST-2 Mini long nose pliers
- ST-30 Premium wire stripper
- SE-1 Solder ease kit (4 pc.)
- TL-8 Precision screwdriver set (6 precision screwdrivers)
- SW-5 Desoldering wick
- ST-72 Screwdriver slotted 3/16”
- ST-6 Screwdriver #1 phillips
- ET-10 IC puller
- SP-4 Desoldering pump
- ST-20 Safety goggles
- ST-9 Pocket screwdriver
- LF-99 Lead-free solder tube
- ST-75 11 pc. screwdriver bit set (3 nut drivers, 2 slotted, 2 phillips, & 3 star bits)

Meter and calculator shown are sold separately.

Deluxe Electronic Tool Kit

Model TK-1001

A professional organizer tool kit at affordable prices. No technician should be without this unique tool kit that holds all of the tools you need (meter, experiments, etc.). Dimensions: 12” (H) x 17” (W) x 4” (D).

Includes

- ET-10 IC puller
- SE-1 Solder ease kit (4 pc.)
- SH-3 Soldering iron holder
- SP-4 Desoldering pump
- ZD-300C Deluxe 25W soldering iron
- ST-1 Mini diagonal cutters
- ST-2 Mini long nose pliers
- ST-3 Wire stripper
- LF-99 Lead-free solder tube
- ST-20 Safety goggles
- ST-75 11 pc. screwdriver bit set (3 nut drivers, 2 slotted, 2 phillips, & 3 star bits)
- SW-3 Desoldering wick
- TL-8 Precision screwdriver set (6 precision screwdrivers)

Meter shown sold separately.

2-Year Warranty on all tools.

Other Tool Kit packages available - custom made to your specifications.
Deluxe 25 pc. Electronic Technician Tool Kit

**Model TK-2000**

An electronic technician tool kit designed for the educational field. Heavy-duty deluxe tool box comes with two cantilever trays having 18 component trays. Deep bottom storage area for bulky items. 25 quality tools to meet most educational requirements.

**Includes**
- ZD-300C Soldering iron, 25W, 3-wire grounded plug
- ST-1 4 1/2” diagonal cutters, return spring, cushion grip
- ST-2 5” long nose pliers, return spring, cushion grip
- ST-3 5” adjustable wire strippers, cushion grip
- SH-1 Soldering iron holder with sponge
- SP-4 Desoldering vacuum pump
- SE-1 Solder ease kit (4 pcs.)
- TL-8 Precision screwdriver set (6 pcs.) in case
- ST-5 Slotted 3/16” screwdriver, chrome vanadium
- ST-6 Phillips #1 screwdriver, chrome vanadium
- ND-3 3-piece nut driver set, 3/16”, 1/4”, and 5/16”
- ET-10 IC puller, stainless steel, vinyl grip
- ST-20 Safety goggles
- LF-99 Lead-free solder tube
- SW-3 Desoldering wick

**2-Year Warranty on all tools.**

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Deluxe 32 pc. Technician Tool Kit

**Model TK-1500**

**Includes**
- M-1000D Digital multimeter
- ZD-300C Soldering iron, 25W, 3-wire grounded plug
- SE-1 Solder ease kit (4 pcs.)
- SP-4 Desoldering vacuum pump
- ST-1 4 1/2” diagonal cutters, return spring, cushion grip
- ST-2 5” needle nose pliers, return spring, cushion grip
- ET-10 IC puller, stainless steel, vinyl grip
- C-10 Parts box
- SH-2 Soldering iron stand (wire form)
- TL-8 6 pc. precision screwdriver set
- LF-99 Lead-free solder tube
- SW-3 Desoldering wick
- ST-75 11 pc. screwdriver bit set (3 nut drivers, 2 phillips, 2 slotted, & 3 star bits)

**Model TK-1600: Same as above but without meter.**

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15 pc. Basic Technician Tool Kit

**Model TK-1350**

**Includes**
- ZD-300C Deluxe soldering iron
- ST-1 4 1/2” diagonal cutters
- ST-2 5” needle nose pliers
- ST-30 Premium wire stripper
- ST-5 3/16” slotted screwdriver
- ST-6 #1 phillips screwdriver
- SP-4 Desoldering pump
- ST-101A 1/8” slotted screwdriver
- ST-101B #0 phillips screwdriver
- SH-2 Soldering iron stand (wire form)
- LF-99 Solder tube
- ND-3 Nut driver set, 3/16”, 1/4”, & 5/16”

**WARNING:** Cancer and Reproductive Harm www.P65Warnings.ca.gov.
### Mini Diagonal Cutters
**ST-1**
Drop forged steel, return spring, cushion grip. 4 ½” long.

### Mini Long Nose Pliers
**ST-2**
Drop forged steel, return spring, cushion grip. 5” long.

### Diagonal Cutters
**ST-26**
Drop forged steel, cushion grip. 6” long.

### Long Nose Pliers
**ST-34 - 6”**
**ST-145 - 8”**

### Wire Stripper
**ST-3**
Adjustable wire stripper, return spring, cushion grip. 5” long.

### Premium Wire Stripper
**ST-30**
7-in-1 all-purpose wire stripper, cutter, pliers, and crimper. Cushion grip. Strips AWG16 - 26. 6” long.

### Deluxe Wire Stripper
**ST-30Y**
Knife-type blade cuts, strips AWG 12 - 24; cushion grip, return spring. 6” long.

### Professional Wire Stripper/Crimper
**ST-170**

### Linesman Pliers
**ST-70**
Drop forged, fully polished, cushion grip. 8” long.

### Slip Joint Pliers
**ST-8 - 6 ½”**
**ST-127 - 8”**
**ST-148 - 10”**
Drop forged steel, chrome plated, cushion grip. Three sizes.

### Locking Pliers
**ST-200 - 6”**
**ST-95 - 8”**
**ST-97 - 10”**
Drop forged, fully polished, cushion grip. Three sizes.

### Wire Stripper/Cutter
**ST-153**
Used to strip, cut and loop 12 & 14 AWG Romex (NM-B non-metallic sheathed cable). Cushion grip, 8” long.

### Hand Tool Kit
**Model ST-10**
**Includes**
- ST-1 4 1/2” diagonal cutters
- ST-2 5” needle nose pliers
- ST-3 Wire stripper
- ST-5 3/16” slotted screwdriver
- ST-6 #1 phillips screwdriver

### 9 Piece Electronic Technician Starter Tool Kit
**Model TK-14**
**Includes**
- ZD-200C Standard 25W soldering iron
- SP-4 - Desoldering pump
- SW-3 - Desoldering wick
- LF-99 - Lead-free solder tube
- SH-2 - Soldering iron stand
- ST-23 Heat sink
- STSP- Sponge

Available in retail packaging - See price sheet

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**WARNING:**
Cancer and Reproductive Harm
www.P65Warnings.ca.gov.

For all Items on this page
6 pc. Mechanics Screwdriver Set
Model ST-125
Hardened and tempered chrome vanadium steel shafts. Hex bolster for wrench assisted torque; magnetized tips.

Pocket Screwdriver
ST-9
Slotted 1/8" x 2" with clip. Overall 4 1/4".

Pocket Screwdriver
ST-11
Phillips #0 x 2" with clip. Overall 4 1/4".

Screwdriver
ST-71 - #1 Phillips x 6"
ST-71A - #2 Phillips x 6"
Shock-proof, cellulose acetate plastic handles. Chrome vanadium blade. Overall 9"

Six Piece Precision Screwdriver Set
TL-8
Swivel heads, packaged in storage case.

5-in-1 Driver Set
ST-85
Incluces
• 2 Phillips (#1 and #2)
• 2 Slotted (3/16" and 1/4")
• 1 Nut driver (5/16")

7 pc. Professional Screwdriver Set
Model ST-121
Chrome vanadium steel shafts. Color line handles for comfort and identity; vapor blasted magnetized tips.

Pocket Screwdriver
ST-101A
Slotted 1/8" x 3". Overall 5 1/4".

Pocket Screwdriver
ST-101B
Phillips #0 x 3". Overall 5 1/4".

Screwdriver
ST-101A
Slotted 1/8" x 3". Overall 5 1/4".

Screwdriver
ST-101B
Phillips #0 x 3". Overall 5 1/4".

11 Piece Screwdriver Bit Socket Set
ST-75
Slotted 3/16" x 3" chrome vanadium. Overall 6".

Incluces
• 3 nut drivers • 2 slotted
• 2 phillips • 3 star

15 pc. Precision Quality Screwdriver Set
Model ST-152
Incluces
• Vanadium blades, plastic handles
• Star: #T6, #T7, #T8, #T9, #T10, #T15, #T20
• Flat: 0.08", 0.10", 0.12", 0.16" • Phillips: #000, #00, #0, #1

17 pc. Offset Ratchet & Socket Driver Set
Model ST-151
This screw and socket driver set comprises six hexagon sockets made from good quality carbon steel. The screwdriver has a 1/4" hexagon drive to accommodate ten 1/4" bits: slotted, phillips, and star.

Nut Driver Set
ND-3
3 pc. set - 3/16", 1/4", and 5/16".
<table>
<thead>
<tr>
<th><strong>Electricians Scissors</strong></th>
<th><strong>Hemostat</strong></th>
<th><strong>Adjustable Wrenches</strong></th>
<th><strong>IC Puller</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ST-68</strong></td>
<td><strong>ST-19</strong></td>
<td><strong>ST-63 - 4”</strong></td>
<td><strong>ET-10</strong></td>
</tr>
<tr>
<td>Hot forged - scraper and file on back edge of blade. Double stripping botch. 5” long.</td>
<td>Straight 6” insulated handle Use as a clamp to hold parts in place.</td>
<td>Drop forged, chrome plated, max. jaw opening.</td>
<td>Stainless steel construction for removing IC’s. Insulated vinyl grip.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>IC Inserter</strong></th>
<th><strong>Parts Retriever</strong></th>
<th><strong>Tweezers Crossover</strong></th>
<th><strong>Lighted Magnifier</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ET-14</strong></td>
<td><strong>PR-3</strong></td>
<td><strong>ST-16 - Pointed tip.</strong></td>
<td><strong>ST-25</strong></td>
</tr>
<tr>
<td>14/16-pin.</td>
<td>3-prong. Pick up parts in hard-to-reach places.</td>
<td>4 1/2” long.</td>
<td>Requires 2 “AAA” batteries.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Precision Duster</strong></th>
<th><strong>Allen Wrench Set</strong></th>
<th><strong>13 pc. Long Hex Key Wrench Set - SAE</strong></th>
<th><strong>6” Ruler</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ST-49</strong></td>
<td><strong>ST-15</strong></td>
<td><strong>ST-67</strong></td>
<td><strong>ST-14</strong></td>
</tr>
<tr>
<td>Pressurized blaster removes microscopic dust, lint, and other particles. Net weight: 10 oz.</td>
<td>8 pc. Ring set with springs - Twist off, twist on.</td>
<td>Chrome vanadium steel. Hardened and tempered.</td>
<td>Etched metal. Inch and metric divisions w/ pocket clip.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Inspection Mirror</strong></th>
<th><strong>Inspection Flashlight</strong></th>
<th><strong>Deluxe Alignment Tool</strong></th>
<th><strong>Magnetic Pick-up Tool</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ST-55</strong></td>
<td><strong>ST-32</strong></td>
<td><strong>ST-41</strong></td>
<td><strong>ST-45</strong></td>
</tr>
<tr>
<td>All-angle, telescoping inspection mirror.</td>
<td>6” Inspection light. Bright bulb. Requires 2 “AA” batteries, part # 590001.</td>
<td>Metal non-magnetic tip.</td>
<td>Telescopic (24 inch) pick-up tool with pocket clip.</td>
</tr>
</tbody>
</table>
### Universal Stripping Tool
**Model ST-350**
Strips outer jacket of UTP and STP cable and CAT 5 round. Strips RG 59/6/11/7 coaxial cable. Strips flat telephone cable. Cable cutter function.

### Multi-Function Wire Stripper
**Model ST-302**
Cuts, strips RG-58, RG-59, and RG-62. Precision strips 16 to 26 gauge wire.

### Coaxial Cable Stripper
**Model ST-35**

### Ceramic Kevlar® Cutter
**Model ST-340**
Easily trim Kevlar® strength member in fiber optic cable. The ceramic blades cut Kevlar® quickly and precisely.

### Cable Tie Gun
**Model DCT-300V ST-375**
Speeds up cable tie applications. Insures correct tension and provides automatic cutoff.

### Round Cable Cutter
**Model ST-211**
The 100 pair group cutter is rated for ethernet, 100 pair group telephone cable, and RG-174 / RG-9 coax. Spring return with safety lock.

### Modular Crimping Tool
**Model ST-568**
Cuts, strips, and crimps modular plugs 8P/RJ45 and 6P/RJ12, RJ11. Cushion grip; length 7 ½”.

### Universal Crimp Tool
**Model ST-950**
Repeatable and reliable terminations. Pressure adjustment for activation force. Dies change quickly - 10 dies available (sold separately). Cushion grip; length 9”.

### Hex-Type Crimping Tool
**Model ST-60**
For use on RG-58 and RG-59 connectors. Cushion grip; length 9”.

### Economy Crimping Tool
**Model ST-560**
Multi-function telephone tool crimps, cuts, and strips for 4, 6, and 8 pole modular plugs. Plastic construction; length 8”.

### Punch Down Tool
**Model ST-620**
Includes 1 combination 66 & 88/110 blade. Spare blade storage in handle. **Replacement Blades:** Type 66 (ST-601), Type 66 & 88/110 (ST-604), KRONIE Type (ST-603)

### Can Wrench
**Model ST-670**
An easy-to-use tool that allows access to telephone boxes and pedestals. 3/8” and 7/16” hex double end, plastic handle.

### Deluxe Punch Down Tool Impact Type
**Model ST-630**
Adjustable pressure control. Suitable for 66 & 110 or KRONE terminal blocks. Includes 1 combination 66 & 88/110 blade. Storage for 1 spare blade in handle. **Replacement Blades:** Type 66 (ST-601), KRONE Type (ST-603), Type 66 & 88/110 (ST-604)
<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Large Zipper Case w/ Handles</strong></td>
<td>C-200: See TK-1500 for suggested tool array.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dimensions:</strong> 9&quot; (H) x 14 ½&quot; (W) x 3&quot; (D)</td>
<td></td>
</tr>
<tr>
<td><strong>Plastic Case</strong></td>
<td>C-570: Built-in handles, large sliding closures, lock lid into place.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dimensions:</strong> 10 ½&quot; (H) x 8&quot; (W) x 3 3/16&quot; (D)</td>
<td></td>
</tr>
<tr>
<td><strong>Deluxe Heavy-duty Tool Bag</strong></td>
<td>C-180: Heavy-duty zipper &amp; padded handles, a hard bottom to keep shape &amp; 18 pockets. See TK-8200 for suggested tool array.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dimensions:</strong> 10&quot; (H) x 15&quot; (W) x 9 ½&quot; (D)</td>
<td></td>
</tr>
<tr>
<td><strong>Deluxe, Heavy-duty, Black Canvas Zipper Case</strong></td>
<td>C-800: 3 outside pockets. See TK-4000 for suggested tool array.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dimensions:</strong> 12&quot; (H) x 17&quot; (W) x 4&quot; (D)</td>
<td></td>
</tr>
<tr>
<td><strong>Deluxe Case</strong></td>
<td>C-400: Metal reinforced w/ handle &amp; locks. Double-sided tool pallet, meter ramp &amp; dividers. See TK-3000 for suggested tool array.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dimensions:</strong> 13&quot; (H) x 18&quot; (W) x 5 ½&quot; (D)</td>
<td></td>
</tr>
<tr>
<td><strong>Plano Tool Box</strong></td>
<td>C-500: 2 cantilever trays with 18 compartments. Deep bottom storage. See TK-2000 for suggested tool array.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dimensions:</strong> 8 ¼&quot; (H) x 13 ¼&quot; (W) x 6 ¾&quot; (D)</td>
<td></td>
</tr>
<tr>
<td><strong>Heavy-duty Zipper Case</strong></td>
<td>C-20: See TK-1100 for suggested tool array.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dimensions:</strong> 8 ½&quot; (H) x 12 ½&quot; (W) x 1 ¼&quot; (D)</td>
<td></td>
</tr>
<tr>
<td><strong>Plano Tool Box</strong></td>
<td>C-520: Top access area; full-size, lift-out tray and bulk storage area.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dimensions:</strong> 7 ½&quot; (H) x 13&quot; (W) x 5&quot; (D)</td>
<td></td>
</tr>
<tr>
<td><strong>Small Zipper Case</strong></td>
<td>C-20: See TK-1100 for suggested tool array.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dimensions:</strong> 8 ½&quot; (H) x 12 ½&quot; (W) x 1 ¼&quot; (D)</td>
<td></td>
</tr>
<tr>
<td><strong>Molded Cases</strong></td>
<td>C-40: Plastic case with pin hinge, latch and side handle.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dimensions:</strong> 8&quot; (H) x 10&quot; (W) x 3&quot; (D)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C-50: Plastic case with built-in hinge &amp; latch.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dimensions:</strong> 7 ½&quot; (H) x 10&quot; (W) x 3&quot; (D)</td>
<td></td>
</tr>
<tr>
<td><strong>Parts Boxes</strong></td>
<td>C-10: Five fixed compartments.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dimensions:</strong> 3 ¾&quot; (H) x 6 ½&quot; (W) x 1 1/8&quot; (D)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C-30: Four fixed compartments.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dimensions:</strong> 2 7/8&quot; (H) x 4 5/8&quot; (W) x 1&quot; (D)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C-900: 6 to 18 adjustable compartments.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dimensions:</strong> 7 ¼&quot; (H) x 11&quot; (W) x 1 ¼&quot; (D)</td>
<td></td>
</tr>
</tbody>
</table>
### 65MHz Scope Probe, Switchable

**P-1D**
Built-in 2 position switch; X1, X10, complete w/ accessories, 10MΩ input impedance. Fits all scopes with BNC connector. Compensation range 10 to 35pF. Includes minigrabber, insulating tip, adjusting tool, channel identifier clips, and IC tip. Length - 60".

### Test Lead Set

**TL-3**
BNC to minigrabber. Length - 36"

**TL-4**
Banana to test probe lead set. Length - 36"

### BNC Test Lead Set

**TL-7**
BNC male to BNC male. 500Ω. Length - 36"

### BNC Cable

**TL-15**
Insulated banana to test probe lead with screw-on alligator clips. Length - 36"

### Component Test Lead

**TL-13**
Banana to alligator for testing capacitors, inductors, and resistors. Length - 4"

### Banana to Banana Lead Set

**TL-18**
Stackable 3-way banana plugs. Length - 36"

### Banana to Minigrabber Set

**TL-12**
Stackable banana to minigrabber. Length - 36"

### Banana to Alligator Lead Set

**TL-16**
Stackable banana to alligator clip. Length - 36"

### Banana to Alligator Lead Set with Large Alligator Clips

**TL-17**
BNC to alligator clips. Length - 36"

### Banana to Probe Heavy-duty Test Lead Set

**TL-22**
Rated max 1,000V & 10A (CAT III) Protective covers for tips. Length - 36"

### Push-on Alligator Test Lead Set

**TL-30**
Extra-large red and black insulated boots. Slips onto most 0.08" diameter test lead tips.

### Banana to Alligator Lead Set with Small Alligator Clips

**TL-5**
Stackable banana to alligator clip. Length - 36"

### Banana to Minigrabber Set

**TL-9**
IC clip test lead set. Length - 36"

### Alligator Lead Set with Small Alligator Clips

**TL-6**
Jumper clip lead set (10 pieces, 5 colors). Length - 14"

### Alligator Lead Set with Large Alligator Clips

**TL-18**
Stackable 3-way banana plugs. Length - 36"

### Minigrabber to Minigrabber

**TL-19**
IC clip test lead set. Length - 36"

### Minigrabber to Minigrabber

**TL-11**
Stackable banana to minigrabber. Length - 36"

### Banana to Alligator Lead Set

**TL-21**
Jumper minigrabbers. 5 pieces, 5 colors. Length - 36"

### Banana to Alligator Lead Set with Large Alligator Clips

**TL-16**
Stackable banana to alligator clip. Length - 36"
Soldering Station

Model SL-5

The SL-5 Soldering Station is electronically controlled to provide 5 to 40 watts and is ideal for professionals, students, and hobbyists. The unit includes a holder funnel for the iron, sponge pad for cleaning the tip and an on/off indicator light. It is available assembled or in kit form.

<table>
<thead>
<tr>
<th>ASSEMBLED SOLDERING STATIONS</th>
<th>SOLDER STATION KITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model SL-540</td>
<td>This station comes complete with a 40-watt soldering iron providing you with variable heat - 5 watts to 40 watts. For general soldering requirements.</td>
</tr>
<tr>
<td>Model SL-5</td>
<td>is the station that comes without a soldering iron. You may plug in any iron and obtain variable heat. It is suggested that you use 40-watt or 60-watt irons.</td>
</tr>
<tr>
<td>Model SL-5K</td>
<td>is a solder station in kit form. The soldering iron is not included. You build the station with your own soldering iron (40-watt iron suggested), ideal for student projects.</td>
</tr>
</tbody>
</table>

Temperature Controlled Soldering Stations

Model SL30A & Model SL10A

LED readout for greater accuracy (SL-30 only) • Temperature range 300°F to 900°F. This hi-tech soldering station incorporates a sophisticated electronic circuit that enables the user to change the tip temperature from 300°F (150°F) to 900°F (480°F). The temperature is maintained within +10°F of its preset temperature. The tip is isolated from the AC line by a 24V transformer. The tip is grounded to eliminate static charges.

<table>
<thead>
<tr>
<th>REPLACEMENT TIPS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conical - 600020</td>
</tr>
<tr>
<td>Conical - 600021</td>
</tr>
<tr>
<td>Wedge - 600022</td>
</tr>
<tr>
<td>Screwdriver - 600023</td>
</tr>
</tbody>
</table>

Temperature Controlled Soldering Station

Model SL-75

Low-cost solder station features manual temperature settings.

Features
- 48W heater power
- Temperature range 350°F - 900°F
- Electronic temperature control
- Power on LED
- Anti-static ground output

Deluxe Temperature Controlled Soldering Station w/ Ceramic Heater

Model ZD-931

Ideal for applications requiring temperature stability when working with sensitive components.

Features
- 48W ceramic heating element with temperature sensor
- Temperature range 302°F - 842°F
- Temperature preset on LCD display
- LCD display with digital temperature display
Deluxe 25W Soldering Iron
Model ZD-300C
Features
• 3-wire grounded plug
• Screw-in tip
• Rubber sleeve handle with long-life plated tip
• Replacement tips: Conical - 2DT, Fine (1/64”), Wedge, ZD200CT

Standard 25W Soldering Iron
Model ZD200C
25W Pencil soldering iron
Features
• 2-wire grounded plug
• Screw-in tip
• Rubber sleeve handle with long-life plated tip
• Replacement tips: Conical - 2DT, ZD200CT Fine (1/64”), Wedge, ZD200CT2

Deluxe 40W Soldering Iron
Model SR-6
Features
• 3 wire grounded plug
• Screw-in tip rubber sleeve handle with long-life plated tip
• Replacement tips: Conical - SR-2BT2, Wedge - SR-2BT

Soldering Iron Tip Package
Model TIPK-1
For SR-6
1/64”
3/64”
5/64”
1/16”
3/64”
7/64”

Soldering Iron Tip Package
Model TIPK-2
For SL-75

Soldering Iron Tip Package
Model TIPK-3
For ZD-200C and ZD-300C

Soldering Iron Stand
Model SH-1
Heavy-duty holder w/ sponge

Soldering Iron Stand
Model SH-2 *
Small stand w/ flip-up form

Soldering Iron Stand
Model SH-3
Flip-up wire form with sponge

* Available in retail packaging - See Price Sheet

WARNING: Cancer and Reproductive Harm
www.P65Warnings.ca.gov.
<table>
<thead>
<tr>
<th><strong>Lead-free Solder</strong></th>
<th><strong>Lead-free Solder</strong></th>
<th><strong>Desoldering Wick</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>**Model LF-99 *</td>
<td><strong>Model 551136</strong></td>
<td>**Model SW-3 *</td>
</tr>
<tr>
<td>5 ft. Rosin core, 0.031” dia. 99.3% tin, 0.7% copper</td>
<td>1 lb. Rosin core, 0.032” dia. 99.3% tin, 0.7% copper</td>
<td>Solder removal braid removes solder from all types of connections. 5 ft. roll in handy dispenser.</td>
</tr>
</tbody>
</table>

| **Desoldering Pump**          | **Tip Tinner, Cleaner**          |
|-----------------------------|-----------------------------|-------------------------------|
| **Model SP-4**             | **Model TTC-1**            |                               |
| Deluxe, high-vacuum pump anti-static tip |                               |                               |

| **Soldering Tip Cleaner**          | **Helping Hands w/ Magnifying Glass** |
|-----------------------------|-----------------------------|----------------------------------|
| **Model SH-1025**           | **Model HH-55**            | For soldering or making fine adjustments. Adjustable arms can hold objects in any position. Ø60mm lens |
| Made of low abrasive brass shavings. No water necessary, no temperature drop & cleans better than conventional sponges. |                               |                               |

| **Solder Ease Kit**          | **Heat Sink**          |
|-----------------------------|-----------------------------|-------------------------------|
| **Model SE-1**             | **Model ST-23**            |                               |
| 4 pc. Set: Brush, scraper, probe, & ST-23 heat sink in pouch | Aluminum body |                               |
Safety Goggles

Model ST-20
Contours to Head Soft Vinyl Frame Ventilated

Safety approved

Safety Spectacles

Model ST-22
Features Wide Upper Frame Fits Over Prescription Glasses

Safety approved
<table>
<thead>
<tr>
<th>Education Kit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Space War Gun</strong>&lt;br&gt;K-10</td>
<td>This gun gives you realistic sounds and flashes you expect in a Space Gun. Produces rapid fire or single shot with two flashing LED's. Speaker included. Requires one (1) “9V” battery</td>
</tr>
<tr>
<td><strong>0-15V Power Supply</strong>&lt;br&gt;K-11</td>
<td>This kit is one of the most useful, low-cost power supplies you can build. It supplies voltage to transistor radios, tape recorders, and electronic games. Output: 0-15VDC @ 250mA 8.5VAC @ 500mA.</td>
</tr>
<tr>
<td><strong>Christmas Tree</strong>&lt;br&gt;K-14</td>
<td>Produces flashing colored LED's and three popular Christmas melodies! See TK-3000 for suggested tool array. Requires one (1) “9V” battery</td>
</tr>
<tr>
<td><strong>Electronic Cricket</strong>&lt;br&gt;K-16</td>
<td>The perfect project &amp; fun game for family &amp; friends. You'll drive your friends crazy trying to find it! Speaker included. Requires one (1) “9V” battery</td>
</tr>
<tr>
<td><strong>LED Robot Blinker</strong>&lt;br&gt;K-17</td>
<td>Learn about free-running oscillators. You'll have fun building, displaying and learning about the LED Robot Blinker. Requires one (1) “9V” battery</td>
</tr>
<tr>
<td><strong>Digital Bird</strong>&lt;br&gt;K-19</td>
<td>There are all kinds of birds in this world, singing all kinds of songs. But neither you nor they probably have heard anything quite like this! Speaker included. Requires one (1) “9V” battery</td>
</tr>
<tr>
<td><strong>Burglar Alarm</strong>&lt;br&gt;K-23</td>
<td>The Burglar Alarm is an easy-to-build alarm control for your car, house, room, or closet. After the alarm is on, the only way to turn it off is to open the switch. Buzzer included. Requires one (1) “9V” battery</td>
</tr>
<tr>
<td><strong>Metal Detector</strong>&lt;br&gt;K-26</td>
<td>Find new money and old treasure. Get started in the fascinating hobby of metal detecting. Requires one (1) “9V” battery</td>
</tr>
<tr>
<td><strong>Pocket Dice</strong>&lt;br&gt;K-28</td>
<td>The Pocket Dice is a handy little project to be used with any game of chance. Since it uses CMOS circuitry, it has the advantage of operating off a 9-volt battery. Requires one (1) “9V” battery</td>
</tr>
<tr>
<td><strong>One Button Bandit</strong>&lt;br&gt;K-34</td>
<td>Press the button and away she goes. If three LEDs light, you win! Our version of Vegas' one arm bandit. Requires one (1) “9V” battery</td>
</tr>
<tr>
<td><strong>Telephone Bug</strong>&lt;br&gt;K-35</td>
<td>Our bug is only the size of a quarter, yet transmits both sides of a telephone conversation to any FM radio. No battery needed.</td>
</tr>
<tr>
<td><strong>Sound Activated Switch</strong>&lt;br&gt;K-36</td>
<td>Clap your hands and the light comes on, clap again and off it goes Many other uses. Complete with microphone. Requires one (1) “9V” battery</td>
</tr>
<tr>
<td><strong>Digital Roulette</strong>&lt;br&gt;A-300</td>
<td>A sure winner with you, your friends and your relatives. Thirty-eight LEDs are arranged in a five inch diameter circle. Requires one (1) “9V” battery</td>
</tr>
<tr>
<td><strong>Color Code Calculator</strong>&lt;br&gt;for resistors, capacitors, &amp; inductors&lt;br&gt;CC-100</td>
<td>Pocket-sized calculator in determining values of resistors, capacitors, and inductors. Match colors and get a fast reading of values.</td>
</tr>
<tr>
<td><strong>Batteries</strong></td>
<td>590000-590150</td>
</tr>
</tbody>
</table>

*WARNING: Cancer and Reproductive Harm* https://www.P65Warnings.ca.gov.
Diode / Transistor Tester

Model DT-100

Features
- Checks transistors and diodes in circuit.
- Identifies NPN or PNP transistors.
- Checks small or large power types.

Available in kit Model DT-100K

Resistor Substitution Box

Model RS-400

Contains 24 standard value resistors from 10Ω to 1MΩ. All resistors are 5% tolerance, 1/2 watt.

Available in kit K-37

Capacitor Substitution Box

Model CS-440

Contains 24 different value capacitors from 100pF to 0.1μF.

Available in kit K-38

1% 1W Resistor Substitution Box

Model RS-500

The RS-500 Resistance Substitution Box is a convenient instrument for determining the desired resistance values in circuits under design or test. The resistance obtainable is from 0Ω to 11,111,110Ω in 1Ω increments. All resistors are 1% precision. 1Ω - 40kΩ (1 watt), 100kΩ - 4MΩ (1/2 watt).

Available in kit K-38
Multi-Network Cable Tester Kit

Model TCT-255K

This tester is a convenient instrument for testing different unshielded wiring schemed telephone cables with RJ-11 and RJ-45 connectors and coax cables (F and BNC connectors). Cables can be tested before and after they are installed. Soldering required. Requires one (1) 9V battery (part # 590009).

Incluces
• Testing cables before or after their installation.
• Mapping function.
• Cable identification (straight or cross-pinned).
• Open or short testing.
• F to BNC connectors included.
• Low battery indicator.
• Auto power-off function (30 s.).
• 9V battery (part # 590009) included.

Function Generator Kit

Model FG-500K

Provides sine, square or triangle waveforms continuously variable 1Hz to 1MHz. The amplitude of the sine/triangle wave forms are adjustable from 0 to 3Vpp. Square wave amplitude is 8V (no load). Output impedance for waveforms are 600Ω. Complete with all parts, PC board, schematic, deluxe case and extensive assembly manual. Soldering required.

Diode/Transistor Tester Kit

Model DT-100K

This dynamic tester allows the checking of transistors and diodes in circuit. Identifies NPN or PNP transistors. Checks all types: small or large power. Identifies anode or cathode of diodes. Soldering required.

Resistor Substitution Box

Model K-37

Contains 24 standard value resistors from 10Ω to 1MΩ. All resistors are 5% tolerance, 1/2 watt.

Capacitor Substitution Box

Model K-38

Contains 24 different value capacitors from 100pF to 0.1μF. Soldering required.

Anti-Static Wrist Straps

WS-1 (elastic band)

Protects ICs and other equipment from static discharges. Adjustable.

Anti-static Work Mat

Model WS-2

Protects your workstation from static discharge. Made of semiconductive vinyl. Size: 11” x 22”.

Model WS-3 Size: 19” x 23”
Power Supply Kit

Model XP-720K

Model XP-720K has 3 fully regulated DC supply outputs, two outputs are continuously variable and one is fixed, plus a 12.6VAC output center-tapped to 6.3VAC.

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
</tr>
</tbody>
</table>
| Output Voltage | 1) 1.25VDC - 15VDC @ 1A  
2) –1.25VDC - –15VDC @ 1A  
3) 5VDC @ 3A  
4) 6.3VAC @ 1A and 12.6VAC center-tapped @ 1A It features short circuit protection on all supplies. |
| Dimensions / Weight | 3 ½” (H) x 8” (W) x 6 ½” (D) / 7 lbs. |
| Note | Variable outputs can be stacked to get 3 - 30VDC @ 1A. |

Available Assembled Model XP-720

Variable Voltage Power Supply Kit

Model XP-15K

A handy portable power supply features an output voltage variable from 0 to 15V at 0.3 ampere maximum current.

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
</tr>
<tr>
<td>Output Voltage</td>
</tr>
</tbody>
</table>
| Output Current | 0.5A @ 8V  
0.3A @ 12V  
0.2A @ 15V |
| Short Protection | IC Thermo |

FM Wireless Microphone Kit

Model AK-710

Now you can hear your voice on the radio! This kit will have you singing in no time at all. After following our easy assembly manual, you’ll be ready to transmit your voice on an actual FM Radio. Range up to 100 feet. Soldering required. Requires two (2) “AA” batteries (part # 590001)

Variable Voltage Power Supply Kit

Model K-11

A low cost way to supply voltage to school projects. For breadboarding, prototyping, and training.

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
</tr>
</tbody>
</table>
| Output Voltage | 0 - 15VDC @ 250mA  
AC: 8.5V @ 500mA |
Deluxe Full Function Digital Multimeter Kit

Model M-2666K

Features
- Extra-large 1”, 3 1/2 digit display
- Transistor tester
- Overload protection
- Capacitance to 200mF
- Diode test
- Audio continuity
- AC/DC current to 20A
- Low battery indication
- Rubber holster & tilt stand
- Safety input sockets & test leads.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>AC + DC Volts</th>
<th>200mV, 2V, 20V, 200V, 1,000V, 750VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>DC: +0.5% rdg + 2dgt, 1,000V: +0.8% rdg + 2dgt</td>
</tr>
<tr>
<td></td>
<td>AC: 200mV, 750V: +1.5% rdg + 2dgt, 1mV-100mV: +1.0% rdg + 2dgt</td>
</tr>
<tr>
<td>Resolution</td>
<td>100μV</td>
</tr>
<tr>
<td>AC + DC Current</td>
<td>200μA, 2mA, 20mA, 200mA, 20A</td>
</tr>
<tr>
<td>Accuracy</td>
<td>DC: 200μA-20mA: +1.5% rdg + 2dgt, 20mA: +2.0% rdg + 3dgt, 20A: +2.5% rdg + 3dgt</td>
</tr>
<tr>
<td></td>
<td>AC: 200μA-20mA: +1.0% rdg + 3dgt, 20mA: +1.5% rdg + 3dgt, 20A: +2.0% rdg + 3dgt</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.1μA</td>
</tr>
<tr>
<td>Resistance</td>
<td>20Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ</td>
</tr>
<tr>
<td>Accuracy</td>
<td>20Ω: +1.0% rdg + 2dgt, 2kΩ - 2MΩ: +0.8% rdg + 3dgt, 20MΩ: +2.0% rdg + 4dgt</td>
</tr>
<tr>
<td>Resolution</td>
<td>1Ω</td>
</tr>
<tr>
<td>Capacitance</td>
<td>2μF - 20μF: +2.5% rdg + 3dgt, 200μF: +5.0% rdg + 3dgt</td>
</tr>
<tr>
<td>Resolution</td>
<td>1pF</td>
</tr>
<tr>
<td>Size / Weight</td>
<td>7 1/2” (H) x 3 1/2” (W) x 1 13/32” (D)</td>
</tr>
<tr>
<td>Accessories</td>
<td>Test leads, Manual, 9V Battery included</td>
</tr>
</tbody>
</table>

20K/V VOM

Model M-1250K

DSR-85 dial Scale Reading Kit Included.

Features
- 20,000Ω/V
- 23 ranges
- 3 1/2” meter
- Mirrored scale
- Audible continuity
- Checks transistors / diodes
- Safety input sockets and test leads
- 10A DC current & dB scale
- Battery test & tilt stand

Available assembled as Model M-1250

SPECIFICATIONS

<table>
<thead>
<tr>
<th>DC Volts</th>
<th>0.1, 0.5, 2.5, 10, 50, 250 – 3% FSR / 1k – 5% FSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Volts</td>
<td>10, 50, 250 – 4% FSR / 1kV – 5% FSR</td>
</tr>
<tr>
<td>DC Current</td>
<td>50mA, 2.5mA, 25mA, 250mA – 4% FSR / 10A 5% FSR</td>
</tr>
<tr>
<td>Resistance</td>
<td>x1, x10, x100, x1k, x10k – 3% of ARC</td>
</tr>
<tr>
<td>Transistor hFE 0-1000</td>
<td>ICEO 15mA, 150mA</td>
</tr>
<tr>
<td>DCV Null Meter</td>
<td>0 - ±5V 0 - ±25V ±5% FS Zero centering meter type input impedance 40kΩ/V</td>
</tr>
<tr>
<td>Buzzer</td>
<td>Conduct indicator (buzzer is emitted at 20Ω or less.)</td>
</tr>
<tr>
<td>Battery Test (BATT)</td>
<td>GOOD _ ? _ BAD Color Coded Scale Load current 250mA</td>
</tr>
<tr>
<td>AF Output (dB)</td>
<td>-10dB → +22dB (AC10V) → +62dB Input impedance 9kΩ/V for output terminal. 0dB/0.775V (1mW through 600Ω impedance circuit)</td>
</tr>
<tr>
<td>Size</td>
<td>5 29/32” (H) x 3 23/32” (W) x 1 1/4” (D)</td>
</tr>
<tr>
<td>Accessories</td>
<td>Test leads, Manual, 9V and (2) 1.5V AA batteries</td>
</tr>
</tbody>
</table>

Digital Multimeter Kit

Model M-1008K

Features
- Low cost
- 3 1/2 digit LCD
- 19 ranges
- Transistor test
- Diode test
- Overload protection
- Pocket-size

Available assembled as Model M-1008E

SPECIFICATIONS

<table>
<thead>
<tr>
<th>DC Volts</th>
<th>200mV, 2V, 20V, 200V, 1,000V</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Volts</td>
<td>200V, 750V</td>
</tr>
<tr>
<td>Accuracy</td>
<td>DC +0.5% rdg + 2d, AC +2% rdg + 10d Resolution 0.1mV</td>
</tr>
<tr>
<td>Input Impedance</td>
<td>1MΩ</td>
</tr>
<tr>
<td>DC Current</td>
<td>200μA, 2mA, 20mA, 200mA, 10A</td>
</tr>
<tr>
<td>Accuracy</td>
<td>+1.8% rdg + 2 digits, +2.5% rdg + 2d (200mA), +3% rdg + 3d (10A) Resolution 0.1μA</td>
</tr>
<tr>
<td>Resistance</td>
<td>200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ</td>
</tr>
<tr>
<td>Accuracy</td>
<td>+1% rdg + 10 digits Resolution 0.1Ω</td>
</tr>
<tr>
<td>Size</td>
<td>5” (H) x 2 29/32” (W) x 1” (D)</td>
</tr>
<tr>
<td>Accessories</td>
<td>Test leads, Manual</td>
</tr>
</tbody>
</table>
Practical Soldering Project Kit

Model SP-3B

Elenco® Electronics is proud to present another superb solder practice kit designed to meet the ever-increasing demands on proper soldering procedures. Some of the features of this kit are as follows:

- Identifying components
- Color-code reading exercises, resistors, capacitors, and inductors. Includes color code calculator (Model CC-100).
- 163 solder points, standard soldering connections, close-tolerance soldering, and tack soldering.
- Evaluation exam of performed soldering connections. Written & visual.
- Complete voltage and resistance analysis of circuit.
- Desoldering exercise

Requires one (1) 9V battery

Surface Mount Technology Solder Practice Kit w/ Training Course

Model SM-200K

The future of electronics is headed for miniaturization through surface mount technology (SMT). Taking our course of training will prepare you for the future. Includes all parts and instructions to give you experience on working with surface mount components. The finished project is a decision maker with 6 flashing LED’s to help you make vital decisions. Requires one (1) 9V battery

Practical Soldering Project Kit

Model SP-1A

Working with printed circuit boards is in the future of every electronic technician. Almost every electronic device today has a printed circuit board and whether you are assembling a PC board or repairing it, you must understand the basics of working with these boards.

Good soldering requires practice and an understanding of soldering principles. This solder practice project will help you achieve good soldering techniques, help you become familiar with a variety of electronic components, and provide you with dynamic results. Requires one (1) 9V battery

SP-1A Solder Kit w/ Soldering Iron & Side Cutters - AK-100

Learn Surface Mounting Techniques Function Generator Kits w/ Training Courses Kit

Model FG-600K

These versatile function generators include surface mount components such as IC’s, resistors and capacitors. When completed, they provide Sine, Square and Triangle waveforms, continuously variable to 1MHz. Amplitude adjustable. Complete with all parts and PC board. Both include case and extensive training manual. Requires one (1) 9V battery

SPECIFICATIONS

<table>
<thead>
<tr>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sine, square, triangle</td>
</tr>
<tr>
<td>1Hz - 1MHz</td>
</tr>
<tr>
<td>600Ω ±10%</td>
</tr>
<tr>
<td>Sine/Square: 0-3V; Square wave: 8V</td>
</tr>
<tr>
<td>10:1 or more</td>
</tr>
<tr>
<td>Six decade steps</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SINE WAVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distortion</td>
</tr>
<tr>
<td>Flatness</td>
</tr>
<tr>
<td>SQUARE WAVE</td>
</tr>
<tr>
<td>Symmetry</td>
</tr>
<tr>
<td>Rise / Fall Time</td>
</tr>
<tr>
<td>TRIANGLE WAVE</td>
</tr>
<tr>
<td>Linearity</td>
</tr>
<tr>
<td>Power Requirements</td>
</tr>
</tbody>
</table>
AM/FM Radio Kit and Training Course

1 INTEGRATED CIRCUIT, 14 TRANSISTORS, AND 5 DIODES

Model AM/FM-108CK

Training course of 56 pages is divided into 9 lessons; Audio Amplifier, AM Detector, AM IF, AM Amplifier, AM Mixer & Oscillator, FM Detector, 1st FM IF, 2nd FM IF, FM RF Stages. “Superheterodyne” designed to receive standard AM (amplitude modulation) and FM (frequency modulation) broadcast frequencies. New transistor module allows you to switch between the modern integrated circuit (IC) technology and the original transistor technology. Includes radio mounting stand. Requires one (1) 9V battery.

PC Board Dimensions: Main: 5 1/4” (H) x 11 5/8” (W) Module: 2 3/8” (H) x 2” (W)

AM Radio Kit and Training Course

1 INTEGRATED CIRCUIT, 7 TRANSISTORS, AND 2 DIODES

Model AM-550CK

Training course divided into 5 lessons: Audio Amplifier, Detector, IF Amplifier, Oscillator, and Mixer - integrated circuit technology now included. “Superheterodyne” designed to receive standard AM (amplitude modulation) broadcast frequencies. Includes radio mounting stand. Requires one (1) 9V battery.

PC Board Dimensions: 3 1/2” (H) x 10 1/2” (W)

Two IC FM Radio Kit

Model FM-88K

The ELENCO® FM-88K Kit is a monophonic, two-IC, FM (frequency modulation) receiver designed to receive FM signals in the frequency range (88-108MHz). It uses electronic auto-scan to search for FM stations. This scan system is done with two button switches - one switch scans up, the other resets to the start of the tuning position. Requires one (1) 9V battery.

PC Board Dimensions: 3 3/8” (H) x 5 1/4” (W)

Two IC AM Radio Kit

Model AM-780K

New Design - Easy-to-Build complete radio on a single PC board. Unique design allows you to place parts over its corresponding symbol on the PC board. Teaches the basic theory of AM radio operation. Detailed instructions and illustrations make it an easy and educationally sound project. Requires one (1) 9V battery.

PC Board Dimensions: 3 7/16” (H) x 5 5/16” (W)