

# Water Damage Restoration Tools & Instruments



Precision, Specialty and Innovation . . . Since 1922

# **Table of Contents / Featured Products**



8142

TEMPERATURE & HUMIDITY	3 – 5
MOISTURE	6 – 7
TEMPERATURE	8 – 9
THERMAL IMAGING CAMERAS	10 – 11
VIDEO CAMERA SCOPES	12 – 13
AIR FLOW	14
GAS DETECTORS	15
WATER ALARMS	16
INSPECTION KITS	17 – 20
ELECTRICAL TEST	21 – 22
SPECIALTY HAND TOOLS	23





#### **USB TEMPERATURE-HUMIDITY DATA LOGGERS – HT10, HT20, HT50**

Ideal for monitoring temperature and humidity in enclosed spaces.

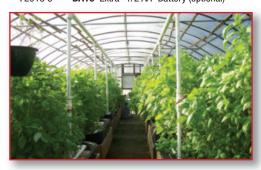
- One button starts/stops data logging without a PC
- Plug-and-play USB 2.0 interface; no need for cables, cradles or docks
- Large storage capacity: 16,000 pairs of humidity and temperature readings
- 3-1/2-digit LCD displays real-time temperature and RH readings, device working status and "memory full" (HT20 and HT50 only)
- Built-in IR thermometer for checking temperature of vents and surfaces (HT50 only)
- Included software is used to set sampling time & Hi/Lo temp and RH alarm setpoints
- Software also calculates dew point and wet bulb temperatures, and mixing ratio as GPP (Grains per Pound) or GPK (Grams per Kilogram)
- . One-click exporting of logs to Excel or Word
- Long battery life (up to one year)

#### **APPLICATIONS:**

- Water damage restoration Units can be deployed and left in place over duration of the job to monitor the drying process
- Process control Simpler, more cost-effective monitoring of office buildings, greenhouses, food and equipment storage facilities, wineries, freezers, shipping containers, HVAC/R installations, computer rooms, labs, libraries and museums
- Electronics manufacturing Monitor and/or data log RH to control high-voltage static discharge

- Windows®-Compatible CurveViewer Software
- USB Extension Cable Battery
- User's Manual
   1-Year Limited Warranty

UPC	NO.
01501 8	HT10
01503 2	HT20
01504 9	HT50
72015 8	BA10 Extra "1/2 AA" Battery (optional)





SPECIFICATIONS			
Model No.	HT10	HT20	HT50
Name	USB RH/Temp/GPP Data Logger w/LEDs	USB RH/Temp/GPP Data Logger w/LCD	USB RH/Temp/GPP Data Logger w/LCD & IRT
Temperature Measurement	-4° to 158°F (-2	0° to 70°C)/±1.8°F (1°C) fro	om 14° to 104°F
Range/Accuracy	(-10° to 4	0°C); ±3.6°F (2°C) elsewher	e in range
Temperature Measurement		±0.2°F (0.1°C)	
Resolution			
RH Measurement Range/Accuracy	0 to 100%/±	3% from 20 to 80%RH, ±3.5	% elsewhere
RH Measurement Resolution		0.1%	
GPP Measurement Range	C	to 1500 GPP (0 to 285g/kg	g)
Internal Storage Capacity	16,000 pairs of RF	I & temp readings	16,000 pairs of RH & temp readings/10,000 RH
			& temp sets + IR readings
IRT Measurement Range	N,	/Λ	-4° to 482°F
iki Weasurement Kange	IN,		(-20° to 250°C)
IRT Measurement			±5°F (3°C) below 32°F (0°C); ±4°F (2°C) above
Accuracy/Resolution	N,	N/A	
			32°F/±0.2°F (0.1°C)
IRT Distance-to-Spot Ratio	N,		2:1
IRT Emissivity	N,		0.95 (fixed)
IRT Response Time	N,		0.5 seconds
Laser Power	N,	/A	<1mW (Class 2)
Dimensions	4.96 x 1.10 x 2.01 in	. (126 x 28 x 51mm)	4.92 x 1.69 x 0.91 in. (125 x 43 x 23mm)
Weight		<7 oz. (<200g)	
Power Source	3.6V Non-rechargeable Lithium-Ion Battery (Type SB-AA02)		
What's Included	Battery, Software, USB Extension Cable, User's Manual		
Battery Life (typical)	1 year		
Limited Warranty Term	erm 1 year		



Monitor the drying part of water damage restoration



Monitor a climate-controlled food warehouse



# Thermo-Hygrometers





Ideal for water damage restoration contractors, facilities maintenance professionals and HVAC system installers/technicians.



**FEATURES** 

- Both instruments:
- O Measure: 1. Relative Humidity (RH); 2. absolute humidity (in mg/L or g/m3); 3. GPP (mixing ratio—in grains per pound or g/kg); 4. ambient temperature; 5. Dew point; 6. atmospheric pressure; 7. Vapor pressure; 8. relative moisture level using pinless sensor; 9. absolute moisture level using included pin-type probe;
- O Store/recall 20 pairs of readings
- O Have settable high and low alarms for RH and moisture levels
- O Have a backlit LCD with 3-digit primary readout + 4-digit secondary readout
- O Have Min/Max, Data Hold, and Auto Power Off
- In addition, the 700DL also:
  - O Measures: 1. wet bulb temperature; 2. surface temperature (which requires an optional "K" type thermocouple probe) and 3. Condensation temperature (which also requires an optional "K" type thermocouple probe)
  - O Logs: up to 8000 data points internally, for later download and display as Excelformatted graph or table on Windows PC using included software, driver and USB cable

#### **SPECIFICATIONS**

- ♦ Ambient Temperature Range / Accuracy: -20° to 167°F (-29° to 75°C) / ±3.6°F (2°C) typical
- ♦ RH Range / Accuracy: 0 to 100% / ±2.5% typical
- ♦ Absolute Humidity Range: 0-999 GPP (0 to 160g/kg)
- ♦ Atmospheric Pressure Range: 30 to 120 kPA
- ♦ Vapor Pressure Range: 0 to 20.0 kPA
- ♦ Surface Temperature Range (RHMG700DL only): 15° to 120°F (-10°C to 50°C)

#### **INCLUDES:**

- Meter Pin-type Moisture Probe
- USB Cable and PC Interface Program and Driver (RHMG700DL only) • Sensor Protection Cap
- "9V" Battery Soft Pouch User's Manual
- 1-Year Limited Warranty

UPC	NO.	
01608 4	RHMG650	
01620 6	RHMG700DL	

#### CALIBRATABLE MULTI-FUNCTION THERMO-HYGROMETERS — EP8703, EP8709, EP8710

Ideal for accurately measuring any environment's temperature, relative humidity (RH), dew point and other condensation parameters.

#### **FEATURES:**

- . Jumbo backlit display with double (EP8703, EP8709) or triple (EP8710) readout
- · Field calibratable using optional salts
- Min/Max display (EP8709 and EP8710 only)
- Also calculates and displays wet bulb temperature (EP8709 and EP8710 only)
- Using included external probe (EP8710 only), can also measure: 1) the difference between an object's internal and surface temperatures or 2) an object's condensation temperature—the difference between its surface temperature and the dew point temperature

#### **SPECIFICATIONS:**

♦ Ambient Temperature Range / Accuracy: 14° to 122°F (-10° to 50°C) / ±1.8°F (±1.0°C) typical

- ♦ External Temperature Probe Range / Accuracy (EP8710 only): 14° to 158°F (-10° to 70°C) / ±1.8°F (±1°C)
- ♦ RH Range / Accuracy: 0 to 99.9% / ±3% typical
- ♦ Power Source: (1) "9V" battery (included)

#### **INCLUDES:**

- Sensor Protection Cap
- User's Manual
- "9V" Battery
- 1-Year Limited Warranty
- External Temperature Probe (EP8710 only)

UPC	NO.
01632 9	EP8703
01630 5	EP8709
01631 2	EP8710
15060 3	HR33 Calibration Salt MgCl 33% (optional)
15070 2	HR75 Calibration Salt NaCl 75% (optional)

#### **DIGITAL PSYCHROMETER – SAM990DW**

#### Ideal for monitoring environmental conditions. **FEATURES**

- Measures and displays relative humidity (RH) and ambient, wet bulb and dew point temperatures on a dual-readout LCD
- · No twirling or charts necessary
- Min/Max memory + data hold
- °F or °C readings

#### **SPECIFICATIONS**

- ◆ Temperature Range / Accuracy: -4° to 122°F  $(-20^{\circ} \text{ to } 50^{\circ}\text{C}) / \pm 1.8^{\circ}\text{F} (\pm 1^{\circ}\text{C}) \text{ typical}$
- ♦ Relative Humidity Range / Accuracy: 10 to 90% / ±3% typical

- ◆ Dew Point Range / Accuracy: -22° to 122°F (0° to 49.9°C) / ±1.2°F (±0.6°C) typical
- ♦ Dimensions: 6.7 x 1.85 x 0.5 in. (170 x 22 x 13mm)
- ♦ Weight: 3.1 oz. (88g) ♦ Power Source: 2 "AAA" batteries (included)

- Protective cap with pocket clip
- Batteries User's Manual
- 1-Year I imited Warranty

	UPC	NO.	
	10025 7	SAM990DW	
	10026 4	SAM990DW/CERT	





# Thermo-Hygrometer/Moisture Meter

# THERMO-HYGROMETER WITH EXCEL-FORMATTED DATA LOGGING SD CARD – DTH3007SD

Ideal for high accuracy measurements of temperature and relative humidity, including dew point/wet-bulb temperature of ambient air.

#### **FEATURES**

- Four-function instrument measures temperature/humidity, dew point, wet bulb temperature and surface temperature
- Big (2.5 in. diagonal) front-panel green backlit LCD is easy to read
- Min/Max memory + data hold
- Sampling time settable from 1 second to 1 hour
- Also supports manual data logging and changing of SD card storage location
- Field calibratable humidity measurement
- Auto power off (can be disabled for data logging and calibration)

#### **SPECIFICATIONS:**

- ♦ Display: 2.05 x 1.5 in. (52 x 38mm) LCD
- ♦ Measurement Range:
  - Temperature: 32° to 122°F (0° to 50°C)
  - R.H.: 5 to 95%

- Dew Point: -13.5° to 120.1°F (-25.3° to 48.9°C)
- Wet-bulb: -6.9° to 122°F (-21.6° to 50°C)
- ♦ Measurement Accuracy:
  - ±1.5°F (±0.8°C) for temperature
  - Sum of temperature and humidity accuracies for dew point and wet-bulb temperature
- ♦ Operating Temperature: 32° to 122°F (0° to 50°C) @<85%RH
- ♦ Dimensions: 6.97 x 2.68 x 1.77 in. (177 x 68 x 45mm)
- ♦ Weight: 1.08 lb. (489g)
- ◆ Power Source: 6 "AA" batteries (not included) or optional 9-VDC AC adaptor

-	
UPC	NO.
01461 5	DTH3007SD

#### **INCLUDES:**

- Soft Carrying Case Temperature-Humidity Probe
- 2 GB SD Memory Card User's Manual
- 1-Year Limited Warranty







#### **Optional Accessories:**

•	
UPC	NO. DESCRIPTION
01544 5	P3007SD Replacement Temperature-Humidity Probe
015063	AC1 9VDC adaptor for 110V power supply
015025	SDRD1 SD Card Reader
15060 3	HR33 33% Calibration Salt (optional)
15070 2	HR75 75% Calibration Salt (optional)

#### PIN-TYPE LCD MOISTURE METER W/REMOTE PIN-TYPE PROBE - MM70D

Precision digital instrument for making accurate moisture measurements in wood and timber.

# PIN/PINLESS LCD MOISTURE METER KIT W/ REMOTE PIN TYPE PROBE AND ROLLER TYPE SENSOR – MM70D-7022KIT

Precision digital moisture meter for highly accurate readings in wood, timber and many other materials.

#### **FEATURES:**

- 1% accuracy
- · Backlit dual readout LCD
- Protective cap for safe carrying and operation
- Hardened gloss treatment on display-window for an abrasion-proof long-term clean lens
- 5.5% to 99.9% measurement range with 0 to 1 VDC output
- Stores/recalls up to 99 readings + Min/Max
- Auto temperature compensation and manual calibration
- Auto power off
- Ergonomic design, comfortable and durable
- Audible and visual low battery warning
- Interchangeable extension probes
- CE and RoHS approved

#### **SPECIFICATIONS:**

- ♦ Measurement Range: 5.5 to 99.9% Wood Moisture Equivalent (WME)
- ♦ Resolution: 0.1%
- ♦ Measurement Accuracy: ±1% WME
- ♦ Sampling Rate: 0.3 seconds
- Wood Group Scales: Select from 8 wood species groups
- ♦ Data Memory: 99 readings
- ♦ Signal Output: 0 to 1 VDC (10mV/%WME)
- ◆ Operating Temperature: -4° to 131°F (-20° to 55°C) @<90% RH</li>

- ◆ Dimensions: 6.0 x 2.2 x 1.26 in. (153 x 56 x 32mm)
- ♦ Weight: 5.5 oz. (155g) including battery
- ♦ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

- MM70D Meter with Two 0.5 in. (12.7mm) Pins
- MP7021 External Pin-Type Probe: 39 in. (1m) Long with 0.5 in. (12.7mm) Pins
- Extra Pair of 0.9 in. (23mm) Long Pins
- Soft Pouch Battery User's manual
- 1-Year Limited Warranty

#### **KIT INCLUDES: 1 EACH**

- MM70D Meter with Two 0.5 in. (12.7mm) Long Pin-Type Probes
- MP7021 External Pin-Type Probe: 39 in. (1m) Long with 0.5 in. (12.7mm) Pins
- MP7022 External Roller-Type Probe
- Extra Pair of 0.9 in. (23mm) Long Pins
- Hard Carrying Case
- Battery
- User's Manual
- 1-Year Limited Warranty

UPC	NO.
07010 9	MM70D
01292 5	MM70D-7022KIT
70604 6	<b>MP7021</b> External Pin-Type Probe 39 in. (1 meter) long
07070 3	<b>MP7022</b> External Roller-Type Probe 39 in. (1 meter) long (optional)





MM70D-7022KIT



MP7022

# Pin & Pinless Moisture Meters







#### MM1E

SEEKER

#### PIN-TYPE LED BAR GRAPH MOISTURE METER - MM1E

Ideal for use in woodworking, building construction and home inspection. Examples include:

- . Checking for moisture in carpets and sub-flooring
- Checking wood, drywall and concrete before painting/wallpapering, sealing or treating
- . Locating water leaks in roofs, floors and walls
- · Selecting dry lumber

#### **FEATURES:**

- 10-LED display
- Two measurement ranges: 7 to 15% and 16 to 35%
- Protective cap doubles as calibration checker
- Full and low battery indications
- CE and RoHS approved

#### **SPECIFICATIONS:**

- ♦ Low Measurement Range: 7 to 15% WME (Wood Moisture Equivalent)
- ♦ High Measurement Range: 16 to 35% WME
- ♦ Measurement Accuracy: ±1 LED (~1%)
- ♦ Calibration Check Point: 21% ±2%
- ♦ Low Battery Level: <7.5V
- ♦ Current Consumption: <15mA

- ◆ Operating Temperature: 32° to 140°F (0° to 60°C)
- ♦ Dimensions:

6.5 x 2.7 x 1 in. (164 x 69 x 26mm)

- ♦ Weight: 3.2 oz. (91g) w/out battery
- ♦ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

- Protective Cap
- Battery
- User's Manual
- 1-Year Limited Warranty

10188 9 MM1E

# PIN-TYPE LCD MOISTURE METER – MMD4E

Ideal for use in woodworking, building construction, home inspection, lumber selection, water damage restoration.

#### **FEATURES:**

- 99.9 count LCD w/0.4 in. high digits
- · Wood/building materials selection switch
- · Low, Medium and High moisture tones and on-screen icons
- Data hold + auto power off + low battery indicator
- Replaceable stainless steel pins (#PIND4E)

#### **SPECIFICATIONS:**

- ♦ Overall Moisture Measurement Range: 5 to 50% for wood, 1.5 to 33% for building materials
- ♦ Wood Moisture Scales: 5 to 11.9% (low); 12 to 15.9% (medium); 16 to 50% (high)
- ♦ Building Materials Scales: 1.5 to 16.9% (low); 17 to 19.9% (medium); 20 to 33% (high)

- ♦ Measurement Accuracy: ±3% of reading
- ♦ Measurement Resolution: 0.1%
- ♦ Low Battery Level: <7.5V
- ♦ Auto Power Off Trigger: 3 minutes of inactivity
- ♦ Current Consumption: <15mA
- ♦ Dimensions:

6.0 x 2.6 x 0.8 in. (152 x 66 x 20 mm)

◆ Power Source: 1 "9V" battery (included)

- Protective Cap Battery User's Manual
- 1-Year Limited Warranty

UPC MMD4E 41447 7 **PIND4E** Replacement pins 014998



MMD4E



MMD7NP

#### PINLESS LCD MOISTURE METER W/TRICOLOR BAR GRAPH - MMD7NP

Ideal for measuring moisture content of wood and other construction materials. **FEATURES:** 

- Separate settings for drywall, masonry, softwood and hardwood
- 2 in. backlit LCD + 3-color LED bar graph
- · Non-invasive technology with 3/4 in. maximum sensing depth
- ±4% accuracy on wood
- Auto calibrating
- Separate out-of-range alarms for wood and building materials

#### **SPECIFICATIONS:**

- ♦ Measurement Ranges: 0 to 53% for softwood; 0 to 35% for hardwood
- ♦ Measurement Accuracy / Resolution: ±4% / 1%
- ♦ Maximum Sensing Depth: 3/4 in.
- ♦ Auto Power Off (APO) Trigger: 2 minutes of
- ♦ Operating Temperature: 32° to 104°F
- ♦ Dimensions: 6.7 x 2.9 x 1.2 in.
- ♦ Weight: 5.4 oz. (152g) without battery
- ◆ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

- Battery User's Manual
- 1-Year Limited Warranty

UPC NΩ 01583 4 MMD7NP





# Deep Sensing Moisture Meters

#### PIN/PINLESS DEEP SENSING MOISTURE METER WITH REMOTE PROBE -**MMD900**

Ideal for contractors, woodworkers and homeowners to find leaks and to measure the moisture content of wood and other construction materials.

- Two measurement modes: Pin (%WME) and pinless (REL)
- Pinless measuring up to 2 in. deep via sensor on back of meter
- Dual displays: Jumbo LCD and 40-LED bar graph
- Protective cover doubles as calibration checker

#### **SPECIFICATIONS:**

- ♦ Measurement Range: 6.0 to 87.6% WME (Wood Moisture Equivalent) and 0.1 to 99 REL
- ♦ Measurement Accuracy (Pin Mode): ±3% of reading +5 digits
- ♦ Pin Length/Type: 3/16 in. (5mm) stainless steel
- ◆ External Probe Cable Length: 46 in. (1.168m)

- ♦ Pinless Measuring Depth: 2 in. (50.8mm)
- ♦ Dimensions:
- 9 x 2.75 x 1.625 in. (229 x 70 x 41mm)
- ♦ Weight: 8 oz. (249g)
- ♦ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

- Remote Probe
- Hard Carrying Case
- Two Pairs of Extra Pins
- Battery
   User's Manual
- 1-Year Limited Warranty

UPG	NU.
01485 1	MMD900
01655 8	MP905 Deep Wall Moisture Probe



#### PIN/PINLESS DEEP SENSING MOISTURE METER WITH SPHERICAL **SENSOR AND REMOTE PROBE - MMD950**

Ideal for contractors, woodworkers and homeowners to measure the moisture content of wood and other construction materials.

#### **FEATURES:**

- Two measurement modes: Pin and pinless
- · Pin mode uses replaceable pins at end of 46 in. cable; pinless mode uses integral ball sensor with 4 in. measurement depth
- Displays % WME or relative readings simultaneously on two displays: 0 to 99.9 count jumbo LCD, and 40-dot tri-color LED bar graph
- Low battery warning
- Spare pins storage compartment

#### **SPECIFICATIONS:**

- ♦ Measurement Range: 6.0 to 87.6% WME (Wood Moisture Equivalent) and 0.1 to 99 REL
- ♦ Measurement Accuracy (Pin Mode): ±3% of reading +5 digits

- ♦ Pin Length / Type: 3/16 in. (5mm) Stainless Steel
- ◆ External Probe Cable Length: 46 in. (1.168m)
- ♦ Pinless Ball Sensor Measurement Depth: 4 in. (10.16cm)
- ♦ Dimensions:
- 9 x 2.75 x 1.625 in. (229 x 70 x 41mm)
- ♦ Weight (w/battery): 8 oz. (249g)
- ♦ Power Source: 1 "9V" battery

#### **INCLUDES:**

- Remote Probe Two Pairs of Extra Pins
- Hard Carrying Case
   Battery
- User's Manual
   1-Year Limited Warranty

UPG	NU.
01505 6	MMD950
01655 8	MP905 Deep Wall Moisture Probe

# **MMD950**

#### PIN/PINLESS MOISTURE METER W/ TEMPERATURE & HUMIDITY - MMH800

Ideal for locating water leaks and measuring moisture content of drywall, plastered walls, floors and subfloors. Also measures ambient temperature and humidity.

- · Pin-type and non-marring inductive sensors
- Two dedicated displays: Moisture percentage. and ambient temperature plus relative humidity
- High/medium/low audible indication of moisture level
- · Holds moisture level readings
- · Auto diagnostic check
- · Auto power off

#### **SPECIFICATIONS:**

- ♦ Measurement Ranges: 5 to 50% moisture (wood); 1.5 to 33% moisture (building materials)
- ♦ Moisture Measurement Accuracy: ±3%
- ◆ Temperature Measurement Range / Accuracy: 32° to 140°F (0° to 60°C) / ±5.4°F (±3°C)

- ♦ Humidity Measurement Range / Accuracy: 25 to  $95\% / \pm 5\%$  typical
- ♦ Dimensions:
- 7.13 x 2.17 x 1.57 in. (181 x 55 x 40mm)
- ♦ Weight: 4.06 oz. (115g)
- ♦ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

- Battery
- . Two Pairs of Extra Pins
- User's Manual
- 1-Year Limited Warranty

UPC	NO.
01486 8	MMH800





**MMH800** 

# "Scanning" Infrared Thermometer







#### IRTC50 Patent Pending

# 8:1 ENERGY AUDIT INFRARED THERMOMETER/SCANNER WITH STAR BURST LASER TARGETING – IRTC50

Ideal for energy auditors, building inspectors, HVAC technicians, electricians, manufacturing technicians, food processing inspectors and homeowners.

#### **FEATURES:**

- Setpoint band options of 1°, 5° and 10°F (0.5°, 3°, 5.5°C)
- Red or blue light and fast or slow buzzer signal when the target temperature is above or below the reference temperature ± the setpoint
- Fast response time of 0.5 seconds
- Unique Star Burst laser targeting system helps approximate the target spot size
- Large backlit LCD
- Automatic temperature "hold" when the trigger is released
- Display and backlight turn off after 15 seconds of inactivity
- Auto-power off after 60 seconds of inactivity
- . CE and ROHS approved

#### **SPECIFICATIONS:**

- ♦ Distance to Spot Ratio: 8:1
- ♦ Measurement Range: -40° to 428°F (-40° to 220°C)
- ♦ Measurement Accuracy: ±4°F/C or ±2% of reading
- ♦ Resolution: 1°F (0.5°C)
- ♦ Emissivity: Fixed at 0.95
- ♦ Response Time: 0.5 seconds
- ♦ Operating Temperature: 32° to 104°F (0° to 40°C)
- ♦ Storage Temperature: -20° to 122°F (-29° to 50°C)
- ♦ Operating Humidity: 10 to 90%
- ♦ Dimensions: 5.31 x 1.65 x 6.81 in. (135 x 42 x 173mm)
- ♦ Weight: 6.24 oz. (117g) without battery
- ♦ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

- Battery
- · User's manual
- 1-Year Limited Warranty

UPC	NO.
01442 4	IRTC50

Scanning IRTs let you focus on the laser's target instead of the display reading. The color of the light panel (red, green or blue) and the speed of the beeper (fast, silent or slow) tell you—without looking at the display—whether the surface you're targeting is above, at or below the reference temperature ± the setpoint band.







**Audible and Visual Alerts** 



# **Infrared Thermometers**

#### THE HEAT SEEKER™ 8:1 MID-RANGE INFRARED THERMOMETER – IRT206 THE HEAT SEEKER™ 8:1 MID-RANGE INFRARED THERMOMETER - IRT207

Ideal for most applications in HVAC/R, plumbing and heating, electrical, automotive and other industrial jobs.

#### **FEATURES:**

- Rugged and ergonomic design
- Backlit LCD display
- · Sighting laser can be turned off
- °F/°C switch
- · CE, RoHS, WEEE approved

#### **SPECIFICATIONS:**

- ◆ Distance to Spot (D:S) Ratio: 8:1
- ♦ Measurement Range:
  - -4° to 608°F (-20° to 320°C)
- ♦ Measurement Accuracy: 3.6°F (2°C) or 2% of reading, whichever is greater
- ♦ Emissivity: Fixed at 0.95
- ♦ Resolution: 0.1°F (F or C)

- ♦ Operating Temperature: 32° to 104°F (0° to 40°C) @ 10 to 90% RH
- ♦ Laser Power: <1 mW (Class 2)
- ♦ Dimensions:
  - 5.98 x 4.65 x 1.26 in. (152 x 118 x 32mm)
- ♦ Weight: 4.41 oz. (170g) without battery
- ♦ Power Source:
- 1 "9V" battery (included)

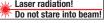
#### **INCLUDES:**

- Battery User's Manual
- 1-Year Limited Warranty

UPC	NO.
02060 9	IRT206
01403 5	IRT207







#### 12:1 WIDE-RANGE INFRARED THERMOMETER WITH STAR BURST LASER **TARGETING - IRT657**

Ideal for isolating overheated electrical components and hot spots, troubleshooting HVAC/R and automotive systems, or performance-testing motors and boilers.

#### **FEATURES:**

- Wide measurement range of -40° to 1076°F (-40° to 580°C)
- Accuracy of ±3°F (2°C) or ±5°F (3°C), depending on temperature
- · Large (1.6 in. diagonal) backlit LCD

#### SPECIFICATIONS:

- ♦ Distance-To-Spot (D:S) Ratio: 12:1
- ♦ Temperature Measurement Range: -40° to 1076°F (-40° to 580°C)
- ◆ Emissivity: Fixed at 0.95
- ♦ Measurement Accuracy: ±3.6°F (2°C) or ±2% of reading above 32°F (0°C);  $\pm 5.4$ °F (3°C) or ±2% of reading below 32°F (0°C)
- ♦ Response Time: 500 msec for 95% response

- ♦ Display Size and Type: 1.6 in. (40.6mm) diagonal LCD
- ♦ Operating Temperature: 32° to 104°F (0° to 40°C) @<75% relative humidity (RH)
- ♦ Laser Power: <3mW (Class 3R)
- ♦ Dimensions:
- 6.9 x 3.6 x 1.5 in. (175 x 91.5 x 38mm)
- ♦ Weight: 5.93 oz. (168g)
- ♦ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

- Carrying Case Battery User's Manual
- 1-Year Limited Warranty

UPC		NO.	
01.	48N 6	IRT657	



#### 12:1 DUAL SENSOR INFRARED THERMOMETER WITH "K" TYPE THERMOCOUPLE & ADJUSTABLE EMISSIVITY - IRT659K

Ideal for isolating overheated electrical components and hot spots, troubleshooting HVAC/R and automotive systems, and performance-testing motors and boilers.

#### **FEATURES:**

- · Automatically holds measurements
- · Automatically stores last 10 readings for recall
- Displays Min/Max/Avg/Dif temperatures
- · Settable high and low temperature alarms
- °C/°F and laser pointer on/off switches

#### **SPECIFICATIONS:**

- ◆ Distance-to-Spot (D:S) Ratio: 12:1
- ♦ IR Temperature Measurement Range: -58° to 1202°F (-50° to 650°C)
- ♦ IR Temperature Measurement Accuracy:  $\pm 3^{\circ}$ F (2°C) or  $\pm 2\%$  of reading
- ◆ "K" Port Measurement Range: -146° to 2498°F (-99° to 1370°C)

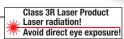
Indicates optional NIST calibration is available

- ♦ Included "K" Type Thermocouple Range / Accuracy: 0° to 500°F (-18° to 260°C) / ±1° (F or C)
- ◆ Display Resolution: 1° (F or C)

- ♦ Emissivity: Adjustable from 0.1 to 1.0
- ♦ Display: 1.5 in. (38mm) diagonal backlit LCD
- ♦ Response Time: 500 ms
- ♦ Laser Power: Class 3R (<3mW)
- ♦ Operating Temperature: 32° to 104°F (0° to 40°C) @ 10 to 75% RH, non-condensing
- ♦ Auto Power Off Trigger: 30 seconds of inactivity
- ♦ Dimensions: 5.31 x 1.65 x 6.81 in. (135 x 42 x 173mm)
- ♦ Weight: 6.93 oz. (168g) (without battery)
- ♦ Power Source: (1) "9V" battery (included)

- "K" type thermocouple probe
- Soft carrying case Battery User's manual
- 1-Year Limited Warranty

UPC	NO.
01598 8	IRT659K





# THERMAL IMAGING CAMERAS Predator Series

# **GENERAL®**

**GTi10: Thermal Imaging** 

**GTi20: Thermal/Visual Imaging with Picture-in-picture** 

GTi30: Thermal/Visual İmaging with Picture-in-picture, Streaming

**Video and Voice Annotation** 

Ideal for revealing invisible heat-driven processes and problems.

By converting objects' infrared (IR) radiation to visible color images, thermal imaging cameras can detect very small temperature differences from a distance. Heat signatures can help diagnose the cause of equipment failures and poor performance due to wear and tear, misalignments and fault conditions.

Applications include: equipment maintenance and repair (MRO); building energy audits; process/manufacturing plant maintenance; water damage restoration; automotive repair; firefighting; navigation; surveillance.

#### **KEY FEATURES:**

- 160 x 120 pixel IR detector (GTi10/20/30) 384 x 288 pixel IR detector (GTi50)
- Temperature sensitivity of ±0.14°F (0.08°C)
   Temperature sensitivity of ±0.072°F (0.04°C) (GTi50)
- Manual focus w/4 in. (100mm) minimum focal length
- · Included 2GB MiniSD card stores images for uploading to PC
- . USB 2.0 and Video Out jacks and cables
- Bright 3.5 in. (89mm) diagonal flip-up color LCD
- Manually or automatically adjustable image level and span (brightness and contrast)
- · Adjustable emissivity
- Tripod mount (via optional adaptor)
- · Water, dust and oil-resistant to IP54 standard
- Shock and vibration-resistant
- · Powered by rechargeable Li-ion battery
- Squeezing trigger stores images
- CE and FCC compliant
- 3-year limited warranty (5 year term available)
- Up to 5 hours of operation using 2 batteries

#### INCLUDES:

Camera; 2 Rechargeable Li-ion Batteries; Compact Battery Charger; 2GB MiniSD Memory Card; SD Card Reader; Video Cable with BNC Plug; USB 2.0 Cable; Lens Cap; Standard Analysis & Reporting Software on CD; Calibration Certificate; Sun Shield; Hand & Neck Straps; Custom Hard Case; User's Manual; Bluetooth Headset with Charger (GTi30 & GTi50); 3-Year Limited Warranty

UPC	NO.	TEMPERATURE RANGE
01550 6	GTi10	-4° to 572°F (-20° to 300°C)
01624 4	GTi10-600	-4° to 1112°F (-20° to 600°C)
01649 7	GTi10-1000	-4° to 1832°F (-20° to 1000°C)
01627 5	GTi10-1500	-4° to 2732°F (-20° to 1500°C)
01586 5	GTi20	-4° to 572°F (-20° to 300°C)
016503	GTi20-600	-4° to 1112°F (-20° to 600°C)
01651 0	GTi20-1000	-4° to 1832°F (-20° to 1000°C)
01652 7	GTi20-1500	-4° to 2732°F (-20° to 1500°C)
015513	GTi30	-4° to 572°F (-20° to 300°C)
01592 6	GTi50	-4° to 572°F (-20° to 300°C)
01641 1	GTi50-600	-4° to 1112°F (-20° to 600°C)
01653 4	GTi50-1000	-4° to 1832°F (-20° to 1000°C)
016190	GTi50-1500	-4° to 2732°F (-20° to 1500°C)



An IR image of

a water pump's motor



OPTIONAL ACCESSORIES:		
UPC	NO.	DESCRIPTION
01607 7	L38	38° Wide-angle Lens for
		GTi10/20/30
01609 1	L12	12° Telephoto Lens for GTi10/20/30
016107	L09	9° Telephoto Lens for GTi10/20/30
01611 4	L6P4	6.4° Telephoto Lens for GTi10/20/30
016138	L548	48° Wide-angle Lens for GTi50
01615 2	L512	12° Telephoto Lens for GTi50
01623 7	SWGT3N5	Professional Analysis & Reporting
		Software for GTi30/50 (includes
		streaming video software driver)
016169	ADPTRGTi	AC Adaptor for GTi10/20/30/50
01617 6	BTTGTi	Extra battery for GTi10/20/30/50
01637 4	CRCHGTi	Car Charger for GTi10/20/30/50
016183	TRPDGTi	Tripod Adaptor for GTi10/20/30/50

GTi<sub>10</sub>



GTi<sub>20</sub>

GTi<sub>30</sub>

GTi<sub>50</sub>

All four GTi thermal imaging cameras feature a large, bright color LCD and point-and-shoot simplicity



	GTi10	GTi20	GTi30	GTi50
"PREDATOR" SERIES				
FEATURES & SPECIFICATIONS				
Picture-in-Picture Mode (Visual + Thermal Image Fusion)	No		es	
Analysis Tools	2 Movable Spots, Isothermal Analysis	4 Movable Spots, Isothermal Analysis	Isotherma Profile Analysis	le Spots, al Analysis , 5 Area Analysis
LED Flashlight	No	Ye		
Temperature Alarms	No		es	
Visual File Format	Prop SAT/JPG	Prop SAT		
Visual Image Resolution	N/A	l .	40 pixels	640 x 480 pixels
Thermal Video Streaming	N		,	a USB)
Voice Annotation	N		Yes (Via E	Bluetooth)
IR Resolution		160 x 120 pixels		384 x 288 pixels
Spatial Resolution		2.2 mrad		1.3 mrad
Thermal Sensitivity at 86°F (30°C)		±0.14°F (0.08°C)		±0.072°F (0.04°C)
Field of View		20° x 15°		24° x 18°
Refresh Rate		30 frames per second (fps)		
IR Detector Spectral Range		8 to 14um		
Laser Pointer		Yes		
Temperature Measurement Range		upgradeable to 1112°F (600°C), 1	, ,	r 2732°F (1500°C)
Detector Type		oled focal plane array, manual fo		
Accuracy	±3°F (2°	C) or 2% of reading, whichever	is greater	
Focusing	F. 1. 1. 1	Manual	D' L	
Measurement Compensation Factors	Emissivity	, Ambient Temperature, Humidity	/, Distance	
Minimum Focal Distance	C 40 00 100 and 000 f	4 in. (100mm)	0 and 400 FOV for	OT:FO
Optional Telephoto and Wide-Angle Lenses		ield of view for GTi10/20/30; 12°		61150
Display		Flip-up 3.5 in. diagonal color LCI	J	
Auto Hot/Cold Spot Indicator		Yes		
Video Output Formats Color Palettes	Ironhous Iron	NTSC, PAL	Croy Invested	
Image Storage Medium, Capacity		Inverted, Rainbow, Feather, Grey GB MiniSD memory card (include		
Thermal File Format		Proprietary SAT, Radiometric, JPC		
Battery		Rechargeable Lithium-lon	J	
Total Charge Capacity	lin t	o 5 hours continuous with 2 batt	eries	
Power Saver Mode	Up t	Yes	UIIGO	
Operating Temperature	-1° to	122°F (-20° to 50°C) @ 10 to 9	0% RH	
Water/Dust/Oil Resistance	4 10	IP54	O 70 THT	
Shock Resistance		Operational 25G		
OHOOK HOOIOLUHOO		Operational 2G		
Vibration Resistance	1	•	Na TDDDCT:\	
Vibration Resistance Tripod Mount	Non-standar	'd. Uptional Adaptor needed ()	NO. IRPDGIII	
Tripod Mount	Non-standar		NO. IKPDGII)	
Tripod Mount Weight		1.3 lb. (580g)	•	
Tripod Mount	6.6		nm) d.	HGTi)

# Rugged, Recording & Non-Recording





#### **RUGGED VIDEO INSPECTION SYSTEM - DCS280**

Ideal for inspecting hard-to-reach or hard-to-see areas of vehicles, industrial equipment or factories.

#### **FEATURES**

- · Inspecting cylinders, valves, diesel injectors and glow plugs
- · Viewing behind body panels and under the dashboard for electrical wiring and connection
- Looking for corrosion and wear in hard-to-see areas
- · Inspecting fluid lines and leaks

#### **SPECIFICATIONS**

- ♦ Display Size / Type: 2.4 in. (61mm) diagonal TFT / color LCD
- ♦ Display Resolution: 320 x 240 pixels
- ♦ Monitor Controls: 180° flip, 1 to 2X zoom in 0.2 steps, brightness + and -
- ♦ Probe Diameter / Type: 9mm (0.35 in.) flexible-obedient
- ♦ Probe Length: 1m (39 in.)

- ♦ Probe Field of View: 60°
- ♦ Probe Depth of Field: 1 in. to 10 ft. (25mm to 3m)
- ◆ Camera Light Source: 4 adjustable-brightness white LEDs
- ♦ Impact Resistance: To height of 1m (39 in.)
- ♦ Water, Dust, Splash Resistance Levels: Camera-tipped probe designed to meet IP67; Grip and monitor designed to meet IP54
- ♦ Operating Temperature / Humidity: 32° to 113°F (0° to 45°C) / @ 5 to 95% RH
- ♦ Power Source: 4 "AA" batteries (included)

Includes: • Wand-type Grip, Monitor w/color LCD, Probe • Four Probe Tip Accessories (Thread Protector, Magnetic Pickup, Pickup Hook, 45° Mirror) • 4 "AA" Batteries • Custom Hard Case

• User's Manual • 3 Year Warranty

UPC NO. DCS280 015728

#### **RUGGED RECORDING VIDEO INSPECTION SYSTEM - DCS350**

Ideal for applications in harsh environments requiring a durable and ruggardized system. Features voice annotation, internal memory and removable SD card.

#### **FEATURES & BENEFITS:**

- Includes long (1m/39 in.), thin (12mm/0.47 in. diameter) flexible-obedient camera-tipped probe for looking deep into tight spaces. Also available are longer and thinner (9mm and 5.5mm) probes, and probe extensions that extend inspection range to 16 ft. (5m)
- All probes and extensions are oil, water and dust-proof to IP67 standard
- · Grip and monitor are double-molded, making them drop-resistant to 1m (39 in.) height and IP54 splash-proof
- 64MB internal memory for added versitility and convenience
- Built-in microphone to enable voice annotation of video recordings
- 2GB MicroSD card (upgradeable to 16GB), and USB jack to facilitate photo and video transfer
- 3.5 in. (89mm) diagonal color LCD
- One-button video start/stop and photo capture
- Image flip and 1 − 4X zoom buttons
- Two adjustable-brightness LEDs illuminate dark areas
- TV Out jack and included cable send video and images to larger monitor
- Includes three probe tip accessories (magnetic pickup, pickup hook and 45° mirror)
- Adjustable Auto Power Off interval
- · Choice of five menu languages

#### **SPECIFICATIONS:**

- ◆ Display Size / Type: 3.5 in. (89mm) diagonal TFT color LCD
- ♦ Display Resolution: 320 x 240 pixels
- ♦ Monitor Controls: 180° flip, 1 to 4X zoom in 0.5 steps, brightness + and -, start/stop video recording, take picture

- ♦ Probe Diameter / Type: 12mm (0.47 in.) / flexible-obedient
- ♦ Probe Length: 1m (39 in.)
- ♦ Probe Field of View: 60°
- ♦ Probe Depth of Field: 1 to 12 in. (25 to 300mm)
- ♦ Camera Light Source: 2 adjustable-brightness white LEDs
- ♦ Impact Resistance: To height of 1m (39 in.)
- ♦ Water, Dust, Splash Resistance Levels: Camera-tipped probe designed to meet IP67; Grip and monitor designed to meet IP54
- ♦ Operating Temperature / Humidity: 32° to 113°F (0° to 45°C) / @ 5 to 95% RH
- ♦ Internal Flash Memory Capacity: 64MB
- ♦ Video Compatibilities: NTSC and PAL
- ♦ Video Resolution / File Type: 320 x 240 pixels / .avi
- ♦ Still Image Resolution / File Type: 640 x 480 pixels / .jpg
- ♦ Power Source: 4 "AA" batteries (included)

- Wand-type Grip, Monitor w/color LCD, Probe
- 2GB MicroSD Card
- Three Probe Tip Accessories (Magnetic Pickup, Pickup Hook, 45° Mirror)
- · ScopeView Video / Image Display Software + Driver on Mini-CD
- USB and video cables
- 4 "AA" Batteries
- · Custom Hard Case
- · User's Manual
- · 3-Year Limited Warranty

UPC	NO.
01582 7	DCS350





# PalmScope™, SeaScope

#### THE PALMSCOPE™ - DCS950

A rugged, full-featured video inspection system no bigger than a smartphone. Ideal for busy craftsmen, professionals and DIYers.

- Fits in your pocket or clips on your belt
- Affordable
- 1 meter drop-proof
- Long, thin camera-tipped probe penetrates tight, hard-to-reach spaces
- · Probe is waterproof, holds its shape and coils inside clamshell case for storage
- · Four camera-lighting LEDs produce bright, crisp video on large color LCD
- · Four screen controls
- CE and RoHS approved

#### **SPECIFICATIONS:**

- ♦ Probe Length: 24 in. (0.6m)
- ♦ Camera Head Diameter: 0.35 in. (9mm)
- ♦ Probe / Camera Head Water/Dust/Oil Resistance: to IP67 standard
- ♦ LCD Size: 2.7 in. (686mm) diagonal
- ♦ LCD/Camera Resolution: 320 x 240 pixels (QVGA)
- ♦ Camera Depth of Field: 1 in. to 10 ft. (25mm to 3m)
- ◆ Camera Field of View: 60°

- ♦ Screen Controls: Brightness up and down, 1 to 4X zoom in 6 steps, 180° flip
- ♦ Case Impact Resistance: From height of 39 in. (1m) onto 2 in. (50mm) thick hardwood
- ♦ Dimensions: 5.4 x 2.9 x 1.5 in. (136 x 73 x 39mm)
- ♦ Weight: 9 oz. (250g)
- ◆ Power Source: (4) "AAA" batteries (not included)

• Nylon Pouch with Belt Clip • Four Probe Tip Accessories (Pickup Hook, Magnetic Pickup, 45° Mirror, Thread Protector) • User's Manual

1-Year Limited Warranty

UPC	NO.	
01660 2	DCS950	









**DCS950** 



#### SEASCOPE™660 RECORDING WATERPROOF VIDEO INSPECTION SYSTEM - DCS660

Ideal for plumbing-related applications and inspections of submerged structures and parts of boats, ships, bridges or offshore oil platforms.

- . Makes it possible to inspect sewer and water lines carrying running water
- Enables a diver or snorkeler to view probe video under water in real time. Other "waterproof" inspection systems lack watertight grips and monitors. Entire unit can be submerged.
- Ideal for marine search & rescue operations
- Eliminates concerns about accidentally dropping or dunking grip or monitor into water
- · Grip, probe and monitor are guaranteed leakproof to depth of 1m; all three components will also resist leaks at depths up to 2m for short periods (1 hour, max)
- · Record time/date-stamped still images and videos on included 2GB MicroSD memory card
- · Videos can be panned by joystick and zoomed up to 4X
- USB jack and cable for PC connection
- 3.4 in. (86mm) color LCD makes videos large and crystal-clear
- Video can be inverted (rotated 180°) to make it easier to read labels and serial numbers
- · Analog Video Out jack

#### **SPECIFICATIONS:**

- ◆ Camera-Tipped Flexible-Obedient Probe Diameter, Length: 9.8mm (0.39 in.), 1m (3.3 ft.)
- ♦ Field of View: 54°
- ◆ Depth of Field: 0.6 to 6 in. (15 to 150mm)
- ♦ Camera Illumination: 2 adjustable LEDs
- ◆ LCD Type, Size: TFT, 3.4 in. (86mm) diagonal
- ♦ Display Resolution: 320 x 240 pixels
- ◆ Operating Temperature: 32° to 113°F (0° to 45°C)
- ♦ Grip Dimensions: 13.0 x 10.5 x 4.5 in. (330 x 267 x 114mm)
- ♦ Grip Weight: 56 oz. (1587.57g)
- ♦ Power Source: 4 "AA" batteries (not included)

#### **INCLUDES:**

HPC

- Watertight Grip, Monitor and 1m Camera-tipped Probe • AV and USB Cables • 2GB MicroSD Memory Card • Three Probe Tip Accessories (45° Mirror, Pickup Hook and Magnetic Pickup)
- Hard Plastic Protective Case User's Manual
- 1-Year Limited Warranty.

_	UF U	NO.
	01515 5	DCS660
	01596 4	<b>P600-2</b> 70 in. (1.8m) long x 9.8mm
		diameter optional probe
	01597 1	<b>P600-3</b> 105 in. (2.7m) long x 9.8mm diameter optional probe



## **Anemometers**







#### **DIGITAL ANEMOMETER WITH CFM - DCFM700**

### Ideal for measuring airflow speed and volume output of exhaust fans and blowers.

- Measures and displays airflow velocity/volume + temperature
- Stores, recalls 10 values
- Min/Max memory
- · Data hold function
- Low battery indication

#### **SPECIFICATIONS:**

- ♦ Airflow Volume Range / Acuracy: 0 to 99,999 CFM or CMM / ±2% typical
- ♦ Airflow Velocity Range / Accuracy: 0 to 8800 ft./min (0 to 45 m/sec) / ±2% typical

- ◆ Temperature Range / Accuracy: -58° to 158°F (-50° to 70°C) / ±0.9°F (0.5°C) typical
- ♦ Sampling Period: 1 second
- ◆ Power Source: 3 "AAA" batteries (included)

#### **INCLUDES:**

- Molded Hard Case
- Batteries
- User's Manual
- 1-Year Limited Warranty

UPC	NO.
40700 4	DCFM700

#### 4-IN-1 ENVIRONMENTAL AIRFLOW METER W/"K" PORT - DLAF8000

# Measures airflow, humidity, temperature and light. **FEATURES**:

- Displays FPM, MPH, KPH, MPS, knots + temperature
- · One-handed airflow measurement
- Single and multi-point averages
- Low-friction ball vane wheels improve accuracy at high and low velocities
- "K" type thermocouple port for measuring surface temperatures
- Min/Max memory + data hold
- °F/°C switch
- CE and RoHS approved

#### **SPECIFICATIONS:**

- ◆ Airflow Velocity Range / Accuracy: 80 to 5910 ft. / min (0.4 to 30 m/sec) / ±5% max
- ♦ Ambient Temperature Range / Accuracy: 32° to 122°F (0° to 50°C) / ±2.5°F (±1.5°C) typical

- ♦ Relative Humidity Range / Accuracy: 10 to 90% / ±4% typical
- ◆ Surface Temperature Range / Accuracy (with optional "K" type thermocouple): -148° to 2372°F (-100° to 1300°C) / ±1% typical
- Dimensions:
- 6.14 x 2.36 x 1.29 in. (156 x 60 x 33mm)
- ♦ Weight: 4 oz. (113.4g) (including battery)
- ♦ Power Source: 1 "9V" battery (not included)

#### **INCLUDES:**

- Wrist Strap C4 Case (DLAF8000C only)
- User's Manual 1-Year Limited Warranty

UPC	NO.
40110 1	DLAF8000
401118	DLAF8000C with "C4" case
01264 2	C16 "C4" case for DLAF8000/ replacement case for DLAF8000C

# DATA LOGGING HOT WIRE ANEMOMETER WITH CFM/CMM AND 8:1 OR 30:1 IR THERMOMETER - CIH20DL, CIH30DL

#### Ideal for low FPM applications.

#### **FEATURES:**

- Measures and displays air speed or airflow volume in several Imperial or metric units
- Simultaneously measures and displays ambient temperature from 32° to 158°F (0° to 70°C) in °F or °C with ±2% accuracy
- Measures air speeds from 2 ft/min to 7874 ft/min (20 mm/sec to 40 m/sec) with ±3% accuracy
- Displays maximum, minimum or maximum air speed plus temperature
- . Jumbo backlit LCD with three readouts
- Stores/recalls up to nine sets of three readings in nonvolatile memory
- Time-stamps and saves up to 20,000 data points at user-selected sampling rate from 5 seconds to 1 hour
- Included USB cable and interface/data logging software enable transfer of stored data logs from the meter's internal memory to a PC for tabular or graphic display and analysis
- Data hold and auto power off functions

#### **SPECIFICATIONS:**

- Air Flow Volume Range / Resolution:
   0 to 2,542,700 CFM (0 to 72,000 CMM) /
   0.01 CFM (0.001 CMM)
- ♦ Air Speed Range / Accuracy: 2 to 7874 ft./min (20 mm/sec to 40 m/sec) / ±3% typical
- ♦ IR Thermometer CIH20DL D:S ratio: 8:1
- ♦ IR Thermometer CIH30DL D:S ratio: 30:1
- ♦ IR Thermometer Emissivity: 0.95 (fixed)
- ♦ IR Thermometer Range / Accuracy: -25° to 999°F (-32° to 537°C) / ±3.6°F (2°C) typical
- ♦ Memory: Nine readings + Max/Min/Avg
- ◆ Extended length of telescoping hot wire probe: 70.8 in. (1.8m)
- ♦ Power Source: 1 "9V" battery (included)

- USB cable 
   PC Data Logging Software
- AC Adaptor
   Hard Carrying Case
   Battery
- User's Manual 1-Year Limited Warranty

UPC	NO.	UPC	NO.
01498 1	CIH20DL	01681 7	CIH30DL





# CO & Combustible Gas

#### **DIGITAL CO DETECTOR WITH AUTO ZERO – DCO1001**

Ideal for HVAC home, office, tunnels, mines, etc.

#### **FEATURES:**

- · Adjustable CO warning level
- · 2-line backlit LCD
- · Auto max level display with reset
- Auto-calibrates at 0, 100 and 500 ppm
- 15-second self-test at startup
- Also measures and displays temperature
- °F/°C switch
- 15-minute Auto Power Off

#### **SPECIFICATIONS:**

- ♦ Measurement Range: 0 to 999ppm
- ♦ Resolution: 1ppm
- ♦ Accuracy: ±20% from 0 to 100ppm; ±15% from 100 to 500 ppm

- ♦ Dimensions:
- 7 x 1.7 x 1.1 in. (178 x 43 x 28mm)
- ♦ Weight: 4 oz. (113g)
- ♦ Power Source: 3 "AAA" batteries (included)
- ♦ Battery Life: 250 hours with the backlight off; and 35 hours with the backlight on

#### **INCLUDES:**

- Wrist Strap
- Carrying Pouch
- Batteries
- User's Manual
- 1-Year Limited Warranty

UPC	NO.
41655 G	DC0100



**DCO1001** 

#### **COMBUSTIBLE GAS DETECTOR PEN - PNG2000A**

Ideal for detecting leaks of natural gas, propane or butane from plumbing and appliances.

#### **FEATURES:**

- · Sensitive, reliable and easy to operate
- Fast response time
- · Redundant visual and audible alarms
- Auto-calibrating
- Malfunction and low battery alerts

#### **SPECIFICATIONS:**

- ♦ Range: 0 to 100%LEL
- ♦ Response Time: < 5 seconds
- ♦ Sampling: Natural diffusion
- ♦ Operating Temperature: -4° to 131°F (-20° to 55°C)
- ♦ Operating Humidity: <95%RH

- ♦ Operating Voltage: DC3V
- ♦ Operating Current: <150mA
- ♦ Low Alarm: (20±5) % LEL
- ♦ High Alarm: (50±10) % LEL
- ♦ Dimensions: 7.6 (L) x 1.2 (Dia) in. (193 x 30mm)
- ♦ Weight: 4 oz. (113g)
- ♦ Power Source: 2 "AA" batteries (included)

#### **INCLUDES:**

- Wrist Strap Batteries User's Manual
- 1-Year Limited Warranty

UPC	NO.
41501.6	PNG2000A



#### **COMBUSTIBLE GAS LEAK DETECTOR – NGD8800**

Ideal for industrial uses, HVAC/R, plumbing and plant maintenance.

#### **FEATURES:**

- Detects Methane, Hydrogen, Iso-Butane, Ethanol, Ethylene, Tetracholoroethylene, Dimethyl Sufide, Toluene, Formaldehyde, Diethyl-Ether, Ethyl-Acetate, Dichloromethane, Ammonia, R-22
- Uses DSP (Digital Signal Processing)
- Multi-color circular bar graph
- Semiconductor gas sensor
- Leak size indication (audible/visible)
- Fast warm-up
- Adjustable Hi/Lo sensitivity
- Low battery indication
- Sensing tip protector
- 15.5 in. (395mm) flexible gooseneck probe

#### **SPECIFICATIONS:**

- ♦ Sensitivity: Variable; as low as 5ppm (gasoline)
- ♦ Warm-Up Time:
- <110 seconds (at 25°C, 60%RH)
- ♦ Operating Temperature: 32° to 104°F (0° to 40°C)
- ♦ Dimensions: 6.8 x 2.6 x 2.2 in. (173 x 66 x 56mm)
- ♦ Weight: 14.5 oz. (410g)
- ♦ Power Source: 4 "AA" batteries (included)
- ♦ Battery Life: up to 20 hours (approx.)

- Leak Check Bottle Operating Instructions
- Hard Carrying Case
   Batteries
- 1-Year Limited Warranty

UPC	NO.
40880 3	NGD8800
01389 2	NGD8800SEN Replacement sensor



# **TEMPERATURE & HUMIDITY** Water Alarms





Receiver

#### **WA700**



**WIRELESS WATER ALARM - WA700** 

Ideal for detecting leaks from water heaters, washing machines, plumbing and HVAC/R systems.

#### **FEATURES:**

- . 120-foot range typically enables placement of sensor-transmitter in basement and receiver in upstairs bedroom
  - Sounds loud alarm at receiver and "chirp" at the sensor-transmitter when water is detected
- Receiver can sound and display alarms from up to four sensor-transmitters deployed in different zones. Units can be assigned to any of six channels to avoid interference.
- · Standard package includes one receiver with AC adaptor and one sensor-transmitter with "9V" battery. Optional package of one additional sensor-transmitter and battery (WA700SEN) is available.
- . Sensor with suction cup is at end of 23-in. long cord, extending placement options to baseboards and A/C pans. Transmitter unit includes LED, and battery test button on side.

#### **SPECIFICATIONS:**

- ♦ Wireless Range: 120 ft. (37m), max (with no obstructions)
- ♦ Operating Frequency: 432.92 MHz
- ♦ Alarm Volume: 88dBA at receiver
- ♦ Receiver Zone Alarm Indicators: LEDs

- ♦ Dimensions:
- Sensor: 1.57 x 1.18 x 0.55 in. (40 x 30 x 14mm) Transmitter: 2.76 x 2.36 x 1.14 in. (70 x 60 x 29mm) Receiver: 3.70 x 3.31 x 1.46 in. (94 x 84 x 37mm)
- ♦ Length of Sensor Cord: 23 in. (584mm)
- ♦ Weight of Standard Package: 6.2 oz. (170g)
- ♦ Power Source: 9V AC adaptor for receiver, "9V" battery for transmitter (included)
- ♦ Battery Life: 1 year (typical) in standby mode

#### **INCLUDES:**

- · Receiver with 110VAC Adaptor
- Sensor-transmitter with Battery
- User's Manual
   1 Year Limited Warranty

UPC	NO.
84110 5	WA700
016947	WA700SEN
	(Optional Additional Sensor-Transmitter)



**WA500** 

#### **WATER ALARM – WA500**

Ideal for detecting leaks from HVAC systems, plumbing, appliances, water heaters etc.

#### **FEATURES:**

- · Alarm sounds when water is detected
- Helps reduce water damage
- Finds mold-causing moisture
- Low battery indicator



#### **SPECIFICATIONS:**

- ♦ Dimensions: 4.3 x 4.3 x 1 in. (109 x 109 x 25mm)
- ♦ Weight: 4 oz. (113g)
- ♦ Power Source: 1 "9V" battery (included)
- ♦ 1-Year Limited Warranty

UPC	NO.
80140.8	WA500









# Restoration & Renovation

#### **CONTRACTOR'S KIT - KT100**

Ideal for restoration and renovation specialists. Buy all three units and save!

MSV100 - 3-In-1 Stud/Voltage/ **Metal Detector** 

#### **FEATURES:**

- · Detects wood joists/studs, live wires and pipes/cables behind
- Automatically compensates for wall thickness
- In voltage mode, automatically

- Wall Thickness for Wood Detection: 3/4 in. (max)
- Metal Detection Range Behind Wall: 1.5 in.
- Operating Temperature: 40° to 104°F
- Dimensions: 7.1 x 3.0 x 1.2 in.
- Power Source: 1 "9V" battery (included)
- · Battery Life: 1-year normal use



**SPECIFICATIONS:** 

energy auditing

• Distance-To-Spot (D:S) Ratio: 8:1

IRTC50 - Scanning IR Thermometer

• One squeeze of trigger captures

Color of light panel and speed of

beeper indicate whether target

bandwidths: 1°F (default), 5°F and 10°F

• Ideal for making relative readings—as in

Star Burst laser targeting helps determine

reference temp and begins

is above, within or below

reference temperature

± setpoint bandwidth

· Choice of three setpoint

optimum target distance

• 1-Year limited warranty

**FEATURES:** 

- Measurement Range / Accuracy: -40° to 428°F / ±4°F typical
- Emissivity: Fixed at 0.95
- Power Source: 1 "9V" battery (included)

#### **KIT INCLUDES:**

- Soft Carrying Case
- 3 Batteries
- 3 User's Manuals



#### **MMD7NP - Pinless Moisture Meter**

#### **FEATURES:**

- · Separate settings for drywall, masonry, softwood and hardwood
- 2 in. backlit LCD + 3-color LED bar graph
- · Non-invasive technology with 34 in. maximum sensing depth
- ±4% accuracy on wood
- Auto calibrating
- Reading HOLD button
- Separate out-of-range alarms for wood and building materials
- 1-Year limited warranty

#### **SPECIFICATIONS:**

- Measurement Ranges: 0 to 53% for softwood; 0 to 35% for hardwood
- Measurement Accuracy / Resolution: ±4% / 1%
- . Maximum Sensing Depth: 3/4 in.
- Operating Temperature: 32° to 104°F
- Dimensions: 6.7 x 2.9 x 1.2 in.
- · Weight: 5.4 oz. (152g) without battery
- Power Source: 1 "9V" battery (included)

UPC KT100 016039



KT100

#### PROFESSIONAL INSPECTION KIT - KT280

Ideal for restoration & renovation specialists, HVAC/R installers & technicians, & building inspectors. Buy all three units and save!

#### DCS280 - Rugged Video Inspection System **FEATURES:**

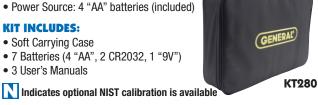
- Grip and color LCD are IP54 splashproof and 1m drop-proof
- Thin (0.35 in.) probe is IP67 oil, water and dust-proof
- One-handed operation frees your other hand to use tools
- Video flip and 2X zoom buttons
- Includes four probe tip accessories (thread protector, magnetic pickup, pickup hook, 45° mirror)
- 3-Year limited warranty

#### **SPECIFICATIONS:**

- Camera/LCD Resolution: 320 x 240 pixels
- Depth of Field: 1 in. to 10 ft. (25mm to 3m)
- Video Controls: 180° flip. 2X zoom in 7 steps
- Dimensions of Grip and Monitor: 8.5 x 4.6 x 3.2 in.

#### **KIT INCLUDES:**

- 3 User's Manuals





#### IRT105 - 6:1 Pocket Infrared Thermometer **FEATURES:**

- Adjustable emissivity
- Min and Max measurement modes + Measurement Lock mode
- · Selectable °F or °C unit
- . Small and light and easy to use

#### **SPECIFICATIONS:**

- Distance-To-Spot (D:S) Ratio:
- Measurement Range / Accuracy: -22° to 482°F / ±3°F typical
- Dimensions: 4.25 x 2.05 x 0.98 in.
- Weight: 1.41 oz. (40g)
- Power Source: 2 CR2032 Li-ion batteries (included)
- · 1-Year limited warranty







#### **MMD7NP - Pinless Moisture Meter FEATURES:**

- · Separate settings for drywall, masonry, softwood and hardwood
- 2 in. backlit LCD + 3-color LED bar graph
- Non-invasive technology with 34 in. maximum sensing depth
- ±4% accuracy on wood
- Auto calibrating
- Reading HOLD button
- Separate out-of-range alarms for wood and building materials
- 1-Year limited warranty

#### **SPECIFICATIONS:**

- Measurement Ranges / Accuracy: 0 to 53% for softwood; 0 to 35% for hardwood / ±4% typical
- Maximum Sensing Depth: 3/4 in.
- Operating Temperature: 32° to 104°F
- Dimensions: 6.7 x 2.9 x 1.2 in.
- Weight: 5.4 oz. (152g) without battery
- Power Source: 1 "9V" battery (included)

UPC 01604 6 KT280

# **INSPECTION KITS Electrical**





Ideal for HVAC/R professionals who routinely measure surface temperature on contact

#### **KIT INCLUDES:**

- One DMM570 Rugged TRMS Multimeter with NCV Detection and Low-Z Mode (see p. 5) and 3-year limited warranty
- One IRT730K 30:1 Ultra Wide-Range IR Thermometer with "K" Port (see p. 5) and 3-year limited warranty
- One pipe wrap thermocouple
- One "K" type bead thermocouple probe
- One "K" type stem thermocouple probe
- One adaptor for thermocouples with spade lugs
- One pair of CAT III 1000V rated test leads with alligator clips
- · One magnetic meter hanging strap
- One custom padded carrying case
- Instrument batteries and user's manuals

NO. 01664 0 KHV57030



#### **KIT INCLUDES:**

- One DMM570 Rugged TRMS Multimeter with NCV Detection and Low-Z Mode (see p. 5) and 3-year limited warranty
- One DAMP60 Auto Ranging 600A AC Clamp Meter (see p. 6) with 1-year warranty
- One "K" type stem thermocouple probe
- One adaptor for thermocouples with spade lugs
- One pair of CAT III 1000V rated test leads with alligator clips
- One pair of CAT III 600V rated test leads with hard points
- One magnetic meter hanging strap
- One custom padded carrying case
- · Instrument batteries and user's manuals

UPC NO. KEL57060 016626

# **HVAC DMM KIT - KHVP57068** Ideal for HVAC/R professionals who routinely measure current.

#### **KIT INCLUDES:**

- One DMM570 Rugged TRMS Multimeter with NCV Detection and Low-Z Mode (see p. 5) and 3-year limited warranty
- One DAMP68 Auto Ranging AC/DC TRMS 400A AC Clamp Meter (see p. 6) with 1-year limited warrantv
- One pipe wrap thermocouple
- One "K" type bead thermocouple probe
- One "K" type stem thermocouple probe
- One adaptor for thermocouples with spade lugs
- One pair of CAT III 1000V rated test leads with alligator clips
- One pair of CAT III 600V rated test leads with hard points
- One magnetic meter hanging strap
- One custom padded carrying case
- · Instrument batteries and user's manuals

UPC KHVP57068 016633

KHVP57068



# **Electrical Kit Components**

#### **RUGGED TRMS MULTIMETER WITH NCV DETECTION & LOW-Z MODE DMM570**

Ideal for electrical contractors, HVAC/R technicians and MRO professionals.

#### **FEATURES:**

- 19 functions, 48 ranges
- Measures AC/DC voltage, AC/DC current, resistance, capacitance, frequency, duty cycle
- Also measures temperature from -58° to 1112°F (-50° to 600°C) with included "K" type stem thermocouple
- TRMS measurements
- IP54 water/dust/oil protection
- 6 ft. (1.8m) drop-resistant
- Designed to meet CAT III 1000V, CAT IV 600V safety standard
- Auto or manual ranging
- Lo-Z low-impedance mode; avoids "ghost" readings due to capacitive coupling of voltage from power supply conductors onto adjacent unused conductors
- Backlit 3-3/4 digit (6.600 count) dual readout LCD
- 66-segment fast-response analog bar graph
- Hold, Max, Min, Rel (Zero) display options
- · ETL certified
- · 3-Year Limited Warranty

#### **SPECIFICATIONS:**

- ◆ DC Voltage Measurement Ranges / Accuracy: 0 to 660mV/6.6V/66V/600V/1000V / ±(0.8% of reading + 2 digits) or better
- ♦ AC Voltage Measurement Ranges / Accuracy: 0 to 660mV/6.6V/66V/600V/750V / ±(1.5% of reading + 2 digits) or better
- ♦ NCV Detection Range: 12 to 600VAC

- ♦ AC/DC Current Ranges: 0 to 660µA/6.6mA/6.6mA/660mA/10A
- ♦ AC Current Accuracy:  $\pm$ (3% of reading + 5 digits) in 10A range;  $\pm (1.5\% \text{ of reading} + 5 \text{ digits}) \text{ in other ranges}$
- ♦ DC Current Accuracy:  $\pm$ (2% of reading + 5 digits) in 10A range;  $\pm$ (1% of reading + 5 digits) in other ranges
- ♦ Resistance Range / Accuracy: 0 to  $66M\Omega$  /  $\pm$ (0.8% of reading + 5 digits)
- ♦ Capacitance Range / Accuracy: 0 to 66mF /  $\pm$ (3% of reading + 5 digits)
- ◆ Temperature Range / Accuracy: 32° to 1832°F (0° to 1000°C) /  $\pm$ 1% typical
- ♦ Frequency Range / Accuracy in Frequency mode: 0 to 66MHz /  $\pm$ (1.5% of reading + 5 digits)
- ♦ Operating Temperature: 32° to 104°F (0° to 40°C)
- ♦ Power Source: 1 "9V" battery (included)

- "K" Type Stem Thermocouple Probe with -58° to 1112°F (-50° to 600°C) Range
- Adaptor for thermocouples with spade lugs
- CAT III 1000V/10A Rated Test Leads with **Alligator Clips**
- . Magnetic Meter Hanging Strap
- Cloth Pouch with Belt Loop
- Battery
- User's Manual
- 3-Year Limited Warranty

UPC	NO.
01642 8	DMM57











#### 30:1 ULTRA WIDE-RANGE IR THERMOMETER W/ "K" PORT – IRT730K

Ideal for measuring high temperatures safely—from a distance. Industrial applications include operation and maintenance of furnaces and heat exchangers.

- Extremely wide measurement range
- · Adjustable emissivity
- · Laser targeting ring outlines analysis area
- Port for included "K" type bead thermocouple
- Automatically stores last 100 readings for recall
- Min/Max/Avg/Dif displays
- Adjustable Hi and Lo temp alarm setpoints
- · Large backlit LCD w/dual 4-digit readouts
- · Auto power off
- °F/°C and laser on/off buttons
- · Low battery indicator

#### **SPECIFICATIONS:**

- ♦ IRT Distance to Spot (D:S) Ratio: 30:1
- ♦ IRT Emissivity: Adjustable from 0.1 to 1.0 in 0.01 steps with default of 0.95
- ♦ IRT Measurement Range / Accuracy: -58° to 1472°F (-50° to 800°C) / ±3.6°F (2°C) typical

- ♦ IRT Measurement Resolution: 0.1° (F or C) below 1000°; 1° above 1000°
- ♦ Range / Accuracy of Included "K" Type Bead Thermocouple Probe: -4° to 500°F  $(-20^{\circ} \text{ to } 260^{\circ}\text{C}) / \pm (2\% + 2 \text{ digits}) \text{ typical}$
- ♦ Operating Temperature: 32° to 122°F (0° to 50°C) @10 to 90%RH
- ♦ Dimensions: 7.6 x 3.8 x 3.3 in. (192 x 95 x 83mm)
- ♦ Weight: 9.7 oz. (275g)
- ♦ Power Source: 1 "9V" battery (included)

- "K" Type Bead Thermocouple Probe
- Soft Pouch
- Battery
- User's Manual
- 3-Year Limited Warranty

UPC NO. 01643 5 IRT730K



# **Electrical Kit Components**





#### AUTO RANGING AC/DC TRUE RMS 400A CLAMP METER - DAMP68

Ideal for HVAC/R technicians. Also measures capacitance, frequency and temperature. **FEATURES:** 

- 11 functions, 34 ranges
- Measures temperature from -40° to 752°F (-40° to 400°C) using included "K" type thermocouple
- Computes and displays True RMS values
- · Verifies integrity of diodes and checks circuits for continuity
- Jumbo 3-3/4 digit (4000 count) backlit LCD + analog bar graph
- Ergonomic design with rugged rubber housing
- Hall effect clamp jaw
- Auto and Manual ranging and MIN/MAX display
- Data HOLD and REL (zero) buttons
- . Safe for CAT III 600V use
- CE approved

#### **SPECIFICATIONS:**

- ♦ AC Current Measurement Range / Accuracy: 0 to 400A /  $\pm$ (3% + 10 digits)
- ◆ DC Current Range (via clamp) / Accuracy: 0 to 400A /  $\pm (3\% + 5 \text{ digits})$
- ♦ AC Voltage Ranges / Accuracy: 0 to 400mV/4V/40V/400V/600V /  $\pm$ (2% + 10 digits) or better
- ♦ DC Voltage Ranges / Accuracy: 0 to 400mV/4V/40V/400V/600V /  $\pm (0.8\% + 5 \text{ digits})$
- ♦ Resistance Ranges / Accuracy: 0 to  $400\Omega/4k\Omega/40k\Omega/400k\Omega/4M\Omega/40M\Omega$  /  $\pm (2\% + 5 \text{ digits})$  or better

- ♦ Frequency Ranges / Accuracy: 0 to 100Hz/1kHz/ 10kHz/100kHz/1Mhz/10MHz / ±2%
- ♦ Capacitance Ranges / Accuracy: 0 to  $40nF/400nF/4\mu F/40\mu F/400\mu F/4000\mu F$  /  $\pm (4\% + 5 \text{ digits})$
- ◆ Temperature Range (via "K" type thermocouple) / Accuracy: 40° to 752°F (-40° to 400°C) /  $\pm (1.2\% + 6 \text{ digits}) \text{ from } 32^{\circ} \text{ to } 212^{\circ}\text{F}$
- ♦ Maximum Resolutions: 0.1A, 0.1mV, 0.1Ω, 0.01Hz, 0.01nF, 1°
- ♦ Clamp Jaw Type / Opening: Coil-Type + Hall effect / 1.48 in. (37.5mm)
- ♦ Dimensions: 11.38 x 6.25 x 2.75 in. (289 x 159 x 70mm)
- ♦ Weight: 19 oz. (539g)
- ♦ Power Source: 3 "AAA" batteries (included)

#### **INCLUDES:**

- "K" Type Stem Thermocouple Probe
- Test Leads
- · Soft Carrying Case
- Batteries
- User's Manual
- 1-Year Limited Warranty

UPC	NO.
01369 4	DAMP68
01521 6	ACL10 15A Line Splitter (optional)



#### **AUTO RANGING 600A AC CLAMP METER – DAMP60**

Ideal for general-purpose work.

#### **FEATURES:**

- 7 functions, 19 ranges
- · Verifies integrity of diodes and checks circuits for continuity
- Jumbo 3-1/2 digit (2000 count) backlit LCD
- Ergonomic design with rugged rubber housing
- · Coil-type clamp jaw
- · Autoranging and MAX display options
- Data HOLD and REL (zero) buttons
- . Safe for CAT III 600V use
- CE approved

#### **SPECIFICATIONS:**

- ♦ AC Current Measurement Ranges/Accuracy: 0 to 200A/600A /  $\pm$ (3% + 5 digits)
- ♦ AC Voltage Ranges / Accuracy: 0 to  $2V/20V/200V/600V / \pm (1\% + 5 \text{ digits})$
- ♦ DC Voltage Ranges / Accuracy: 0 to 200mV/2V/20V/200V/600V /  $\pm (0.8\% + 5 \text{ digits})$
- ♦ Resistance Ranges / Accuracy: 0 to 200 $\Omega/2k\Omega/20k\Omega/200k\Omega/2M\Omega/20M\Omega$  /  $\pm (2\% + 5 \text{ digits})$  or better

- ♦ Frequency Range / Accuracy: 10 to 1999Hz /  $\pm$ (3% + 10 digits)
- ♦ Max Resolutions: 0.1A, 0.1mV, 0.1Ω, 1Hz
- ◆ Clamp Jaw Type / Opening: Coil type / 1.48 in. (37.5mm)
- 11.25 x 6.13 x 2.75 in. (286 x 156 x 70mm)
- ♦ Weight: 17 oz. (482g)
- ♦ Power Source:

♦ Dimensions:

2 "AAA" batteries (included)

#### **INCLUDES:**

- Test Leads
- Soft Carrying Case
- Batteries
- · User's Manual
- 1-Year Limited Warranty

UPC	NO.
01356 4	DAMP60
01521 6	ACL10 15A Line Splitter (optional)

DAMP60



# Circuit & Voltage Testers

#### **3 WIRE CIRCUIT ANALYZER - CT300** 3 WIRE RECEPTACLE TESTER WITH GFCI - GF1302

#### Ideal for checking wall outlets.

#### **FEATURES:**

- · Detects faulty wiring in 3-wire receptacles (CT300)
- · Detects faulty wiring in 3-wire receptacles with ground fault circuit interrupters (GF1302)
- Different combinations of three lights indicate six different fault types
- Designed for 120VAC circuits
- UL listed
- 1-Year Limited Warranty

UPC	NO.
01359 5	CT300
51067 4	GF1302

# c (VL **CT300**

#### **BRIGHT RED LED SCREWDRIVER/CONTINUITY TESTER - ST600LED**

#### Ideal for checking for continuity and voltage.

#### **FEATURES:**

- · Bright red LED indicates hot side and continuity
- · Continuity and polarity checks
- · Microwave leakage test
- · Checks fuses and bulbs
- Drop-resistant to 10 ft.
- 1-Year limited warranty

#### **SPECIFICATIONS:**

- ♦ AC Voltage Test Range: 70 to 250V (contact method); 70 to 600V (non-contact method)
- ◆ DC Voltage Test Range: 0 to 250V
- ◆ Polarity Test Range: 1.5 to 36VDC
- ♦ Microwave Leakage Test: >5mW/cm²
- ◆ Power Source: 1 "LR44" battery (included)

UPC	NO.
51115 2	ST600LED



#### NON-CONTACT VOLTAGE DETECTOR WITH ADJUSTABLE SENSITIVITY **AND 4:1 INFRARED THERMOMETER – VR40**

Enables anyone to check in a safe (non-contact) way whether a line, cable or AC outlet is "hot" (energized).

FEATURES:

- · Beeper sounds and red LED flashes when voltage is detected
- Unique adjustable sensitivity feature enables accurate non-contact detection of voltage on 12VAC to 480VAC branch circuits and makes individual live wires in bundles easier to isolate
- Safe for CAT III 600V, CAT II 1000V use
- · Also checks 110VAC outlets for wiring faults
- 4:1 IRT with measurement range of -4° to 626°F (-20° to 330°C)
- 4-digit (2000 count) LCD temperature readout
- Powerful built-in LED flashlight

• Batteries • User's Manual

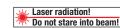
3-Year Limited Warranty

· Pocket clip on back

# **SPECIFICATIONS:**

- ♦ Four NCV Detection Ranges: 12 to 25VAC, 70 to 125VAC, 150 to 240VAC, 250 to 1000VAC
- ♦ Max NCV Detection Distance: 0.25 in. (6.2mm)
- ♦ IRT Range / Accuracy: -4° to 626°F  $(-20^{\circ} \text{ to } 330^{\circ}\text{C}) / \pm 3.8^{\circ}\text{F} (2^{\circ}\text{C}) \text{ typical}$
- ♦ IRT Emissivity: Fixed at 0.95
- ♦ IRT Laser Power: <1mW (Class 2)
- ♦ Dimensions: 6.0 x 1.2 x 1.2 in. (152 x 31 x 31mm)
- ♦ Weight (with batteries): 7.8 oz. (220g)
- ♦ Power Source: 2 "AAA" (LR03) batteries (included)

UPC	NO.
016343	VR40



Patent Pending



#### **8 FUNCTION SERVICE MULTIMETER – DMM51FSG**

#### Ideal for HVAC/R, electrical and industrial applications.

#### **FEATURES:**

**INCLUDES:** 

- 8 functions, 34 ranges
- Measures AC/DC voltage, AC/DC current, resistance
- Also checks for continuity and diode integrity
- 0 to 20µA and 0 to 200µA DC ranges for measuring flame rod current
- Jumbo 3-1/2-digit (1999 count) LCD
- · Protective boot with 3-position tilt stand

#### **SPECIFICATIONS:**

- ♦ AC Voltage Range / Accuracy: 0 to  $750V / \pm 1.2\%$  typical
- ◆ DC Voltage Range / Accuracy: 0 to  $1000V / \pm 0.8\%$  typical
- ♦ AC/DC Current Range / Accuracy: 0 to 10A / ±3% typical

- ♦ Resistance Range / Accuracy: 0 to 200M $\Omega$  /  $\pm 0.8\%$  typical
- ♦ Operating Temperature: 32° to 104°F (0° to 40°C) @ <80%RH
- ♦ Dimensions: 7.5 x 3.5 x 1.3 in. (190 x 88 x 34mm)
- ♦ Weight: 19.4 oz. (550g)
- ♦ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

- All Weather Test Leads
- Rubber Holster
- Battery
- User's Manual
- 1-Year Limited Warranty

UPC	NO.
50190 0	DMM51FSG





DMM51FSG



# Circuit Breaker Finder / Circuit Analyzer





#### CIRCUIT BREAKER FINDER WITH NCV DETECTOR AND GFCI OUTLET **CHECKER - BF20**

#### **FEATURES:**

- · Automatically locates the breaker or fuse associated with any 110V outlet without tripping the breaker or blowing the fuse
- Indicates five common outlet wiring faults in GFCI and non-GFCI outlets
- · Checks the functioning of a outlet's ground fault circuit interrupter
- Uses audible (beeper) and visual (LED) indications to safely (in non-contact fashion) detect "hot" (energized) outlets, lines and cables
- · White LED work light
- Designed to safety standard IEC 61010-1
- · 3-year limited warranty

#### **SPECIFICATIONS:**

- ♦ Safety Ratings: ETL CAT II 125V (transmitter), ETL CAT II 600V (receiver)
- ◆ Outlet Wiring Indications: Correct wiring, Open ground. Open neutral. Open hot wire. Hot wire & ground reversed, Hot wire & neutral reversed
- ♦ NCV Detection Distance: 0.25 in. (6.2mm), max
- ♦ Dimensions:

Transmitter: 2.8 x 2.5 x 2.3 in. (71 x 64 x 58mm) Receiver: 7.4 x 1.8 x 1.5 in. (188 x 46 x 38mm)

- ♦ Weight: Transmitter: 2.1 oz. (60g); Receiver: 4.3 oz. (122g)
- ♦ Power Source: 1 "9V" battery for receiver

#### **INCLUDES:**

- Battery
- · User's Manual
- 3-Year Limited Warranty

UPC 016060 RF20



Ideal for identifying 110/220VAC power circuit and wiring problems that can cause overheating, short circuits, fires, equipment failures and poor equipment performance. Also checks performance of ground fault circuit interrupter (GFCI) outlets and residual current devices (RCDs).

#### **EATURES:**

· Measures a branch circuit's line voltage, peak voltage and neutral-to-ground voltage

**AC CIRCUIT ANALYZER - CA10** 

- Calculates a circuit's voltage drop in response to 12A, 15A and 20A loads
- · Measures the impedance of hot, neutral and ground conductors as well as available shortcircuit current (ASCC)
- · Identifies wiring configurations and detects wiring faults and missing ground wires
- Tests the reliability and response time of GFCI outlets and RCDs
- . Displays True RMS readings of all voltages except peak voltages
- Jumbo LCD with 30-second backlight
- Familiar menu/sub-menu operation
- Data HOLD button and 30-minute auto power off
- · 3-year limited warranty

#### **SPECIFICATIONS:**

- ♦ Line Voltage Range / Accuracy: 85 to 265VAC /  $\pm (1.0\% + 0.2V)$
- ♦ Peak Voltage Range / Accuracy: 121 to 374VAC /  $\pm (1.0\% + 0.2V)$
- ♦ Line Frequency Range / Accuracy: 45 to 65 Hz /  $\pm (1.0\% + 0.2Hz)$
- ♦ Voltage Drop Range / Accuracy: 0.1 to 99.9% /  $\pm (2.5\% + 0.2\%)$

- ♦ Load Voltage Range / Accuracy: 10 to 265V /  $\pm (2.5\% + 0.2V)$
- ♦ Neutral-to-ground Voltage Range / Accuracy: 0 to 10VAC /  $\pm$ (2.5%+0.2V)
- ♦ Hot, Neutral and Ground Line Impedance Range / Accuracy: 0 to  $3\Omega$  /  $\pm 2.5\%$  typical
- ♦ RCD Triggering Time Range / Accuracy: 1ms to 6.5 seconds /  $\pm 1.0\%$  typical
- ♦ RCD Triggering Current Range / Accuracy: 30 to  $37mA / \pm 1.0\%$  typical
- ♦ GFCI Triggering Time Range / Accuracy: 1ms to 6.5 seconds /  $\pm 1.0\%$  typical
- ♦ Dimensions: 7.6 x 3.1 x 1.5 in. (193 x 78 x 39mm)
- ♦ Weight (without Batteries): 10.4 oz. (295g)
- ♦ Power Source: 6 "AAA" batteries (included)

#### **INCLUDES:**

- 12 AWG, 20 in. (0.5m) Long Test Cable
- Batteries
- Soft Carrying Case
- User's Manual
- 3-Year Limited Warranty

UPC	NO.
01566 7	CA1

LCD is backlit for easy reading in dark places

GENERAL"

GENERAL'

80557



# **Inspection / Screwdrivers**

#### **LIGHTED RECTANGULAR INSPECTION MIRROR – 80560**

#### Ideal for toolmakers, machinists, inspectors and mechanics.

- 2 Extra bright LED lights facilitate the inspection of hard-to-see and hard-to-reach areas
- · Fully polished glass mirror is shatter-resistant
- 2 "CF2032" batteries included
- 360° Swivel double ball joint
- Size: 2" x 3" (50.80 x 76.20mm)
- Length: 12.5" (317.5mm) extends to 33.5" (850.9mm) overall

UPC	NO.	PKG.
02146 5	80560	Carded



#### **LIGHTED ROUND INSPECTION MIRROR - 80557**

#### Ideal for toolmakers, machinists, inspectors and mechanics.

New round head LED inspection mirror gets into tight places and its diffused LED bulbs spread light evenly over the viewing area.

- Size: 1.85" (47mm) diameter
- Length: 12" (304.8mm) extends to 32" (812.8mm) overall

UPC	NO.	PKG.
80557 7	80557	Carded



**MADE IN** 





#### **LIGHTED MAGNIFIER - 800543**

#### Ideal for hands-free



- Push On / Push Off Powerful LED light
- Contoured Handle for Handheld Use
- Integrated Stand for Hands-Free Use
- 3X Magnification (6X Inset lens)
- Diameter: 3-1/2" Lens (89mm)
- Dimensions: 8.50 x 3.50 x 0.81 in. (215.90 x 88.90 x 20.57mm)
- Weight: 5.50 oz. (155.92g)
- Power Source: 2 "AA" batteries (included)

Includes • Protective pouch







#### **MULTI-PRO SCREWDRIVERS – 8140, 8141, 8142**

The new Made-In-America Multi-Pro Screwdrivers make selecting and changing bits incredibly quick and easy.

#### EZ-Guide™ Collar

- Provides greater control
- Maintains alignment between the screwdriver and the fastener
- Essential when starting to drive a screw

#### Retractable Bit Cartridge™

- Cartridge pulls out from inside the Screwdriver handle
- · Convenient storage area with built in clips for seven double ended
- · Allows for easy selection and quick change of required bits

UPC	NO.	
02196 0	8140	15-in-1 Standard Driver
02197 7	8141	15-in-1 Tamperproof Driver
02198 4	8142	14-in-1 HVAC Driver



Drivers are Made in the United States Driver handles are made from engineered nylon/ABS Drivers feature an alloy steel shaft- 12T14 steel





#### GENERAL TOOLS & INSTRUMENTS 80 White Street, New York, NY 10013-3567 PHONE (212) 431-6100 • FAX (212) 431-6499 • TOLL FREE (800) 697-8665 e-mail: gentools@generaltools.com

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