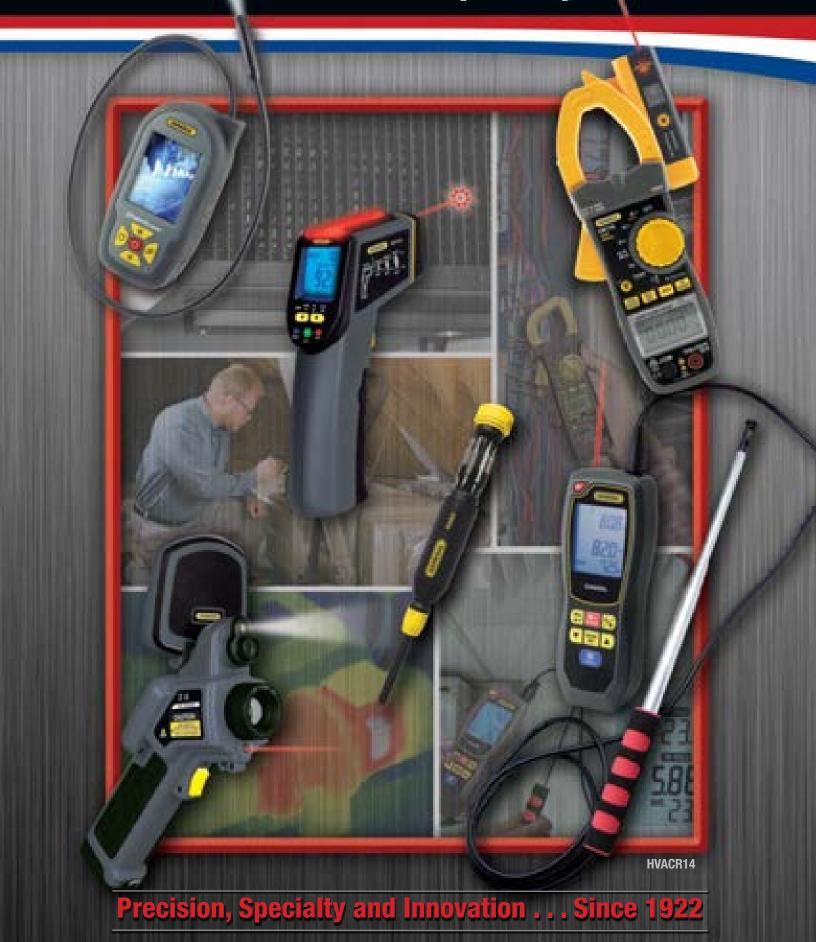


# **HVAC/R Test Instruments and Specialty Hand Tools**





### HVAC/R Test Instruments and Specialty Hand Tools

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### **Thermal Imaging Cameras**

**GTi10: Thermal Imaging** 

GTi20: Thermal/Visual Imaging

with Picture-in-picture

GTi30: Thermal/Visual Imaging with & Picture-in-picture, Streaming Video and Voice Annotation

Ideal for revealing invisible heat-driven processes and problems.

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

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.

#### **KEY FEATURES:**

- 160 x 120 pixel IR detector (GTi10/20/30) 384 x 288 pixel IR detector (GTi50)
- Temperature sensitivity of  $\pm 0.14$ °F (0.08°C) Temperature sensitivity of  $\pm 0.072$ °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)
015926	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)





#### **OPTIONAL ACCESSORIES:**

OI HORAL ACCEPTORIES.					
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			
016114	L6P4	6.4° Telephoto Lens for GTi10/20/30			
016138	L548	48° Wide-angle Lens for GTi50			
016152	L512	12° Telephoto Lens for GTi50			
01623 7	SWGT3N5	Professional Analysis & Reporting			
		Software for GTi30/50 (includes			
		streaming video software driver)			
016169	<b>ADPTRGTi</b>	AC Adaptor for GTi10/20/30/50			
016176	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			



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

## PREDATOR SERIES Thermal Imaging Cameras



			6	
	GTi10	GTi20	GTi30	GTi50
"PREDATOR" SERIES				<b>E</b>
FEATURES & SPECIFICATIONS				
T EATONEO & OF EOF TOATION				
Picture-in-Picture Mode (Visual + Thermal Image Fusion)	No		es	
Analysis Tools	2 Movable Spots, Isothermal Analysis	4 Movable Spots, Isothermal Analysis	9 Movabl Isotherma Profile Analysis,	l Analysis
LED Flashlight	No		es	
Temperature Alarms	No	Yı	es	
Visual File Format	Prop SAT/JPG	Prop SAT	/CCD/JPG	
Visual Image Resolution	N/A	320 x 2	40 pixels	640 x 480 pixels
Thermal Video Streaming	N	0	Yes (Via	uSB)
Voice Annotation	N	0	Yes (Via B	luetooth)
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	-4° to 572°F (-20° to 300°C), upgradeable to 1112°F (600°C), 1832°F (1000°C) or 2732°F (1500°C)			2732°F (1500°C)
Detector Type	Uncooled focal plane array, manual focusing			
Accuracy	±3°F (2°C) or 2% of reading, whichever is greater			
Focusing		Manual		
Measurement Compensation Factors	Emissivity	, Ambient Temperature, Humidit	y, Distance	
Minimum Focal Distance		4 in. (100mm)		
Optional Telephoto and Wide-Angle Lenses		ield of view for GTi10/20/30; 12°		GTi50
Display		Flip-up 3.5 in. diagonal color LC	D	
Auto Hot/Cold Spot Indicator		Yes		
Video Output Formats		NTSC, PAL		
Color Palettes		Inverted, Rainbow, Feather, Grey	<u> </u>	
Image Storage Medium, Capacity		GB MiniSD memory card (include	*	
Thermal File Format		Proprietary SAT, Radiometric, JP	G	
Battery		Rechargeable Lithium-lon		
Total Charge Capacity	Up t	o 5 hours continuous with 2 batt	teries	
Power Saver Mode		Yes		
Operating Temperature	-4° to	122°F (-20° to 50°C) @ 10 to 9	0% RH	
Water/Dust/Oil Resistance		IP54		
Shock Resistance		Operational 25G		
Vibration Resistance	\$1 · · · · 1 · · · 1	Operational 2G	No TDDDOT"	
Tripod Mount	Non-standa	<u>'</u>	NO. TRPDGTI)	
Weight		1.3 lb. (580g)		
Dimensions		3 x 3.1 x 6.4 in. (172 x 80 x 162r		
External Power Source	Compact Battery Charger provided. Optional Accessories: AC Adaptor (No. ADPTRGTi), Car Charger (No. CRCHGTi)			IGTi)
Limited Warranty Duration		3-Years (5 year term available)		

### **VIDEO INSPECTION SYSTEMS**

**GENERAL** 

### **Specialty Borescopes**

#### **iBORESCOPE2 - DCiS2**

Ideal for making high-quality video inspections of hard-to-reach or hard-to-see areas or equipment. By running a free appfrom the iTunes® App Store or Google Play Store, any iPhone®, iPad®, iPad Air®, iPad Mini®, iPod touch® or Android™ device can display, capture, store and play back video clips and still images observed with the iBorescope2. The transfers are wireless, via a local WiFi hotspot without internet access generated by the iBorescope2.

#### **FEATURES:**

- · Generates a local WiFi hotspot (without Internet access) for transmitting probe video to appenabled iPhone, iPad, iPad Air, iPad Mini, and iPod touch or Android device
- Long 36 in. (914mm), thin 9mm (0.35 in.) diameter flexible-obedient waterproof probe captures VGA (640 x 480 pixel) resolution video
- Ideal camera depth of field of 0.5 in. to 5 ft. (13mm to 1.52m)
- Soft buttons on app capture .avi video clips and .jpg (Apple) or .png (Android) still images of live video stream. Clips and stills are saved in separate, dated folders within iBorescope2 app. Files can be viewed immediately.
- ▲ and ▼ buttons on wand-type grip control camera lighting
- Includes three useful probe tip accessories (45° mirror, pickup hook, magnetic pickup)

#### **SPECIFICATIONS:**

- ◆ Compatible with: iPad, iPad2, iPad Air, iPad Mini, iPad3, iPhone3GS, iPhone4, iPhone 4S, iPhone5S, iPhone5C, iPod touch (3rd, 4th, 5th generation) running iOS4.1 or later; and any device running Android 2.2 or higher
- ♦ Video Resolution: 640 x 480 pixels (VGA)
- ♦ Frame Rate: 30 frames per second (fps)
- ♦ WiFi Attributes: IEEE802.11b/g @ 54Mbps or higher throughput

- ♦ WiFi Range: 60 ft. (18m), max (unobstructed)
- ◆ Camera Lighting: 4 white LEDs
- ◆ Camera Head Diameter: 9mm (0.35 in.)
- ♦ Camera Resolution: 640 x 480 pixels
- ♦ Camera Depth of Field: 0.5 in. to 5 ft. (13mm to 1.52m)
- ◆ Camera Field of View: 38° vertical, 50° horizontal
- ◆ Probe Length/Type: 36 in. (914mm), flexible-obedient
- ◆ Dust & Water Resistance Rating (Probe & Camera Head only): IP67
- ♦ Operating Temperature: 32° to 104°F (0° to 40°C)
- ♦ Dimensions of Grip: 8.94 x 1.63 x 1.5 in. (227 x 41.4 x 38.1mm)
- ♦ Weight of Grip: 14.05 oz. (398g)
- ♦ Power Source: 4 "AA" Alkaline batteries (not included)

#### **INCLUDES:**

WiFi grip, 3-Ft. Long Probe, Three Probe tip Accessories (45° Mirror, Pickup Hook, Magnetic Pickup), Custom Hard Case, User's Manual, 1-Year Limited Warranty

**UPC** NO. DCiS2 01665.7



#### 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)

#### **INCLUDES:**

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













### Video Borescopes



### We Call These Video Borescopes "High-Performance **Systems**" for Several Good Reasons:

• They use our thinnest probes, with diameters as small as 3.9mm (0.15 in.). Even our thickest general-purpose high-performance probe, at 6mm across, is no thicker than a No. 2 pencil lead.

. The probes have superior optical specs, including close-focus and far-focus depths of field.

• Probe choices abound. Just pick the probe type (flexible-obedient or soft metal), probe diameter (3.9mm, 4.9mm, 5.5mm or 6m), probe length (0.75 to 30m) and viewing angle (front view, articulating or switchable front/side view) you need; one of our probes is sure to fill the bill.

• The borescopes themselves also come in several flavors-for example, wired or wireless, and recording or non-recording. Whichever model you choose, your highperformance borescope will have passed a 60,000-cycle performance test, sport a color monitor, and come in a custom protective hard case.



3.9mm

(0.15 in.)

**Probe Diameters** (actual size) 4.9mm

(0.19 in.)

5.5mm (0.22 in.)

6mm (0.24 in.)



PRIMARY SYSTEM FEATURE(S)		Wireless recording	VGA recording, with VGA probe	
	Model No.	DCS1800	DCS1700	
	System/Component Name	High-Performance Wireless Recording Video Borescope System	The VIPER 1700 Super High-Performance VGA Recording Video Borescope System	
	Display Size (diagonal)	3.5 in. (89mm)	3.5 in. (89mm)	
	Wireless Range	Up to 33 ft. (10m)	-	
CVCTERA	Records	Audio, video, still images	Video, still images	
SYSTEM	Resolution (pixels)	Video: 320 x 240 Still images: 640 x 480	Display: 320 x 240 Probe & Recording: 640 x 480	
	Zoom Level	1.5X	2.0X	<u> </u>
	Operating Temperature	Console: -4° to 140°F (-20° to 60°C); Probe: 32° to 131°F (0° to 55°C)	Console: 32° to 122°F (0° to 50°C) Probe: -4° to 140°F (-20° to 60°C)	
	Memory (capacity of included SD card)	2GB	4GB	
	Power Source	Rechargeable Li-ion battery	(4) "AA" batteries	
	Certifications	CE, FCC, RoHS	CE, RoHS	
	Limited Warranty Term	1 year	1 year	
	Diameter	5.5mm (0.22 in.)	5.5mm (0.22 in.)	
	Style	Flexible-Obedient	Soft metal	
	Length	1m (3.3 ft.)	1m (3.3 ft.)	
CURRUED	Field of View	46° (Hor), 34° (Vert), 56° (Diag)	60°	
SUPPLIED PROBE	Depth of Field	0.25 to 12 in. (6.4 to 300mm)	0.25 to 12 in. (6.4 to 300mm)	
	Resistance to Water/Dust/Oil/Gas	IP67	IP67	
	Light Source	4 adjustable white LEDs	6 adjustable white LEDs: 4 front-facing, 2 side-facing	







DCS1600 High-Performance Recording Video Borescope System (See page 11)



Utility re	Rugged VGA recording	
DCS1600	DPS16	DCS800
High-Performance Recording Video Borescope System	Pipe & Duct Recording Video Borescope Inspection System	Rugged High-Performance VGA Recording Video Borescope System
3.5 in. (89mm)	3.5 in. (89mm)	3.5 in. (89mm)
-	-	-
Video, still images	Video, still images	Video, still images
Video: 320 x 240 Still images: 640 x 480	Video: 320 x 240 Still images: 640 x 480	Probe & Display: 320 x 240 Recording: 640 x 480
1.5X	1.5X	5.0X
Console: -4° to 140°F (-20° to 60°C); Probe: 32° to 131°F (0° to 55°C)	Console: -4° to 140°F (-20° to 60°C); Probe: 14° to 158°F (0° to 70°C)	Console: 32° to 140°F (0° to 60°C) Probe: -4° to 140°F (-20° to 60°C)
2GB	2GB	4GB
Rechargeable Li-ion battery	Rechargeable Li-ion battery	4 "AA" batteries
CE, RoHS	CE, RoHS	CE, RoHS
1 year	1 year	1 year
5.5mm (0.22 in.)	28mm (1.1 in.)	5.5mm (0.22 in.)
Flexible-Obedient	Flexible	Flexible-Obedient
1m (3.3 ft.) 46° (Hor), 34° (Vert),	22m (72 ft.)	1m (3.3 ft.) 46° (Hor), 34° (Vert),
56° (Diag)	151°	56° (Diag)
0.25 to 12 in. (6.4 to 300mm)	0.4 in. (10mm) to infinity	0.25 to 12 in. (6.4 to 300mm)
IP67	IP68	IP67
4 adjustable white LEDs	8 adjustable white LEDs	4 adjustable white LEDs



### VGA Capable Borescopes





### THE VIPER 1700 SUPER HIGH-PERFORMANCE VIDEO BORESCOPE SYSTEM – DCS1700

Ideal for inspecting inaccessible or hard-to-see areas.

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

- Records VGA resolution (640 x 480 pixel) video clips and still images
- Probe features light boost, anti-reflection and screen rotation
- · Camera lighting provided by 4 front-facing LEDs
- To minimize glare from shiny targets, lighting can be shifted to 2 angled LEDs
- Console features brightness controls, horizontal mirroring, 2X zoom, and slow-motion and fastforward video playback
- Object measurement mode
- Console accepts dozens of different length and diameter probes
- Probe and stainless steel camera head are IP67 water, oil and dust-proof
- Dual output jacks enable before/after image comparisons
- · Auto Power Off is time adjustable
- Includes 4GB SD memory card, video and USB cables and hard case

#### **SPECIFICATIONS:**

- ◆ Display Size/Type:3.5 in. (diagonal), color TFT LCD
- ♦ Display Resolution: 320 x 240 pixels (QVGA)
- ♦ Video/Photo File Format: .avi/.jpg

- ♦ Video Zoom Options: 1.5X, 2X
- ♦ Video Playback Speeds: 12%, 25%, 50%, 1X, 1.5X, 2X, 4X
- ♦ Video Out Formats: NTSC and PAL
- ♦ Video Frame Rate: 30 frames per second (fps)
- ◆ Probe Length/Type/Diameter: 39 in. (1m), soft metal, 0.22 in. (5.5mm)
- ◆ Probe Depth of Field: 0.25 to 12 in. (6.4 to 300mm)
- ♦ Probe Field of View: 60°
- Menu Languages: English, French, German, Italian, Spanish, and Portuguese, as well as 21 other European and Asian languages
- ◆ Operating/Storage Temperatures: Probe: -4° to 140°F (-20° to 60°C) Console: 32° to 122°F (0° to 50°C)
- ◆ Dimensions of Grip: 10.8 x 4.8 x 2.2 in. (275 x 123 x 55mm)
- ♦ Weight of Grip (without Batteries): 13 oz. (370g)
- ◆ Power Source: 4 "AA" Alkaline batteries (included)
- ♦ Optional Power Source: Rechargeable Ni-MH or Li-ion "AA" batteries
- ♦ Battery Life (typical): 4 hours operation

**UPC NO.** 01601 5 **DCS1700** 

Console, VGA Resolution Probe, 4GB SD Memory Card, Object Measuring Tip, 110° Mirrored Viewing Tip, Video Cable, USB Cable, 4 "AA" Alkaline Batteries, LCD Cleaning Fluid and Cloth, Custom Hard Case, User's Manual, 1-Year Limited Warranty

#### RUGGED SYSTEM Ideal for in FEATURES • 3.5 in. (81 • 39 in. (181 • 181 in.) In the principle of



### DCS800 INCLUDES:

Console, 5.5mm Diameter x 1m Long QVGA Resolution Flexible-obedient Probe, 90° Mirrored Viewing Tip and Thread Protector Ring, 4GB SD Memory Card, AV and USB Cables, (4) "AA" Alkaline Batteries, Adjustable Hand Strap, Custom Hard Plastic Carrying Case, User's Manual, 1-Year Limited Warranty

### RUGGED HIGH-PERFORMANCE VGA RECORDING VIDEO BORESCOPE SYSTEM – DCS800

#### Ideal for inspecting hard-to-reach and hard-to-see areas.

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

- 3.5 in. (89mm) diagonal color LCD
- 39 in. (1m) long, 0.22 in. (5.5mm) diameter flexible-obedient probe with 320 x 240 pixel (QVGA) resolution camera lit by four LEDs
- Probe and stainless steel camera head are IP67 water, oil and dust-proof. Console is rated IP55 but is 1m (39 in.) drop-proof
- Grip accepts dozens of other QVGA and VGA (640 x 480 pixel) resolution probes of various lengths and diameters
- Records VGA or QVGA resolution video clips and still images using familiar menu-driven user interface. Saved video and photo files incorporate real-time brightness, zoom and mirroring adjustments made prior to recording or "on the fly"
- Three options for mirroring live video: horizontal, vertical, or both
- 4GB SD memory card
- Analog video out jack and cable with RCA plug
- USB cable for uploading/viewing media on SD card to PC without ejecting card
- 90° mirrored probe viewing tip
- Adjustable Auto Power Off interval
- Choice of 27 menu languages
- Custom hard plastic carrying case
- Powered by four "AA" Alkaline or rechargeable batteries

#### **SPECIFICATIONS:**

- ♦ Display Resolution: 320 x 240 pixels (QVGA)
- ◆ Diameter of Camera Head with Thread Protector: 0.23 in. (6mm)
- ◆ Probe Depth of Field: 0.25 to 12 in. (6.4 to 300mm)
- ◆ Probe Field of View: 46° (horizontal), 34° (vertical), 56° (diagonal)
- ♦ Video File Format: .avi
- ♦ Photo File Format: .jpg
- ♦ Video Zoom Options: 3.0X, 5.0X
- ♦ Video Out Formats: NTSC and PAL
- ♦ Video Frame Rate: 30 frames per second (fps)
- ♦ Compression Format: Compatible with MPEG4
- ◆ Probe Operating/Storage Temperature:
   -4° to 140°F (-20° to 60°C)
- ◆ Console Operating Temperature: 32° to 140°F (0° to 60°C)
- ◆ Dimensions of Console: 5.5 x 4.6 x 1.7 in. (140 x 116 x 42mm)
- ◆ Weight of Console (without Batteries): 10.6 oz. (300a)
- ◆ Power Source: (4) "AA" Alkaline or rechargeable Ni-MH batteries
- ♦ Battery Life (typical): 4 hours operation

UPC	NO.
01628 2	DCS800



### Pipe & Duct Recording Borescope

#### PIPE & DUCT VIDEO BORESCOPE INSPECTION SYSTEM - DPS16

Ideal for examining the interior of 2, 4 and 6 inch I.D. water and sewer pipes with the included probe centering accessories

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

- 72 ft. (22m) long probe with 1.1 in. (28mm) diameter camera head
- Eight super-bright white LEDs give probe 640 x 480 pixel (VGA) resolution; superior optics yield excellent depth of field of 0.4 in. (10mm) to infinity
- Includes H16 Handheld Recording Video Borescope Console
- · Probe is water-tight to IP68 standard (depth of 50 ft./10m) and is flexible enough to make two 90° bends
- Stainless steel camera head is immune to bathroom toilet cleaner, unleaded gasoline, brake/transmission fluid and machine oil
- Steel probe reel is sturdy and dust-tight to IP65 standard. Reel works vertically or horizontally and includes IP55-rated probe length counter and bracket for H16 (DCS1600) console

#### **INCLUDES:**

- P16PIP Pipe & Duct Inspection Probe & Reel Set (includes probe length counter and brushes for centering probe in 2 in., 4 in. and 6 in. inner diameter pipes)
- Handheld Recording Video Borescope Console (General Part No. H16)
- · 4GB SD memory card
- · RCA cable for viewing video and images on an NTSC monitor
- · AC adaptor/battery charger and cleaning cloth and liquid for the console
- Custom hard carrying case
- · User's manual
- 1-Year Limited Warranty



Eight super-bright white LEDs give the DPS16/ P16PIP probe 640 x 480 pixel



#### **SPECIFICATIONS:**

- **♦ Camera-Tipped Probe:**
- Diameter: 0.23 in. (6mm)
- Length: 72 ft. (22m)
- · Material: Fiberglass
- Camera Head Diameter: 1.1 in. (28mm)
- Light Source: 8 white LEDs
- . Depth of Field: 0.4 in. (10mm) to infinity
- Field of View: 150.8° (diagonal)
- Minimum Bending Radius: 6 in. (150mm)
- Waterproof Depth (IP68): 50 ft. (10m)
- Operating Temperature: 14° to 158°F (-10° to 70°C)

#### Reel:

- Frame Diameter: 11.8 in. (300mm)
- Dust and Water Resistance: To IP65 standard
- Weight: 6.6 lb. (3kg)

#### **Included Accessories:**

Probe Centering Ring:

Inner Diameter: 1.1 in. (28mm) Outer Diameter: 2 in. (50mm)

Small Probe Centering Brush: Inner Diameter: 1.1 in. (28mm)

Outer Diameter: 4 in. (100mm) Large Probe Centering Brush:

Inner Diameter: 1.1 in. (28mm) Outer Diameter: 6 in. (150mm)

**UPC** NO. 015977 DPS<sub>16</sub> 01578 0 P16PIP



The DPS16/P16PIP probe is flexible enough to make two 90° bends in a 1.6 in. (40mm) diameter pipe

#### P<sub>16</sub>PIP

Probe, reel, ring and brushes are available separately as P16PIP.

P16PIP is compatible with all systems and system components shown in the chart on pp. 6 - 7



A probe's-eye view of a filthy air-conditioning duct



A packaged DPS16 system



### Wireless Recording Borescope



### High-Performance Wireless Recording Video Borescope System

Features slim 5.5mm diameter probe, 3.5 in. color monitor and powerful ability to record video, still images and sound. Thinner, longer, multi-view and articulating probes available.



- · Government, Military, Security
- Infrastructure Inspection and Maintenance
- Aircraft Maintenance and Inspection
- Automotive Maintenance
- MRO / Industrial Inspection
- Inspection of Complex Machinery
- Oil, Power and Petro Industry Inspection Applications
- Inspection of Tooling Dies

#### **FEATURES:**

- 3.5 in. (89mm) extra-wide, color TFT monitor with super sharp clarity
- Records audio, video and still images with instant playback review
- · Wireless image and video transfer
- Comes with a 1m (3.28 ft.) long x 5.5mm (0.22 in.) diameter QVGA resolution probe that retains its configured shape. Depth of field is 0.25 to 12 in. (6.4 to 300mm)
- Optional probes include: 3.9mm diameter, 4.9mm switchable front/side view, and 6mm VGA articulating and non-articulating probes of 1m, 2m and 3m length
- All probes feature at least 4 adjustable-brightness white LEDs for superior camera lighting
- All probes are water, oil, dust and scratch resistant to IP67 standard
- 3 interchangeable mirrored viewing tips provide extra-wide viewing angles of 70°, 90°, 110°
- Multiple language menu
- AV out allows for TV monitor and computer interfaces
- · Rechargeable Lithium-ion batteries



#### **BENEFITS:**

 Wireless imaging allows inspection results to be sent to a larger screen up to 33 ft. (10m) away for team-based analysis

**RoHS** 

- Wireless camera probe enables access to otherwise inaccessible places
- Ultra slim probes with powerful video camera and LED lights in the tip enable user to inspect the tiniest spaces
- Optional 3.9mm (0.15 in.) diameter camera tipped probe is the slimmest on the market and can fit into the spark plug hole of any engine, as well as into diesel injector ports
- View findings in real time or record video and still images for viewing and sharing later
- Rechargeable batteries can record for 4 hours and will help you stay "Green"



DCS1800

#### **INCLUDES:**

Custom Hard Case, 5.5mm Diameter x 1m Long Flexible-Obedient Probe, 2GB SD Card, RCA Cable, 3 Interchangeable Mirrored Viewing Tips (70°, 90°, 110°), LCD Cleaning Cloth, AC Adaptor/Charger, 2 Rechargeable Batteries, User's Manual, 1-Year Limited Warranty

UPC	NO.	
01297 0	DCS1800	

#### DCS1800, DCS1600, Specifications:

**DCS1800 and DCS1600 come with:** 5.5mm (0.22 in.) Diameter x 1m (3.28 ft.) long camera probe

**Depth of Field (D0F):** 0.25 to 12 in. (6.4 to 300mm) **Probe Feature:** Water, Oil & Dust resistant to IP67 standards

**Field of View:** Horizontal field angle 46° Vertical field angle 34° Diagonal field angle 56° **Optional 5.5mm Probe Lengths:** 2m, 3m, 5m, 10m, 30m

#### **Additional Optional Probes:**

- 3.9mm diameter x 0.75m (2.5 ft.) long ultra-slim probe
- 4.9mm diameter x 1m long switchable front/side view probe
- 6.0mm diameter x 1m long articulating probe **Display:** 3.5 in. (88.9mm) Color TFT

**Recording Resolution:** 320 x 240 pixels (video); 640 x 480 pixels (still images)

Audio: (DCS1800 Only) Integrated microphone

Wireless Transceiver Frequencies: (DCS1800 Only) 2414MHz, 2432MHz, 2450MHz, 2468MHz

System Power: Battery: Rechargeable Li-Polymer Battery (3.7V) Adapter/Charger Supply: 120VAC @ 60 Hz or 240VAC @50 Hz

Power Consumption: 1.8A @5.5VDC Recording Medium: 2GB SD Card



### **High-Performance Recording Video Borescope System**

Features slim 5.5mm diameter probe, 3.5 in. color monitor and powerful recording capability. Thinner, longer, multi-view and articulating probes available.

#### **APPLICATIONS:**

- Aircraft Maintenance and Inspection
- . Military, Security, Law Enforcement
- Automotive / Diesel Maintenance
- Other High Level Inspection

#### **FEATURES:**

- 3.5 in. (89mm) extra-wide, color TFT monitor with super sharp clarity
- · Records video and still images with instant playback review
- Comes with a 1m (3.28 ft.) long, 5.5mm (0.22 in.) diameter, QVGA resolution probe that retains its configured shape. Depth of field is 0.25 to 12 in. (6.4 to 300mm)
- Optional probes include: 3.9mm diameter, 4.9mm switchable front/side view, and 6mm diameter VGA and QVGA articulating and non-articulating probes of 1m, 2m and 3m length
- All probes feature at least 4 adjustable-brightness white LEDs for superior camera lighting
- All probes are water, oil, dust and scratch resistant to IP67standard
- 3 interchangeable mirrored viewing tips provide extra wide viewing angles of 70°, 90°, 110°
- Multiple language menu
- TV monitor and USB computer interfaces
- · Rechargeable Lithium-ion battery

#### **BENEFITS:**

- · Ultra-slim probes with powerful video camera and LED lights in the tip enable access to otherwise inaccessible places
- Optional 3.9mm (0.15 in.) diameter camera-tipped probe is the slimmest on the market and can fit into the spark plug hole of any engine, as well as into diesel injector ports
- · View findings in real time or record video and still images for viewing and sharing later
- · Rechargeable batteries can record for 4 hours and will help you stay "Green"









Custom Hard Case, 5.5mm Diameter x 1m Long Flexible-Obedient Probe, 2GB SD Card, RCA Cable, USB Cable, 3 Interchangeable Mirrored Viewing Tips (70°, 90°, 110°), LCD Cleaning Cloth, AC Adaptor/Charger, Rechargeable Battery, User's Manual, 1-Year Limited Warranty

UPC	NO.
01305 2	DCS160

#### DCS1800, DCS1600, Specifications: (cont.):

Video Out Format: NTSC and PAL

Interface: AV Out on 1800 and 1600 systems.

USB also on 1600.

Compression Format: Compliant with MPEG4

Image Resolution: 640 x 480 Pixels Video Resolution: 320 x 240 Pixels

Frame Rate: ~30 fps

**Exposure:** Automatic White Balance: Fixed S/N Ratio: 42dB or more

Languages: English, German, French, Spanish, Japanese, Italian, Traditional Chinese, Simplified Chinese

Operating Environment: -4° to 140°F (-20° to 60°C)

Storage Environment: -4° to 140°F (-20° to 60°C)

Recharge Environment: 32° to 104°F (0° to 40°C)

#### **Interchangeable Options:**

Set of 3 Mirrored Viewing Tips For All 5.5mm Probes except P16181/2/3HP No. PM003 (70°, 90°, 110°)

### **VIDEO INSPECTION SYSTEMS**

### The SEEKER™ & SeaScope™ Series



From our affordable DCS950 and Seeker™ 200 Series to our feature-packed Seeker™ 400 Series, this line of camera scopes is designed to appeal to everyone from experienced automotive mechanics and HVAC/R technicians to DIY\_weekend warriors.



	PRIMARY SYSTEM FEATURES	Compact Rugged Non-recording	Waterproof Recording	Waterproof Non-recording	Rugged Recording	Rugged Non-recording	
	Model No.	DCS950	DCS660	DCS600	DCS350	DCS280	
SYSTEM	System Name	The PalmScope™	SeaScope <sup>™</sup> 660 Waterproof Recording Video Inspection System	SeaScope <sup>™</sup> 600 Waterproof Video Inspection System	The SEEKER™ 350 Rugged Recording Video Inspection System	The SEEKER™ 280 Rugged Video Inspection System	
	Display	2.7 in. color LCD	3.4 in. color LCD	3.4 in. color LCD	3.5 in. color LCD	2.4 in. color LCD	
	Records	-	Video and still images	-	Video and Still Images	_	
	Resolution (pixels)	Camera probe and monitor: 320 x 240	Live video: 320 x 240 Still images: 720 x 480	Live video: 320 x 240	Live video: 320 x 240 Still images: 720 x 480	Live video: 320 x 240	
	Video Controls	4X zoom	4X Zoom, 180° rotation, Pan	4X Zoom, 180° rotation, Pan	4X Zoom, 180° rotation	2X Zoom, 180° rotation	
	Memory (capacity of included SD card)	_	2GB	_	2GB + 64MB Internal Flash Memory	_	
	Power Source	4 "AA" Batteries	4 "AA" Batteries	4 "AA" Batteries	4 "AA" Batteries	4 "AA" Batteries	
	Limited Warranty Term	1 year	1 year	1 year	3 years	3 years	
	Diameter	9mm	9.8mm	9.8mm	12mm	9mm	
	Туре	Flexible-Obedient	Flexible-Obedient	Flexible-Obedient	Flexible-Obedient	Flexible-Obedient	
	Length	24 in. (0.6m)	3.28 ft. (1m)	3.28 ft. (1m)	3.28 ft. (1m)	3.28 ft. (1m)	
	Field of View	60°	54°	54°	60°	60°	
SUPPLIED PROBE	Donth of Field	0.6 to 6 in.	0.6 to 6 in.	1 to 12 in.	1 to 12 in.		
	Resistance to Water and Dust	IP67	IP67 (entire unit)	IP67 (entire unit)	IP67 (Probe only) Unit is 1m drop-proof	IP67 (Probe only) Unit is 1m drop-proof	
	Light Source, Lens Material, Camera Head Material	4 LEDs, Glass, Anodized Aluminum	4 LEDs, Glass, Anodized Aluminum	4 LEDs, Glass, Anodized Aluminum	2 LEDs, Plastic	4 LEDs, Glass, Anodized Aluminum	

12 General Tools & Instruments



### The SEEKER™ & SeaScope™ Series



#### **Probe Options for The SEEKER™ Video Inspection Systems**

Model No.	UPC	Diameter	Length	Description
P230-1	01386 1	12mm (0.47 in.)	1m (3.28 ft.)	Flexible-Obedient Probe - Close Focus*1
P230-1F	01474 5	12mm (0.47 in.)	1m (3.28 ft.)	Flexible-Obedient Probe - Far Focus*2
P230-1X	01387 8	12mm (0.47 in.)	1m (3.28 ft.)	Flexible-Obedient Probe Extension
P230-2X	01390 8	12mm (0.47 in.)	2m (6.6 ft.)	Flexible-Obedient Probe Extension
P230-3X	01391 5	12mm (0.47 in.)	3m (9.8 ft.)	Flexible-Obedient Probe Extension
P495-1N	01423 3	9mm (0.35 in.)	1m (3.28 ft.)	Flexible-Obedient Probe
P495-2N	01467 7	9mm (0.35 in.)	2m (6.6 ft.)	Flexible-Obedient Probe
P495-3N	01468 4	9mm (0.35 in.)	3m (9.8 ft.)	Flexible-Obedient Probe
P455-1N	01466 0	5.5mm (0.22 in.)	1m (3.28 ft.)	Flexible-Obedient Probe
P455-2N	01469 1	5.5mm (0.22 in.)	2m (6.6 ft.)	Flexible-Obedient Probe
P455-3N	01470 7	5.5mm (0.22 in.)	3m (9.8 ft.)	Flexible-Obedient Probe

<sup>\*1-</sup>General's 12mm close-focus probe has a defined depth of field of 0.25 to 4 in. (6.4 to 101.6mm)

<sup>\*2–</sup>General's 12mm far-focus probe has a minimum focal distance of 4 in. (101.6mm) and is in focus from there to 8 ft. (2.4m)



#### **Accessories for The SEEKER™ Video Inspection Systems**

)	Model No.	UPC	Diameter	Description
	RCV100	01446 2	_	Wireless USB Video Receiver for The SEEKER™ 400 System
	ADP05V	01497 4	_	Car charger for DCS400 series
	PT12	01559 9	12mm (0.47 in.)	Mirror, magnet and hook accessories for DCS200, DCS300 and DCS400
	PT9	01560 5	9mm (0.35 in.)	Mirror, magnet, hook and thread protector accessories for DCS200-09 and DCS400-09
	PT5	01561 2	5.5mm (0.22 in.)	Mirror, guide ball and thread protector accessories for DCS200-05, DCS355 and DCS400-05

Wireless Recording Video Over Internet	Utility Non-Recording	Utility Non-Recording	WiFi Wireless Recording
DCS400 DCS400-09 DCS400-05	DCS300 DCS355	DCS200 DCS200-09 DCS200-05	DCiS2
The SEEKER™ 400 Series Wireless Recording Video Inspection Systems	The SEEKER™ 300 Series Video Inspection Systems	The SEEKER™ 200 Series Video Inspection Systems	iBorescope2
3.5 in. color LCD	3.5 in. color LCD	2.4 in. color LCD	Screen of iOS or Android smartphone or tablet
Video and still images	_	_	Video and still images
Live video: 320 x 240 (DCS400, DCS400-09), 160 x 120 (DCS400-05) Still images: 720 x 480	Live video: 320 x 240 (DCS300), 160 x 120 (DCS355)	Live video: 320 x 240 (DCS200), 160 x 120 (DCS200-05)	Video and still images: 640 x 480
4X Zoom, 180° rotation	2X Zoom, 180° rotation	2X Zoom, 180° rotation	_
2 GB	_	_	_
Rechargeable Li-ion Battery A/C Adapter/Charger	1 "9V" Battery	1 "9V" Battery	4 "AA" Batteries
3 years	3 years	3 years	1 year
DCS400 - 12mm DCS400-09 - 9mm DCS400-05 - 5.5mm	DCS300 - 12mm DCS355 - 5.5mm	DCS200 - 12mm DCS200-09 - 9mm DCS200-05 - 5.5mm	9mm
Flexible-Obedient	Flexible-Obedient	Flexible-Obedient	Flexible-Obedient
3.28 ft. (1m)	3.28 ft. (1m)	3.28 ft. (1m)	3 ft. (914mm)
60°	60°	60°	38° Vertical, 50° Horizontal
DCS400 - 1 to 12 in. DCS400-09 - 1 to 12 in. DCS400-05 - 0.25 to 4 in.	DCS300 - 4 in. to 8 ft. DCS355 - 0.25 to 4 in.	DCS200 - 4 in. to 8 ft. DCS200-09 - 1 to 12 in. DCS300-05 - 0.25 to 4 in.	0.5 in. to 5 ft.
IP67 (Probe only)	IP67 (Probe only)	IP67 (Probe only)	IP67 (Probe only)
2 LEDs, Plastic (DCS400); 4 LEDs, Glass, Anodized Aluminum (DCS400-09, DCS400-05)	2 LEDs, Plastic (DCS300); 4 LEDs, Glass, Anodized Aluminum (DCS355)	2 LEDs, Plastic (DCS200); 4 LEDs, Glass, Anodized Aluminum (DCS200-09, DCS200-05)	4 LEDs, Glass, Anodized Aluminum



### Rugged Recording Scope





#### **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 shows crystal-clear videos and images
- 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
- Custom molded hard carrying case
- Powered by Alkaline or rechargeable "AA" batteries
- · 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
- ♦ Maximum SD Card Capacity: 16GB
- ♦ Video Compatibilities: NTSC and PAL
- ♦ Video Resolution/File Type: 320 x 240 pixels/.avi
- ◆ Still Image Resolution/File Type: 640 x 480 pixels/.jpg
- ♦ PC Interface: USB2.0
- Menu Languages: English, French, Spanish, Portuguese, Mandarin Chinese
- ◆ Dimensions of Grip: 10.6 x 3.0 x 4.0 in. (270 x 75 x 100mm)
- ♦ Weight of Grip: 1 lb. (454g)
- ♦ Power Source:
  - 4 "AA" batteries (included)

#### **INCLUDES:**

- 1m (39 in.) Long x 12mm (0.47 in.) Diameter Camera-tipped Probe, Wand-type Grip and 3.5 in. (89mm) Color LCD
- 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 CaseUser's Manual
- 3-Year Limited

Warranty

**UPC NO.** 01582 7 **DCS350** 





Inspecting a crawl space the quick and easy way







Find blockages or broken registers in A/C ductwork

**DCS350** 



### **Rugged Non-Recording Scope**

#### **RUGGED NON-RECORDING VIDEO INSPECTION SYSTEM – DCS280**

#### Ideal for real-time applications.

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

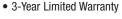
- · Big, bright color LCD for crystal-clear real-time video imaging
- 9mm (0.35 in.) diameter x 1m (39 in.) long camera-tipped probe is thin enough to fit into very narrow spaces
- 2m and 3m long x 9mm diameter probes are available
- Super thin 5.5mm dia. probes in 1m, 2m and 3m lengths are also available
- All probes are oil, water and dust-proof to IP67 standard. The DCS280's wand-type grip and monitor are IP54 splash-proof.
- Four adjustable LEDs in camera head illuminate dark areas
- Unit is drop-resistant to 1m height and comes in a protective hard case
- Invert what you see 180° to read labels rightside up and Z00M video up to 200% to show
- Pays for itself quickly: Avoid the cost and trouble of tearing down engines
- One-handed operation frees your other hand to use tools
- · AV Out jack enables video connection to any NTSC television
- Includes four useful probe tip accessories

#### **APPLICATIONS:**

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

#### **INCLUDES:**

- Video Inspection System with Wand-type Grip and 2.4 in. (61mm) Color LCD
- 1m (39 in.) Long x 9mm (0.35 in.) Diameter Flexible-obedient Probe
- Four Probe Tip Accessories (Thread Protector. Magnetic Pickup, Pickup Hook, 45° Mirror)
- Video cable
- 4 "AA" Batteries
- Custom Hard Case
- User's Manual





The rugged DCS280 shrugs off the accidental bumps typical of industrial work

#### **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.) flexibleobedient
- ♦ 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 LCD designed to meet IP54
- ◆ Operating Temperature/Humidity: 32° to 113°F (0° to 45°C) @ 5 to 95% RH
- ♦ Dimensions of Console: 10 x 3.6 x 2.3 in. (254 x 91 x 58mm)
- ♦ Weight of Console: 1 lb. (454g)
- ♦ Dimensions of Case:15 x 11 x 3.5 in. (381 x 279 x 89mm)
- ♦ Weight of Case and Contents: 4 lb. (1.8 kg)
- ♦ Power Source: 4 "AA" batteries (included)

**DCS280** 015728









Perfect for driveway mechanics

### The SeaScope™ Series





**DCS600** 

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

SEASCOPE™600 NON-RECORDING SEASCOPE™660 RECORDING

· 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)
- 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

#### Additional Features for SeaScope™660

- · 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

#### **SPECIFICATIONS:**

WATERPROOF VIDEO INSPECTION SYSTEMS - DCS600, DCS660

- ◆ 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)

Watertight Grip, Monitor and 1m Camera-tipped Probe; Video Cable; Set of Three Probe Tip Accessories (45° Mirror, Pickup Hook and Magnetic Pickup); Hard Plastic Protective Case; User's Manual, 1-Year Limited Warranty. DCS660 also includes 2GB MicroSD Memory Card, USB Cable

UPC	NO.
015148	DCS600
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



Ideal for all plumbing-related inspections



There's no need to worry about dropping either SeaScope in a flooded basement



The entire SeaScope™ system - including the grip, monitor and probe - is guaranteed watertight to a depth of 1 meter



General Tools & Instruments



#### THE SEEKER™200 SERIES VIDEO INSPECTION SYSTEMS

Compact video camerascopes for the visual inspection of inaccessible areas.

- View inspection video instantly on the 2.4 in. (60.9mm) color LCD
- · Separate monitor buttons for 2x zoom and 180° image flip
- System includes a 1m (3.28 ft.) long, flexibleobedient, camera-tipped probe
- Probes are flexible, strong and slim enough to perform automotive engine check-up
- Flexible-obedient probes retain configured shape to suit different inspection needs
- · Probes are water, oil and dust proof to IP67 standards
- Optional 12mm probe extensions of 1m, 2m, and 3m (3.28 ft., 6.6 ft., 9.9 ft.) are available for maximum extension of up to 5m (16 ft.)

#### **INCLUDES:**

Custom Hard Case, Pistol Grip Camera Handle with 1m Long, Flexible-Obedient Probe, 3 Accessory Tools, 1 "9V" Battery, Mini-Screwdriver, User's Manual, 3-Year Limited Warranty

UPC	NO.	PROBE DIAMETER
01372 4	DCS200	12mm (0.47 in.)
014943	DCS200-05	5.5mm (0.22 in.)
01482 0	DCS200-09	9mm (0.35 in.)





#### THE SEEKER™300 WIRELESS VIDEO INSPECTION SYSTEMS

Compact video camerascopes for the visual inspection of inaccessible areas.

- View inspection video instantly on the 3.5 in. (88.9mm) color LCD screen
- · Separate monitor buttons for 2x zoom and 180° image flip
- System includes a 1m (3.28 ft.) long, flexibleobedient, camera-tipped probe
- · Camera-tipped probes have built-in adjustable LED lighting
- Probes are flexible, strong and slim enough to perform automotive engine check-up
- Interchangeable probes are water, oil and dust proof to IP67 standards

#### **INCLUDES:**

Custom Hard Case, Pistol Grip Camera Handle with 1m Long, Flexible-Obedient Probe, 3 Accessory Tools, 1 "9V" Battery, Mini Screwdriver, User's Manual, 3-Year Limited Warranty

UPC	NO.	PROBE DIAMETER
01373 1	DCS300	12mm (0.47 in.)
01472 1	DCS355	5.5mm (0.22 in.)





#### THE SEEKER™400 WIRELESS RECORDING VIDEO INSPECTION SYSTEMS

Wireless interface with optional RCV100 module enables streaming of live inspection video over the Internet.

- 3.5 in. (88.9mm) diagonal TFT-LCD Wireless Color Monitor can be detached from the unit for remote viewing up to 10m (33 ft.) away
- Monitor features 4x zoom and 180° image flip features
- . System includes a 1m (3.28 ft.) long, flexibleobedient, camera-tipped probe
- Both monitor and handle use rechargeable Lithium-lon batteries which can be charged at the same time using the included one-into-two charging cable
- View inspection video in real time, record video and capture/save still photos as JPEGs with instant playback review. Up to 3 hours of video (AVI)
- NTSC or PAL compatible
- · Built-in magnets and stand facilitate hands-free operation
- Choice of 5 menu languages: English, French, Spanish, Chinese and Portuguese
- Interchangeable probes in multiple sizes

#### **INCLUDES:**

Custom Hard Case, Pistol Grip Camera Handle with 1m Long, Flexible-Obedient Probe, Detachable Wireless Monitor, 2GB Micro SD Memory Card, 3 Accessory Tools, USB and Video Interconnect Cables, Built-in Magnets, 2 Lithium-Ion Rechargeable Batteries with AC Adapter/Charger, User's Manual, 3-Year Limited Warranty

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UPC	NO.	PROBE DIAMETER
013717	DCS400	12mm (0.47 in.)
01447 9	DCS400-05	5.5mm (0.22 in.)
01426 4	DCS400-09	9mm (0.35 in.)
01446 2	RCV100	Wireless USB
		Video Receiver







**DCS400** 

C E

### **Infrared Thermometers**





(See page 19)	<b>5</b>	(See page 19)	Laser Targeti	ng (See page 20)		with Star Burst Laser Targeting (See page 20)
SPECIFICA	TIONS					
D:S Ratio Model No.	4:1 VR40	6:1 IRT105	8:1 IRT206 & IRT207	12:1 IRT657	12:1 IRT659K	8:1 IRTC50
Name	4:1 IR Thermometer with NCV and Flashlight	6:1 Pocket Infrared Thermometer	8:1 Mid-Range Infrared Thermometer	12:1 Wide-Range Infrared Thermometer with Star Burst Laser Targeting	12:1 Infrared Thermometer with "K" Type Thermocouple and Adjustable Emissivity	8:1 Scanning IR Thermometer with Star Burst Laser Targeting
Temperature Measurement Range	-4° to 626°F (-20° to 330°C)	-22° to 482°F (-30° to 250°C)	-4° to 608°F (-20° to 320°C)	-40° to 1076°F (-40° to 580°C)	IRT: -58° to 1202°F (-50° to 650°C); "K" Port: -146° to 2498°F (-99° to 1370°C)	-40° to 428°F (-40° to 220°C)
Resolution	0.1°	0.1°	0.1°	0.1° below 1000°	12:1	0.1°
Accuracy	±3.8°F (2°C) or ±1% of reading (whichever is greater) above 32°F; ±4.5°F (2.5°C) below 32°F	±2% of reading or ±5°F/±3°C (max), whichever is greater	±2% of reading or ±3.6°F/±2°C (whichever is greater)	±3°F (2°C) or ±2% of reading	0.1°F (0.1°C) IRT: ±3°F (2°C) or ±2% of reading above 32°F (0°C); ±4°F (3°C) or ±3% of reading below 32°F; "K" type thermocouple: ±1° (F or C)	±2% of reading or ±3°F (2°C) above 32°F ±3% of reading or ±5°F (3°C) below 32°F
Emissivity	Fixed at 0.95	Adjustable from 0.1 to 1.0 in 0.01 steps	Fixed at 0.95	Fixed at 0.95	Adjustable from 0.1 to 1.0 in 0.01 steps	Fixed at 0.95
Display	Backlit LCD	Backlit LCD	Backlit LCD	Backlit LCD	Backlit LCD	Backlit LCD
Laser Power	<1mW (Class 2)*	<1mW (Class 2)*	<1mW (Class 2)*	Class 3R (<3mW)**	Yes	<3mW (Class 3R)*
Auto Power Off	Yes	Yes	Yes	Yes	Yes	Yes
Other Key Features	Non-contact voltage detector with 4 sensitivity levels, LED flashlight	Min/Max Measurement Mode Measurement Lock Mode	Data Hold	Low battery indication Over-range indication	Automatically stores last 10 readings, Displays Min/Max/Avg/Dif session values, Settable high and low temperature alarms, Star Burst Laser Targeting	Green/red/blue indica of normal/hot/cold 1°, 5° or 10°F setpo bandwidth Data Hold
accessories Included	(2) "AAA" batteries, User's manual, 3-year limited warranty	Wrist strap "9V" battery User's manual, 1-year limited warranty	"9V" battery User's manual, 1-year limited warranty	"9V" battery User's manual Soft carrying pouch, 1-year limited warranty	"K" type thermocouple with 0° to 500°F (-18° to 260°C) range, "9V" battery, Nylon pouch, User's manual, 1-year limited warranty	"9V" battery User's manual, 1-year limited warra

<sup>\*</sup> Laser radiation! Do not stare into beam!

<sup>\*\*</sup> Laser radiation! Avoid direct eye exposure!



### **Infrared Thermometers**

#### 3-IN-1 POCKET INFRARED THERMOMETER WITH NCV AND FLASHLIGHT - VR40

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

#### **FEATURES:**

- Wide temperature measurement range
- Non-contact voltage detection (NCV) circuit sounds beeper and flashes LED when activated
- Safe for CAT III 600V, CAT II 1000V use
- Also checks 110VAC outlets for wiring faults
- · Patent-pending design places the IR and NCV sensors and flashlight on same end

#### **SPECIFICATIONS:**

- ♦ IRT D:S Ratio, Range: 4:1, -4° to 626°F (-20° to 330°C)
- ♦ IRT Measurement Accuracy: ±3.8°F (2°C) or ±1% of reading (whichever is greater) above 32°F; ±4.5°F (2.5°C) below 32°F
- ♦ Laser Power: <1mW (Class 2)</p>
- ♦ IRT Emissivity: Fixed at 0.95

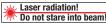
- ◆ Display Digits/Counts/Resolution: 4/2000/0.1°
- ♦ Detection Ranges/Sensitivities: 12 to 25VAC. 70 to 125VAC, 150 to 240VAC, 250 to 1000VAC
- ♦ Operating Temperature: 32° to 113°F (0° to 45°C) @ <95% RH
- ♦ Dimensions: 6.0 x 1.2 x 1.2 in. (152 x 31 x 31mm)
- ♦ Weight (with batteries): 7.8 oz. (220g)
- ♦ Power Source: (2) "AAA" (LR03) batteries

#### **INCLUDES:**

- Batteries User's Manual
- 3-Year Limited Warranty

UPC	NO.
016343	VR40





#### 6:1 POCKET INFRARED THERMOMETER - IRT105

Ideal for spot-checking the temperature of substances and surfaces from a distance. Perfect for electrical troubleshooting and HVAC equipment maintenance.

- · Optimized measurement range
- Accuracy of ±3°F or 2% above 32°F
- Adjustable emissivity
- Fast response time
- Max/Min measurement and measurement lock modes
- Selectable °F or °C unit
- Large LCD
- · Separate batteries for thermometer and laser
- . Small and light and easy to use
- CE approved

#### **SPECIFICATIONS:**

- ◆ Distance-To-Spot (D:S) Ratio: 6:1
- ◆ Temperature Measurement Range: -22° to 482°F (-30° to 250°C)
- ♦ Measurement Accuracy: ±3°F (2°C) or 2% of reading (whichever is greater) above 32°F (0°C); ±5°F (3°C) or 2% of reading (whichever is greater) below 32°F

- ♦ Emissivity: Adjustable from 0.1 to 1
- ♦ Response Time: 500 msec for 95% response
- ◆ Laser Power: <1mW (Class 2)</p>
- ◆ Thermometer Battery Life: 50 hours, typical
- ♦ Operating Temperature: 32° to 104°F (0° to 40°C) @<75% relative humidity
- ♦ Dimensions: 4.25 x 2.05 x 0.98 in. (108 x 52 x 25mm)
- ♦ Weight: 1.41 oz. (40g)
- ◆ Power Source: 2 "CR2032" Li-ion batteries

#### **INCLUDES:**

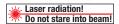
- Wrist strap
- Batteries
- User's Manual
- 1-Year Limited Warranty

i ioui	Liiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii
UPC	NO.
20106 1	IRT10





CE



#### 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: <1mW (Class 2)</p>
- ♦ 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





### **Infrared Thermometers**





### 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°F (2°C) or ±2% of reading above 32°F (0°C); ±5°F (3°C) or ±2% of reading

- ♦ Display Size and Type: 1.6 in. (40.6mm) dia. LCD
- ♦ Operating Temperature: 32° to 104°F (0° to 40°C) @<75% relative humidity (RH)
- ◆ Laser Power: <3mW (Class 3R)</p>
- ◆ 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.** 01480 6 **IRT657** 

#### 12:1 DUAL SENSOR INFRARED THERMOMETER WITH "K" TYPE THERMO-COUPLE & 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: ±3°F (2°C) or ±2% of reading
- "K" Port Measurement Range: -146° to 2498°F (-99° to 1370°C)
- ♦ 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 II (<3mW)</p>
- ♦ 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)

#### **INCLUDES:**

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

 UPC
 NO.

 01598 8
 IRT659K

### 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

- $\bullet$  Set-point 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 set-point
- 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



IRT659K

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IRTC50

Patent Pending





#### DIGITAL STEM TYPE SERVICE THERMOMETER WITH JUMBO DISPLAY -**PT300M**

#### Ideal for use in labs, industrial control and HVAC/R applications.

- Probe can be angled at 45°, 90°, 135° or 180° from handle
- Wide measurement range
- · Displays ambient temperature and temperature from remote probe
- °F or °C display
- Min/Max memory + data hold
- Wrist Strap
- Stainless steel probe

#### **SPECIFICATIONS:**

- ♦ Measurement Range: -58° to 572°F (-50° to 300°C)
- ♦ Measurement Accuracy: ±1.8°F (±1°C)
- ♦ Response Time: 1 second
- ♦ Probe Length: 5.125 in.
- ♦ Operating Temperature: 14° to 122°F (-10° to 50°C)
- ♦ Dimensions:

6 x 1.8 x 0.7 in. (152 x 46 x 18mm)

- ♦ Weight: 4 oz. (114g)
- ◆ Power Source: 1 "AAA" battery (included)

**UPC** NO. PT300M 21060 4



PT300M

#### **DIGITAL STEM THERMOMETER – DPT301FC**

#### Ideal for automotive, heating and refrigeration.

- Wide range, with 0.1° display resolution
- °F/°C switch
- Food safe
- 4.5 in. stainless steel stem
- Flat edge, non-roll case



#### SPECIFICATIONS:

- ♦ Measurement Range: -40° to 302°F (-40° to 150°C)
- ♦ Measurement Accuracy: ±1.8°F (±1°C)
- ◆ Probe Length: 4.5 in. (114mm)
- ♦ Dimensions: 11.00 x 5.25 x 1.25 in. (279 x 133 x 32mm)
- ♦ Weight: 2.55 oz. (72.29g)
- ◆ Power Source: 1 "LR44" battery (included)

NO.

DPT301FC 20035 3



#### **DELUXE DIGITAL STEM THERMOMETER – HDT304K**

#### Ideal for automotive, heating and refrigeration.

#### **FEATURES:**

- °F/°C switch
- Data hold
- · Stainless steel piercing probe
- Pocket clip
- Drop resistant

#### **SPECIFICATIONS:**

- ♦ Measurement Range: -58° to 302°F (-50° to 150°C)
- ♦ Measurement Accuracy: ±1.8°F (±1°C) from -22° to 302°F (-30° to 150°C); ±4°F (±2°C) elsewhere
- ♦ Response Time: 0.5 seconds
- ◆ Probe length: 3.8 in. (97mm) ◆ Auto Power Off:
- After 1 hour of inactivity
- ◆ Operating Temperature: 14° to 122°F (-10° to 50°C)
- ♦ Dimensions: 11.00 x 5.25 x 1.00 in. (279 x 133 x 26mm)
- ♦ Weight: 1.60 oz. (45.36g)
- ◆ Power Source: 1 "LR44" battery (included)

**UPC** NO. HDT304K 200056



#### ANALOG POCKET STEM THERMOMETERS WITH MAGNIFYING LENS -320, 321

#### Ideal for quick temperature readings.

#### **FEATURES/SPECIFICATIONS:**

- Rugged 5 in. (127mm) long, 0.14 in. (3.5mm) diameter stainless steel probe
- 1 in. (25.4mm) diameter dial with magnifying lens
- Measurement Range: -40° to 160°F (-40° to 71°C) for 320; 0° to 220°F (-18° to 104°C) for 321
- Measurement Accuracy: ±5%

#### **INCLUDES:**

· Protective sheath with pocket clip

UPC	NO.
00320 1	320
22391 3	321



### **Analog & Digital Thermometers**





FT80H



#### HORIZONTAL REFRIGERATOR/FREEZER ANALOG THERMOMETER -FT80H

Ideal for hanging.

#### **FEATURES:**

- · Stainless steel
- Horizontal reading
- Hanging or free standing
- Easy to read display
- °F/°C scales

#### **SPECIFICATIONS:**

- ♦ Measurement Range: -40° to 80°F (-40° to 27°C)
- ◆ Dimensions:

1.25 x 4.75 x 0.75 in. (32 x 121 x 19mm)

NO. FT80H 24015 1





**ROUND REFRIGERATOR/FREEZER THERMOMETER - FT80R** 

#### Ideal for hanging.

#### **FEATURES:**

- · Stainless steel
- · Hanging or free standing
- Easy-to-read round dial
- °F/°C scales
- Color-coded temperature arcs

#### **SPECIFICATIONS:**

- ♦ Measurement Range: -20° to 80°F (-29° to 27°C)
- ◆ Dial Diameter: 2 in. (50.80mm)

**UPC** NO. 24005 2 FT80R

FT80R

### CE



DT8852

#### **DIGITAL THERMOCOUPLE THERMOMETER – DT8852**

#### Ideal for measuring temperature differentials T1-T2.

#### **FEATURES:**

- Dual input
- Includes two "K" type thermocouples; also compatible with "T" type
- °F/°C switch
- · Backlit LCD display
- Data hold + auto power off
- · Low battery indicator
- RS-232 output for uploading data logs
- CE and RoHS approved

#### **SPECIFICATIONS:**

- ♦ Measurement Range with "K" type Thermocouple: -328° to 2498°F (-200° to 1370°C)
- ♦ Measurement Accuracy: 0.1% (±1°F)

- ♦ Response Time: 1 sec.
- ◆ Dimensions:

7.16 x 2.83 x 1.18 in. (182 x 72 x 30mm)

- ♦ Weight: 7.8 oz. (220g)
- ♦ Power Source: 1 "9V" battery (included)
- ♦ Warranty: 1-year (limited)

#### **INCLUDES:**

- 2 "K" type probes (TPK500)
- Molded hard case
- Battery

UPC 210123 DT8852



**DT898P** 



#### JUMBO DISPLAY INSIDE/OUTSIDE THERMOMETER - DT898P

#### Ideal for measuring and monitoring both indoor and outdoor temperature. **FEATURES:**

- Jumbo triple LCD display
- Min/Max memory
- Outdoor probe is water-resistant
- 12 ft. cable with probe
- · Wall mount or stand for desktop display
- 12/24 hour clock

#### **SPECIFICATIONS:**

- ♦ Measurement Range (Outdoor): -58° to 158°F (-50° to 70°C)
- ♦ Measurement Range (Indoor): 32° to 122°F (0° to 50°C)
- ♦ Accuracy/Resolution: ±1.5°F (±0.8°C)/0.1°

- ◆ LCD Size: 2.4 x 1.6 in. (60 x 40mm)
- ♦ Dimensions:

4.2 x 2.6 x 0.9 in. (106 x 75 x 22mm)

- ♦ Weight: 4.8 oz. (135g)
- ◆ Power Source: 1 "AAA" battery (included)

#### **INCLUDES:**

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

NO. 100127 DT898F



### **Digital Remote Sensing Thermometers**

#### 3 CHANNEL CAPABLE WIRELESS THERMOMETER WITH REMOTE - EMR813

Ideal for measuring and monitoring indoor and outdoor temperature.

#### **FEATURES:**

- Min/Max memory
- Programmable temperature alert
- °F/°C switch
- CE approved

#### **SPECIFICATIONS:**

- ◆ Measurement Range: Indoor: 32° to 122°F (0° to 50°C) Outdoor: -4° to 140°F (-20° to 60°C)
- ♦ Dimensions of Base Unit: 3.8 x 2.4 x 0.2 in. (97 x 60 x 30mm)
- ♦ Weight of Base Unit: 3 oz. (85g)

- ♦ Dimensions of Sensor: 3.6 x 2.6 x 0.9 in. (90 x 65 x 23mm)
- ♦ Weight of RemoteSensor: 3 oz. (85g)
- ♦ Power Source: 2 "AAA" batteries (not included)
- ♦ Warranty: 1-year (limited)

UPC	NO.
60017.7	EMR813





**EMR813** 

#### **INSIDE OUTSIDE THERMOMETER WITH WATERPROOF PROBE – AQ150**

Ideal for digitally monitoring indoor/outdoor temperatures.

#### **FEATURES:**

- Displays ambient or remote (IN or OUT) temperature
- Tracks MAX and MIN temperatures
- High and low remote temperature alarms
- °C/°F button
- Backlit LCD
- Foldaway stand
- Includes battery and mounting hardware
- · Magnets on back
- Detachable sensor-tipped cable

#### **SPECIFICATIONS:**

- ♦ Ambient Temperature Range: 14° to 122°F (-10° to 50°C)
- ♦ Remote Temperature Range: -58° to 158°F (-50° to 70°C)
- ♦ Measurement Accuracy: ±1°F (0.5°C) from -4° to 122°F (-20° to 50°C); ±1.8°F (±1°C) elsewhere in range

- ♦ Display Resolution: 0.1° (C or F)
- ♦ Sampling Period: 10 seconds
- ◆ Probe Cord Length: 10 ft. (3m)
- ♦ Display Size: 1.88 x 0.82 in. (48 x 21mm)
- ◆ Digit Height: 5/8 in. (16mm)
- ◆ Dimensions:
  - 2.9 x 2.1 x 0.7 in. (73 x 52 x 18mm)
- Weight of unit, probe, battery and accessories: 3.76 oz. (106g)
- ♦ Power source: 1 "CR2032" battery (included)
- ♦ Warranty: 1-year (limited)

#### **INCLUDES:**

- Suction cup
- Velcro mounting tape
- Battery
- · Mounting hardware

UPC	NO.
22150 1	AQ15

◆ Transmission Interval:

(114 x 102 x 19mm)

♦ Weight: (w/o batteries):

Sensor: 2.2 oz. (62g)

♦ Warranty: 1 year (limited)

♦ Power Source:

Base Station: 5.5 oz. (156g);

approximately every 30 seconds

♦ Transmission Frequency: 433 MHz

♦ Dimensions: Base: 4.5 x 4 x 0.75 in.



#### WIRELESS THERMO-HYGROMETER WITH REMOTE SENSOR - EMR963HG

#### Ideal for general-purpose environmental monitoring of facilities. ◆ Transmitting Range: up to 90 ft.

#### **FEATURES:**

- . Monitors temperature and humidity from up to 90 feet away
- °F/°C switch
- Up to three wireless sensors may be used with base station
- · Includes one remote wireless sensor; additional sensors available
- Jumbo display
- Min/Max memory
- Trend information
- Comfort indicator
- · CE and RoHS approved

#### **SPECIFICATIONS:**

- ♦ Indoor and Outdoor Temperature Range: -58° to 158°F (-50° to 70°C)
- ♦ Indoor and Outdoor Humidity Range: 25% to 90%
- ◆ Temperature Resolution: 0.2°F (0.1°C)

Indicates optional NIST calibration is available

- ♦ Humidity Resolution: 1%
- ♦ Humidity Accuracy: ±5%

- **INCLUDES:**
- 1 Wireless Temperature-Humidity Sensor Model THGR268

Base Station: 2 "AA" batteries (included)

Sensor: 2 "AA" batteries (included)

Sensor: 4 x 2.75 x 0.75 in. (102 x 70 x 19mm)

• 4 Batteries • User's Manual

UPC	NO.
60070 2	EMR963HG
600733	THGR268 (optional)
	Wireless temperature-humidity sensor







EMR963HG **SENSOR THGR268** 



**DL8835** 

**INT8819** 

**EP8711P** 

### Moisture, Temperature & Humidity





#### 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.

#### **FEATURES**:

- 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%
- ♦ Moisture Measurement Resolution: 0.1%

- ◆ Temperature Measurement Range/Accuracy: 32° to 140°F (0° to 60°C)/±2°F (±2°C)
- ♦ Humidity Measurement Range/Accuracy: 25 to 95%/±3% from 0° to 40°C
- ♦ Auto Power Off: After 3 minutes of inactivity
- ◆ 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)
- ♦ Warranty: 1-year (limited)

#### INCLUDES:

- Battery Two sets of extra pins
- User's manual

UPC NO.
01486 8 MMH80

#### TEMPERATURE-HUMIDITY DATA LOGGER - DL8835

Ideal for measuring, monitoring and recording temperature and humidity of sensitive facilities and on water-damage restoration projects.

#### FEATURES:

- Records relative humidity and temperature with date/time stamp
- · Logs data for days, weeks or months
- Multiple data loggers can be programmed and data downloaded from a single docking station
- Sampling rate programmable from 1 second to 2 hours
- · View either temperature or humidity on LCD
- Data logging functions require optional Serial (RS-232) or USB Interface Kit INT8819 (see below)
- Programmable high and low limits with alarm

#### SPECIFICATIONS:

◆ Temperature Measurement Range: -40° to 185°F (-40° to 85°C)

- ◆ Temperature Measurement Accuracy: ±1°F between -4° and 122°F; ±2°F elsewhere
- ◆ Relative Humidity Measurement Range: 5 to 95%
- ♦ RH Measurement Accuracy: ±5% of reading
- ♦ Temperature, RH Resolutions: 0.1°, 0.1% RH
- ♦ Data Logging Capacity: Up to 8,000 data points each for temperature, humidity
- 3.14 x 2.16 x 0.86 in. (80 x 55 x 22mm)

♦ Dimensions:

- ♦ Weight: 2.6 oz. (76g)♦ Power Source: Lithium battery (included)
- ♦ Warranty: 1-year (limited)

 UPC
 NO.

 46125 9
 DL8835

 46135 8
 INT8819 USB Interface Kit (optional)

#### **USB INTERFACE KIT FOR DL8835 – INT8819**

#### **FEATURES:**

- · For downloading readings to your PC
- Use with data logger model DL8835

#### **INCLUDES:**

- Data logger base
   USB1.1 cable
- Software
- User's manual
- 1-Year Limited Warranty

**UPC NO.** 46135 8 **INT8819** 

#### 6-IN-1 PSYCHROMETER WITH ENTHALPY—EP8711P

Ideal for HVAC/R professionals who need to know a system's enthalpy of vaporization—the energy needed to change a refrigerant from a liquid to a gas.

#### **FEATURES**

- Measures: 1) ambient temperature, 2) relative humidity (RH), 3) dew point, 4) wet bulb temperature, 5) mixing ratio in grains per pound (GPP) or g/kg, and 6) enthalpy in Btu or kj/kg
- 6-in. long sensor can be swiveled inside vent or grille
- Large 4-digit LCD °C/°F switch
- Auto Power Off
   Low battery indication
- RH Measurement Accuracy: ±2% from 10% to 90% RH; ±3% from 0 to 10%RH and from 90 to 100% RH
- RH Measurement Resolution: 0.1%

RH Measurement Range: 0 to 100%

- Battery Life: 1000 hours (typical)
- Dimensions: 8.23 x 1.85 x 1.85 in. (209 x 47 x 47mm)
- Power Source: (3) "AAA" batteries (included)

#### SPECIFICATIONS:

- ◆ Temperature Measurement Range: -4° to 158°F (-20° to 70°C)
- Temp Measurement Accuracy: ±0.7°F (±0.3°C)
- Temp Measurement Resolution: 0.1°

#### **INCLUDES:**

- Sensor protection cap Batteries
- User's Manual 1-Year Limited Warranty

UPC NO.
01677 0 EP8711P





#### **CALIBRATABLE MULTI-FUNCTION PSYCHROMETERS –** 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 33% and 75% salts
- Data hold and Max/Min buttons (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
- °F/°C switch
- 20-minute Auto Power Off (can be disabled for calibration)
- · Low battery indicator

#### **SPECIFICATIONS:**

- ◆ Ambient Temperature Measurement Range: 14° to 122°F (-10° to 50°C)
- ♦ Ambient Temperature Measurement Accuracy/Resolution: ±1.8°F (±1.0°C)
- ♦ External Temperature Probe Measurement Range (EP8710 only): 14° to 158°F (-10° to 70°C)

- ♦ External Temperature Probe Measurement Accuracy (EP8710 only): ±1.8°F (±1°C)
- ◆ External Probe Cord Length: 48 in. (1.22m)
- ◆ Temperature Measurement Resolution: 0.1°
- ♦ RH Measurement Range: 0 to 99.9%
- ♦ RH Measurement Accuracy: ±3% from 5% to 95% RH
- ♦ RH Measurement Resolution: 0.1%
- ♦ RH Response Time: <80 seconds
- ♦ Current Consumption: <15mA
- ♦ Battery Life: 60 hours (typical)
- ♦ Dimensions: 7.56 x 2.40 x 1.57 in. (192 x 61 x 40mm)
- ♦ Weight (without battery): 3.77 oz. (107g)
- ♦ Power Source: (1) "9V" battery (included)

#### **INCLUDES:**

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

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

#### **CALIBRATABLE DIGITAL PSYCHROMETER - EP8706**

#### Ideal for accurate handheld measurements of temperature and humidity. **FEATURES:**

- · Jumbo display, triple read-out
- · Rotating head to protect sensor
- · Field calibratable humidity measurement
- Auto power off
- Min/Max memory + data hold
- CE approved

#### **SPECIFICATIONS:**

- ◆ Temperature Measurement Range: -4° to 122°F (-20° to 50°C)
- ◆ Temperature Measurement Accuracy: ±1.2°F (±0.6°C)
- ♦ RH Measurement Range: 10 to 90%

- ♦ RH Measurement Accuracy: ±3% of reading
- ♦ Response Time: 60 seconds
- ◆ Power Source: 2 "AAA" batteries (included)

#### **INCLUDES:**

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

UPC	NO.
10041 7	EP8706
10043 1	P8706 External Temperature Probe
	(optional)
15060 3	<b>HR33</b> 33% Calibration Salt (optional)
15070 2	<b>HR75</b> 75% Calibration Salt (optional)

#### DIGITAL PSYCHROMETER WITH DEW POINT AND WET BULB - SAM990DW

#### Ideal for monitoring environmental conditions. **FEATURES:** ♦ RH Measurement Accuracy: ±3% of reading

- Measures and displays RH and ambient, wet bulb and dew point temepratures
- · No twirling or charts necessary
- Min/Max memory + data hold
- °C/°F switch
- · 20-minute auto power off (can be disabled for calibration)
- · Low battery indication

#### **SPECIFICATIONS:**

- ◆ Temperature Measurement Range: ·4° to 122°F (-20° to 50°C)
- ◆ Temperature Measurement Accuracy: ±1.8°F (±1°C)
- ◆ Relative Humidity Measurement Range: 10 to 90%
- Protective Cap With Pocket Clip Batteries **UPC**
- User's Manual 1-Year Limited Warranty NO.

◆ Power Source: 2 "AAA" batteries (included)

◆ Dew Point Measurement Accuracy:

♦ Dimensions: 6.7 x 1.85 x 0.5 in.

♦ Response Time: 60 seconds (approx.)

±1.2°F (±0.6°C)

(170 x 22 x 13mm)

♦ Weight: 4 oz. (113g)

10025 /	SAMBAODM	
15060 3	HR33	33% Calibration Salt (optiona
15070 2	<b>HR75</b>	75% Calibration Salt (optiona



General Tools & Instruments

### Data Loggers/Monitors





#### **Included Accessories:**

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

#### **Optional Accessories:**

UPC	NO.	DESCRIPTION
015063	AC1	9VDC adapter for 110V power supply
25015 0	<b>TPK500</b>	-50° to 500°F "K" type thermocouple
25005 1	TPK05	-40° to 562°F "K" type thermocouple
25003 7	TPK03	-40° to 950°F "K" type thermocouple
015025	SDRD1	SD Card Reader







<ul> <li>AC Adapter</li> </ul>	• User's Manual
UPC	NO.
01311 3	CDM77232
12710 0	<b>ASFTKIT</b> PC Interface Kit (optional)
15060 3	<b>HR33</b> Calibration salt MgCl 33% (optional)
15070 2	<b>HR75</b> Calibration salt NaCl 75% (optional)

#### **HUMIDITY-TEMPERATURE INSTRUMENT** WITH EXCEL-FORMATTED DATA LOGGING SD CARD – DTH3007SD

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

- · 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. 014615 **DTH3007SD** 

#### DATA LOGGING TEMPERATURE-HUMIDITY MONITOR - LTH8809DL

Ideal for monitoring and recording environmental in HVAC/R applications. **FEATURES:** 

- · Bright red jumbo LED display
- · Wall or desk mountable
- Settable high and low temperature and humidity
- · Also calculates and displays dew point
- Selectable temperature unit
- Data logging capacity of 16,000 records
- · Field calibratable humidity measurement

#### SPECIFICATIONS:

- ◆ Temperature Range: -4° to 158°F (-20° to 70°C)
- ◆ Temperature Accuracy: ±1.2°F (±0.6°C)
- ♦ Relative Humidity Measurement Range: 5 to 95%
- ♦ RH Measurement Accuracy: ±3% of reading between 10 and 90% RH; ±5% elsewhere
- ◆ Temperature, Humidity Resolutions: 0.1°F (0.1°C), 0.1% RH

- ♦ Display Size: 2 x 2.6 in. (50.9 x 65.5mm)
- ♦ Dimensions: 4.8 x 5.2 x 1.6 in. (120 x 130 x 42mm)
- ♦ Weight: 7.4 oz. (210g)
- ♦ Power Loss Data Backup: 4 "AA" batteries (included)
- ♦ Warranty: 1-year (limited)

#### **INCLUDES:**

- 9V AC/DC Adaptor
   Backup Batteries
- Data Logging/Interface Software USB Cable
- User's Manual 1-Year Limited Warranty

UPC	NO.
01309 0	LTH8809DL
210147	Z110VADPT 9VDC adaptor for 110V
	power supply
15060 3	HR33 33% Calibration Salt (optional)
15070 2	HR75 75% Calibration Salt (optional)

#### **HIGH ACCURACY TEMPERATURE/HUMIDITY** AND IAQ MONITOR WITH OUTPUT RELAY - CDM77232

Ideal for monitoring indoor air quality of houses, offices, classrooms, factories, hospitals and hotels. Includes relay for activating a ventilation system.

- Measures CO<sub>2</sub> level, air temperature, humidity, dew point and wet bulb temperature
- Triple backlit LCD displays of CO<sub>2</sub> level, temperature and humidity
- Uses stable non-dispersive infrared (NDIR) sensor to measure CO<sub>2</sub>
- Calculates, periodically updates and displays 8-hr. time-weighted average (TWA) of CO<sub>2</sub> exposure and 15-minute short-term exposure limit (STEL)
- . Visual and audible CO2 alarms
- Min/Max memory +data hold
- RS-232 output jack; optional PC data logging kit includes RS-232 to USB adaptor
- Calibratable RH measurement
- 20-minute Auto Power Off (can be disabled for calibration)
- Wall or desktop mount
- CE and RoHS approved

#### **SPECIFICATIONS:**

- ◆ CO<sub>2</sub> Measurement Range: 0 to 5000ppm
- ♦ CO<sub>2</sub> Measurement Accuracy: ±50ppm ±5% of reading
- ♦ Pressure Dependence of CO<sub>2</sub> Measurement: +1.6% of reading per kPa deviation from sea-level atmospheric pressure (100kPa)
- ♦ CO<sub>2</sub> Calibration Level: 400ppm
- ◆ Temperature Range: 14° to 140°F (-10° to 60°C)
- ♦ Temperature Accuracy: ±0.9°F (0.6°C)
- ♦ Humidity Measurement Range: 10 to 95%
- ♦ Humidity Measurement Accuracy: ±3%
- ♦ Warmup Time: 30 seconds
- ♦ Response Times: 30 seconds for CO<sub>2</sub> and temperature, 30 minutes for humidity
- ♦ Operating Temperature: 32° to 122°F (0° to 50°C)@<80% RH
- ♦ Dimensions: 6.88 x 5.63 x 2.38 in. (174.75 x 143 x 60.45mm)
- ♦ Weight: 14.00 oz. (397g)
- ♦ Power Source: AC Adaptor (included)





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

Ideal for monitoring temperature and humidity in enclosed spaces.

#### **5FEATURES:**

- 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: Up to 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)

#### **INCLUDES:**

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

UPC	NO.
01501 8	HT10
01503 2	HT20
015049	HT50
72015.8	<b>BA10</b> Extra "1/2 AA" Battery (ontional)







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		0° to 70°C)/±1.8°F (1°C) fro	
Range/Accuracy	•	0°C); ±3.6°F (2°C) elsewher	
Temperature Measurement	,		•
Resolution		±0.2°F (0.1°C)	
RH Measurement	0 to 100% /±	3% from 20 to 80%RH, ±3.5	:0/ alsowhere
Range/Accuracy	0 to 100%/1	5/0 ITOTII 20 to 60/0KH, ±5.3	7/0 elsewhere
RH Measurement Resolution		0.1%	
GPP Measurement Range	(	) to 1500 GPP (0 to 285g/kខ្	g)
			16,000 pairs of RH &
Internal Storage Capacity	16,000 pairs of RH & temp readings		temp readings/10,000 RH
			& temp sets + IR readings
IRT Measurement Range	N,	/Δ	-4° to 482°F
	,		(-20° to 250°C)
IRT Measurement			±5°F (3°C) below 32°F
Accuracy/Resolution	N/A		(0°C); ±4°F (2°C) above
		1.	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.
	1150 X 2120 X 2102 111	<u> </u>	(125 x 43 x 23mm)
Weight		<7 oz. (<200g)	
Power Source		rgeable Lithium-Ion Battery	,
What's Included	Battery, Software, USB Extension Cable, User's Manual		
Battery Life (typical)		1 year	
Limited Warranty Term		1 year	

#### JUMBO DISPLAY HUMIDITY AND TEMPERATURE MONITOR - DTH03A

Ideal for measuring, monitoring and displaying temperature and humidity.

#### **FEATURES:**

- · Displays humidity and temperature
- Min/Max temperature and humidity memory
- °F/°C slide switch

#### **SPECIFICATIONS:**

- ◆ Temperature Measurement Range: 32° to 122°F (0° to 50°C)
- ♦ Relative Humidity Measurement Range: 20 to 95%
- ◆ Temperature, RH Resolutions: 0.1° (F or C), 1% RH

- ♦ Display Size: 3.2 x 2.3 in. (80 x 58mm) with 0.9 in. (23mm) high digits
- ♦ Dimensions:
- 4.3 x 3.9 x 0.8 in. (110 x 98 x 20mm)
- ♦ Weight: 6.3 oz. (175g)
- ◆ Power Source: 1 "AAA" battery (included)

#### **INCLUDES:**

- 1-Year Limited Warranty

UPC	NO.
11040 9	DTH03A





DTH03A

### **Combustible Gas Leak Detectors**





#### **INTRINSICALLY SAFE COMBUSTIBLE GAS LEAK DETECTOR - CGD900**

Ideal for detecting more combustible gases (including hydrocarbons) than competitive units.

#### **FEATURES:**

- Detects Methane, Propane, Ethane, Butane, Hydrogen, Ethylene, Ethanol, ISO-Butane, NOL, Gasoline, Acetylene, Methyl Ether, Ammonia, Hydrogen Sulfide, Industrial solvents, Benzene, Alcohols, Acetone, Toluene, Xylene
- MSHA approved
- Intrinsically safe (in methane-air only)
- · Numeric LED display of sensitivity
- · Heated sensor technology
- · Ultra sensitive to methane gas
- · Long life sensor
- Unique digital leak size alarm
- Automatic calibration
- Alarm mute mode
- 3 LED sensitivity levels

#### **SPECIFICATIONS:**

- ♦ Sensitivity: As low as 5ppm (methane)
- ♦ Sensor Life: 300+ hours
- ♦ Response Time: Instantaneous
- ♦ Warm-up Time: <10 seconds
- ♦ Calibration: Automatic
- ♦ Probe Length: 17 in. (432mm)
- ♦ Display: Bright LED-visible in sunlight
- ♦ Dimensions: 13.75 x 10.00 x 3.25 in. (349 x 254 x 83mm)
- ♦ Weight: 2.0 lbs. (907g)
- ♦ Power Source: 4 "AA" batteries (included)
- ♦ Battery Life: 20 hours continuous use

#### INCLUDES:

- Test Vial Batteries User's Manual
- 2-Year Limited Warranty

UPC	NO.
014493	CGD900

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

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

#### EATURES:

- 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)</p>
- ◆ 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.)

#### **INCLUDES:**

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

UPG	NU.
40880 3	NGD8800
01389 2	NGD8800SEN Replacement sensor

### COMBUSTIBLE GAS DETECTOR WITH WIDE OPERATING RANGE FOR EXTREME WEATHER CONDITIONS - NGD268

### Ideal for detecting all combustible gases. **FEATURES**:

- Detects Methane, Natural Gases, Coal Gases, Hexane, Propane, Ethane, Butane, Pentane, Isopropyl Alcohol, Halogenated Hydrocarbons (Methanol, Ethanol, Butanol), Ether, Ketones (Butone, Protone), Hydrogen, Toluene, Gasoline, Industrial Solvents, Lacquers, Refrigerants, Sulfur Dioxide, Ammonia, Sulfured Hydrogen, Acetic Acid
- Quick response
- Long and flexible gooseneck probe
- Adjustable sensitivity
- 30 level light/Tricolor LED indication
- · Low battery indicator
- · Sensor self-fault detection
- · High concentration protection

#### **SPECIFICATIONS:**

- ♦ Sensitivity: < 50ppm
- ◆ Operating Temperature: -40° to 158°F (-40° to 70°C) @< 98% RH</li>

- ♦ Warmup Time: 20 sec.
- ♦ Response Time: <10 seconds
- ◆ Alarm Levels: Low level Green 20% LEL (Lower Explosive Limit)

Med level - Yellow High level - Red - 50% LEL

♦ Charge time: 4 to 6 hours

- ♦ Dimensions:
- 6.7 x 2.4 x 1 in. (170 x 62 x 26mm)
- ♦ Weight: 12.4 oz. (350g)
- ◆ Power Source: 1 "4.8V" rechargeable battery (included)
- ♦ Battery life: up to 8 hours (approx.)

#### INCLUDES:

- AC Power Adaptor
   Operating Instructions
- Battery 1-Year Limited Warranty

UPC	NO.	
41537 5	NGD268	



28 General Tools & Instruments

**NGD8800** 



### Gas, CO & Refrigerant Leak Detectors

#### **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



#### **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 6	DC01001	

# **( E** RoHS

DCO1001

#### DIGITAL REFRIGERANT LEAK DETECTOR WITH PUMP - RLD400

Ideal for electronic sensing—the most widely used, sensitive and accurate method of refrigerant leak detection. New proprietary semiconductor sensor detects many new ozone layer-friendly refrigerants approved under the U.S. EPA's Significant New **Alternatives Policy (SNAP).** 

- Proprietary sensor with lifetime of more than 300 hours of operation (ten years of normal use)
- · Detects all commercially available HFC. HFO. HC, HCFC and CFC refrigerants as well as blends and newly approved replacements such as R-22 and R-1234yf
- Triple-redundant leak indication (loud fast beep, bright flashing LED, digital leak size reading)
- True mechanical pump draws in samples, increasing sensitivity
- Three sensitivity levels
- Fast warmup
- Comfortable neoprene grip
- · Automatic calibration and reset to ambient levels
- Mutable beeper
- Garage-durable construction
- . Made in U.S.A.
- SAE J2791 and J2913 certified
- Complies with European standard EN 14624
- . CE, RoHS, WEEE approved

#### **SPECIFICATIONS:**

- ♦ Sensitivities: 0.05 oz./yr (1.4 g/yr) for R-134a; 0.025 oz./yr (0.7g/yr) for R-22
- ♦ Refrigerants Detected: R-134a, R-410a, R-404a, R-407c, R-507, CFC-12 (R-12 or Freon), R-22, R-1234yf
- ◆ Detection Modalities: Sound, light, leak size
- ♦ Sensor Type: Proprietary solid electrolyte semiconductor
- ♦ Sensor Life: >300 hours (ten years' normal use)
- ♦ Warmup Time: 17–20 seconds
- ♦ Response Time: Instantaneous
- ◆ Display Type, Size: 7-segment red LED, 0.6 in. (15mm) high
- ♦ Dimensions of Instrument: 6.8 x 2.6 x 2.2 in. (173 x 66 x 56mm) w/17 in. (432mm) probe
- ♦ Weight of Instrument: 1.5 lb. (680g)
- ♦ Power Source: 4 "AA" batteries (included)
- ♦ Battery Life: 5 hours continuous operation (typical)



#### **INCLUDES:**

- Padded Hard Case
   Leak Test Vial
- Batteries
   User's Manual
- 2-Year Limited Warranty (including sensor)

**UPC** RLD400 01587 2

### Refrigerant Leak Detectors







#### HIGH-PERFORMANCE REFRIGERANT LEAK DETECTOR - RLD380L

#### Ideal for HVAC/R, industrial and automotive applications. **FEATURES:**

- Detects R-134a, R-404A, R-407C, R-410A, R-22 (Freon)
- · Uses semiconductor sensor and digital signal processing
- · Color-coded display of Hi and Lo leak levels
- · Hi/Lo sensitivity switch
- Includes flexible stainless steel gooseneck probe, reference source
- Fast warmup
- · Redundant audible and visual alarms
- · Ambient refrigerant concentration reset
- · Auto power off
- Low battery alert
- · CE, RoHS, WEEE approved

#### SPECIFICATIONS:

- ♦ Sensitivities: 6g/yr (Hi) and 30g/yr (Lo) for R-134a, R-22; 8g/yr (Hi) and 40g/yr (Lo) for R-404A, R-407C, R-410A
- ♦ Warmup Time: 90 seconds
- ♦ Auto Power Off: 10 minutes of inactivity
- ◆ Probe Length: 15.5 in. (394mm)
- ♦ Operating Altitude: <6500 ft. (1980m)
- ♦ Operating Temperature and Humidity:  $32^{\circ}$  to  $104^{\circ}$ F ( $0^{\circ}$  to  $40^{\circ}$ C), < 80%RH
- ♦ Storage Temperature and Humidity: 14° to 140°F (-10° to 60°C), < 70%RH
- ♦ Dimensions: 6.8"H x 2.6"W x 2.2"D (173 x 66 x 56mm)
- ♦ Weight: 14.1 oz. (400g)
- ◆ Power Source: 4 "AA" batteries (included)
- ♦ Battery Life: 40 hours of normal use



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

**UPC** NO. 401415 RLD380L

013786 **RS380** Replacement Sensor

RLD380L







#### HIGH-PERFORMANCE REFRIGERANT LEAK DETECTOR WITH PUMP -RLD382P

#### Ideal for HVAC/R, industrial and automotive applications requiring greater sensitivity. **FEATURES:**

- Detects R-134a, R-404A, R-407C, R-410A, R-22 (Freon)
- Uses pump to draw in gas, increasing sensitivity
- · Also uses semiconductor sensor and digital signal processing
- Three-color display of Hi, Medium, Lo leak levels
- Hi/Lo sensitivity switch
- · Includes flexible stainless steel gooseneck probe, reference source
- Fast warmup
- · Redundant audible and visual alarms
- Ambient refrigerant concentration reset
- · Auto power off
- · Low battery alert
- CE, RoHS, WEEE approved





**SPECIFICATIONS:** 

- ♦ Sensitivities: 3g/yr (Hi), 15g/yr (Med) and 30g/yr (Lo) for R-134a, R-22; 4g/yr (Hi), 20g/yr (Med) and 40g/yr (Lo) for R-404A, R-407C, R-410A
- ♦ Warmup Time: 45 seconds
- ♦ Auto Power Off: 10 minutes of inactivity
- ♦ Probe Length: 15.5 in. (394mm)
- ♦ Operating Altitude: <6500 ft. (1980m)
- ♦ Operating Temperature and Humidity: 32° to 104°F (0° to 40°C), < 80%RH
- ♦ Storage Temperature and Humidity: 14° to 140°F (-10° to 60°C), < 70%RH
- ♦ Dimensions: 6.8 x 2.6 x 2.2 in. (173 x 66 x 56mm)
- ♦ Weight: 14.1 oz. (400g)
- ♦ Power Source: 4 "AA" batteries (included)
- ♦ Battery Life: 7 hours of normal use
- ♦ Warranty: 1-year (limited)

#### INCLUDES:

- · Leak Check Bottle
- Molded Hard Case
- Batteries
- · User's Manual
- 1-Year Limited Warranty

RLD382P 003824

013786 **RS380** Replacement Sensor









### Data Logging Hot Wire Anemometer

#### DIGITAL DUAL MODE REFRIGERANT LEAK DETECTOR - RLD440

Uses UV LEDs to spot leaks of fluorescent dye injected into an A/C system. A proprietary semiconductor sensor then gauges and displays the size of the leak. **SPECIFICATIONS:** 

- Proprietary sensor with lifetime of >300 hours of operation (ten years' normal use)
- Detects all commercially available HFC, HFO, HC, HCFC, and CFC refrigerants
- Quadruple-redundant leak indicators: UV dve fluorescence, loud fast beep, bright flashing LED and digital leak size reading
- True mechanical pump draws in samples, increasing sensitivity
- Sensitivity of 0.05 oz./year (1.4g/year) to R-134a
- · Automatic calibration and reset to ambient levels
- Three sensitivity levels
- Fast warmup
- · Padded hard plastic case
- Garage-durable construction
- · Leak test vial
- · Made in the U.S.A.
- 2 year warranty includes sensor



♦ Refrigerants Detected: R-134a, R-410a, R-404a R-407c, R-507, CFC-12 (R-12 or Freon), R-22, R-290, R-441A, R-600a, R-1234yf

♦ Sensitivities: 0.05 oz./yr (1.4 g/yr) to R-134a; 0.025 oz./yr (0.7g/yr) to R-22

- ♦ Sensor Type: Proprietary solid electrolyte semiconductor
- ♦ Warmup Time: 17-20 seconds
- ♦ Display Type, Size: 7-segment red LED, 0.6 in. (15mm) high
- ♦ Dimensions of Instrument: 6.8 x 2.6 x 2.2 in. (173 x 66 x 56mm) w/17 in. (432mm) probe
- ♦ Weight of Instrument: 1.5 lb. (680g)
- ♦ Complies with SAE Standards J2791 and J2913, European Standard EN14624
- ♦ Power Source: 4 "AA" batteries (included)
- ♦ Battery Life: 5 hours continuous operation (typical)

#### **INCLUDES:**

- Leak Test Vial (5) Spare Sensor Filters,
- 4 "AA" Batteries Hard Plastic Carrying Case
- User's Manual
   2-Year Limited Warranty

UPC RLD440 016756



#### 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
- Measures airflow volumes from 0 to 2.5 million CFM (0 to 72,000 CMM) with ±3% accuracy
- Displays maximum, minimum or maximum air speed plus temperature
- Also has 8:1 or 30:1 infrared thermometer for remote, non-contact measurement of surface temperatures from -25° to 999°F (-32° to 538°C) with ±3% accuracy
- Telescoping probe and cable extend reach of hot wire sensor and thermistor to up to 6 ft. (1.8m)
- 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
- · CE and RoHS approved

#### **SPECIFICATIONS:**

- ♦ Air Flow Volume Measurement Range/Resolution: 0 to 2,542,700 CFM (0 to 72,000 CMM)/0.01 CFM (0.001 CMM)
- ♦ Air Speed Measurement Range/Accuracy: 2 to 7874 ft./min (20 mm/sec to 40 m/sec)/±3%
- ♦ IR Thermometer CIH20DL D:S ratio: 8:1
- ♦ IR Thermometer CIH30DL D:S ratio: 30:1
- ♦ IR Thermometer Emissivity: 0.95 (fixed) ♦ IR Thermometer Measurement Range:
- -25° to 999°F (-32° to 537°C)
- ♦ IR Thermometer Measurement Accuracy: ±3.6°F (2°C) from -4° to 212°F (-20° to 100°C)
- ♦ IR Thermometer Measurement Resolution: 0.1°max/ (F or C)
- ♦ IRT Laser Power: <1mW (Class 2)
- ♦ Memory: Nine readings + Max/Min/Avg + Data Hold
- Extended length of telescoping hot wire probe: 70.8 in. (1.8m)
- ♦ Dimensions:
  - 7.24 x 2.75 x 1.57 in. (184 x 70 x 40mm)
- ♦ Weight: 11.3 oz. (320g)
- ♦ Power Source: 1 "9V" battery (included)

#### INCLUDES:

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

**UPC** CIH20DL 01498 1 016817 CIH30DL



Laser radiation!

Do not stare into beam!

### Digital Airflow Meters





DCFM8906



DCFM8901 DCFM8901CERT





DIGITAL ONE PIECE AIRFLOW METER WITH CFM DISPLAY - DCFM8906

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

- Measures and displays CFM, CMM, FPM, temperature and knots
- One-handed airflow measurement
- RS-232 output jack; optional PC data logging kit includes RS-232 to USB adaptor
- Auto Power Off (can be disabled for data logging)
- Calculates and displays average, minimum, and maximum air speed and airflow volume readings at one point or up to eight points
- Data hold
- °F/°C switch
- CE and RoHS approved

#### **SPECIFICATIONS:**

- ♦ Airflow Volume Measurement Range: 0 to 99,999 CFM or CMM
- ◆ Airflow Velocity Measurement Range: 80 to 5900 ft./min (0.4 to 30m/sec)

- ◆ Airflow Measurement Accuracy/Resolution: ±3%/1 ft./min (10mm/sec)
- ◆ Temperature Measurement Range: 14° to 122°F (-10° to 50°C)
- ◆ Temperature Measurement Accuracy/Resolution: ±2°F (±1°C)/0.1°
- ♦ Display Size: 1.25 x 1.625 in. (31 x 41mm)
- ◆ Dimensions: 7 x 2.5 x 1.75 in. (183 x 76 x 45mm);

Vane diameter: 2.8 in. (70mm)

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

#### **INCLUDES:**

- Molded Hard Case
   Battery
- 1-Year Limited Warranty

UPC	NO.
40015 9	DCFM8906
12710 0	ASFTKIT PC Interface Kit (optional)
210147	Z110VADPT 9V AC/DC adaptor
	(optional)

### DIGITAL TWO PIECE AIRFLOW METER WITH RS-232 COMPUTER INTERFACE – DCFM8901

#### Ideal for measuring airflow volume, airflow velocity, air temperature.

#### FEATURES:

- Measures and displays CFM, CMM, FPM, MPS and temperature
- Min/Max memory + data hold
- · Single- and multi-point averages
- RS-232 output jack; optional PC data logging kit includes RS-232 to USB adaptor
- Auto Power Off (can be disabled for data logging)
- °F/°C switch
- CE and RoHS approved

#### SPECIFICATIONS:

- ◆ Airflow Volume Measurement Range: 0 to 99,999 CFM or CMM
- ◆ Airflow Velocity Measurement Range: 80 to 6900 ft./min (0.4 to 35 m/sec)
- ◆ Airflow Measurement Accuracy/Resolution: ±2%/1 ft./min (10 mm/sec)
- ◆ Temperature Measurement Range: 14° to 122°F (-10° to 50°C)

- ◆ Temperature Measurement Accuracy/Resolution: ±1°F (±1°C)/0.1°
- ♦ Cord Length: 20.5 in.; extends to 4.5 ft.
- ♦ Dimensions of Meter: 7.1 x 2.8 x 1.5 in. (181 x 71 x 38mm); Vane diameter: 2.9 in. (73mm)
- ♦ Weight of Meter: 10.4 oz. (295g)
- ♦ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

- Remote Vane/Temperature Probe
- Molded Hard Case Battery User's Manual
- 1-Year Limited Warranty

UPC	NO.
40005 0	DCFM8901
40006 7	P8901 Replacement Vane/Temperature
	Probe (optional)
12710 0	ASFTKIT PC Interface Kit (optional)
210147	<b>Z110VADPT</b> 9V AC/DC adaptor (optional)

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

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

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

#### **SPECIFICATIONS:**

- ◆ Airflow Volume Measurement Range: 0 to 99,999 CFM or CMM
- ◆ Airflow Velocity Measurement Range: 0 to 8800 ft./min (0 to 45 m/sec)
- ♦ Airflow Measurement Accuracy: ±2%
- ◆ Temperature Measurement Range: -58° to 158°F (-50° to 70°C)

- ◆ Temperature Measurement Accuracy/Resolution: ±0.9°F (±0.5°C) from 32° to 122°F (0° to 50°C); ±1.8°F (±1°C) elsewhere
- ◆ Operating Temperature: -14° to 158°F (-10° to 70°C)
- ◆ Storage Temperature: -14° to 158°F (-10° to 70°C)
- ♦ Sampling Period: 1 second
- ▲ Dimensions:
- Meter: 6.9 x 3.3 x 1.4 in. (175 x 85 x 35mm) Vane: 6.1 x 3 x 1.4 in. (170 x 75 x 35mm)
- ♦ Weight: 10 oz. (280g)
- ♦ Power Source: 3 "AAA" batteries (included)

#### **INCLUDES:**

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

UPC NO.
40700 4 DCFM700



### Digital Airflow Meters

#### DIGITAL ALL-IN-ONE AIR FLOW METER WITH CFM, BTU, TEMP, HUMIDITY, DP, FPM, MPH, KPH, MPS, KNOTS AND WET BULB -**WDCFM8912**

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

- · One-handed airflow measurement
- Min/Max memory + data hold
- · Single- and multi-point averages
- RS-232 output iack; optional PC data logging kit includes RS-232 to USB adaptor
- Auto Power Off (can be disabled for data logging)
- °F/°C switch
- CE and RoHS approved

#### **SPECIFICATIONS:**

- ♦ Airflow Volume Measurement Range: 0 to 99,999 CFM or CMM
- ♦ Airflow Velocity Measurement Range: 1 to 6840 ft./min (0.3 to 35 m/sec)
- ♦ Airflow Measurement Accuracy: ±5%
- ♦ Temperature Measurement Range: -4° to 140°F (-20° to 60°C)
- ♦ Temperature Measurement Accuracy: ±1°F (±0.6°C)

- ♦ RH Measurement Range: 10 to 90%
- ♦ RH Measurement Accuracy: ±3% of reading
- ♦ Dew Point/Wet Bulb Temperature Measurement Resolution: 0.1°F (0.1°C)
- ♦ Dimensions of Meter: Vane: 6.7 x 3 x 1.6 in. (170 x 77 x 40mm) Meter: 6.9 x 2.8 x 1.3 in. (175 x 70 x 33mm)
- ♦ Weight of Meter: 10.4 oz. (295 g)
- ♦ Power Source: 4 "AA" batteries (included) or optional 9V AC adaptor

#### **INCLUDES:**

- Hard Case Batteries User's Manual
- Vaar Limitad War

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	UPC	NO.
	01249 9	WDCFM8912
	12710 0	<b>ASFTKIT</b> PC Interface Kit (optional)
	01291 8	<b>P8912</b> Replacement Vane/Temperature Probe (optional)
	210147	<b>Z110VADPT</b> 9V AC/DC adaptor (optional)



**WDCFM8912** 





#### HOT WIRE ANEMOMETER-THERMOMETER WITH EXCEL-FORMATTED DATA LOGGING SD CARD – HWA4214SD

Ideal for high accuracy measurements of air (wind) speeds as low as 0.5 mph and air temperatures within  $\pm 1.5$ °F ( $\pm 0.8$ °C).

- · Includes telescoping air speed-temperature
- Displays air (wind) speed in meters/second, feet per minute, kilometers/hr, knots (nautical miles per hour), or miles per hour
- Measures air speeds down to 0.2 m/sec with 0.01 m/sec resolution (down to 40 ft/min with 1 ft/min resolution)
- Displays temperature in °F or °C
- Big (2.5 in. diagonal) front-panel green backlit LCD is easy to read
- . Displays maximum and minimum readings and holds any reading
- · Automatically logs measurements at sampling time settable from one second to one hour · Also supports manual data logging and
- changing of SD card storage location
- Auto power off function

#### **SPECIFICATIONS:**

- ♦ Display: 2.05 x 1.5 in. (52 x 38mm) LCD
- ♦ Parameters Measured: Air speed, temperature
- ♦ Measurement Range:
  - For air speed: 0.2 to 25 m/sec, 0.7 to 172 km/hr, 0.5 to 44.7 mph, 0.4 to 38.8 knots, 40 to 3940 ft/min
  - For temperature: 32° to 122°F (0° to 50°C)

- ♦ Measurement Accuracy:
  - For air speed:  $\pm$  (5% + 0.1 m/sec),  $\pm$  (5% + 0.3 km/hr),  $\pm$  (5% + 0.2 mph),  $\pm$  (5% + 0.2 knots),  $\pm$  (5% + 20 ft/min)
  - For temperature: ± 1.5°F (± 0.8°C)
- ♦ Data Logging Sampling Time: 1 second to 1 hour
- ♦ Settable Parameters: Date, time, auto power off, beep sound, sampling time, decimal point or comma decimal division, temperature unit, air speed unit, optional thermocouple type
- ♦ Storable/Recallable Readings: Max, Min
- ◆ Operating Temperature: 32° to 122°F (0° to 50°C)
- ♦ Operating Relative Humidity: 0 to 85%
- Dimensions of Instrument: 7.99 x 2.99 x 1.50 in. (203 x 76 x 38mm)
- ♦ Weight of Instrument: 1.13 lb. (515g)
- ♦ Dimensions of Probe: 0.4724 in. (diameter) x 11.02 in.(collapsed)/37 in.(extended) (12mm x 280mm/940mm)
- ♦ Power Source: 6 "AA" batteries or optional 9-VDC AC adaptor

#### **INCLUDES:**

- · Hard Carrying Case
- Telescoping Air Speed/Temperature Probe
- 2 GB SD Memory Card User's Manual
- 1-Year Limited Warranty









**HWA4214SD** N

UPC	NO.
01456 1	HWA4214SD
01548 3	P4214SD Replacement Probe

**Optional Accessories:** AC1 9VDC adapter for 110V power supply 015063

25015 0 TPK500 -50° to 500°F "K" type thermocouple TPK05 -40° to 562°F "K" type thermocouple 25005 1 **TPK03** -40° to 950°F "K" type thermocouple 250037

015025 **SDRD1** SD Card Reader

### **Pressure Meters**





#### HIGH RESOLUTION DIGITAL MANOMETERS - DM8252, DM8252RS

Ideal for low static, negative pressure testing.

#### **FEATURES**:

- Digital display of gauge or differential pressure
- Display unit options: psi, inH<sub>2</sub>0, mmH<sub>2</sub>0, bar and mbar
- · Bright backlight
- Min/Max memory + data hold
- RS-232 output jack; optional PC data logging kit includes RS-232 to USB adaptor
- Auto Power Off (can be disabled for data logging)

UPC	NO.
41216 9	DM8252
41220 6	DM8252RS w/4 Rubber Stoppers for
	Duct Smoke Detectors
12710 0	<b>ASFTKIT</b> PC Interface Kit (optional)
210147	Z110VADPT—9V AC/DC adaptor
	(ontional)

#### **SPECIFICATIONS:**

- ♦ Measurement Ranges: DM8252: 0 to 2 psi DM8215: 0 to 15 psi DM8200: 0 to 100 psi
- ♦ Accuracy: ±0.3%
- ♦ Resolution (bar): 0.01
- ♦ Response Time: 0.5 seconds
- ◆ Operating Temperature: 32° to 122°F (0° to 50°C)
- ♦ Dimensions:

7.2 x 2.8 x 1.2 in. (182 x 72 x 30mm)

- ♦ Weight: 7.6 oz. (215g)
- ♦ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

- Connection Hose Molded Hard Case
- Battery User's Manual
- 1-Year Limited Warranty

#### ( E RoHS



DM8215

#### **DELUXE DIGITAL MANOMETER - DM8215**

#### Ideal for industrial pressure testing.

#### **FEATURES:**

- Digital display of gauge or differential pressure
- Display unit options: psi, inH<sub>2</sub>0, bar, mmHg, ozin<sup>2</sup>, kgcm<sup>2</sup>, kPa, ftH<sub>2</sub>0, inHg, cmH<sub>2</sub>0 & mbar
- Min/Max memory + data hold
- RS-232 output jack; optional PC data logging kit includes RS-232 to USB adaptor
- Auto Power Off (can be disabled for data logging)

#### SPECIFICATIONS:

- Measurement Range/Resolution: 0 to 15 psi/0.01 psi
- ♦ Measurement Accuracy: ±3% of full scale value
- ♦ Response Time: 0.5 seconds
- ◆ Operating Temperature: 32° to 122°F (0° to 50°C)

- ♦ Dimensions:
- 7.2 x 2.8 x 1.2 in. (182 x 72 x 30mm)
- ♦ Weight: 7.6 oz. (215g)
- ♦ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

- Connection Hose Molded Hard Case
- Battery User's Manual
- 1-Year Limited Warranty

UPC	NO.
41215 2	DM8215
12710 0	ASFTKIT PC Interface Kit (optional
210147	Z110VADPT—9V AC/DC adaptor
	(optional))



#### **HYDROGAUGE MANOMETER – HG15**

#### A reliable, inexpensive tool for making pressure measurements.

#### **FEATURES:**

- · Replaces ordinary U-tube manometers
- · Measures gas pressure easily and efficiently
- Direct reading, no plus or minus readings to add together as in old-fashioned U-tubes
- Fills like a glass of water, eliminates troublesome air bubbles
- Strong magnet for mounting
- Heavy-duty construction
- Made of industrial grade, flexible PVC plastic
- Lightweight
- Easy to use

#### SPECIFICATIONS:

- ♦ Water Column Height: 15 in. (381mm)
- ♦ Hose Fitting: All brass
- ♦ Hose Length: 30 to 36 in. (762 to 914mm)
- ♦ Dimensions: 24.00 x 3.50 x 0.88 in. (610 x 89 x 22mm)
- ♦ Weight: 5.50 oz. (156g)

#### **INCLUDES:**

- Mounting Magnet
- 1-Year Limited Warranty

UPC NO. 41225 1 HG15



#### PRESSURE METER WITH EXCEL-FORMATTED DATA LOGGING SD CARD - PM930SD

Ideal for high accuracy measurements of hydraulic or pneumatic pressure using ten different units.

- Measures hydraulic or pneumatic pressure using optional sensors with full-scale ranges from 2 to 400 bar
- . Choose a sensor with the right range for your application from the list at lower right
- Sensors calibrated by single push of a button
- Ten different pressure units available
- Min/Max memory + data hold
- Big (2.5 in. diagonal) front-panel green backlit LCD is easy to read
- Auto power off (can be disabled for data logging)

#### **SPECIFICATIONS:**

- ♦ Display Size: 2.05 x 1.5 in. (52 x 38mm)
- ♦ Displayed Pressure Unit: bar, psi, inches Hg, inches H<sub>2</sub>O, hPA, kPA, kg/cm<sup>2</sup>, mm Hg, meters H<sub>2</sub>0, atmospheres
- ♦ Measurement Accuracy: ± 0.5% of full-scale reading + 1 digit
- ◆ Data Logging Sampling Time: 1 second to 9 hours
- ♦ 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: 0.77 lb. (350g)
- ♦ Power Source: 6 "AA" batteries (not included) or optional 9-VDC AC adaptor

#### **INCLUDES:**

- · Molded hard Case
- 2 GB SD Memory Card
- User's Manual

**UPC** 

1-Year Limited Warranty

NO.

01450 9	PM930SD
<b>Optional</b>	Accessories:
015063	AC1 9VDC adapter for 110V power supply
01491 2	PS2 2 bar full-scale pressure sensor
01528 5	PS5 5 bar full-scale Pressure sensor
01527 8	PS10 10 bar full-scale Pressure sensor
01532 2	PS50 50 bar full-scale Pressure sensor
01533 9	PS100 100 bar full-scale Pressure senso
01534 6	PS400 400 bar full-scale Pressure senso
01502 5	SDRD1 SD Card Reader









**PM930SD** N

#### GAS PRESSURE TEST KIT – GPK005, GPK015, GPK035

Ruggedized for heavy-duty field use.

#### **FEATURES:**

- · Measures natural gas (methane) or LP gas pressure across appliance manifolds
- · Tests gas stoves, furnaces, dryers and other gas appliances. Can also be used for other non-corrosive gases
- Large 2.5 in. diameter diaphragm gauge is calibrated in inches of water column, also shows ounces per square inch (GPK015/GPK035 only); GPK005 is calibrated in psi and meets requirements of the New York City Fuel Gas Code (2008)
- · Magnified lens
- · Easier to use than a manometer

#### **SPECIFICATIONS:**

- ♦ Measurement Range GPK005: 0 to 5 psi
- ♦ Measurement Range GPK015: 0 to 15 inches of water column (in. H<sub>2</sub>0) 0 to 9 ounces per square inch (oz./in<sup>2</sup>)

- ♦ Measurement Range GPK035: 0 to 35 inches of water column (in. H<sub>2</sub>0) 0 to 20 ounces per square inch (oz./ $i\bar{n}_2$ )
- ♦ Measurement Accuracy GPK005/015/035: ±2 from 25% to 75% of full scale; ±3% elsewhere

#### **INCLUDES:**

- 2.5 in. (64mm) Diameter Diaphragm Gauge
- 39 in. (991mm) of Rubber Tubing
- 3/8 in. (10mm)NPT Brass Fitting for Quick Connection to Appliance Manifold
- Hose Clamp
- Molded Hard Case
- 1-Year Limited Warranty

NO.
GPK00
GPK01
GPK03











General Tools & Instruments

### **Specialty Instruments**







WATER ALARM – WA500

Ideal for detecting leaks from HVAC systems, plumbing, appliances, water heaters etc. **FEATURES: SPECIFICATIONS:** 

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

♦ 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

NO. 801408 WA500



#### **REFRACTOMETER - REF401**

#### Ideal for testing Polyglycol/Antifreeze. **FEATURES:**

• Used to check freezing point of Glycol from -60° to 32°F at Specific Gravity of 1.15 to 1.3 with 10°F resolution

#### **SPECIFICATIONS:**

- ♦ Dimensions: 8.75 x 3.00 x 2.00in. (220 x 76 x 51mm)
- ♦ Weight: 8.90 oz. (252g)

#### **INCLUDES:**

- · Calibration screwdriver
- · Plastic pipette
- · Carrying case
- 1-Year Limited Warranty

NO. 444016 **REF401** 



#### **DIGITAL CHARGING SCALE - DS300RC**

#### Ideal for accurate charging of refrigerant containers.

- · Constructed from rigid die cast aluminum
- · Heavy duty load cell, built-in overload protection
- · Low battery warning with auto power off
- Reading may be zeroed out at any time
- Reliable membrane key pad switches
- . Displays readings in Ib., oz. and kg
- Extra large LCD display
- Display unit is desk or wall mountable

#### ♦ Platform Dimensions: 8-3/4 x 8-3/4 in. (220 x 220mm)

- ♦ Weight: 116 oz. (3288g)

◆ Operating Temperature: 32° to 115°F (0° to 45°C)

- ♦ Power Source: 1 "9V" battery (included)
- ♦ Battery Life: 40 hours (typical))

#### **SPECIFICATIONS:**

- ♦ Measurement Range: 0 to 220 lb. (0 to 100kg)
- ♦ Measurement Accuracy: ± 1%
- ♦ Resolution: 0.5 oz. (5g)

#### **INCLUDES:**

- Molded Hard Case
- Battery Operating Instructions
- 1-Year Limited Warranty

01245 1 DS300RC



DS300RC



PCT2236B N



#### **CONTACT/NON-CONTACT LASER TACHOMETER – PCT2236B**

Ideal for making rotational or linear speed measurements.

#### **FEATURES:**

- Two measurement modes
- Auto power off (with disable)
- · Wide measuring range
- · Jumbo 5-digit LCD display
- Memory: Min/Max/Last
- Non-contact mode uses laser targeting

#### **CONTACT SPECIFICATIONS:**

- ◆ Measurement Range: 0.5 to 99,999 RPM
- ♦ Accuracy: ±0.04% + 2 digits
- ♦ Resolution: 0.001; 0.01; 0.1; 1 RPM (depends on scale)
- ♦ Sampling Period: 1 second

#### **NON-CONTACT SPECIFICATIONS:**

- ♦ Measurement Range: 2.5 to 99,999 RPM
- ♦ Accuracy: ±0.05% + 1 digit

- ◆ Resolution: 0.1; RPM; (2.5 to 999 RPM); 1 RPM over 1,000 RPM)
- ♦ Sampling Period: 1 second
- ♦ Dimensions: 5.9 x 2 x 1.3 in. (150 x 51 x 33mm)
- ♦ Weight: 6.50 oz. (184.27g)
- ◆ Power Source: 4 "AA" batteries (included)
- ♦ Warranty: 1-year (limited)

#### **INCLUDES:**

- RPM Adaptors
- Adhesive Reflective Tape
- Hard Case
- Batteries User's Manual
- 1-Year Limited Warranty

**UPC** NO. 421109 **PCT2236B** RT800 Reflective tape

Indicates optional NIST calibration is available











SPECIFICATIONS					
Model No.	LT2234C	CT6235B	PCT2236B	PCT900	
Name	Non-contact Laser Tachometer	Contact Tachometer	Contact/Non-contact Laser Tachometer	Combination Contact/Non-contact Laser Tachometer	
Measurement Range	2.5 to 99,999 rpm	0.5 to 19,999 rpm	10 to 99,999 rpm	Non-contact: 6 to 99,999 rpm Contact: 6 to 25,000 rpm	
Display	5-digit LCD	5-digit LCD	5-digit LCD	5-digit LCD	
Accuracy	±0.05% of reading + 1 digit	±0.05% of reading + 1 digit	±0.04% of reading + 2 digits	±0.01% of reading +1 digit up to 6,000 rpm; ±0.05% of reading +1 digit above 6,000 rpm	
Max Distance to Target (Non-contact mode)	20 in. (500mm)	n/a	20 in. (500mm)	39 in. (1m)	
Memory	96 measurements + Min, Max, Last readings	96 measurements + Min, Max, Last readings	96 measurements + Min, Max, Last readings	40 points (10 each selectable Min, Max, Avg, Data measurements)	
What's Included	Hard carrying case, reflective tape, batteries	Hard carrying case, rpm adapters batteries	Hard carrying case reflective tape, rpm adapters, batteries	Hard carrying case, reflective tape, rpm adapters,	

#### **COMBINATION CONTACT/NON-CONTACT LASER TACHOMETER - PCT900**

Ideal for a wide variety of RPM and surface speed measurements.

#### **FEATURES:**

- Counts total revolutions and measures rotational speeds as well as surface speeds and lengths
- Non-contact RPM measurements up to 1m from target
- Super-accurate (±0.01%) rpm measurements
- LCD display
- · Auto power off
- 40 point memory: 10 selectable Max, Min, Avg and Data measurements
- · CE and RoHS approved

#### **SPECIFICATIONS:**

- ◆ Rotational Speed Measurement Ranges: 6 to 25,000 rpm (contact), 6 to 99,999 rpm (non-contact)
- ♦ RPM Measurement Accuracy: ±0.01% + 1 digit from 6 to 6,000 rpm; ±0.05% + 1 digit above 6,000 rpm
- ◆ Surface Speed Measurement Range: 2 to 8202 ft./min (0.6 to 25,000 m/min)



CONTACT APPLICATION

- Length Measurement Range: 0.3 to 32,808 ft. (0.1 to 9,999m)
- ♦ Length/Surface Speed Measurement Accuracy: ±0.5% + 1 digit
- ♦ Response Time: 1 second
- ◆ Operating Temperature: 32° to 122°F (0° to 50°C)
- ♦ Dimensions:
- 7.75 x 1.93 x 1.14 in. (146 x 49 x 29mm)
- ♦ Weight: 1 lb. (451g) without battery
- ♦ Power Source: 1 "9V" battery (not included)

#### INCLUDES:

- Cone adapter Funnel adapter
- Contact adapter Master wheel (100mm)
- Reflective tape
- Hard Case
- User's Manual
- 1-Year Limited Warranty

UPC NO.
40900 8 PCT900
43021 4 RT800
Reflective tape

NON-CONTACT
APPLICATION
— LASER
SIMULATION





PCT900

General Tools & Instruments

## **HVAC & Electrician's Multimeter Kits**





#### **KIT INCLUDES:**

- One DMM570 Rugged TRMS Multimeter with NCV Detection and 3-year limited warranty
- One IRT730K 30:1 Ultra Wide-Range IR Thermometer with "K" Port 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

KHV57030 01664 0

# **ELECTRICIAN'S KIT - KEL57060** Ideal for MRO professionals and electricians working residential and commercial jobs. **KEL57060**

### **KIT INCLUDES:**

- One DMM570 Rugged TRMS Multimeter with NCV Detection and 3-year limited warranty
- One DAMP60 Auto Ranging 600A AC Clamp Meter with 1-year limited 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

016626 KEL57060

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

#### **KIT INCLUDES:**

- One DMM570 Rugged TRMS Multimeter with NCV Detection and 3-year limited warranty
- One DAMP68 Auto Ranging AC/DC TRMS 400A AC Clamp Meter with 1-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 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

016633 KHVP57068

KHVP57068



## **HVAC & Electrician's Multimeter Kits**

#### **RUGGED TRMS MULTIMETER WITH NCV DETECTION – DMM570**

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

- 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
- 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
- Non-contact voltage (NCV) detection
- Backlit 3-3/4 digit (6,600 count) dual readout LCD
- 66-segment fast-response analog bar graph at bottom of LCD
- Hold, Max, Min, Rel (Zero) display options
- CE approved ETL certified

#### **SPECIFICATIONS:**

- ◆ DC Voltage Measurement Ranges: 0 to 660mV/6.6V/66V/600V/1000V
- ♦ AC Voltage Measurement Ranges: 0 to 660mV/6.6V/66V/600V/750V
- ♦ DC Voltage Measurement Accuracy: ±(0.8% of reading + 2 digits) or better
- ♦ AC Voltage Measurement Accuracy: ±(1.5% of reading + 2 digits) or better
- ♦ NCV Detection Range: 12 to 600VAC
- ◆ AC/DC Current Measurement Ranges: 0 to 660µA/6.6mA/6.6mA/660mA/10A
- ◆ DC Current Measurement Accuracy:  $\pm$ (2% of reading + 5 digits) in 10Å range;  $\pm$ (1% of reading + 5 digits) in other ranges
- ◆ AC Current Measurement Accuracy:  $\pm$ (3% of reading + 5 digits) in 10A range;  $\pm (1.5\% \text{ of reading} + 5 \text{ digits})$  in other ranges
- ♦ Resistance Measurement Ranges: 0 to  $660\Omega/6.6k\Omega/666k\Omega/660k\Omega/6.6M\Omega/66M\Omega$

- ♦ Resistance Measurement Accuracy:  $\pm (0.8\% \text{ of reading} + 5 \text{ digits})$
- ◆ Capacitance Measurement Ranges: 0 to 6.6nF/66nF/660nF/6.6µF/660µF/ 6.6mF/66mF
- ◆ Capacitance Measurement Accuracy:  $\pm$ (3% of reading + 5 digits)
- ♦ Temperature Measurement Range: 32° to 1832°F (0° to 1000°C)
- ◆ Temperature Measurement Accuracy:  $\pm (1\% \text{ of reading} + 3 \text{ digits})$
- ◆ Frequency Measurement Ranges (in AC Voltage mode w/12VAC input): 10 to 66Hz/660Hz/6.6kHz/10kHz
- ♦ Frequency Measurement Ranges (in Frequency) mode w/5V p-p 1kHz square wave input): 0 to 66Hz/660Hz/6.6kHz/66kHz/660kHz/ 6.6MHz/66MHz
- ♦ Frequency Measurement Accuracy in AC Voltage and Frequency modes:  $\pm (1.5\% \text{ of reading} + 5 \text{ digits})$
- ♦ Dimensions: 6.9 x 3.3 x 2.1 in. (176 x 84 x 54mm)
- ♦ Weight: 13.4 oz. (380g)
- ♦ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

- "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. DMM570 016428











#### 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.

#### **FEATURES:**

- Adjustable emissivity
- · Automatically stores last 100 readings for recall
- Min/Max/Avg/Dif displays
- Adjustable Hi and Lo temperature 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: -58° to 1472°F (-50° to 800°C)

- ♦ IRT Measurement Accuracy: ±7.2°F (4°C) from -58° to 32°F (-50° to 0°C);  $\pm 1.5\%$  of reading or  $\pm 3.6$ °F (2°C), whichever is greater, from 32° to 752°F (0° to 400°C); ±2% of reading or  $\pm 3.6$ °F (2°C), whichever is greater, from 752° to 1472°F (400° to 800°C)
- ♦ Range/Accuracy of Included "K" Type Bead Thermocouple Probe: -40° to 500°F  $(-40^{\circ} \text{ to } 260^{\circ}\text{C})/ \pm (2\% + 2 \text{ digits})$
- ♦ 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)

#### **INCLUDES:**

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

**UPC** NO. IRT730K 01643 5



## AC & AC/DC TRMS Clamp Meters





#### AUTO RANGING AC/DC TRUE RMS 400 AMP 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 options
- Data HOLD and REL (zero) buttons
- . Safe for CAT III 600V use
- CE approved

#### **SPECIFICATIONS:**

- ♦ AC Current Measurement Range / Accuracy: 0 to 400A / ±(3% + 10 digits)
- ◆ DC Current Range (via clamp) / Accuracy: 0 to 400A / ±(3% + 5 digits)
- ◆ AC Voltage Ranges / Accuracy: 0 to 400mV/4V/40V/400V/600V / ±(2% + 10 digits) or better
- ◆ DC Voltage Ranges / Accuracy: 0 to 400mV/4V/40V/400V/600V / ±(0.8% + 5 digits)
- ♦ Resistance Ranges / Accuracy: 0 to 400Ω/4kΩ/40kΩ/400kΩ/4MΩ/40MΩ / ±(2% + 5 digits) or better

- ♦ Frequency Ranges / Accuracy: 0 to 100Hz/1kHz/ 10kHz/100kHz/1Mhz/10MHz / ±2%
- Capacitance Ranges / Accuracy:
   0 to 40nF/400nF/4μF/40μF/400μF/4000μF / ±(4% + 5 digits)
- ◆ Temperature Range (via "K" type thermocouple) / Accuracy: 40° to 752°F (-40° to 400°C) ±(1.2% + 6 digits) from 32° to 212°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 / ±(3% + 5 digits)
- ◆ AC Voltage Ranges / Accuracy:
   0 to 2V/20V/200V/600V / ±(1% + 5 digits)
- DC Voltage Ranges / Accuracy:
   0 to 200mV/2V/20V/200V/600V / ±(0.8% + 5 digits)
- Resistance Ranges / Accuracy:
   0 to 200Ω/2kΩ/20kΩ/200kΩ/2MΩ/20MΩ / ±(2% + 5 digits) or better
- ♦ Frequency Range / Accuracy: 10 to 1999Hz / ±(3% + 10 digits)

- Max Resolutions: 0.1A, 0.1mV, 0.1Ω, 1Hz
- ◆ Clamp Jaw Type / Opening: Coil type / 1.48 in. (37.5mm)
- ♦ Dimensions: 11.25 x 6.13 x 2.75 in. / (286 x 156 x 70mm)
- ♦ Weight: 17 oz. (482g)
- ◆ Power Source: 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)



## **AC/DC TRMS Clamp Meters**

RUGGED AUTO RANGING TRMS AC/DC CLAMP METERS WITH NCV DETECTION

• CM660: 0 TO 600A RANGE, 0.01A MAX RESOLUTION

• CM700: 0 TO 1000A RANGE, 0.1A MAX RESOLUTION • CM770: 0 TO 1000A RANGE, 0.1A MAX RESOLUTION WITH INTEGRATED IRT

Ideal for electricians, HVAC/R contractors, building maintenance professionals and maintenance/repair/operations (MRO) technicians

#### FEATURES:

- 16 functions, 49 ranges (CM660/CM700); 17 functions, 51 ranges (CM770)
- Measures temperature from -58° to 1112°F (-50° to 600°C) using included "K" type stem thermocouple
- Also measures surface temperature from -4° to 662°F (-20° to 350°C) using 6:1 D:S detachable IR thermometer with fixed emissivity and measurement hold button (CM770 only).
   When IRT is re-attached, its reading is optically coupled onto meter's display.
- Uses beeper to verify integrity of diodes and check circuits for continuity
- 0 to 200μA/2000μA AC/DC ranges for measuring flame rod current with 0.1μA/1μA resolution using included test leads
- Built-in Non-Contact Voltage (NCV) detector with 4 sensitivity settings & audible and visual alerts
- Large backlit digital LCD with two 6000-count readouts for simultaneous display of real-time current or voltage on primary readout and line frequency on secondary readout
- Fast-response analog bar graph
- · Bright LED work light
- Auto and Manual ranging and MIN/MAX options
- Data HOLD and REL (zero) buttons
- **INRUSH** mode for measuring surge current during motor startup
- 1.65 in. (42mm) jaw opening (largest in its class) for conductors up to 550 MCM resists side torque
- Rugged housing can withstand multiple drops onto concrete from height of 5 ft. (1.6m)
- ETL certified CAT III 600V, CAT II 1000V



#### **SPECIFICATIONS:**

- ◆ AC Voltage Ranges / Accuracy:
   0 to 600mV/6V/60V/600V/1000V / ±(0.8% + 3 digits)
- DC Voltage Ranges / Accuracy: 0 to 600mV/6V/60V/600V/1000V / ±(0.5% + 3 digits)
- ◆ AC Current Measurement Ranges / Accuracy: 0 to 60A/600A (CM660), 0 to 60A/600A/1000A (CM700/CM770) / ±(1.8% + 5 counts)
- DC Current Ranges (via clamp) / Accuracy:
   0 to 60A/600A (CM660), 0 to 60A/600A/1000A
   (CM700/CM770) / ±(3% + 5 digits)
- ♦ Resistance Ranges / Accuracy: 0 to  $600\Omega/6k\Omega/60k\Omega/600k\Omega/6M\Omega/60Ms_{-}$  /  $\pm(0.8\% + 3 \text{ digits})@<1MΩ$ ;  $\pm(1.2\% \text{ of reading} + 3 \text{ digits})@≥1MΩ$
- ♦ Frequency Ranges / Accuracy: 10Hz to 60Hz/600Hz/6kHz (clamp jaw); 10Hz to 60Hz/600Hz/6kHz/60kHz/600kHz/6MHz/60MHz (test leads) / ± (1.5% + 5 digits) (clamp jaw); ±(0.3% + 5 digits) (test leads in Hz mode)
- Capacitance Ranges / Accuracy:
   0 to 6nF/60nF/600nF/6μF/60μF/600μF/6000μF/60,000μF / ±(4% + 5 digits)@>10nF)
- ♦ IRT Emissivity: Fixed at 0.95
- ♦ Laser Power (CM770 only): <1mW (Class 2)
- ◆ Temperature Range (via "K" type thermocouple) / Accuracy: -58° to 1112°F (-50° to 600°C) / ±(2% + 2 digits)
- ◆ Temperature Range (via integrated IRT)/ Accuracy (CM770 only): -58° to 1112°F (-50° to 600°C)/ ±4.5°F from -4° to 32°F; ±(1.5% + 3.6°F) from 32° to 662°F
- ♦ Duty Cycle Range / Accuracy: 1 to 99% / ±3%
- Maximum Resolutions: 0.1A (CM600), 0.01A (CM700/CM770), 0.1mV, 0.1Ω, 0.01Hz, 0.001nF, 2°F/1°C, 0.1%
- ♦ Clamp Jaw Opening: 1.65 in. (42mm)
- ◆ Dimensions of CM660/CM700: 8.86 x 3.31 x 1.30 in. / (225 x 84 x 33mm) Dimensions of CM770: 9.37 x 3.62 x 1.97 in. (238 x 92 x 50mm)
- ♦ Weight (including batteries): 14.8 oz. (420g)
- Power Source (included): 3 "AAA" batteries (CM660, CM700); 3 "AAA" batteries + 2 "LR44" batteries (CM770)

#### **INCLUDES:**

- Double-Insulated Test Leads with Screw-On Alligator Clips
- "K" Type Stem Thermocouple Probe and Plug Adaptor
- Batteries
- Soft Pouch
- User's Manual
- 3-Year Limited Warranty

Ur U	NO.
01629 9	CM660
01633 6	CM700
01640 4	CM770
01521 6	ACL10 15A Line Splitter (optional)



# Clamp Meter Comparison Chart



Modern clamp meters combine a voltmeter and a current meter. **Because the** current meter responds to voltages induced by flows in the conductor within its jaws, clamp meters can measure larger currents than a multimeter and in a safer manner.







DAMP68 (see page 40)

DAMP60 (see page 40)

	(see page 41)	(see page 41)	(see page 40)	(see page 40)	
KEY FEATURES & SPECIFICATIONS COMPARISON					
Model No.	CM700/CM770	CM660	DAMP68	DAMP60	
Figure of Merit	16/17 Functions,	16 Functions,	11 Functions,	7 Functions,	
rigure of ivierit	50/51 Ranges	49 Ranges	31 Ranges	19 Ranges	
NCV Detection Ranges	12 to 25VAC, 70 to 125VAC, 150 to 240VAC, 250 to 600VAC	12 to 25VAC, 70 to 125VAC, 150 to 240VAC, 250 to 600VAC	N/A	N/A	
Safety Rating	CAT III 600V, CAT II 1000V	CAT III 600V, CAT II 1000V	CAT III 600V	CAT III 600V	
Safety Listing (ETL, UL, CE)	ETL, CE	ETL, CE	CE	CE	
Parameters Measured	AC/DC current, AC/DC voltage, resistance, frequency, continuity, diode integrity, capacitance, temperature, duty cycle	AC/DC current, AC/DC voltage, resistance, frequency, continuity, diode integrity, capacitance, temperature, duty cycle	AC/DC current, AC/DC voltage, resistance, frequency, continuity, diode integrity, capacitance, temperature	AC current, AC/DC voltage resistance, frequency, continuity, diode integrit	
TRMS	Yes	Yes	Yes	N/A	
AC Current Range (via clamp)	0 to 1000A	0 to 600A	0 to 400A	0 to 600A	
DC Current Range (via clamp)	0 to 1000A	0 to 600A	0 to 400A	N/A	
AC/DC Voltage Range	0 to 1000V	0 to 1000V	0 to 600V	0 to 600V	
Max Count/Max Current & Voltage Resolutions	6000/0.1A, 0.1mV	6000/0.01A, 0.1mV	4000/0.1A, 0.1mV	2000/0.1A, 0.1mV	
Resistance Range	0 to 60MΩ	0 to 60MΩ	0 to 40MΩ	0 to 20MΩ	
Frequency Range	10 to 1000Hz using clamp jaw; 10Hz to 60MHz using test leads	10 to 1000Hz using clamp jaw; 10Hz to 60MHz using test leads	0 to 9.999MHz	10 to 1999Hz	
Capacitance Range	0 to 60,000μF	0 to 60,000μF	0 to 4000μF	N/A	
Temperature Range (via "K" type thermocouple)	-58° to 1112°F (-50° to 600°C)	-58° to 1112°F (-50° to 600°C)	-40° to 752°F (-40° to 400°C)	N/A	
Temperature Range (via integrated IRT)	-4° to 662°F (-20° to 350°C)	N/A	N/A	N/A	
Clamp Jaw Type / Opening	Coil Type + Hall effect, 1.65 in. (42mm)	Coil Type + Hall effect, 1.65 in. (42mm)	Coil Type + Hall effect, 1.48 in. (37.5mm)	Coil-type 1.48 in. (37.5mm)	
Analog Bar Graph	Yes	Yes	Yes	N/A	
Ranging Options	Auto or manual	Auto or manual	Auto or manual	Autoranging only	
Zero Offset	Yes	Yes	Yes	N/A	
Data Hold	Yes	Yes	Yes	Yes	
Memory	Min, Max values	Min, Max values	No	Max value	
Duty Cycle Range	1 to 99%	1 to 99%	N/A	N/A	
Weight	12.4 oz. (350g)	12.4 oz. (350g)	19 oz. (539g)	17 oz. (482g)	
Power Source (included)	3 "AAA" batteries (CM700); 3 "AAA" batteries, 2 "LR44" batteries (CM770)	3 "AAA" batteries	3 "AAA" batteries	2 "AAA" batteries	



## **Multimeter Comparison Chart**















DMM45 (see page 44) DMM40 (see page 44) DMM51FSG (see page 44) DMM333 (see page 44) DMM830HS (see page 45) DMM20UL (see page 44) AM35UL (see page 45)

							T
Model #	DMM45	DMM40	DMM51FSG	DMM333	DMM830HS	DMM20UL	AM35UL
Name	Auto Ranging CAT III 600V Digital Multimeter	Manual Ranging CAT III 600V Digital Multimeter	Digital Service Multimeter	Digital Credit Card Style Multimeter	Economy Digital Multimeter with LED and Continuity Beeper	Digital UL Listed Multimeter	Analog Multimeter
Figure of Merit	8 functions, 25 ranges	6 functions, 19 ranges	8 functions, 34 ranges	7 functions, 25 ranges	7 functions, 20 ranges	6 functions, 20 ranges	4 functions, 13 ranges
Parameters Measured	AC/DC voltage AC/DC current, resistance, diode integrity	AC/DC voltage, DC current, resistance, diode integrity	AC/DC voltage, AC/DC current, resistance, continuity, diode integrity	AC/DC voltage, AC/DC current, resistance, continuity, diode integrity	AC/DC voltage, DC current, resistance, continuity, diode integrity	AC/DC voltage, DC current, resistance, continuity, diode integrity	AC/DC voltage, DC current, resistance
Ranging Options	Auto	Manual	Manual	Auto	Manual	Manual	Manual
Voltage Measurement Range	0 to 500VAC/VDC	0 to 500VAC/VDC	0 to 750VAC/1000VDC	0 to 500VAC/VDC	0 to 750VAC/1000VDC	0 to 600VAC/VDC	0 to 500VAC/VDC
Voltage Resolution	0.5mV	0.5mV	100uV	0.5mV	0.5mV	0.5mV	100mV
DC Voltage Measurement Accuracy	±(0.5% of reading + 5 digits)	±(1.2% of reading + 2 digits)	±(0.8% of reading + 2 digits)	±(0.5% of reading + 5 digits)	±(1.2% of reading + 2 digits)	±2.5% of reading	±2.5% of reading
Overvoltage Protection Level	600V	600V	1kVDC, 750VAC	1kVDC, 750VAC	1kV	600V	500V
Safety Rating	CAT III 600V	CAT III 600V	CAT I 1000V CAT II 600V CAT III 300V	CAT II 500V CAT III 300V	CAT II 500V	CAT I 600V	CAT II 500V
Safety Listing (ETL,UL,CE)	CE	CE	No	No	No	UL	UL
Current Measurement Range	0 to 200mA AC/DC	0 to 200mA AC/DC	0 to 10A AC/DC	0 to 200mA AC/DC	0 to 10A DC	0 to 10A DC	0 to 250mA DC
Micro Amp Ranges	0 to 200μA/2000uA AC/DC	0 to 200μA/ 2000μA DC	0 to 20μΑ/200μΑ DC	0 to 200μA/2000μA AC/DC	0 to 200μA DC	0 to 2000μA DC	0 to 500μA DC
Non-contact Voltage (NCV) Detection Range	No	No	No	No	No	No	No
Non-contact Current (NCC) Detection Range	No	No	No	No	No	No	No
Resistance Measurement Range	0 to 20MΩ	0 to 2MΩ	0 to 200MΩ	0 to 20MΩ	0 to 2MΩ	0 to 20MΩ	0 to 1MΩ
Capacitance Measurement Range	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Display	Backlit 3-1/2 digit (2,000 count) LCD	Backliit 3-1/2 digit (2,000 count) LCD	3-1/2 digit (2,000 count) LCD	3-1/2 digit (2,000 count) LCD	3-1/2 digit (2,000 count) LCD	3-1/2 digit (2,000 count) LCD	Analog readout
Display Options	Hold	Hold	N/A	Hold, Max	N/A	Hold	N/A
Auto Power Off	No	No	No	Yes	No	No	No
Magnetic Hanging Strap	No	No	No	No	No	No	No
Limited Warranty	1 year	1 year	1 year	1 year	1 year	1 year	1 year
Other Features	Also measures temperature from -40° to 752°F with included "K" type thermocouple		0 to 20μA and 0 to 200μA DC ranges for measuring flame rod current		* Also measures transistor hFE (current gain) *Single-pole ACV test		

## Multimeters







#### MANUAL RANGING CAT III 600V DIGITAL MULTIMETER - DMM40

#### **FEATURES:**

- 6 functions, 19 ranges
- Measures 1) AC voltage, 2) DC voltage, 3) DC current, 4) resistance
- Uses beeper to 5) verify integrity of diodes and 6) check circuits for continuity
- Large 3-1/2 digit (2.000 count) LCD
- . LIGHT (backlight) and data HOLD buttons
- · Designed to meet CAT III 600V safety standard
- CE approved

#### **SPECIFICATIONS:**

- ♦ Measurement Ranges/Accuracies: AC Voltage: 0 to 500V/±(2.5% of reading + 5 digits)
- DC Voltage: 0 to 500V/±(1.2% of reading + 2 digits)
- DC Current: 0 to 200mA/±(1.8% of reading

Resistance: 0 to  $2M\Omega/\pm(1.5\%)$  of reading

+ 2 digits)

♦ Overload Protection Level: 600VAC/DC with internal fuse

♦ Operating Temperature: 32° to 122°F (0° to 50°C)@<75%RH

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

#### **INCLUDES:**

- Battery
- 1 pair double-insulated 20 AWG test leads with 1A (max) rating
- User's Manual
- 1-Year Limited Warranty

UPC	NO.
50122 1	DMM40



#### Ideal for measuring AC/DC voltage, AC/DC current, resistance and temperature.

#### **FEATURES:**

- 8 functions, 25 ranges
- Measures 1) AC voltage. 2) DC voltage. 3) DC current, 4) AC current, 5) resistance, 6) temperature using included "K" type stem thermocouple probe
- Uses beeper to 7) verify integrity of diodes and 8) check circuits for continuity
- Large 3-1/2 digit (2,000 count) LCD
- 15 minute Auto Power Off and 15 second backlight
- · Designed to meet CAT III 600V safety standard
- CE approved
- · 1-year limited warranty

#### **SPECIFICATIONS:**

- ♦ Measurement Ranges/Accuracies:
- AC Voltage: 0 to 500V/±(0.8% of reading + 5 digits)
- DC Voltage: 0 to 500V/±(0.5% of reading
- + 2 digits) AC Current: 0 to 200mA/±(1.8% of reading
- + 3 digits)
- DC Current: 0 to 200mA/±(1.8% of reading
- + 2 digits)

Resistance: 0 to  $20M\Omega/\pm(1.5\%)$  of reading + 2 digits)

Temperature: -40° to 752°F (-40° to 400°C)/  $\pm$ (1.2% of reading + 7 digits) from 32° to 212°F (0° to 100°C)

- ♦ Overload Protection Level: 600VAC/DC with internal fuse
- ♦ Operating Temperature: 32° to 122°F (0° to 50°C)@<75%RH
- ◆ Power Source: (2) "AAA" batteries (included)

#### **INCLUDES:**

- "K" type stem thermocouple probe
- 1 Pair Double-Insulated 20 AWG Test Leads
- Batteries
- User's Manual
- 1-Year Limited Warranty

UPC	NO.
50123 8	DMM4



**DMM45** 



#### **DIGITAL UL LISTED MULTIMETER – DMM20UL**

#### Ideal for making basic measurements safely.

#### **FEATURES:**

- 6 functions, 20 ranges
- Measures AC/DC voltage, DC current, resistance
- · Also checks for continuity and diode integrity
- Large LCD
- · Safety-recessed test lead sockets
- High-impact thermoplastic case
- UL listed

#### **SPECIFICATIONS:**

- ♦ AC Voltage Measurement Range/Accuracy: 0 to 600V/±2.5%
- ♦ DC Voltage Measurement Range/Accuracy: 0 to 600V/±2%
- ♦ DC Current Measurement Range/Accuracy: 0 to 10A/±1%

- ♦ Resistance Measurement Range/Accuracy: 0 to  $20M\Omega/\pm 1.5\%$
- ♦ Dimensions: 9.00 x 5.50 x 1.25 in. (228.6 x 139.7 x 31.75mm)
- ♦ Weight: 8.00 oz. (226.8g)
- ◆ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

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

UPC		NO.	
Ī	50121 4	DMM20UI	



#### ANALOG MULTIMETER – AM35UL

#### Old-school meter still gets the job done. **FEATURES:**

- 4 functions, 13 ranges
- Measures AC/DC voltage, DC current, resistance
- Fuse and diode protected
- UL listed

#### **SPECIFICATIONS:**

- ♦ AC/DC Voltage Measurement Range: 0 to 500V
- ◆ DC Current Measurement Range: 0 to 250mA
- ♦ Resistance Measurement Range: 0 to  $1M\Omega$
- ♦ Dimensions: 4 x 2.5 x 0.75 in. (102 x 64 x 19mm)
- ♦ Weight: 2.75 oz. (78g)
- ◆ Power Source: 1 "AA" battery (included)

#### **INCLUDES:**

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

UPC 500057 AM35UL





AM35UL

#### **ECONOMY DIGITAL MULTIMETER WITH LED AND CONTINUITY BEEPER** DMM830HS

#### Ideal for bench work. **FEATURES:**

- 7 functions, 20 ranges
- Measures AC/DC voltage. DC current. resistance, bipolar transistor forward current gain (hFE)
- · Also checks for continuity and diode integrity
- 3-1/2-digit (1999 count) LCD

#### **SPECIFICATIONS:**

- ♦ AC Voltage Range/Accuracy: 0 to  $750V/\pm(1.2\% + 10 \text{ digits})$  or better
- ♦ DC Voltage Range/Accuracy: 0 to  $1000V/\pm(1.2\% + 2 \text{ digits})$  or better
- ◆ DC Current Range/Accuracy: 0 to  $10A/\pm(2\% + 2 \text{ digits})$  or better

- ♦ Resistance Range/Accuracy: 0 to  $2M\Omega/\pm(1\% + 2 \text{ digits})$
- ♦ Input Impedance:  $10M\Omega$  for all ranges
- ♦ hFE Measurement Range: 0 to 1000
- ♦♦ Dimensions: 5.2 x 2.8 x 1.0 in. (132 x 70 x 25mm)
- ♦ Weight: 4.9 oz. (138.9g)
- ◆ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

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

NO. DMM830HS





#### **DIGITAL SERVICE MULTIMETER – DMM51FSG**

#### Ideal for HVAC/R and industrial applications. **FEATURES:**

- 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  $750V/\pm(1.2\% + 3 \text{ digits})$  or better
- ♦ DC Voltage Range/Accuracy: 0 to  $1000V/\pm(0.8\% + 2 \text{ digits})$  or better
- ♦ AC/DC Current Range/Accuracy: 0 to  $10A/\pm(3\% + 7)$  digits) or better

- ♦ Resistance Range/Accuracy: 0 to  $200M\Omega/\pm(0.8\% + 10 \text{ digits}) < 2M\Omega$ ,  $\pm$ (5% + 10 digits) or better>2M $\Omega$
- ♦ Input Impedance:  $10M\Omega$  for all ranges
- ♦ Dimensions: 7.5 x 3.5 x 1.3 in. (190 x 88 x 34mm)
- ♦ Weight: 19.4 oz. (550g) with test leads, holster and tilt stand
- ◆ Power Source: 1 "9V" battery (included)

#### **INCLUDES:**

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

UPC 501900 DMM51FSG





DMM51FSG

#### **DIGITAL CREDIT CARD STYLE MULTIMETER – DMM333**

#### Ideal for technicians on the go. Fits in shirt pocket. **FEATURES:**

- 7 functions, 25 ranges
- Measures AC/DC voltage, AC/DC current, resistance
- · Also checks for continuity and diode integrity
- Auto ranging
- Large 2000-count LCD
- Data hold + max hold

#### **SPECIFICATIONS:**

- ♦ AC Voltage Range/Accuracy: 0 to  $500V/\pm(0.8\% + 1 \text{ digit})$
- ♦ DC Voltage Range/Accuracy: 0 to  $500V/\pm(0.5\% + 5 \text{ digits})$
- Indicates optional NIST calibration is available

- ♦ AC/DC Current Range/Accuracy: 0 to  $200\text{mA/}\pm(1.8\% + 5 \text{ digits})$
- ♦ Resistance Range/Accuracy: 0 to 20MΩ/±  $(0.8\% + 5 \text{ digits}) < 1M\Omega, \pm (2\% + 5 \text{ digits}) > 1M\Omega$
- ♦ Input Impedance (in DCV mode):  $10M\Omega$
- ♦ Dimensions: 4.5 x 2.3 x 0.5 in. (115 x 58 x 12mm)
- ♦ Weight: 3 oz. (84g)
- ◆ Power Source: 2 "LR44" batteries (included)

- Test Leads Batteries User's Manual
- 1-Year Limited Warranty

**UPC** NO 50105 4 **DMM333** 





**DMM333** 

## **Circuit Breaker Finder**







#### 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 atings: 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
- ♦ Operating Temperature: 32° to 122°F (0° to 50°C)
- ♦ 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** NO. 016060 **BF20** 



RECEIVER













#### **AUTOMATIC DIGITAL CAPACITOR TESTER – CAP1500**

#### **FEATURES:**

- Wide measurement range
- Uses precision dual slope A/D converter
- · Alligator clip leads for in-circuit testing
- · Zero adjust switch and low battery indicator
- 3-1/2-digit (1999 count) LCD
- Fuse-protected from overloads

#### **SPECIFICATIONS:**

- ♦ Measurement Range: 0 to 20mF over 9 ranges (0 to 200pF/2000pF/20nF/200nF/2µF/20µF/ 200µF/2000µF/20mF)
- ♦ Measurement Accuracy:  $\pm (0.5\% + 1 \text{ digit})$  or better below  $20\mu\text{F}$ ;  $\pm (5\% + 5 \text{ digits})$  or better above  $20\mu\text{F}$
- ♦ Sampling Time: 0.4 seconds
- ♦ Operating Temperature: 32° to 122°F (0° to 50°C) @ <75%RH

♦ Dimensions: 5.3 x 2.8 x 1.4 in. (135 x 71 x 36mm)

♦ Weight: 7.1 oz. (201g)

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

#### **INCLUDES:**

- Alligator Clip Test Leads
- Soft Case
- Battery
- User's Manual
- 1-Year Limited Warranty

**UPC** NO. 50192 4 CAP1500



#### 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



#### **GF1302**

#### **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
- ♦ Continuity Test Range: 0 to 50MΩ
- ◆ Polarity Test Range: 1.5 to 36VDC
- ♦ Microwave Leakage Test: >5mW/cm<sup>2</sup>
- ♦ Power Source: 1 "LR44" battery (included)

**UPC** ST600LED 51115 2



#### DIGITAL 3-IN-1 LCD STUD/VOLTAGE/METAL DETECTOR - MSV350D

#### Ideal for locating studs, pipes, wires carrying voltage and hidden metal.

#### **FEATURES:**

- Uses LCD scanning indicators and buzzer to indicate direction and position of stud, batten, metal object or wiring
- Detects/distinguishes between metal pipes/tubes and hot wires with variable sensitivity
- · Also distinguishes between battens and studs
- · Simultaneously detects studs and metal/wiring
- Needs no probe
- · Battery charge indicator
- · Auto power off

012175 8 **MSV350D** 





#### **SPECIFICATIONS:**

- ♦ Dimensions: 6.1 x 2.6 x 1.3 in. (155 x 65 x 32mm)
- ♦ Weight: 6.5 oz. (185g)
- ♦ Power Source: 1 "9V" battery (not included)
- ♦ Warranty: 1-year (limited)

#### **INCLUDES:**

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





MSV350D

## **Voltage Testers**





#### VS3000A







## AUDIBLE/VISUAL NON-CONTACT VOLTAGE TESTER, ETL CERTIFIED - VS3000A

#### **FEATURES:**

- Beeper sounds and LED lights when voltage is detected
- Safe for CAT III 1000V use
- ETL certified
- · Automatic battery check function

#### **SPECIFICATIONS:**

- ♦ Detection Range: 70 to 1000V @ 50 to 500Hz
- ♦ Operating Temperature: 32° to 104°F (0° to 40°C) @ <85% RH
- ♦ Regulatory Compliance: ETL certified Conforms to UL 61010-1 and 61010-2-030

Certified to CAN/CSA C22.2 Nos. 61010-1 and 61010-2-030

- ♦ Dimensions:
- 6.0 x 1.1 x 0.9 in. (152 x 27 x 23.5mm)
- ♦ Weight (with batteries): 1.4 oz. (39g)
- ◆ Power Source: 2 "AAA" batteries (included)

#### **INCLUDES:**

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

UPC	NO.
51000 1	VS3000A

## NON-CONTACT VOLTAGE DETECTOR WITH ADJUSTABLE SENSITIVITY AND 4:1 IR 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 in °F or °C
- Powerful built-in LED flashlight
- 15-second Auto Power Off (APO)
- · Pocket clip on back

#### INCLUDES:

- Batteries User's Manual
- 3-Year Limited Warranty

#### **SPECIFICATIONS:**

- ♦ Four Detection Ranges: 12 to 25VAC, 70 to 125VAC, 150 to 240VAC, 250 to 1000VAC
- ♦ Max Non-contact Detection Distance: 0.25 in. (6.2mm)
- ♦ IRT Measurement Accuracy: ±3.8°F (2°C) or ±1% of reading (whichever is greater) above 32°F
- ♦ IRT Emissivity: Fixed at 0.95
- ♦ IRT Laser Power: <1mW (Class 2)
- ◆ Operating Temperature: 32° to 113°F (0° to 45°C)
- ◆ 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

#### **LINE VOLTAGE TESTER - CT101**

#### Ideal for checking outlet wiring.

#### **FEATURES**

- Visual indication of AC or DC voltage
- Easy to use
- UL approved
- Insulated housing
- Pocket clip on back

#### **SPECIFICATIONS**

♦ Voltage Detection Range: 80 to 500VAC/DC



- ♦ Maximum Current: 0.3A @ 50/60Hz
- ♦ Safety Rating: CAT III 600V
- ♦ Lead Thickness: 18 AWG
- ♦ Weight: 0.6 oz. (17g)
- ◆ Operating Temperature:
   41° to 104°F (5° to 40°C) @ <80%RH</li>
   (<60%RH above 88°F/31°C)</li>

**UPC NO.** 51025 4 **CT101** 

#### **LOW VOLTAGE LINE TESTER - CT102**

#### Ideal for checking doorbell transformers and low voltage relays.

#### FEATURES

- Visual indication of AC or DC voltage
- Versatile alligator clip leads with boots
- ETL approved
- Double insulated housing and leads
- · Pocket clip on back

#### **SPECIFICATIONS**

♦ Voltage Detection Range: 5 to 50V AC/DC

- ♦ Maximum Current: 5A
- ♦ Safety Rating: CAT I
- ◆ Lead Thickness: 20 AWG
- ♦ Operating Temperature: 41° to 104°F (5° to 40°C) @ <85%RH (decreasing linearly to <50%RH at 104°F/40°C)
- ♦ Weight: 0.6 oz. (17g)

0		
UPC	NO.	
51035 3	CT102	

48 General Tools & Instruments



## **Starter Switch & Test Leads**

#### **MULTI-VOLTAGE LINE TESTER – CT103**

#### Checks for voltage levels and hot wires.

#### **FEATURES**

- · Different visual indications of eight common voltagesfour AC and four DC
- UL approved
- · Double-insulated housing and leads
- Self-storing leads
- · Pocket clip on back



#### **SPECIFICATIONS**

- ♦ Working Voltages: 110V, 220V, 277V and 460V (AC or DC)
- ♦ Maximum Current: 0.3A @ 50/60Hz
- ◆ Safety Rating: CAT II 600V
- ♦ Lead Thickness: 20 AWG
- ◆ Operating Temperature: 41° to 104°F (5° to 40°C) @ <80%RH
- ♦ Weight: 2.6 oz. (74g)

UPC NO. CT103 51045 2





















## STARTER SWITCH 16/2, 20 AMP, PUSH BUTTON (UL SWITCH) - SSC6

### Quickly hooks up motors/machinery for testing.

#### **FEATURES:**

- · Red and black heavy duty boots
- Large clips
- · Replaces any C-6 start switch
- 1-Year Warranty

#### **SPECIFICATIONS:**

- ♦ Maximum Current: 15A
- ♦ ASWG: 16/2
- ♦ Length: 2 ft. (610mm)
- ♦ Weight: 8.3 oz. (240g)

UPC NO. 511459 SSC6

#### TEST CORD (MALE) - CT600M

#### Brings power to remote areas without 110V outlet.

#### **FEATURES:**

- Red and black heavy duty boots
- Large clips
- 2 wire
- 1-Year Warranty

#### **SPECIFICATIONS:**

- ♦ Maximum Current: 13A
- ♦ Maximum Voltage: 125V
- ♦ ASWG: 16
- ♦ Length: 6 ft. (1.83m)
- ♦ Weight: 8 oz. (227g)

UPC NO. CT600M 50601.1

#### TEST CORD (FEMALE) - CT700F

#### Brings power to areas without a 110V outlet.

#### **FEATURES:**

- · Red and black heavy duty boots
- Large clips
- 3 wire
- Brings power to remote areas without 110V outlet
- 1-Year Warranty

#### **SPECIFICATIONS:**

- ♦ Maximum Current: 13A
- ♦ Maximum Voltage: 125V
- ♦ ASWG: 16
- ♦ Length: 2 ft. (610mm)
- ♦ Weight: 5.7 oz. (163g)

**UPC** NO. 510957 CT700F

#### **MULTI-COLORED TEST LEADS – CT800**

#### Handy set of multiple jumpers.

#### **FEATURES:**

- 10 alligator-clip leads: 2 each white, red, black. yellow and green
- 1-Year Warranty

#### **SPECIFICATIONS:**

- ♦ Maximum Voltage: 300V
- ♦ ASWG: 22
- ♦ Length: 18 in. (457mm)
- ♦ Weight: 2.9 oz. (82g)

UPC NO. 511053 CT800

#### STANDARD TEST LEADS - TL100

#### Ideal for use as AC jumpers.

#### **FEATURES:**

- 3 ft. long
- 1 each Red & Black
- 1-Year Warranty

#### **SPECIFICATIONS:**

- ♦ Maximum Current: 10A
- ♦ Maximum Voltage: 300V
- ♦ ASWG: 16
- ♦ Length: 3 ft. (914mm)
- ♦ Weight: 1.9 oz. (54g)

UPC NO. 51125 1 TL100

## **Tubing Benders & Gages**







#### **TUBING BENDERS - S016**

- These tools eliminate crimping and collapsing of copper and other thin wall tubing. Made of oil hardened and tempered spring steel
- Tubing bender set contains one each of the sizes listed below, packaged in a display box
- Available in individual sizes

UPC	NO.	TUBE SIZE OUTSIDE D	IA.
11009 1	S106	1/4", 5/16", 3/8",	
		7/16", 1/2"	, 5/8"
	NO.	TUBE SIZE OUTSIDE D	IA. LENGTH
	100-1/4	1/4"	10-1/2"
	100-5/16	5/16"	10-1/2"
	100-3/8	3/8"	10-1/2"
	100-7/16	7/16"	10-3/8"
	100-1/2	1/2"	11-3/4"
	100-5/8	5/8"	11-3/4"



#### **FLARING TOOL - 151**

- High quality tool moderately priced
- Screw yoke slips quickly over bars without removing heavy-duty wing nuts
- Yoke has a freewheeling 45° plated cone for faster, smoother flaring and greater strength in flaring copper, aluminum, brass and thin wall tubing
- Large heavy-duty hardened feed thread for durability
- Long sliding T-handle provides maximum leverage
- Quick opening plated bars for easy insertion and removal of tubing
- · Size individually marked on bars
- Extra long bars to fit in vice, for easier flaring
- · Cast iron yoke

UPC	NO.	CAPACITY
14008 1	151	3/16", 1/4",
	(Standard)	5/16", 3/8",
		7/16" 1/2", 5/8"



#### **DRILL GAGE - 13**

- General's drill gages are used to quickly and conveniently identify drill bit sizes
- Made of heat treated heavy gage steel, machined and ground to close tolerances
- Hole sizes and decimal equivalents are permanently marked on the face
- 3" x 1-1/8" wide.

UPC	NO.
22006 6	13 Number size drills 61 to 80









#### WIRE GAGE - 20

- American Standard wire gage 0 to 36
- For gaging non-ferrous wire and metals such as copper, brass and aluminum
- Decimal equivalents of each size are stamped on reverse side
- Satin finished, heavy gage hardened and tempered steel
- 3-1/4" diameter, 3/32" thick

	,	
UPC	NO.	
22036 3	20	







#### **SHEET METAL GAGE – 21**

- Gage numbers are U.S. Standard 0 to 36
- For gaging uncoated sheet metal, plate iron and steel
- Decimal equivalents of each size are stamped on reverse side
- Satin finished, heavy gage steel is hardened and tempered
- 3-1/4" diameter, 3/32" thick

UPC	NO.
22041 7	21





#### **TUBING CUTTER - 120**

- · Newly redesigned contoured shape comfort grip
- Bearing tool steel cutter wheel
- Wide hardened flared grooved rollers allow cuts close to a flared end to avoid tube replacement in existing installations
- Full sized fold out reamer with double cutting edges
- Cuts copper, aluminum, brass, thin wall tubing and stainless steel
- Large knob with a covered extra cutter wheel storage space

	UPC	NO.	CAPACITY
Ī	12003 8	120	1/8" to 1-1/8"
			(3.18 to 28.58mm)
	12023 6	RW121/2	Replaceable
			Cutting Wheel
	12027 4	RW122	Replaceable
			Cutting Wheel
			-





#### **PIPE AND TUBING CUTTER - 126**

- · General's best quality tubing and pipe cutter is designed to meet the demanding needs of the professional
- · Quick release button to speed use
- Capacity 1/4" 2-5/8" (6 67mm)
- For cutting copper, aluminum, thin wall tubing, iron and PVC
- Heavy-duty construction for tube or pipe
- Four rollers to accommodate multiple pipe sizes and prevent spiraling
- · Removable machinists reamer to easily deburr
- Quick open and close mechanism to speed use
- Extra wheel storage available in handle

UPC	NO.	CAPACITY
12017 5	126	1/8" to 2-5/8"
		(6.35 to 66.68mm)
12023 6	RW121/2	Replaceable
		Cutting Wheel
12027 4	RW122	Replaceable
		Cutting Wheel





#### **MINI TUBING CUTTER - 129X**

- · Comfort grip design for easy turning
- Full size bearing tool steel cutter wheel
- · Large fluted adjusting knob for greater torque
- Cuts copper, aluminum, brass, thin wall tubing and stainless steel
- · Wide hardened flared grooved rollers allows true cuts close to flared end tubing to avoid tube replacement in existing installations
- 1-1/2" swing radius

UPC	NO.	CAPACITY
12032 8	129X	1/8" to 7/8"
		(3.18 to 22.23mm)
12023 6	RW121/2	Replaceable
		Cutting Wheel





#### **MICRO TUBING CUTTER - 123R**

- · Comfort grip design for easy turning
- · Full size bearing tool steel cutter wheel
- · Large fluted adjusting knob for greater torque
- · Cuts copper, aluminum, brass, thin wall tubing and stainless steel
- · Wide hardened flared grooved rollers allows true cuts close to flared end tubing to avoid tube replacement in existing installations
- 1-3/8" swing radius
- Replaceable cutting wheel, RW121/2

UPC	NO.	CAPACITY
12009 0	123R	1/8" to 5/8"
		(3mm - 15mm)
12023 6	RW121/2	Replaceable
		Cutting Wheel

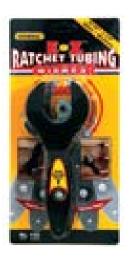




#### **E•Z™ RATCHET TUBING CUTTER - 133**

- Ratcheting action rotates the cutter around the tube allowing a standard size cutter to be used in close quarter applications
- Longer handle requires less effort to rotate cutter reducing hand fatigue
- · Wide hardened flared grooved rollers allow true cuts close to flared end tubing to avoid tube replacement in existing installations
- · Cuts copper, aluminum, brass, thin wall tubing and stainless steel
- Spare cutting wheel supplied in handle
- Replaceable cutting wheel: RW121/2 HDC

UFU	NU.	UAFAULLI
13300 7	133	5/16" to 1-1/8" (7.94 to 28.58mm)
12023 6	RW121/2	Replaceable Cutting Wheel





133

## SPECIALTY HAND TOOLS

## **Pipe & Hose Cutters**







#### Ideal for repeated heavy-duty cutting.

- Cuts hose, PVC, CPVC, polyethylene, PEX and ABS up to 2"
- · Ratchet action for easy cutting
- High carbon steel blade provides longer sharpness and clean cuts
- · Aluminum body is lighter and corrosion proof
- Safety locking clasp
- ◆ Dimensions: 17.00 x 5.13 x 1.63 in. (431.8 x 130.30 x 41.40mm)
- ♦ Weight: 39.70 oz. (1125.47g)

UPC	NO.	CAPACITY/(MM)	LENGTH/(MM)
01181 7	118	up to 2"	17"
		(50mm)	(425mm)
01180 0	118BG	Replacement Blade	



## Ideal for Cutting flexible rubber, PVC, ABS & polyethylene tubing.

- · Long handles provide added leverage for easy cuts
- Curved holder supports hose for square cuts
- Replaceable steel blade
- Capacities: rubber hose 2", polyethylene and ABS pipe 1", PVC pipe 1"
- ◆ Dimensions: 9.50 x 2.13 x 1.00 in. (241.30 x 54.10 x 25.40mm)
- ♦ Weight: 4.85 oz. (137.50g)

UPC	NO.	CAPACITY/(MM)	LENGTH/(MM)
011503	115	1" to 2"	9-1/2"
		(25mm - 50mm)	(241mm)
11500 3	115B	Replacement Blade	







#### **ONE-HANDED PVC/HOSE CUTTER - 1191**

#### Ideal for cutting PVC, PE, PEX, ABS pipe.

- Professional quality, all-metal construction for greater durability
- · Ratcheting action for easy cutting
- High carbon steel blade provides longer sharpness and clean cuts
- · Handle locks for safety
- Ergonomically designed handle for comfort
- ◆ Dimensions: 7.63 x 3.38 x 3.38 in. (193.80 x 85.85 x 85.85mm)
- ♦ Weight: 8.35 oz. (236.72g)

•		( )		
UPC	NO.	CAPACITY/(MM)	LENGTH/(MM)	
011916	1191	up to 1.625"	9.125"	
		(40mm)	(231mm)	



#### **ONE-HANDED PLASTIC PIPE AND HOSE CUTTER - 119**

#### For cutting PVC, CPVC, Polyethylene, PEX and ABS tubing.

- One-handed Operation
- · Quick-Blade Reset
- · Comes with extra blade
- Ratchet system holds blade in place while you adjust your grip to increase pressure
- High carbon steel blade maintains sharpness and resists chipping
- Handle locking strap for safe storage
- Exclusive, easy replaceable blade feature
- Ergonomically designed handle for comfort
- ♦ Dimensions: 9.25 x 3.78 x 1.00 in. (234.95 x 96.01 x 25.40mm)
- ♦ Weight: 8.35 oz. (236.72g)

UPC	NO.	CAPACITY/MM	LENGTH/MM
31173 3	119	.125" to 1.625"	8.25"
		3mm to 40mm	(425mm)
011947	119BG	Replacement Bla	ade



#### POCKET 4-IN-1 MINI SCREWDRIVER – 744, 744DB, 744CD

#### Ideal for technicians, hobbyists and do-it-yourselfers.

- 2 double-ended chrome vanadium blades
- 1/16" and 1/8" slotted tip and #1 and #00 cross-point tip
- Blades are held in carrier handle
- · Change blade sizes instantly
- Convenient pocket clip and capped ends

UPC	NO.	LENGTH
74401 2	744	5.125" (130mm)
74400 5	744DB	Counter display with
		24 individual pieces
00744 5	744CD	Carded product in counter top
		display box 20 pieces



#### **4-IN-ONE POCKET SCREWDRIVER - 745DB**

#### Ideal for technicians, hobbyists and do-ityourselfers.

- 2 double-ended chrome vanadium blades
- 1/8" and 5/32" Slotted tip and #0 & #1 cross-point tip
- · Blades are held in carrier handle
- · Change blade sizes instantly
- · Convenient pocket clip and capped ends
- Length is 5-1/4" (133mm)

UPC	NO.
02147 3	<b>745DB</b> Counter Display 24 pieces
	(Sold only as a counter display)



#### LIGHTED CORDLESS POWER PRECISION **SCREWDRIVER - 502**

#### Precision use for computers, electronics, and industrial applications.

- Super bright LED light
- 6+ Hours of power
- 100+ RPM
- · Includes six precision bits
- · Quick change chuck
- · Super-torque drive
- Ergonomically designed rubber cushion grip
- Cordless (2 "AAA" alkaline batteries included)
- Overall length with bit: 7.5" (190.50mm)

Ovoran	iongui	**
UPC	NO.	
05020.5	502	











502



#### 8-IN-ONE LIGHTED SCREWDRIVER - 75108

#### Perfect for computers, electronics, industial and residential applications, hobbies and crafts.

- Unique design features two drivers in one handle
- Two super bright LED lights provide 360° tip illumination for greater visibility
- Transparent collar maximizes illumination
- Four double ended blades store in handle for convenience
- Cordless (3 "LR41" batteries included)
- Overall length with bit: 6.75" (171.45mm)

**UPC** NO. 75108 9 75108





### **SPECIALTY HAND TOOLS**

## Screwdrivers, Calipers







#### **Bitload**



**SHAFT** 













**VST** 

Square Slot



#### **14-IN-1 HVAC DRIVER - 8142**

The HVAC driver includes 14 bit tips and features a Schrader Valve Stem bit and a Square Awl Reamer. The shaft opening also serves as a 1/4" hex driver.

#### **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 bits
- · Allows for easy selection and quick change of required bits

**UPC** 4-in-1 HVAC Driver 021984 8142 02196 0 8140 15-in-1 Standard Driver 021977 8141 15-in-1 Tamperproof Driver

Driver is Made in the United States Driver handle is made from engineered nylon/ABS Driver features an alloy steel shaft- 12T14 steel





1433



No. 1433 Digital Display



## **DIGITAL FRACTIONAL CALIPER – 1433**

- 3" (76mm) range
- · Lightweight non-marring carbon fiber composite
- · Convenient auto-off feature
- Three mode digital display: Decimal inches, fractional inches and millimeters
- Inside, outside & step measurements
- Accuracy: +/- 0.001", +/- 0.02mm
- Power Source: 1 "LR-44" (1.5V) battery (included)
- Dimensions: 5.50 x 2.06 x 0.75 in. (139.70 x 52.32 x 19.05mm)
- Weight: 1.0 oz. (28.35g)
- Warranty: 1-year (limited)

**UPC RANGE** 01433 7 **1433** 0 - 3" (0 - 76mm) LR-44 replacement battery



146



No. 146 Digital Display





- 6" (153mm) range
- Lightweight, non-marring carbon fiber composite
- · Convenient auto-off feature
- Three mode digital display: Decimal inches, fractional inches and millimeters
- Inside, outside, depth & step measurements
- Accuracy: +/- 0.001", +/- 0.02mm
- Power Source: 1 "LR-44" (1.5V) battery (included)
- Dimensions: 9.38 x 3.00 x 0.63 in. (238.25 x 76.20 x 16mm)
- Weight: 6.50 ozs (184.27g)
- · Warranty: 1-year (limited)

UPC	NO.	RANGE
01460 3	146	0 - 6" (0 - 153mm)
	LR-44	replacement battery



## Magnifiers & Retrieving Tools

## LumiLENS™

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

#### Ideal for hands-free illuminating magnification.

- Shatter-Resistant lens
- 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

**UPC** NO. 260017 800543





800543

#### **ULTRATECH™ GLASS MAGNIFIER - 750543**

#### Ideal for working in confined or obstructed spaces.

- · Polished optical glass lens with a metal frame
- Versa-Grip<sup>™</sup> Handle with non-slip cushion grip
- Round lens is distortion free
- · A powerful magnifier for working in confined or obstructed spaces
- Designed for demanding jobs in laboratory quality control, inspection and assembly functions
- · Used by engineers, mechanics, inspectors, lab technicians, toolmakers, instrument assemblers, jewelers, do-it-yourselfers, hobby and crafts people
- Lens Diameter: 3.5" (90mm)
- Dimensions: 8.00 x 3.75 x 3.75 in. (203.20 x 95.25 x 95.25mm)
- Weight: 7.35 oz. (208.37g)

UPC	NO.	DIAMETER	POWER	FOCAL LENGTH
50543 9	750543	3.5"	1.25	8"
		(88.9mm)		(203.20mm



750543

#### **LIGHTED MECHANICAL PICK-UPS - 70393, 70396, 70399**

#### Ideal for the retrieving objects from dark recesses.

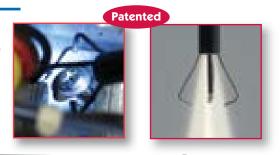
Let that flashlight sleep! General's new Lighted Mechanical PickUp has a powerful white LED that sheds a bright light on your quarry. Its strong 4-prong steel jaws can capture objects up to 1 in. (52mm) across.

- Push on powerful LED light
- Continued push opens retrieval claw
- Comfortable ergonomically designed hand controls
- · Flexible shaft

- · Strong spring steel retrieval claw
- Power Source: 3 "LR41" batteries (included)

UPC	NO.		MM	
70399 6	70393	12" OAL	304.8mm	
26003 1	70396	24" OAL	609.6mm	
70393 4	70399	36" OAL	914.4mm	
	LR41 re	eplacement b	oattery	

70396



### **LIGHTED MAGNETIC/MECHANICAL PICKUPS - 70390, 70391**

#### Ideal for the retrieval of ferrous metals from dimly lit areas.

Are most of the objects you drop made of metal? Then the magnet in our two newest tools should prove attractive. The pick-ups have the same form, function and LED as the 70393, 70396 and 70399 above, and add a retractable magnetic

sleeve for retrieving nuts and bolts and other ferrous-metal parts.

UPC	NO.	MM
70390 3	<b>70390</b> 24" OAL	609.6mm
70391 0	70391 36" OAL	914.4mm

## **TELESCOPING ALLIGATOR CLIP – 400**

- Ideal for use in lighting pilot lights and barbeques.
- · Chrome finish to prevent rust
- · Convenient pocket-clip
- Diameter: 5/16" (8mm)

UPC	NO.	SIZE	OVERALL LENGTH
42217 0	400	6.25"	24.5"
		(159mm)	(622mm)





## **SPECIALTY HAND TOOLS Inspection Mirrors**





#### **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) diameterLength: 12" (304.8mm) extends to 32" (812.8mm) overall

UPC	NO.	PKG.
80557.7	80557	Carded

#### METAL INSPECTION "FLAME" MIRRORS - 5561, 5562, 5563

Heavy-duty construction

• Includes plastic protective sheath

**UPC** NO. **OVERALL LENGTH** 055313 5561 1.25" x 2" 9.75", extends to 26" (31.75 x 54.8mm) (247 to 660mm) 055620 5562 2" x 3.75" 10.75", extends to 26" (50.80 x 95.25mm) (273 to 660mm) 055637 5563 3.75" dia. 9-3/4", extends to 26" (95.25mm)(247 to 660mm)



5561

5563

#### **LONG TELESCOPING INSPECTION MIRROR – 559**

· Handle has black cushion grip

5562

- · Non-slip grip
- Mirror size: 2" (51mm) diameter
- 36" (914mm) telescoping

	UPC	NO.	SIZE	OVERALL LENGTH
Ī	05590 3	559	2" Round	Extends to 36"
			(50.80mm)	(914.mm)



#### **GLASS INSPECTION MIRRORS – 558, 560**

Facilitates inspection of inaccessible workpieces and machines by toolmakers, assemblers, inspectors and mechanics.

- Fully polished glass mirrors are enclosed in plated holders which are attached to knurled handles with ball and socket joints
- No. 560 has a telescoping arm and a vinyl cushion grip handle

UPC	NO.	SIZE	OVERALL LENGTH
42471 6	558	1" x 2" oval	9"
		(25.40 x 50.8mm)	(228.60mm)
42473 0	560	3.5" x 2" (88.90 x 50.80mm)	11.5", extends to 16" (292.10 to 406.40mm)
		(color x colorium)	(202110 to 10011011111)

80557



## **Inspection Mirrors & Retrieving Tools**

#### **UTILITY TELESCOPING INSPECTION MIRRORS – 70555, 70557**

Facilitates inspection of inaccessible work pieces and machines by toolmakers, assemblers, inspectors and mechanics.

- · Fully polished mirrors are enclosed in plated holders which are attached to handles with a double ball and socket joint
- · Double ball and socket joints adjust to any angle
- No. 70557 has a vinyl cushion grip handle

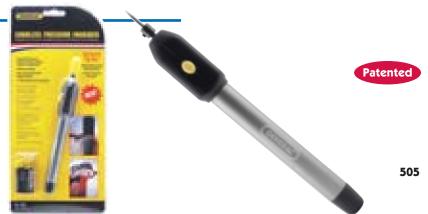
UPC	NO.	SIZE	OVERALL LENGTH
22344 9	70555	1.375" dia.	5" extends
		(34.93mm dia.)	to 27.5"
			(127 to 700mm)
22347 0	70557	2.25" dia.	9.75" extends
		(57.15mm dia.)	to 14.75"
			(247 to 375mm)



#### **CORDLESS PRECISION ENGRAVER - 505**

- . Diamond Tip Bit
- Precision cordless engraving anywhere
- Use on metal, plastic, ceramic or glass surfaces
- Protects all types of valuables
- Uses standard 3/32" engraving bit
- Aluminum body
- 20,000 RPM motor
- 2 "AAA" batteries (included)

UPC	NO.	CAPACITY
02139 4	505	Overall Length: 6.5" (165.10mm)
		Width: 0.5" (12.7mm)



#### **ADJUSTABLE DIAL WIRE STRIPPER - 69**

Adjustable settings with lock is ideal for repetitive wire stripping.

- Dial the wire size desired for individual or repetitive stripping without damaging wire
- · Spring opening for fast and easy cutting or stripping
- Dial lock closes stripper to protect hardened cutting edges
- · Vinyl cushion handles

UPC	NO.	WIRE GAGE CAPACITY	
i	/1036.8	60	12 14 16 18 20 22 24 26



#### 4-PIECE INTERCHANGEABLE STAINLESS STEEL PROBE SET – 707862

Ideal for probing, cleaning, picking, or marking small work surfaces.

- · Set Includes:
  - · Four heat treated stainless steel point configurations:
  - Straight
  - 180° Hook
- 35° Bend
- 90° Bend
- Precision locking screw chuck holds blades securely in place
- Each blade is 5" long (127mm); OAL 8.5" (216mm) with handle
- Precision engineered 700 Series Versa-Grip™ handle for maximum performance

UPC	NO.	PKG.	
70786 4	707862	Holster/Carded	





707862

## Deburring, Reamers, Saw/Driver





#### **DEBURRING TOOL - 481**

- Pivot blade allows easy burr removal from iron pipe, copper and PVC tubing
- Includes one replacement blade in storage handle
- · High impact plastic for durability
- Replacement blades 482A & B are available

UPC	NO.	HANDLE LENGTH
00481 9	481	5" (127mm)
42327 6	482A	Blade for steel, copper, aluminum and plastic
42330 6	482B	Blade for brass and cast iron.



#### **SWIVEL HEAD DEBURRING TOOL - 482**

- Professional quality and performance of higher price deburring tools
- Two interchangeable blades

UPC	NO.	HANDLE LENGTH
42324 5	482	5-1/8" (130mm)
42327 6	482A	Blade for steel, copper, aluminum and plastic
42330 6	482B	Blade for brass and cast iron.



#### **INNER/OUTER REAMER - 134**

- Inner/Outer Reamer will work on steel, iron, copper and PVC
- Zinc die-cast body
- Capacity 1-1/2" diameter (12.7mm)
- Grooved outer body gives you an easy grip
- Internal and external reamers are made of heat treated high carbon steel

	UPC	NO.	CAPACITY		
	22077.6	12/	1-1/2" (38mm)		



## SAW/DRIVER

4-IN-1 Cutting and Driving System is ideal for contractors, journeymen and do-it-yourselfers.

T15





- 2 position quick change locking handle offers both power and speed.
- A convenient holster holds all 14 pieces.
- A 4-IN-1 cutting and driving system
- (1) Jab Saw with straight handle and special Sheetrock reciprocal blade
- (2) Keyhole Saw in the pistol grip handle position
- (3) Power Driver in the pistol grip position
- (4) Speed Driver, screw or nut driver with straight handle
- The keyless Quick-Change locking chuck accepts both Quick-Change bits and industry standard reciprocating saw blades
- Dimensions: 12.50 x 5.50 x 1.25 in. (317.50 x 139.70 x 31.75mm)
- Weight: 12.60 oz. (357.20g)

#### **14-PIECE SET INCLUDES:**

- 3 saw blades; drywall, Metal/PVC, wood,
- 7 insert bits
- 1 hex to square adaptor
- 1 quick change handle
- 1 holster with belt-clip
- 1 bit extender
- Swivel locking chuck holds all reciprocating blades and speed shank power bits
- Comfortable handle easily locks in the straight or pistol grip position

	otiaig	, 0.	piotoi	9b	poortion	
UPC		NO.				
86014	9	8601	4			



#### **HVAC/R ENVIRONMENTAL INSTRUMENTS** DHVACR-1



#### Environmental Instruments Planogram (13)

IRT105	6:1 Pocket Infrared Thermometer
DC01001	Carbon Monoxide Detector
PNG2000A	Combustible Gas Detector
SAM990DW	Digital Psychrometer
DT898P	Digital Indoor/Outdoor Therm w/ Clock
HDT304K	Digital Thermometer
DTP301FC	Digital Thermometer
HT20	USB RH/Temp Data Logger w/ LCD
AQ150	Indoor Outdoor Therm
	w/ Waterproof Probe
WA500	Water Leak Alarm
IRT207	Non-Contact Infrared Thermometer
IRT657	12:1 Wide Range
	Infrared Thermometer
PTH8707	Thermo-Hygrometer

#### **HVAC/R ELECTRICAL INSTRUMENTS DHVACR-2**



#### **Electrical Instruments Planogram (11)**

DMM20UL	Digital Multimeter
CAP1500	Digital Capacitor Tester
CT800	Multi-Color Jumper leads
ST600LED	Screwdriver/ Continuity Tester
DMM45	Auto Imaging DMM w/ Back Lite
VS3000A	Audible/ Visual Non-Contact
	Voltage Tester
TL100	Standard Test Leads
DAMP60	Auto Ranging 600A AC Clamp Meter
DMM51FSG	Digital Service Multimeter
BF20	AC Circuit Breaker Finder
DAMP68	Auto Ranging AC/DC True RMS 400A Clamp Meter
	TOUR CIAITIP INICICI

## HVAC/R SPECIALTY TOOLS DHVACR-3



#### **Specialty Tools Planogram (14)**

500	Cordless Precision Screwdriver
80557	Lighted Round Inspection Mirror
80560	Lighted Rectangular Inspection Mirror
120	Tubing Cutter
70396	Lighted Mechanical Pick Up
133	E•Z Ratcheting Tubing Cutter (1-1/8" 0.D.)
70557	Telescoping Mirror (2-1/4" Dia.)
69	Adjustable Dial Wire Stripper
129X	Mini Tubing Cutter (7/8" O.D.)
707862	4 piece Stainless Steel Probe Set
1191	PVC and Hose Cutter (1-5/8" O.D.)
505	Cordless Precison Engraver
800543	"LumiLENS" Lighted Magnifier
5562	Metal Flame Inspection Mirror

# HVAC/R INSTRUMENTS, TOOLS & ACCESSORIES Alphanumeric Index



MODEL		CAT			DIVC	DVC
MODEL No.	UPC	CAT. PG.	KEY	DESCRIPTION	PKG. QTY	PKG. TYPE
			<u>MEN</u>	IT INSTRUMENTS		
320 321	†00320 1 †22391 3	21 21		ANALOG POCKET THERMOMETER WITH MAGNIFYING LENS, -40° TO 160°F  ANALOG POCKET THERMOMETER WITH MAGNIFYING LENS, 0° TO 220°F	3	B BL
AC1	10166 7	33	Z	110VAC TO 9VDC ADAPTER FOR DTH3007SD, HWA4214SD AND PM930SD	1	BX
ACL10	01521 6	40, 41	Z	15A LINE SPLITTER FOR DAMP60, DAMP68, CM660 & CM700 CLAMP METERS	1	BX
ADP05V AM35UL	01497 4 50005 7	13 43, 45		CAR CHARGER FOR DCS400 AND DCS100 SERIES ANALOG ECONOMY MULTIMETER, FUSED, UL LISTED	<u>1</u> 1	BX BL
AQ150	22150 1	23		IN/OUT THERMOMETER WITH WATERPROOF PROBE, -58° TO 158°F (-50° TO 70°C)	1	BX
ASFTKIT	12710 0	35	Z	DOWNLOAD SOFTWARE & CABLE FOR: DT8852; DCFM8906, DCFM8901; WDCFM8912; DM8215, DM8252	1	BX
BA10 BF20	72015 8 01606 0	27 46	*	"1/2 AA" BATTERY FOR HT10, HT20, HT50 AC CIRCUIT BREAKER FINDER WITH NCV TESTER AND GFCI OUTLET CHECKER (REPLACES BF10)	<u>1</u> 1	BX BL
CAP1500	50192 4	47		DIGITAL WIDE RANGE CAPACITOR TESTER WITH ALLIGATOR LEADS	1	BX
CDM77232		26		WALL MOUNT CO2/TEMPERATURE/RH METER-HIGH ACCURACY	1	BX
CGD900 CIH20DL	01449 3 01498 1	28 31	*	INTRINSICALLY SAFE MSHA APPROVED COMBUSTIBLE GAS LEAK DETECTOR  DATA LOGGING HOT WIRE ANEMOMETER WITH CFM/CMM AND 8:1 IR THERMOMETER	<u>1</u> 1	BX BX
NISTCIH201	DL	01		NIST CERTIFICATION FOR CIH2ODL AVAILABLE		
CIH30DL	01681 7	31	*	DATA LOGGING HOT WIRE ANEMOMETER WITH CFM/CMM AND 30:1 IR THERMOMETER	1	ВХ
NISTCIH30I CM660	DL 01629 9	41, 42	*	NIST CERTIFICATION FOR CIH2ODL AVAILABLE  NEW DUAL DISPLAY AMP CLAMP W/ AC/DC AMPS, TRMS, NCV,750V, 600A, 0.01A RESOLUTION	1	BL
NISTCM660		71,72		NIST CERTIFICATION FOR CMM660 AVAILABLE	'	
CM700	01633 6	41, 42	*	NEW DUAL DISPLAY AMP CLAMP W/ AC/DC AMPS, TRMS, NCV, 1000V,1000A, 0.1A RESOLUTION	1	BL
CM770	01640 4	41, 42	*	NIST CERTIFICATION FOR CMM700 AVAILABLE  NEW DUAL DISPLAY AMP CLAMP W/ AC/DC AMPS. TRMS. NCV. 1000V.1000A. 0.1A RESOLUTION AND REMOVEABLE IRT	1	BL
NISTCM770		41,42		NIST CERTIFICATION FOR CMM770 AVAILABLE	ı	DL
CT101	51025 4	48		LINE VOLTAGE TESTER, UL LISTED	1	Р
CT102	51035 3	48		LINE VOLTAGE TESTER, UL LISTED	1	Р
CT103 CT300	51045 2 01359 5	49 47	*	MULTI-VOLTAGE LINE TESTER CIRCUIT ANALYZER, UL LISTED	<u>1</u> 1	BL BL
CT600M	50601 1	49		2 WIRE LINE VOLT TEST LEADS	1	P
CT6235B	42115 4	37		CONTACT TACHOMETER	1	ВХ
NISTCT623		40		NIST CERTIFICATION FOR CT6235B AVAILABLE  3 WIRE FEMALE TEST LEADS	4	
CT700F CT800	51095 7 51105 3	49 49		10 WIRE LOW VOLT TEST LEADS (5 COLORS)	<u>1</u> 1	P P
DAMP60	01356 4	40, 42		AUTO RANGING 600 AMP AC CLAMP METER	1	BL
NISTDAMP		10.10		NIST CERTIFICATION FOR DAMP60 AVAILABLE		
DAMP68 NISTDAMP	01369 4	40, 42		AUTO RANGING AC/DC TRUE RMS 400 AMP CLAMP METER  NIST CERTIFICATION FOR DAMP68 AVAILABLE	1	BL
DCFM700	40700 4	32	*	DIGITAL ECONOMY AIRFLOW METER WITH CFM	1	CS
NISTDCFM:	700			NIST CERTIFICATION FOR DCFM700 AVAILABLE		
DCFM8901 NISTDCFM8		32		DIGITAL TWO-PIECE AIRFLOW METER WITH CFM DISPLAY & RS-232 INTERFACE  NIST CERTIFICATION FOR DCFM8901 AVAILABLE	1	CS
DCFM8906		32		DIGITAL ONE PIECE AIRFLOW METER WITH CFM DISPLAY	1	CS
NISTDCFM	8906			NIST CERTIFICATION FOR DCFM8906 AVAILABLE		
DCiS2	01665 7	,	*	iBORESCOPE2	1	CA
DC01001 DCS200	41655 6 01372 4	29 12-13, 17	7	DIGITAL CO DETECTOR, WITH AUTO ZERO, BACKLIGHT, WRIST STRAP, ALARM & SOFT CASE  THE SEEKER™ 200 VIDEO INSPECTION SYSTEM W/ 12MM DIA. 1M LONG PROBE, 2.4" SCREEN	<u>1</u> 1	BL CS
	5 01494 3			THE SEEKER™ 200 VIDEO INSPECTION SYSTEM W/ 5.5MM DIA. 1M LONG PROBE, 2.4" SCREEN	1	CS
DCS200-09	01482 0	12-13, 17	7	THE SEEKER™ 200 VIDEO INSPECTION SYSTEM W/ 9MM DIA. 1M LONG PROBE, 2.4" SCREEN	1	CS
DCS280 DCS300	01572 8 01373 1	12-13, 14		RUGGED NON-RECORDING VIDEO INSPECTION SYSTEM  THE SEEKER™ 300 VIDEO INSPECTION SYSTEM W/ 12MM DIA. 1M LONG PROBE. 3.5" SCREEN	<u>1</u> 1	CS CS
DCS350	01582 7			RUGGED RECORDING VIDEO INSPECTION SYSTEM	1	CS
DCS355	01472 1	12-13, 17	7	THE SEEKER™ 355 VIDEO INSPECTION SYSTEM W/ 5.5MM DIA. 1M LONG PROBE, 3.5" SCREEN	1	CS
DCS400	01371 7			THE SEEKER™ 400 WIRELESS VIDEO INSPECTION SYSTEM W/ 12MM DIA. 1M LONG PROBE, 3.5" SCREEN	1	CS
DCS400-05	01447 9 0 01426 4	12-13, 17	<u>(</u> 7	THE SEEKER™ 400 WIRELESS VIDEO INSPECTION SYSTEM W/ 5.5MM DIA. 1M LONG PROBE, 3.5" SCREEN  THE SEEKER™ 400 WIRELESS VIDEO INSPECTION SYSTEM W/ 9MM DIA. 1M LONG PROBE, 3.5" SCREEN	<u>1</u> 1	CS CS
DCS600		12-13, 16		SEASCOPE™600 -WATERPROOF VIDEO INSPECTION SYSTEM	1	CS
DCS660		12-13, 16		SEASCOPE™660 -WATERPROOF RECORDING VIDEO INSPECTION SYSTEM	1	CS
DCS800 DCS950	01628 2	6-7, 8 5, 12-13	*	RUGGED VGA RECORDING VIDEO BORESCOPE SYSTEM  THE PALMSCOPE™ COMPACT INSPECTION VIDEO BORESCOPE SYSTEM W/9.0MM DIA. CAMERA HEAD	1	CA
DCS950 DCS1600	01305 2	6-7.11	1	HIGH PERFORMANCE RECORDING VIDEO BORESCOPE SYSTEM W/5.5MM DIA. x 1M LONG PROBE AND 3.5" SCREEN	<u>1</u> 1	BL_ CS
DCS1700	01601 5	6-7, 8	*	THE VIPER 1700 SUPER HIGH-PERFORMANCE VGA RECORDING VIDEO BORESCOPE SYSTEM	1	CS
DCS1800	01297 0	6-7, 10		HIGH-PERFORMANCE WIRELESS BORESCOPE SYSTEM	1	CA
DHVACR-1 DHVACR-2	TBD TBD	59 59		HVAC/R Environmental Instruments (2 each of 13 SKUs) HVAC/R Electrical Instruments (2 each of 11 SKUs)	<u>1</u> 1	BX BX
DHVACR-3		59		HVAC/R Specialty Tools (3 each of 14 SKUs)	1	BX
DL8835	46125 9	24		TEMPERATURE/HUMIDITY DATA LOGGER WITH ON/OFF SWITCH & TEMPERATURE PORT	1	ВХ
NISTDL883 DM8215	41215 2	34		NIST CERTIFICATION FOR DL8835 AVAILABLE DIGITAL MANOMETER WITH 36" TUBING, 0 TO 15 PSI, +/- PORT, BACK LIGHT & RS232 OUTPUT	1	CS
NISTDM82		J4		NIST CERTIFICATION FOR DM8215 AVAILABLE	<u> </u>	
DM8252	41216 9	34		DIGITAL HIGH RESOLUTION MANOMETER WITH 36" TUBING; 0 TO 2 PSI, +/- PORT	1	CS
NISTDM82	52			NIST CERTIFICATION FOR DM8252 AND DM8252RS AVAILABLE		

KEY: \* = New Item, XX = Discontinued after supply is depleted, \*\*\* = Certified, NCL = Not In Catalog, Z = Not standard discount PKG. TYPE: P = Poly Bag, BX = Box, BL = Blister, CA = Case, CS = Case with printed sleeve, BB = Blank Box, B = Bulk, C = Carded, DB = Display Box, PB = Printed Box, SO = Special Order



# HVAC/R INSTRUMENTS, TOOLS & ACCESSORIES Alphanumeric Index

MISTINGSPIRE   MIST CERTIFICATION FOR MARKET AND DAMPSTES NAMLABE	DDEL No.	UPC	CAT. PG.	KEY	DESCRIPTION	PKG. QTY	PKG. TYPE
MISSINGERINGS   MISSINGER	EST 8	MEAS	SURE	MEN	IT INSTRUMENTS (continued)		
DAMASS   SOFE   4, 58, 44					HI RES MANOMETER WITH 4 RÜBBER STOPPERS FOR DUCT SMOKE DETECTORS	1	CS
DAMASS    SO105   4   34   50   DIGTAL CREAT CAPO METER WITH CONTROLLY'S & PARGONNEY    1							
DAMAS							BL
DAMAS   59123   43,44   AUTO PARKEND DIGITAL NULTIMETER WITH BRIGHT SCREED DISPLAY							BL BL
DAMISTINES   GOTOR   4.4   5							BL
NBSTOMMS70   1942   8							BL
DAMASSINS   501009   42, 45   5   5   5   5   7   6-7, 9   9   9   7   6-7, 9   9   9   9   8   1   1   9   8   1   1   9   8   1   1   9   8   1   9   8   1   9   8   1   9   8   1   9   8   9   8   9   8   9   8   9   8   9   8   9   8   9   8   9   9			.0, .0				
DPSIG   15797   67.7   8   PRE AND DUCT RECORDANG VIDEO BORRESCOPE INSPECTION SYSTEM   1						1	CA
DFGSTOR   C 2005.3   21							ВХ
DISSIDE   121-51   36				*			CA
DIRBSE   2012 3   22   DIGITAL DUAL MPUT THERDOWSER WITH 2 'K' TYPE PROBES   1							BL
DTRISAN   1001   27   22   10   N. G. OUTDOOR THERMOMETER W. JUMBO DISPLAY   1   1   1   1   1   1   1   1   1							BX CS
DITHOSON							BL
Introducts   1				*			BL
MISTORIAGOTSO							CA
MIRSTEMBRAGH   STEMBRAGH   S							
INSTERPORO   1	/IR813	60017 7	23			1	BL
PRYONG   1041 7   25   ** CALIBRATABLE MILTH-RUCTION PSYCHROMETER   1			23			1	BL
INSTERPTOR   FOR 10041 7							
PROPISE   1041   7   25   * CALIBRATABLE DIGITAL PSYCHROMETER   1   1   1   1   1   1   1   1   1			25	*		1	BL
INSTERPORO			٥٢	<b>.</b>		4	דח
PR709			25	×		I	BT
INSTERPTOPO   1631 2   25			25	*		1	BL
PRP310			20				DL
NISTERBYIO			25	*		1	BL
FBR71   0 1677   24							
FTROM			24	*		1	ВХ
F6F1302   51067 4   47   3 WIRE CIRCUIT TESTER WITH 6FOL IL LISTED   F0PR015   41240 4   35   ANALO GAS PRESSURE KT, 0 TO 15 PSI WTLBINKS, FITTING, GAS MANIFOLD, CASC COCK, SQUEEZE BALL, BLOW MOLD CASE   1							BL
POPKIDS							BL
SPR015							BL
CFR   CFR				*			DB DB
GTI10							DB
The content of the				* 7			CA
GTI10-1000							CA
GT120							CA
GT120-1000   01651 0			3	* S0 Y		1	CA
GT120-1000 01651 0 3 * S0 Y THERMAL/VISUAL IMAGING CAMERA WITH PICTURE-IN-PICTURE WITH RANGE EXTENDED TO 1000°C (1832°F) 1			3	* Y		1	CA
GTI20-1500 01652 7 3							CA
CTI30							CA
GTI50					THERMAL/VISUAL IMAGING CAMERA WITH PICTURE-IN-PICTURE WITH RANGE EXTENDED TO 1500°C (2732°F)		CA
GTISO-600					,		CA
GTI50-1000 01653 4							CA
CTISO-1500   01627 5   3							CA CA
HDT304K   20005 6							CA
HG15				00 1			BL
HR33LJ	G15						P
HT10		15070 2				1	ВХ
NISTHT10         NIST CERTIFICATION FOR HT10 AVAILABLE           HT20         01503 2         27         USB TEMPERATURE-HUMIDITY DATA LOGGER W/LCD & GPP         1           NISTHT20         NIST CERTIFICATION FOR HT20 AVAILABLE         HT50         01504 9         27         USB TEMPERATURE-HUMIDITY DATA LOGGER W/LCD & IR THERMOMETER & GPP         1           NISTHT50         NIST CERTIFICATION FOR HT50 AVAILABLE         HWA4214SD         NIST CERTIFICATION FOR HT50 AVAILABLE           HWA4214SD         NIST CERTIFICATION FOR HWA4214SD AVAILABLE         1           INT8819         46135 8         26         Z         USB INTERFACE KIT FOR DL8835         1           IRT105         20196 1         19         POCKET IRT, 6:1 D.S RATIO, ADJUSTABLE EMISSIVITY, -22 to 482°F (-30 to 250°F)         1           INSTIRT105         NIST CERTIFICATION FOR IRT105 AVAILABLE         IRT206         02060 9         19         THE HEAT SEEKER™ 8:1 MID-RANGE INFRARED THERMOMETER         1           INSTIRT206         NIST CERTIFICATION FOR IRT206 AVAILABLE         IRT657         1         1           IRT657         01480 6         20         12:1 WIDE-RANGE INFRARED THERMOMETER         1           IRT659K         01598 8         20         * 12:1 INFRARED THERMOMETER WITH "K" TYPE THERMOCOUPLE & ADJUSTABLE EMISSIVITY         1           IRT730K<				Z			ВХ
HT20		01501 8	27			1	BL
NISTHT20         NIST CERTIFICATION FOR HT20 AVAILABLE           HT50         01504 9         27         USB TEMPERATURE-HUMIDITY DATA LOGGER W/ LCD & IR THERMOMETER & GPP         1           NISTHT50         NIST CERTIFICATION FOR HT50 AVAILABLE         HWA4214SD 01456 1         33         HOT WIRE ANEMOMETER-THERMOMETER WITH DATA LOGGING SD CARD         1           NISTHWA4214SD         NIST CERTIFICATION FOR HWA4214SD AVAILABLE         1           INT8819         46135 8         26         Z         USB INTERFACE KIT FOR DL8835         1           IRT105         20196 1         19         POCKET IRT, 6:1 D:S RATIO, ADJUSTABLE EMISSIVITY, -22 to 482°F (-30 to 250°F)         1           NISTIRT105         NIST CERTIFICATION FOR IRT105 AVAILABLE         IRT206         02060 9         19         THE HEAT SEEKER™ 8:1 MID-RANGE INFRARED THERMOMETER         1           IRT207         01403 5         19         THE HEAT SEEKER™ 8:1 MID-RANGE INFRARED THERMOMETER         1           IRT657         01400 6         20         12:1 WIDE-RANGE INFRARED THERMOMETER         1           IRT658W         01598 8         20         * 12:1 IMFRARED THERMOMETER WITH "K" TYPE THERMOCOUPLE & ADJUSTABLE EMISSIVITY         1           IRT730K         01643 5         39         * 30:1 ULTRA WIDE-RANGE IR THERMOMETER WITH STAR BURST LASER TARGETING         1 <td></td> <td>01500.0</td> <td>07</td> <td></td> <td></td> <td></td> <td>DI</td>		01500.0	07				DI
NISTHT50		015032	27			1	BL
NISTHT50         NIST CERTIFICATION FOR HT50 AVAILABLE           HWA4214SD         33         HOT WIRE ANEMOMETER THERMOMETER WITH DATA LOGGING SD CARD         1           NISTHWA4214SD         NIST CERTIFICATION FOR HWA4214SD AVAILABLE         1           INT8819         46135 8         26         Z         USB INTERFACE KIT FOR DL8835         1           IRT105         20196 1         19         POCKET IRT, 6:1 D:S RATIO, ADJUSTABLE EMISSIVITY, -22 to 482°F (-30 to 250°F)         1           NISTIRT105         NIST CERTIFICATION FOR IRT105 AVAILABLE         IRT206         02060 9         19         THE HEAT SEEKER™ 8:1 MID-RANGE INFRARED THERMOMETER         1           NISTIRT206         NIST CERTIFICATION FOR IRT206 AVAILABLE         IRT206 AVAILABLE         1           IRT207         01403 5         19         THE HEAT SEEKER™ 8:1 MID-RANGE INFRARED THERMOMETER         1           IRT657         01480 6         20         12:1 WIDE-RANGE INFRARED THERMOMETER         1           NISTIRT657         NIST CERTIFICATION FOR IRT657 AVAILABLE         1           IRT659K         01598 8         20         * 12:1 INFRARED THERMOMETER WITH "K" TYPE THERMOCOUPLE & ADJUSTABLE EMISSIVITY         1           IRT730K         01643 5         39         * 30:1 ULTRA WIDE-RANGE IR THERMOMETER WITH "K" PORT         1 <t< td=""><td></td><td>015040</td><td>27</td><td></td><td></td><td>1</td><td>BL</td></t<>		015040	27			1	BL
HWA4214SD		013043	21				DL
NISTHWA4214SD         NIST CERTIFICATION FOR HWA4214SD AVAILABLE           INT8819         46135 8         26         Z         USB INTERFACE KIT FOR DL8835         1           IRT105         20196 1         19         POCKET IRT, 6:1 D:S RATIO, ADJUSTABLE EMISSIVITY, -22 to 482°F (-30 to 250°F)         1           NISTIRT105         NIST CERTIFICATION FOR IRT105 AVAILABLE         1           IRT206         02060 9         19         THE HEAT SEEKER™ 8:1 MID-RANGE INFRARED THERMOMETER         1           IRT207         01403 5         19         THE HEAT SEEKER™ 8:1 MID-RANGE INFRARED THERMOMETER         1           IRT657         01480 6         20         12:1 WIDE-RANGE INFRARED THERMOMETER         1           INSTIRT657         NIST CERTIFICATION FOR IRT657 AVAILABLE         1           IRT659K         01598 8         20         * 12:1 INFRARED THERMOMETER WITH "K" TYPE THERMOCOUPLE & ADJUSTABLE EMISSIVITY         1           IRT730K         01643 5         39         * 30:1 ULTRA WIDE-RANGE IR THERMOMETER W"K" PORT         1           IRT650         01442 4         20         8:1 ENERGY AUDIT IR THERMOMETER/SCANNER WITH STAR BURST LASER TARGETING         1		01456 1	33			1	CA
INT8819						•	<i></i>
IRT105   20196 1   19			26	Z		1	ВХ
IRT206         02060 9         19         THE HEAT SEEKER™ 8:1 MID-RANGE INFRARED THERMOMETER         1           NISTIRT206         NIST CERTIFICATION FOR IRT206 AVAILABLE         IRT207         01403 5         19         THE HEAT SEEKER™ 8:1 MID-RANGE INFRARED THERMOMETER         1           IRT657         01480 6         20         12:1 WIDE-RANGE INFRARED THERMOMETER         1           NISTIRT657         NIST CERTIFICATION FOR IRT657 AVAILABLE         NIST CERTIFICATION FOR IRT657 AVAILABLE           IRT659K         01598 8         20         *         12:1 INFRARED THERMOMETER WITH "K" TYPE THERMOCOUPLE & ADJUSTABLE EMISSIVITY         1           IRT730K         01643 5         39         *         30:1 ULTRA WIDE-RANGE IR THERMOMETER W/ "K" PORT         1           IRTC50         01442 4         20         8:1 ENERGY AUDIT IR THERMOMETER/SCANNER WITH STAR BURST LASER TARGETING         1		20196 1	19			1	BL
NISTIRT206         NIST CERTIFICATION FOR IRT206 AVAILABLE           IRT207         01403 5         19         THE HEAT SEEKER™ 8:1 MID-RANGE INFRARED THERMOMETER         1           IRT657         01480 6         20         12:1 WIDE-RANGE INFRARED THERMOMETER         1           NISTIRT657         NIST CERTIFICATION FOR IRT657 AVAILABLE           IRT659K         01598 8         20         ★         12:1 INFRARED THERMOMETER WITH "K" TYPE THERMOCOUPLE & ADJUSTABLE EMISSIVITY         1           IRT730K         01643 5         39         ★         30:1 ULTRA WIDE-RANGE IR THERMOMETER W/ "K" PORT         1           IRTC50         01442 4         20         8:1 ENERGY AUDIT IR THERMOMETER/SCANNER WITH STAR BURST LASER TARGETING         1							
IRT207         01403 5         19         THE HEAT SEEKER™ 8:1 MID-RANGE INFRARED THERMOMETER         1           IRT657         01480 6         20         12:1 WIDE-RANGE INFRARED THERMOMETER         1           NISTIRT657         NIST CERTIFICATION FOR IRT657 AVAILABLE         1           IRT659K         01598 8         20         ★ 12:1 INFRARED THERMOMETER WITH "K" TYPE THERMOCOUPLE & ADJUSTABLE EMISSIVITY         1           IRT730K         01643 5         39         ★ 30:1 ULTRA WIDE-RANGE IR THERMOMETER W/ "K" PORT         1           IRTC50         01442 4         20         8:1 ENERGY AUDIT IR THERMOMETER/SCANNER WITH STAR BURST LASER TARGETING         1		02060 9	19			1	BL
IRT657         01480 6         20         12:1 WIDE-RANGE INFRARED THERMOMETER         1           NIST IRT657         NIST CERTIFICATION FOR IRT657 AVAILABLE         VERY OF THE PROPRIED THERMOMETER WITH "K" TYPE THERMOCOUPLE & ADJUSTABLE EMISSIVITY         1           IRT730K         01643 5         39         * 30:1 ULTRA WIDE-RANGE IR THERMOMETER W/ "K" PORT         1           IRTC50         01442 4         20         8:1 ENERGY AUDIT IR THERMOMETER/SCANNER WITH STAR BURST LASER TARGETING         1		04.400.7	- 10				
NISTIRT657         NIST CERTIFICATION FOR IRT657 AVAILABLE           IRT659K         01598 8         20         *         12:1 INFRARED THERMOMETER WITH "K" TYPE THERMOCOUPLE & ADJUSTABLE EMISSIVITY         1           IRT730K         01643 5         39         *         30:1 ULTRA WIDE-RANGE IR THERMOMETER W/ "K" PORT         1           IRTC50         01442 4         20         8:1 ENERGY AUDIT IR THERMOMETER/SCANNER WITH STAR BURST LASER TARGETING         1							BL
IRT659K         01598 8         20         *         12:1 INFRARED THERMOMETER WITH "K" TYPE THERMOCOUPLE & ADJUSTABLE EMISSIVITY         1           IRT730K         01643 5         39         *         30:1 ULTRA WIDE-RANGE IR THERMOMETER W/ "K" PORT         1           IRTC50         01442 4         20         8:1 ENERGY AUDIT IR THERMOMETER/SCANNER WITH STAR BURST LASER TARGETING         1		U148U 6	20			1	BL
IRT730K         01643 5         39         *         30:1 ULTRA WIDE-RANGE IR THERMOMETER W/ "K" PORT         1           IRTC50         01442 4         20         8:1 ENERGY AUDIT IR THERMOMETER/SCANNER WITH STAR BURST LASER TARGETING         1		01502 P	20	*		1	BL
IRTC50 01442 4 20 8:1 ENERGY AUDIT IR THERMOMETER/SCANNER WITH STAR BURST LASER TARGETING 1							BL
							BL
NISTIRTC50 NIST CERTIFICATION FOR IRTC50 AVAILABLE					NIST CERTIFICATION FOR IRTC50 AVAILABLE		

# HVAC/R INSTRUMENTS, TOOLS & ACCESSORIES Alphanumeric Index



MODEL	LIDO	CAT	1/51/	PEADDING	PKG	PKG
No.	UPC	CAT. PG.	KEY	DESCRIPTION	PKG. QTY	PKG. TYPE
KEL57060	01662 6	38	:WEN *	IT INSTRUMENTS (continued) ELECTRICIAN'S KIT - COMBINES A DMM570 MULTIMETER, A DAMP60 600A AC CLAMP METER AND A PIPE WRAP THERMOCOUPLE	1	CA
KHV57030	01664 0	38	*	HVAC METER KIT - COMBINES A DMM570 MULTIMETER, AN IRT730K 30:1 IR THERMOMETER AND A PIPE WRAP THERMOCOUPLE	1	CA
KHVP57068		38	*	HVAC DMM KIT - COMBINES A DMM570 MULTIMETER, A DAMP60 600A AC CLAMP METER	1	CA
LT2234C NISTLT2234	42120 8	37		NON-CONTACT LASER TACHOMETER  NIST CERTIFICATION FOR LT2234C AVAILABLE	1	ВХ
LTH8809DL		26		TEMPERATURE/HUMIDITY MONITOR – DATA LOGGER	1	ВХ
NISTLTH880				NIST CERTIFICATION FOR LTH8809DL AVAILABLE		
MMH800 MSV350D	01486 8 01275 8	24 47		PIN/PINLESS MOISTURE METER WITH TEMPERATURE & HUMIDITY DIGITAL 3-IN-1 LCD STUD/VOLTAGE/METAL DETECTOR	1	BL BL
NGD268	41537 5	28		COMBUSTIBLE GAS LEAK DETECTOR WITH WIDE OPERATING RANGE FOR EXTREME WEATHER CONDITIONS	1	CS
NGD8800	40880 3	28		COMBUSTIBLE GAS LEAK DETECTOR	1	CS
P16PIP	01578 0	6-7, 9		PIPE AND DUCT INSPECTION PROBE AND REEL SET	1	CA
P230-1 P230-1F	01386 1 01474 5	13 13		CLOSE FOCUS 12MM DIAMETER PROBE FOR ALL SEEKER SYSTEMS—1M (3.3 FT.) LONG FAR FOCUS 12MM DIAMETER PROBE FOR ALL SEEKER SYSTEMS—1M (3.3 FT.) LONG	1	BX BX
P230-1X	01387 8	13		1M (3.3 FT.) EXTENSION FOR 12MM DIAMETER PROBE	1	BX
P230-2X	01390 8	13		2M (6.6 FT.) EXTENSION FOR 12MM DIAMETER PROBE	1	BX
P230-3X P4214SD	01391 5 01548 3	13 35		3M (9.8 FT.) EXTENSION FOR 12MM DIAMETER PROBE REPLACEMENT PROBE FOR HWA4214SD	1	BX BX
P455-1N	01466 0	13		5.5MM DIA. PROBE X 1M LONG FOR DCS100, 200, 300 AND 400 SYSTEMS	1	BX
P455-2N	01460 1	13		5.5MM DIA. PROBE X 2M LONG FOR DCS100, 200, 300 AND 400 SYSTEMS	1	BX
P455-3N	01470 7	13		5.5MM DIA. PROBE X 3M LONG FOR DCS100, 200, 300 AND 400 SYSTEMS	1	BX
P495-1N P495-2N	01423 3 01467 7	13 13		9MM DIA. PROBE X 1M LONG FOR DCS100, 200, 300 AND 400 SYSTEMS 9MM DIA. PROBE X 2M LONG FOR DCS100, 200, 300 AND 400 SYSTEMS	1	BX BX
P495-3N	01468 4	13		9MM DIA. PROBE X 3M LONG FOR DCS100, 200, 300 AND 400 SYSTEMS	1	BX
P600-2	01596 4	16		70 IN. LONG, 9.8MM DIA. PROBE FOR SEASCOPE 600 or SEASCOPE 660	1	ВХ
P600-3	01587 1 10043 1	16	7	105 IN. LONG, 9.8MM DIA. PROBE FOR IBORESCOPE, SEASCOPE 600 or SEASCOPE 660	1	BX
P8706 P8901	40006 7	27 34	Z 	EXTERNAL TEMPERATURE PROBE FOR EP8706 REPLACEMENT VANE FOR DCFM8901	1	BX BX
P8912	01291 8	35	Z	REPLACEMENT VANE FOR WDCFM8912	1	BL
PCT2236B	42110 9	37		CONTACT/NON-CONTACT LASER CONTACT TACHOMETER	1	ВХ
NISTPCT22 PCT900	36B 40900 8	37		NIST CERTIFICATION FOR PCT2236B AVAILABLE COMBINATION CONTACT/NON-CONTACT LASER TACHOMETER	1	ВХ
NISTPCT90		31		NIST CERTIFICATION FOR PCT900 AVAILABLE		DA
PM003	01370 0	11		SET OF THREE MIRRORED VIEWING TIPS (70°, 90°, 110°) FOR ALL 5.5MM PROBES EXCEPT P16181/2/3HP	1	ВХ
PM930SD	01450 9	35		DATA LOGGING PRESSURE METER W/ EXCEL FORMATTED SD CARD	1	BX
PNG2000A PS10	41501 6 01527 8	29 35	Z, S0	THE SEEKER™ PEN STYLE COMBUSTIBLE GAS DETECTOR WITH WRIST STRAP, LED & AUDIBLE ALERT PRESSURE SENSOR FOR PM930SD 10BAR	1	BL BX
PS100	01533 9	35	Z, S0	PRESSURE SENSOR FOR PM930SD 100 BAR	1	BX
PS2	01491 2	35	Z	PRESSURE SENSOR FOR PM930SD 2BAR	1	ВХ
PS400 PS5	01534 6 01528 5	35 35	Z, S0 Z, S0	PRESSURE SENSOR FOR PM930SD 400BAR PRESSURE SENSOR FOR PM930SD 5BAR	1	BX BX
PS50	01532 2	35	Z, S0	PRESSURE SENSOR FOR PM930SD 50 BAR	1	BX
PT5	01561 2	13	_, -,	MIRROR, GUIDE BALL AND THREAD PROTECTOR ACCESSORIES FOR 5.5mm diameter PROBE	1	Р
PT9	01560 5	13		MIRROR, MAGNET, HOOK AND THREAD PROTECTOR ACCESSORIES FOR 9MM DIAMETER PROBE	1	<u>P</u>
PT12 PT300M	01559 9 21060 4	13 21		MIRROR, MAGNET AND HOOK ACCESSORIES FOR 12MM DIAMETER PROBE DIGITAL FOLD-IN SERVICE THERMOMETER WITH MIN/MAX, DATA HOLD & STAINLESS STEEL PROBE	1	P BL
PTH8707	01402 8	26		THE SEEKER™ THERMO-HYGROMETER PEN REPLACES LAM122	1	BL
RCV100	01446 2	17		WIRELESS USB RECEIVER COMPATIBLE W/ DCS100 AND DCS400 SERIES	1	BL
REF401 RLD380L	44401 6 40141 5	36 30		GLYCOL REFRACTOMETER TO MEASURE FREEZING POINT (-60° TO 32°F) HIGH PERFORMANCE REFRIGERANT LEAK DETECTOR	1	BX CS
RLD380L	00382 4	30		HIGH PERFORMANCE REFRIGERANT LEAK DETECTOR WITH PUMP	1	CS
RLD400	01587 2	29		DIGITAL REFRIGERANT LEAK DETECTOR WITH PUMP	1	CA
RLD440	01675 6	31	*	DIGITAL DUAL MODE REFRIGERANT LEAK DETECTOR	1	CA
RS380 RT800	01378 6 43021 4	30 37	Z NCL	REPLACEMENT SENSOR FOR RLD380L & RLD382P  REFLECTIVE TAPE FOR NON-CONTACT LASER TACHOMETERS	1	PB P
SAM990DW		25	IVOL	DIGITAL PSYCHROMETER WITH TEMPERATURE, HUMIDITY, DEW POINT & WET BULB	1	BL
SDRD1	01502 5	35	Z	SD CARD READER FOR DTH3007SD, HWA4214SD AND PM930SD	1	ВХ
SSC6 ST600LED	51145 9	49 47	*	STARTER SWITCH 16/2, 20 AMP, PUSH BUTTON (UL SWITCH)  BRIGHT RED LED SCREWDRIVER/CONTINUITY TESTER, DROP RESISTANT TO 10 FT	1	P BL
THGR268	51115 2 60073 3	25		WIRELESS TEMPERATURE/HUMIDITY SENSOR FOR EMR963HG	<u>!</u> 1	BX
TL100	51125 1	49		36" TEST LEADS, 16 GAUGE WITH BOOTS	1	Р
TPK03	25003 7	35	Z	"K" TYPE SURFACE THERMOCOUPLE PROBE WITH EXTENDABLE CORD FOR DTH3007SD & HWA4214SD	1	P
TPK05 TPK500	25005 1 25015 0	35 35	Z	"K" TYPE PIERCING PROBE, STAINLESS STEEL WITH EXTENDABLE CORD FOR DTH3007SD & HWA4214SD "K" TYPE PROBE FOR UP TO 500°F FOR DTH3007SD & HWA4214SD	1	<u>Р</u> Р
VR40	01634 3	48	*	NON-CONTACT VOLTAGE DETECTOR WITH ADJUSTABLE SENSITIVITY AND 4:1 IR THERMOMETER	1	BL
VS3000A	51000 1	48		AUDIBLE/VISUAL NON-CONTACT VOLTAGE TESTER, ETL CERTIFIED & UL APPROVED	1	BL
WA500	80140 8	36		WATER ALARM DIGITAL AID ELOW METER WITH CEMERAL TEMPOLIUMIDITY DR. FRM. MIDLE VIDE MICE & MET DILLIP	1	BL
WDCFM891		33		DIGITAL AIR FLOW METER WITH CFM, BTU, TEMP, HUMIDITY, DP, FPM, MPH, KPH, MPS, KNOTS & WET BULB  NIST CERTIFICATION FOR WDCFM8912 AVAILABLE	1	CS
MOTWOOT	10012			MOTOGRAM TO MAD TO THE SECOND		





# HVAC/R INSTRUMENTS & ACCESSORIES Alphanumeric Index

13	MODEL No.	UPC	CAT. PG.	KEY	DESCRIPTION	PKG. QTY	PKG. TYPE
20	HAND	TOOLS					
2041   50   U.S. Standard Sheet Metal Gage (Pound)   6   C							
69   4108 6 57   Adjustable Dail Wire Stripper   6   C					American Standard Wire Gage (Round)		
1156							
1158							
1186							
11886   01180   52							
1996							
1996   01194 7   52   Replacement Blade for 4119   5   5   C   12018   5   1   Tubing Qutter (1/8" to 1-1/8")   5   C   12018   12019   5   1   Miror Tubing Cutter (1/8")   5   C   12018   12018   5   1   Miror Tubing Cutter (1/8")   5   C   12018   1   1   1   1   1   1   1   1   1							
1209   1200   3							
1298   12098   51   Micro Tubing Cutter (16/8")   5   C   1298   12017 5   51   Pipe and Tubing Cutter (17/8")   2   C   126   12017 5   51   Pipe and Tubing Cutter (17/8")   2   C   133   13307   51   F-2 Ratcheting Tubing Cutter (17/8")   2   C   134   22077 6   58   Inner/Outer Reamer (1-1/2")   2   C   134   22077 6   58   Inner/Outer Reamer (1-1/2")   2   C   134   22077 6   58   Inner/Outer Reamer (1-1/2")   2   C   135   14008 1   50   Standard Flaring Tool (27/6" - 5/8")   3   C   136   00481 9   50   Standard Flaring Tool (27/6" - 5/8")   3   C   137   14008 1   50   Standard Flaring Tool (27/6" - 5/8")   6   C   138   00481 9   56   Swivel Head Deburring Tool with Handle Storage   4   C   148   00481 9   56   Swivel Head Deburring Tool with Handle Storage   4   C   148   4227 6   58   Reamer Blade: Sl. Copper, Alum. & Plastic   10   C   148   4237 6   58   Reamer Blade: Sl. Copper, Alum. & Plastic   10   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   57   C ordiess Precision Ingraver   5   C   150   00219 7   00219 7   00219 7   00219 7   00219 7   00219 7   00219 7   00219 7   00219							
129X   12032 8   51   Mini Tubing Cutter (7-8")   5   C   126   12017 5   51   Pipe and Tubing Cutter (1-16")   2   C   133   13300 7   51   5-7   Ratcheling Tubing Cutter (1-16")   2   C   134   2207 6   58   Inner/Outer Reamer (1-12")   2   C   146   01460 3   5-4   "6" Digital Fractional Caliper (Carbon Fiber)   1   C   151   14081   50   Standard Fanemer (1-12")   3   C   1400   42217 0   55   Telescoping Allicator Clip   6   C   141   0481 9   58   Swivel Head Deburring Tool with Handle Storage   4   C   1422   4224 5   58   Swivel Head Deburring Tool with Handle Storage   4   C   1424   4224 5   58   Swivel Head Deburring Tool with Handle Storage   5   C   1424   4230 6   58   Reamer Blade: Brass and Cast Iron   10   C   1425   4230 6   58   Reamer Blade: Brass and Cast Iron   10   C   1426   4230 6   58   Reamer Blade: Brass and Cast Iron   10   C   1427   427 6   58   Reamer Blade: Brass and Cast Iron   10   C   1428   4230 6   58   Reamer Blade: Brass and Cast Iron   10   C   1429   505   02139 7   57   C Cordiess Precision Engraver   5   C   1559   4247 6   56   C   T * 2" All publication Mirror (5" Arm (9" O/A)   5   C   1560   4237 0   58   Long Telescoping Inspection Mirror (5" Arm (9" O/A)   5   C   1570   4007   4   53   -12" x" 2" Dispection Mirror (1-10" X   X   X   X   X   X   X   X   X   X					lubing Cutter (1/8" to 1-1/8")		
12017   5   17   17   17   17   17   17   1					Micro luding Cutter (5/8")		
133   133007   5   E-Z Ratcheting Tubing Cutter (1-1/8")   2 C C   148   014603   54   "5" Digital Fractional Caliper (Carbon Fiber)   1 C C   148   014603   54   "5" Digital Fractional Caliper (Carbon Fiber)   3 C C   400   42217 0   35   Telescoping Alligator Citip   6 C   481   00481 9   38   Swivel Head Deburring Tool (X16" - 5/6")   6 C   481   00481 9   38   Swivel Head Deburring Tool with Metal Handle Storage   4 C   4824 4282 6   58   Swivel Head Deburring Tool with Metal Handle   5 C   4824 4282 6   58   Swivel Head Deburring Tool with Metal Handle   5 C   6 C   4828   4230 6   58   Reamer Blade: St. Copper, Alum. & Plastic   10 C   6							
134   22077 6							
1460							
151   14008   50   Standard Flaring Tool (3/16" - 5/6")   6 C   400   42/17   0 55   Telescoping Alligator Cilip   6 C   481   00481   9 58   Swivel Head Deburring Tool with Handle Storage   4 C   422/4   5 58   Swivel Head Deburring Tool with Metal Handle   5 5 C   4828   42330   6 58   Reamer Blade: St. Copper, Alum. & Plastic   10 C   4828   42330   6 58   Reamer Blade: St. Copper, Alum. & Plastic   10 C   4828   42330   6 58   Reamer Blade: St. Copper, Alum. & Plastic   10 C   4828   42330   6 58   Reamer Blade: St. Copper, Alum. & Plastic   10 C   4828   42330   6 58   Reamer Blade: St. Copper, Alum. & Plastic   10 C   4828   42330   6 58   Reamer Blade: St. Copper, Alum. & Plastic   10 C   4828   42330   6 58   Reamer Blade: St. Copper, Alum. & Plastic   10 C   4828   48230   6 58   75 C   4828   48230   6 58   75 C   75 C							
Age							
481         00481 9         58         Swivel Head Deburring Tool with Handle Storage         4         C           482         42324 5         58         Swivel Head Deburring Tool with Metal Handle         5         C           482B         42327 6         58         Reamer Blade: St. Copper, Alum. 8. Plastic         10         C           482B         42330 6         58         Reamer Blade: St. Copper, Alum. 8. Plastic         10         C           502         05020 5         53         * Cordless Eughted Precisions Growdriver         4         BL           505         02739 7         57         Cordless Eughted Precisions Growdriver         5         C           559         05590 3         56         Long Telescoping Inspection Mirror, 6" Arm (9" O/A)         5         C           559         05590 3         56         Long Telescoping Inspection Mirror         1         BL           7440         74401 2         53         Pocket 4-Ih-1 Strewdriver         5         C           744CD         7044 6         53         4-IN-1 Pocket Mini Strewdriver         20         DB           744DB         74400 6         53         Pocket 4-Ih-1 Strewdriver Display         24         DB           745DB         72417 3 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
482A         42324 5         58         Swivel Head Deburring Tool with Metal Handle         5         C           482B         42326 6         58         Reamer Blade: Stropper, Alum. & Plastic;         10         C           482B         42320 6         58         Reamer Blade: Brass and Cast Iron         10         C           505         0520 5         53         * Cordless Lighted Precision Screwdriver         4         BL           505         02139 7         57         Cordless Lighted Precision Screwdriver         5         C           558         42471 6         56         1" x 2" Adjustable Inspection Mirror, 6" Arm (9" O/A)         5         C           559         5590 5590 3         56         1.72" x 2" Inspection Mirror, 6" Arm (9" O/A)         5         C           744 7401 2         53         1.02" Telescoping Inspection Mirror, 11-1/2" Extendable Arm         5         C           7440 7401 2         53         3.12" x 2" Inspection Mirror, 11-1/2" Extendable Arm         5         C           7440 7401 2         53         4.1N-1 Pocket Mini Screwdriver         20         DB           7440 7401 2         53         4.1N-1 Pocket Mini Screwdriver         20         DB           7440 7401 2         53         4.1N-1 Pocket M					reiescoping Angator (up		
4828A         42327 6         58         Reamer Blade: St. Copper, Alum. & Plastic         10         C           502         05020 5         53         * Cordless Lighted Precision Screwdriver         4         BL           505         02139 7         57         Cordless Eighted Precision Screwdriver         5         C           558         4247 16         56         1 * × 2* Algustable Inspection Mirror, 6* Arm (9* O/A)         5         C           559         05590         35         6         Long Telescoping Inspection Mirror         1         BL           560         42473         0         6         Jung Telescoping Inspection Mirror         1         BL           560         42473         0         6         Jung Telescoping Inspection Mirror         1         BL           744CD         00744 6         53         Pocket 4-IN-1 Screwdriver         20         DB           744DD         7400 6         53         Pocket 4-IN-1 Screwdriver         20         DB           745DB         02147 3         53         4-IN-1 Pocket Mini Screwdriver Display         24         DB           745DB         02147 3         53         4-IN-1 Pocket Mini Screwdriver Display         24         DB							
Reamer Blade: Brass and Cast Iron   10   C							
502         05020 5         33         * Cordless Upited Precision Screwdriver         5         C           505         02139 7         57         Cordless Precision Engraver         5         C           558         42471 6         56         1" x 2" Adjustable Inspection Mirror         1         BL           560         42473 0         56         Long Telescoping Inspection Mirror         1         BL           560         42473 0         56         3-12" x 2" Inspection Mirror         1         BL           744         74401 2         53         Pocket 4-IN-1 Screwdriver         10         C           744DB         74400 6         53         4-IN-1 Pocket Mini Screwdriver         20         DB           744DB         74400 6         53         Pocket 4-IN-1 Screwdriver         24         DB           744DB         74400 6         53         Pocket 4-IN-1 Screwdriver         24         DB           744DB         74400 6         53         Pocket 4-IN-1 Screwdriver         20         DB           744DB         74400 6         53         Pocket 4-IN-1 Screwdriver         20         DB           744DB         74500 6         54         A LB         LB         A LB         <							
505         02139 7         57         Cordless Precision Engraver         5         C           558         4247 6         56         1" x 2" Adjustable Inspection Mirror ("O/A)         5         C           559         05590 3         56         1" x 2" Adjustable Inspection Mirror         1         BL           560         42473 0         56         3-1/2" x 2" Inspection Mirror         1         D           744         7401 2         53         Pocket 4-IN-1 Screwdriver         10         C           744CD         00744 6         53         4-IN-1 Pocket Mini Screwdriver         20         DB           744DB         74400 6         53         Pocket 4-IN-1 Screwdriver         24         DB           745DB         7400 6         53         Pocket 4-IN-1 Screwdriver         24         DB           1191         01191 6         52         PVC & Hose Cutter (1-5/8")         3         C           1193         0133 7         54         * 3" Digital Fractional Caliper (Carbon Fiber)         3         C           1433         1433         154         * 3" Digital Fractional Caliper (Carbon Fiber)         1         BL           5561         05531 3         56         PC         Metal Inspectio					Nediner Didue. Didos dilu Udot II UII		
558         42471 6         56         1"x 2" Adjustable Inspection Mirror, 6" Arm (9" O/A)         5         C           559         05590 3         56         Long Telescoping Inspection Mirror         1         BL           560         42473 0         56         3-1/2" x 2" Inspection Mirror, 11-1/2" Extendable Arm         5         C           744         74401 2         53         4-IN-1 Screwdriver         20         DB           744DB         74406 6         53         4-IN-1 Pocket Hin Screwdriver         20         DB           745DB         02147 3         53         4-IN-1 Pocket Screwdriver         24         DB           745DB         02147 3         53         4-IN-1 Pocket Screwdriver         24         DB           1191         01191 6         52         PVC & Hose Cutter (1-1-5/8")         3         C           1433         01437 7         54         3 "Digital Fractional Caliper (Carbon Fiber)         4         BL           5661         05562 0         56         PC         Metal Inspection Mirror         1         BL           5562         05662 0         56         PC         Rectangular Metal Inspection Mirror         1         BL           5562         05562 0         <							
559         0.5590 3         56         Long Telescoping Inspection Mirror, 11-1/2" Extendable Arm         5         C           744         7440 12         53         Pocket 4-IN-1 Screwdriver         10         C           744CD         00744 6         53         Pocket 4-IN-1 Screwdriver         20         DB           744DB         74400 6         53         Pocket 4-IN-1 Screwdriver         24         DB           744DB         353         Pocket 4-IN-1 Screwdriver         24         DB           745DB         02147 3         53         4-IN-1 Pocket Screwdriver         24         DB           1191         01191 6         52         PVC & Hose Cutter (1-5/8")         3         C           1433         01433 7         54         * 3" Digital Fractional Caliper (Carbon Fiber)         4         BL           5561         05531 3         56         PC         Metal Inspection Mirror         1         BL           5562         05562 0         56         PC         Retangular Metal Inspection Mirror         1         BL           5563         05563 7         56         PC         Round Metal Inspection Mirror         1         BL           8141         02196 0         54         *							
560         42473 0         56         3-1/2" x2" inspection Mirror, 11-1/2" Extendable Arm         5         C           744         74401 2         53         Pocket 4-IN-1 Screwdriver         20         DB           744DB         74401 6         53         4-IN-1 Pocket Mini Screwdriver         20         DB           745DB         02147 3         53         4-IN-1 Pocket Screwdriver         24         DB           1191         01191 6         52         PVC & Hose Cutter (1-5/8")         3         C           1433         01433 7         54         * 3" Digital Fractional Caliper (Carbon Fiber)         4         BL           5661         05531 3         56         PC         Rectangular Metal Inspection Mirror         1         BL           5662         05562 0         56         PC         Rectangular Metal Inspection Mirror         1         BL           5662         05562 0         56         PC         Rectangular Metal Inspection Mirror         1         BL           5662         05562 0         56         PC         Rectangular Metal Inspection Mirror         1         BL           9141         02196 0         54         NCL         MultiPro Screwdriver         1         BL      <							
744         74401 2         53         Pocket 4-IN-1 Screwdriver         20         DB           744DB         74400 6         53         4-IN-1 Pocket Mini Screwdriver         24         DB           745DB         02147 3         53         Pocket 4-IN-1 Screwdriver Display         24         DB           745DB         02147 3         53         4-IN-1 Pocket Screwdriver         24         DB           1191         01191 6         52         PVC & Hose Cutter (1-5/8")         3         C           1433         01433 7         54         * 3" Digital Fractional Caliper (Carbon Fiber)         4         BL           5661         05531 3         56         PC         Metal Inspection Mirror         1         BL           5662         05562 0         56         PC         Round Metal Inspection Mirror         1         BL           8140         02196 0         54         * NCL         MultiPro Screwdriver - Standard         6         P           8141         02197 7         54         * NCL         MultiPro Screwdriver - Tamper Proof         6         P           8142         02198 4         54         NCL         MultiPro Screwdriver - Standard         6         P           8142 <td></td> <td></td> <td></td> <td></td> <td>2. 1/2 v.2 Increasing Mirror 11. 1/2 Extendable Arm</td> <td></td> <td></td>					2. 1/2 v.2 Increasing Mirror 11. 1/2 Extendable Arm		
744CD         00744 6         53         4-IN-1 Pocket Mini Screwdriver         20         DB           744DB         74400 6         53         Pocket 4-IN-1 Screwdriver         24         DB           745DB         02147 3         53         4-IN-1 Pocket Screwdriver         24         DB           1191         01191 6         52         PVC & Hose Cutter (1-5/8")         3         C           1433         01433 7         54         3" Digital Fractional Caliper (Carbon Fiber)         4         BL           5561         05551 3         56         PC         Metal inspection Mirror         1         BL           5562         05562 0         56         PC         Rectangular Metal Inspection Mirror         1         BL           5563         05563 7         56         PC         Rectangular Metal Inspection Mirror         1         BL           8140         02196 0         54         *NCL         MultiPro Screwdriver - Standard         6         P           8141         02197 7         54         *NCL         MultiPro Screwdriver - HAC         6         P           8142         02198 4         54         *NCL         MultiPro Screwdriver - HAC         6         P							
744DB         74400 6         53         Pocket 4-IN-1 Screwdriver Display         24         DB           745DB         02147 3         53         4-IN-1 Pocket Screwdriver         24         DB           1191         01191 6         52         PVC & Hose Cutter (1-5/8")         3         C           1433         01433 7         54         *         3" Digital Fractional Caliper (Carbon Fiber)         4         BL           5561         05531 3         56         PC         Metal Inspection Mirror         1         BL           5562         05562 0         56         PC         Rectangular Metal Inspection Mirror         1         BL           5563         05563 7         56         PC         Round Metal Inspection Mirror         1         BL           8141         02197 5         54         * NCL         MultiPro Screwdriver - Tamper Proof         6         P           8142         02198 4         54         * NCL         MultiPro Screwdriver - Tamper Proof         6         P           8142         02198 4         54         * NCL         MultiPro Screwdriver - HyDAC         6         P           70390         70390 3         55         * Z         Lighted Magnetic/Mechanical Pick-Up, 24" <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
745DB         021473         53         4-IN-1 Pocket Screwdriver         24         DB           1191         01191         6         52         PVC & Hose Cutter (1-5/8")         3         C           1433         01433 7         54         * 3" Digital Fractional Caliper (Larbon Fiber)         4         BL           5561         05531 3         56         PC         Metal Inspection Mirror         1         BL           5562         05562 0         56         PC         Rectangular Metal Inspection Mirror         1         BL           8140         02196 0         54         * NCL         MultiPro Screwdriver - Standard         6         P           8141         02197 7         54         * NCL         MultiPro Screwdriver - Tamper Proof         6         P           8142         02198 4         54         * NCL         MultiPro Screwdriver - HVAC         6         P           70390         70390 3         55         * Z         Lighted Magnetic/Mechanical Pickup 24" OAL         4         BL           70391         70391 6         55         * Z         Lighted Mechanical Pick-Up, 24"         4         BL           70393         70399 6         55         * Z         Lighted Mechanic							
1191							
1433         01433 7         54         *         3" Digital Fractional Caliper (Carbon Fiber)         4         BL           5561         05531 3         56         PC         Metal Inspection Mirror         1         BL           5562         05562 0         56         PC         Rectangular Metal Inspection Mirror         1         BL           5563         05563 7         56         PC         Round Metal Inspection Mirror         1         BL           8140         02196 0         54         * NCL         MultiPro Screwdriver - Standard         6         P           8141         02197 7         54         * NCL         MultiPro Screwdriver - Tamper Proof         6         P           8142         02198 4         54         * NCL         MultiPro Screwdriver - Tamper Proof         6         P           70390         70390 3         55         * Z         Lighted Magnetic/Mechanical Pickup 24" OAL         4         BL           70391         70391 5         * Z         Lighted Magnetic/Mechanical Pickup 36" OAL         4         BL           70393         70399 6         55         UT Lighted Mechanical Pick-Up, 12"         4         BL           70396         26003 1         55         UT Li							
5561         05531 3         56         PC         Metal Inspection Mirror         1         BL           5562         05562 0         56         PC         Rectangular Metal Inspection Mirror         1         BL           5563         05563 7         56         PC         Round Metal Inspection Mirror         1         BL           8140         02196 0         54         *NCL         MultiPro Screwdriver - Standard         6         P           8141         02197 7         54         *NCL         MultiPro Screwdriver - Tamper Proof         6         P           8142         02198 4         54         *NCL         MultiPro Screwdriver - HVAC         6         P           70390         70390 3         55         *Z         Lighted Magnetic/Mechanical Pick-Up 24" OAL         4         BL           70391         75         *Z         Lighted Magnetic/Mechanical Pick-Up, 12"         4         BL           70396         26003 1         55         *Z         Lighted Mechanical Pick-Up, 12"         4         BL           70399         26003 1         55         *UT Lighted Mechanical Pick-Up, 36"         4         BL           70399         26003 1         55         *UT Lighted Mechanical Pick-Up, 12				*			
5562         05562 0         56         PC         Rectangular Metal Inspection Mirror         1         BL           5563         05563 7         56         PC         Round Metal Inspection Mirror         1         BL           8140         02196 0         54         * NCL         MultiPro Screwdriver - Standard         6         P           8141         02197 7         54         * NCL         MultiPro Screwdriver - Tamper Proof         6         P           8142         02198 4         54         * NCL         MultiPro Screwdriver - HVAC         6         P           70390         70390 3         55         * Z         Lighted Magnetic/Mechanical Pickup 24" OAL         4         BL           70391         70391 5         * Z         Lighted Magnetic/Mechanical Pick-Up, 12"         4         BL           70393         70396 55         UT Lighted Mechanical Pick-Up, 24"         4         BL           70395         26003 1         55         UT Lighted Mechanical Pick-Up, 24"         4         BL           70399         70393 4         55         UT Lighted Mechanical Pick-Up, 24"         4         BL           70557         22344 9         57         Utilility Telescoping Mirror - 1-3/8" diameter         5				PC			
5563         05563 7         56         PC         Round Metal Inspection Mirror         1         BL           8140         02196 0         54         *NCL         MultiPro Screwdriver - Standard         6         P           8141         02197 7         54         *NCL         MultiPro Screwdriver - Tamper Proof         6         P           8142         02198 4         *NCL         MultiPro Screwdriver - HVAC         6         P           70390         70390 3         55         * Z         Lighted Magnetic/Mechanical Pickup 24" OAL         4         BL           70391         70391 0         55         * Z         Lighted Magnetic/Mechanical Pickup 36" OAL         4         BL           70393         70399 6         55         UT Lighted Mechanical Pick-Up, 12"         4         BL           70399         70393 4         55         UT Lighted Mechanical Pick-Up, 24"         4         BL           70399         70393 4         55         UT Lighted Mechanical Pick-Up, 36"         4         BL           70557         22344 9         57         Utility Telescoping Mirror - 1-3/8" diameter         5         C           70557         22347 0         57         Utility Telescoping Mirror - 2-1/4" diameter         5						1	
8140         02196 0         54         *NCL         MultiPro Screwdriver - Standard         6         P           8141         02197 7         54         *NCL         MultiPro Screwdriver - Tamper Proof         6         P           8142         02198 4         54         *NCL         MultiPro Screwdriver - HVAC         6         P           70390         70390 3         55         * Z         Lighted Magnetic/Mechanical Pickup 24" OAL         4         BL           70391         70391 6         55         * Z         Lighted Magnetic/Mechanical Pick-Up, 12"         4         BL           70396         26003 1         55         UT Lighted Mechanical Pick-Up, 24"         4         BL           70399         70393 4         55         UT Lighted Mechanical Pick-Up, 36"         4         BL           70555         22344 9         57         Utility Telescoping Mirror - 1-3/8" diameter         5         C           70557         22347 0         57         Utility Telescoping Mirror - 2-1/4" diameter         5         C           75108         75108 9         53         * 8-IN-1 Lighted Precision Screwdriver         4         BL           80560         02146 5         56         Telescoping Lighted Rectangular Inspection Mir						1	
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S106 11009 1 50 6 Steel Spring Tubing Benders (1/4" - 5/8") 1 set PB		12027 4					
	S106	11009 1	50		6 Steel Spring Tubing Benders (1/4" - 5/8")	1 set	. PB



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