

Testo 310 Combustion Analyzer & Testo 327 Parts

Description

Combustion	Kits
T 0563 3100	310 Residential Analyzer Kit Kit Includes: Testo 310 Analyzer, probe and hose, silicon tubing, extra particulate filters (5) and pressure plugs (5), AC power supply/recharger (USB), calibration certificate, hard case
T 0563 3110	310 Residential Analyzer Kit with Printer Kit Includes: Testo 310 Analyzer, probe and hose, silicon tubing, extra particulate filters (5) and pressure plugs (5), AC power supply/recharger (USB), calibration certificate, IR Printer, 2 rolls thermal paper, hard case

Accessories		
T 0554 3100	Testo IR Printer	
T 0554 0568	Thermal Printer Paper - 6 rolls (10 year legibility)	
T 0554 0040	Particle Filters (pack of 10)	
T 0554 0307	Standard Smoke Pump Tester (with scale , filter paper & lube)	
T 0554 0308	Manual Smoke Pump Filter Paper - 40 Strips	
T 0554 0309	Smoke Pump Scale	
T 0554 1105	Power Supply 5V 1A w. USB Micro Cable	
T 0449 0134	USB Connection Cable for Power Supply	

310 Spare Parts

Call	O2 sensor - factory install
Call CO sensor - factory install	

Standard Smoke Pump & Accessories

T 0554 0307	Standard Smoke Pump Tester (with scale , filter paper & lube)	
	Manual Smoke Pump Filter Paper - 40 Strips	
T 0554 0309 Smoke Pump Scale		

Gas Leak, CO

T 0632 0316	0632 0316 316-1 Gas Leak Detector, includes battery	
T 0632 0317	315-2 Ambient CO Meter with alarms	
T 0632 3170	3170 317-1 Flue Leak Detector	
T 0632 3172	317-2 Gas Leak Stick	
T 0632 3173	317-3 Ambient CO Stick	
T 0516 0189	Topsafe case for 316-1	
T 0516 0191	Service case	
T 0516 0443	Topsafe case for 312 & 315	

Testo 327 & 300 Replacement Parts Only (Replaced by 310 & 320)

Order No.	Description	
T 0554 0040	Particle filters - pack of 10	
T 400700 3253	Water Trap Kit	
T 0554 0549	Fast IR Printer	
T 0554 0568	Thermal printer paper - 6 rolls (10 Year legibility)	
T 0554 1094	Power Supply Unit 8VDC 1000mA	
T 0390 0115	CO Sensor - 327-1, 330-1 (replaced 0390 0095)	
T 0390 0047	O2 Sensor - 327-1	

Features:

- Durable Carrying Case
- Spare Filters & Li-ion battery
- 2-year Sensor Warranty
- Five line backlit display10 hr. Li-lon
- rechargeable battery
- Pre-programmed with 5 fuels
- Infrared Printer & Paper
- 12" probe and 5' hose

Measures:

of

- O2, CO (w/ NOx filters standard), CO2
- Draft & Pressure
- Temperature (flue & ambient)
- Combustion efficiency & excess air
- Undiluted CO (CO air free)
- Ambient CO



310 Residential Analyzer Kit



316-1

317-1



IR Printer

TOOLS & TESTERS Testo 320 Combustion Analyzer

Order No.	Description
Combustion Kit	\$;
T 0563 3220 70	320 Residential / Commercial Analyzer Kit Kit Includes: Testo 320 Analyzer, probe and hose, extra particulate filters (10), AC power supply/recharger (USB), calibration certificate, hard case
T 0563 3220 71	320 Residential / Commercial Analyzer Kit with Printer Kit Includes: Testo 320 Analyzer, probe and hose, extra particulate filters (10), AC power supply/recharger (USB), calibration certificate, IR Printer, 6 rolls of thermal paper, rugged hard case

Accessories		
T 0450 3338	Bluetooth Module Upgrade - (Special order for new order only)	
T 0554 3332	easyHEAT software (interface cable not included)	
T 0449 0047	USB Cable (mini USB to standard USB)	
T 0554 0549	Testo Fast IR Printer	
T 0554 0568	Thermal Printer Paper - 6 rolls (10 year legibility)	
T 0554 0040	Particle Filters (pack of 10)	
T 0554 0307	Standard Smoke Pump Tester (with scale , filter paper & lube)	
T 0554 0308	Manual Smoke Pump Filter Paper - 40 Strips	
T 0554 0309	Smoke Pump Scale	
T 0554 1105	Power Supply 5V 1A w. USB Micro Cable	
T 0515 0046	Battery Pack 3,7V 2400mAh	
T 0516 3334	Standard Case for 320	

Flue Gas Probes		
T 0554 1202	Hose Extension - 9' (max 2 extensions, plus standard hose =	
	25' length)	
T 0600 9740	12" probe, 3/8" diameter w/5' hose	
T 0600 9741	12" flue gas probe with 5' hose, t max=932'F	
T 0600 9760	7" flue gas probe, 5/16" diameter, w/7' hose, t max=932'F	
T 0600 9761	12" probe, 5/16" diameter, with hose, t max=932'F	
T 0554 9761	13" flexible probe, no handle, 0.4 in da., t max=932'F	
T 0554 0040	Particle Filters - pack of 10	

Special Probes		
T 0632 3330	Gas leak detection probe for 320/330	
T 0632 3331	CO ambient probe for 950/650/400/320/330	
T 0632 1240	CO2 ambient probe for 950/650/400/320/330 (req. 0430 0143)	
T 0430 0143	5' probe connection cable	
T 0554 1208	Differential temperature set	
T 0638 0330	finest pressure probe testo 320/330	
T 0632 1260	Annular gap probe	
T 0600 9787	Combustion air temp / probe 7.5" immersion	
T 0600 9797	Combustion air temp / probe 2.4" immersion with 13' cable	

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Replacement Sensors		
T 0393 0003	O2 sensor, 0-21.0 vol%	
T 0393 0053	CO sensor, 0-4000ppm	

Features:

- Selectable 2-8 parameter display
- Uses 10 hour Li-ion rechargeable battery
- High definition graphic display
- Ultra-rugged housing
- Data logs 500 tests for future reference
- 2 Year Sensor Warranty
- Download data to PC using optional software
- Integrated NOx filter Simple push button operation with easy to
- follow menu icons Additional probes
- available for flexibility

Measures:

- O2, CO, CO2, ٠ Ambient/room CO, CO air free
- CO sensors with NOx filter
- Flue draft, pressure (vent or duct or switches)
- Temperature (flue & room)
- Combustion efficiency, excess air
- "Flue Gas Matrix" (w/ four user-defined combustion types)
- Oil flow and gas clock BTU calculator



Kit with Printer

Testo 330-LL Combustion Analyzer

Combustion	
Combustion T 0563 337170	T330-1G LL Combustion Analyzer Kit Kit Includes: Testo 330-1G LL Analyzer, 12" probe and 7' hose, extra particulate filters (10), AC power supply/recharger (USB), calibration certificate, standard case
T 0563 337175	T330-1G LL Combustion Analyzer Kit with Printer Kit Includes: Testo 330-1G LL Analyzer, 12" probe and 7' hose, extra particulate filters (10), AC power supply/recharger (USB), Fast IR Printer, Thermal printer paper (6), calibration certificate, standard case

Description

Accessories	
T 0554 3332	easyHEAT software (interface cable not included)
T 0449 0047	USB Cable (mini USB to standard USB)
T 0554 0549	Testo Fast IR Printer
T 0554 0568	Thermal Printer Paper - 6 rolls (10 year legibility)
T 0554 3385	Particle Filters (pack of 10) disk type filter
T 0554 0307	Standard Smoke Pump Tester (with scale , filter paper & lube)
T 0554 0308	Manual Smoke Pump Filter Paper - 40 Strips
T 0554 0309	Smoke Pump Scale
T 0554 1096	100-240V AC / 6.3V DC Power Supply (US Plug)
T 0515 0107	Li-Ion Rechargeable Battery
T 0516 3330	Standard Case

T 0430 01435' probe connection cableT 0600 3692Mini ambient air probeT 0600 97607" flue gas probe, 5/16" diameter, w/7' hose, t max=932'FT 0600 976112" probe, 5/16" diameter, with hose, t max=932'FT 0600 97627" flue gas probe, 1/4"dia, w/ 7' hose, t max=932'FT 0600 976312" probe, 1/4"dia, w/ 7' teflon hose, t max=932'FT 0600 9764Flexible flue gas probe, NL 330T 0600 9774Combustion air temp / probe 7.5" immersionT 0600 9787Combustion air temp / probe 2.4" immersion with 13' cableT 0600 9797Combustion air temp / probe 2.4" immersion with 13' cableT 0632 1240CO2 ambient probe for 950/650/400/320/330 (requires 0430 0143)T 0632 1260Annular gap probeT 0632 3330Gas leak detection probe for 320/330T 0632 3331CO ambient probe for 950/650/400/320/330T 0632 3331CO ambient probe for 950/650/400/320/330T 0632 41202Hose Extension - 9' (max 2 extensions + standard hose = 25' length)T 0554 5762Modular multi-hole probe (for avg CO), tube only, no handle, 5/16" dia	Flue Gas Pro	bes
T 0600 9760 7" flue gas probe, 5/16" diameter, w/7' hose, t max=932'F T 0600 9761 12" probe, 5/16" diameter, with hose, t max=932'F T 0600 9762 7" flue gas probe, 1/4"dia, w/ 7' hose, t max=932'F T 0600 9763 12" probe, 1/4"dia, w/ 7' teflon hose, t max=932'F T 0600 9764 Flexible flue gas probe, NL 330 T 0600 9774 Combustion air temp / probe 7.5" immersion T 0600 9787 Combustion air temp / probe 2.4" immersion with 13' cable T 0600 9797 Combustion air temp / probe 2.4" immersion with 13' cable T 0632 1240 CO2 ambient probe for 950/650/400/320/330 (requires 0430 0143) T 0632 1260 Annular gap probe T 0632 3330 Gas leak detection probe for 320/330 T 0632 3331 CO ambient probe for 950/650/400/320/330 T 0632 3331 CO ambient probe for 950/650/400/320/330 T 0554 1202 Hose Extension - 9' (max 2 extensions + standard hose = 25' length) T 0554 5762 Modular multi-hole probe (for avg CO), tube only, no handle, 5/16" dia	T 0430 0143	5' probe connection cable
T 0600 976112" probe, 5/16" diameter, with hose, t max=932'FT 0600 97627" flue gas probe, 1/4"dia, w/ 7' hose, t max=932'FT 0600 976312" probe, 1/4"dia, w/ 7' teflon hose, t max=932'FT 0600 9764Flexible flue gas probe, NL 330T 0600 9774Combustion air temp / probe 7.5" immersionT 0600 9787Combustion air temp / probe 2.4" immersion with 13' cableT 0600 9797Combustion air temp / probe 2.4" immersion with 13' cableT 0604 0194Super Quick surface probe (requires connection cable - 0430 0143)T 0632 1240CO2 ambient probe for 950/650/400/320/330 (requires 0430 0143)T 0632 3330Gas leak detection probe for 320/330T 0632 3331CO ambient probe for 950/650/400/320/330T 0632 3331CO ambient probe for 950/650/400/320/330T 0554 1202Hose Extension - 9' (max 2 extensions + standard hose = 25' length)T 0554 5762Modular multi-hole probe (for avg CO), tube only, no handle, 5/16" dia	T 0600 3692	Mini ambient air probe
T 0600 9762 7" flue gas probe, 1/4"dia, w/ 7' hose, t max=932'F T 0600 9763 12" probe, 1/4"dia, w/ 7' teflon hose, t max=932'F T 0600 9764 Flexible flue gas probe, NL 330 T 0600 9774 Combustion air temp / probe 7.5" immersion T 0600 9777 Combustion air temp / probe 2.4" immersion with 13' cable T 0604 0194 Super Quick surface probe (requires connection cable - 0430 0143) T 0632 1240 CO2 ambient probe for 950/650/400/320/330 (requires 0430 0143) T 0632 3330 Gas leak detection probe for 320/330 T 0632 3331 CO ambient probe for 950/650/400/320/330 T 0632 3331 CO ambient probe for 950/650/400/320/330 T 0632 3331 CO ambient probe for 950/650/400/320/330 T 0554 1202 Hose Extension - 9' (max 2 extensions + standard hose = 25' length) T 0554 5762 Modular multi-hole probe (for avg CO), tube only, no handle, 5/16" dia	T 0600 9760	7" flue gas probe, 5/16" diameter, w/7' hose, t max=932'F
T 0600 976312" probe, 1/4"dia, w/ 7' teflon hose, t max=932'FT 0600 9764Flexible flue gas probe, NL 330T 0600 9787Combustion air temp / probe 7.5" immersionT 0600 9797Combustion air temp / probe 2.4" immersion with 13' cableT 0604 0194Super Quick surface probe (requires connection cable - 0430 0143)T 0632 1240CO2 ambient probe for 950/650/400/320/330 (requires 0430 0143)T 0632 1260Annular gap probeT 0632 3330Gas leak detection probe for 320/330T 0632 3331CO ambient probe for 950/650/400/320/330T 0554 1202Hose Extension - 9' (max 2 extensions + standard hose = 25' length)T 0554 5762Modular multi-hole probe (for avg CO), tube only, no handle, 5/16" dia	T 0600 9761	12" probe, 5/16" diameter, with hose, t max=932'F
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T 0632 1260 Annular gap probe T 0632 3330 Gas leak detection probe for 320/330 T 0632 3331 CO ambient probe for 950/650/400/320/330 T 0554 1202 Hose Extension - 9' (max 2 extensions + standard hose = 25' length) T 0554 5762 Modular multi-hole probe (for avg CO), tube only, no handle, 5/16" dia	T 0604 0194	Super Quick surface probe (requires connection cable - 0430 0143)
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T 0554 5762 Modular multi-hole probe (for avg CO), tube only, no handle, 5/16" dia	T 0632 3331	CO ambient probe for 950/650/400/320/330
	T 0554 1202	Hose Extension - 9' (max 2 extensions + standard hose = 25' length)
	T 0554 5762	Modular multi-hole probe (for avg CO), tube only, no handle, 5/16" dia
T 0554 8764 Probe shaft 13", 5/16" diameter, t max=1832'F	T 0554 8764	Probe shaft 13", 5/16" diameter, t max=1832'F
T 0554 8765 Probe shaft 28", 5/16" diameter, t max=1832'F	T 0554 8765	Probe shaft 28", 5/16" diameter, t max=1832'F
T 0554 9764 13" flexible probe, no handle, 0.4 in da., t max=932'F	T 0554 9764	13" flexible probe, no handle, 0.4 in da., t max=932'F

T 0393 0002 O2 sensor - 330G LL	
T 0393 0051 CO sensor - 330G LL	
T0393 0151 NO sensor 0-3000 ppm - 330G LL	
T 0554 2151 NO upgrade module (0-3000ppm, high range, 1ppm resolution)	

Features:

- Selectable 4 or 8 line display
- Uses 10 hour Li-on rechargeable battery
- Has "l" button for self diagnosis
- Plug & Play Sensor Service
- Data logs 200 tests for future reference
- 4 Year Sensor Warranty
- Download data to PC with no additional software
- Upgradeable to measure NO
- Pre-programmed with 16 fuels
- Large, Backlit Display

Measures:

- Measure CO up to 30,000 ppm (with Standard Dilution System)
- Temperature range -40° to 2192°F
- Diagnostics & Quick Leak Check at the touch of a button
- 20 selectable fuels with 10 user defined fuels
- CO2, Efficiency, Excess
 Air, CO Air free
- Gas pipe testing.
 pressure drop , pipe
 commissioning, and
 more
- Differential Pressure, Differential Temperature and Gas Leak detection (with optional probes)



330-LL Analyzer Kit with Printer

Order No.

TOOLS & TESTERS UEI Combustion Analyzers

UEI C155 Series

The Eagle 2X is designed to provide a wide range of applications and has an unmatched user-friendly interface. It offers a 5 Year Limited Warranty* with Lowest Cost of Ownership



Kit Complete With:

- C155 Combustion Analyzer
- 6 Pre-Programmed Fuels
- Infrared thermal printer
- Flue Probe (KMCP2)
- 2 temp probes & 2 static pressure hose
- True Draft Probe (TDP)
- Gas pressure probe
- Hard Carry case w/AC adapter/charger
- 1 roll replacement printer paper
- Replacement particle filter
- 5 Year Limited Warranty *

Measures & Calculates:

- CO2 (EOS Technology)CO
- Inlet Temp / Flue Temp
- Hi-Res Differential Manometer
- NO (available as upgrade), 02
- Net Temp, Efficiency, Excess Air
- Differential Temp (T1-T2)
- Differential Pressure (P1-P2)

Features:

UEI C75 Series

- Gas Zero (Fresh Air Zero)
- CO Data Logger, Worklight
- 4 line backlit LCD display
- Plus Many, Many MORE!

UEI Smartbell Plus Kit

Calculates: • Temp • O2 • Excess Air • Efficiency	 Kit Complete With: EOS Technology Sensor Direct CO2 Measurement & 10 Year Life Expectancy Direct CO Measurements Pre-Programmed Fuels: Light & Heavy Oil, Wood, Propane, Natural gas 5 Year Limited Warranty Flue Probe KMCP70 Protective Boot w/ Magne Soft Carrying Case Pressure Tubes w/Fitting 2(BF100) 	alternative for residential combustion applications. The C75 Kit is identically equipped as the C125 Kit. Calculates Measures: • CO2 • 02 • Excess Air • CO • Efficiency • Inlet • CO air free • Temp	
Order No.	De	scription	
UEI Smartbell	Smartbell PLUS Analyzer Kit		
Plus Kit	Kit Includes: Flue Probe KMCP70, Protective Boot w/ Magnet SBOOT, Soft Carrying Case AC73, Pressure Tubes w/ Brass Fitting 2(BF100), Battery (9V)		
UEI C75 KIT	C75 Combustion Analyzer Kit		
	Kit Includes: C75 Analyzer, Infrared printer, flue probe, temperature probe and pressure hose		
	(2), draft probe, hard case, replacement printer paper (5), replacement particle filter (5), 3 year		
	warranty (2yr sensors)		
UEI C155KIT	C155 Combustion Analyzer Kit Kit Includes: C155 Analyzer, 6 pre-programmed fuels, Infrared printer, flue probe, temperature probe and pressure hose (2), draft probe, gas pressure probe, hard case w/AC adapter and charger, replacement printer paper (1), replacement particle filter (5), 5 Year Warranty		
UEI C155	C155 Combustion Analyzer Kit Less Printe Kit Includes: C155 Analyzer, 6 pre-programme pressure hose (2), draft probe, gas pressure p replacement particle filter (5), 5 Year Warr	ed fuels, flue probe, temperature probe and probe, hard case w/AC adapter and charger,	

Web: www.wardheating.com

Fax: (866) 406-2899

Toll Free: (800) 265-4484

Bacharach Combustion Analyzers

Fyrite Tech Residential Combustion Analyzer



The Fyrite®Tech offers service technicians an economical means to achieve greater precision than can be obtained with visual tests. From carbon Monoxide testing to oxygen and stack temperature measurement, the Fyrite®Tech lets technicians instantly gather the precise measurements needed to ensure the safe, compliant, and efficient operation of residential fuel-burning appliances and furnaces.

Measured Values:

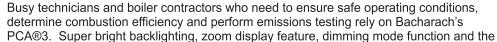
- Flue Gas Oxygen Content 0.0 to 20.9% O2
- Flue Gas Temperature 0 to 999°F (-18 to 537°C)
- Ambient Temperature 32 to 104°F (0 to 40°C)
- Flue Gas Carbon Monoxide Content 0 to 2,000 PPM CO

Selectable Fuels:

Natural Gas, Oil #2, Propane, Kerosene

Order No.	Description	
B 24-8217	Fyrite [®] Tech 60, Soft Pouch, Probe, and 4 AA Batteries	
B 24-8227	Tech 60 Starter Kit: Same features as 24-8217, plus a Hard Carrying Case, Rubber Boot,	
	Draftrite, and True Spot Smoke Test Kit	
B 24-8326	Tech 60 Kit w/ Printer: Same features as 24-8217, plus a Hard Carrying Case, Rubber Boot, and	
	an IrDA Wireless Printer	
Accessories	and Replacement Parts	
B 24-1127	Protective Boot w/ Magnet	
B 24-8106	Oxygen Sensor	
B 24-7265	Carbon Monoxide Sensor	
B 19-3265	Water Trap / Filter Assembly	
B 07-1644	Filter Element for Water Trap (pack of 3)	
B 21-7006	True Spot [®] Smoke Test Kit	

PCA3 Portable Combustion Analyzer



most sensor configuration in its class provides the user with best-inclass instrumentation.

- Directly measures and displays Flue Gas Oxygen (O2), Carbon Monoxide (CO), Stack Temperature, Draft, Differential Pressure, Combustion Air Temperature
- Optionally measures and displays Nitric Oxide (NO), Nitrogen Dioxide (NO2) and Sulfur Dioxide (SO2)
- Calculates and displays Combustion Efficiency (EFF), Excess Air (EA), Carbon Dioxide (CO2), NOx and Oxygen reference values
- Ten selectable fuels plus the ability to custom-load fuels
- Stores 1,000 tests (500 in memory and 500 in logged memory)

Order No.	Description	Sensor	Sensor	Sensor	Sensor	Printer
B 0024-8447	PCA [®] 3 225 Kit with the following sensors:	O ₂	CO			Х
B 0024-8448	PCA [®] 3 235 Kit with the following sensors:	O ₂	CO	NO		Х
B 0024-8449	PCA [®] 3 245 Kit with the following sensors:	O ₂	CO	CQ _{high})		Х
B 0024-8450	PCA [®] 3 255 Kit with the following sensors:	O ₂	CO	SO ₂		Х
B 0024-8451	PCA [®] 3 265 Kit with the following sensors:	O ₂	CO	NO	NO ₂	Х
B 0024-8452	PCA [®] 3 275 Kit with the following sensors:	O ₂	CO	NO	SO ₂	Х
B 0024-8453	PCA [®] 3 285 Kit with the following sensors:	O ₂	CO	NO	CQ _{high)}	Х

Web: www.wardheating.com

Fax: (866) 406-2899

Monoxor III Single Gas Analyzer

Bacharach's Monoxor® III is a continuous sampling instrument that quickly and accurately measures levels of CO between 0 and 2,000 ppm. In addition, the Monoxor® III is supplied with a stainless steel probe and five feet of tubing to sample CO found in flue gases of residential furnaces, combustion appliances, commercial and industrial boilers. An optional wireless IrDA printer provides a permanent record of the detected CO level.

Order No.	Description
B19-8104	MONOXOR III CO Analyzer. Includes probe & hose assembly, printing capability, instruction manual and hard carrying case.
B24-1400	IrDA printer includes 120VAC charger
B24-1127	Protective rubber boot with magnet

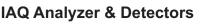
Informant 2 Leak Detector

The Informant® 2 leak detector allows pinpoint detection of both refrigerant and combustible gas leaks with the same instrument. Its unique combination of state-of-the-art patented sensor technology, advanced software design, and microprocessor controlled circuitry offers you unmatched precision coupled with tremendous speed. It is unquestionably the most sensitive, most reliable, and most accurate leak detector on the market today. And the fastest.

Swap sensor tips within seconds and never worry about adjusting sensitivity levels—it's taken care of automatically—even where high levels of background vapors or refrigerants are present. The refrigerant sensor tip is finely tapered to 0.2 inch diameter, so you can get in between coils and fittings, accessing to hard to reach areas.

Order No.	Description
B19-8043	The Informant 2 – Refrigerant Leak Detector. Deluxe refrigerant only Informant 2 detector kit with refrigerant sensor, colour-coded probe tip, protective rubber boot, flashlight, instruction manual, 6 AA batteries, 5 filters and a hard carrying case.
B19-8045	The Informant 2 – Dual Refrigerant/Combustible Gas Leak Detector. Deluxe dual refrigerant/combustible gas Informant 2 detector kit with refrigerant and combustible gas sensors, colour-coded probe tips, protective rubber boot, flashlight, instruction manual, 6 AA batteries, 5 filters and a hard carrying case

THE INFORMANT 2



Order No.	Description
B19-7060	Snifit 50 CO Analyzer with Digital DisplayIncludes low battery indicator, display back-light and instructions.
B19-7051	Leakator 10. Inexpensive instrument to quickly and easily locate a variety of gas leaks. Comes with carrying case, gas sensor, flexible probe and instruction manual.
B19-7075	The Leakator Jr. is ideal for pinpointing combustible gas leaks; testing appliances in commercial, residential, and industrial applications; surveying gas pipelines; and inspecting valves, regulators, and meters on gas equipment.





TOOLS & TESTERS Leak Detectors and IAQ

Bacharach Testing Equipment



Oil Burner Combustion Testing Kits

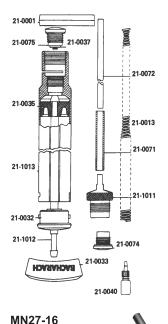
ltem	Description
B10-5022	Kit Contents: Fire Efficiency Finder, Carrying Case (large), Moisture Absorbant Material, Sampling Hose Assembly, Fyrite C02 Indicator – Filled, Tempoint Thermometer 1000 deg., MZF Draft Gauge +0.05 to -0.25" W.C. True Spot Smoke Tester.
B10-5002	Kit Contents: Fyrite C02 Indicator – Filled, Draftite Pocket Draft Gauge, Tempoint Thermometer 1000 deg, Fire Efficiency Finder and Carrying Case.

Replacement Items - Oil Burner Combustion Testers



Item	Description		
B21-7006	Bacharach True Spot Smoke Test Set. Includes test pump, smoke		
	scale and lubricant		
B21-0019	Filter Strips		
B21-0018	Bacharach Smoke Scale		
B21-0040	True Spot Lubricant		

Smoke Test Set - A smoke tester is the only method of determining efficient combustion and is internationally recognized as the standard method of evaluating smoke in combustion gasses. Too much smoke is one of the most common causes of expensive service calls. Both Bacharach and Mitco Testers use the same smoke scale and filter paper is interchangeable between brands.



MN29-26

Replacement Parts - Smoke Test Set

Item	Description
D 24 0042	Current Courting
B 21-0013	Guard Spring
B 21-0018	Smoke Scale
B 21-0019	Filter Smoke Paper (10 Sheets of 4)
B 21-0020	Scale/Paper PKG (10 Rows of 4 Strips)
B 21-0032	Cylinder Cap
B 21-0033	Handle
B 21-0035	Cup
B 21-0037	Disc
B 21-0040	Lubricant for Smoke Pump
B 21-0071	Rubber Hose 4" (Replaces 21-0014)
B 21-0072	Sampling Tube (Replaces 21-0012)
B 21-0074	Valve Body (Replaces 21-0030)
B 21-0075	Check Valve
B 21-1011	Clamp Screw (Replaces 21-0031)
B 21-1012	Rod (Replaces 21-0034)

Smoke Test Set - Mitco Mfg

-

Item	Description
MN27-16M	Smoke Check combustion smoke tester, includes paper, scale,
	instructions
MN29-26M	Smoke test paper, 50 strips per pack

E TEGT PAPER

Replacement Parts - Bacharach Testers

B10-5000

Fyrite CO2 Indicators

ltem	Description
B10-5000	Kit contains: bottle, sampling assembly, filtering material, fire
	efficiency finder and carrying case. Range 0% to 20% C02.

Replacement Parts For Fyrite CO2 Indicator

Item	Description
MN28-16M	CO2 repair kit for Fyrite gas analyzer
MN28-17M	CO2 refill package for Fyrite gas analyzer
MN29-67M	Clearview fluid for Fyrite CO2 analyzer
B11-0019	
	Valve Plunger
B11-0020	Valve Plunger Gasket
B11-0021	Diaphram – Fyrite
B11-0026	Valve Plunger Spring
B11-0071	Fire Efficiency Finder with Oil
B11-0102	Bezel
B11-0105	Scale Screw
B11-0106	Sampling Tube
B11-0109	Bezel Gasket
B11-0110	Bezel Screw
B11-0118	Rubber Tubing 6"
B11-0120	Aspirator Bulb
B11-0121	Filter Material Envelope
B11-0132	Тор Сар
B11-0138	Aspirator Valve (Inlet or Outlet)
B11-0140	Fyrite Body
B11-0143	New Style Round Top
B11-0144	New Style CO2 Scale 20%
B11-0152	Connector Tip Assembly
B11-0180	Filter Nipple with Bushing
B11-7029	C02 Sampling Assembly
B11-7032	CO2 Indicator 20% ***HAZMAT***
B11-7036	Oxygen Indicator 21% ***HAZMAT***
B11-7053	CO2 Repair Package 7% ***HAZMAT***
B11-7056	Sampling Assembly for use with 19-7021

Dial Stack Thermometer

	Description
MN29-76M	Thermometer, stack, 3" dial, 6" stem, 200 to 1000 deg. F

Draft Rite Pocket Draft Gauge

Item	Description
B13-3000	Pocket Draft Gauge +0.10" to -0.14" W.C.
B13-3001	Pocket Draft Gauge +0.05" to -0.25" W.C.

MZF Draft Gauge

	Description
B13-7019	MZF Draft Gauge +0.05" to -0.25" W.C.



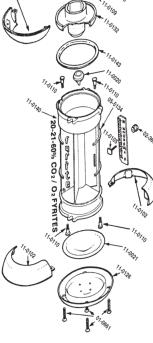
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B13-3000







Soot Vacuum Cleaners

Stainless Steel, Canister Style, Wet/Dry, Industrial Vacuum Cleaners

For cleaning equipment such as furnaces and boilers and ductwork. Effective in picking up fine particle matter including cement, dust and

Features:

powder

- Filter Power System containing a totally enclosed, disposable filter bag made to recover more dirt capacity than any other vacuum cleaner of comparable size.
- 1 HP air-cooled motor.
- 86" waterlift.
- 30" yellow safety cord.

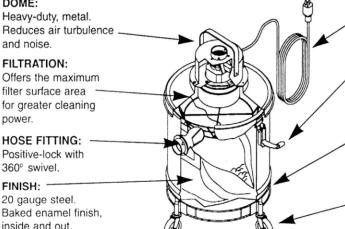
DOME:

Heavy-duty, metal. Reduces air turbulence and noise. FILTRATION: Offers the maximum filter surface area for greater cleaning power. HOSE FITTING:

360° swivel.

FINISH:

20 gauge steel. Baked enamel finish, inside and out.





30" safety grounded.

CLAMPS:

Heavy-duty, spring-steel, with non-marring tips.

GLIDE MOBILE:

Positive-tracking, non-tip. 14 gauge steel.

CASTERS:

2-1/2" dia. Non-marring.



MS12: 3-1/2 Gallon Vacuum This is the lightest and easiest unit and has been designed to be carried. Comes standard with rubber lined canvas hose, hose connector, disposable totally enclosed bags and 27" crevice tool



MS14: 5 Gallon Vacuum This unit rolls easily on four casters on the bottom and has been designed for those requiring a little more storage. Comes standard with rubber lined canvas hose, hose connector, disposable totally enclosed bags and 27" crevice tool

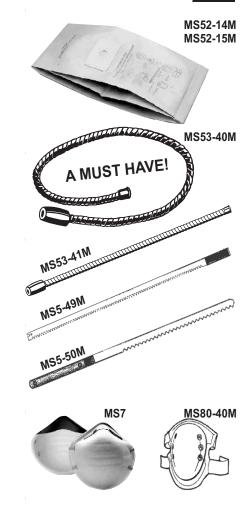


MS16: 10 Gallon Vacuum This unit has been designed for those large commercial/industrial jobs requiring large amounts of storage. The unit has been designed to be pushed along like a cart.

ltem	Description
MS12	3-1/2 gallon vacuum cleaner with a rubber lined canvas hose, hose connector and uses disposable, totally enclosed bags. Comes with a 27" crevice tool and hose cage. Size 22-1/2" High x 14" Diameter. Weighs 26 lbs.
MS14	5 gallon vacuum cleaner with a rubber lined canvas hose, hose connector and uses disposable, totally enclosed bags. Comes with a 27" crevice tool and hose cage. Size 23" High x 14" Diameter. Weighs 28 lbs.
MS16	10 gallon vacuum cleaner (glide mobile) with a rubber lined canvas hose, hose connector and uses disposable, totally enclosed bags. Comes with a 27" crevice tool, 6 foot flexible metal hose, upholstery nozzle and blower nozzle. Size 34" High x 16" Diameter. Weighs 46 lbs.

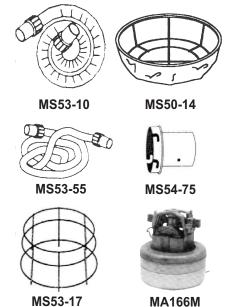
Vacuum Parts and Accessories

ltem	Description	Unit
MS52-14M	Vacuum bag, 3-1/2 gal., ½ bushel, fits S12	5
	Replacement #4464 Vacuum Bag, replaces	
	Mastercraft 605, 641, 1100, 6500 and other small	
	sized cleaners (3-1/2 gallon) Sold in sleeves of 5	
MS52-15M	Vacuum bag, 5 gal., 3/4 bushel, fits S14	5
	Replacement #4465 Vacuum Bag replaces	
	Mastercraft 652, 653, 880, 990, 1005, 1010, 1015,	
	1200, 1300, 7000, D6508, D6520, D6530, W6508,	
	W6509, 6510, 6513 and other medium sized	
	cleaners (5 gallon) Sold in sleeves of 5	
MS53-40M	Soot-Snoot Flexiblevacuum cleaner hose, for	1
	compact boilers, flexible hose, Length 4' long by 7/8"	
	diameter. Reaches places impossible to access	
	with standard hose during vacuum cleanups.	
	Flexible not floppy.	
MS53-41M	Soot-Snoot Rigidvacuum cleaner hose, for compact	1
	boilers, rigid hose, 5 ft long. Similar in design to the	
	S53-40, but has less give. Which means it can rach	
	and hold position in areas requiring longer reach.	
MS5-49M	Soot Saw, standard, 1" x 32" L, Perfect cleaning tool	1
	for removing scale build-up in boilers with narrow	
	passageways. Made of cold-rolled, electro-zinc	
	coated, 17 gauge steel for durability.	
MS5-50M	Soot Saw, heavy duty, 1" x 32" L, Designed to remove	1
	soot in very clogged boilers	
MS7	Dust mask (package of 50)	50
MS80-30M	Gloves, Super-Flex, vinyl coated, foam insulated,	1
	safety cuff, size L	



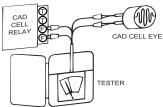
Mastercraft Vacuum Cleaner Attachments and Accessories

Item	Description	Unit
MS53-10	Vacuum cleaner hose, standard, canvas, 10 ft. x 1- $\frac{1}{2}$ " dia.	1
MS53-55	Flexible Metal Hose 6' Long x 1" Diameter	1
MS53-50	Flexible Metal Hose 6' Long x 1-1/2"" Diameter	1
MS53-17	Hose Cage 14" Diameter	1
MS54-75	Swivel Connector 1-1/2" OD fits vacuums with 2 or 3 holding studs	1
MS50-14	Complete filter assembly for 14" diameter canister type vacuums. Fits Sid Harvey S12 & S14	1
MS50-15	Cloth filter & gasket for 14" diameter canister type vacuums, pancake style. Fits Sid Harvey S12 & S14	1
MS51-10	Clog-proof Dacron bag for 14" diameter canister type vacuums (fits Model S12 & S14)	1
MS51-15	Clog-proof Dacron bag for 16" diameter canister type vacuums (fits Model S16)	1
MA166M	Vacuum motor	1



Fax: (866) 406-2899

TOOLS & TESTERS Cad Cell Relay & Eye Testers



ME55-2M Cad Cell Relay and Eye Tester

The TM-20 enables the user to check both the cad cell relay and eye in minutes, without removing them from the burner.

Features:

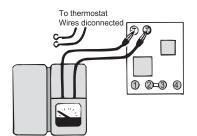
- Checks all brands of relays and eyes.
- Accurate and reliable.
- High impact case.
- · Easy to follow, step-by-step directions included.

All tests are made with the relay and cad cell eye mounted on the burner. To save time, relay and cad cell eye test may be run at the same time.

Before each use check the tester battery by holding the yellow and red tester leads together while reading the testing meter. The meter needle must fall within the "BAD, OK" area of the dial. If not, replace the battery



TB7 (cover removed)



ME55-50M Amp Mate Low Voltage Circuit Tester

Accurately measures low voltage control circuits for precise heat anticipator adjustments on thermostats.

Features:

- Quick hook-up makes testing easy and simple.
- · High impact case for protection.
- · Easy-to-follow, step-by-step instructions.
- Can be used to test other low voltage parts.

To Use Tester at the Thermostat

1. Remove thermostat.

- 2. Attach AMP-MATE clips to wires or terminals which operate the heating device.
- 3. Read AMP-MATE after one minute and set thermostat heat anticipator to that setting.
- 4. Disconnect AMP-MATE and reconnect the thermostat.

To Use Tester at the Relay

- 1. Disconnect thermostat wires from T-T terminals.
- 2. Attach AMP-MATE clips to T-T terminals (see diagram).
- 3. Read AMP-MATE and set heat anticipator to that rating.
- 4. Disconnect AMP-MATE and reconnect the thermostat wires. NOTE:

Make sure that the thermostat wires connected to the relay actually come from the thermostat to be set.

Item	Description	Unit
ME55-2M	TM-20 cad cell relay and eye tester	1
ME55-50M	Circuit tester, Amp-Mate, measures low voltage control circuits, high impact case	1

TOOLS & TESTERS Ignitor & Transformer Testers

MT400M Solid State Electronic Ignitor Tester

Accurately, safely and quickly tests solid state electronic ignitor, without having to dissassemble the ignition system.

Features:

- Easy to use: simply place the TM-2 on the igniter cover and activate the burner. In less than a second, a flashing red light will indicate if the igniter is good.
- No disassembly of ignition system required.
- · No exposure to high voltage connections.
- Solid state accuracy no misleading meter readings or interpretation.
- · Works on all solid state oil igniters and Riello gas igniters.

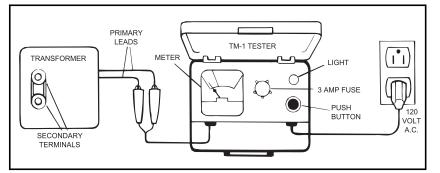
MT389M Iron Core Transformer Tester

Tests standard 10,000 volt tranformers. Durable, safe, easy-to-use. Can be used without having to remove the transformer from the oil burner.

The TM-1 will identify deterioration in a transformer even though the eye may appear to have an adequate spark.

Features:

- · Easy-to-read meter.
- Safe all tests made on primary side.
- · High impact case.
- · Fused for meter protection.







CAUTION

To avoid possible electric shock. DO NOT TOUCH transformer while testing. The transformer porcelains should be clean and dry without cracks.

B SC-2100 Oil Burner Transformer Tester

Features:

- Checks all makes and models for oil burner ignition transformers
- Checks both "old-style" AC Transformers & "new style" electronic ignitors

-

Much safer then a screwdriver



Description	Unit
Igniter tester, TM-2 electronic, for all solid state oil igniters and Riello gas igniters	1
Ignition transformer tester	1
Oil Burner Transformer Tester	1
	Igniter tester, TM-2 electronic, for all solid state oil igniters and Riello gas igniters Ignition transformer tester

Web: www.wardheating.com

Fax: (866) 406-2899

Toll Free: (800) 265-4484

Pump Testing Manifold Kit

Combines all the features of the P115-2M Kwik-Check II and the P115M Oil Watcher in one tool! Includes special fittings and instructions for use on Riello pumps.

APPLICATIONS:

- Test pump pressure and cutoff of fuel oil pumps quickly and easily. No need to remove pump from oil burner. For use with all pumps of operating pressures up to 300 PSI.
- Use with vacuum gauge to analyze problems in oil lines caused by impurities, leaks or high restrictions.



FEATURES:

- Quick hook-up fittings for easy testing.
- Accurately checks pressure, cutoff and vacuum under actual operating conditions.
- Liquid filled gauges for accurate readings.
- High pressure hoses for setting up today's higher pressure pumps.
- High impact case with handle.

- Complete with easy-to-follow instructions.
- Brass and high quality aluminum construction for long life.

ng.com

- Color coded hoses for pressure hook-up.
- Clear tubing adapts to any suction line.
- Adapter fittings included for all pumps including Riello.

Item	Description	Unit
MP115-10M	Pump test manifold kit, for all pumps operating up to 300 PSI	1
Accessories f	or P115-10M	I
MP115-11M	Pump test manifold replacement hose only	2
MP115-14M	Adaptors, Riello	1
7-13 -	Toll Free: (800) 265-4484 - Fax: (866) 406-2899 - I	Neb: www.wardheatii

Pressure & Vacuum Gauges

Kwik-Check II Pressure and Cutoff Tester

Tests pump pressure and cutoff of fuel oil pumps quickly and accurately without removing the pump from the oil burner. For use on all pumps up to 300psi.

Features:

- Quick hook-up fittings make testing easy, clean and simple
- Check operating pressure and cutoff under actual operating conditions

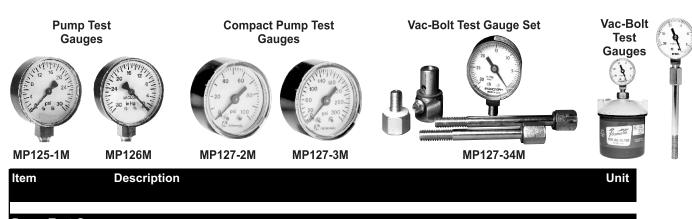


Oil Watcher Oil Flow Monitor

Clear tubing and fittings provided adapt to any suction line. The oil watcher vacuum gauge, enable the service technician to analyze problems caused by oil impurities, leaks and high restrictions



Item	Description	Unit
MP115-2M	Kwik-Check II pressure and cutoff tester kit	1
MP115-3M	Kwik-Check II pressure and cutoff tester, 3/16" x 1/4" flare adapter fittings only	2
MP115-4M	Kwik-Check II pressure and cutoff tester, rubber gaskets only	12
MP115-5M	Kwik-Check II pressure and cutoff tester, hoses with fittings only	2
MP115M	Oil Watcher oil flow monitor	1
MP115-1AM	Oil Watcher oil flow monitor, hose and stainless steel clamps only	2
MP115-1M	Oil Watcher oil flow monitor, adapter fittings only	2



Pump Test Gau	ges	
MP125-1M	Pump test gauge, 0 - 30 PSI pressure, 2" face, 1/8 NPT" bottom mount	1
MP125-2LM	Pump test gauge, liquid filled, 0 - 300 PSI pressure, 2" face, 1/8 NPT" bottom mount	1
MP125-2M	Pump test gauge, 0 - 300 PSI pressure, 2" face, 1/8" NPT bottom mount	1
MP126LM	Pump test gauge, liquid filled, 0 - 30" HG vacuum, 2" face, 1/8" NPT bottom mount	1
MP126M	Pump test gauge, 0 - 30" HG vacuum, 2" face, 1/8" NPT bottom mount	1
Compact Pump	Test Gauges	
MP127-2M	Pump test gauge, 30 - 150 PSI compound, 2" face, 1/8" NPT bottom mount	1
MP127-3M	Pump test gauge, 0 - 300 PSI pressure, 1-1/2" face, 1/8" NPT back mount	1
Vac-Bolt Test G	auge Set	
MP127-34M	Vac-Bolt test gauge, gauge set including 1 gauge and 4 adapters	1
Vac-Bolt Test G	auges	
MP127-25BM	Vac-Bolt test gauge, replaces General 1A-25A, Westwood S254, Unifilter 77	6
MP127-25M	Vac-Bolt test gauge, replaces General 1A-25A, Westwood S254, Unifilter 77	1
MP127-27BM	Vac-Bolt test gauge, replaces General 2A-700A	6
MP127-27M	Vac-Bolt test gauge, replaces General 2A-700A	1
MP127-29M	Vac-Bolt test gauge, replaces Firomatic C20, C30, C40, C50, C60, CF20, CF30	1
MP127-31M	Vac-Bolt test gauge, replaces Fulflo FB-4, FB-6, FB-8, FB-10	1
MP127-34M	Vac-Bolt test gauge, gauge set including 1 gauge and 4 adapters	1



Kwik-Fit Pressure and Vacuum Pump

For use with either air or liquids

Features:

- Produces higher pressures the other competitive models.
- Clears obstructed lines; frees stuck valves; use to add chemicals to boilers
- Special O-ring fittings and connections need hand tightening only
- T-handle for easy operation



Item	Description	Unit
MP132-10M	Kwik-Fit pressure and vacuum pump, toolbox only	1
MP132-4M	Kwik-Fit pressure and vacuum pump, O-ring only	2
MP132-5M	Kwik-Fit pressure and vacuum pump, Firomatic tube only, 1-1/2" OD	1
MP132-7M	Kwik-Fit pressure and vacuum pump, adapter/hose kit only and toolbox, less pump	1
MP132-8M	Kwik-Fit pressure and vacuum pump kit with pump, O-rings, adapter/hose and toolbox	1
MP132M	Kwik-Fit pressure and vacuum pump, pump only	1

Web: www.wardheating.com

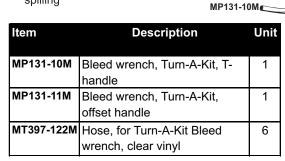
Turn-a-Kit Bleed Wrenches

Use to bleed fuel oil units with a quick turn of the wrench.

Features:

 Clear vinyl tubing routes bleed oil directly into catch can without spilling



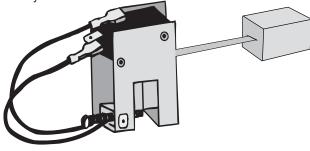


Condensate Float Switch

Used in a condensate float pan to shut down equipment and prevent water overflow.

Features:

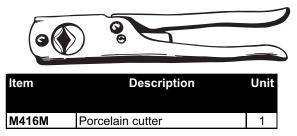
- Line voltage
- Switches normally open or closed
- Positive hold-down screw
- Easy installation



ltem	Description	Unit
MK41-5M	Condensate float switch, 60" wire	1
MK41M	Condensate float switch, 12" wire	1
MK43M	Condensate drain pan fitting	1

Porcelain Cutter

Adjustable, cuts 7/16", 1/2" and 5/8" diameter porcelains.



TOOLS & TESTERS

Miscellaneous Tools & Testers

Tankless Coil Tester

Accurately checks boiler pressure, indicates local water pressure ratings, indicates leaks in tankless heater coils.

Features:

- Swivel Hose connections for fast hook up.
- Flexible plastic lines permit easy positioning of pressure gauges
- High impact plastic case to protect coil tester gauge and components.
- Brass hose cap for access valve prevents leaks after testing
 Instruction on inner lid of case.
- Instruction on inner lid of case.

ltem	Description	Unit	
MB134-50M	Tankless coil tester	1	

Pocket Dial Thermometers

Features:

- Easy to read 1" dial with shatterproof lens.
- Accurate to over 1% of full range
- Rugged 5" stainless steel stem
- Comes with plastic carrying sleeve and pocket clip.

ltem	Description	Unit
MN29-100M	Thermometer, pocket style with sleeve and pocket clip, - 40 to +180 deg. F	1
MN29-102M	Thermometer, pocket style with sleeve and pocket clip, 0 to +200 deg. F	1

Brass Poppet Check Valve

For use on oil lines for tight shutoff and to prevent reverse flow.

Features:

- · Compact design, 1-piece body.
- Operates in any position
- UL listed.

ltem	Description	Unit
M499-1M	Check valve, brass, poppet, 7/16" opening, ½" X ½"	1
	FNPT end connection	
M499M	Check valve, brass, poppet, 3/8" opening, 3/8" X 3/8" FNPT end connection	1





TOOLS & TESTERS Cleanout Brushes

U-BRUSHES	ltem	Description	Unit
	LL Dunch an		
		- Double Stem, Horse Shoe Shape	4
	MS5	Brush, U, double stem, wire flue brush, 1-1/2" dia. x 4" fill x 5" L	1
The second s	MS5-2	Brush, U, double stem, wire flue brush, 2" dia. x 4-1/2" fill x 5" L	1
	Fan Brush MS5-100	Brush, flue and boiler brush, nylon, 3/4" dia. x 9" L	1
		Brush, flue and boiler brush, hylon, 3/4 dia. x 9 L Brush, flue and boiler brush, nylon, 3/4" dia. x 30" L	<u>1</u> 1
	MS5-100A MS5-102	Brush, radiator brush, horsehair, 3/8" dia. x 9" L	1
at a better	MS5-102 MS5-104	Brush, radiator brush, horsehair, ½" dia. x 9" L	1
		Brush, radiator brush, horsehair, 3/4" dia. X 9" L	1
and the second		ss Brushes	
	MS5-98	Brush, radiator brush, ½" dia. X 24" L	1
		Brush, flue and boiler brush, nylon, 1-1/2" dia. x 36" L	1
		Brush, flue and boiler brush, nylon, 2-1/4" dia. x 36" L	1
		Brush, radiator brush, ½" dia. X 18" L	1
		Brush, radiator brush, ½ dia. X 16 L	1
		Brush, radiator brush, horsehair, 3/4" dia. X 9" L	1
		ehair Radiator Brushes	I
The second se	MS5-108	Brush, radiator brush, horsehair, hardwood handle, 1 row 9" L, 24"	1
	WI33-100	Length overall	I
a militar at the second	Hand Wire	Scratch Brushes	
	MS5-110	Brush, bent handle scratch brush, hardwood handle, 14" x 1"	1
USTER WIRE SCRATCH	MO0-110	block, 3" x 19" row, 1-3/16" trim	ļ
RUSH	MS5-110A	Brush, bent handle scratch brush, hardwood handle, 14" x 1-1/8"	1
	moo mox	block, 4" x 18" row, 1-3/16" trim	
	Duster Ha	nd Wire Scratch Brushes	
	MS5-112	Brush, duster wire scratch brush, hardwood handle, 2-3/4" x 1-1/8"	1
SHOE HANDLE SCRATCH		block, 4" x 8" row, 2-3/8" trim	
	Shoe Hand	lle Hand Wire Scratch Brushes	
	MS5-115	Brush, shoe handle wire scratch brush, hardwood handle, 10" x 1-	1
		1/8" block, 4" x 16" row, 1-3/16" trim	
HOE HANDLE SCRATCH	Flat Fine V	/ire Baffle Brushes	
	MS5-12	Brush, flat baffle brush, fine wire, 5/16-18 thread, 1/8" NPT conn.,	1
and the second sec		3/8" x 1"	•
Commentation and the	MS5-14	Brush, flat baffle brush, fine wire, 5/16-18 thread, 1/8" NPT conn.,	1
a faith		1/2" x 2"	-
HOE HANDLE SCRATCH	Long Hang	lles Utility Scrub Brushes	
BRUSH	MS5-122	Brush, long handle utility brush, plastic base, nylon fill, 20" L, 2-	1
Statement St.		1/4" trim	
1. Alix	Counter D	uster Brushes	
	MS5-126	Brush, counter duster, tampico, beaver tail handle, 3" W x 13" L x 2-	1
HOE HANDLE SCRATCH		1/4" trim	
RUSH	Condense	r Tube and Heat Exchanger Brushes	
	MS5-19	Brush, condenser tube and exchanger brush, high carbon steel,	1
		5/16-18" thread, 1/8" NPT conn., 1-1/2" dia. x 7-1/2" L	
	MS5-20	Brush, condenser tube and exchanger brush, high carbon steel,	1
ONDENSER TUBE/HEAT	-	5/16-18" thread, 1/8" NPT conn., 5/8" dia. x 7-1/2" L	
	MS5-22	Brush, condenser tube and exchanger brush, high carbon steel,	1
		5/16-18" thread, 1/8" NPT conn., 3/4" dia. x 7-1/2" L	

7-17 Toll Free: (800) 265-4484 Fax: (866) 406-2899

Item	Description	Unit
	re Wire Flue and Boiler Tube Brushes	
MS5-28	Brush, flue and boiler tube brush, wire, single spiral, 1/4" NPT	1
	conn., 1-1/4" dia., 1-1/2" flue dia., 4-1/2" brush L, 8" overall L	
MS5-30	Brush, flue and boiler tube brush, wire, single spiral, 1/4" NPT	1
	conn., 2" dia., 2-1/4" flue dia., 4-1/2" brush L, 8" overall L	
MS5-31	Brush, flue and boiler tube brush, wire, single spiral, 1/4" NPT	1
MO5 22	conn., 2-1/2" dia., 2-3/4" flue dia., 4-1/2" brush L, 8" overall L	4
MS5-32	Brush, flue and boiler tube brush, wire, single spiral, 1/4" NPT conn., 3" dia., 3-1/4" flue dia., 4-1/2" brush L, 8" overall L	1
MS5-34	Brush, flue and boiler tube brush, wire, single sprial, 1/4" NPT	1
11133-34	conn., 4" dia., 4-1/2" flue dia., 4-1/2" brush L, 8" overall L	1
Double Sp	iral Wire Flue and Boiler Tube Brushes	
MS5-36	Brush, flue and boiler tube brush, fiber fill, single spiral, 1/4" NPT	1
11100-00	conn., 1" dia., 1-1/4" flue dia., 4-1/2" brush L, 8" overall L	
MS5-38	Brush, flue and boiler tube brush, fiber fill, single spiral, 1/4" NPT	1
	conn., 1-1/2" dia., 1-3/4" flue dia., 4-1/2" brush L, 8" overall L	
MS5-40	Brush, flue and boiler tube brush, fiber fill, single spiral, 1/4" NPT	1
	conn., 2" dia., 2-1/4" flue dia., 4-1/2" brush L, 8" overall L	
MS5-42	Brush, flue and boiler tube brush, fiber fill, single spiral, 1/4" NPT	1
	conn., 3" dia., 3-1/4" flue dia., 4-1/2" brush L, 8" overall L	
MS5-44	Brush, flue and boiler tube brush, fiber fill, single spiral, 1/4" NPT	1
	conn., 4" dia., 4-1/4" flue dia., 4-1/2" brush L, 8" overall L	
	Extension Rods	
MS5-46	Brush extension rod, fiberglass, 1/4" NPT self-connect, .34" dia., 3	1
	ft. L	
MS5-48	Brush extension rod, fiberglass, 1/4" NPT self-connect, .34" dia., 4	1
MS5-51	ft. L Brush extension rod, fiberglass, 3/8" NPT self-connect, .44" dia., 4	1
11133-31	ft. L	1
MS5-51A	Brush extension rod, fiberglass, 3/8" NPT self-connect, .44" dia., 5	1
	ft. L	
MS5-51B	Brush extension rod, fiberglass, 3/8" NPT self-connect, .44" dia., 6	1
	ft. L	
MS5-52	Brush extension rod, fiberglass, 1/4" NPT self-connect, .34 dia., 6	1
	ft. L	
-	I Flue Brushes	
MS5-47	Brush, spiral flue brush, 2" OD, 1/4" NPT conn.	1
MS5-47B	Brush, spiral flue brush, 3" OD, 1/4" NPT conn.	1
Chimney E		4
MS5-59	Brush, heavy duty chimney brush, wire, 3/8" NPT conn., 6" round	1
MS5-59A	Brush, heavy duty chimney brush, wire, 3/8" NPT conn., 7" round	1
MS5-59B MS5-59C	Brush, heavy duty chimney brush, wire, 3/8" NPT conn., 8" round Brush, heavy duty chimney brush, wire, 3/8" NPT conn., 9" round	1 1
Oval Flue		
MS5-6	Brush, flue brush, oval, fine wire, 1/4" NPT conn., 2" x 4"	1
MS5-8	Brush, flue brush, oval, fine wire, 1/4" NPT conn., 2-1/2" x 4-1/2"	1
MS5-10	Brush, oval flue brush, fine wire, 2" x 4" x 4-1/2" L	1
	r Fill Radiator Brushes	
MS5-62	Brush, radiator brush, fiber fill, single spiral, 6" fill, 2" dia. x 27" L	1
MS5-64	Brush, radiator brush, fiber fill, single spiral, 6" fill, 2" dia. x 42" L	1
MS5-66	Brush, radiator brush, fiber fill, single spiral, 6" fill, 3" dia. x 27" L	1
MS5-68	Brush, radiator brush, fiber fill, single spiral, 6" fill, 3" dia. x 42" L	1



DOUBLE SPIRAL WIRE FLUE AND BOILER TUBE BRUSHES



FIBERGLASS EXTENSION RODS



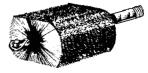
HARD SPIRAL FLUE BRUSHES



CHIMNEY BRUSHES



OVAL FLUE BRUSHES





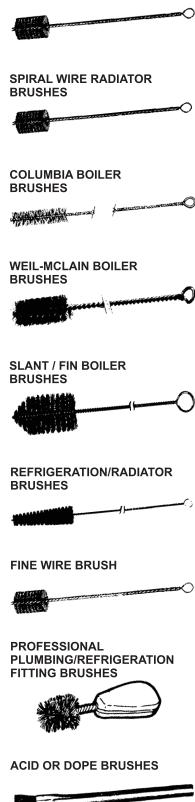
Please Note: All brushes longer then 18" do not qualify for free shipping, and are subject to oversize shipping charge.

Fax: (866) 406-2899

2899 - Toll Free: (800) 265-4484

Cleanout Brushes

SPIRAL HORSEHAIR RADIATOR BRUSHES



ltem	Description	Uni
Spiral Hor	sehair Radiator Brushes	
MS5-70	Brush, radiator brush, tampico, single spiral, 6" fill, 2" dia. x 27"	1
MS5-72	Brush, radiator brush, tampico, single spiral, 6" fill, 3" dia. x 27"	1
MS5-74	Brush, radiator brush, tampico, single spiral, 6" fill, 2"dia. x 42"	1
MS5-76	Brush, radiator brush, tampico, single spiral, 6" fill, 3" dia. x 42"	1
	e Radiator Brushes	
MS5-78	Brush, flue and boiler tube brush, fine wire, single spiral, carbon	1
	steel handle with 4" loop, 1-1/2" dia. x 42L	
MS5-79	Brush, flue and boiler tube brush, fine wire, single spiral, carbon	1
	steel handle with 4" loop, ½" dia. x 42 L	
MS5-79A	Brush, flue and boiler tube brush, fine wire, single spiral, carbon	1
	steel handle with 4" loop, 3/4" dia. x 42 L	
MS5-79B	Brush, flue and boiler tube brush, fine wire, single spiral, carbon steel handle with 4" loop, 1" dia. x 42L	1
MS5-80	Brush, flue and boiler tube brush, fine wire, single spiral, carbon	1
1033-00	steel handle with 4" loop, 2" dia., x 42 L	1
MGE 01		1
MS5-81	Brush, flue and boiler tube brush, fine wire, single spiral, carbon steel handle with 4" loop, 2-1/2" dia. x 42 L	
MOE 00		1
MS5-82	Brush, flue and boiler tube brush, fine wire, single spiral, carbon	1
Columbio	steel handle with 4" loop, 3" dia. x 42 L	
	Boiler Brushes	4
MS5-84	Brush, Columbia boiler, flat, ½" x 1", 48" L	1
MS5-84A	Brush, Columbia boiler, flat, ½" x 1", 27" L	1
	in Boiler Brushes	4
MS5-86	Brush, Weil McLain boiler, horsehair, twisted handle, 1-1/2" x 1-	1
	1/8", 30" L, heavy duty	
MS5-86A	Brush, Weil McLain boiler, horsehair, twisted handle, 1-1/2" x 1-	1
	1/8", 30" L, light duty	
	Boiler Brushes	4
MS5-87	Brush, Slant/Fin boiler, tapered from 0 to 2-1/4"	1
-	ion/Radiator Brushes	4
MS5-88	Brush, boiler brush, horsehair, 1-7/8" x 1-1/8", 42" L	1
MS5-88A	Brush, boiler brush, horsehair, ½" x 1", 21" L	1
Fine Wire		
MS5-90	Brush, flue and boiler tube brush, fine wire, single spiral,	1
	stainless steel handle with loop, ½" dia. x 16" L	
MS5-92	Brush, flue and boiler tube brush, fine wire, single spiral, carbon	1
	steel handle with loop, 5/8" dia. x 16" L	<u> </u>
MS5-94	Brush, flue and boiler tube brush, fine wire, single spiral,	1
	stainless steel handle with loop, 3/4" dia. x 18" L	
MS5-96	Brush, flue and boiler tube brush, fine wire, single spiral,	1
	stainless steel handle with loop, 1" dia. x 18" L	
	nal Plumbing / Refrigeration Fitting Brushes	
MT723-40	Brush, plumbing/refrigeration fitting tube brush, double stem,	1
	single spiral, stainless bristles, 1/8" ID x 1/4" OD	<u> </u>
MT723-41	Brush, plumbing/refrigeration fitting tube brush, double stem,	1
	single spiral, stainless bristles, 1/4" ID x 3/8" OD	<u> </u>
MT723-42	Brush, plumbing/refrigeration fitting tube brush, double stem,	1
	single spiral, stainless bristles, 3/8" ID x ½" OD	
MT723-43	Brush, plumbing/refrigeration fitting tube brush, double stem,	1
	single spiral, stainless bristles, 3/8" ID x ½" OD	
MT723-44	Brush, plumbing/refrigeration fitting tube brush, double stem,	1
	single spiral, stainless bristles, 5/8" ID x 3/4" OD	
Acid or Do	ope Brushes	
	Brush, acid or dope applicator, horsehair with tin-plated handle	

Please Note: All brushes longer then 18" do not qualify for free shipping, and are subject to oversize shipping charge.

Fax: (866) 406-2899

Pressure & Electrical Testers. Test Leads

Manometer U-Gauge

Used to set pressure regulator when adjusting main burner manifold. Adjustable scale for zero setting.

Features:

- 3ft. rubber hose
- Adapter Fittings

Item	Description	Unit
MN28-51M	Manometer 16" w.c.	1
MN28-52M	Manometer tubing, 3ft.	1
MN28-55M	Manometer adapter fitting	1

Audible/Visual Line Voltage Tester

includes two LR44 button cell batteries & pocket clip

Features:

- · Microwave leakage test,
- Continuity test.
- · AC contact and non-contact.
- Polarity test.
- DC voltage test.
- Checks fuses.

Item	Description	Unit
ME397-313M	Line voltage tester, audible/visual,	1
	Line voltage tester, audible/visual, LED, 70 to 250 volt AC/DC, 70 to	
	10,000 volt AC non-contact	

Low Voltage Screwdriver Tester

Features:

- LED light and buzzer indication.
- AC contact and non-contact.
- Continuity check.
- Microwave leakage test.
- · Polarity check.
- · Checks fuses.

Item	Description	Unit
ME397-309M	Low voltage screwdriver tester,	1
	LED and buzzer, includes	

Test Leads

001010.		Yellow		5
Black	Rea		(CA)	
ltem		Descri	ption	Unit
ME397-307	M Test I	eads, 300 v	olt, 5 amp, 18	1
	gauge	e, 18", white	olt, 5 amp, 18 , red, black,	
	yellov	v, green		

Gas Pressure Tester

Tests both natural and LP gas. 0 - 15" WC.

Features:

- Durable service truck tough
- Highlighted dial for fast reading
- Includes brass hose adapter

Item	Description	Unit
MN28-75M	Gas pressure tester, nat or LP	1
	gas, 0 - 15" WC	

Screwdriver Tester with LED

When tip is in direct contact with the live (HOT) part of the AC voltage, the red LED lights up

Features:

- Self-test.
- · Continuity test.
- Microwave leakage test.
- Polarity check.
- Checks fuses.

ltem	Description	Unit
ME397-311M	Low voltage tester, red glow LED, 70 to 250 volt AC	1

Line Voltage Tester

Fully insulated, this handy pocket screwdriver is also a combination high voltage circuit tester. Check voltage from 90 to 250 volts.

ltem	Description	Unit
ME53M	Circuit tester, line voltage	1
	from 90 to 250 volt, with	
	screwdriver	

Electrical Jumpers

	\sim $\mathcal{I} \cap$	
ltem	Description	Unit
ME58-2M	Electrical jumper, 12", with	12
	insulated clips	
ME58-5M	Electrical jumper, 36", with	2
	insulated clips	
ME58-6M	Electrical jumper, alligator clips	25
	only, less jumper	
ME58M	Electrical jumper, 12", with non-	25
	insulated clips	



Refrigeration System Analyzers (RSA) & Leak Detectors



550 Digital Manifold Kit

Features:

Order No.

- On-site printout with Testo printer (optional)
- High-quality sensors measure high/low pressure and temperature
- Calculation of superheating and subcooling in real time
- 4-way valve block with sight glass
- 4 temperature probe connections

Measurements:

Description

- 30 refrigerants are stored in the instrument, more refrigerants can be downloaded free from Testo using the software "EasyKool"
- 60,000 measurement values can be stored
- Current measurement
- Differential pressure measurement
- -Stock management of refrigerants when filling and evacuating refrigeration systems

550 Digital Marinola Kit	
testo 550 ★ R 40. ~~ ↓ 40. ~ 110. 118_1 364.1	

550 Digital Manifold



552 Digital Micron Gauge



T 0554 0549 IR Printer

Refrigeration System Analyzer Kits		
T 0563 1550	550 Digital Manifold	
	Kit Includes: Testo 550 Digital Manifold, Clamp probe, Hard	
	Case	
T 0563 1557	557 Digital Manifold	
	Kit Includes: 557 Digital Manifold, Clamp probes (2), Hard	
	Carry Case, 0638 1557 External Vacuum Probe	
T 0563 5703	570 RSA Kit	
	Kit Includes: 570 RSA, Clamp Probes (2), USB Cable, Hard	
	Carry Case	
T 400563 5604	Printer Upgrade Kit	
	Kit Includes: Fast IR Printer, Thermal Printing Paper (6 rolls)	

Instruments	
T 0563 3163	316-1 Refrigerant Leak Detector
T 0560 5521	552 Vacuum Instrument

550, 557, 570 Probes		
T 0554 5607	Clamp-on amp probe (20/200 amps) for 556,560,570	
T 0638 1742	Oil pressure probe for 556,560,570	
T 0613 1712	Air probe, NTC, tip 5mmx115mm, -58 to 257'F, 3.0' cable	
T 0613 1912	Waterproof NTC surface probe for flat surfaces, -58 to +302'F	
T 0613 4611	Pipe wrap NTC probe with velcro, for pipe diameter up to 3",	
	NTC, -58 to +160'F, 5' cable	
T 0613 5505	Clamp probe NTC for pipes from 1/4" to 1-1/3"	
T 0613 5605	Clamp probe NTC for pipes from 1/4" to 2-1/2"	

Accessories	
T 0449 0047	USB Cable (mini USB to standard USB)
T 0516 5505	Hard Carry Case for 550, 557 and probes
T 0554 0190	Wireless Module for 435,556,560,635,735,925,926
T 0554 0191	Wireless handle for plug in probe heads
	435,556,560,635,735,882,875i-2,885-2,890-2,925,926
T 0554 0447	Power Supply 5VDC for 435,556,560,570,635,735
T 0554 0549	Fast IR Printer
T 0554 0568	Thermal printer paper (6 rolls)
T 0554 0610	Recharger with NiMH rechargeable batteries
T 0554 2610	Testo 316-3 sensor tip
T 0554 5520	Connection Cable
T 400554 5500	2 Valve Manifold Field Service Kit
T 0554 5604	easyKOOL software for 556,560,570

7-21 - Toll Free: (800) 265-4484

Fax: (866) 406-2899

TOOLS & TESTERS Thermal Imagers & Visual Inspection Scopes

Thermal imagers measure the infrared energy emitted by surfaces remotely. The Infrared energy emitted by the object is focused on to an infrared detector. By the laws of Physics the Infrared energy emitted by the object is related to the temperature of the object. The Thermal Imager converts this infrared energy into a heat picture of the object which in thermal Imaging Terminology is known as a Thermogram. Different temperatures in the Thermogram are represented by different colours. The distribution of temperature on the object gives the user vital information on the operating condition of the machine which helps the user take corrective actions.

Thermography has been used for many years by preventive maintenance engineers to inspect motors, circuit boards, switchgear, electrical connectors, bearings and pumps etc.

TESTO 875-1 Thermal imager with a temperature resolution of <80mK and useful analysis functions for a professional start in thermography

- Good image quality NETD <<80 mK
- High quality standard lens 32° x 23°
- Auto Hot/Cold Spot Recognition
- Temperature range: -20 ... +280°C

TESTO 881-1 Thermal imager with <50mK for complete professional analysis incl. telephoto lens and additional accessories in a set, with price savings

- Good image quality NETD < 50 mK
- High quality standard lens 32° x 23°
- · Built-in digital camera with power LED

TESTO 870-1 The testo 870-1 is a feature packed fixed focus thermal imager. With its easy one button control, the 870-1 is an ideal solution for a variety of applications for commercial contractors, facility managers, energy auditors and other requirements for thermal imaging inspection. Key Features:

- 1.6 GB internal memory holds 2,000 images
- Optional SuperResolution Technology enhances image quality to 320 x 240
- Automatic hot/cold spot recognition
- <100 mK NETD sensitivity

Order No. Description T 0560 0875 71 875-1i Thermal Imager Kit T 0560 0875 72 875-2i Thermal Imager Kit with Integrated Digital Camera T 0563 0875 73 875-2i Deluxe Imager Kit with Intergrated Digital Camera T 0560 8701 870-1 Thermal Imager T 0560 8702 870-2 Thermal Imager Kit T 0560 0882 70 882 Thermal Imager Kit T 0563 0885 71 885-1 Thermal Imager Kit T 0563 0885 72 885-2 Thermal Imager Kit T 0563 0885 73 885-2 Deluxe Thermal Imager Kit

Note: All Imager Kits will be delivered in a hard shell case including SD-card, USB Cable Software, Power Supply, and Tripod Mount Plate

Mitco Telescoping Flame Mirrors

Two types of flame inspection mirrors are available. They are furnished with handles, which telescope down to fit into a service technician's kit. A cloth bag is provided to protect the mirror finish on the flame mirror.

Order No.	Description
M90-2	Mini Mirror (Face 1-1/8" x 3) with extension handle
M9062	Round Mirror 1 1/4" extends to 19"

875-1i Thermal Imager Kit

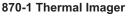


885-1 Thermal Imager









Temperature Measurement



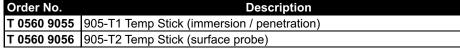
Mini Thermometers:

Testo 905-T1 & 905-T2 are some of the fastest stick thermometers, from -58 to +662 °F short-term (1-2 minutes) up to +932 °F. Exceptionally accurate in higher measuring ranges especially for a digtial thermometers in their price class.

Features:

- Wide measurement range
- High accuracy
- Easily read data from any angle with rotating display
- Professional industrial sensor (Type K)
 - Large, bright display
 - Short -term high temperature measurement up to 932 °F

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Non-Contact IR Thermometers

Order No.	Description
T 0560 0810	810 Pocket Pro IR and Ambient Thermometer
T 0560 8051	805 Mini IR Thermometer
T 0560 8311	830-T1 IR Thermometer, 10:1 Optics, laser point, Topsafe & Belt Clip
T 0560 8312	830-T2 IR Thermometer, 12:1 Optics & Dual Laser
T 0560 8314	830-T4 IR Thermometer, 30:1 Optics & Dual Laser
T 0563 8312	830-T2 Kit with surface probe and pouch with belt clip
T 0563 8314	830-T4 Kit with surface probe and pouch with belt clip
T 0563 8315	831 Set with 106
T 0563 8450	845 Adjustable focus IR thermometer 75:1 Optics with aluminum case
T 0563 8451	845 with aluminum case and humidity module

Type K Thermometers

The Testo 925 Type K thermocouple thermometer uses both corded and optional wireless probes, displaying both temperatures simultaneously. A user-adjustable and audible alarm sounds if set limits are exceeded, making this a reliable QC instrument. Measurements as well as Max-Min values with time/date can be printed on-site with the optional testo printer

Features:

- Maximum versatility with both corded and wireless probes
- Wide range of probes for temperature measurements in HVAC, industrial process and production applications with Audible alarm sounds if Max-Min values exceeded



Order No.	Description
T 0560 9221	922 Dual Type K Thermometer
T 0560 9250	925 Type K Thermometer
Accessories	
T 0554 0190	Wireless Module for 435,556,560,635,735,925,926
T 0554 0191	Wireless handle for plug in probe heads
	435,556,560,635,735,882,875i-2,885-2,890-2,925,926
T 0554 022	TC Adapter for wireless handle 0554 0191 (replacement)
T 0602 0293	Air / immersion / penetration probe for wireless handle type K, tip
	3.4mm x 30mm, probe 5mm x 100mm, -58 to 662'F / -50 to +350'C
T 0602 0394	Surface probe for wireless handle Type K, tip 12mm x 40mm, probe
	5mm x 120mm, -58 to 662'F / -50 to +350'C
T 0554 0592	16' Type K extension cable
T 0554 0549	Fast IR Printer
T 0554 0568	Thermal printer paper (6 rolls)





0516 0210 - Soft Carrying Case - Small T 400563 4170 417 Large vane Anemometer Kit Includes:

Pressure - Digital Manometers

Order No.

T 0563 0510

T 0560 0511

T 0560 5126

Order No.

	0516 0210 - Soft Carrying Case - Small
T 0560 4101	410-1 Pocket Pro Air Velocity & Temp Meter
T 0560 4102	410-2 Pocket Pro Air Velocity, Temp & RH Meter
T 0560 4160	416 Mini Vane Anemometer (0.63" Dia. Head)
T 0560 4170	417 Large Vane Anemometer (4" Dia. Head)

0560 4170 - 417 Large Vane Anenomemeter

0560 4160 - 416 Mini-Vane Anemometer

T 400563 5122 512-2 Digital Manometer / Anemometer Kit Including:

0554 0440 - Silicone Hose (16' Long)

0516 0201 - Carry Case

T 400563 4161 416 Small Vane Anemometer Kit Includes:

Air Flow / Velocity - Vane Anemometers

Description

0560 5128 - 512 Digital Manometer / Anemometer +/- 1" WC

512 Digital Manometer / Anemometer +/- 1" WC (0 to 2hPa)

Description

0635 2145 - "L" type pilot tube 13" SS 1112'F max

510 Pocket Pro Pressure Set (Instrument Only)

511 Pocket Pro Absolute Pressure & Altitude Meter

Air Flow / Velocity - Hot Wire Anemometers

T 400563 4251 425 Anemometer Kit Includes:	
0560 4251 - 425 CFM Hot-Wire Anemor	neter
0516 0210 - Soft Carrying Case - Small	
T 0560 4053 405-V1 Thermo Anemometer (metric on	ly)
T 0560 4251 425 CFM Hot-Wire Anemometer	

Humidity - Moisture Meters

Order No.	Description
T 400563 6251	625 Hygrometer Remote Probe Kit Includes:
	0563 6251 - 625 Hygrometer with integral humidity probe head
	0516 0201 - Compact class service case
	0430 9725 - handle for RH probe head 625, includes cable
T 0560 0610	610 Pocket Pro Temp & RH Meter
T 0560 6053	605-H1 Humidity Stick with dew point
T 0560 6054	605-H2 Humidity Stick with wet bulb
T 0560 6060	606-1 Pocket pro Moisture Meter
T 0560 6062	606-2 Pocket pro Moisture Meter w/RH & Temp
T 0560 6081	608-H1 Large display temp & RH meter with min/max
T 0560 6082	608-H2 Large display temp & RH Meter with min/max & LED alarm
T 0560 6160	616 Wood / Material Moisture meter (non-penetration)
T 0563 6251	625 Hygrometer with integral humidity probe head









TOOLS & TESTERS

Pressure, Air Flow, IAQ, Measurement



512-1



410-1

417





Web: www.wardheating.com

605

Fax: (866) 406-2899

Toll Free: (800) 265-4484

7

TOOLS & TESTERS

Miscellaneous Hand Tools

Large Capacity Compact Tube Cutter

Designed for use in restricted spaces, but has larger capacity then T625-10M. Cuts hard and soft copper, aluminum, brass, thinwall steel, stainless steel, monel and titanium.



Features:

- Strong, lightweight slide.
- Large knurled feed screw knob for easy control of cutting pressure and clean cuts.
- Includes 2 cutter wheels

ltem

Description

MT625-11M Tube cutter, 3/8" to 1-1/8", copper

Heavy Duty Tube Cutters

Full Sized Tools for flaring, cutting, and bending soft and hard copper, aluminum and brass tubing.

Features:

- Enclosed hardened steel, thrust bearing feed mechanism for smoothest cutting action and trouble free operation
- Foldaway hardened steel reamer with turned cutting edge removes inside burrs cleanly. Filing surface removes outside burrs.
- Includes spare cutting wheel.

ltem	Description	
MT625-19M	Tube cutter, 1/4" to 1-5/8" OD, with flare roller, fold-away reamer and	
	spare cutting wheel	
MT625-20M	I Tube cutter, 1/8" to 1-1/8" OD, with flare roller, fold-away reamer and	
	flare roller, fold-away reamer and	
	spare cutting wheel	

Adjustable Tube Cutter

For soft and hard copper, aluminum, brass, thin wall stainless steel, stainless steel, monel and titanium.

Features:

- Ratchet feed mechanism speeds up cutting
- Extra wide rollers with flare cut-off groove stabilize tubing
- Enclosed screw-type feed mechanism, lightweight aluminum alloy body
- Includes 2 general purpose cutting wheels.

Item	Description
MT625-23M	Tube cutter, 3/8" to 2-5/8" OD,
	Tube cutter, 3/8" to 2-5/8" OD, ratchet feed, with extra wide rollers and spare cutting wheel
	rollers and spare cutting wheel

Dual Purpose Crimping Tool

Crimps both insulated and non-insolated solder less terminals. Cuts and strips wire. Cuts electrical/electronic bolts.

Item	Description
MT395-5M	Tool, dual purpose crimper for
	Tool, dual purpose crimper for insulated and non-insulated
	solderless terminals

Punch Type Swagging Tool Set

Includes 1/4", 3/8", 5/16", ½"5/8" punches in a plastic pouch.



Item	Description
MT644-34M	Punch type swaging tool kit, contains 1/4", 3/8", 5/16", ½" and 5/8" punches in a plastic pouch

Large Capacity Compact Tube Cutter

For use on 1/4", 5/16" and 3/8" OD Tubing

Features:

- For soft copper, aluminum, brass, steel and other metal tubing.
- Calibrated marking for making accurate left hand, right hand and offset bends.
- Makes bends upto 180'
- 15/16" radius to center of tube measurement

Item	Description
MT710M	Tube bender, triple head, lever type, 1/4", 5/16" and 3/8" OD

Plastic Drum Pump

For use with F2-17B, STR2 Fuel Oil Treatment, 55 gal. drum.

Features:

- Adjustable, dispenses 2,4,6 or 8 ounces per stroke.
- Molded components of polypropylene and polyethylene-chemical and acid resistant materials

ltem	Description
MF1-39E	Pump, plastic, drum
MF1-39E	Pump, plastic, drum





Electrical Testers & Tools

Low Voltage Tester

Alligator clips on end of test lead for convenience

Item	Description	Unit
	Low voltage tester, checks 5 to 50 volt	1
	AC/DC, with alligator clips	

Continuity Tester for Non-Energized Circuits

Extra long insulated lead with alligator clip for convenience

ltem	Description	Unit
ME397-244M	Continuity tester, low	1
	voltage	

Wire Connectors

ltem	Description	Unit
ME358-10M	Wire connectors, 22-14 AWG, blue	100
ME358-11M	Wire connectors, 22-16 AWG, gray	100
ME358-5M	Wire connectors, 12-6 AWG, red	50
ME358-7M	Wire connectors, 16-10 AWG, yellow	100
ME358-9M	Wire connectors, 22-14 AWG, orange	100

Alligator Clips

Description	Unit
Alligator clips, medium	1
Alligator clips, small	1
Alligator clips, large	1
	Alligator clips, medium Alligator clips, small

Fuse Holder

Handy twist cap make removal and replacement of glass fuses quick and easy.

ltem	Description	Unit
ME397-303M	Fuse holder	1

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	Test Cord	Sets	
	ltem	Description	Unit
	ME59-2M	Electrical test cord set, 15 amp, 6 ft. L, 14/3 sleeved cord, male plug	1
x-y	ME59-5M	Electrical test cord set, 15 amp, 6 ft. L, 14/3 sleeved cord, female plug	1
	ME59M	Electrical test cord set, 12 amp, 6 ft. L, 18/2 sleeved cord, male plug	1

Test Cords

Used to power any 110V device in remote areas without having to hard-wire the device

Features:

 Red and black heavy duty, insulated boots.

· Large clips.

- Rugged construction.
- 16 gauge wire.
- 125 amp.



ltem	Description Unit		
ME397-301M	Test cord, female, 3 wire, 24", 1 with insulated boot		
ME397-302M	Test cord, male, 2 Wire, 72", with insulated boot		

Thermocouples

By White-Rodgers

ltem	Description	Unit
MG378	18" Long	1
MG378-1	24" Long	1
MG378-2	30" Long	1
MG378-3	36" Long	1
MG378-4	48" Long	1

Thermocouple Tester

Isolated gas safety problems by power unit substitution.

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Item	Description
MN55-10M	Thermocouple tester



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Fax: (866) 406-2899

Toll Free: (800) 265-4484

ShuBee® Covers Image: Superbee <	7 TOOLS & Shubee Ser	TESTERS rvice Products			
Durability Image: Colour Options	Shoe	SHUBEF ENGE CAVE IS	Superbee	Waterproof	Armordillo
Colour Options Image: Colour Options Easy to Put On Image: Options High Impact Marketing Image: Options Dispenser Box Image: Options Dispenser Box Image: Options Stability Image: Options Stability Image: Options Water Resistant Image: Options Fits upto Size 18 Image: Options Image: Options Image: Options Studies Stable Original Shoe Covers, Dark Blue. (40 Pair Box) SHU C SB SC DB ShuBee Original Shoe Covers, Dark Blue. (40 Pair Box) SHU C SB SC DB ShuBee Waterproof Shoe Covers. Dark Blue. (40 Pair Box)	WeatherProof		\checkmark	\checkmark	\checkmark
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ItemDescriptionSHU C SB SC DBShuBee Original Shoe Covers, Dark Blue. (50 Pair Box)SHU C SB SC BEE 289ShuBee SuperBee Shoe Covers. Available in Dark Blue only. (40 Pair Box)SHU C SB SC WP DBShuBee Waterproof Shoe Covers. Dark Blue. (40 Pair Box)	Fits upto Size 18	\checkmark	\checkmark	\checkmark	\checkmark
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SHU C SB SC WP DB ShuBee Waterproof Shoe Covers. Dark Blue. (40 Pair Box)		-	-	-	
	SHU C SB SC ARM		-	-	

SHU SB PROARM BLUShuBee Multi-Use PRO-Armor™ Surface Protection, Blue (36" X 100') Light Adhesive

ShuBee Red Carpet Treatment Disposable Surface Protection (36" X 200')

ShuBee Re-usable Surface Liner (40" X 54') Light Adhesive Tack, Can be cut down

ShuBee Disposable Gloves

ShuBee® Black Gauntlet[™] Silver Edition **Disposable Gloves**

- 3X the puncture resistance of vinyl
- Oil resistant

Item	Description
SHU D SB NGB PF	ShuBee Black Gauntlet Silver Edition Nitrile Gloves. Available in L, XL, XXL. (Qty 100)
SHU D SB NG BGGE	ShuBee Black Gauntlet Gold Edition Nitrile Gloves. Available in L, XL, XXL. (Qty 100)

Shubee Surface Protection

ShuBee® The Red Carpet Treatment®

- Highly Visible So Your Clients See You Care About Their Property
- Shields Carpets from Stains and Traffic Damage
- Reverse Wound for Quick and Easy Application
- Self-Adhesive Film Won't Shift
- Puncture-Resistant 3 mil Film
- No Color Will Transfer to Your Client's Floor
- Sizes Available in 24" x 200' or 36" x 200'

ShuBee® Surface Liner

- Ideal for all Hard Surfaces to Protect Your Client's Home
- · Reusable for Use on Multiple Jobs
- Light Tack Adhesive to Avoid Residue on Client's Floors
- Reverse Wound for Easy Application and Clean Up
- 44 mil thick
- 40" x 54'

ltem

SHU C SB RCT 24 SHU C SB RCT 36

SHU D SB FL

PRO-Armor™ Surface Protection, Blue

- MultI-use protection for many surface types
- Protects from spills, traffic, scratches, and dirt in high traffic areas
- Stay put backing keeps protection flat and securely in place without leaving residue
- Easy removal and closed
- Appealing color mak
- 36" L x 100'W rolls o

clean up kes a great first impression offer 300 sq ft of protection			
	Description		
	ShuBee Red Carpet Treatment Disposable Surface Protection	(24" X 200')	







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TOOLS & TESTERS Shubee Service Products

ShuBee® Black

Oil resistant

Extended cuff

Disposable Gloves

3X the puncture resistance of vinyl



Shubee Tri-Shield Coveralls (Dirt and Grime Protection)



 Keep your hands working | our exclusive five-pocket design gives you extra storage for tools to help you work more efficiently

Heavy Duty Zipper

- Get moving! | TriShield's® triple layer material is breathable and provides the durability needed for a wide range of motion, like crawling in attics or squatting in tight spaces
- FREE pair of SuperBee® Shoe Covers, the most skid resistant shoe cover on the market

Shubee Hydro-Shield Coveralls (Waterproof Protection)



- Superior disposable, waterproof protection from head to toe
- Extra long torso to provide optimal movement and prevent ripping
- Heavy-duty zipper holds up to extreme conditions
- Elastic wrists and ankles provide secure fit
- Professional dark blue colour hides stains
- Specifically designed for service technicians
 - Comes with a FREE pair of ShuBee® SuperBee® Shoe Covers





- Superior disposable, Tyvek® like protection
- Specifically designed for service technicians
- Extra long torso to provide optimal movement and prevent ripping
- Heavy-duty zipper holds up to extreme conditions
- Elastic wrists and ankles provide secure fit
- Comes with a FREE pair of ShuBee® SuperBee® Shoe Covers



Five Pocket Design

Heavy Duty Zipper

Item	Description
SHU C SB CA DB	ShuBee TriShield Coveralls Dark Blue - Available in L, XL, 2XL, 3XL, 4XL
SHU C SB CA WP DB	ShuBee Waterproof Coveralls Dark Blue - Available in L, XL, 2XL, 3XL, 4XL
SHU C SB CA ES H/NF	ShuBee EnviroShield Coveralls White - Available in L, XL, 2XL, 3XL, 4XL

Testo Smart AC/R Refrigeration Probes

Testo Smart Probes: The FIRST Family of WIRELESS HVAC Instruments

Just download the App and turn the instrument on for instant readings View more calculations: With simultaneous connection of the smart probes, you can do more. Modes for specialized applications: Special modes for superheat and sub-cooling, laser marking measuring points, and images.

Features:

- Control and display measurement values remotely by App even at several feet distance from the measuring instrument.
- The display of up to six Smart Probes simultaneously allows for multiple tests, reports, and automatic calculations.
- The App instantly shows measurement value changes as a graph or table.
- Measurement data reports can be completed with photos, and sent out as a PDF or Excel file, saving you hours
 of work.

Smart App Enabled WIRELESS Probes for AC/R & Refrigeration

Testo Smart Probes Refrigeration set - Smart and Wireless Probe Kit - Order no. 0563 0002

The testo AC/R Smart Probe Set is a combination of four instruments to measure high-side and low-side pressures and temperatures of A/C and refrigeration systems. Configured to be used during commissioning, servicing, PM and troubleshooting A/C and refrigeration systems. This kit can be operated with no tools other than your smart phone to communicate with the instruments.

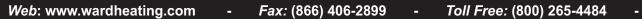
Testo 115 I - Pipe-clamp Thermometer Smart and Wireless Probe Order no. 0560 1115

The testo 115i Smart Probe is a pipe-clamp probe that measures temperature in pipes more accurately than thermocouples because of the superior NTC temperature sensor technology. The exclusive Testo probe design grips pipes up to 1.5" and maintains critical contact between probe and pipe surface to derive the best readings.

Testo 549 I - Refrigeration Pressure Smart and Wireless Probe Order no. 0560 1549

The testo 549i Smart Probe is a hose-less, wire-less, pressure probe for measuring refrigerant charge in AC/Refrigeration systems. It is used for servicing, troubleshooting, and documenting the operation of residential or commercial AC/refrigeration systems. When two 549i are used in conjunction with two 115i pipe-clamp temperature probes it is easy to monitor superheat and sub-cooling in AC/refrigeration systems.

Order No.	Description	
T 0563 0002	Refrigeration Smart Probe Set (incl 2X 549i & 2X 115i and case)	
T 0560 1115	115i Pipe Clamp Thermometer Smart Probe	
T 0560 1549	549i Refrigeration Pressure Smart Probe	
T 0516 0240	Refrigeration Smart Probe Case	









Testo Smart Probes

Smart App Enabled WIRELESS Probes for Heating

Testo Smart Probes heating set - Smart and Wireless Probe Kit - Order no. 0563 0004

The Testo Hydronic Heating System Smart Probe Set contains three instruments designed for use on a hydronic heating system to determine gas flow and static pressure, measure temperature of radiators with an IR probe, and to measure pressure leak-down tests in piping systems.

Key Features:

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- Measures manifold gas pressure, pressure drop, air flow, (with optional pitot tube), pipe and radiator temperatures
- Perform timed pressure leak-down tests on pipe systems
- Measures temperature of pipes in heating and cooling systems with accurate NTC temperature sensor
- Photograph objects with smart device, capturing measurement marker and temperature values for reference and reporting (805i)

Testo 115 I - Pipe-clamp Thermometer Smart and Wireless Probe Order no. 0560 1115

The testo 115i Smart Probe is a pipe-clamp probe that measures temperature in pipes more accurately than thermocouples because of the superior NTC temperature sensor technology. The exclusive Testo probe design grips pipes up to 1.5" and maintains critical contact between probe and pipe surface to derive the best readings.

Testo 510 I - Differential Pressure Manometer Smart and Wireless Probe Order no. 0560 1510

The testo 510i Smart Probe is a wireless differential pressure probe used for accurate lowpressure measurements. The testo 510i is great for measuring pressure in manifolds, static pressure, and pressure drops in buildings or ventilation systems. Use it to measure the pressure drop across coils and filters or in ducts and systems.

Testo 805 I - Infrared Thermometer Smart and Wireless Probe Order no. 0560 1805

The testo 805i Smart Probe is an infrared (IR) thermometer that provides non-contact temperature readings; great for checking breakers, motors, ducts, and registers from a distance. The measurement area is indicated by a circular laser pattern which asssures accurate targeting measurement.

Order No.	Description
T 0563 0004	Hydronic Heating Smart Probe Set (incl 510i, 805i, 115i and case)
T 0560 1115	115i Pipe Clamp Thermometer Smart Probe
T 0560 1510	510i Differential Pressure Smart Probe
T 0560 1805	805i IR Thermometer Smart Probe
T 0516 0270	Heating Smart Probe Case









Testo Smart Climate Probes

The testo VAC Smart Probe Set provides a combination of four Smart Probe instruments used with your Smart Device needed to test and balance a multioutlet ventilation system. Two types of anemometers give you the capacity to measure in-duct air flow and the flow from each vent. Using an IR temperature probe for surface temperatures will show you motor and electrical equipment conditions and an easy check of each outlet. The thermohygrometer will provide an assessment of the humidity and dewpoint concerns throughout the system.

Testo 405 I - Hot-wire Anemometer Smart and Wireless Probe Order no. 0560 1405

The testo 405i Smart Probe hot-wire anemometer is a wireless instrument for measuring air flow velocity, temperature, and volume flow. It is equipped with a telescopic shaft which extends to 15" for easy in-duct testing. You can reliably determine timed and multipoint flow traverses.

Testo 410 I - Vane Anemometer Smart and Wireless Probe Order no. 0560 1410

The testo 410i Smart Probe is a compact wireless vane anemometer for measuring air velocity, and temperature and deriving volume flow. It is used at air outlets, and for monitoring the air flow of ventilation systems.

Testo 605 I - Thermo-hygrometer Smart and Wireless Probe Order no. 0560 1605

The testo 605i Smart Probe thermo-hygrometer is a humidity and temperature measuring instrument that quickly and accurately measures relative humidity, dew point, and temperature in rooms, ducts, registers, and environmental boxes/chambers.

Testo 805 I - Infrared Thermometer Smart and Wireless Probe Order no. 0560 1805

The testo 805i Smart Probe is an infrared (IR) thermometer that provides non-contact temperature readings; great for checking breakers, motors, ducts, and registers from a distance. The measurement area is indicated by a circular laser pattern which asssures accurate targeting measurement.

Order No.	Description
Т 0563 0003	VAC Smart Probe Set (incl 405i, 410i, 605i, 805i, and case)
T 0560 1405	405i Hot Wire Anemometer Smart Probe
T 0560 1410	410i Vane Anemometer Smart Probe
T 0560 1605	605i Humidity Smart Probe
T 0560 1805	805i IR Thermometer Smart Probe
T 0516 0260	VAC Smart Probe Case

Smart App Enabled WIRELESS Probes for Climate

Order no. 0563 0003

Testo Smart Probes VAC set - Smart and Wireless Probe Kit

