

cps[®]

PROFESSIONAL AIR CONDITIONING AND REFRIGERATION PRODUCTS

cpsLinkPro™



BLACKMAX[®]



COMPUTE-A-CHARGE[®]



Pro-Set[®]



5-2-1[®] COMPRESSOR SAVER[®]



Leak-Seeker[®]



cpsproducts.com

✓ LOWER FLAMMABILITY
A2L READY!

A2L READY!

LOWER FLAMMABILITY

Check out our full line of
A2L compatible products



VPBM Series
BlackMax® Vacuum Pumps
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TRS600 Series
PRO-SET® Sparkless Recovery Machines
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TRS21 Series
PRO-SET® Original Sparkless Recovery Machines
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MBA4P5Z
BlackMax® R-32, R-410A, R454B Manifold Gauge Hose Set
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MV4A4P5EZ
BlackMax® R-32, R-410A, R454B Manifold Gauge Hose Set
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MT2A7P5E
Pro-Set® R-32, R-410A, R454B Manifold Gauge Hose Set
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MBAP5
CPS® R-32, R-410A, R454B Manifold Gauge Hose Set
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HP5YELH
Premium Pro-Set® Hoses with LH Threads
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HP5LH
Premium Pro-Set® Hose Sets with LH Threads
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AD44LH
1/4" M x 1/4" FM Left Hand Adapters
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AD44LHS
1/4" M x 1/4" FM Left Hand Adapters
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CPS MERCHANDISING 83



100,00 sq ft. manufacturing and quality assurance plant, Miami, FL



Innovation center and office headquarters, Miramar, FL

CPS® HVAC/R BRANDS

Built by technicians, for technicians

Our brands offer a comprehensive range of premium HVAC tools and equipment, trusted by professionals worldwide.

5-2-1®

Advanced Equipment Protection Solutions

Our equipment protection range includes Compressor Saver® potential relay and start capacitors, utilizing the approved 3-wire method endorsed by all original equipment manufacturers, along with surge protectors, ensuring the longevity and efficiency of your HVAC systems.

BLACKMAX®

Premium HVAC Tools and Equipment

Our premium line encompasses HVAC manifolds, tubing and cutting tools, refrigerant recovery equipment, and vacuum pumps, offering unparalleled quality and reliability.

COMPUTE-A-CHARGE®

Trusted Choice for Charging/Recovery Scales

Recognized as the foremost brand of charging/recovery scales, Compute-A-Charge has earned the trust of OEMs and professional service technicians for over 30 years.

LEAK-SEEKER®

Setting the Standard in Leak Detection

Synonymous with high performance refrigerant leak detection for over 30 years, Leak-Seeker® leak detectors feature patented E_MOS® leak detection technology, boasting unparalleled sensitivity, stability, reliability, and accuracy. With the longest sensor life on the market today, they've set the standard for excellence. (U.S. Patent # 8,555,701)

PRO-SET®

The Workingman's Choice

Pro-Set is the preferred line of value HVAC instruments, hand tools, manifolds, recovery equipment, and vacuum pumps for the discerning professional. Delivering top-notch value, Pro-Set is the choice of workingmen everywhere.

ABOUT CPS®

Pioneering Solutions for Service Technicians

At CPS Products, innovation is ingrained in our DNA. Conceived by technicians, we've refined our expertise to craft state-of-the-art tools tailored for professional HVACR service technicians. Our steadfast dedication is to elevate the diagnostic process, empowering technicians to execute with unmatched precision and efficiency, ultimately exceeding customer expectations.

CPS Products, Inc. caters to diverse industries, delivering purpose-built, industry-specific innovations through an extensive portfolio of HVACR testing equipment, scales, recovery and evacuation machines, leak detectors, manifolds, hoses, gauges, tools, access fittings, adapters, and specialty valves.

Headquartered in South Florida, our company boasts a global workforce of over 200 professionals engaged in engineering, product development, manufacturing, testing, and distribution. As one of the few remaining authentic manufacturing entities in South Florida, CPS Products proudly holds over 80 patents and occupies more than 150,000 square feet spread across multiple facilities.

NEW PRODUCTS

High Output True UV LED Lights..... page 11

Precise, true UV wavelength and bandwidth to optimize the fluorescence of UV dyes.

Pro-Set® 5-ft Safemate™ Hoses..... page 38

SafeMate™ prevent refrigerant loss with a screw-down core depressor. Offset knobs reduce the risk of refrigerant burns. Swivel “T” valve prevents loosening during use.

Combustible Gas Leak Detector..... page 53

Detects up to 30 combustible gases to 10 ppm— Best in its class!

R-454B Manifolds page 64

Choose from a selection of A2L refrigerant-ready 4-valve or 2-valve manifold bodies.

BLACKMAX® Vacuum Pumps..... page 74

Custom designed for HVACR pros. Featuring unparalleled power, lightweight construction, and variable speed operation.

BLACKMAX® Fast-Vac Fittings page 77

Increases the speed of any vacuum pump or recovery machine with 1/4", 3/8", 1/2" and 1/4" connections.

CPS LINK PRO™

Elevating Diagnostic Precision

Exclusively designed for use with CPS digital tools and test instruments, CPS Link Pro™ ensures CPS products remain at the forefront of accuracy, speed, and reliability in measurement.

Awarded U.S. Patent 1,043,161, CPS Link Pro™ harnesses the combined power of smart devices and our proprietary measurement technology, enhancing diagnostic and service capabilities.

CPS Link Pro™, available for both Android and iOS devices, serves as the bridge between the cutting-edge measurement technology integrated into CPS digital products and the user. This seamless integration offers unmatched cross-platform flexibility, setting a new standard in diagnostic solutions.

INVENTORS HUB

Innovative Solutions for Service Technicians

At CPS Products, innovation runs in our DNA. Born from the minds of technicians, we've honed our craft to design cutting-edge Tools for the Professional Service Technician. Our unwavering commitment is to enhance the diagnostic experience, enabling technicians to perform with unparalleled precision and speed, ultimately delighting customers.

We extend a warm invitation to ingenious technicians who dream big and strive for excellence. Collaborate to revolutionize the field by sharing your groundbreaking ideas and inventive solutions. Whether it's a new product that addresses a crucial gap or an ingenious improvement to an existing tool, your vision could shape the future of technician tools.

Imagine this—Your idea is selected, developed, and transformed into a market-ready reality. But that's not all – your dedication and brilliance deserve recognition. As your brainchild becomes a thriving product, you'll earn royalties for every unit that finds its way to eager hands. It's not just about partnership; it's about realizing your potential and being rewarded for your innovation. Join us at CPS Products, where your ideas become tools of transformation. Learn more at cpsproducts.com/support/inventors-hub/

CPS® PRODUCT GUARANTEE

Industry-leading commitment to quality

CPS guarantees all products are free of manufacturing and material defects for one year from the date of purchase.

If a product should fail during the guarantee period due to defective material or workmanship, it will be repaired or replaced (at our office) at no charge.

This guarantee does not apply to products that have been altered, misused, or are in need of field service maintenance. All repaired products carry an independent 90 day warranty.

ADAPTERS

Image	Part No.	Qty	Left Side	Right Side	Application	Replacement Parts
	AD14	1	1/4" SAE male w/ cap & valve core	14mm male	Automotive coupler adapter	HX14R 14mm O-rings (10 pk)
	AD24 AD24B	6 100	1/8" MNPT female	1/4" SAE male w/ cap & core	Manifolds	AVS1 1/8" valve cores (10 pk)
	AD41	1	1/4" SAE male	3/4"-14 female	125 lb. Tank adapter	ADXFW Fiber washers (6 Pk)
	AD44 AD44B	6 100	1/4" MNPT	1/4" male w/ cap & core	Manifolds	AVS1 1/8" valve cores (10 pk)
	AD44LH	1	1/4" SAE male	1/4" SAE female w/left hand thread	A2L cylinders	AVS1 1/8" valve cores (10 pk) HXG 1/4" hose gaskets (10 pk) HXD 1/4" core depressors (10 pk)
	AD44LHS	1	1/4" SAE male w/55° bend	1/4" SAE female w/left hand thread	A2L cylinders	AVS1 1/8" valve cores (10 pk) HXG 1/4" hose gaskets (10 pk) HXD 1/4" core depressors (10 pk)
	AD47	1	1/4" SAE male	1/4" SAE male	Union for 1/4" hoses	AVS1 1/8" valve cores (10 pk)
	AD48	3	1/2" ACME male	1/4" SAE female	Automotive	AVS1 1/8" valve cores (10 pk)
	AD64	1	5/16" SAE male	1/4" SAE female	Vacuum pumps, manifolds, hoses	AVS1 1/8" valve cores (10 pk) HXG 1/4" hose gaskets (10 pk) HXD 1/4" core depressors (10 pk)
	AD78 AD78B	1 100	5/16" SAE male	5/16" SAE female	Manifolds, Hoses, Equipment	AVS1 1/8" valve cores (10 pk) HXG2 5/16" 1/2" ACME gaskets (10 pk) HXD 1/4" core depressors (10 pk)
	AD84 AD84B	3 100	1/4" SAE male	1/2" ACME female	Automotive	AVS1 1/8" valve cores (10 pk) HXG2 5/16" 1/2" ACME gaskets (10 pk) HXD 1/4" core depressors (10 pk)
	AD87 AD873 AD87B	1 3 100	1/4" SAE male	5/16" SAE 1/2"- 20 female	Manifolds, Hoses, Equipment	AVS1 1/8" valve cores (10 pk) HXG 1/4" hose gaskets (10 pk) HXD 1/4" core depressors (10 pk)
	AD87S AD873S AD87SB	1 3 100	1/4" SAE male w/55° bend	5/16" SAE 1/2"- 20 female	Manifolds, Hoses, Equipment	AVS1 1/8" valve cores (10 pk) HXG 1/4" hose gaskets (10 pk) HXD 1/4" core depressors (10 pk)
	AVS44	3	1/4" male w/ cap & core	1/4" female swivel	Manifolds, Hoses, Equipment	AVS1 1/8" valve cores (10 pk)

TEE CONNECTORS

Image	Part No.	Qty	Left Side	Right Side	Run (Tee)	Replacement Parts
	AVT2P	3	1/4" SAE male w/ cap and core	1/4" SAE male	1/8" MNPT	AVS1 1/8" valve cores (10 pk)
	AVT4	3	1/4" SAE male w/ cap & core	1/8" MNPT	1/4" SAE male manifold tee	AVS1 1/8" valve cores (10 pk)
	AVT44	3	1/4" SAE male	1/4" SAE female swivel hex nut	1/4" SAE male w/ cap & core	AVS1 1/8" valve cores (10 pk)
	AVT45	3	1/4" SAE male	1/4" SAE female knurl w/ cap & core	1/4" SAE male	AVS1 1/8" valve cores (10 pk) HXG 1/4" hose gaskets (10 pk) HXD 1/4" core depressors (10 pk)
	AVT45LH	3	1/4" SAE male	1/4" SAE female knurl w/ left hand thread	1/4" SAE male	AVS1 1/8" valve cores (10 pk) HXG 1/4" hose gaskets (10 pk) HXD 1/4" core depressors (10 pk)
	AVT48	1	1/4" SAE male	1/4" SAE female knurl	1/2" ACME male	AVS1 1/8" valve cores (10 pk) HXG 1/4" hose gaskets (10 pk) HXD 1/4" core depressors (10 pk)
	AVT64 AVT64B	3 100	1/4" SAE male w/ cap and core	1/4" SAE male	1/4" SAE female hex	AVS1 1/8" valve cores (10 pk)
	AVT87	1	1/4" SAE male	5/16" SAE female knurl	1/4" SAE male	AVS1 1/8" valve cores (10 pk) HXG 1/4" hose gaskets (10 pk) HXD 1/4" core depressors (10 pk)

CAPS








Image	Part No.	Qty	Description
	AVC4 AVC425 AVC4B	10 25 100	1/4" SAE brass caps
	AVC410	10	R-410A 5/16" (1/2"-20 UNF*) brass caps
	AVC4PB	100	1/4" SAE plastic caps (bulk)
	AVC6P	3	3/8" SAE plastic caps

Image	Part No.	Qty	Description
	AVC4R	6	1/4" SAE brass cap w/ core remover
	AVCVAC	1	Vacuum pump brass cap & chain kit: 1/4", 1/2" ACME, 3/8", 1/2" SAE
	AVC4C	2	1/4" SAE brass caps w/ chain tether

*UNF= Unified National Fine Thread

COPPER TUBE EXTENSIONS

Available with standard or wrench caps

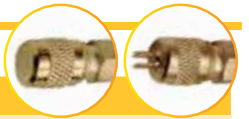


Image	Part No.	Qty	Outer Diameter	Inner Diameter	
	AV2	6	1/8"	1/16"	
	AV2R	6	1/8"	1/16"	with remover cap
	AV3	6	3/16"	1/8"	
	AV3B	100			
	AV3R	6	3/16"	1/8"	with remover cap
	AV4	6	1/4"	3/16"	
	AV4B	100			
	AV4R	6	1/4"	1/4"	with remover cap
	AV4410	6	5/16" (1/2"-20) ACCS, 1/4" O.D.	3/16"	
	AV4410B	100			
	AV5	6	5/16"	1/4"	
	AV5B	100			
	AV5R	6	5/16"	1/4"	with remover cap
	AV6	6	3/8"	5/16"	
	AVB46	6	1/4"	3/8" SLDR	

COPPER TUBE BRAZE TEES

Core tool included



Image	Part No.	Qty	Tube O.D.	Fitting
	AVCT4	3	1/4" SAE	1/4" SAE Male w/ Cap & Core Remover
	AVCT5	3	5/16" SAE	1/4" SAE
	AVCT6	3	3/8" SAE	1/4" SAE
	AVCT8	3	1/2" SAE	1/4"
	AVCT10	1	5/8" SAE	1/4"
	AVCT12	1	3/4" SAE	1/4"
	AVCT14	1	7/8" SAE	1/4"
	AVCT18	1	1-1/8" SAE	1/4" SAE

MULTI-STEP BODIES

Precision machined for exact fit

	Part No.	Qty	I.D.	O.D.
	AVB34	6	3/16"	1/4" SLDR
	AVB346	6	3/16"	1/4" x 3/8" SLDR
	AVB456	6	1/8"	3/16", 1/4", 5/16" SLDR

VALVE CORE TOOLS

CPS valve cores are designed for the efficient removal and replacement of damaged cores in systems under pressure. Their construction allows for the complete removal of valve cores, contributing to an accelerated evacuation and charging process. Precision machined from high-quality materials, CPS valve cores ensure long-lasting durability and leak-free service, making them a reliable choice for maintenance tasks.



BENEFITS OF A SIDE ACCESS PORT

- Enables connection of a vacuum gauge directly at the system
- Close ball valve to isolate the vacuum gauge and system from all service hoses, manifold & pump connections while performing a pressure rise test
- Eliminates possibility of introducing air into a system when transitioning from evacuation to charging process

Image	Part No.	Qty	Description
	TLVC	1	1/4" Female x 1/4" Male SAE Core Remover & Installer Tool
	TLVC1	1	Pocket Valve Core Tool w/ 4 Spare Cores
	TLVC2	1	Dual Valve Core Tool (1/4" SAE Valves & Auto R-134a Valves)
	TLVC410	1	1/2-20" Valve Core Remover Tool
	TLVC410A	1	5/16" Female x 1/4" Male Mini-Split Valve Core Tool
	TLVCS	1	1/4" SAE Valve Core Remover Tool w/ Side Port
	TLVCS410	1	1/2-20 Valve Core Remover Tool w/ Side Port
	TLVCS410A	1	5/16 Female x 1/4 Male Core Tool, 1/4 Male Side Port

VALVE CORES

Compatible with all refrigerants

	Part No.	Qty	Description
	AVS1	10	Bulk packs of 1/8" cores
	AVS125	25	
	AVS1B	100	
	AVS1V	6	1/8" cores in plastic vial and SAE brass cap

UV LEAK DETECTION KIT



Step 1: Load cartridge.



Step 2: Connect and bleed hose.



Step 3: Inject, then discard empty cartridge.

UV55

Refrigerant UV Dye Leak Detection Kit Includes

- Carrying case and instructions
- Squeeze injector, mess-free and easy-to-use (#UVNJS)
- Universal OEM approved dye cartridge (#UVS2)
- MoonLight™ flashlight and 3 AAA batteries (#UVPRO)
- UV enhancing safety glasses (#471112)
- R-34a 90° low side snap coupler
- Pro-Set® premium ball valve hose extension (#HTBE)



DYE CARTRIDGES

Moonshine™ Dye Cartridges

- For use with #UVNJS squeeze gun injector
- Cleanest, easiest and fastest method of injection
- 4 sizes to match capacity of system
- Locates source of air entering system
- Eliminates over-injection of dye
- All dyes include I.D. labels



UVS101
Small
1/4 oz.

- Small ice machines, window units, appliances
- For systems containing up to 2.9 lb (1.3 kg) refrigerant



UVS1
Medium
1/4 oz.

- Medium residential systems
- For systems containing up to 3-4.9 lb (1.4-2.2 kg) refrigerant



UVS2
Medium/Large
1/2 oz.

- Light commercial/large residential
- For systems containing up to 5-9.9 lb (2.3-4.5 kg) refrigerant



UVS3
Large
3/4 oz.

- Large commercial/light industrial
- For systems containing up to 10-25 lb (4.6-11.4 kg) refrigerant

UNIVERSAL DYE



UVUDS
Moonshine™ Universal A/C Dye
1 oz. (30 ml) bottles 6 pack

- Lowest cost per application



UVUD6
Moonshine™ Universal A/C Dye
8 oz. (237 ml) 6 pack

- Built-in measuring cap (1/4 & 1/2 oz.)
- Lowest cost per application
- Excellent for large systems

OIL & DYE INJECTORS



UVNJ

Inline Oil & Dye Injector

1/4 to 1/2 oz. (7.5 to 14ml)

- For adding oil or dye to a charged or evacuated A/C or refrigeration system
- Refillable and expandable universal dye injector
- 1/4" SAE male and female fittings
- Moonshine™ dye sold separately



TLJ2

Inline Oil & Dye Injector

1/4 oz. to 2 oz. (7.5 ml to 60 ml)

- For adding oil or dye to a charged or evacuated A/C or refrigeration system
- Refillable and expandable universal dye injector
- 1/4" SAE male and female fittings
- Moonshine™ dye sold separately

CHEMICALS

UV LIGHTS



UVPRO

Moonlight™ Flashlight

Our MoonLight™ flashlight is the most compact and efficient ultraviolet light we have ever designed. It contains nine high intensity, true ultraviolet LED engineered to maximize the fluorescing capabilities of today's most commonly used detection dyes used in AC systems, while greatly reducing the amount of "nuisance" background blue light emitted.

- Operates 8 hr (continuous on)
- Inspection range up to 3-ft (0.9 m)
- 100,000 hour LED life
- Instant "ON" with no heat produced
- Works with all common dye additives



NEW

EW42085

PICO™ UV Leak Detection Light

Professional UV light delivers big performance in a compact design. Easily detects leaks with greater luminosity and 395nm wavelength.

- Precise, true UV wavelength and bandwidth to optimize the fluorescence of UV dyes

- Fixed beam focus
- Durable aluminum alloy construction
- Water resistant
- Pocket clip to secure to clothing
- Requires 2 x AAA batteries (Batteries not included)
- 6-month manufacturer's limited warranty



NEW

EW50395

Phazer™ NEO 395

395NM UV Leak Detection Light Rechargeable

- High output true UV LED light
- The UV dye shines brighter with the Phazer™ Neo than with any other light
- Precise, true UV wavelength and bandwidth to optimize the fluorescence of UV dyes
- Maintains constant power output throughout the charge
- Over 5 hours of optimal battery usage with a single charge

- Adjustable zoom lens allows for focusing light intensity in a smaller/larger area for precision viewing
- Durable aluminum alloy construction
- A rechargeable Lithium-Ion battery provides years of trouble-free battery life
- Water resistant

INCLUDES

- USB cable
- UV enhancing glasses
- Wrist strap



MiST™ X-Treme is here!

Combine the MiST Service with the new X-Treme sanitizing solution for a complete and safe restoration of the interior air quality.

MiST™ X-Treme Sanitizing Kits are designed to disinfect and sanitize vehicle interior touch points while treating the entire HVAC system and interior air spaces for sources of mold, mildew and bacteria.

Award-winning complete vehicle service

MiST™ penetrates the entire ventilation system and passenger compartment surfaces to restore interior air quality. MiST is a safe, simple and effective service that targets the health of the driver. MiST is the perfect preventive maintenance (PM) service because it can be run on any vehicle, leased or owned that comes into your shop, regardless of year, make, model or mileage.



590275

MiST™ X-Treme Sanitizing Spray 12 pack

- EPA registered and effective against bacteria, including MRSA and viruses such as Covid-19
- Allow sprayed on solution to remain in place during the entire MiST service then wipe away any excess
- One bottle will treat up to 12 passenger cars/light trucks
- Sold in cases of 12 – 32 oz. bottles w/ sprayer

590250SK

MiST™ X-Treme Sanitizing Kit Original Scent

- 1 Qt (590275) MiST X-Treme w/sprayer
- 12 Bottles (590250) MiST Cleaning Solution
- MiST Ultrasonic Machine sold separately
- 12 MiST X-Treme Service Vent Tags
- 24 MiST X-Treme Point of Sales Brochures

590260SK

MiST™ X-Treme Sanitizing Scented Kit

- 1 Qt (590275) MiST X-Treme w/sprayer
- 12 Bottles (590260) MiST Remarketing Solution
- MiST Ultrasonic Machine sold separately
- 12 MiST X-Treme Service Vent Tags
- 24 MiST X-Treme Point of Sales Brochures



590250

MiST™ Cleaning Solution
12 pack

- MiST service for vehicle interiors and ventilation system
- Designed for exclusive use with MiST Ultrasonic unit (Single application)



590260

MiST™ Auto Remarketing
12 pack

- Specially designed for used cars to treat mold, mildew and bacteria in the HVAC system and cabin of a vehicle
- Designed for exclusive use with MiST Ultrasonic unit (Single application)



400-0501

MiST™ Ultrasonic Solution

- Fresh scent! Cleans and restores the vehicle's HVAC system and cabin
- Designed to work with the CarClean™ System

CHEMICALS

MiST™ ULTRASONIC CLEANING UNIT



590160

MiST™ Ultrasonic Cleaning Unit
Portable 12V DC ultrasonic machine

- Nano-droplet delivery system of a specially formulated cleaning solution
- Fast service time
- Unattended operation
- Automatic shut-off upon completion



590160P

MiST™ Starter Pack

- Includes MiST ultrasonic cleaning unit
- (2) cases of 12 MiST ultrasonic cleaning solution



590155

MiST™ Adapter

12V Battery extension cord with accessory outlet (12ft)

MiST™ VENT CLIP AIR FRESHENERS

Clip-on vent. Fragrance leaves vehicle smelling clean and fresh



590235

Summer Breeze
12 pack



590236

Spicy Apple
12 pack



590237

Citrus
12 pack



590238

Vanilla
12 pack



590239

Clean Car
12 pack

5-2-1[®] COMPRESSOR SAVER[®]

Approved by *all major* compressor manufacturers.

Professional A/C technicians recommend the use of a Compressor Saver[®] device on residential A/C systems to extend the life of the unit's compressor.

5-2-1[®] Compressor Saver[®]

Start-up is the most punishing task for any type of electrical equipment due to the surge of current when power is first applied. A/C compressors can consume up to 45,000 watts!

The 5-2-1 Compressor Saver[®] significantly reduces the time the compressor draws high amperage at start-up by combining a powerful multi-layer starting capacitor with a smart switch to safely give the compressor the burst it needs to start up quickly and reliably, while drawing less power. Less power means lower energy bills, too.

FEATURES

- For scroll/reciprocating compressors
- 208 to 240V
- Comes pre-assembled
- 3 year product warranty

BENEFITS

- Reduces damaging in-rush current by up to 50%
- Adds years to the life of your compressor and other electrical components associated with your A/C system
- Perfect add-on service for HVAC technicians—high profit, easy and fast to install, and easy to sell
- Customers experience immediate benefits
- Homeowners save money by using less energy
- Start air conditioners that are breaking down
- Eliminate system stress



EQUIPMENT PROTECTION

**Reduces
Damaging
In-Rush
Current up
to 50%!**

In-rush current can damage the compressor's motor and that motor may start up more than 6,000 times in a single cooling season.



Amp measurement with 5-2-1[®] Compressor Saver[®]



Amp measurement without 5-2-1[®] Compressor Saver[®]

5-2-1® COMPRESSOR SAVERS

Protect your customers while earning additional profits.

ADD YEARS TO THE LIFE OF THE A/C

5-2-1® Compressor Saver provides the A/C compressor with a precise boost during start-up. As a result, the compressor stabilizes faster, exposure to heat is reduced and the compressor life is extended.



CSRU1

5-2-1® Compressor Saver®

1 to 3 ton units
88 - 108 µF



CSRU2

5-2-1® Compressor Saver®

3½ to 5 ton units
189 - 227 µF



CSRU3

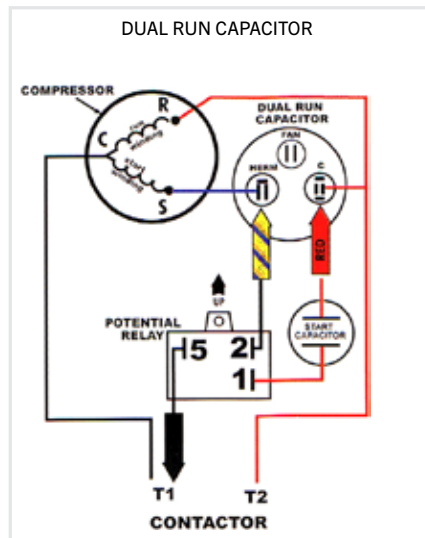
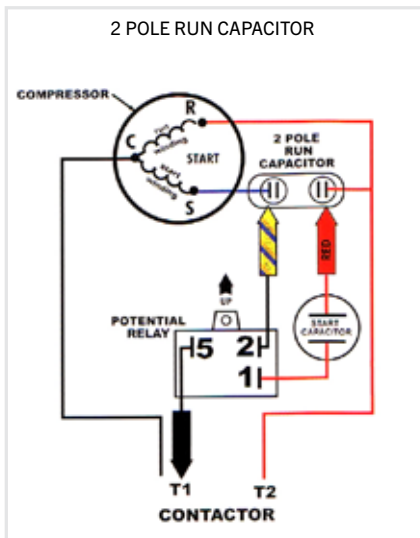
5-2-1® Compressor Saver®

4 to 5 ton units
270 - 374 µF

EQUIPMENT PROTECTION

EASY INSTALLATION

The 5-2-1® Compressor Saver® has been pre-wired for your convenience. There are only 3 color coded wires which need to be connected. The Black wire connects to the Common side of the compressor. The Striped wire connects to the Start winding of the compressor and the Red wire connects to the Run winding of the compressor.



Scan our QR code to view videos and learn more about the 5-2-1® Compressor Saver®

5-2-1[®] SURGE PROTECTOR

5-2-1[®] Surge Protection devices are designed to protect HVAC equipment and other high-end appliances from damaging electrical surges produced by proximity lightning strikes and other power line transients. They are engineered using the latest in Thermally Protected Metal Oxide Varistor (MOV) technology, and are independently tested to ensure superior protection and reliability.

EQUIPMENT PROTECTION



TPSPD Shown



5-2-1® SURGE PROTECTORS

Get maximum protection for the most expensive equipment in your home.



TPSPD

Thermally Protected Surge Protection Device

- Latest in thermally-protected metal oxide varistor (MOV) technology
- Highest Short Circuit Rating (SCCR) in its class
- 100,000 amp maximum surge protection
- LED Indicator: Green ON = Surge protection device active. Green OFF = Replace surge protection device.
- Independently tested to ensure superior protection

BEST-IN-CLASS, MAXIMUM SURGE PROTECTION

- Single Phase Surge Protection
- Circuit Boards
- Air Conditioners
- Furnaces
- Heat Pumps
- Refrigeration Systems

PROFESSIONAL SURGE PROTECTION

- Protects against power surges
- Protects against lightning strike surges
- Protects against utility grid “spikes”
- Protects vital system components



Watch the video by scanning the QR Code.

EQUIPMENT PROTECTION

Service Voltage (VAC)	120/240 (Single - Split Phase), 50 or 60 Hz
Short Circuit Rating (SCCR)	200kA
Nominal Discharge Current Rating	20kA
Maximum Continuous Operating Voltage (MCOV)	150VAC L-N 300VAC L-L
Voltage Protection Rating (VPR)	800VAC L-N/G 1200VAC L-L
Operating Temperature	14°F (-10°C) to 122°F (50°C)
Approvals	UL 1449 4th Edition, ANSI, cUL
Packaging	Clamshell, with wiring instructions enclosed
Warranty	3 year Product Warranty and Connected Equipment Warranty up to \$10,000

BRAZING & SOLDERING

HAND TOOLS



BRHT1
Hand Torch
 Auto-ignite torch

- Adjustable flame control
- For use with MAPP and propane
- CGA600 inlet connection
- Cast aluminum and stainless steel burn tube construction
- Flame lock button, precise flame adjustment
- Clamshell packaging

REPLACEMENT PARTS
 Torch Tip BRXHTST1



BRHT5
Hand Torch with 5-ft Hose and Valve
 Auto-ignite torch

- Adjustable flame control
- For use with MAPP and propane
- CGA600 inlet connection
- Brass regulator, composite handle & stainless steel burn tube
- New brass regulator w/5 ft hose and valve
- Clamshell packaging



BRHTS1A
Swivel Hand Torch
 Auto-ignite torch

- Adjustable flame control
- For use with MAPP and propane
- CGA600 inlet connection
- Brass regulator & stainless steel burn tube
- Torch tube swivels 360 degrees, operates in any position
- Clamshell packaging

REPLACEMENT PARTS
 Torch Tip BRXHTST1



BRHTS1
Swivel Hand Torch
 Manual Ignition

- Adjustable flame control
- For use with MAPP and propane
- CGA600 inlet connection
- Clamshell packaging

REPLACEMENT PARTS
 Torch Burner/
 Tube Assembly BRXHTS1



BRRN1
Nitrogen Regulator

- UL Listed
- Delivery pressure 0-400 PSI
- Easy-to-read gauges with protective rubber gauge boots

GEAR AND HUB PULLERS



BTLGP4

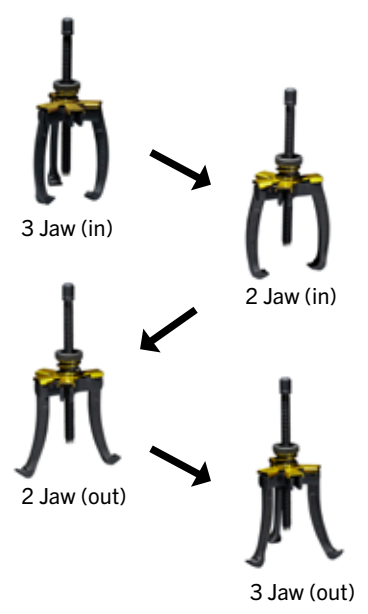
Description	3" to 4" (76 to 102mm)
Jaw Reach	3.75" (95mm)
Jaw Spread	11.5" (292mm)
Max. Force	24,000 lbs (106,500 N)
Removable and Reversible Jaws	2 or 3 (quick change, spring loaded)



BTLGP7

Description	3" to 7" (76 to 178mm)
Jaw Reach	5.5" (140mm)
Jaw Spread	17" (432mm)
Max. Force	42,000 lbs (186,500 N)
Removable and Reversible Jaws	2 or 3 (quick change, spring loaded)

Loosen spring loaded collar to change from 3 to 2 jaw (facing in or out) in seconds



INSPECTION MIRRORS



TLMIR1

Circular Inspection Mirror

- Diameter 1.25" (32 mm)
- Length 7"~19.5" (178 mm ~ 495 mm)



TLMIR2

Circular Telescoping Mirror

- Diameter 2" (51 mm)
- Length 12"~18" (305 mm ~ 457 mm)



TLMIR3

Rectangular Telescoping Mirror

- Mirror size 2" X 3-1/2" (51 mm X 90 mm)
- Length 13-1/4" ~ 19-3/8" (286 mm X 492 mm)



TLMIR4

Oval Telescoping Mirror

- Mirror size 1" X 2" (25 mm X 51 mm)
- Length 9" X 18-1/8" (23 mm X 46 mm)

OIL HAND PUMP



TLOP

Hand Oil Pump

- Removes oil from systems for recovery and conversion
- Adds oil to systems (2.6 oz. /78 ml) per stroke against 200 psi pressure
- Universal stopper fits standard openings in 1, 2-1/2 and 5 gallon oil containers
- Automatic bleed valve equalizes pressure inside and outside of the oil container
- Use with alkyl-benzene, ester-based, polyol ester, mineral and synthetic oils. (not for use with ammonia laden oil)
- Suction transfer hose and fittings included

SOLENOID VALVE TROUBLESHOOTING MAGNET

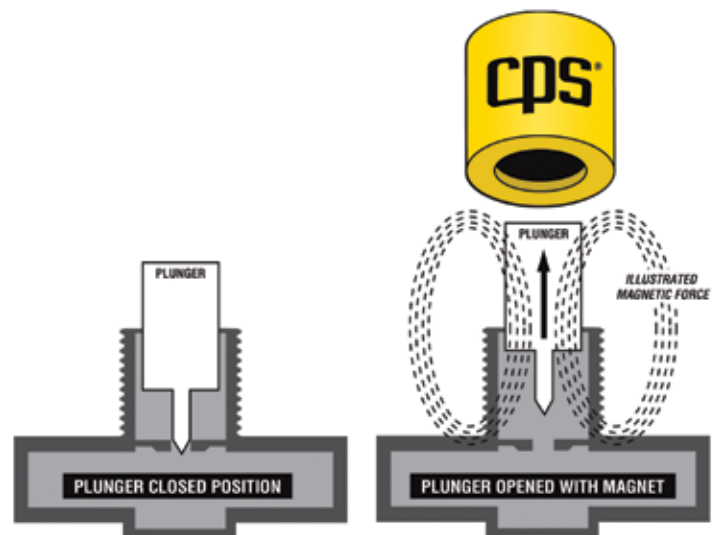


TLMKC18

Solenoid Magnet

The TLMKC18 is designed to manually open solenoid valves by magnetically lifting the stem assembly and plunger. Simply slide the TLMKC18 over the valve's enclosing tube and the industrial grade magnets incorporated inside the rugged ABS plastic housing does the rest. It is an ideal tool for trouble shooting/ servicing both direct connected or pilot operated 2-way solenoid, 3-way reclaim or 4-way reversing valves.

- 0.75"/18 mm opening fits all common manufactured valves



FIN STRAIGHTENING TOOLS



TLFC6

Universal 6-sided Fin Comb Straightening Tool

- Repair bent condenser fins
- For 8,9,10,12, 14 or 15 fins per inch



TLFC1

Universal Metal Fin Comb

- Adjustable wire spacing for straightening all condenser fins



TLFC2

Universal Fin Straightener

- Large durable, easy grip handle
- Easily straightens bent or obstructed fins that restrict airflow and reduce performance

HAND TOOLS

SPECIALTY TOOLS



TLMSP

6-in-1 Swaging Punch

3/16", 1/4", 5/16", 3/8", 1/2", 5/8"

- Swages six sizes of tubing
- Chrome plated for strength and durability



TLPK

Swage Punch Set

1/4", 5/16", 3/8", 1/2", 5/8"

- Includes 5 swage punches



TLPORR

Pinch-Off & Re-Round Tool

1/4", 5/16", 3/8", 1/2"

- Pinch-off and reround copper and tubing



TLPP

Tube Piercing Pliers

- Tube Piercing Pliers 1/4"
- TLPPX Replacement Tip
- Quick release handle



TLPO

Pinch-Off Pliers

- Tool locks onto tubing to prevent loss of refrigerant during service
- Rounded jaws to avoid cutting tubing
- 1 year warranty



TCAP

Capillary Tube Cutter

- Cleanly cuts all types of refrigerant capillary tubing without constricting, swaging or flattening



TLBP68

Small Tool Storage Pouches (3-pack)

Great for organizing small parts & tools, fasteners, adapters, fittings, wire nuts, cash, receipts, etc.

- 6"V x 8.5"H
- Made of durable, long lasting 600D polyester, black color
- 3 pack of separate pouches, held together with D-ring
- Transparent bottom for easy content identification
- Internal construction includes one internal divider panel and expandable gusset
- Gusset allows pouch to "stand" while accessing contents
- Embroidered CPS logo
- Merchandising/UPC tag



TLBP712

Large Tool Storage Pouches (3-pack)

Great for organizing larger parts and tools, electrical meters, fittings, etc.

- 7"V x 12.5"H
- Made of durable, long lasting 600D polyester, black color
- 3 pack of separate pouches, held together with D-ring
- Transparent bottom for easy content identification
- Internal construction includes one internal divider panel and expandable gusset
- Gusset allows pouch to "stand" while accessing contents
- Embroidered CPS logo
- Merchandising/UPC tag



TLBAG1

Square Tool Organizer

- 10" x 10" (25 x 25 cm)
- Self-standing square tool organizer
- Large open-mouth design for easy access and visibility
- 15 external pockets and loops hold a wide variety of tools including 2 flap-covered pockets and 1 zipper pocket
- 7 internal loops with 2 sized for holding instruments
- Ergonomic carrying handle with adjustable shoulder strap



TLBAG2

Rubber Bottom Tool Organizer

- 9" x 16" (23 x 41 cm)
- Large open-mouth design for easy access and visibility
- Protective rubber bottom keeps tools dry in damp field conditions
- 15 external pockets and loops hold a wide variety of tools
- Ergonomic carrying handle with adjustable shoulder strap

MINI-SPLIT TOOL KITS

TLB410KIT2

Premium Plus Kit

- BLACKMAX Black and Chrome Series Manifold #MV4HP410A
- BLACKMAX Black & Chrome Premium Charging Hose Set #HP5BKEZ
- Vacuum Hose #HV5Z
- #BFT850 Flaring Tool
- #FTXSG Flare Gauge
- #BTLDTW Digital Torque Wrench
- #BTC300 Tube Cutter
- #BTLDB3 Deburring Tool
- Hex Wrench Set (1) # TLSWHM (Metric) and (1) # TLSWH (Imperial)
- #TLBAG2 Rubber Bottom Tool Organizer
- #TLVC410A, #TLVCS410 Valve Core Tool 1/2-20 Remover tool with side port
- (10) #AVC410, (2) #AD87, (2) #AD87S
- Assembled in USA



PREMIUM PLUS KIT

HAND TOOLS

TLB410KIT

Premium Kit

- Pro-Set Premium Piston Series Manifold #MT2HP-A1
- Pro-Set Premium (3) 5-ft red/blue/yellow ball valve charging hoses
- #BFT850 Flaring Tool
- #FTXSG Flare Gauge
- Universal Handle with SAE Heads #TLTWSAE (5/8, 11/16, 13/16 15/16, 1-1/16, 1-5/16) and Metric Heads #TLTWSM (17,22,24,26,27,29mm)
- Hex Wrench Sets (1) # TLSWHM (Metric) and (1) #TLSWH (Imperial)
- #BTC300 Tube Cutter
- #BTLDB3 Deburring Tool
- #TLBAG2 Rubber Bottom Tool Organizer
- #TLVC410A Valve Core Tool 5/16 FM x 1/4M, 1/4M Side Port
- (10) #AVC410, (2) #AD87, (2) #AD87S
- Assembled in USA



PREMIUM KIT

TLB410A

Installer/Service Kit

- Pro-Set Piston Pink Body 1/4" SAE 45° fittings with H-Gauge #MEHP5E-A1
- Pro-Set Premium (3) 5-ft red/blue/yellow ball valve charging hoses
- FT800N Flaring Tool
- Metric Handle and Metric Heads #TLTWSM (17, 22, 24, 26, 27, 29 mm)
- Hex Wrench Sets (1) # TLSWHM (Metric) and (1) #TLSWH (Imperial)
- #TLVC410A Valve Core Tool
- #TLBAG1 Square Tool Organizer
- #TLVC410A Valve Core Tool 5/16 FM x 1/4M, 1/4M Side Port
- (10) #AVC410, (2) #AD87, (2) #AD87S
- Assembled in USA



HAND TOOLS

TOOL KIT CONTENT COMPARISON

Components	TLB410KIT2 Premium Plus Kit	TLB410KIT Premium Kit	TLB410A Installer/Service Kit
Manifold	BLACKMAX® 4-Valve Black and Chrome Series Manifold MV4HP410A	Pro-Set® 2- Valve Premium Piston Series Manifold MT2HP-A1	Pro-Set® 2- Valve Pink Piston Body 1/4" SAE 45° fittings with H-Gauge MEHP5E-A1
Hoses	BLACKMAX® Black & Chrome Premium Charging Hose Set HP5BKEZ and Vacuum Hose HV5Z	(3) Pro-Set® Premium 5-ft red/blue/yellow ball valve charging hoses HP5E	(3) Pro-Set® Premium 5-ft red/blue/yellow ball valve charging hoses HP5E
Flaring Tool	BFT850	BFT850	FT800FN
Flare Gauge	FTXSG	FTXSG	—
Torque Wrench Set	BTLDTW Digital torque wrench	Universal Handle with SAE Heads TLTWSAE (5/8, 11/16, 13/16 15/16, 1-1/16, 1-5/16) and Metric Heads TLTWSM (17,22,24,26,27,29mm)	Metric Handle and Metric Heads TLTWSM (17,22,24,26,27,29mm)
Tube Cutter	BTC300	BTC300	—
Deburring Tool	BTLDB3	BTLDB3	—
Hex Wrench Set	(1) TLSWHM (Metric) and (1) TLSWH (Imperial)		
Valve Core Tool	TLVC410A, TLVCS410, 1/2-20 Valve Core Remover tool with side port	TLVC410A (5/16 FM x 1/4M Core Tool, 1/4M Side Port	TLVC410A (5/16 FM x 1/4M Core Tool, 1/4M Side Port
Tool Bag Organizer	TLBAG2	TLBAG2	TLBAG1
Brass Adapters and Brass Caps	(10) #AVC410, (2) #AD87, (2) #AD87S		

BLACKMAX® PREMIUM TUBE CUTTERS

Ultra mini to small



Set N Cut™
Precision Cuts Every Time

BTC100

BLACKMAX® Ultra Mini Tube Cutter

Cutting Range: 1/8" to 5/8" (4-16 mm) O.D.

Great for confined spaces

- Chromed, hardened cutting wheel
- Quick-release pin for fast cutting wheel replacement
- Soft/hard cut settings for copper, brass and aluminum tube
- Durable cast aluminum body
- Size (HWD) 1.9" x 1.5" x 0.6" (50 x 37 x 15 mm)

REPLACEMENT PARTS

Quick release pin BTCXP4
Nickel plated cutting wheel BTCXC3



Set N Cut™
Precision Cuts Every Time

BTC200

BLACKMAX® Mini Tube Cutter

Cutting Range: 1/8" to 7/8" (3-22 mm) O.D.

- Chromed, hardened cutting wheel
- Quick-release pin for fast cutting wheel replacement
- Soft/hard cut settings for copper, brass and aluminum tube
- Durable aluminum and rubber knob

REPLACEMENT PARTS

Quick release pin BTCXP1
Zinc plated cutting wheel BTCXC1
Titanium coated cutting wheel BTCXCT1

HAND TOOLS



Set N Cut™
Precision Cuts Every Time

BTC200R

BLACKMAX® Mini Ratchet Tube Cutter

Cutting Range: 1/8" to 7/8" (3-22 mm) O.D.

Excellent for small tube, confined spaces

- Use with or without ratchet handle
- Chromed, hardened cutting wheel
- Quick-release pin for fast cutting wheel replacement
- Soft/hard cut settings for copper, brass and aluminum tube
- Durable aluminum and rubber knob

REPLACEMENT PARTS

Quick release pin BTCXP1
Zinc plated cutting wheel BTCXC1
Titanium coated cutting wheel BTCXCT1
Plastic ratchet BTCXR



Set N Cut™
Precision Cuts Every Time

BTC300

BLACKMAX® Tube Cutter

Cutting Range: 3/16" to 1-1/4" (5 - 32 mm) O.D.

- For soft/hard copper, brass or aluminum tube
- Two chromed, hardened cutting wheels
- Quick-release pin for fast cutting wheel replacement
- Enclosed feed screw eliminates clogging, jamming

REPLACEMENT PARTS

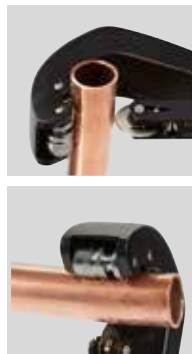
Quick release pin BTCXP1
Zinc plated cutting wheel BTCXC1
Titanium coated cutting wheel BTCXCT1

BLACKMAX® PREMIUM TUBE CUTTERS

Medium to large



Set N Cut™
Precision Cuts Every Time



BTC350

BLACKMAX® MEDIUM TUBE CUTTER

Cutting Range: 1/8" to 1-5/8" (3-41mm) O.D.

- For soft/hard copper, brass or aluminum tube
- Lightweight aluminum forged body
- Quick-release pin for fast cutting wheel replacement
- Chromed, hardened finish cutting wheel included

REPLACEMENT PARTS

Nickel plated cutting wheel BTCXC4



Set N Cut™
Precision Cuts Every Time



BTC500

BLACKMAX® Large Tube Cutter

Cutting Range: 3/8" to 2-5/8" (10 - 67 mm) O.D.

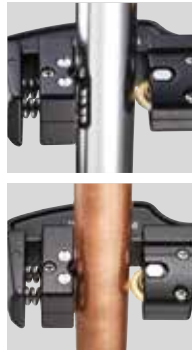
- For soft/hard copper, brass or aluminum tube
- Two chromed, hardened cutting wheels
- Quick-release pin for fast cutting wheel replacement
- Enclosed feed screw eliminates clogging and jamming
- Four grooved rollers for precise tube rotation
- Rapid adjustment with quick-slide feed mechanism
- Durable aluminum/rubber knob

REPLACEMENT PARTS

Quick release pin BTCXP3
 Chrome plated cutting wheel..... BTCXC2
 Titanium coated cutting wheel BTCXCT2



Set N Cut™
Precision Cuts Every Time



BTC400

BLACKMAX® Heavy Duty Tube Cutter

Cutting Range: 3/8" to 2-5/8" (10 - 67 mm) O.D.

- For soft/hard copper, brass, aluminum
- Stainless or steel conduit
- Two chromed, hardened cutting wheels
- Quick-release pin for fast cutting wheel replacement
- Enclosed feed screw eliminates clogging and jamming
- Four grooved rollers for precise tube rotation
- Also for stainless tube and electrical conduit
- Durable aluminum/rubber knob

REPLACEMENT PARTS

Quick release pin BTCXP2
 Chrome plated cutting wheel..... BTCXC2
 Titanium coated cutting wheel BTCXCT2

HAND TOOLS

BLACKMAX® PREMIUM TUBE CUTTER KIT

BLACKMAX® Premium Tube Cutters feature our patented **SetN Cut™** technology, the industry's most advanced tube cutting technology. With minimal readjustment needed, spring-loaded cutting wheels ensure a consistently precise cut on brass, copper, aluminum, and even slightly deformed tubes. Hardened and chromed cutting wheels offer unmatched durability, with optional replacement titanium wheels available. The quick release pin enables swift wheel replacement, optimizing efficiency.

HAND TOOLS



BTCK

BLACKMAX® 3-Piece Tube Cutter Kit

- Smooth cuts even on irregular tube
- Quick release pins for fast cutting wheel replacement
- Durable die cast and machined aluminum bodies
- Solid aluminum turning knobs (with rubber overmold on BTC200 & BTC300)
- Chromed, hardened finish cutting wheels for long life
- Smaller cutters (BTC100 & BTC200) are ideal for confined spaces
- Packaging: Blister card

KIT INCLUDES:



BTC100
Ultra Mini
1/8- 5/8" (3-16 mm)



BTC200
Mini
1/8-7/8" (3-22 mm)



BTC350
Medium Large
1/8-1-5/8"(3-41 mm)

SetN Cut™
Precision Cuts Every Time



HOW TO USE:

1. Insert tube into cutter throat.
2. Turn cutter knob until wheel touches tube.
3. Tighten knob until **Wheel Alignment Mark** aligns with **SOFT** (tube) or **HARD** (tube) **Hardness Indicator Lines**.
4. Rotate cutter around tube, until cut completed.

Wheel Alignment Mark

Spring

Hardness Indicator Lines

Spring loaded rollers

Spring loaded cutting wheel



BLACKMAX® TUBE CUTTER REPLACEMENT PARTS



Tube Cutter	Cutting range	Quick Release Pin	Nickel Plated Cutting Wheel	Zinc Plated Cutting Wheel	Chrome Plated Cutting Wheel	Titanium Coated Cutting Wheel	Ratchet Handle
BTC100	1/8-in to 5/8-in	BTCXP4	BTCXC3				
BTC200	1/8-in to 7/8-in	BTCXP1		BTCXC1		BTCXC1	
BTC200R	1/8-in to 7/8-in	BTCXP1		BTCXC1		BTCXC1	BTCXR
BTC400	1/4-in to 1-1/4-in	BTCXP2			BTCXC2	BTCXC2	
BTC300	3/16-in to 1-1/4-in	BTCXP1		BTCXC1		BTCXC1	
BTC350	1/8-in to 1-5/8-in		BTCXC4				
BTC500	3/8-in to 2-5/8-in	BTCXP3			BTCXC2	BTCXC2	
BTCK	1/8-in to 1-5/8-in	See individual cutters for replacement parts					



HAND TOOLS

DEBURRING TOOLS



TLRM
Reaming And Deburring Tool
 For 3/16" to 1-1/2" (5mm ~ 38mm)

- For copper, aluminum and brass tube
- Removes burrs from inside and outside edges of tube
- Rugged 3 blade die cast metal for long life
- Ergonomic shape for clockwise or counterclockwise use



TLDB
Pocket Deburring Tool

- For soft copper and aluminum tubing
- Remove burrs and surface defects from inner/outer straight and hole edges

REPLACEMENT PARTS
 Reamer blade & screw TLDBX



TLDB2
Pocket Deburring Tool
 • Remove burrs and surface defects from inner/outer straight and hole edges

REPLACEMENT PARTS
 Replacement blade TLDB2X



BTLDB3
BLACKMAX® Deburring Tool
 • Solid aluminum handle
 • For soft copper and aluminum tube
 • Includes (2) spare blades stored inside the handle

REPLACEMENT PARTS
 Replacement blade BTLDBX3

PRO-SET® PROFESSIONAL TUBE CUTTERS

Crafted with precision-machined high-grade chromium steel cutting wheels, these tube cutters boast a titanium nitride plating that significantly extends their lifespan—up to 5 times longer than conventional cutters. The precision-machined rollers feature a cut-off groove specifically designed to minimize tube loss during damaged flare removal, ensuring efficiency and cost-effectiveness.

FEATURES

- Precision machined rollers feature cut-off groove to reduce tube loss in damaged flare removal
- Durable metal handle with industrial grade rubber boot provides comfortable grip
- Enclosed hardened steel, thrust bearing feed mechanism for smooth cutting action and trouble free operation
- For soft/hard copper, brass and aluminum tube
- Packaging: Clamshell



TCT127

PRO-SET® Mini Tube Cutter

Cutting Range: 1/8" to 5/8", (3 to 16 mm)

REPLACEMENT PARTS

Titanium nitride coated cutting wheel/screw..... TCXT127C

HAND TOOLS



TCT174

PRO-SET® Mini Tube Cutter

Cutting Range: 1/8" to 1-1/8", (3 to 30 mm)

REPLACEMENT PARTS

Cutting wheel/screw..... TCXT174C



TCT274

PRO-SET® Tube Cutter

Cutting Range: 1/8" to 1-3/8" (3 to 35 mm)

REPLACEMENT PARTS

Cutting wheels/screw TCX4CTS
 Cutting wheels/screw TCXT274C
 Reamer blade TCXT274RB



TCT312

Heavy Duty Titanium Tube Cutter

Cutting Range: 1/8" to 1-3/4", (3 to 45 mm)

REPLACEMENT PARTS

Cutting wheels/screw TCX4CTS



TCPVC

PRO-SET® Heavy Duty PVC Tube Cutter

Cutting Range: 2-5/8" to 1-5/8" (68mm to 42 mm)

Great Value!

TCSET

Tube Cutter Combo Pack

Cutting Range: 1/8" to 1-1/8" (3 to 29 mm)

- Includes TC127 & TC274

REPLACEMENT PARTS FOR TC127

(1) Titanium cutting wheel & (1) screw TCX7CTS

(1) Cutting wheel and (1) screw TCX7CS

REPLACEMENT PARTS FOR TC274

(1) Cutting wheel and screw TCX4CS



TC127



TC274



TC127

Mini Tube Cutter

Cutting Range: 1/8" to 5/8" (3 to 16 mm)

Ideal for cutting in limited access areas

- Ratchet mechanism speeds precision machined chromium steel cutting wheels

REPLACEMENT PARTS

(1) Titanium cutting wheel & (1) screw TCX7CTS

(1) Cutting wheel and (1) screw TCX7CS



TC174

Mini Tube Cutter

Cutting Range: 3/8" to 1-1/8" (10 - 29 mm)

- Convenient pocket sized



TC274

Tube Cutter

Cutting Range: 1/8" to 1-1/8" (3 to 29 mm)

- Hardened steel thrust bearing feed mechanisms for smooth operation
- Precision machined chromium steel cutting wheels
- Foldaway hardened steel reamers for deburring

REPLACEMENT PARTS

(1) Cutting wheel and screw TCX4CS



TC312

Heavy Duty Tube Cutter

Cutting Range: 1/4" to 1-5/8" (6 to 41 mm)

- Spare cutting wheel located under retractable locking reamer

REPLACEMENT PARTS

(1) Cutting wheel and screw TCX4CS

HAND TOOLS

BLACKMAX® PREMIUM TUBE BENDER KIT



BTB300

BLACKMAX® Premium Tube Bender Kit

- For soft copper and aluminum tube
- Solid aluminum, color-coded mandrels
- Forward or reverse bends from 0° to 90°
- Reverse bend mechanism for tight quarters
- Durable molded carrying case
- Packaging: Color box

REPLACEMENT PARTS

Ratchet tool	BTBXH
1/4"-3/8" shoe arm	BTBXA1
1/2"-7/8" shoe arm	BTBXA2
Reverse bender mandrel arm .	BTBXR1
Reverse bender shoe arm.....	BTBXR2

CPS#	Mandrel O.D.	Color	Inside Radius of Bent Tube
BTBX14	1/4"	Chrome	1-1/8"
BTBX516	5/16"	Copper	1-1/4"
BTBX38	3/8"	Red	1-1/4"
BTBX12	1/2"	Yellow-Orange	1-3/8"
BTBX58	5/8"	Blue	1-5/8"
BTBX34	3/4"	Green	1-7/8"
BTBX78	7/8"	Red-Violet	2"



Forward bend configuration



Reverse bend configuration
(Great for confined spaces)

HAND TOOLS

BLACKMAX® LEVER TUBE BENDERS

- Patented 2-position handle
- Available in imperial or metric
- For soft copper, aluminum tube
- Double hinged bending arms for tight quarters
- Two pull points for smooth, easy bends
- Bends from 0° to 180°
- Packaging: Color box



BTB06

Tube O.D. 3/8"
Mandrel color Violet
Inside radius of bent tube 15/16"
Bender overall length 15"



BTB08

Tube O.D. 1/2"
Mandrel color Gold
Inside radius of bent tube 1-1/2"
Bender overall length 20"



BTB10

Tube O.D. 5/8"
Mandrel color Blue
Inside radius of bent tube 2-1/4"
Bender overall length 29"



BTB12

Tube O.D. 3/4"
Mandrel color Green
Inside radius of bent tube 3"
Bender overall length 32"



BTB14

Tube O.D. 7/8"
Mandrel color Purple
Inside radius of bent tube 3-1/4"
Bender overall length 32"

CPS® TUBE BENDING TOOLS



TB368

Universal Tube Bender

- Triple head lever type tube bender 1/4", 5/16", 3/8" (6, 8, 10 mm)
- For soft copper, aluminum and thin wall steel tubing



Spring Type Tube Benders

- For soft copper and aluminum tubing
- Special spring steel with zinc finish
- Hand bend tubing to any shape without collapsing walls
- End bell design for quick tubing removal

1/4" Spring Tube Bender.....	TBS04
5/16" Spring Tube Bender...	TBS05
3/8" Spring Tube Bender.....	TBS06
1/2" Spring Tube Bender.....	TBS08
5/8" Spring Tube Bender.....	TBS10
3/4" Spring Tube Bender.....	TBS12

BLACKMAX® SWAGING TOOLS

Swaged tubing means less couplings and fewer refrigerant leaks!



BTLH5E

BLACKMAX® Hydraulic Tube Expander Kit

Hydraulic power- the easiest way to swage tubing!

- Includes hydraulic tool, plus 5 quick change, color coded expander heads for swaging 3/8", 1/2", 5/8", 3/4", 7/8" O.D. soft copper or aluminum tube and tube reamer
- Expander heads and replaceable blades are interchangeable with #BTLE9
- Cast aluminum body with durable, rubber grip handle.
- Extra storage for additional expander heads
- Durable carrying case
- Packaging: Color box



BTLE9

BLACKMAX® Tube Expander Kit

- Includes expander tool plus 9 quick change, color coded expander heads for swaging 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8" soft copper or aluminum tube
- Durable, color-coded, aluminum heads
- Compact, professional, patented design
- Expander heads are interchangeable with #BTLH5E
- Durable carrying case
- Packaging: Color box

REPLACEMENT PARTS

Tube Expander (Replacement Tool)BTLEXH

HAND TOOLS



REPLACEMENT EXPANDER HEADS

Replacement and interchangeable expander heads for BTLH5E and BTBTLE9.

CPS#	BTLEX14	BTLEX516	BTLEX38	BTLEX12	BTLEX58	BTLEX34	BTLEX78	BTLEX1	BTLEX118
Imperial I.D.	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1-1/8"
Color	Chrome	Copper	Red	Yellow-Orange	Blue	Green	Red-Violet	Black	Pink

BLACKMAX® PREMIUM FLARING TOOLS

HAND TOOLS



BFT850

BLACKMAX® Flaring Tool

For 3/16", 1/4" 5/16", 3/8", 1/2", 5/8", 3/4" O.D. tube

- Aluminum body is 50% lighter than steel designs
- Internal clutch indicates when formed flare is complete
- Seven quick-change positions for flaring soft copper and aluminum tube

- Compact, professional, patented design
- Eccentric hardened steel cone forms precise 45° flared ends
- Durable, molded carrying case
- Built in slide gauge for fast tube height adjustment
- Packaging: Color box

BFT850D

BLACKMAX® Manual or Drill-Powered Flaring Tool

For 3/16", 1/4" 5/16", 3/8", 1/2", 5/8", 3/4" O.D. tube

Use with or without cordless drill for fastest flaring

- Aluminum body is 50% lighter than steel designs
- Internal clutch indicates when formed flare is complete
- Quick change removable and interchangeable handles
- Dramatically reduces time to create a precise flare

- Seven quick change positions for flaring soft copper and aluminum tube
- Built in slide gauge for fast tube height adjustment
- Eccentric hardened steel cone forms precise 45° flared ends
- Built-in clutch prevents over-compression
- Compact, professional, patented design
- Includes 1/4" Driver Bit
- Durable molded storage case
- Packaging: Color box



Quick change



Sliding depth gauge sets tube at exact height



Eccentric forming cone for easier flaring



Molded Storage Case

BFTXR

BLACKMAX® Ratchet Handle Accessory

Included with BFT850DR

- Innovative ratchet handle dramatically reduces time to make flares
- Knurled forward/reverse thumbwheel selector
- Optional accessory for use with BFT850D



BFT850DR

BLACKMAX® Ratchet or Drill-Powered Flaring Tool

For 3/16", 1/4" 5/16", 3/8", 1/2", 5/8", 3/4" O.D. tube

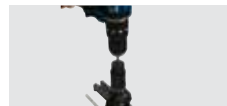
Use with or without cordless drill for fastest flaring

- Innovative ratchet handle dramatically reduces time to make flares
- Remove ratchet handle and use with cordless drill for fastest flaring
- Innovative sight gauge shows if formed flare is correct size
- Redesigned, stronger collar for longer tool life
- Aluminum body is 50% lighter than steel designs

- Quick change removable and interchangeable handles
- Seven quick change positions for flaring soft copper and aluminum tube
- Slide gauge set tube at exact position before flaring
- Eccentric hardened steel cone forms precise 45° flared ends
- Built-in clutch prevents over-compression
- Compact, professional, patented design
- Includes 1/4" Driver Bit
- Durable molded storage case
- Packaging: Color box



Ratchet handle with forward and reverse speeds flaring



Use with or without cordless drill for fastest flaring



Sliding depth gauge sets tube at exact height



Laser etched sight gauge verifies proper flare

BLACKMAX® PREMIUM FLARING TOOLS

Great Value!

BFT850K

BLACKMAX® Flaring Tool Kit

For 3/16", 1/4" 5/16", 3/8", 1/2", 5/8", 3/4" O.D. tube

INCLUDES

- #BFT850 Flaring tool
- #FTXSG Reversible R410A flare size gauge
- #BTLDB3 Deburring tool
- #BTC300 Premium tube cutter
- Durable, molded carrying case
- Packaging: color box



BFS300QC

BLACKMAX® Flaring & Swaging Tool

- Seven quick change positions for flaring soft copper and aluminum tube
- For flaring 3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" O.D. tube
- Six quick change positions for swaging soft copper and aluminum tube
- For swaging 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" O.D. tube

- Hardened, 12 sided cone forms precise 45 flared ends
- Slide gauge sets tube at exact position before flaring
- Aluminum body- 50% lighter than steel designs
- Compact, professional patented design
- Durable molded storage case
- Packaging: Color box



Swages and flares



Quick change flaring and swaging heads



12 sided flaring cone



Swaging head

Fast, easy way to accurately check flare diameters

FTXSG

CPS® R410A Flare Size Gauge

- 1/4", 6.4 mm
- 3/8", 9.5 mm
- 1/2", 12.7 mm
- 5/8", 15.9 mm
- 3/4", 19.1 mm





FT800FN

R-410A Imperial Concentric Flaring Tool & Ratchet

- Clutch driven flaring tool with ratchet and case for 3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" O.D. tubing
- Unique clutch driven feed screw and eccentrically mounted cone produces uniform, clean flare walls without galling
- Engineered specifically to create stronger flare joints for higher pressure R-410A systems
- Innovative 3/8" square drive incorporated directly in yoke handle for use of ratchet
- Rugged polyethylene storage case included



FS275

45° Flaring & Swaging Kit

- Rugged forged steel slip-on yoke and hardened flaring bar
- Chrome finished flaring cone forms better flares with less effort
- Positive grip flaring bar eliminates tube movement
- Easy operation with professional results



FT195

45° Imperial Flaring Tool

- Flares 7 of the most common sizes of tubing from 3/16" to 5/8" (5 to 16 mm)
- Rugged forged steel slip-on yoke and hardened flaring bar
- Chrome finished flaring cone forms better flares with less effort
- Positive grip flaring bar eliminates tube movement



FT500

45° Flaring/Burnishing Tool

- FT500 Imperial tool for 3/16", 1/4", 5/16", 3/8", 1/2" & 5/8"



FT525

45° Universal Adjustable Flaring Tool

- Flares from 3/16" to 5/8" (5 to 16 mm)
- Unique faceted flaring cone automatically burnishes flare face during operation
- Produces perfect 45° flares while maintaining thickness at base of flare
- Rugged forged steel slip-on yoke
- Compact design ideal for use in tight quarters

BLACKMAX® DIGITAL TORQUE WRENCH



BTLDTW

BLACKMAX® Digital Torque Wrench

Ideal for HVAC ductless installations or where OEM-specified torque settings are critical, the BLACKMAX digital torque wrench exceeds the capabilities of mechanical-only torque wrenches by offering a variety of user-friendly features in a lightweight, durable and ergonomic housing.

Large display numbers prevent misreading torque data, a common problem when using wrenches without digital displays. View **PEAK** and **TRACK** torque data with audible (tone), visual (LED) and tactile (vibration) torque alerts to prevent over-tightening by providing advance warning when approaching or exceeding predefined torque settings. Operates on 2 AAA batteries (included).

FEATURES

- Ensures OEM torque setting compliance
- Ideal for HVAC ductless installations
- **Jaw opening:** 3/16" to 1-7/16" (5 to 35mm)
- **Torque settings:** Lbf.ft, Lbf.in, N-m, Kgf.m
- **Pre-set and actual torque values:** View both same time
- **LED torque alerts:** Green = within 50-98%, Red= within 2%
- **Memory presets:** 5 factory programmed, 5 open to enter custom torque values
- **Track mode:** View real-time torque value during use
- **Peak mode:** Maximum torque value reached is stored temporarily
- **Auto-Off (selectable):** Conserves battery life
- **Display:** Backlighting (On or Off)
- Includes owner's manual



HAND TOOLS

Torque Units (Selectable)	Lbf.ft	Lbf.in	N-m	Kgf.m
Torque Measurement Range	6-63	71-752	8-85	1-8
Display Resolution	0.1 Lbf.ft	1.0 Lbf.in	0.1 N-m	0.1 Kgf.m
Accuracy	± 2% clockwise and counter-clockwise of reading, 10% to 100% of full scale			
Jaw Opening	3/16" – 1-7/16" (5 - 35 mm)			
Operating Voltage	3V (2 x AAA batteries, supplied)			
Operating Temperature	32°F~104°F (0°C ~ 40°C)			
Storage Temperature	-4°F ~113°F (-20°C ~ 45°C)			
Wrench (+ Case) Weight	2.79 lb (1.27 kg)			
Wrench Length	15.25" (0.387 m)			
Green LED Flashes	Within 50% to 98% of programmed torque (in Peak or Track mode)			
Intermittent Tone	Within +/- 5N-m of programmed torque value			
Red LED On	Within 2% of programmed torque value			
Faster Tone	Within +/- 2 N-m of programmed torque value			
Continuous Tone + Constant Green LED & Handle Vibrates	When >2% over programmed torque value			
Display Constant On:	Battery life = approx. 120 hours			
Display & Backlight Constant On:	Battery life = approx. 96 hours			

PRO-SET® TORQUE WRENCHES

Professional interchangeable jaw torque wrench sets ensure compliance with OEM torque settings for high pressure systems

HAND TOOLS



TLTWSAE

Pro-Set® Imperial Torque Wrench Set

Inch wrench settings in inch-pounds (60-960) or foot-pounds (5-80)

- Polished chrome finish
- Provides consistently accurate readings and rugged, trouble-free performance

SAE TORQUE WRENCH SET INCLUDES:

- Handle
- 6 sizes of interchangeable ends (5/8", 11/16", 13/16", 15/16", 1-1/16", 1-5/16")
- Storage/carrying case
- Instruction sheet

REPLACEMENT PARTS

TLXTWSAEW.....SAE Torque Wrench Handle



Removable Wrench End

Arrow Indicates Tightening Direction

Pivot Point

Handle Edge

Locking Knob

Torque Values

Handle Scale (0 to 5)



TLTWSM

Pro-Set® Metric Torque Wrench Set

Metric wrench settings in newton-meters (10-75)

- Polished chrome finish
- Provides consistently accurate readings and rugged, trouble-free performance

METRIC TORQUE WRENCH SET INCLUDES:

- Handle
- 6 sizes of interchangeable ends (17, 22, 24, 26, 27, 29 mm)
- Storage/carrying case
- Instruction sheet

PRO-SET® WRENCHES

PRO-SET® Adjustable Jaw Handle Wrenches

- Precision machined for smooth operation
- Comfortable grip, molded rubber handles reduces fatigue
- Durable and environment-resistant
- With printed display card
- Packed in clear sealed clamshell
- One year warranty
- Jaw opening (inch marks) on front
- Packaging: Clamshell

Part No.	Size	Jaw capacity
TLAW06	6"	1" (25 mm)
TLAW08	8"	1-1/4"(30 mm)
TLAW10	10"	1-3/8" (35 mm)
TLAW12	12"	1-1/2" (40 mm)



PRO-SET® SERVICE WRENCHES



- TLSWL
- ■ Drive openings
 - Large, straight box end & hex ratchet drive
 - 3/16", 1/4" square drive
 - 1/2", 9/16" hex drive
 - Embossed fractions and logo
 - Durable, high quality, polished chrome finish
 - Blister card packaging

BULK AVAILABILITY
Bulk 100 pcs TLSWLB



TLSWAD
HEX DRIVER BIT
Combination 3/16" & 5/16" Hex Driver Bit



- TLSWO
- ■ Drive openings
 - Small, offset box end ratchet drive
 - 3/16", 1/4", 5/16", 3/8" square drive
 - Offset 25 degree ends
 - Embossed fractions and logo
 - Durable, high quality, polished chrome finish
 - Blister card packaging

BULK AVAILABILITY
Bulk 100 pcs TLSWOB



TLSWOA
WRENCH PLUS HEX DRIVER BIT
Includes TLSWO wrench plus TLSWAD combination 3/16" & 5/16" Hex Driver Bit



- TLSWS
- ■ Drive openings
 - Small, straight box end ratchet drive
 - 3/16", 1/4", 5/16", 3/8" square drive
 - Embossed fractions and logo
 - Durable, high quality, polished chrome finish
 - Blister card packaging

BULK AVAILABILITY
Bulk 100 pcs TLSWSB



TLSWSA
WRENCH PLUS HEX DRIVER BIT
Includes TLSWS wrench plus TLSWAD combination 3/16" & 5/16" Hex Driver Bit

PRO-SET® FOLDING WRENCHES



TLSWH
Hex ends (Inch) Wrench

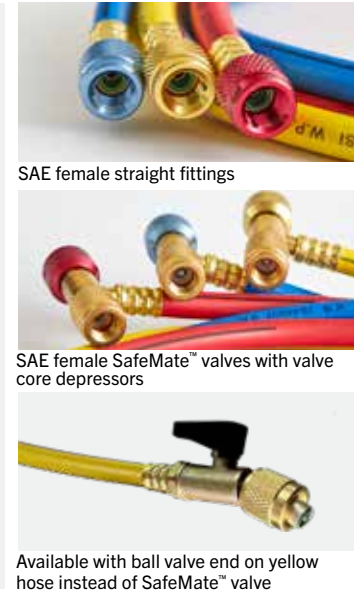
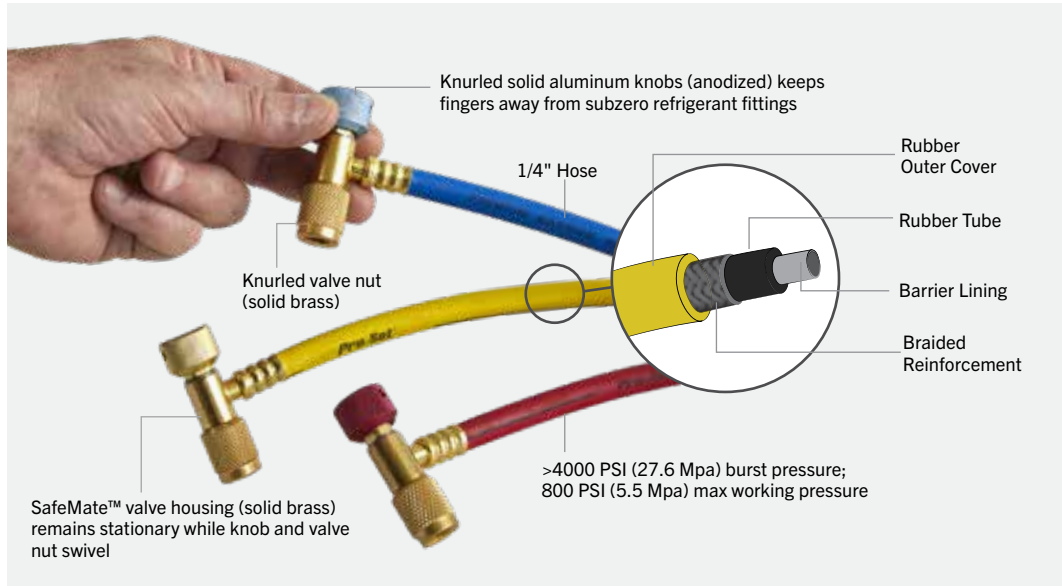
- ● Hex ends
- Nickel Plated
- 5/64", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4"
- Clamshell packaging with display card



TLSWHM
Hex ends (Metric) Wrench

- ● Hex ends
- Nickel Plated
- 1.5, 2, 2.5, 3, 4, 5, 6, 8 mm
- Clamshell packaging with display card

PRO-SET® 5-ft SAFEMATE™ HOSES



HOSES AND ACCESSORIES



All hoses feature a solid brass T-shaped SafeMate™ valve on one end, and an open, straight brass valve nut on the other.

SafeMate Valves – Have a screw down core depressor that activates refrigerant flow after the Brass Valve Nut has been fully tightened onto a service port. This prevents refrigerant from escaping into the atmosphere.

Red, Yellow Or Blue Offset Knobs – Keep hands away from the service port and help prevent refrigerant burns.

Swivel “T” Valve – Once attached, the innovative “T” valve swivels above the Brass Valve Nut so it won’t loosen if a hose is moved during use.

4 Layer Construction With Hose Barrier Lining – Minimizes refrigerant loss vs conventional hoses.

FEATURES

- UL recognized (File SA11622)
- Nylon permeation barrier (Meets SAE J2196)
- Extra deep knurling on nuts for easy grip
- Adjustable valve core depressor

SPECIFICATIONS

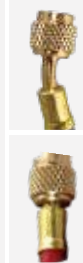
- **Hose Permeation Rate:** ≤1.01 Lbs/SqFt/Year (≤4.9 Kg/m2/Year)
- **Burst Pressure:** ≥4000 psi (27.6 Mpa)
- **Maximum Working Pressure:** 800 psi (5.51 Mpa)
- **Tensile Pull per SAE J2196 and SAE J2888:** Minimum pull force to separate hose from coupling: 120 Lbs (≥534 N)
- **Refrigerant Compatibility:** CFC, H/ CFC, HFC, HFO
- **Patents:** Taiwan #1637133, Japan #640222, China #201710540651

Part #	Straight Fitting on Hose End	SafeMate™ Valve on Hose End	Ball Valve on Yellow Hose Instead of SafeMate™ Valve	Replacement GASKETS (10 pk) for SafeMate™ Valve End	Replacement O-RINGS (10 pk) for SafeMate™ Valve End	Replacement GASKETS (10 pk) for Straight End
HP5NG	1/4" SAE Female	1/4" SAE Female	✗	HX14516G	HX14OR	HX14G
HP5NGE	1/4" SAE Female	1/4" SAE Female	✓		HX516OR	
HK5NG	1/4" SAE Female	5/16" SAE Female	✗	HX14516G	HX516OR	HX516G
HK5NGE	1/4" SAE Female	5/16" SAE Female	✓			
HJ5NG	5/16" SAE Female	5/16" SAE Female	✗			

PRO-SET® 1/4" HOSES

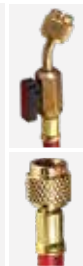
PREMIUM UL/SAE BARRIER REFRIGERANT SERVICE HOSES

- Nylon permeation barrier (Meets SAE J2196)
- Leak-proof 8-sided crimp
- 800 psi working pressure (per UL1963)
- 4000 psi burst pressure
- Extra deep knurling on nuts for easy grip
- Adjustable valve core depressor
- Blow off grooves preventing spray back
- R-410A, R-454B and R-32 compatible, as well as CFC, HCFC, and HFC refrigerants and blends
- UL listed, File SA11622



Standard

Color(s)	3-ft (90 cm)		4-ft (120 cm)	5-ft (150 cm)		6-ft (180 cm)	
	Premium	Standard	Standard	Premium	Standard	Premium	Standard
●	—	HS3Y	—	HP5Y	HS5Y	HP6Y	HS6Y
●	—	HS3B	—	HP5B	HS5B	HP6B	HS6B
●	—	HS3R	—	—	HS5R	HP6R	HS6R
●●●	HP3	HS3	HS4	HP5	HS5	HP6	HS6



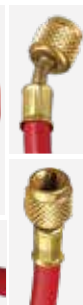
45° Ball Valve

Color(s)	3-ft (90 cm)		5-ft (150 cm)		6-ft (180 cm)	
	Premium	Standard	Premium	Standard	Premium	Standard
●	HP3YE	-	HP5YE	HS5YE	HP6YE	HS6YE
●	HP3BE	HS3BE	HP5BE	HS5BE	HP6BE	HS6BE
●	HP3RE	HS3RE	HP5RE	HS5RE	HP6RE	HS6RE
●●●	HP3E	HS3E	HP5E	HS5E	HP6E	HS6E



45° SAE Knurled Brass FM Anti-Blowback Valve

Color(s)	5-ft (150 cm)		6-ft (180 cm)	
	Premium	Standard	Premium	Standard
●●●	HP5A	HS5A	HP6A	—



Inline Ball Valve

Color(s)	5-ft (150 cm)		6-ft (180 cm)	
	Premium	Standard	Premium	Standard
●	HP5YL	—	—	—
●	HP5BL	—	—	—
●	HP5RL	HS5RL	—	—
●●●	HP5L	—	HP6L	—

1/4" Left Hand Female X 1/4" Female (On All Yellow Hoses)

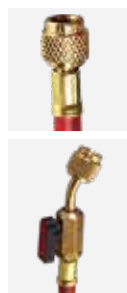
Color(s)	5-ft (150 cm)		
	Premium		
	Straight	Microseal™ anti-blowback valve	45° ball valve
●●●	HP5LH	HP5ALH	HP5ELH
●	HP5YLH	HP5YALH	HP5YELH



STANDARD REFRIGERANT SERVICE HOSES

- All-weather flexibility and strength
- Leak-proof 8-sided crimp
- 750 psi working pressure
- 3000 psi burst pressure
- Extra deep knurling on nuts for easy grip
- Adjustable valve core depressor
- Blow off grooves preventing spray back

PRO-SET® 1/2" 20 UNF* HOSES



45° Ball Valve

Color(s)	3-ft (90 cm)	5-ft (150 cm)
	Premium	
●	—	HJ5YE
●	—	HJ5BE
●	—	HJ5RE
● ● ●	HJ3E	HJ5E

*UNF= Unified National Fine Thread

PRO-SET® 1/4" SAE BALL VALVE HOSE EXTENSIONS



Color(s)	6" (15,2 cm)	12" (30,5 cm)
	Premium	
●	HTYE	HT1YE
●	HTBE	—
●	HTRE	—
● ● ●	HTE	—

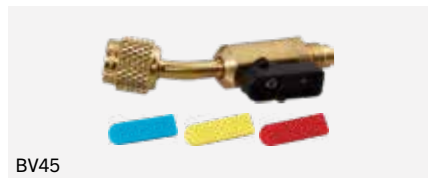
HOSES AND ACCESSORIES

PRO-SET® BALL VALVE HOSE ADAPTERS

- Easy 1/4 turn open/close with rugged plastic composite color-coded handles
- Oversized chrome ball for smooth operation and non-restrictive flow
- Individual valves include all three color-coded handle inserts



BV



BV45



BV90



BVM

Part No.	Qty/Pk	Female	Male	Other
BV	1	1/4" SAE	1/4" SAE	Straight
BV3	3	1/4" SAE	1/4" SAE	Straight
BV38	1	3/8" SAE	3/8" SAE	Straight
BV410A	1	5/16" (1/2" - 20 UNF*)	1/4" SAE	Straight

Part No.	Qty/Pk	Female	Male	Other
BV45	1	1/4" SAE 45°	1/4" SAE	45°
BV453	3	1/4" SAE 45°	1/4" SAE	45°

Part No.	Qty/Pk	Female	Male	Other
BV90	1	1/4" SAE 90°	1/4" SAE	90°
BV903	3	1/4" SAE 90°	1/4" SAE	90°
BV41090A	1	5/16" SAE 90°	1/4" SAE	90°

Part No.	Qty/Pk	Male	Male	Other
BVM	1	1/4" SAE	1/4" SAE	Straight

Not shown above is BVXH, Replacement ball valve handle with colored inserts

PRO-SET® 1/4" X 1/4" SAE PREMIUM BARRIER HOSES



HP5BKEZ3

Pro-Set premium barrier hoses are designed with a nylon permeation barrier, ensuring optimal refrigerant containment and Neoprene gaskets. With a robust working pressure of 800 psig and an impressive burst rating of 4000 psig, these hoses are built for reliability under pressure and are compatible with R-410A, R-454B and R-32 as well as CFC, HCFC, and HFC refrigerants and blends.

The ferrule and finish, crafted with bright nickel, provide not only a sleek look but also a durable and secure connection. The 8-sided crimp guarantees a steadfast seal, making these hoses an indispensable tool for any HVAC professional.



HP5BKZ3

5-ft (150 cm)	Hose Ends	Finish	Qty Hoses
HP5BKEZ3	Straight & Ball Valve (Includes red, yellow, blue inserts for valve handles)	Bright Nickel	3
HP5BKEZ	Straight & Ball Valve	Bright Nickel	1
HP5BKZ3	Straight	Bright Nickel	3
HP5BKZ	Straight	Bright Nickel	1
HP5BKAZ3	Straight & Anti-Blow Back	Bright Nickel	3

REPLACEMENT CORE DEPRESSORS (Applies to all hoses except HP5BKAZ3)

Core depressors (10 Pk)HXD
 Core depressors (6 Pk) & 1/4" Neoprene gasket (6 Pk)HXGD

PRO-SET® 3/8" PREMIUM VACUUM HOSES



HV6

Pro-Set premium vacuum hoses are available in 5-ft and 6-ft lengths. These heavy-duty hoses boast Neoprene gaskets, ensuring a tight and reliable seal. With a robust working pressure of 460 psig and an impressive burst rating of 2300 psig, they are engineered for durability and high-performance.

The ferrule and finish feature a deep knurl, made of brass or a bright nickel, providing a secure grip for your peace of mind. The 8-sided crimp ensures a steadfast connection, while the 5/16" I.D. guarantees optimal flow.



HV5Z




5-ft (150 cm)	6-ft (180 cm)	Hose Ends	Ferrule and Finish	Qty Hoses
HV5	HV6	Straight 3/8"	Brass	1
HV5Z		Straight 3/8"	Bright nickel plated brass	1
HV5E	HV6E	Straight 3/8" & Ball Valve 3/8"	Brass	1

REPLACEMENT PARTS

Replacement Neoprene gaskets (10 pk).....HX38G

HOSES AND ACCESSORIES

MICROSEAL™ QUICK COUPLERS

Image	Part No.	Qty	Description	Female	Male
	AB AB3	1 3	1/4" SAE FM x 1/4" SAE M	1/4" SAE	1/4" SAE
	AB45	1	45° 1/4" SAE FM x 1/4" SAE M	1/4" SAE	1/4" SAE
	AB90	1	90° 1/4" SAE FM x 1/4" SAE M	1/4" SAE	1/4" SAE
	ABG18	1	1/4" SAE FM x 1/8" FPT* Adapter	1/4" SAE	1/8" FPT* Adapter
	AB410	1	5/16" SAE (1/2"-20 UNF**) x 5/16" SAE (1/2"-20 UNF**) M	5/16" SAE 1/2" -20 UNF**	5/16" SAE 1/2" -20 UNF**
	AB410A	1	5/16" SAE (1/2"-20 UNF**) FM x 1/4" SAE M	5/16" SAE 1/2" -20 UNF**	1/4" SAE
	AB41090A	1	90° 5/16" SAE (1/2"-20 UNF**) FM x 1/4" SAE M	5/16" SAE 1/2" -20 UNF**	1/4" SAE

*FPT: Female Pipe Thread
**UNF= Unified National Fine Thread

GASKETS & DEPRESSORS



HXG

**1/4" SAE
Hose Gaskets**
(10Pk)



HXD

**1/4" SAE
Hose Core Depressors**
(10Pk)



HXGA

**1/4" SAE ABB
Gaskets**
(6Pk)



HXGD

**1/4" SAE
Hose Gaskets and Core
Depressors**
(6 Ea)



HXG2

**5/16" (1/2"-20 UNF*) / 1/2"
ACME Hose Gaskets**
(10Pk)



HX38G

**3/8" SAE
Hose Gaskets**
(10Pk)



HXTG

**1/4" SAE Teflon
Hose Gaskets**
(10Pk)



HX14G

**1/4" SAE Gaskets for
SafeMate™ Hoses**
(10Pk)

For straight end of SafeMate Hoses: HP5NG,
HP5NGE, HK5NG, HG5NGE, HJ5NG



HX516G

**5/16" SAE Gaskets for
SafeMate™ Hoses**
(10Pk)

For straight end of SafeMate #HJ5NG hoses



HX14516G

**1/4" & 5/16" SAE Gaskets for
SafeMate™ Hoses**
(10Pk)

1. For valve end of SafeMate Hoses: HP5NG, NP5NGE, HK5NG, HG5NGE, HJ5NG
2. For ball valve end of yellow hose on HP5NGE, HK5NGE



HX140R

**1/4" O-Rings for SafeMate™
Hoses**
(10Pk)

For valve end of SafeMate hoses HP5NG &
HP5NGE



HX5160R

**5/16" O-Rings for SafeMate™
Hoses**
(10Pk)

1. For valve end of SafeMate Hoses: HK5NG, HK5NGE, HJ5NG
2. For ball valve end of yellow hose on HP5NGE & HK5NGE



Bluetooth®
CC220EW



Enhanced Wireless Refrigerant Charging Scale

220 lb (100 kg) capacity

- Accurate to 0.015% of Reading [or ± selected resolution, whichever >]
- Adjustable resolution settings: 0.1, 0.2, 0.25, oz. or 1, 2.5, 10, 25 gm
- 8.75" (22.3 cm) square platform
- 7 button corded/wireless control - For manual or programmable operation
- Mobile device control for added functions
- Audible and visual alarms for use during charging and recovery
- Ideal for critical charging of large or small systems and all refrigerant recovery applications
- Environmentally sealed and temperature compensated for reliable operation in extreme environments
- Rugged cast aluminum platform and base assemblies for stability and long life
- Electronic and mechanical overload protected to withstand 150% of capacity
- Calibrated to strict NIST standards (National Institute of Standards & Technology)



WIRELESS SOLENOID VALVE

Automate precise control of refrigerant

Bluetooth®
SWW

Wireless Solenoid Valve

The SWW is a compact, battery powered solenoid valve with 1/4" SAE in/out male ports that open and close in 100 milliseconds to control refrigerant flow.

- Can be operated manually (without the CPSLinkPro app) for On/Off refrigerant control while using any refrigerant scale.
- Or, pair the SWW with a mobile device running the CPSLinkPro app to open or close the SWW solenoid valve from up to 150 ft. (46m) away.
- Or, pair to any CPS wireless scale for automatic, precise control of refrigerant during service routines. Works with all CPS wireless scales using our patented CPS Link Pro™ technology
- Saves time, reduces cost and extends service equipment life
- Compatible with all common CFC, HFC, HCFC, HFO refrigerants and blends
- Designed by CPS Products, Inc. in USA



Recover



Charge

Transmission range (Line of sight)	Up to 150 feet
Continuous battery life	Up to 500 hours
Maximum working pressure	500 Psig (34.5 Bar)
IN/OUT fittings	Brass, 1/4 SAE male
Approvals	FCC, IC, CE
Dimensions	3" x 2-3/4" x 4.5" (76 x 70 x 114mm)
Packaging	Color box
Warranty	1 Year

INSTRUMENTS

REFRIGERANT CHARGING SCALES



CC220

Refrigerant Charging Scale

- 220 lb (100 kg) capacity
- Accurate to 0.015% of Reading [or ± 0.25 oz (10 g) whichever is greater]
- 0.25 oz (10 g) resolution
- 8.75" (22.3 CM) square aluminum platform
- 3 button corded control with large LCD display
- Hard storage case

CCD110

Refrigerant Charging Scale

110 lb (50 kg) capacity

- 0.20 oz. (5 g) display resolution
- Accurate to 0.015% of reading (or ± 0.2 oz./5g) whichever is greater
- 3 button corded control with large, high contrast, wide angle, display
- Cast aluminum platform and base
- 3 point non-rocking foot pattern for best stability
- Heavy duty rubber platform mat
- Owner's manual
- Padded storage case with shoulder strap
- Unique patent pending "delta" shaped design
- Designed by CPS Products, Inc. in USA



INSTRUMENTS



CC800A

Programmable Refrigerant Charging Scale

220 lb (100 kg) capacity

- Accurate to 0.015% of Reading [or ± 0.25 oz. (10 g) whichever is greater]
- 0.25 oz. (10 g) resolution
- 8.75" (22.3 CM) square aluminum platform.
- Programmable for automatic charging or recovery via built-in solenoid valves
- 7 button corded control
- Hard storage case
- Designed by CPS Products, Inc. in USA

The most trusted brand of charging/recovery scales

Recommended by OEMs and professional service technicians for over 30 years, the Compute-A-Charge series of scales have become the preferred tool for accurate, reliable charging of today's advanced AC/R systems.



INSTRUMENTS

	Model #	CCD110	CC220	
	Maximum Load	110 lb (50 Kg)	220 lb (100 kg)	
CONTROLS	Control to Scale Connection	Flexcord		
	Control Mount	360 swivel hook	Magnet back & 360 swivel hook	
	Control Buttons (Physical Functions)	3 (On/Off, Lb/Kg, Tare)		
	Tare (Empty) Weight Mode	Yes		
	Programmable Solenoid	n/a	Pair with wireless SVW	
	Auto Power Off Feature (Enabled)	Display shows "APO ON" at power up. [Display will turn OFF after 10 minutes inactivity].Selectable	Display Turns OFF After 10 Minutes Inactivity	
	Auto Power Off Feature (Disabled)	Display shows "APO OFF" at power up [Display will be constant ON]		
	Smart Awake	Display shows last weight measurement at time of Auto-Off, updated to current value		
WIRELESS	Charge/Recover Alarm	n/a		
	Wireless Connectivity	n/a		
	Transmission Range	n/a		
BATTERY	Frequency Range	n/a		
	Power Source	Hand Control: (1 or 2) 9V Alkaline (1 Included)	(1 or 2) 9V Alkaline (2 Included)	
	Continuous Battery Life	One 9V = 75 hrs; Two 9V = 150 hrs.	One 9V = 75 hrs; Two 9V = 150 hrs.	
LCD DISPLAY	Battery Status Indicator	2 Segment Battery Icon		
	Units (Weight) Readout	lb & oz., or kg & gm		
	Weight Accuracy	0.015% of Reading [or ± 0.2 oz. (5 g) whichever >]		
WEIGHTS, DIMENSIONS, MATERIALS	Display Resolution (Increments)	0.20 oz. (5 g)	0.25 oz. (10 g)	
	Platform Dimensions	Delta shape [fits w/1 10.4" (26.4 cm) circle]	8.75" x 8.75" (22.3 x 22.3 cm)	
	Scale Weight (With Case)	5.5 Lb (2.5 Kg)	5.68 lb (2.6 kg)	
	Length Of Control Cord	6-ft (1.8 m), Extended		
	Maximum Working Pressure	n/a	n/a	
	Max Operating Differential	n/a	n/a	
	Rubber Platform Cover	Yes	No	
	Storage Case	Soft Case	Molded Case	
	Overload Protection	Mechanical (Internal Overload Stop)		
	Operating Temp Range	14°F to 122°F (-10°C to 50°C)		
Operating Humidity Range	0% to 95% (Non-Condensing)			
APPROVALS, CALIBRATION, WARRANTY	Approvals	CE	CE	
	Calibrated To NIST Standards	Yes		
	Declaration of Conformity	EN 61326-1:2013, CISPR 11:2009/A1:2010		
	Warranty			



CC220EW	CC800A
220 lb (100 kg)	220 lb (100 kg)
Flexcord or Wireless (CPS Link Pro™)	Flexcord
Magnet back & 360 swivel hook	Magnet back & 360 swivel hook
7 (On/Off, Lb/Kg, Tare, Go/Hold, Increase, Set/Reset, Decrease)	
Yes	
n/a	Yes
Default = Display Turns OFF After 10 Minutes Inactivity (Can re-set in increments of 5, 10, 15, 30, 60 mins or OFF)	10 mins (if weight on platform does not change by more than 1oz. (30g) within 10 mins).
Display shows "APO OFF" at power up [Display will be constant ON]	
Scale displays last weight measurement at time of Auto-Off, updated to current value	
Audible & visual alarms during charge and recovery	Continuous beep during charge
Yes	n/a
150-ft (45.7m) direct line of sight	n/a
2.4 GHz, ISM Band (Worldwide)	n/a
Hand Control: (2) 9V Alkaline (Included)	
One 9V = 50 hrs; Two 9V = 100 hrs.	30 Hrs
3 Segment Battery Icon	4 Segment Battery Icon
lb & oz., or kg & gm	
0.015% of Reading [or ± selected resolution whichever >]	0.015% of reading, or ± 0.25 oz./10 gm (whichever greater)
Selectable oz.: 0.1, 0.2, 0.25, 0.5, or gm: 1, 2, 5, 10, 25	0.25 oz. (10 g)
8.75" x 8.75" (22.3 x 22.3 cm)	
5.62 lb (2.55 kg)	8.5 lb (3.9 kg)
6-ft (1.8 m), Extended	
n/a	500 Psig (34,5 Bar)
n/a	485 Psig (33,5 Bar)
No	No
Molded Case	Molded Case
Mechanical (Internal Overload Stop)	
14°F to 122°F (-10°C to 50°C)	
0% to 95% (Non-Condensing)	
FCC, IC, CE	CE
Yes	
n/a	
1 Year	

WIRELESS CLAMP METER



Bluetooth®

VOLT-100

Wireless Clamp Power Meter

- Use with or without the CPS Link Pro™ app
- Connects to Apple and Android smart phones & tablets via Bluetooth
- Power factoring to determine true power consumption
- Data logging of electrical readings
- Utility data feed calculates actual cost/hour of appliances
- CAT. III 1,000 V rating
- True RMS measurements
- Non-contact voltage tester
- Maximum Voltage: 750 V AC; 1000 V DC
- Autorange and manual measuring
- Measuring range overload protection
- Display auto-off
- Display back light
- Automatic polarity indication
- Max/Min and relative measuring function

MEASURE:

- Inrush current
- AC current
- Resistance
- AC/DC voltage Phase angle
- Harmonics
- Frequency
- Capacitance
- Duty cycle
- Diode connection

INCLUDES:

- 39" (1 m) test leads
- Durable storage case
- 9V battery
- Owner's manual
- One year warranty



INSTRUMENTS

Data Logging	Up to 1,000 samples
Sampling Rate	1X/sec. for max of 16 mins., 40 secs.
Maximum Input Current	1000A AC
Maximum Input Voltage	750V AC (TRMS); 1000V DC
Wattage	3W/100W/4000W/10kW/100kW/750kW
AC Current	60A/600A/1000A
Inrush Current	60A/600A/1000A
Resistance	600Ω/6kΩ/60kΩ/600kΩ/6MΩ/60MΩ
Capacitance	9.999nF/99.99nF/999.9nF/9.999μF 99.99μF/999.9μF/9.999mF/99.99mF
Jaw Opening	1.6" (42mm) Max.
Size (H x W x D)	9.4" x 1.9" x 3.6" (238 x 50 x 92 mm)
Weight	0.92 lb (420 g)



Clamshell package



Included items



Data Logging Capability



Cost of Operation Capability

DIGITAL CLAMP METER



AC750

Digital Clamp Meter

The AC750 is a multi-functional AC/DC clamp meter and hosts an array of enhanced features such as ability to capture true inrush measurements and non-contact voltage detection.

- Versatile for testing AC/DC voltage, AC/DC current, resistance, capacitance, and frequency
- True RMS Measurement
- Inrush Current Measurement
- Relative Measurement
- Non-Contact Voltage Detection
- Auto & Manual Ranging
- Diode Open Voltage 3.2V

- MAX/MIN
- Data Hold
- Display 6000 Counts
- Jaw Opening: 1.6" (40mm)
- Auto Power Off
- Continuity Buzzer <50Ω
- Display Backlight
- Work Light
- Low Battery Display
- Secondary injection molded case, safety as per IEC1010 1000V CAT III



DC Voltage	60mV/600mV/6V/60V/600V
AC Voltage	60mV/600mV/6V/60V/600V
DC Current	60A/600A/1000A
AC Current	60A/600A/1000A
Inrush Current	60A/600A/1000A
Resistance	600Ω/6kΩ/60kΩ/600kΩ 6MΩ/60MΩ
Capacitance	10nF/100nF/1000nF/10μF 100μF/1000μF/10mF/100mF
Frequency (A)	100Hz/1000Hz
Frequency (V)	100Hz/1000Hz/10kHz
Frequency (Hz/Duty)	10Hz/100Hz/1000Hz/10kHz 100kHz/1000kHz/10MHz
Duty Cycle	0.1%~99.9%
Battery	9V battery
Size (H x W x D)	8.8" x 3.4" x 1.3" (225 mm x 86 mm x 33 mm)
Weight	0.70 lb (320 g)



Clamshell package



Included items



Back view

WIRELESS PRESSURE TEMPERATURE GAUGE



View data on mobile device or gauge display



Bluetooth®

PT200W

Wireless Pressure Temperature Gauge

The PT200W is a compact, portable instrument for accurately measuring and calculating HVAC/R data such as pressure, SuperHeat, SubCool, and temperature differential (tH-tL) that are critical to properly servicing HVAC/R equipment. Use the PT200W as a stand-alone gauge or pair with a mobile device to set up, store or e-mail client and job lists, jobsite data, invoices and other convenient, time saving features.

FEATURES

- High & low temperature probe connections
- Take measurements directly from system access ports
- Large, 5 digit LCD display with low battery indicator
- Compatible with all refrigerant gases (including ammonia)
- Designed and manufactured in the USA with US and foreign components.



WHEN USED WITH CPS LINK PRO™ APP

- **Client Lists:** Enter and retain client information
- **Job Checklist:** Create and retain job reminders
- **Job Tracker:** Create and retain record of services performed
- **Geolocation:** Record where (global coordinates) and when (time stamp) jobs were performed
- **Monitor readings** remotely without refrigerant loss caused by manifolds and long hoses
- **Share/Send Data:** Conveniently e-mail data to client, home office, others
- **Selectable Language:** Choose from English or Spanish
- **P/T tables for 105 refrigerants**, with the ability to add and delete
- **Data Log:** Pressure, temperature (tH, tL)
- **Cloud backup** of data

INCLUDES

- Wireless pressure temperature gauge
- Thermistor sensor (clamp, with 6 ft. lead)
- 9V battery
- Stainless steel T connector #AVT45SS
- Swivel hanging hook #VGXH
- Double wall cloth storage case 5.5" x 10"
- Quick start guide

use with or without **cpsLinkPro™** App

WIRELESS VACUUM GAUGE



View data on mobile device or gauge display



Bluetooth®

VG200W

Wireless Vacuum Gauge

The VG200W is a precision digital vacuum gauge for obtaining accurate pressure measurements during evacuations of HVAC and refrigeration systems. It is also ideal for obtaining vacuum data while conducting time, target, dynamic and static vacuum tests. The VG200W may be used as a standalone gauge, or it may be paired with a mobile device (using the free CPS Link Pro™ app) for enhanced jobsite capabilities.

FEATURES

- Large, 5 digit LCD display with low battery indicator
- Easy 2 button control (On/Off and Units)
- Select from 4 different vacuum units (at any time).
- Atmospheric to 0 micron pressure range
- Auto-Off after 10 minutes of no use
- Operates up to 20 continuous hours on one 9V alkaline battery (included)
- Compatible with all refrigerant gases (including ammonia)
- Field cleanable sensor
- Designed and manufactured in the USA with US and foreign components



WHEN USED WITH CPS LINK PRO™ APP

- Choose from 8 languages to work in
- Log vacuum test data (viewable in real time graphs)
- **Client Lists:** Enter and retain client information
- **Job Checklist:** Create and retain job reminders
- **Job Tracker:** Create and retain record of services performed
- **Geolocation:** Record where (global coordinates) and when (time stamp) jobs performed
- Set low and high alarms
- Cloud backup of data

INCLUDES

- Wireless vacuum gauge
- 9V battery
- Stainless steel T connector #AVT45SS
- Swivel hanging hook # VGXH
- Padded vinyl storage case #VGXC
- Quick start guide

DIGITAL VACUUM GAUGE



VG200

Vacrometer™ Digital Vacuum Gauge

- Advanced sensor design with self-heated thermistor bridge and automatic temperature compensation
- Field cleanable sensor designed to withstand 400 Psi of positive pressure
- Brass T adapter (AVT45), hanging hook (VGXH) and carrying case (VGXC) included with VG200
- Calibrated to strict NIST standards for best-in-class accuracy and reliability
- Designed and manufactured in the USA with U.S. and globally sourced components

INCLUDES

- Brass adapter #AVT4
- Swivel hanging hook #VGXH
- Padded vinyl storage case #VGXC

OPTIONAL

- Stainless steel adapter #AVT45SS

	PT200W	VG200W	VG200
Description	Wireless pressure / temperature gauge	Wireless vacuum gauge	Vacrometer™ digital vacuum gauge
Accuracy	1% of reading ± 0.1PSIG (0.01 bar)	+/- 10% of reading	+/- 10% of reading
Display type	LCD, 5 Digit	Large, 5 digit LCD display with low battery indicator	5 digit LCD display with continual digital readout
Display auto-off	10 minutes = default if no key pressed, no wireless connection, gauge not logging data	After 10 minutes of no use	After 5 minutes of operation
Operating vacuum range	n/a	Atmospheric pressure to 0 microns	
Maximum working pressure	750 PSIG MWP, 3000 PSIG burst	400 Psig	
Operating temperature range	23 °F to 149 °F (-5 °C to 65 °C)	Compensated (Accuracy as stated): 32°F to 122°F (0°C to 50°C); Non-compensated: Add +/- 0.5% error for every °C; Outside compensated: -22° F to 158° F (-30° C to 70° C)	
Storage temperature	-40 °F to 185 °F (-40 °C to 85 °C)	-22° F to 185° F (-30° C to 85° C)	
Operating & storage humidity	0 - 95%, Non-condensing		
Power source	One 9V alkaline battery (ANSI 1604AC – IEC 6LR61), included		
Battery life	Up to 40 hours continuous use	20 hr continuous use	
Battery indicator	Battery symbol with 3 segments	Battery symbol with 3 segments	Battery symbol with 3 segment Power level bar graph
Mechanical connection	Standard 1/4" female SAE refrigerant hose with core depressor	Standard 1/4" female SAE refrigerant hose with core depressor	Standard 1/4" female SAE refrigerant hose w/core depressor 1/8" NPT thread connection

INSTRUMENTS

GAUGE ACCESSORIES

AVT45

Brass Adapter

- 1/4" SAE female knurl x 1/4" SAE male x 1/4" SAE male core



VGXH

Swivel Hanging Hook

- For VG200, VG200W, PT200W



Leak-Seeker® Combustible Gas Leak Detector

Easy-to-read large backlit LCD display

NEW

INSTRUMENTS



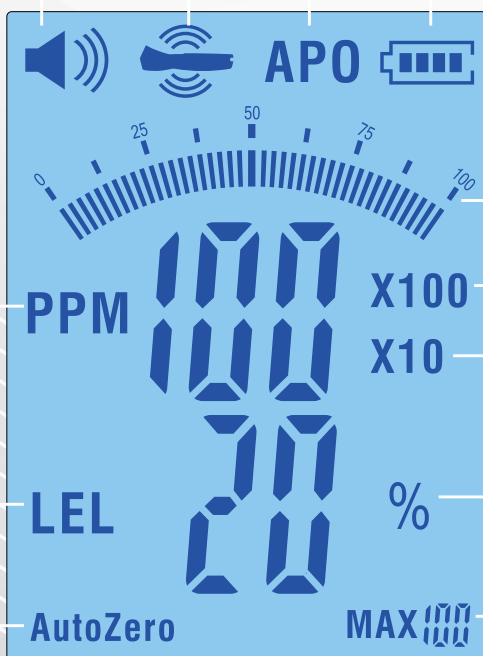
LSCG



LSXSCG

Replacement Sensor for #LSCG

- Audible Alarm On/Off
- Vibration Alarm On/Off
- Auto Power Off
- Battery Level Indicator



Visual PPM alarm (gas concentration in PPM)

Visual LEL alarm (lower explosion limit in %)

Autozero On/Off

"Speedometer" PPM alarm scale

Appears when "H" (High) concentration setting is used

Default. Appears when "L" (Low) concentration setting is used

% Associated with LEL

Maximum PPM reading

COMBUSTIBLE GAS LEAK DETECTOR

Best-in-class combustible gas detection

LSCG

Combustible Gas Leak Detector

The Leak-Seeker® LSCG is a handheld, battery-powered combustible gas leak detector tailored for the needs of HVAC professionals, plumbers, pipefitters, mechanical contractors, facility maintenance personnel, factory technicians, and various other professional trades. It is an essential tool for installing or servicing equipment that utilizes combustible gas in residential, commercial, or light industrial settings. The device's versatility and reliability make it an indispensable asset in the toolkit of professionals across diverse industries.

An outstanding feature of the LSCG is its capability to provide technicians with precise leak pinpointing through five distinct alarms. This includes three visual alarms on the large backlit display, illustrating varying levels of gas concentration. Additionally, the device employs a vibration alarm and an audible alarm, ensuring technicians remain alerted even in challenging jobsite conditions. This multifaceted alarm system enhances the efficiency and safety of professionals working with combustible gases, making the LSCG Leak-Seeker® a trusted and essential tool for those engaged in residential, commercial, and light industrial applications.

FEATURES

- **Easy-to-read Large Backlit LCD Display:** 1.5" x 2" (38 x 51mm) largest in its class!
- **Speedometer PPM Scale:** Great for peripheral vision while searching for leaks.
- **PPM Readout:** Large 1/2" numbers are more precise than detectors that show ranges.
- **LEL % Readout:** Large 1/2" numbers show what % of the lowest gas concentration that has the potential to be flammable or combustible.
- **High/Low Concentration Key:** For detecting 10 to 1,000 PPM or 100 to 10,000 PPM.
- **Flexible Probe:** Long 20" (51cm) for hard-to-reach areas.
- **Ergonomic Housing with Intuitive Keypad:** Simple icons or abbreviations
- **Auto Features: (AC, APO, AZ)**
 - » Automatic calibration at each power up
 - » Auto power off if not used for 10 minutes
 - » Auto zero resets the sensor
- **Rechargeable Lithium-Ion Battery:** No need to buy or dispose of single-use batteries.

Audible (beep) alarm (dB)	85 dB volume
Audible alarm activation key	Audible beep can be turned on or off with a dedicated key
Audible (beep) alarm frequency	Beep rate (frequency) is proportional to gas concentration being detected.
Vibration alarm activation key	Vibration can be turned On or Off with a dedicated key
Sensor warm up time	40 seconds (display counts backwards) after turning device on
Sensor response time	2 seconds
Replaceable sensor	#LSXSCG (Available from CPS Products, Inc)
Auto calibration	Each time device is turned on (display will count backwards from 40 seconds)
Gas concentration range, PPM (On display readout)	For LOW Concentration Range Setting: 10 to 1,000 ppm (Methane) For HIGH Concentration Range Setting: 100 to 10,000 ppm (Methane)
Highest PPM/LEL readout (methane)	10,000 PPM or 20% of the 5% LEL for Methane (= 1.25% Methane)
LEL (Lower explosion limit) % (on display readout)	0% to 100% (for gases containing a methane component). See manual for the LEL % values of 30 different gases.
Gases detected	Natural Gas (Methane, Ethane, Propane, Butane), and Acetylene, Acetone, Acetaldehyde, Ammonia, Benzene, CO, Denatured, Alcohol, Ethanol, Ethylene, Formaldehyde, Gasoline, Hexane, Hydrogen, Hydrogen Sulfide, Isobutane, Isopropanol, Isopropyl Alcohol, Kerosene, Methanol, MEK, Mineral Spirits, Naptha, Paint Thinner, Paraxylene, Toluene, Xylene
Gas sensitivity	<10 PPM (at X10 concentration)

Detects up to 30 different combustible gases!

Acetylene C ₂ H ₂	Ethane..... C ₂ H ₆	Isobutane C ₄ H ₁₀	Naptha C _n H _{2n}
Acetone..... C ₃ H ₆ O	Ethanol..... C ₂ H ₆ O	Isopropanol C ₃ H ₈ O	Paint thinner..... C ₄ H ₈ O
Acetaldehyde C ₂ H ₄ O	Ethylene C ₂ H ₄	Isopropyl alcohol..... C ₃ H ₈ O	Paraxylene..... C ₈ H ₁₀
Ammonia.....NH ₃	Formaldehyde..... CH ₂ O	Kerosene C ₁₂ H ₂₆ C ₁₅ H ₃₂	Propane..... C ₃ H ₈
Butane C ₄ H ₁₀	Gasoline C ₈ H ₁₈	Methane CH ₄	Toluene..... C ₆ H ₅ CH ₃
Benzene C ₆ H ₆	Hexane..... C ₆ H ₁₄	Methanol CH ₃ OH	Xylene C ₈ H ₁₀
Carbon monoxide..... CO	Hydrogen..... H ₂	MEK C ₄ H ₈ O	
Denatured alcohol C ₂ H ₆ O	Hydrogen sulfide..... H ₂ S	Mineral spirits..... C ₄ H ₈ O	

LEAK-SEEKER® LEAK DETECTORS

Featuring E_MOS® Sensor Technology

U.S. Patent # 8,555,701

The most **sensitive, reliable and accurate** refrigerant leak detectors with the longest sensor life

The Leak-Seeker® brand has been synonymous with high performance electronic refrigerant leak detection for over 30 years. The tradition continues with the introduction of the new manual-select Leak-Seeker® I and fully automatic Leak-Seeker® II; both featuring revolutionary E_MOS® leak detection technology.

FEATURES

- For detecting refrigerant leaks containing hydrocarbon components (such as HC, CFC, HFC, HFO & HCFC).
- For use in detecting R-32 & R-454B (A2L refrigerants) and R466B (an A1 refrigerant).
- E_MOS detection technology increases battery and sensor life, with replaceable sensor, filter and tip
- One button controls On/Off and all functions.
- Microprocessor controlled sensor improves sensitivity and reduces false alarms
- Metal sensor housing with patented water vapor stabilizing filter eliminates false alarms due to condensate
- Optimal leak-finding performance under a broad range of conditions
- Intuitive bar graph LED display for relative leak size
- Software managed sensor rejuvenation at startup ensures highest sensitivity
- Ergonomic, high-impact housing with high output alarm speaker
- Designed and manufactured in U.S.A. with U.S. and globally sourced components



Sensor inside protective metal housing with filter



A1 / A2L / A2 / A3
REFRIGERANT READY*

ASHRAE STANDARD 34
Refrigerant Safety Classifications
*Residual Amounts-After Recovery

INSTRUMENTS

REPLACEMENT PARTS



EMOS2
E_MOS Sensor



LS2XF
E_MOS Sensor Filters
10-Pk



LS2XVF
Vapor Filter Sensing Tip

LS1

Leak-Seeker® I

- **Progressive Alarm Mode:** Alarm pitch and number of lighted LEDs progressively increase as the leak source is approached. Allows searching for a broad range of leak sizes.
- **Threshold Alarm Mode:** Provides a quick go, no/go verifying a leak has been found and approximate size.
- One button operation for reset, changing of audible alarm range, and power off

LS2

Leak-Seeker® II

Fully automatic sensitivity selection and control. Simply turn it on and pinpoint the leak.

- Six sensitivity ranges
- Fully automatic sensitivity selection
- High output alarm speaker
- 56 levels of sensitivity automatically selected by proprietary Powershift™ software

LEAK-SEEKER® COMPARISON



	LS1	LS2	LS790B
Detector Type	E_Mos Technology		Proprietary Ion-Pump sensor with built-in selective filter housing
Sensitivity	Better than 0.1 oz. (3g) / year		Better than 0.25 oz. (7g) / year leak rate of HFC
Sensitivity Selection	Manual	Fully Automatic Powershift Software	Manual
Refrigerant Sensitivity	Hydrocarbon components (CFC, HCFC, HC, HFC, HFO, NH3, HC. Hydrogen trace gas in 95% N ₂ , 5% H ₂ mixture)		Hydrocarbon components (CFC, HCFC, HFC, HFO, NH3, HC)
Visual Alarm	Visual tachometer-like bar graph display with 8 high intensity LEDs		High intensity bar graph display
Flex Probe	15.5" flexible probe for hard-to-reach areas		18" metal flex probe
Lock-Out Mode	N/A		Yes
Controls	One button controls on/off and all functions		6 button keypad
Batteries (Included)/Life	3 "C" batteries (>50 hours continuous use)		4 "AA" alkaline batteries (>40 hours continuous use)
Audible Alarms	In Progressive Mode: Extended tone range. In Threshold Mode: Single high pitch tone	2 user selectable alarm ranges	128 computer generated tones to precisely guide user to the source of the leak
Low Battery Indication	Green (middle) LED turns off when batteries at 10% capacity	Rightmost (No Battery) LED stays on when batteries at 10% capacity	Center LED above "♦♦" lights during operation
Auto-Off	After 10 minutes of inactivity		After 15 minutes of inactivity
Sensor Life	>500 hours continuous use		Replace seasonally
Weight	18 oz. (500g)		
Operating Temperature	0 to 140°F (-18 to 60°C)		
Warranty	1 year	2 years	1 year
Standards	Complies with European Standard EN14624: 2012		
Certifications	Individually Calibrated To NIST Traceable Leak Standard		
Carrying Case	Molded Case		Yes
Earphone	No		Yes

LEAK-SEEKER® LEAK DETECTORS

Ion-pump® Sensor Technology



LS790B

Leak-Seeker®

Field proven Ion-pump® sensor technology a highly sensitive, accurate electronic refrigerant leak detector.

- Over 128 computer generated tones
- **Alarm Select Key:** Choose audible, or audible and visual.
- **Sensitivity Key:** Select within 10 ranges to match leak size.
- **Lock -Out Mode Key:** Memorizes highest refrigerant level within a large leak.
- **Clear Key:** Recalibrates to ambient conditions.

REPLACEMENT PARTS



LSXBMK

Maintenance Kit

(1) LSXS + (1) LSXSF (replaces LSXMK)



LSXSF

Selective Filter Housing



LSXS

Ion-Pump Sensor

INDOOR AIR QUALITY METER

The gold standard of professional indoor air quality meters

Bluetooth®

IAQPRO

Indoor Air Quality Meter

The industry's first smart tool that helps HVAC professionals identify indoor air quality issues, determine potential causes, and recommend effective solutions. The IAQPRO is designed for the residential market, but has the accuracy and performance to measure indoor air quality in commercial environments as well.

BECOME AN INDOOR AIR QUALITY PROFESSIONAL

Internal sensors test 9 critical air quality factors every second. Simply place the meter device in the area to be tested and begin the test. Test results include numerical air quality data plus recommendations to solve air quality problems.

SELL ADDITIONAL PRODUCTS AND SERVICES

The CPS Link Pro™ app generates a customized report of products, services and prices for technicians to resolve air quality issues all year long.

INSTANTLY SHARE A JOB SNAP-SHOT

While viewing live air quality data on a mobile device, technicians can take a snapshot or generate a full report for instant e-mailing to clients, the company office, others.

DETECTS 9 CRITICAL INDOOR AIR-QUALITY FACTORS

Volatile Organic Compounds Chemical pollutants given off by interior building materials such as carpet, paint, upholstery, vinyl flooring, cleaning products, cosmetics, burning wood etc.

COMBUSTIBLE GASES / NON-COMBUSTIBLE INERT GASES

Carbon dioxide (CO₂), nitrogen, etc., any of which may pose a threat to humans if found in high enough concentrations inside a home or business.

PARTICULATE MATTER

Inhalable particle matter that can penetrate the lungs and cause health problems. Includes dust, pet dander, pollen and other airborne allergens with a diameter between 2.5 and 10 microns. Temperature, Relative Humidity, Dew Point, Pressure and Comfort Zone

Indoor air temperature and dew point in Fahrenheit or Celsius, relative humidity (%) and building pressure (Hg, atm, kPa, or mb units).



Light Bar

Good Satisfactory Moderate Poor Severe

Light bar changes color to indicate indoor air quality.



Size (HWD)	5" x 3.5" x 2.9" (12.7 x 8.9 x 7.4 cm)
Weight	0.65 Lb (0.3 kg)
Wireless Transmission Range	Up to 150 Ft (45.7m) Direct Line Of Sight
Air Quality Test	30 Minutes (Default)
Power Cord	6.66 Ft. (2.02 m)
Storage Case	Molded Soft Case, With Carrying Handle
Agency Approvals	FCC, CE, ICES-003
Warranty	1 year
Geotag Feature	Time, Date, Location (Where Work Done)

EASYHOOD™ AIRFLOW

Accurate, affordable real-time airflow readings in seconds

Bluetooth®

EasyHood™ Airflow Capture Hood and Meter..... ABM-HOOD-200
Includes capture hood and ABM-200 airflow meter, smartphone not included

EasyHood™ Airflow Capture Hood..... ABM-HOOD
For use with ABM-200 airflow meter

- **COMPACT & LIGHTWEIGHT** - Weighs less than 5 pounds
- **AFFORDABLE**- The Easy-Hood costs hundreds or thousands less than competitive models!
- **EASY OPERATION** - No complicated data entry needed. No traversing a grille like competitive models. Automatically generates test and balance reports. Easily share job data to validate performance.
- Adjustable spring-lock smartphone platform
- Integrated vortex air straightener
- Rubber grip handles
- Durable molded housing
- Built-in rubber airflow seal
- Low airflow adapter plate

All New Updated App



ABM-HOOD
Mobile device not included



ABM-200

Measure and Record:	using ABM-200
Airflow Volume Minimum, Average, Maximum	✓
Temperature	✓
Wet Bulb	✓
Dew Point	✓
Relative Humidity	✓



Up to 12" x 12" vents



Up to 24"x 24" vents with expansion hood



Low airflow adapter plate

REPLACEMENT PARTS

- Hood rubber seal ABMHOOX2
- Expansion base..... ABMHOOX3
- Low airflow plate ABMHOOX6

MASTER INDOOR AIR QUALITY/COMFORT KIT

Buy these items as a bundle and save!



Bluetooth®

ABMSTR

Easy-Hood Master Air Balancing & Comfort Kit Includes:

- ABM-200 Airflow & Environmental Meter
- TS-100-6PK Temperature & Humidity Data Logger
- SPM-K1 Static Pressure Meter & Probe Kit
- EXP-64 Telescopic Extension Pole
- TRI-MIN Mini Tripod
- ABM-HOOD Airflow Capture Hood
- Storage case holds all these items



Large Storage Case

Included with ABMSTR and IAQCMSTR kits.

Bluetooth®

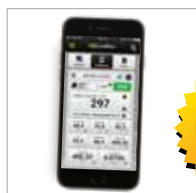
IAQCMSTR

Master Indoor Air Quality/Comfort Kit Includes:

- IAQPRO Indoor Air Quality Meter
- ABM-200 Airflow & Environmental Meter
- TS-100-6PK Temperature & Humidity Data Logger
- SPM-K1 Static Pressure Meter & Probe Kit
- EXP-64 Telescopic Extension Pole
- TRI-MIN Mini Tripod
- ABM-HOOD Airflow Capture Hood
- Storage case holds all these items

INSTRUMENTS

AIRFLOW METERS



All New Updated App

Bluetooth®

ABM-200

Airflow and Environmental Meter

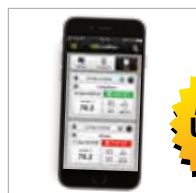
The ABM-200 measures and records a variety of data, including: airflow velocity, airflow volume, dry bulb temperature, wet bulb temperature, relative humidity, feels like temperature, dew point, air density, wind speed/direction/gusts, indoor vs. outdoor conditions and barometric pressure.

FEATURES:

- On-screen guidance ensures accurate readings
- Rugged housing with 1/4" 20 mount fitting for hands-free use
- Attach to the EXP-64 64" extension pole (sold separately) to take readings without using a ladder
- Connects over 20x faster than traditional Bluetooth
- Emails personalized, professional reports
- 3.3" H x 1.8" W x 0.6" D
- Plastic storage case with color sleeve



TEMPERATURE AND HUMIDITY DATA LOGGERS



All New Updated App

Bluetooth®

TS-100

Temperature and Humidity Data Logger

Easy to use and accurate, the TS-100 produces readings for dry & wet bulb temperatures, relative humidity, feels like temperature and dew point.

- Data log stores the last 20,000 temperature and humidity readings that can be uploaded to your smart device for review and to generate professional reports
- Increases productivity, safety & enhances professionalism
- Includes a 1/4"-20 metal D-ring connector, key chain split-ring and alligator clip for mounting in various configurations
- Can be mounted on the #EXP-64 extension pole and #TRI-MIN tripod – no ladder needed!
- Emails professional personalized reports
- Rugged, weather resistant housing
- Plastic storage case with color sleeve

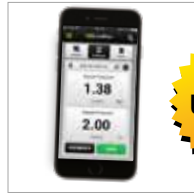
AVAILABLE IN A 6 PACK

TS-100-6PK

Our convenient 6-pack data logger kit makes it easy and cost effective to deploy multiple meters. Each meter can be individually named to make tracking data easy.

INSTRUMENTS

Reading Increments	Data Log Capacity	
	Hours	Days
5 Seconds	28	1.2
30 Seconds	167	7
1 Minute	333	14
5 Minutes	1,667	69
30 Minutes	10,000	417
Hourly	20,000	833
Daily	480,000	20,000



All New Updated App



Bluetooth®

SPM-K1

Static Pressure Meter & Probe Kit

The SPM-K1 is a powerful must-have kit combining a static pressure meter with pressure probe and a brass gas fitting. This powerful and accurate dual port manometer harnesses the power of the smart phone to perform tests quickly, easily and accurately.

INCLUDES:

- Static pressure meter
- Two color coded (red and blue) stainless steel probes with magnetic bases
- Two 6 ft. (1.8 m) rubber tubes
- One gas manifold fitting (brass)
- Plastic storage case with color sleeve

PRB-KIT

Static Pressure Probe Kit

Accurately measure and record: Static pressure, pressure differential, indoor/outdoor pressure, system external static pressure, gas pressure test.

INCLUDES:

- Two color coded (red and blue) stainless steel probes with magnetic bases
- Two 6 ft. (1.8 m) rubber tubes
- One gas manifold fitting (brass)
- Plastic storage case with color sleeve

METER AND PROBE ACCESSORIES

INSTRUMENTS



Attach an ABM-200 or TS-100 to access hard-to-reach areas.



Thumbwheel for attaching/removing threaded universal end



The EXP-64 can be mounted on tripods for longterm airflow analysis from wall or ceiling vents

EXP-64

Telescopic Extension Pole

Take accurate airflow readings without using a ladder

Mount an ABM-200 or TS-100 to the 1/4"-20 universal threaded end to obtain fast, easy readings from vents mounted on ceilings, high walls or other hard to reach places. The EXP-64 has a rubber grip handle and telescopes from 18" to 64". It has a second 1/4"-20" threaded fitting on the handle end to allow the EXP-64 to be mounted on a floor tripod.



TRI-MIN

Mini-Tripod

Makes extended environmental condition readings easy

This mini tripod has a 1/4"-20 top fitting to attach the TS-100 or ABM-200. It adjusts from 6-8" in height and is collapsible for compact storage.

TEMPERATURE SOLUTIONS



TM360

4 Station Thermo-Psychrometer

TM360 can accommodate all your temperature, humidity, dry/wet bulb and dew point measurements. TM360 incorporates 4 discrete temperature ports capable of min/max and memory functions including temperature differential between any 2 of the 4 available ports. A dedicated special purpose port accommodates an optional humidity transducer probe for fast and accurate measurements during superheat calculations. A generous probe storage area is provided to contain all your job specific probes.

FEATURES

- High accuracy silicon humidity transducer probe port
- Large 4-digit, easy-to-read, backlit display
- Min/Max and memory functions
- Temperature differential between any 2 of the 4 temperature ports
- Direct relative humidity and wet bulb measurements
- Calibrated to NIST traceable standards
- Integrated battery eliminator jack
- Rugged polyethylene carrying case

INCLUDES

- Accessory probes TMX2A, TMX2G, TMX2S



TMX2A

Moving Air Probe

15-ft (4.5 m) Lead

COMMON USES

Air: Ducting, registers, air movement across condensers, ambient air

OPERATING TEMP RANGE

-40°F to 221°F
-40°C to +105°C



TMX2G

General Purpose Probe

15-ft (4.5 m) Lead

COMMON USES

Air, surface, liquids: Copper pipe, ambient air, RH wet sock method

OPERATING TEMP RANGE

-40°F to 257°F
-40°C to +125°C



TMX2GA

General Purpose Air Probe

15-ft (4.5 m) Lead

COMMON USES

Air, surface, liquids: Ambient air, ducting, registers, air movement across condensers

OPERATING TEMP RANGE

-40°F to 257°F
-40°C to +125°C



TMX2P

Puncture Probe

15-ft (4.5 m) Lead

COMMON USES

Surface, liquids (shaft only):

Internal temperatures of frozen materials, air ducts

OPERATING TEMP RANGE

-40°F to 257°F
-40°C to +125°C

INSTRUMENTS



TMX2S

Velcro Strap Pipe Probe

15-ft (4.5 m) Lead

COMMON USES

Surface: Temperatures of Copper Tubing

OPERATING TEMP RANGE

-40°F to 257°F
-40°C to +125°C



TMX3C

Clamp-On Surface Probe

15-ft (4.5 m) Lead

COMMON USES

Surface: temperatures of copper tubing

OPERATING TEMP RANGE

-40°F to 221°F
-40°C to +105°C



TMX3RH

Relative Humidity / Dry Bulb / Wet Bulb / Dew Point Probe

COMMON USES

Specialty RH Probe: Measure indoor air quality, set/troubleshoot humidity devices

OPERATING TEMP RANGE

-40°F to 194°F
-40°C to +90°C



TMX3WB

Wet Bulb Socks

COMMON USES

for use With TM360

OPERATING TEMP RANGE

-40°F to 194°F
-40°C to +90°C

THERMOMETERS



Built in LED Light

TMINI12

Non-Contact Thermometer

The TMINI12 infrared thermometer provides easy, instant temperature measurement over a wide range of applications. TMINI12 offers convenient one-hand operation, 8 point laser sighting, a backlit LCD display, °F/°C selection, automatic power off feature, built-in LED light, K-Type input for use with optional accessory temperature probes.

Use the TMINI12 to quickly and easily measure temperatures of registers, ductwork, furnaces, evaporators, condensers, compressors, relays, manifolds, radiators, exhaust systems, thermostats, bearings and more. Includes carrying case and 9V alkaline battery.

Temperature Range	-76°F to 932°F (-60°C to 500°C)
D:S (Distance to Spot Size)	12:1
Emissivity	Pre-set at 0.95 - adjustable
Accuracy	±2°C (±4°F) or ±2% of reading
Display	Digital Backlit LCD
Resolution	1°C/°F
Batteries	2 AAA
Warranty	1 year



	TMAP Analog Pocket Thermometer	TMDP Digital Pocket Thermometer
Temperature Scale:	Fahrenheit	°F & °C (selectable)
Thermal Response:	Instant	Instant
Dial Size/ Lens	1" Clear polycarbonate	LCD Power: One 1.5V button-cell battery (included), Auto-Off: After 45 minutes non-use
Probe/Case:	5" stainless steel, with protective pen type case & clip	Stainless steel (5" (127mm) with protective plastic sleeve for clip-on pocket
Measuring Range:	0~220°F	-58°F ~ 302°F, -50°C ~ 150°C
Graduation:	2°F	Resolution (C): 0.1C (Temps < 100C); 0.5C (Other Ranges)\
Accuracy:	+/- 2°F (30°F ~90°F); +/-5°F (other ranges)	Fahrenheit: +/- 1.8°F (30°F ~90°F); +/-3.6°F (Other Ranges) Celsius: +/-1°C (0°C ~100°C); +/- 2°C (Other Ranges) Meets RoHS/CE standard

INSTRUMENTS

BLACKMAX® DIGITAL WIRELESS MANIFOLDS

US Patent No. 9,043,161



MD100WHE / MD100WVHE



9V DC Charger Port



Connections For Thermistor Sensors

Bluetooth®**BLACKMAX® DIGITAL WIRELESS MD SERIES**

BLACKMAX® wireless digital manifolds blend top-notch precision with a robust nylon water-resistant casing, resilient elastomeric keypad, and spacious backlit LCD display. The wireless series can be used independently or with the CPS Link Pro™ app.

Operating as a standalone device, these wireless manifolds enable you to execute specific manifold functions from a distance of up to 300 feet, offering extra features beyond what standard digital models provide.

BEST-IN-CLASS ACCURACY

- Pressure: 1% of reading pressure
- Temperature: superior thermistor sensors for +/- 0.2°C (+/- 0.4°F) accuracy
- Vacuum: direct system attachment achieves +/- 10 microns from 0 to 25,000 microns

SIMPLICITY & VERSATILITY

- Preloaded with over 100 refrigerants with quick access to your favorite five
- One-touch access to your 5 favorite refrigerants

FULL SYSTEM MEASUREMENT

- 2 Pressures, 2 temperatures and vacuum
- Vacuum hold and pressure hold test functions
- Simultaneously displays:
 - » HI and LO pressures, superheat and subcooling
 - » HI and LO pressures, T1 and T2
 - » HI and LO pressures, saturation T1 and saturation T2
 - » HI and LO pressures, displays T1, T2 and Delta T

RUGGED DESIGN

- Water-resistant, high-strength, glass-filled nylon housing
- Precision machined anodized aluminum manifold body
- Proprietary Vortech valve system certified to 10 microns
- High-impact polycarbonate LCD window
- Advanced sight glass design

Included with BlackMax® Digital Wireless Manifolds:



TMX3C

(2) Thermistor sensors with 6-ft leads

- 3/16" to 1.25" jaw opening



HP5BKEZ

5-ft 1/4-in SAE Premium Charging Barrier Hoses with bright nickel fittings (3-pack)

- Nylon permeation resistant barrier
- R-410A, R-454B and R-32 compatible, as well as CFC, HCFC, and HFC refrigerants and blends



HV5Z

5-ft 3/8 in Premium Heavy Duty Vacuum Hose with bright nickel fittings

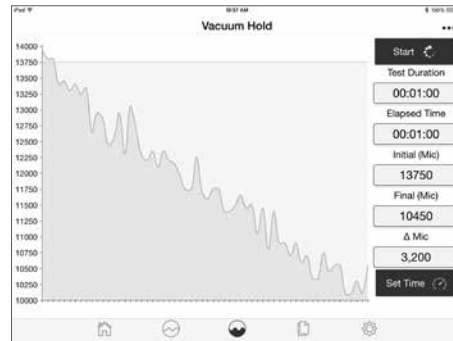
- 5/16 in I.D. heavy duty premium hose
- Nylon permeation resistant barrier
- 460 psi working pressure, 2300 psi burst pressure

USE BLACKMAX® DIGITAL WIRELESS MANIFOLDS WITH CPS LINK FOR ENHANCED FUNCTIONS

- Fast, convenient touch screen control
- Comprehensive views of system measurements

- Geolocation data and more
- Graphical depictions of test functions
- Data logging
- Perform and monitor system measurements—in real time without the need to physically touch the manifold

- Color scheme change according to refrigerant
- Pressure or vacuum tests can be saved, stored or emailed as a graph
- Select from different languages



Accuracy	+/- 10% of reading or +/- 10 microns, whichever is greater	
Sensor Type	Self - heated thermistor bridge with integral temperature compensation from 0 to 50 °C (32 to 122 °F).	
Operating Temperature Range	Compensated (accuracy as stated): 0°C TO 50°C (32°F TO 122°F) Non-compensated (add +/- 0.5% of reading error for every °C outside compensated range): -10 to 0°C (14 to 32°F)	
Operating and Storage Humidity	0 to 95%, non-condensing	
Storage Temperature	-40 to 85°C (-40 to 185°F)	
Display Pressure Range (Auto-ranging scales)	0 to 99 microns 100 to 990 microns 1000 to 9900 microns 10000 to 25000 microns	1 micron resolution 10 micron resolution 20 micron resolution 50 micron resolution
High side pressure range	-14.5 to 800.0 PSIG (-1.0 to 55 bar)	
Low side pressure range	-14.5 to 800.0 PSIG (-1.0 to 55 bar)	
Pressure reading accuracy	+/- 1% of reading or +/- 0.5 PSIG (+/- 0.05 bar)	
Pressure reading resolution	0.5 PSIG (0.05 bar)	
High and low side burst pressure	1500.0 PSIG (103.4 bar)	
High side temperature range	-58.0 °F to 302 °F (-50 °C to 150°C)	
Low side temperature range	-58.0 °F to 302 °F (-50 °C to 150°C)	
Temperature reading accuracy	+/- 0.36 °F (+/- 0.2°C)	
SH, SC & saturation temperature accuracy	+/- 0.5°F (+/- 0.3°C)	
Instrument working temperature	-4.0 °F to 122°F (-20°C to 50°C)	
Communication range (With CPS Link Pro™)	300 ft. (max) (Depends on device capabilities)	
Instrument working RH range	0% to 100% non-condensing	
APO (Automatic Power Off)	10 minutes. Can be disabled by user.	
4 valve size (L x H x W)	8.1" x 3.5" x 7.0" (20.5 cm x 8.9 cm x 17.8cm)	
4 valve weight	3.3 lb. (1.5 kg)	
Display Life using 4 industrial alkaline AA batteries (included)	Backlight full ON	25+ hrs. continuous duty
	Backlight full OFF	60+ hrs. continuous duty
Display Life using 4 Rechargeable NiMH AA batteries (not included)	Backlight full ON	20+ hrs. continuous duty from full charge
	Backlight full OFF	50+ hrs. continuous duty from full charge

MANIFOLDS

BLACKMAX® BLACK & CHROME™ MANIFOLDS

VORTECH™ Valve Series

- Two and four valve black anodized aircraft aluminum machined body
- Vortech™ deep vacuum valves
- 3-1/8" (80 mm) class 1.0 accuracy gauges built with internal silicon dampening cup for flutter-free operation
- Nickel plated 1/4" SAE fittings; 3/8" SAE fitting (4 valve units)
- Large sight glass
- Heavy duty nickel plated metal handles
- Auxiliary center access port with Schrader valve
- Protective gauge boots
- Packaged in display tin



Manifold Body		Refrigerant(s)						Gauges					Manifold and Hose Sets			
Valves	Fittings	R-22	R-32	R-134A	R-404A	R-410A	R-454B	Gauge Size	Accuracy	Scale	Pressure	*Low Gauge	*High Gauge	With (3) 5-ft premium Black & Chrome™ hoses	With (3) 5-ft premium ball valve hoses & 3/8" Vac hose	With (3) 5-ft premium anti-blowback hoses & 3/8" Vac hose
2	1/4" SAE 45°	●		●	●	●		3-1/8"	Class 1.0	°F	Psi	RGH4L	RGH4H	MV2H4P5Z	—	—
4	1/4" SAE 45°	●		●	●	●		3-1/8"	Class 1.0	°F	Psi	RGH4L	RGH4H	MV4H4P5Z	MV4H4P5EZ	MV4H4P5AZ
4	1/4" SAE 45°		●			●	●	3-1/8"	Class 1.0	°F	Psi	RGA4L	RGA4H	MV4A4P5Z	MV4A4P5EZ	MV4A4P5AZ

New for A2L Refrigerants

*Can be purchased individually as replacement gauges

TRIPLE-SEAL™ Series

- Two valve black anodized aircraft aluminum machined body
- Triple Seal™ piston valves
- Available in 3-1/8" (80 mm) class 1.0 accuracy gauges or 2-5/8" (68 mm) class 1.6 accuracy gauges built with internal silicon dampening cup for flutter-free operation
- Nickel plated 1/4" SAE fittings; 3/8" SAE fitting (4 valve units)
- Auxiliary center access port with Schrader valve
- Protective gauge boots
- Packaged in display tin



Manifold Body		Refrigerant(s)						Gauges					Manifold and Hose Sets			
Valves	Fittings	R-22	R-32	R-134A	R-404A	R-410A	R-454B	Gauge Size	Accuracy	Scale	Pressure	*Low Gauge	*High Gauge	With (3) 5-ft premium Black & Chrome™ hoses	With (3) 5-ft premium ball valve hoses	With (3) 5-ft premium anti-blowback hoses
2	1/4" SAE 45°	●		●	●	●		2-1/2"	Class 1.6	°F	Psi	RGH5L	RGH5H	MBH5P5Z	MBH5P5EZ	MBH5P5AZ
		●		●	●	●		3-1/8"	Class 1.0	°F	Psi	RGH4L	RGH4H	MBH4P5Z	MBH4P5EZ	MBH4P5AZ
2	1/4" SAE 45°		●			●	●	3-1/8"	Class 1.0	°F	Psi	RGA4L	RGA4H	MBA4P5Z	MBA4P5EZ	MBA4P5AZ

*Can be purchased individually as replacement gauges

MANIFOLD REPLACEMENT PARTS AND ACCESSORIES



MXPK Valve handle w/labels for BLACKMAX® manifolds



MVXKC Valve handle for BLACKMAX® Vortech chrome manifolds



MXMH Hanging hook for all manifolds



MXPV Complete BLACKMAX® piston valve assembly



MXC2 Rugged canvas carrying case for manifolds

PRO-SET® MANIFOLDS

The Workingman's Choice™

- Two valve anodized aluminum black body
- 3-1/8" (80 mm) class 1.0 accuracy gauges
- Triple Seal™ piston valves
- 1/4" SAE 45° fittings
- Sure grip rubber over metal valve handles
- Protective gauge boots
- Extra access port in center with Schrader valve and hanging hook
- Rugged canvas case included



Manifold Body		Refrigerant(s)						Gauges					Manifold and Hose Sets			
Valves	Fittings	R-22	R-32	R-134A	R-404A	R-410A	R-454B	Gauge Size	Accuracy	Scale	Pressure	*Low Gauge	*High Gauge	With (3) 5-ft premium barrier hoses	With (3) 5-ft premium barrier hoses with anti-blowback valves	With (3) 5-ft Premium barrier hoses with ball valves
2	1/4" SAE 45°	●		●	●	●		3-1/8"	Class 1.0	°F	Psi	RGH7L	RGH7H	MT2H7P5	MT2H7P5A	—
2		●		●	●	●										
2	1/4" SAE 45°		●			●	●	3-1/8"	Class 1.0	°F	Psi	RGA7L	RGA7H	MT2A7P5	MT2A7P5A	MT2A7P5E

New for AZL Refrigerants

*Can be purchased individually as replacement gauges

Premium Piston Series

- Two valve anodized aluminum black body
- 2 1/2" (68 mm) class 1.6 accuracy gauges
- Triple Seal™ piston valves
- 1/4" SAE 45° fittings
- Extra access port in center with Schrader valve and hanging hook



Manifold Body		Refrigerant(s)						Gauges					Manifold and Hose Sets				
Valves	Fittings	R-22	R-32	R-134A	R-404A	R-410A	R-454B	Gauge Size	Accuracy	Scale	Pressure	*Low Gauge	*High Gauge	Manifold and Gauges only (No hoses)	With (3) 5-ft premium barrier hoses	With (3) 5-ft premium barrier hoses with anti-blowback valves	With (3) 5-ft Premium barrier hoses with ball valves
2	1/4" SAE 45°	●		●	●	●		2-5/8"	Class 1.6	°F	Psi	RGDL	RGDH	MBD	MBDP5	—	—
2		●		●	●	●											
2	1/4" SAE 45°		●			●	●	2-5/8"	Class 1.6	°F	Psi	RGAL	RGAH	—	MBAP5	MBAP5A	MBAP5E

New for AZL Refrigerants

*Can be purchased individually as replacement gauges

MANIFOLDS



MV4XRX
Valve repair kit for manifolds



MVXV
VVS (III) Complete valve repair kit for manifolds



MXPKW
Valve handle, end-cap, screw & label



MXPKC
Piston valve chrome handle

BLACKMAX® REFRIGERANT RECOVERY MACHINES

The ultimate in dependability



TR700 Series

BLACKMAX® TR700 Series Refrigerant Recovery Machines

Designed for residential and commercial refrigeration systems, the BLACKMAX TR700 Series are the industry's best-performing refrigerant recovery machines incorporating non-restrictive piston manifold valves, a powerful two cylinder oil-less reciprocating compressor and twin fans. The resulting system provides superior airflow and condensing, which maximizes speed in both direct liquid and direct vapor recovery.

FEATURES

- Powerful 2 cylinder, 2/3 HP oil-less reciprocating compressor
- Exceptional compressor, condensing and cooling systems allow fast recovery in high temperature environments
- Automatic low pressure shut-off feature turns unit off when recovery is complete
- Rugged high density, double-wall, polyethylene housing
- Easy-view top mounted controls
- For use with AHRI Category III, IV & V refrigerants
- R-410a ready with 550 psi high pressure shut-off switch
- Ergonomic well balanced design for easy transport (includes shoulder strap)
- Compact design with easy 4 bolt access
- Externally serviceable valves and gauges
- Integrated component mounts for quiet operation
- 4 skid resistant rubber feet
- Less parts provide greater reliability



1. High density polyethylene case
2. ON-OFF Power Switch
3. Indicator lights for high or low pressure status
4. Large 2-1/4" (44mm) diameter suction gauge
5. Large 2-1/4" (44mm) diameter discharge gauge
6. Twin fans, high airflow, high efficiency condensing
7. 4 Skid resistant rubber feet

RECOVERY EQUIPMENT

	TR700	TR700C	TR700S
Voltage, (Hz), Phase	115V (60 Hz)	115V (60 Hz)	220-240 VAC (50 Hz)
Motor HP		2/3 HP	
Pressure Gauges		High, Low	
Overload Protection	15 Amp	13 Amp	10 Amp
Power Consumption		1000 W	
High Pressure Shut-Off	550 psig (38 bar)	450 psig (31 bar)	550 psig (38 kg/cm)
Auto Vs. Manual Reset		Auto	
AHRI Refrigerant Category	Category III (Medium Pressure; IV (Medium High Pressure; V (High Pressure)		
Suction Pressure Gauge	Outer Scale	-30" Hg to 500 psig	
	Inner Scale	-76 cm Hg to 35 kg/cm	
Discharge Pressure Gauge	Outer Scale	0 to 1000 psig	
	Inner Scale	0 to 70 kg/cm	
ASHRAE Standard 34 Refrigerant Safety Classification	A1		
Operating Temperature Range	32°F to 120°F (0°C to 49°C)		
Power Cord Length	6-ft (1.82 m) Detachable		
Dimensions	9.75" x 21" x 14.0" (24.7 cm x 53.3 cm x 35.6 cm)		
Weight	32 Lb (14.5 kg)		
Agency Approvals	UL (ARI-740-98), CE, CSA, TUV		
Warranty (Years)	1		
Tank Overfill Sensor Cord	NO		



- 8. Suction valve
- 9. Discharge shut-off valve
- 10. Suction port, with replaceable cleanable filter
- 11. Connection point for power cord
- 12. Discharge port
- 13. Quick start guide

REPLACEMENT PARTS

Valve Rebuild Kit	TR21X1
Complete Rebuild Kit	TR21X2
Piston/Connecting Rod	TR21X3
Eccentric Crank Set	TR21X5
Suction Filter	CRXF3
Complete Compressor Head	TR700X1

***Verified UL Flow Rate @ 60Hz** (Reduce 15% for all 50Hz models)

Refrigerant	Direct Vapor	Direct Liquid	Push - Pull Liquid	High Temp Vapor Rate
R410a	.70 lb/min (0.32 kg/min)	11.94 lb/min (5.41 kg/min)	31.7 lb/min (14.3 kg/min)	n/a
R22	.59 lb/min (0.27 kg/min)	8.86 lb/min (4.02 kg/min)	31.52 lb/min (14.3 kg/min)	0.39 lb/min (17 kg/min)
R134a	.49 lb/min (0.22 kg/min)	7.8 lb/min (3.54 kg/min)	25.66 lb/min (11.64 kg/min)	n/a
R407c	.53 lb/min (0.24 kg/min)	9.50 lb/min (4.31 kg/min)	29.14 lb/min (13.22 kg/min)	n/a

*Evaluated for performance in accordance with Sec. 608 of the Clean Air Act (Feb 29, 1996) using AHRI-740-98 test methods. Results shown available at database.ul.com.



Twin fans provide high airflow, high efficiency condensing



Large 2-1/4" diameter gauges and indicator lights for high low pressure status



Replaceable, cleanable filter



Detachable power cord



Adjustable carrying strap



Four color box

PRO-SET® REFRIGERANT RECOVERY MACHINES

Fast. Compact. Reliable.

A1 A2L A2 A3

REFRIGERANT READY*

ASHRAE STANDARD 34
Refrigerant Safety Classifications
*Residual Amounts-After Recovery



PRO-SET® TRS600 Series Recovery Machines

Ignition proof series available for class A1, A2, A2L, A3 refrigerants

We took six recovery machines and their verified recovery rates. The Pro-Set TR600 was the undisputed fastest recovery machine for R410a and fastest overall for R22, R134a and R407c.

FEATURES:

- Designed and tested to meet ANSI 12:12.01 Ignition proof standards
- Powerful 2/3 HP oil-less 2 cylinder reciprocating recovery compressor
- Exceptional compressor, condensing and cooling systems allow fast recovery in high temperature environments
- Maintenance free oil-less compressor
- Permanently lubricated and sealed main bearings
- Ignition proof power switch
- Sealed start relay
- Hard wired 9.8 ft. (3m) power cord
- 550 psi high pressure shut-off switch
- Durable inlet and outlet ball valve construction with 1/4 turn gauges
- Integrated component moorings for quiet operation
- High impact injection molded housing
- Ergonomic well balanced design for easy transport
- No tool access suction fitting for easy filter clean/change
- Quiet operation
- Designed by CPS Products, Inc. in USA

RECOVERY EQUIPMENT

	TRS600	TRS600E	TRS600EH
Voltage, (Hz), phase	115 VAC (60 Hz)	220-240 VAC (50 Hz)	
Motor HP		2/3 HP	
Pressure gauges		High, Low	
Overload protection		10 Amp	
Power consumption		1000 W	
High pressure shut-off		550 psig (38 bar)	
Auto vs. Manual reset	Auto	Manual	Manual
Ignition proof design	✓	✓	✓
Suction pressure gauge	Outer Scale Inner Scale	0 to 3500 kPa 0 to 35 bar	
Discharge pressure gauge	Outer Scale Inner Scale	0 to 3800 kPa 0 to 38 bar	
ASHRAE standard 34 refrigerant safety classification	A1, A2, A2L, A3		
Operating temperature range	32°F to 120°F (0°C to 49°C)		
Power cord length	9.8 ft (3.0 m)		
Dimensions	8.5" x 16.7" x 12.3" (21.6 cm x 42.4 cm x 31.2 cm)		
Weight	28 Lb (12.7 kg)		
Agency approvals	UL, CE	CE	
Warranty (years)	1		



1. Molded rubber grip handle
2. Durable housing
3. Low side gauge
4. High side gauge
5. Ignition proof power switch
6. Suction shut-off valve
7. Discharge shut-off valve
8. Suction port with cleanable 100 mesh filter (with protective cap)
9. Discharge port (with protective cap)
10. Air exhaust vents
11. Rubber feet

REPLACEMENT PARTS

Valve Rebuild Kit	TR21X1
Complete Rebuild Kit	TR21X2
Piston/Connecting Rod.....	TR21X3
Suction Filter	CRXF3

***Verified UL Flow Rate @ 60Hz (Reduce 15% for all 50Hz models)**

Refrigerant	Direct Vapor	Direct Liquid	Push - Pull Liquid	High Temp Vapor Rate
R410a	.70 lb/min (0.32 kg/min)	11.94 lb/min (5.41 kg/min)	31.7 lb/min (14.3 kg/min)	n/a
R22	.59 lb/min (0.27 kg/min)	8.86 lb/min (4.02 kg/min)	31.52 lb/min (14.3 kg/min)	0.39 lb/min (17 kg/min)
R134a	.49 lb/min (0.22 kg/min)	7.8 lb/min (3.54 kg/min)	25.66 lb/min (11.64 kg/min)	n/a
R407c	.53 lb/min (0.24 kg/min)	9.50 lb/min (4.31 kg/min)	29.14 lb/min (13.22 kg/min)	n/a

*Evaluated for performance in accordance with Sec. 608 of the Clean Air Act (Feb 29, 1996) using AHRI-740-98 test methods.



Ignition proof power switch



High pressure shut off indicator



Air exhaust



Air intake



High and low pressure gauges



Four color box -great for showrooms!

RECOVERY EQUIPMENT

PRO-SET® IGNITION PROOF REFRIGERANT RECOVERY MACHINES

Smallest, lightest, fastest and most reliable recovery machines



PRO-SET® TRS21 Series Recovery Machines

Ignition proof for class A1, A2, A2L, A3 refrigerants

FEATURES

- Maintenance free oil-less compressor
- Permanently lubricated and sealed main bearings
- Improved piston seal design for less leakage and deeper vacuums
- 550 Psig high pressure cutoff switch with LED indicator
- Cleanable 100 mesh inlet filter
- Fastest recovery rates in its class
- Multi-language color box

IGNITION PROOF FEATURES

- Designed and tested to meet ANSI 12:12.01 Ignition Proof standards
- Ignition proof ON-OFF switch
- Sealed start relay
- For use on refrigeration systems utilizing Class A1 (nontoxic, nonflammable), Class A2L (nontoxic, low flammability), Class A2 (nontoxic, flammable), and Class A3 (nontoxic, flammable)
- Hard wired 10-ft (3 meter) power cord
- Patents pending

	TRS21	TRS21E
Voltage, (Hz), Phase	115V (60Hz)	220-240 VAC (50Hz), 1 PH
Motor HP	2/3	2/3
Overload Protection	X	10 Amp
Power Consumption	1000 W	
High Pressure Shut-Off	550 psig (38 Bar)	522 psig (36 Bar)
Auto Vs. Manual Reset	Auto	Manual (Button)
Suction Pressure Gauge	No Gauges	
Discharge Pressure Gauge	No Gauges	
ASHRAE Standard 34 Refrigerant Safety Classification	A1, A2, A2L, A3	
Operating Temperature Range	32°F to 120°F (0°C to 49°C)	
Power Cord Length	6 Ft (1.82 m) Detachable	
Dimensions	6" x 12" x 9" (15cm x 30cm x 23cm)	
Weight	24.3 lb (11.0 kg)	
Agency Approvals	UL, CE, CSA	
Warranty (Years)	1	

RECOVERY EQUIPMENT

The Pro-Set® TRS21 is the smallest, lightest, fastest and most reliable recovery machine available. That means you can do the job done more effectively, with less effort, in half the time.



1. Handle
2. High pressure cutout LED
3. Tank overfill switch on TR21/C/S models
4. Power switch
5. Power cord inlet connection
6. Reset button HP switch (TR21E only)
7. Air intake for fan

REPLACEMENT PARTS

Valve Rebuild Kit	TR21X1
Complete Rebuild Kit	TR21X2
Piston/Connecting Rod	TR21X3
Complete Head Replacement	TR21X4
Eccentric Crank Set	TR21X5
Suction Filter	CRXF3

***Verified UL Flow Rate @ 60Hz** (Reduce 15% for all 50Hz models)

Refrigerant	Direct Vapor	Direct Liquid	Push - Pull Liquid	High Temp Vapor Rate
R410a	.70 lb/min (0.32 kg/min)	11.94 lb/min (5.41 kg/min)	31.7 lb/min (14.3 kg/min)	0.81 lb/min (.37 kg/min)
R22	.59 lb/min (0.27 kg/min)	8.86 lb/min (4.02 kg/min)	31.52 lb/min (14.3 kg/min)	0.86 lb/min (2.2 kg/min)
R134a	.49 lb/min (0.22 kg/min)	7.8 lb/min (3.54 kg/min)	25.66 lb/min (11.64 kg/min)	n/a
R407c	.53 lb/min (0.24 kg/min)	9.50 lb/min (4.31 kg/min)	29.14 lb/min (13.22 kg/min)	n/a

*Evaluated for performance in accordance with Sec. 608 of the Clean Air Act (Feb 29, 1996) using AHRI-740-98 test methods. Results shown available at database.ul.com.



Inlet port with removable filter (left) and discharge port (right)



Manual reset button HP switch (TR21E only)



Four color box -great for showrooms!

SUBMERSIBLE SUB COOLERS

Increase recovery speed and performance up to 95%!

CUTS RECOVERY TIME IN HALF

The only commercialized recovery sub-cooler manufactured for the professional A/C & R technician to work with ALL refrigerants. Use in-line with the discharge line of any recovery machine to dramatically increase the speed of recovery.

- Functions as a submersible condenser or evaporator
- Rugged, compact and easy to use
- The hotter it is, the better it works
- Essential for recovering R410A on hot days and eliminates the need to change tanks
- Eliminates annoying shutdown due to high pressure switch limit
- Essential for recovering liquid refrigerant on cold days
- Eliminates liquid slugging at colder temperatures
- Patented
- Designed in USA



MT69

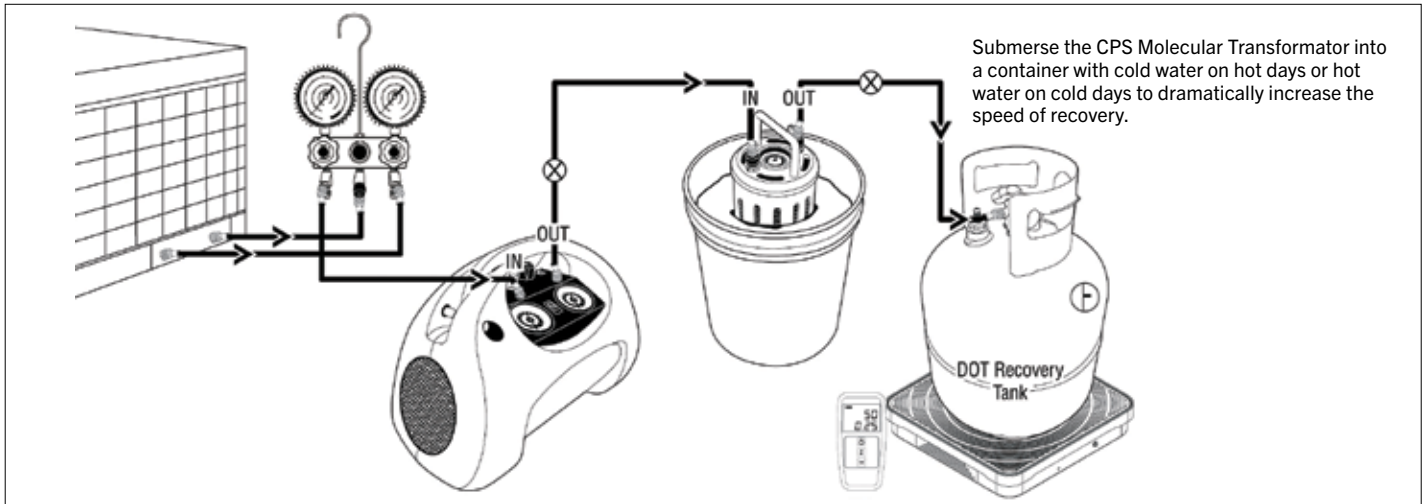
Molecular Transformator
Copper coil
For use with Class A1, A2, A2L and A3 refrigerants



MT69SS

Molecular Transformator
Stainless steel coil
For use with Class A1, A2, A2L and A3 refrigerants

THE TIME NEEDED TO RECOVER 15 LB OF R-22 AT 120°F IS 32 MINUTES. USING THE MT69, IT TAKES ONLY 17 MINUTES!



The effects of ambient temperature and elevated tank pressures on the speed of the refrigerant recovery process are in many cases more important than the speed of the recovery machine itself. As ambient temperature increases, pressure in the recovery cylinder increases, reducing the recovery speed and in many cases can lead to a high pressure shutdown as the recovery equipment and tank pressure limits are reached.

The CPS Molecular Transformator reduces the temperature and pressure of recovered refrigerant during the recovery process, dramatically improving the recovery speed and high ambient temperature performance of all commercially available recovery machines in addition to extending the life of the equipment.

RECOVERY EQUIPMENT

	MT69	MT69SS
Coil	Copper	Stainless Steel
Dimensions	4.25" x 9" (10.9 cm x 22.9 cm)	
Weight	3.50 lb (1.58 kg)	3.10 Lb (1.40 kg)
Maximum Operation Pressure	500 Psig	
Discharge Pressure Gauge	0 to 600 Psig	
Inlet/Outlet Connections	0 to 600 Psig	
Refrigerant Compatibility	A2, A2L, A3, CFC, HCFC, HFC, HC, HFO	A2, A2L, A3, CFC, HCFC, HFC, HC, HFO, NH3

REFRIGERANT RECOVERY TANKS

- DOT Certified for refrigerant storage
- Refrigerant compatible sealant used on all mechanical connection points
- Auxiliary port for optional overfill sensor
- Liquid and Vapor UL listed Y-valve
- Powder coated for maximum rust protection
- 1/4" SAE Male



90 lb RECOVERY TANK

- CRX390T w/o tank overfill sensor
- CRX390TS w/ tank overfill sensor (D.O.T.)



30 lb RECOVERY TANK

- CRX430T w/o tank overfill sensor
- CRX430TS w/ tank overfill sensor (D.O.T.)
- CRX430TB Bulk 40/pallet



50 lb RECOVERY TANK

- CRX400T w/o tank overfill sensor
- CRX400TS w/ tank overfill sensor (D.O.T.)
- CRX400TB Bulk 24/pallet

Specifications	Weight Of Empty Tank		Tank Water Capacity		Total Weight Tank/Refrigerant		Tank Foot Ring Diameter		Tank Outside Diameter		Tank Height		Max. Pressure Rating (psig)
	lb	kg	lb	kg	lb	kg	in	mm	in	mm	in	mm	
30 Lb CRX430T CRX430TB CRX430TS	17.5	7.9	26.2	11.9	43.7	19.8	7.8	198.1	9.5	241.3	18.1	459.7	400
50 Lb CRX400T CRX400TB CRX400TS	28.3	12.8	47.4	21.5	75.7	34.3	8	203.2	12.5	317.5	19.75	501.7	400
90 Lb CRX390T CRX390TS	49.5	22.5	92.5	42	142.0	64.4	9.5	241.3	12	304.8	31.75	806.5	350

REFRIGERANT CYLINDER HEATER STRAPS

Charge faster in cold weather

These durable straps are ideal for use on portable refrigerant charging or recovery tanks, especially in cold weather when transfer times tend to increase or when a tank is low on refrigerant. They function by creating a positive pressure between the refrigerant tank and an A/C or refrigeration system, thereby reducing the time required for refrigerant transfer.

Specifications	CCXHB	CCXHBV
Voltage (Hz)	120 VAC (50/60 Hz)	240 VAC (50/60 Hz)
Electrical connection type	Nema 5-15P	IEC320 Inlet
Amps	2.8	1.4
Watts	340 W	
Cylinder sizes	8" (20 cm) to 14" (35 cm) diameter tanks	
Control (overheat protection)	Automatic thermal cutoff (encapsulated thermostat)	
Minimum surface temperature of tank	115°F (46°C)	
Maximum thermostat temperature	130°F (55°C)	
Power cord length	20" (0.50 m)	
Adjustable velcro strap max length	19" (0.48 m)	
Heater strap width	3" (76 mm)	
Heater Strap Length	24" (.60 m)	



CCXHB
HEATER STRAP
120 VAC (50/60 Hz)



CCXHBV
HEATER STRAP
240 VAC (50/60 Hz)

RECOVERY EQUIPMENT

CUSTOM DESIGNED ***FOR HVACR PROS***

A1 / A2L / A2 / A3
REFRIGERANT READY*

ASHRAE STANDARD 34
Refrigerant Safety Classifications
*Residual Amounts-After Recovery

Featuring unparalleled power, lightweight construction, and variable speed operation, the **BlackMax[®] VPBM Series** vacuum pumps stand out as the top choice in its class.



The smallest and lightest 4, 6, 8, and 12 CFM brushless DC vacuum pumps available!

Extremely compact and lightweight



BlackMax Model #

CFM

Pump Weight

VPBM4V

4 CFM

18.2 lb (8.3 kg)

VPBM6V

6 CFM

19.1 lb (8.7 kg)

VPBM8V

8 CFM

22.4 lb (10.2 kg)

VPBM12V

12 CFM

23.2 lb (10.5 kg)

BLACKMAX® VACUUM PUMPS

Designed for degassing and dehydrating systems prior to refrigerant charging, the VPBM Series vacuum pumps ensure the elimination of non-condensibles and moisture, preventing subsequent harm to refrigerant or refrigerant oil, and ultimately, preserving the system integrity.

KEY FEATURES:

- Variable speed, brushless, DC motor for efficient start-up, reduced weight, and extended pump life
- Extremely compact and lightweight
- 100 to 240VAC (50/60Hz) universal voltage operation eliminates the need for a voltage selector switch, providing hassle-free plug-and-play functionality
- 1/2" M, 3/8" M, 1/4" M hose connection ports
- Auto shut-off solenoid valve
- Large dial vacuum gauge
- Tall oil sight glass
- Quiet operation
- Two-stage design for superior ultimate vacuum compared to single-stage units
- Ignition-proof construction for safe operation with Class A1, A2, A2L, and A3 refrigerants
- Solenoid valve control at the inlet port prevents oil siphoning and maintains vacuum integrity upon shutdown
- Gas ballast valve reduces moisture in oil, prolonging oil life and enhancing vacuum performance
- 15 micron ultimate vacuum removes the maximum amount of condensibles, safeguarding AC or refrigeration components
- Built-in vacuum gauge enables quick and convenient monitoring of vacuum levels
- Thermal overload protection automatically safeguards the pump against overheating
- Stores/operates in extreme temperatures

REPLACEMENT PARTS

Sight glass with seal	VPBMSGX
Oil drain valve with seals	VPBMODVX
1/4", 3/8", 1/2" SAE inlet port set	VPBMIP SX
Inlet cap set with seals	VPBMICSX
10 Ft. (3m) power cord with lock mechanism.....	VPBMCX
Gas ballast valve	VPBMGBVX
Oil mist free exhaust port	VPBMEPX



LAYOUT AND REPLACEMENT PARTS

1. Exhaust/oil fill cap
2. Vacuum gauge
3. Specifications label
4. Service ports (1/4", 3/8", 1/2")
5. Power cord with plug clip at end
6. Knurled oil drain valve (plated brass)
7. Oil sightglass
8. Oil level (min and max)
9. Handle
10. Knurled 2nd stage gas ballast valve (plated brass)
11. Oil reservoir (aluminum)
12. Air exhaust
13. Hard rubber feet
14. Air intake
15. Locking 90° IEC type detachable power cord
16. Ignition proof ON/OFF switch

VACUUM PUMPS

BLACKMAX® VACUUM PUMP SPECIFICATIONS

BLACKMAX Model #	VPBM4V	VPBM6V	VPBM8V	VPBM12V
Maximum Free Air Displacement (@ 3200 RPM)	4 CFM	6 CFM	8 CFM	12 CFM
Stages	2			
Ultimate Vacuum	15 Microns			
Refrigerant Class	Compatible with residual A1, A2L, A2, A3 refrigerants			
Ignition Proof Construction	✓ (Tested To UL12.12.01 methods for ignition proof requirements per UL1963 supplement SB)			
Voltage	Universal Voltage 85V Min- 265V Max, @ 50/60Hz (Rated Voltage 100~240V @ 50/60 Hz)			
Motor Type	"BLDC" (Brushless DC Motor With Variable Speed Start Up)			
Maximum RPM	3200			
Motor Size (HP)	1/2 HP		1 HP	
Watts	300		500	
Low Energy Sealed On/Off Switch With LED	✓ Flashing green LED in standby; solid green when running			
Power Cord	✓ Locking 90° IEC type, 10 Ft (3m) length			
Vacuum Pump Oil Capacity (Max)	15.0 oz. (0.44L)	14.0 oz. (0.41L)	24.4 oz. (0.72L)	23.0 oz. (0.68L)
Vacuum Pump Oil Capacity (Min)	10.5 oz. (0.31L)	9.5 oz. (0.28L)	16.4 oz. (0.48L)	15.0 oz. (0.44L)
Exhaust/Oil Fill	✓ (Oil mist free exhaust port)			
Vacuum Intake Ports (Fittings)	Horizontal inlet port configuration: 1/4", 3/8" and 1/2" SAE			
Mechanical Vacuum Gauge	✓ (Integrated Into Housing)			
Gas Ballast Valve	✓ (Drys out the 2nd stage) plated brass			
Solenoid Valve	✓ (Normally closed, open when vacuum pump is energized)			
Operating Temperature Range	5°F to 130°F (-15°C to 55°C)			
Storage Temperature Range	0°F to 150°F (-17.7°C to 65.5°C)			
Thermal Overload Protection	✓ Yes			
Pump Weight (W/o Pkg)	16.1lb/7.3kg	16.3lb/7.4kg	20.3lb/9.2kg	21.2lb/9.6kg
Pump Dimensions, Inches (mm)	13.7" H x 6" W x 10.2" D (350 x 152 x 260 mm)		15.1" H x 6.3" W x 10.6" D (385 x 162 x 270)	
Individual Box Size, Inches (mm)	16.7" x 8.3" x 12.6" (425 x 211 x 320 mm)		18.1" x 8.7" x 13" (460 x 221 x 330)	
Approvals	CE and UKCA (Tested to UL 12.12.01 methods for ignition proof requirements per UL1963 supplement SB)			
Individual Box	Printed 4 Color			
Warranty	2 Year			

BLACKMAX® FAST-VAC CONNECTION FITTINGS

For all vacuum pumps with 1/4", 3/8" and 1/2" SAE male ports

NEW

Stainless steel construction

Reduces evacuation time



BlackMax Fast-Vac Connection Fittings are designed to dramatically reduce evacuation time in HVAC systems. These innovative fittings with all stainless (non-rusting) bodies feature a large inner diameter ensuring unrestricted full flow.

- **Innovative Design:** The unique "Y shaped" design of these fittings integrates *merging flow paths* with a spacious internal diameter, significantly reducing friction and enabling superior full flow. This stands in stark contrast to T-Fittings, which have *opposing flow paths* and a narrower internal diameter, resulting in increased resistance and reduced flow rate.

- **Easy Simultaneous Connections:** Reduce your work time by connecting 2 vacuum hoses to a single fitting without the drawbacks of traditional manifolds.
- **Enhanced Performance:** Increases the speed of any vacuum pump with 1/4" Male, 3/8" Male or 1/2" Male SAE port connections.
- **Versatile:** Available in 3 sizes, BlackMax Fast-Vac Connection Fittings feature two male 3/8-inch SAE flare fittings for service hoses and come in 1/4-inch, 3/8-inch and 1/4-inch female flare sizes.
- **Packaging:** Fittings are packed in attractive "blister" cards, ideal for showroom displays.



Fitting	Fitting Size	UPC	Pkg Size (H x W x L), Inches (mm)	Product + Pkg Weight, Lb (Kg)	Product Qty Per Pkg
BTLFV14	1/4"F x 3/8"M x 3/8"M	750377121340	7" H x 4.5" W x 1" L (178 x 114 x 25 mm) Hang Tab Blister Card	8 oz. (227g)	1
BTLFV38	3/8"F x 3/8" M x 3/8" M	750377121357		8 oz. (227g)	1
BTLFV12	1/2"F x 3/8" M x 3/8" M	750377121333		8 oz. (227g)	1
Replacement Parts					
BTLFVX14	—	750377121906	2" H x 4" W x 1/2" L (51 x 102 x 13 mm)	1 oz. (28g)	2 Gaskets, 4 O-Rings
BTLFVX3812	—	750377121913		1 oz. (28g)	2 Gaskets, 4 O-Rings
BTLFVX38CAP	—	750377121944		1 oz. (28g)	2 Caps

PRO-SET® VACUUM PUMPS

The best performance-to-weight ratio in the industry



DUAL & SINGLE STAGE

COMPACT DUAL STAGE

COMPACT SINGLE STAGE

There are good pumps, better pumps, then Pro-Set Premium Pumps. Innovative changes in vacuum cartridge design, materials, lubrication and cooling enable the Pro-Set Premium pumps to achieve incredibly deep vacuum performance ratings that are unmatched in the industry.

Pro-Set Premium Series vacuum pumps are offered in single and dual stage units with versatile voltage and HP motor options.

Pro-Set pumps boast the same high quality, high value features engineered into all of our Pro-Set products providing performance excellence and years of reliable service. Like the standard-sized premium pumps, our compact series has been redesigned, providing superior performance in an ultra-compact size. Pound for pound, they're in a class all their own, offering a lightweight solution to your heavyweight service needs. Lowest micron ratings in the industry, best performance-to-weight ratio in the industry!

FEATURES

- Exclusive built-in oil-mist prevention with proprietary exhaust port cap for clean, safe job environment
- Large oil sight glass and fill port
- Easy-access oil drain port
- Advanced air cooled motor design for operation in high ambient temperatures
- Gas ballast valve speeds achievement of deep vacuum
- Multiple inlet port connections with built-in inlet check valve
- Heavy duty aluminum chassis with solid rubber base provides shock resistance protection
- Sure grip rubber-lined steel handle ergonomically designed for superior comfort and portability
- Full range from 2 to 12 CFM models
- Improved internal oiling system design extends life and improves vacuum performance.



Large oil sight glass



Brass T-valve adapter



Oil mist port cap

PRO-SET® SINGLE STAGE AND COMPACT VACUUM PUMPS

Small size—big performance!



PRO-SET® SINGLE STAGE VACUUM PUMPS

- **Deep Vacuum Capability:** Achieve a deep vacuum down to 50 microns for optimal performance.
- **Versatile Horsepower:** Available in horsepower ratings from 1/3 to 1, catering to various needs.
- **Efficient Air Displacement:** Provides free air displacement ranging from 2 CFM to 12 CFM for effective vacuum creation.
- **Dual Voltage Options:** Offered in both single and dual voltage configurations with a voltage selector switch for flexibility.

PRO-SET® COMPACT SINGLE STAGE VACUUM PUMPS

- **Ultimate Vacuum:** Provides an ultimate vacuum ranging from 15 to 100 microns for reliable vacuum processes.
- **Compact Design:** Features some of the smallest, lightest, and most compact aluminum housings in the industry.
- **Dedicated Operation:** Designed for dedicated 115VAC operation, ensuring consistent performance.
- **Horsepower Variety:** Available in horsepower ratings from 1/5 to 1/4, catering to different application requirements.
- **Easy Connectivity:** Hardwired with NEMA 115VAC plugs for convenient and secure electrical connection.

	Standard			Compact		
	VP2S	VP4S	VP6S	VPC2DU	VPC2SU	VPC4SU
Stage	1			2	1	
Ultimate Vacuum	50 Microns			> 15 Microns	100 Microns	
Refrigerant Class	A1*			A1*		
Ignition Proof	X	X	X	X	X	X
Dimensions	12.2" x 5" x 9.6"		13.1" x 5.5" x 10"	11.3" x 4.5" x 8"	9.1" x 4.5" x 8.0"	11.3" x 4.5" x 8.0"
Weight	13.7 lb (6.2 kg)	15.0 lb (6.8 kg)	18.3 lb (8.3 kg)	12.1 lb (5.5 kg)	9.3 lb (4.2 kg)	11.0 lb (5 kg)
Free Air Displacement	2 CFM @ 60Hz (48 l/m @ 50Hz)	4 CFM @ 60Hz (96 l/m @ 50Hz)	6 CFM @ 60 Hz (144 l/m @ 50 Hz)	2 CFM @ 60Hz (48 l/m @ 50Hz)		4 CFM @ 60 Hz (96 l/m @ 50 Hz)
Motor Size (HP), RPM @ 50/60Hz	1/4 HP (1440 1720 RPM)	1/3 (HP) 2880/3440	1/2 HP (2880, 3440 RPM)	1/5 HP (2880, 3440 RPM)		1/4 HP (2880, 3440 RPM)
Voltage	Dual (110-120V Or 220-240V @ 50/60Hz)			115V @ 60 Hz		115V @ 60 Hz
Power Cord Connection to Pump	Universal IEC Socket, Voltage Selector Switch, Nema 15 Plug			Hardwired Nema 115V Plug		
On/Off Power Switch	Yes			Yes		
Operating Temp	32°F to 125°F (0°C to 52°C)			32°F to 125°F (0°C to 52°C)		
Vacuum Pump Oil Capacity	16 oz. (470 ml)		19 oz. (540 ml)	9 oz. (250 ml)		10 oz. (300 ml)
Gas Ballast Valve	No			No		
Intake Fittings	SAE: 1/4" & 3/8", ACME: 1/2"			SAE: 1/4", ACME: 1/2"		
Warranty (Years)	2			1		

Legend

VP= Vacuum Pump; C= Compact; 2,4,6 = CFM; S= Single Stage

Voltage: E= 220-240VAC 50 Hz; U = 115VAC, 50/60 Hz

Dual Voltage = 110-120VAC or 220-240VAC 50/60 Hz

*Refrigerant Classes (Residual Amounts): A1 (lower toxicity, non-flammable); A2L (lower toxicity, low flammability); A2 (lower toxicity, mildly flammable); A3 (lower toxicity, higher flammability)

PRO-SET® DUAL STAGE VACUUM PUMPS

A1 / A2L / A2 / A3

REFRIGERANT READY*

ASHRAE STANDARD 34
Refrigerant Safety Classifications
*Residual Amounts-After Recovery



	VP2D	VP4D	VP6D
Ultimate vacuum	10 Microns	10 Microns	10 Microns
Refrigerant class	A1, A2*	A1, A2*	A1, A2*
Ignition proof	X	X	X
Dimensions	12.2" x 5" x 9.6"	13.1" x 5.5" x 10"	
Weight	17.7 lb (8.0 kg)	22.1 lb (10.0 kg)	22.5 lb (10.2 kg)
Free air displacement	2 CFM @ 60Hz (48 l/m @ 50Hz)	4 CFM @ 60Hz (96 l/m @ 50Hz)	6 CFM @ 60 Hz (144 l/m @ 50 Hz)
Motor size (HP), RPM @ 50/60Hz	1/3 HP (1440, 1720 RPM)	1/2 HP (2880, 3440 RPM)	
Voltage	110-120V Or 220-240V @ 50/60Hz	110-120V Or 220-240V @ 50/60Hz	110-120V Or 220-240V @ 50/60Hz
Power cord connection to pump	Universal IEC socket & voltage selector switch	Universal IEC socket & voltage selector switch	Universal IEC socket & voltage selector switch
On/Off power switch	Yes	Yes	Yes
Operating temperature	32°F to 125°F (0°C to 52°C)		
Vacuum pump oil capacity	11.5 oz. (330 ml)	15.5 oz. (450 ml)	16 oz. (470 ml)
Gas ballast valve	Yes	Yes	Yes
Intake fittings	SAE: 1/4", 3/8", ACME: 1/2"		
Warranty (years)	2	2	2

Legend

VP= Vacuum Pump; C= Compact; 2,4,6 = CFM; S= Single Stage

Voltage: E= 220-240VAC 50 Hz; U = 115VAC, 50/60 Hz

Dual Voltage = 110-120VAC or 220-240VAC 50/60 Hz

*Refrigerant Classes (Residual Amounts): A1 (lower toxicity, non-flammable); A2L(lower toxicity, low flammability); A2 (lower toxicity, mildly flammable); A3 (lower toxicity, higher flammability)

VACUUM PUMPS

- **Deepest Ultimate Vacuum:** Pro-Set dual stage vacuum pumps offer the deepest ultimate vacuum, ranging from 10 to 25 microns, depending on the model.
- **Versatile Horsepower:** Enjoy a broad range of horsepower options, from 1/3 to 1, providing flexibility for different applications.
- **Wide Air Displacement Range:** These pumps boast the greatest range of free air displacement, from 2 CFM to 12 CFM, ensuring efficient vacuum creation.
- **Gas Ballast Valve:** Equipped with a gas ballast valve to expedite the attainment of a deep vacuum.
- **Voltage Options:** Available in both single and dual voltage models, allowing for adaptability to various electrical configurations.
- **Refrigerant Compatibility:** Suitable for use with Class A1 (non-toxic, non-flammable) and A2 (non-toxic, low flammable) refrigerants.
- **Enhanced Compatibility:** Our VPS Series with sealed components is suitable for use with Class A3 (non-toxic, explosive) refrigerants and ammonia systems.
- **Oil-Filled Rotary Cartridge Construction:** Ensures optimal performance and longevity.
- **Air-Cooled Motors:** Air-cooled, thermally protected motor is encased in a durable aluminum housing for efficient heat dissipation.
- **Maintenance Ease:** Large oil-fill port with proprietary, mist-free exhaust cap, easily accessible oil drain port, and a large oil sight glass facilitate maintenance.
- **Versatile Intake Fittings:** Multiple SAE and ACME intake fittings with check valve for varied connection options.
- **Ergonomic Design:** Rubber-lined handle and skid-resistant rubber feet for ease of handling and stability during operation.

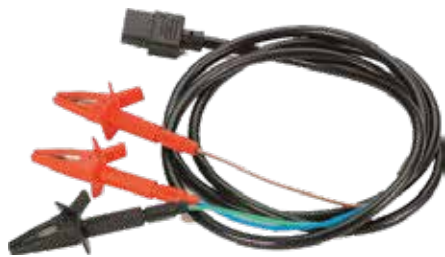


	VPS6DU	VP8D	VP10D	VP12D	VPS12DU
	10 Microns	25 Microns	25 Microns	25 Microns	25 Microns
	A1, A2, A2L, A3*	A1, A2*	A1*	A1, A2*	A1, A2, A2L, A3*
	✓	✗	✗	✗	✓
	13.1" x 5.5" x 10"	14.9" x 5.7" x 10.6"		14.9" x 5.7" x 10.6"	
	22.5 lb (10.2 kg)	29.8 lb (13.5 kg)	30.3 lb (13.7 kg)	30.9 lb (14.0 kg)	
	6 CFM @ 60 Hz (144 l/m @ 50 Hz)	8 CFM @ 60 Hz (192 l/m @ 50 Hz)	10 CFM @ 60Hz (240 l/m @ 50Hz)	12 CFM @ 60Hz (288 l/m @ 50Hz)	
	1/2 HP (2880, 3440 RPM)	2/3 HP (2880, 3440 RPM)		1 HP (2880, 3440 RPM)	
	115V, 60Hz	110-120V Or 220-240V @ 50/60Hz		110-120V Or 220-240V @ 50/60Hz	115V, 60Hz
	Hard wired	Universal IEC socket & voltage selector switch	Universal IEC socket, voltage selector switch	Universal IEC socket, voltage selector switch	Hard wired
	Yes (Ignition-proof sealed starting components)	Yes	Yes	Yes	Yes (Ignition-proof sealed starting components)
	32°F to 125°F (0°C to 52°C)				
	16 oz. (470 ml)	29 oz. (860 ml)	28 oz. (830 ml)	27 oz. (800 ml)	27 oz. (800 ml)
	Yes	Yes	Yes	Yes	Yes
	SAE 1/4", 3/8", 1/2"		SAE 1/4", 3/8", 1/2"		
	1	1	2	2	1



VACUUM PUMPS

VACUUM PUMP ACCESSORIES



VPXJ220

Jumper Cord Kit

220 VAC jumper power cord for locations where 110 voltage is not available.



VPXOMP (2-6 CFM)
VPXOMP2 (8-12 CFM)

Oil Port Caps

Oil mist preventer exhaust port.



AVCVAC

Vacuum Pump Cap Kit

Vacuum pump cap kit with chains on one common ring.

VACUUM PUMP OILS



PRO-SET® PREMIUM VACUUM PUMP OIL

Pro-Set Premium Vacuum Pump Oil is extremely high quality, severely hydro-treated oil and can be used in vacuum pumps made by most manufacturers. It has low vapor pressure and better chemical stability vs. conventional oils and results in an excellent lubricant for vacuum applications.

To extend the life of your pump vacuum pump oil should always be clean and free of contaminants such as moisture, acids, vapors, dirt etc. So, change it after each use with Pro-Set Premium Vacuum Pump oil (available in pints, quarts and gallons).

CASES

VPOG6 1 Gallon (6/Case)
VPOQ12 1 Quart (12/Case)
VPOP12.....1 Pint (12/Case)

SINGLE CONTAINERS

VPOG 1 Gallon
VPOQ 1 Quart
VPOP..... 1 Pint

Property	Method	Units	Value
Viscosity	ASTM D445	cSt @ 40°C	43
Viscosity	ASTM D445	cSt @ 100°C	6.55
Viscosity Index	ASTM D2270	VI	107
ISO Viscosity Grade	-	-	46
Density 20°C	ASTM D4052	lb/Gal g/cc	7.19 0.863
Acid Number	ASTM D664	Mg KOH/g	<0.01
Water	ASTM D1744	ppm	<25
Flash Point	ASTM D92	°C (°F)	226 (440)
Pour Point	ASTM D97	°C (°F)	-18 (0)
Vapor Pressure	ASTM D2879	Torr 37.7°C	8 x 10 ⁻⁷

VACUUM PUMPS

CPS MERCHANDISING

New point-of-sale materials for CPS®, BLACKMAX®, PRO-SET® and 5-2-1® brands

The best way to display and sell more CPS brands in your showroom!

Thirty percent of all store sales come from end-of-aisle displays. Contact your local CPS Sales Representative or Customer Service for more information on these stylish and durable **end cap headers** and the CPS products that are part of each brand.



MKG-GECHS



MKG-GECHB



MKG-GECH521

PVC HEADERS

9 (H) x 33-1/2" (W) x 1/8" thick

- Lightweight PVC foam board
- Attach to walls or displays in your showroom



MKG-GECH521



MKG-GECHB



MKG-GECHPS

HEADER ACCESSORIES



LT52115B

**5-2-1® Compressor Saver®
Consumer Tri-Fold Brochure**



LT521SPD3

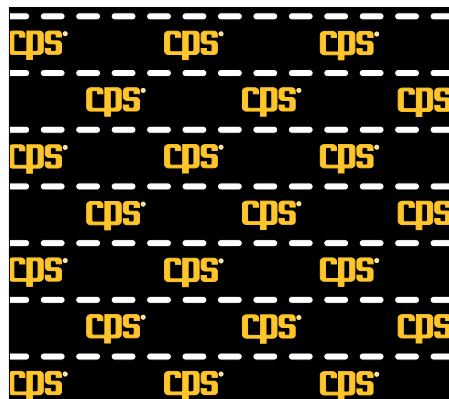
**5-2-1® Surge Protector Consumer
Tri-Fold Brochure**

VINYL OVERLAYS

For pegboard or slatwall

- Available in slatwall or pegboard styles
- Made of lightweight, durable 1/32" thick vinyl sheet
- Easy to cut
- Apply over existing slatwall or pegboard to renew the appearance of existing display surfaces
- Attach with adhesive tape
- Attracts attention and increases sales

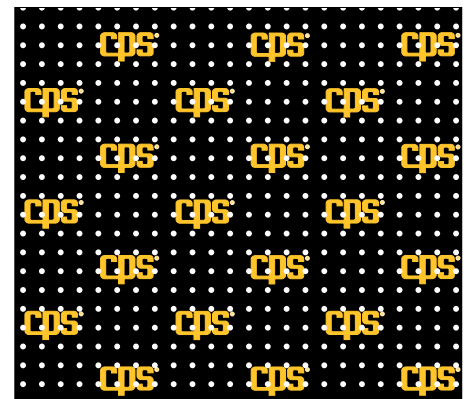
Overlay for Slatwall



MKG-SLATOVERLAY

Slatwall Overlay
24 3/8" (H) x 25" (W)

Overlay for Pegboard



MKG-PEGOVERLAY

Pegboard Overlay
24" (H) x 24" (W)



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