CPS®

PRO-SET®
REFRIGERANT RECOVERY SYSTEM
Cyclone

CC220 COMPUTE-A-CHARGE SCALE

ELIMINATOR™

PRO-SET®

CPS® 6.2 CFM

DUAL VOLTAGE

PROFESSIONAL AIR CONDITIONING & REFRIGERATION PRODUCTS

CPS®

CPS Products is a world leader in the design and manufacture of tools and test equipment used in the Automotive and HVACR industries. Founded in 1975, CPS has grown from a single employee and a single product to over 200 employees and 1200 products. CPS maintains 5 fully staffed subsidiary locations strategically located around the world. These global locations provide the loyal CPS customer base with unsurpassed service of our expansive product line. The success of CPS can be attributed to a basic philosophy of providing our customers with the very best our industry has to offer. This includes the best service, the best products and most importantly the best overall quality.

Supported by state-of-the-art mechanical and electronic manufacturing facilities, CPS is able to actively develop, maintain and continually improve our respected product lines in our wholly owned facilities. This ability is quite unique in today's rapidly changing manufacturing community providing CPS with a decisive edge when developing new innovative products that solve our customer's service needs. When one of our products becomes a trusted tool that a service professional will recommend to their friends, then our job is complete.
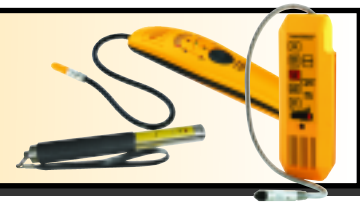
After all, we make our living by manufacturing the tools you rely on to make yours!

Worldwide Locations

•CPS® CANADA

•CPS® EUROPE

•CPS® CHINA

•CPS® WORLD HEADQUARTERS

•CPS® ASIA

•CPS® AUSTRALIA

CPS®

CPS®

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CPS®

AUTOMOTIVE SECTION

CPS®

ELECTRONIC REFRIGERANT LEAK DETECTION

THE ELIMINATOR™ LS3000B - Electronic Refrigerant Leak Detector

Fully automatic electronic refrigerant leak detector for all HFC, HCFC, CFC, SF6 gases & blends. Exclusive POWERSHIFT software automatically monitors, controls & adjusts all critical instrument settings to ensure maximum leak search results under any job environment. Two separate visual LED displays enable user to pinpoint the exact location of leak source & the approximate size of that leak.

LS3000B

SENSOR TYPE:	Cold Cathode Diode: Patented design allows fast, accurate detection of refrigerant leaks maintaining maximum sensitivity throughout the life of the sensor. Highly resistant to background contaminants including heavy condensation, oils, leak solutions, brake oils, radiator coolants, washer fluids, etc.
SENSITIVITY:	Fully automatic selection better than 0.10oz/yr (3g/yr) leak rate of HFC.
LEAK INDICATION:	Audible Alarms: Two user-selectable audible alarm options (HIGH and LOW intensity)
TACHOMETER DISPLAY:	Visual tachometer-like bar graph display: Eight high intensity LEDs
GEARSHIFT VISUAL DISPLAY:	Arranged in a gearshift pattern, 7 LEDs indicate the current sensitivity range of the unit and subsequent leak size
FLEX PROBE:	14" / 35.6cm long, 0.25"/6.4mm diameter
OPERATING TEMPERATURE:	0 to 140°F / -18 to 60°C
POWER:	75 hours battery life using three size "C" alkaline batteries. Auto OFF after 10 minutes of inactivity.
LOW BATTERY INDICATOR:	Right most LED on Tachometer display illuminates to indicate low battery condition.
WEIGHT:	1lb 2oz / 500g
WARRANTY:	2 years excluding sensors and batteries

A/C&R Application

Automotive Application

EXCLUSIVE POWERSHIFT™
Automatically controls all sensitivity related settings, eliminating guesswork and maximizing unit performance.

HIGHLY RESISTANT TO BACKGROUND CONTAMINANTS
Including heavy condensation, oils, leak solutions, brake fluid, radiator coolants, washer fluids, etc.

8 LED TACHOMETER DISPLAY
Enables user to pinpoint exact location of leak

EASY ONE BUTTON OPERATION
Depress once to turn unit ON.
Depress again to CLEAR the unit.
Double-click to change sensitivity.
Depress and hold to turn unit OFF.

STATE-OF-THE-ART COLD CATHODE DIODE (CCD) SENSOR TECHNOLOGY
Delivers quick response to leaks and maintains maximum sensitivity throughout the life of the sensor.

HIGH OUTPUT ALARM SPEAKER
Delivers clear crisp alarm tones

UNIQUE "GEARSHIFT" LED DISPLAY for LEAK SIZING
allows user to determine the approximate size of a leak.
Neutral - Unit is ready for operation
Leak Size: Small, Medium, Large

LS3000B
CPS®

F-Gas Compliant
(EN 14624:2005)

N11445

CPS®
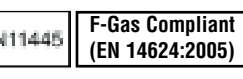
LEAK SEEKER® - LS780B / LS790B Electronic Refrigerant Leak Detectors

LS790B

Combines the most advanced microcomputer circuitry with field proven Ion-pump® sensor technology creating a highly sensitive, accurate electronic refrigerant leak detector. Over 100 computer generated tones and a high intensity bar graph display quickly alerts the user to varying halogen concentrations. Patented automatic calibration design eliminates the need for manual balance or tick rate adjustments while the user selectable 10 sensitivity ranges enables the *LS790B* to detect leaks of all refrigerants.

Specifications for the *LS780B* and *LS790B*

SENSOR TYPE:	Patented Ion-Pump® sensor with built-in selective filter housing
SENSITIVITY:	Better than 0.25oz/yr (7g/yr) leak rate of HFC.
AUDIBLE ALARMS:	Over 100 computer generated tones varying in intensity with leak size
VISUAL DISPLAY:	10 high intensity bar graph display (LS790B) / High intensity LED display (LS780B)
LOCK-OUT MODE:	Unique feature enables quick & easy locating of refrigerant leaks in highly contaminated search zones. In this mode, the unit will automatically & systematically store the recorded concentration levels of background refrigerant while initiating leak search, alarming only in the area of the highest recorded concentration level, the actual leak source. (LS790B only).
FLEX PROBE:	18" / 45.7cm long metal cable probe
OPERATING TEMP:	0 to 140F / -18 to 60C
POWER:	40 hours battery life using 4 "AA" alkaline batteries. Auto OFF after 15 minutes of inactivity.
LO BATT INDICATOR:	5th LED constantly illuminates dimly indicating low battery condition.
WEIGHT:	1lb 2oz / 500g
WARRANTY:	2 years (LS790B). 1 year (LS780B). Excludes sensors and batteries

LS780B

A rugged, three position slide switch is used to turn the instrument on & select either LO or HI sensitivity ranges. Visual indication of the leak size is provided by a high intensity LED varying in brightness with the concentration of the refrigerant detected.

Spare Parts for LEAK SEEKERS®

1= LS780A   2 = LS780B   3=LS790A   4=LS790B   5 = LS3000

ITEM	PRODUCT	DESCRIPTION
LSXB	1,2,3,4	Battery compartment cover
LSXBMK	2,4	Maintenance Kit: (1)LSXS + (1)LSXSF
LSXC	1,2,3,4	Leather carrying case
LSXC3	5	Storage case LS3000
LSXE	1,2,3,4	Earphone
LSXMK	1,3	Maintenance kit • 2 pcs/St. LSXS + 2 pcs/St. LSXVF
LSXS3	5	Sensor for LS3000
LSXS	1,2,3,4	Ion-pump sensor
LSXSF	2,4	Selective filter/housing
LSXSH	1,3	Aluminum Sensor housing
LSXVF	1,3	Water vapor filter

LSXS3   LSXBMK   LSXS

CPS®

ELECTRONIC REFRIGERANT LEAK DETECTION

Refrigerant Monitor

Compact, highly reliable, yet economical refrigerant leak monitoring systems. Designed to monitor a single refrigerant in a single zone providing early warning of costly and environmentally damaging refrigerant leakage. Adjustable sensitivity settings between 100 to 1000PPM with an auxiliary 1⁄2 HP N.O. and N.C dry contact control function for operating an additional alarm or other safety device. Replacement sensors are interchangeable enabling the replacement of a failed sensor directly in the field without recalibration, minimizing "downtime."

RM

Item No.	Refrigerant Type	Replacement Sensor
RM12	R-12	RMX12
RM134	R-134	RMX12
RMX11	R-22	RMX12
RM404	R-404A	RMX12
RM407	R-407	RMX11
RM410	R-410A	RMX12
RM502	R-502	RMX12
RM507	R-507	RMX12
Replacement Sensors		
RMX11	Replacement Sensor for Refrigerant Monitor	
RMX12	Replacement Sensor for Refrigerant Monitor	

SENSITIVITY:	100 to 1,000 ppm
ACCURACY:	± 3% of the setting or ± 25 ppm
VISUAL ALARMS:	High intensity LED display
AUDIBLE ALARM:	85 db at 1 foot
OPERATING TEMPERATURE:	-20 to 150 F /-28 to 65 C
SENSOR MODULE:	Relative Humidity 10 to 95% non-condensing
CONTROL MODULE:	32 to 150 F / 0 to 65 C
POWER:	AC or DC control voltages.
SENSOR FAILURE INDICATOR:	LED constantly illuminates
WEIGHT:	1lb 2oz / 500g
WARRANTY:	1 year

GAS SEEKER® GS30 - Portable Combustible Gas Detector

The **GS30** is a low maintenance, easy-to-use portable combustible gas leak detector engineered to pinpoint leaks in residential, commercial and industrial appliances. Advanced semiconductor sensor and electronic control package enables detection of gases commonly found in service applications including; Carbon Monoxide, Natural Gas, Propane, Ammonia, Methane, Acetone, Hydrogen and Iso-Butane, with a virtually instantaneous alarm response period. Measuring just over 7" long and 0.72" in diameter its compact tubular shape enables testing in limited access areas and conveniently fits into a serviceman's pocket. Applications include the inspection of furnaces, valves, regulators, pipelines, meters and other devices associated with combustible gases.

GS30

Gases Detected
Carbon Monoxide, Natural Gas, Propane, Ammonia, Methane, Acetone, Hydrogen, Iso-Butane Acetone, Acetylene, Benzene, Butane, Ethanol, Ethylene Oxide, Gasoline, Hexane, Industrial Solvents, Paint Thinners, and Naptha.

WARNING: *THE GS30 IS NOT INTRINSICALLY SAFE IN CLASS 1 (EXPLOSIVE) TYPE ATMOSPHERES AND IS NOT SUITABLE FOR THE DETERMINATION OF HUMAN SAFETY OR HABITABILITY CONDITIONS.*

Detecting Range	0 - 100% LEL referenced to Methane.
Alarm Indication	Both visual and audible (>40db) alarm indicators
Low Level Alarm	Preset at 10% LEL.
High Level Alarm	Preset at 30% LEL
Operating Conditions	0˚F to 104˚F / -20˚C to +40˚C at less than 98% RH (non-condensing)
Power	Working voltage is 3VDC using two 1.5V AA batteries.
Battery Life/Indicator	5 hrs continuous use. Orange LED constantly illuminates when battery is low
Sampling	Natural diffusion
Dimensions	7.2 x 0.71in / 183 x 18mm
Weight	5.3oz / 150g (including battery)

## UVPRO UV Flashlight & Enhancing Glasses

UVPRO

Don't forget the "UV" when selecting your next UV light.

Ultra Violet (UV) dye additives are specially formulated to fluoresce in the presence of UV light rays. Hence the common industry names for the two major components used with this technology, "UV" dye and "UV" lights. Referring to the light spectrum chart below you can see that true "UV" light is invisible to the human eye, with the closest visible light colors being purple and blue respectively. The overall intensity of UV light diminishes as you move from the invisible UV light range to purple, then to blue and so on down the chart. Take care not to confuse a lamp that emits high intensity visible blue light as superior to a lamp tuned more efficiently to emit true UV light.

Clear Lens

UV LED → **True UV Light Rays**

UV LED TECHNOLOGY

UV LED's produce only true and efficient UV Light.The CPS® UVPRO provides UV-A (Long wave UV) 325-375nm. Instant on LED provides the fastest leak inspection of any light available.

Light spectrum wavelengths in nanometers

UV				IR
315nm	400nm	500nm	600nm	700nm

INVISIBLE LIGHT — **VISIBLE LIGHT** —

Why BLUE is NOT Necessarily Cool

A correctly tuned Ultra Violet (UV) lamp should predominantly emit invisible UV light waves with only a trace of visible "purple" or "blue" light. The small amount of visible light is required to direct the user's eyes to the leak search area, while the invisible UV light rays actually illuminate the leaking dye. Lamps that emit large amounts of visible blue light have been marketed heavily as being more powerful and more effective at fluorescing leaks, backed by the obvious high output of visible light. Knowing that UV dye additives requires invisible true UV light rays to effectively fluoresce dispels this claim altogether. In fact, special "blue blocking" glasses are required for use with these high output blue lamps in order to remove the nuisance blue light from the vision of the user during the leak search process. Otherwise, the high output of light will mask the actual leak or illuminating dye additive.

Actual Size

CE | N11445
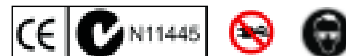
UVPRO - UV LED Light/Glasses Kit

UVPRO

The new and improved UVPRO light is the most compact and efficient UV light we have ever designed. The nine high intensity true UV LED's are specifically engineered to maximize the fluorescing capabilities of today's most commonly used dyes while greatly reducing the amount of "nuisance" background blue light emitted. Its rugged anodized aluminum body and o-ring sealed battery compartment allows it to handle harsh field conditions while small enough to conveniently fit in your pocket.

- 9 True UV emitting LED technology
- Rugged anodized aluminum body
- Works with all common dye additives
- Ultra Compact and lightweight
- Instant "ON" with no heat produced
- Operates on (3) AAA batteries (included)

UV55 LED Refrigerant Leak Detection Kit

UV55
- UVPRO True UV emitting LED light technology
- Compact & Rugged anodized aluminum body
- Mess-free and easy to use Squeeze Gun™ injector
- 1 UVS2 universal OEM approved dye cartridge
- Includes 90˚ low side snap coupler
- Operates 8 continuous hours on (3) AAA batteries (included)

UV55 Includes: UVPRO LED flashlight, squeeze gun injector w/ hose, R-134a 90° low coupler, safety glasses, UVS2 dye cartridge and carrying case.

UV Dichroic Refrigeration Leak Detection Kits

UV150

50W 12VDC dichroic filter lamp with 90˚ swivel head, rechargeable battery pack, 110V charger, Flow-thru injector, 1 oz universal dye, enhancing glasses and case
UV152: same as above w/220V Charger
UV152UN: includes UVSTICK2 injector/dye system instead of flow-thru type
UV200: same as listed above except with 8oz bottle of dye instead of 1 oz

UV250

50W 12VDC dichroic filter lamp with 90˚ swivel head, rechargeable battery pack, 110V charger, Squeeze Gun™ injector, 6 universal dye cartridges, enhancing glasses and case
UV252: same as above w/220V Charger

UV Dichroic Filter Lamps

UVCL   **UVCL100**

ACCESSORIES

UVXB	Rechargeable Battery Pack		UVXG	Safety/Enhancing Glasses
UVXBC	Battery Carrying Case		UVXLNS	50W Replacement Dichroic Lens
UVXC	100V Battery Charger		UVXLNS100	100W Replacement Dichroic Lens
UVXBLB	50W Bulb -UVAL/UVCL		UVXSGA	Hose Assembly for Squeeze-Gun Injector
UVXBLB100	100W Bulb- UVAM/UVCL100		UVXSH	Hose Assembly for UVSTICK1
UVXBLBPRO	Replacement Bulb for UVPRO before 2007		UVXSHA	Hose Assembly for UVSTICK2 and Lo Coupler
UVXC	110V Battery Charger			
UVXCE	220-240v Battery Charger		UVXSTA	3/8"FM X LO side Auto Adapter for UVSTICK
UVXCN	Battery Connectors			

Powerful 50W Bulb
Instant On Technology
90˚Swivel Head
Use with UVXB (not included)

Powerful 100W Bulb
Instant On Technology
45˚ Handle for Comfortable Grip
Use with UVXB (not included)

CPS® MOONSHINE™ UV LEAK DETECTION SYSTEM
UV REFRIGERANT LEAK DETECTION

Prefilled/Disposable Refrigerant Dye Capsules & Cartridges

- Universal OEM approved dye formula
- Cleanest, easiest & fastest method of injection
- No refrigerant required to inject dye
- 4 sizes to match capacity of system
- Eliminates air entering system
- Eliminates over-injection of dye

all dyes include I.D. labels...

SYSTEM TYPE	REFRIGERANT CHARGE	REFRIGERANT OIL	DYE CAPSULE STICK qty.6	SQUEEZE CARTRIDGES qty.6
SMALL Ice machines, window A/C units, autos, refrigerators	Up to 2.9 lbs. Up to 1.3 kg	Up to 15 fl. oz. Up to .44 liter	UV101	UVS101
MEDIUM Residential Systems	3 to 4.9 lbs. 1.4 to 2.2 kg	16 fl. oz. to 1.6 qt. .45 to 1.8 liters	UV1	UVS1
MEDIUM-LARGE Light commercial and large residential systems	5 to 9.9 lbs. 2.3 to 4.5 kg	1.7 qt. to 3.2 qt. 1.9 to 3.7 liters	UV2	UVS2
LARGE Commercial and light industrial, including all split systems	10 to 25 lbs. 4.6 to 11.4 kg	3.3 qt. to 2 gal. 3.8 to 9.1 liters	UV3	UVS3

In-line capsules are only for use with Spectronics® & Tracer® products' dye injection kits, bleed valves and universal connect sets

Bottled Refrigerant Dyes

UVUD6
- 8oz/237ml Universal dye bottles (6 per case)
- Universal - works with PAG, Ester and mineral oils
- Lowest cost per application
- Excellent for large systems

APPLICATIONS
Automotive: 1/4oz / 7.5ml per vehicle (32 vehicles per bottle)
A/C&R: 1/4oz / 7.5ml per 20oz/591ml of systems lubricants

UVUDS
- 1oz/ 30ml Universal dye bottles (6 per case)
- Universal - works with PAG, Ester and mineral oils

Applications:
Automotive: 1/4oz / 7.5ml per vehicle (4 vehicles per bottle)

All MOONSHINE™ dye meets SAE J2297 standard. Spectronics™ & Tracer are all registered trademarks of the respective company

Refillable Expandable - 1/4oz. / 7.5ml to 2oz. / 60ml Capacity

UVNJ
In-Line AC&R 1/4"
1/4 to 1/2oz. - 7.5 to 14ml

TLJ2
TLJ2 R-12 1/4" SAE Oil Dye Injector
TLJ4 R-134a 1/2" Acme Oil Dye Injector
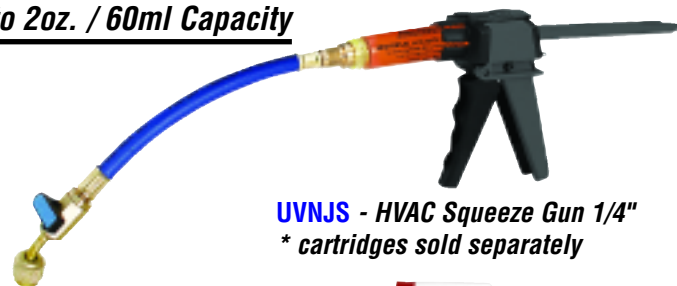
UVNJS - HVAC Squeeze Gun 1/4"
* cartridges sold separately

STEP 1: LOAD CARTRIDGE   STEP 2: ATTACH HOSE   STEP 3: CONNECT & INJECT

STEP 4: CLEAN PORT & DISCARD EMPTY CARTRIDGE

UVCLNR
32oz./946ml. dye cleaner

CPS®

CC220 COMPUTE-A-CHARGE® High Capacity Charging Scale

High capacity 220lb/100kg **Compute-A-Charge®** refrigerant charging/recovery scale, calibrated to strict NIST standards. Fully enclosed and removable metal scale platform enables use of product in or out of the protective case. Large, highly visible 1 1⁄2" x 2"/37mm x 48mm high resolution LCD readout displays either Imperial or Metric measurements in .25oz / 10g increments. The ergonomic hand held remote incorporates 6ft coil cord, a hanging hook and is backed with a magnet for attaching to metal surfaces. Full mechanical and visual overload protection. Operates 60 continuous hours on two 9V alkaline batteries. Includes automatic off feature.

CC220

CARRYING CASE
10 3/4" X 13 1/2 X 2 1/2

CERTIFIED
CALIBRATED TO STANDARDS TRACEABLE TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (N.I.S.T.)

N11445

CAPACITY	220LB /100Kg
ACCURACY	.015% of Reading
RESOLUTION	±1/4oz /±10g
PLATFORM SIZE	8 3/4" x 8 3/4" 223 x 223mm Removable
WEIGHT	5.6 lb/2.55 kg
POWER	(2) 9V battery included. Operates 60 cont. hours
READOUT	Imperial /Metric
OPERATING TEMP	-4°F - 156°F / -10°C to 50°C
PROGRAMMABLE	No

REMOVABLE PLATFORM

CHARGING

EXTRA LARGE CAPACITY

HEATER BLANKET

CHARGE FASTER IN COLD WEATHER!

CCXHB - 110 VAC / 340W / 150°F
CCXHBV - 220 VAC / 340W / 65°C

RECOVERY

Programmable High Capacity Charging Scale

Programmable high capacity 220lb/100kg Compute-A-Charge® refrigerant charging/recovery scale, calibrated to strict NIST standards. Operating exclusively on two 9V alkaline batteries, the CC800A is the only fully automatic refrigerant scale that does not require line voltage and is R-410A compatible. Using the keypad controls, simply program the CC800A to transfer or recover a pre-set amount of refrigerant, hit "go" and walk away. The scale's advanced microcomputer circuitry will constantly monitor the progress of the job, shutting off the refrigerant flow when the pre-set amount is reached and audibly alert the user. A large, highly visible 1 1⁄2" x 2" / 37mm x 48mm high resolution LCD readout displays either Imperial or Metric measurements in .25oz / 10g increments. The ergonomic hand held remote incorporates a 6ft coil cord, a hanging hook and is backed with a magnet for attachment to metal surfaces. Full mechanical and visual overload protection. Operates 30 continuous hours on two 9V alkaline batteries. Automatic off feature.

CC800A

CAPACITY:	220LB /100Kg	WEIGHT:	8.5 lb/3.9 kg
ACCURACY:	.015% of Reading	POWER:	(2) 9V batteries included
RESOLUTION:	±1/4oz /±10g	READOUT:	Imperial /Metric
PLATFORM SIZE:	8 3/4" x 8 3/4" 223 x 223mm Stationary	OPERATING TEMP:	-4ºF - 156ºF / -10ºC to 50ºC
		PROGRAMMABLE:	Yes

Legal For Trade Charging Scale

Certified by NMI to meet or exceed OIML standards. Adjustable feet and bubble level ensure accurate weight measurements. The ergonomic hand held remote incorporates a 6ft coil cord, a hanging hook and is backed with a magnet for attaching to metal surfaces. Full mechanical and visual overload protection. Operates 60 continuous hours on two 9V alkaline batteries.

CCLT

CAPACITY:	50 Kg
ACCURACY:	Class III
RESOLUTION:	20 g
PLATFORM SIZE:	8 3/4" x 8 3/4" 223 x 223mm Removable
WEIGHT:	5.6 lb/2.55 kg
POWER:	(2) 9V battery included
READOUT:	Metric Only
OPERATING TEMP:	-4°F - 156°F / -10°C to 50°C
PROGRAMMABLE:	No

REMOVABLE PLATFORM

Bubble Level

Bubble Level
ensures accurate
weight measurements

PRO-SET® Portable Vacuum/Charging Stations

> ## "Ideal for both new installations and existing service work."

PRO-SET® charging stations combine all the necessary tools required to perform a full system evacuation and subsequent charging in a single, compact, mobile unit. Each station includes a Vortech or BlackMax service manifold, a PRO-SET® vacuum pump, a Compute-A-Charge® refrigerant scale and premium charging hoses. The lightweight tubular steel frame incorporates rear wheels for easy transport to and from the jobsite with integrated storage areas for all components.
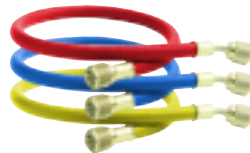
- Unsurpassed Charging Accuracy of ± 0.015% of reading
- Hanging ports and hooks for hose storage
- Rear wheels on Frame for Ease of Mobility
- Contains all Tools Needed for Charging / Evacuation
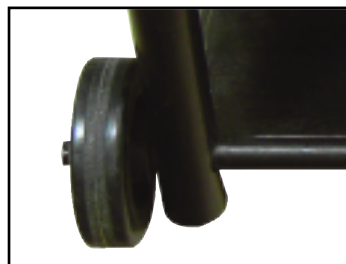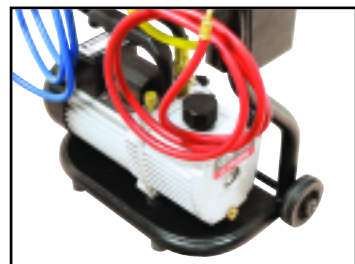- All Components Store Easily on Cart
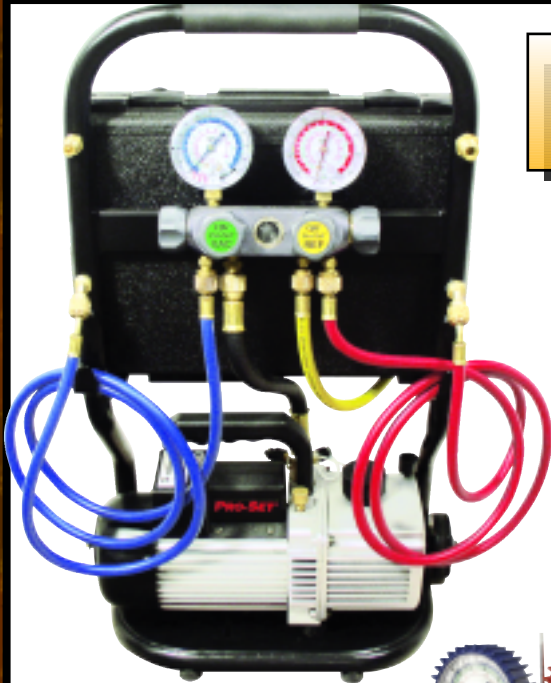
CS12DMV4TP6Q

MV4T   **HP6**   **VP2D**   **CC220**

Hard mounted manifolds

Rear wheels on Frame for Ease of Mobility

All Components Store Easily on Cart

Item	Application	Manifold Type	Refrig. Scales	Press. / Temp. Scales	Hoses	Vacuum Pump	Scale
CS12SMBDS5E	Appliance / Light Refrigeration	BlackMax™ 2 valve Manifold (MBD)	R22, R134a, R404A (2.5" / 68mm)	PSI / °F	3-pk of 5ft / 150cm Std. BV Hoses	Single Stage 2 CFM Pump (100 microns)	220lb Compute-A-Charge Scale
CS12SMBHP5E	Air Conditioning	BlackMax™ 2 valve Manifold (MBH)	R410A, R22, R404A (3.5" / 80mm)	PSI / °F	3-pk of 5ft / 150cm Prem. BV Hoses	Single Stage 2 CFM Pump (100 microns)	220lb Compute-A-Charge Scale
CS12DMV4H2P5E	Air Conditioning / Refrigeration	Vortech™ 4 valve Manifold (MV4H2)	R22, R410A, R404A, R134a (3.5" / 80mm)	PSI / °F	3-pk of 5ft / 150cm Prem. BV Hoses	Two Stage 2 CFM Pump (15 microns)	220lb Compute-A-Charge Scale
CS16DMV4H2P5E	Air Conditioning / Refrigeration	Vortech™ 4 valve Manifold (MV4H2)	R22, R410A, R404A, R134a (3.5" / 80mm)	PSI / °F	3-pk of 5ft / 150cm Prem. BV Hoses	Two Stage 6 CFM Pump (15 microns)	220lb Compute-A-Charge Scale
CS16DMV5D2P5E	Refrigeration	Vortech™ 5 valve Manifold (MV5D2)	R22, R134a, R404A (3.5" / 80mm)	PSI / °F	3-pk of 5ft / 150cm Prem. BV Hoses	Two Stage 6 CFM Pump (15 microns)	220lb Compute-A-Charge Scale
CS12DMV4TP6Q	Air Conditioning / Refrigeration	Vortech™ 4 valve Manifold (MV4T)	R22, R134a, R404A (2.5" / 68mm)	kPa / PSI / °C	3-pk of 6ft / 180cm Prem. Hoses & Cplrs.	Two Stage 2 CFM Pump (15 microns)	100kg Compute-A-Charge Scale

True RMS Digital Clamp-On Meter - CAT III 600V

- Display: 4 digit large character LCD
- Versatile for testing AC/DC voltage, AC/DC current, resistance and frequency
- True RMS AC measurement
- Data hold
- Max./Min. value measurement
- Clamp light and LCD backlight
- Auto zero key for DCA measurement
- Auto/Manual range, auto power off
- Secondary injection molded case, safety as per IEC1010 CAT.III 600V
- 40Hz - 100kHz (from test leads), +/- 0.1%
- 40Hz - 400Hz (from clamp jaw),+/- 0.1%
- DCV: 4 / 40 / 400 ± 0.8% 1000V ± 1%
- ACV: 4/40 / 400/ 700V, +/- 1.2%
- DCA: 400 /600 / 1000A ±3%
- ACA: 400 / 600 / ± 2.5%, 600/1000A ±3%
- OHM: 400 /4k / 40k / 400k/4MΩ / 40MΩ ± 2%
- Audible continuity and diode test
- Clamp size: 42mm (max.)
- Battery: 3 x 1.5V AAA
- Dimensions and weight: 225 x 86 x 33mm, 320g
- Accessories: Test Leads and Carrying Pouch

AC650

AC650 Replacement Parts	
DMXTL	1000V Cat 3 Test Leads

Open-Jaw Digital Electrical Meter - CAT III 600V

- Display: 4 digit large character LCD
- Auto/manual range
- Relative, data hold, backlight
- Auto power off
- DCV: 4 /40 /400V ±0.7% 100V ± 0.8%
- ACV: 4 /40 / 400V ±0.8% 700V ± 1.0%
- ACA: 200A ±3.0% (50Hz to 1000Hz)
- 400 /4k / 40k / 400k /4M Ω ±1.2% 40M ±2.0%
- CAP: 40n/400n/4µF ±4.0%
- Frequence: 10Hz to 100kHz ±2.0%
- Duty Cycle: 0.1% to 99.9%
- Continuity test - audible
- Diode test
- IEC1010 standard
- Accessories: Test Leads and Carrying Pouch
- Battery: 9V (1)

AC450 Replacement Parts	
DMXTL	1000V Cat 3 Test Leads

AC450

Digital Multimeter - CAT III 1000V

- RS-232 interface
- Designed to international safety standard IEC1010 CAT.III 1000V
- Secondary molded case
- Display: 4 digit large character LCD
- DC Voltage: 60m/6/60/600V ± 0.5%, 1000V ± 0.8%
- AC Voltage: 60m/6/60/600V ± 0.8%, 700V ± 1.0%
- DC Current: 600µ/6000µ/60m/600mA ± 1.2%, 10A ± 1.5%
- AC Current: 600µ/6000µ/60m/600mA ± 1.5%, 10A ± 2.0%
- Resistance: 600/6k/60k/600k/6MΩ ±1.0%, 60MΩ ± 1.5%
- Capacitance: 6nF ± 1.8%, 60n/600n/ 6µ F ± 1.0%, 60µ/600µ/6mF ± 1.5%
- Frequency: 6000/60k/600k/6M/60MHz ± 0.5%
- Diode Test
- Continuity Test - audible
- Autorange and Manual Range
- Data Hold
- Max./Min. Value Measurement
- Back Light
- Auto Power Off
- One 9V Alkaline battery
- Size: 195 x 92 x 43mm
- Weight: Approx. 380g (including battery)
- Accessories: Hard carrying case,Test leads, "K" type bead
   Thermocouple, and Data log application software & RS232 cable
- Temperature: -40˚C to 500˚C ± 2%

DM450

DM450 Replacement Parts	
DMXTL	1000V Cat 3 Test Leads
DMXF2	Fuse Set

Autorange Digital Multimeter - CAT III 600V

- Designed to international safety standard IEC1010 CAT III 600V
- Secondary injection molded case
- Auto Range
- Data Hold
- Maximum Value Measurement
- Back Light
- Auto Power off
- Display: 4 digit large character LCD
- DC Voltage: 200m / 2 / 20 / 200 / 600V ±0.7%
- AC Voltage: 200m / 2 / 20 / 200 / 600V ±0.7%
- DC Current: 200µ / 2000 µ / 20m / 200mA ±1.2%, 2/10A±2.0%
- AC Current: 200 µ / 2000 µ / 20m / 200mA ±1.5%, 2/10A±3.0%
- DC Current: (WITH OPTIONAL CLAMP): 200/2000A (0.1mV/0.1A) ±1.2%
- AC Current: (WITH OPTIONAL CLAMP): 200/2000A (0.1mV/0.1A) ±1.5%
- Resistance: 200 / 2k / 20k / 200k / 2M ± 1.2%: 20M ± 2.0%
- Temperature: -20°C - 1000°C ± 3.0%, 0°F ~ 1800°F ± 3.0%
- Capacitance: 20n / 200n / 2µ / 20µ / 200µ / 2000µF ± 4.0%
- Continuity Test - Audible
- Diode Test
- Transistor hFE Test
- Power: 1.5V (AAA) X 3
- Size: 158 X 74 X 31mm
- Weight: Approx. 220g (INCLUDING BATTERY)
- Accessories: Thermocouple, Leads, and Batteries

DM350

DM350 Replacement Parts	
DMXTL	1000V Cat 3 Test Leads
DMXF1	Fuse Set

CPS®

TEMP-SEEKER® Humidity/Temperature/Wet Bulb Diagnostic Analyzer

The TM350 is a professional grade thermo-psychrometer adaptable to accommodate all your temperature, humidity, dry/wet bulb and dew point measurements.The unit incorporates 4 discrete temperature ports all capable of min/max and memory functions including temperature differential between any 2 of the 4 available ports. Press the SCAN key and the display will alternate between all 4 ports in three second intervals providing continuous monitoring of multiple probe points during critical system diagnosis. A dedicated special purpose port accommodates an optional state of the art silicon humidity transducer probe for fast and accurate measurements during superheat calculations. Designed in a rugged polyethylene case the TM350 is engineered to provide laboratory accuracy in rough field conditions. A generous probe storage area is provided for housing all your job specific probes directly in the unit itself.

Features:

- Ideal for critical superheat calculations
- High accuracy silicon humidity transducer probe humidity probe port
- Large easy-to-read backlight display
- Min / Max and memory functions
- Temperature differential between any 2 ports
- Direct relative humidity and wet bulb measurements
- Auto-off after 15 minutes of non-use or continuous ON mode
- Integrated battery eliminator jack
- Rugged polyethylene carrying case w/ large probe storage area
- Large probe storage area
- Switchable ºF/ºC
- 1 year warranty

TM350

TM350 includes (1) TMX2A, (1) TMX2S, (1) TMX2G
TM350A includes (1) TMX2C, (1) TMX2GA, (1) TMX2FP
TM350C includes (1) TMX2C, (1) TMX2S, (1) TMX2A

Instrument Specifications:

- Calibrated to NIST traceable standards
- Operating temperature range:
  - 15˚F to 120˚F (-10˚C to +50˚C)
  - at 95% RH non condensing
- Accuracy: ±0.4˚F (14˚F to 158˚F)
  - ±0.2˚C (10˚C to 70˚C)

- Resolution: ±0.1 degree from -40 to 99.9, ±1.0 degree from 100 to 300
- Auto power off after 10 minutes of non-use or selectable continuous ON mode
- 30 hrs battery life on (1) 9V alkaline
- Optional AC adaptor for 100 to 240 VAC mains, 2.1 mm center positive

Accessory Probes (15ft / 4.5m Leads)

TMX2A
AIR PROBE
-40 to 221˚ F / -40 to 105˚ C

TMX2P
PUNCTURE PROBE
-40 to 257˚ F / -40 to 125˚ C

TMX2S
VELCRO STRAP PIPE PROBE
-40 to 257˚ F / -40 to 125˚ C

TMX2C
PIPE CLAMP-ON PROBE
-40 to 221˚ F / -40 to 105˚ C

TMX2RH
RH/DP Probe TM250
-40 to 194˚ F / -40 to 90˚ C

TMX2FP
FLEXIBLE TOUCH PROBE
-40 to 221˚ F / -40 to 105˚ C

TMX2G
GENERAL PURPOSE PROBE
-40 to 257˚ F / -40 to 125˚ C

TMX3RH
RH/WB/DP Probe TM350
-40 to 194˚ F / -40 to 90˚ C
RH range: 0 to 100%

TMX2GA
GENERAL PURPOSE AIR PROBE
-40 to 257˚ F / -40 to 125˚ C

CPS®

TEMP-SEEKER® Non-Contact Infrared Thermometer

The **TMINI12** infrared thermometer provides instant temperature measurement over a wide range of applications. The unit offers simple one-handed operation, laser point sighting, a backlit display, °C/°F select ability and an automatic power off feature. Use the TMINI12 to quickly measure temperatures of registers, ductwork, furnaces, evaporators, condensers, compressors, relays, manifolds, radiators, exhaust systems, thermostats, bearings and more. Leather carrying case and 9V alkaline battery are included.

K-TYPE INPUT

4 Digit Backlit LCD

LED LIGHT

TMINI12

TEMPERATURE RANGE:	-76°F to 932°F or -60°C to 500°C
D:S (Distance to Spot Size):	12:1
EMISSIVITY:	Emmisivity pre-set at 0.95 - adjustable
ACCURACY:	±2ºC (±4ºF) or ±2% of reading
DISPLAY:	Digital Backlit LCD
RESOLUTION:	1ºC/Fº
BATTERIES/LIFE:	(2) AAA batteries and auto power off

The unit offers simple one-handed operation, laser point sighting, a backlit display, °C/°F select ability and an automatic power off feature.
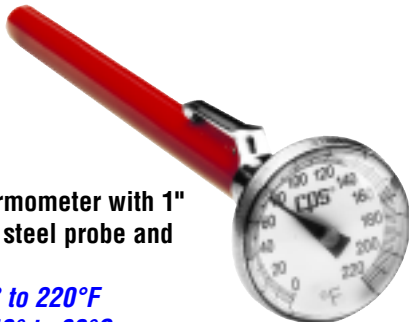
Digital and Analog Pocket Thermometers

A step above the standard pocket thermometer the **TM50** is packed full of features, including a user selectable temperature alarm, a countdown timer, Min/Max, °F/°C selectable and memory functions. The unit incorporates a highly accurate stainless steel 96mm puncture probe with a 4ft/122cm cord. Temperature range is -58° to 500°F / -50° to 260°C. The TM50 operates on a single AAA alkaline battery with 25 hours of battery life and a low battery indicator.
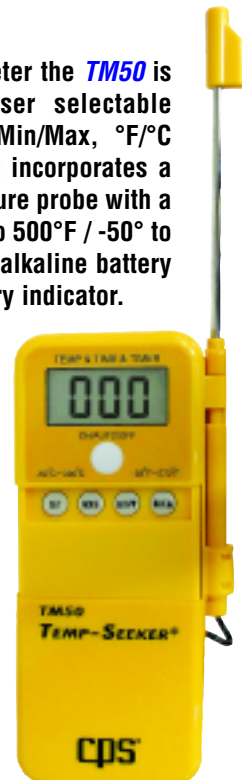
TMDP

Digital pocket thermometer with stainless steel probe and pocket clip.
Range: -58° to 302°F / -50° to 150°C

TMAP

Analog pocket thermometer with 1" dial and Stainless steel probe and pocket clip
*TMAP: Range: 0° to 220°F*
TMAPC: Range: -40° to 80°C

ON/AUTO/OFF
-50°C~300°C -58°F~572°F
SET MODE MIN▼ MAX▲
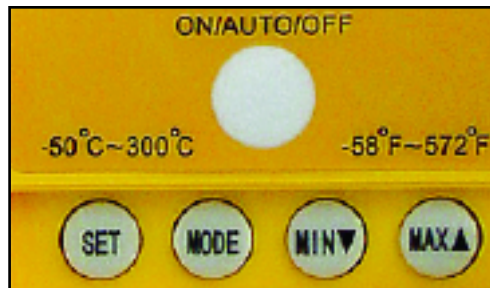
TM50
Temp-Seeker®

TM50

K-TYPE TEMPERATURE PROBES

The **TMXSK90** is the fastest and most accurate handheld K-type surface probe providing accurate readings in less than 5 seconds. The sensor is made from flat-spring ribbons of thermocouple material for contact on uneven surfaces. An angled head for measuring hard to reach surfaces and a 3 foot coiled lead for durability and long reach. The exposed junction provides for fast response and is compatible with any other instrument with a **K-Type** input.

TMXSK90
Max Temp: 752˚F (400˚C)
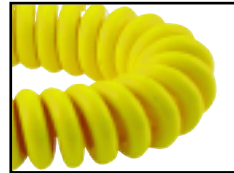
Coiled Lead | **Flat-Spring Ribbons** | **Angled Head**

The **TMXSK** is the fastest and most accurate handheld K-type surface probe providing accurate readings in less than 5 seconds. The sensor is made from flat-spring ribbons of thermocouple material for contact on uneven surfaces. A ribbed handle for grip and a 3 foot coiled lead for durability and long reach. The exposed junction provides for fast response and is compatible with any other instrument with a **K-Type** input.
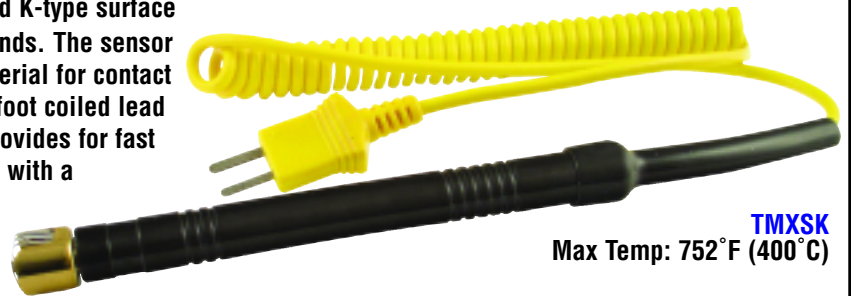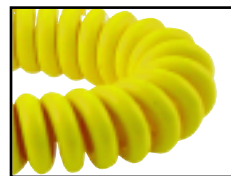
TMXSK
Max Temp: 752˚F (400˚C)

Used as seen above on the **CPS TMINI12** and is compatible with any other instrument with a **K Type** input.

TMINI12

TMXSK

Coiled Lead | **Flat-Spring Ribbons** | **Ribbed Handle**
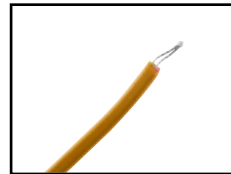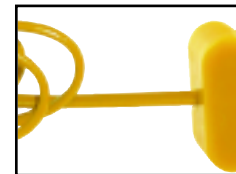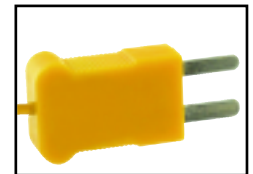
Bead | **Covered Lead** | **Exposed Junction**

The **TMXKBEAD** is a standard K-type bead probe ideally suited for getting fast results when measuring temperature in a variety of media. This 36" long (1 meter) probe provides accurate readings in less than 5 seconds over the range of -58ºF to 400 ºF (-50 ºC to 204 ºC).

TMXKBEAD
Max Temp: 400˚F (204˚C)
Min Temp: -58˚F (-50˚C)

VELOCITOR™ Air Velocity Meter

AM50

CE ✓ N11445

Precision vane type anemometer provides fast, accurate air velocity measurements for use in balancing HVAC systems or determining CFM calculations. A convenient TYPE K thermocouple is built-in to the remote vane providing quick measurement of grille/duct outflow temperatures from 32 to 122 F / 0 to 50 C. Included, is an easy-to-read laminated conversion chart that allows the user to quickly convert air velocity measurements into CFM calculations at a glance. Shipped with a rugged carrying case and is CE approved.

RANGE/ACCURACY OF WIND VELOCITY

UNITS	RANGE	ACCURACY
Ft/Min	0-8800	±3% or 0.1
M/S	0-45	±3% or 0.1
km/Hr	0-140	±3% or 0.1
knots	0-88	±3% or 0.1

CFM CHART (Grill Size)

Air Velocity (feet per minute)

CFM equation: sq.ft. of Grill Size X Maximum Air Velocity(feet per minute) X 2/3 = CFM

Sound Level Meter

SM150

CE ✓ N11445

Professional grade sound level indicator designed to measure noise levels from 35 to 130dB. The unit incorporates a large LCD, maximum hold function, Over and Under range indicator, peak and average response settings and A-C weighing for checking compliance with standard safety regulations. Applications include the monitoring of HVAC/R compressors, blowers, health and safety requirements, environmental quality issues, offices, factory machinery, airports, auditoriums and studio acoustics. Unit is CE approved and includes carrying case.

Chart of sound levels L and corresponding sound pressure and sound intensity

EXAMPLES	SOUND PRESSURE LEVEL dBSPL	SOUND PRESSURE N/m2 = Pa	SOUND INTENSITY / watts/m2
Jet aircraft, 50 m away	140	200	100
Threshold of pain	130	63.2	10
Threshold of discomfort	120	20	1
Chainsaw, 1m distance	110	6.3	0.1
Disco, 1 m from speaker	100	2	0.01
Diesel truck, 10m away	90	0.63	0.001
Curbside of busy road, 5m	80	0.2	0.0001
Vacuum cleaner, distance 1m	70	0.063	0.00001
Conversational speech, 1m	60	0.02	0.000001
Average home	50	0.0063	0.0000001
Quiet library	40	0.002	0.00000001
Quiet bedroom at night	30	0.00063	0.000000001
Background in TV studio	20	0.0002	0.0000000001
Rustling leaf	10	0.000063	0.00000000001
Threshold of hearing	0	0.00002	0.000000000001

VACROMETER™ Digital Vacuum Gauge

Advanced measurement instrument providing continual digital readout of evacuation process on large 5 digit LCD. Measurement units are user selectable to read in Microns,Torr, in/hg or mBar at the touch of a key. Advanced surface mount technology automatically compensates for ambient changes in the environment ensuring accuracy and consistency in performance. Advanced field-cleanable sensor is able to withstand 400 PSI of positive pressure. Unit operates 30 hours on 9V alkaline battery with low battery indicator and auto off feature. Includes carrying case, hanging hook, AVT45, 9V battery and is CE approved.

VG201 = VG200 + 1/8" NPT Thread Connection

VG200   **AVT45**

SENSOR:

TYPE	Self - heated thermistor bridge with integral temperature compensation from 0 to 50 °C (32 to 122 °F).
OPERATING PRESSURE RANGE	Atmospheric pressure to 0 microns Maximum Working pressure: 400 PSIG
BURST PRESSURE	3000 PSIG
OPERATING RANGE	VG200- Atmospheric to 0 microns / VG100A- Atomospheric to 25 Microns
ACCURACY	+/- 10% of Reading.
OPERATING TEMPERATURE RANGE	Compensated (accuracy as stated): 0°C TO 50°C (32°F TO 122°F) Non-compensated (add +/- 0.5% error for every °C outside compensated range): 0 to 50°C (-22 to 158°F)
OPERATING & STORAGE HUMIDITY	0-95%, non-condensing.
STORAGE TEMPERATURE	- 40 to 185°F / - 40 to 85°C
POWER SOURCE	One 9 volt alkaline battery (ANSI 1604AC – IEC 6LR61)
BATTERY LIFE	20 hours of continuous use. Instrument shuts itself off after 5 minutes of operation.
WEIGHT	5.5 oz. / 153 g. excluding the battery.
DIMENSIONS	68 mm. diameter by 40 mm. deep by 124 mm. overall height (2.7" dia. by 1.6" deep by 5" overall height).
MECHANICAL CONNECTION	Standard 1/4" female SAE refrigerant hose type with core depressor.
BATTERY INDICATOR	Battery symbol with 3 segment Power Level Bar Graph. (VG200). LED Low Battery Indicator (VG100)

VACROMETER™ Vacuum Gauge

Compact self-contained instrument designed to provide constant indication and monitoring of the evacuation process from start to finish. Nine discrete high intensity LED's are preset to illuminate upon achieving industry standards for proper system evacuations. Advanced surface mount technology automatically compensates for ambient changes in the environment ensuring accuracy and consistency in performance. Advanced field-cleanable sensor is able to withstand 400 PSI of positive pressure. Unit operates 25 hours on 9V alkaline battery with low battery indicator and auto-off feature. Includes carrying case.

VG100A   **AVT45**

1/4" SAE Female x 1/4" SAE Male

Spare parts & Accessories for VG100A / VG200

ITEM	DESCRIPTION
VGXC	Carrying case VG100A/ VG200
VGXH	Hanging Hook
AVT87	Adapter for VG100A/VG200. 1/4" SAE male to 1/2"-20 male to 1/2" -20 swivel female tee
AVT48	Adapter for VG100A/VG200. 1/4" SAE male to 1/2" ACME male to 1/4" SAE swivel female tee
AVT45	Adapter for VG100A/VG200. 1/4" SAE male to 1/4" SAE male to 1/4" SAE swivel female tee

Dual Voltage Two Stage Vacuum Pumps

GAS BALLAST VALVE

Dual voltage design vacuum pump operates on 115 VAC or 230 VAC (50 or 60Hz). Advanced two-stage design pulls deep vacuum fast to 15 microns.

Model	VP2D	VP3D	VP6D
Free Air Displacement	1.9 CFM @ 60HZ 45 l/m @ 50Hz	3.15 CFM @ 60HZ 75 l/m @ 50Hz	6.25 CFM @ 60HZ 148 l/m @ 50Hz
Horse Power RPM (50/60Hz)	1/4 HP 1440/1720	1/3 HP 1440/1720	1/2 HP 2880/3440
Ultimate Vacuum	15 microns		
Inlet Ports (male flare)	1/4", 3/8" SAE Male & 1/2" ACME Male		
Oil Capacity	12oz./350 ml	15oz./450ml	15oz./ 450ml
Dimensions	13" x 5.3" x 10"	13.7" x 5.6" x 10.4"	13.7" x 5.6" x 10.4"
Shipping Weight	21.66lb/9.8kg	25.42 lb/11.5kg	25.42lb/11.5kg

For Australia: VP2DA, VP3DA, VP6DA all Single Voltage 240VAC/50Hz.

LARGE OIL SIGHTGLASS

CE N11445

Model	VP8D	VP10D	VP12D
Free Air Displacement	7.9 CFM @ 60HZ 186 l/m @ 50Hz	10.0 CFM @ 60HZ 236 l/m @ 50Hz	11.8 CFM @ 60HZ 278 l/m @ 50Hz
Horse Power RPM (50/60Hz)	2/3 HP 2880/3440	2/3 HP 2880/3440	3/4 HP 2880/3440
Ultimate Vacuum	15 microns		
Inlet Ports (male flare)	1/4", 3/8" SAE Male & 1/2" SAE Male		
Oil Capacity	13.5 oz./400ml	14 oz./425ml	15 oz./450ml
Dimensions	15" x 6.2" x 11.2"		
Shipping Weight	32.95lb/14.5kg	34.26lb/15.5kg	36.47lb/16.5kg

Universal IEC plug
All units/dual voltage 115V & 230V

Dual Voltage Single Stage Vacuum Pumps

Model	VP2S	VP3S	VP6S
Free Air Displacement	1.9 CFM @ 60HZ 45 l/m @ 50Hz	3.15 CFM @ 60HZ 75 l/m @ 50Hz	5.85 CFM @ 60HZ 138 l/m @ 50Hz
Horse Power RPM (50/60Hz)	1/5 HP 1440/1720	1/4 HP 1440/1720	1/3 HP 1440/1720
Ultimate Vacuum	100 microns		
Inlet Ports (male flare)	1/4", 3/8" SAE Male & 1/2" ACME Male		
Oil Capacity	13.5 oz./400 ml	13 oz./380 ml	17 oz./ 500 ml
Dimensions	13" x 5.3" x 10"	13" x 5.3" x 10"	13.7" x 5.6" x 10.4"
Shipping Weight	18.11lb/8.2kg	19.44lb/8.8kg	24.75lb/11.2kg

LARGE OIL SIGHTGLASS

CE N11445

VPXJ220
220 VAC jumper power cord for locations where 110 voltage is not available.
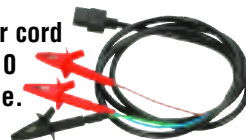
VPXOMP
Oil mist preventer exhaust port.

CPS® PRO-SET®
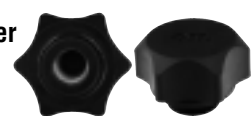
Vacuum Pump Replacement Parts

ITEM	DESCRIPTION
VPXB2	Rubber Base-Medium VP6S/VP6D
VPXB3	Rubber Base- Large VP8D/VP10D/VP12D
VPXC100	Capacitor 100ufd VP6S/VP6DVP8D/VP10D/VP12D
VPXCS2	Centrifugal motor start switch (PCB) VP6S/VP6D
VPXCS3	Centrifugal motor start switch (PCB) VP8D/VP10D/VP12D
VPXEB2	End Bell w/Sightglass (Medium) VP6S/VP6D
VPXEB3	End Bell w/Sightglass (Large) VP8D/VP10D/VP12D
VPXEBO2	End Bell O-ring (Medium) VP6S/VP6D
VPXEBO3	End Bell O-ring (Large) VP8D/VP10D/VP12D
VPXEH	Plastic Electric Housing- VP6S/VP6DVP8D/VP10D/VP12D
VPXEP1	Electrical Panel VP6S/VP6D
VPXEP2	Electrical Panel VP8D/VP10D/VP12D

ITEM	DESCRIPTION
VPXF15	Fuse T15A VP8D/VP10D/VP12D
VPXFB2	Fan Blade- Medium VP6S/VP6D
VPXFB3	Fan Blade- Large VP8D/VP10D/VP12D
VPXFG2	Fan Grill- Medium VP6S/VP6D
VPXIP3	Port Kit 8-12 CFM VP8D/VP10D/VP12D
VPXODP	Oil Drain Plug w/O-ring VP6S/VP6D/VP8D/VP10D/VP12D
VPXOEP	Exhaust/Oil Fill Port VP6S/VP6D/VP8D/VP10D/VP12D
VPXOL2	Overload B120-110 DRB4 VP6S
VPXOL3	Overload DF690-KB DRB3
VPXH	Handle VP6S/ VP6D VP8D/VP10D/VP12D
VPXIP2	Port Kit 2-6 CFM VP6D

Anti-Siphon Valve Kits

VPASU

VPAS8

Connects directly to intake port of pump.
**All kits includes:
1/4" SAE, 3/8" SAE
& 1/2"-20
UNF Male fittings.**
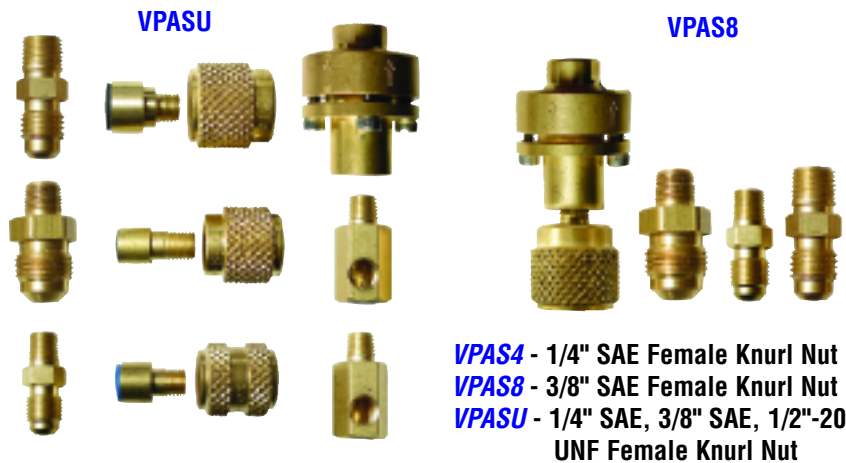
VPAS4 - 1/4" SAE Female Knurl Nut
VPAS8 - 3/8" SAE Female Knurl Nut
VPASU - 1/4" SAE, 3/8" SAE, 1/2"-20
UNF Female Knurl Nut

The CPS anti-siphon valve is an essential accessory to any vacuum pump application. The anti-siphon valve prevents the cross-contamination of vacuum pump oil and the compressor oil in the A/C or refrigeration system being serviced. Mixing of vacuum pump oil and compressor oil can cause premature failure in the A/C or refrigeration system. CPS makes three models that fit all CPS and other brands of vacuum pumps. *Add to any brand of vacuum pump to prevent the cross-contamination of vacuum pump oil and the compressor oil of the system being serviced.*

Premium Vacuum Pump Oils

PRO-SET® Premium Vacuum Pump Oil is an extremely high quality, severely hydrotreated vacuum pump oil. The oil is compatible for use in pumps made by most manufacturers. *PRO-SET*® Premium Vacuum Pump Oil should always be clean and free of contaminants such as moisture, acids, vapors, dirt etc. It is strongly recommended that the vacuum pump oil be changed after each use to improve service and the life of the pump.

VPOG 6
one gallon/qty.6

VPOQ 12
one quart/qty.12

VPOP 12
one pint/qty.12

ITEM	DESCRIPTION
VPOG6	(6) one gallon bottles
VPOQ12	(12) one quart bottles
VPOP12	(12) one pint bottles

Vacuum Pump Brass Cap Kit

AVCVAC

1/2" ACME

1/2" SAE

3/8" SAE

1/4" SAE

**Vacuum pump cap kit with chains
on one common ring**

CPS® PRO-SET® REFRIGERANT RECOVERY MACHINES

PRO-SET® Oil-Less Refrigerant Recovery Machine

CYCLONE 1HP

CR700

- Fastest overall ARI certified recovery rates in its class
- Powerful 1HP oil-less reciprocating recovery compressor
- Exceptional compressor, condensing & cooling systems allow fast recovery in high temperature environments
- Automatic Low Pressure shut-off feature turns unit off when recovery is completed
- Rugged high density double walled plastic housing with easy view top mounted controls
- R-410A ready with 550psi high pressure shut-off switch
- Ergonomic well balanced design for easy transport including shoulder strap - weighs 36 lbs/16.2kg
- Built-in suction filter located under suction port
- Worldwide patents pending
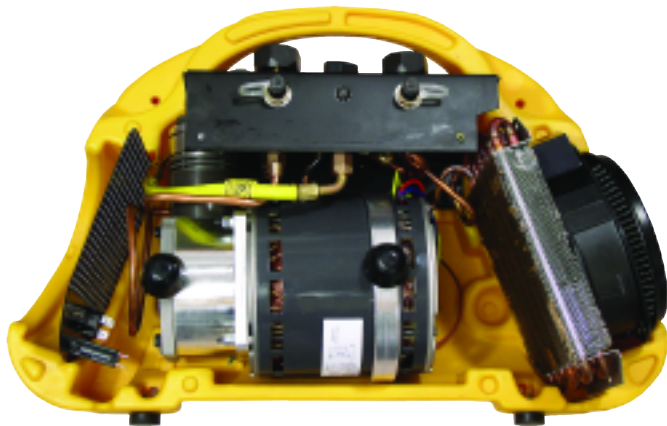
- Compact modular design with easy access 4 bolt latching system
- Complete compressor rebuilt in minutes
- Externally serviceable valves and gauges
- Integrated component moorings for quiet operation
- Fewer components equals more reliability

Oversized Piston   Larger discharge port
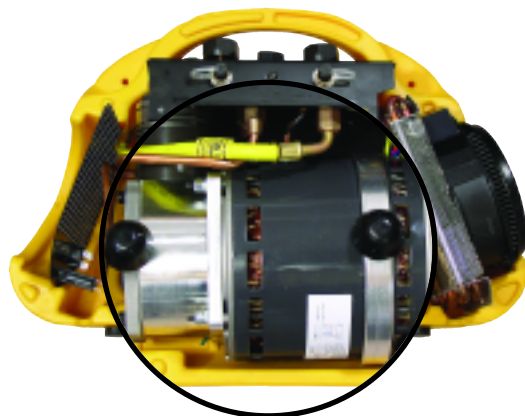
- Powerful 1HP oil-less reciprocating recovery compressor
- Oversized piston head & cylinder combined with a larger discharge port
- No suction valve eliminates failures caused by liquid slugs
- Heavy duty components with special long-lasting composite seals

Outgoing refrigerant flow (Discharge Valve)

Low pressure expansion chamber

Incoming refrigerant flow (Suction Port)

Unique suction port design eliminates suction valve & precisely meters incoming refrigerant.

19
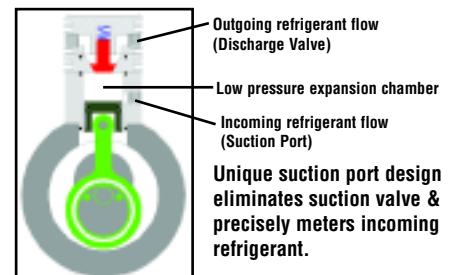
CPS® PRO-SET® REFRIGERANT RECOVERY MACHINES

PRO-SET® Oil-Less Refrigerant Recovery Machine

UL CERTIFIED
meets or exceed EPA Regulations per ARI Standard 740-98

CR700 Series

Item	Voltage	Gauges
CR700	115V	psig/kgcm^2
CR700E	220-240V	BAR/kPa
CR700S	230V	psig/kgcm^2
CR700J	100 V	MPa

CR710 (CR700 with safety overfill cord)

Replacement Parts

CRXCR1	Compressor Rebuild Kit for CR600 (all)
CRXCR2	Compressor Rebuild Kit for CR500 (115V)
CRXCR3	Compressor Rebuild Kit for CR500 (230V)
CRXCR8	Compressor Rebuild Kit for CR700 (all)
CRXTOS2	CR Overfill Sensor Cord Kit 115V
CRXTOS2	CR Overfill Sensor Cord Kit 230V
CRXF2	(6) Suction Filters for CR300, 400, 500, 600
CRXF3	(6) Suction Filters for CR700

	CR700	CR700J	CR700E	CR700S
Compressor Type	1 HP oil-less reciprocating compressor			
Dimensions	20cm (8") wide x 37cm (14.5") long x 30.5cm (12") high			
Weight	15.3kg (34lbs.)			
Oprtg. Temp. Range	0°C (32°F) to 49°C (120°)			
Power Source	115V 50/60Hz 1 HP	100V 50/60Hz 1 HP	220-240V 50/60 Hz 1 HP	230V 50/60 Hz 1 HP
Power Consumption	850 W			
Filtration	Cleanable 100-mesh screen integrated into Suction Port			
Shut-off valves	Both Suction and Discharge piston manifold valves			
Overload Protection	15 amp		8 amp	

Competitive Comparison Recovery Rates

	Refrigerant	Test Conditions at 75 F Degrees			104 F Degrees	NRTL Ratings
		Liquid (kg/m)	Push / Pull (kg/m)	Vapor (kg/m)	High Temp Vapor (kg/m)	
CPS CR700	R410A	2.95	6.97	0.23		(UL) QVBC SA12068
Appion G5	R410A	1.58	4.63	0.30		(UL) QVBC SA13136
Yellow Jkt 95760	R410a	0.76	5.54	0.22		(UL) QVBC SA12038
Promax RG5410EX	R410A	2.33	6.39	0.20		(UL) QVBC SA12994
Promax RG5410A	R410A	1.85	4.91	0.16		(UL) QVBC SA12994
Inficon Vortex AC	R410A	1.66	5.15	0.08		(UL) QVBC SA12798
Stinger 2000-3300	R410A	1.37	6.63	0.10		(AR) RRRE-05040-1Q
CPS CR700	R22	3.11	7.17	0.22	0.242	(UL) QVBC SA12068
Appion G5	R22	2.82	7.54	0.28	0.19	(UL) QVBC SA13136
Yellow Jkt 95760	R22	0.90	6.12	0.15	0.15	(UL) QVBC SA12038
Promax RG5410EX	R22	1.90	6.58	0.18	0.14	(UL) QVBC SA12994
Promax RG5410A	R22	1.81	4.32	0.15	0.13	(UL) QVBC SA12994
Inficon Vortex AC	R22	1.35	2.50	0.11	0.13	(UL) QVBC SA12798
Stinger 2000-3300	R22	1.60	5.58	0.13	0.13	(AR) RRRE-05040-1Q
CPS CR700	R134	2.15	6.30	0.15		(UL) QVBC SA12068
Appion G5	R134	1.97	5.03	0.19		(UL) QVBC SA13136
Yellow Jkt 95760	R134	1.13	6.12	0.10		(UL) QVBC SA12038
Promax RG5410EX	R134	1.09	5.30	0.14		(UL) QVBC SA12994
Promax RG5410A	R134	1.57	3.63	0.11		(UL) QVBC SA12994
Inficon Vortex AC	R134	1.13	3.44	0.10		(UL) QVBC SA12798
Stinger 2000-3300	R134	1.21	4.98	0.10		(AR) RRRE-05040-1Q

Rates on this table @ 60Hz, for 50Hz reduce by 15%

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Above information derived from independent test results viewable at http://www.ul.com and http://www.ari.org
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CPS® PRO-SET® REFRIGERANT RECOVERY MACHINES

PRO-SET® Oil-Filled Refrigerant Recovery Machine

ALL PRO-SET® MACHINES HAVE:
- On the fly self-clearing valve (except CR300)
- Integrated manifold block system
- Built-in suction filter located under suction port
- Indestructible high-density polyethylene case
- Comfortable integrated carrying handle
- Worldwide approvals CSA/CE/TUV-GS
- UL certified to meet or exceed EPA regulations per ARI standard 740-95

BUILT-IN 100 MESH PARTICLE FILTER
Located Under The Suction Port of All PRO-SET®
RECOVERY MACHINES

CR300
CR300
- Economical Recovery Workhorse
- Heavy-duty oil filled compressor
- Simple easy-to-use design
- Built-in Suction filter
  - **CR300A** - 230V, kPa gauges
  - **CR310** (w/ overfill sensor cord)

CR400
- Fully automatic liquid or vapor recovery
- Advanced rifled tube lance fin condenser
- Extremely quiet operation
- 550 PSI high pressure cut-off switch
  - **CR400E** - 230V, BAR/kPa
  - **CR400S** - 230V, psi/kgcm2
  - **CR410** (w/ overfill sensor cord)

CE C N11445 SA RWTUV GS

UL CERTIFIED
to meet or exceed EPA Regulations
per ARI Standard 740-95

	CR300A/CR300S	CR300/CR400	CR400E/CR400S
Direct Vapor	0.22lbs/min (6kg/hr)	0.22lbs/min (6kg/hr)	0.22lbs/min (6kg/hr)
Direct Liquid	0.73lbs/min (19.8kg/hr)	0.73lbs/min (19.8kg/hr)	0.73lbs/min (19.8kg/hr)
Push-Pull Liquid	10.38lbs/min (282kg/hr)	10.38lbs/min (282kg/hr)	10.38lbs/min (282kg/hr)
Applications	Appliances, small A/C units, automobiles	Appliances, small A/C units, automobiles	Appliances, small A/C units, automobiles
Compressor	1/6 HP Hermetic	1/6 HP Hermetic	1/6 HP Hermetic
Voltage	230 VAC 50-60hz	115 VAC 50-60hz	230 VAC 50-60hz
Weight	28lbs/12.6kg	28lbs/12.6kg	28lbs/12.6kg
Approvals	CE	*UL/CE	CE/TUV-GS

CR500
- Lightest machine in its class, weighs less than 20lbs./8.8kg
- Advanced rifled tube lance fin condenser
- Fast recovery of liquid or vapor
- 550 PSI high pressure cut-off switch
  - **CR500E** - 230V, BAR/kPa
  - **CR500S** - 230V, psi/kgcm²
  - **CR510** (w/ overfill sensor cord)

CR600E
- Advanced high efficiency condensor
- "Super Cool" dual fan cooling system
- 550 PSI high pressure cut-off switch
  - **CR600E** - 230V, BAR/kPa
  - **CR600S** - 230V, psi/kgcm²

R-410A

CR500/CR600

CE C N11445 SA RWTUV GS

UL CERTIFIED
to meet or exceed EPA Regulations
per ARI Standard 740-95
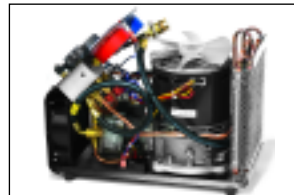
SUPER COOL DUAL FAN SYSTEM
CR600 MODELS ONLY!
Unit Operates in 140°F/60°C
Desert Heat!
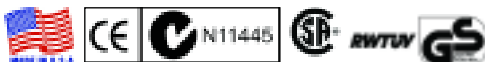
	CR500	CR500E/CR500S	CR600E	CR600S
Direct Vapor	0.38lbs/min (10.3kg/hr)	0.38lbs/min (10.3kg/hr)	0.38lbs/min (10.3kg/hr)	0.38lbs/min (10.3kg/hr)
Direct Liquid	3.03lbs/min (82.3kg/hr)	3.03lbs/min (82.3kg/hr)	2.60lbs/min (70.6kg/hr)	2.60lbs/min (70.6kg/hr)
Push-Pull Liquid	12.22lbs/min (332kg/hr)	12.22lbs/min (332kg/hr)	11.66lbs/min (317kg/hr)	11.66lbs/min (317kg/hr)
Applications	Residential A/C, Commercial	Residential A/C, Commercial	Residential A/C, Commercial	Residential A/C, Commercial
Compressor	1/3 HP Oil-less	1/3 HP Oil-less	1/2 HP Oil-Less	1/2 HP Oil-Less
Voltage	115VAC 50-60hz	230 VAC 50-60hz	220 VAC 50-60hz	230 VAC 50-60hz
Weight	20lbs/9.0kg	20lbs/9.0kg	29lbs/13.1kg	29lbs/13.1kg
Approvals	*CSA/UL/CE	CE/TUV-GS	CE/TUV-GS	CE

CPS® PRO-SET® REFRIGERANT RECOVERY MACHINES

Refrigerant Recycling Module

CR700
CRXRM
CC220

CRXRM

*Operates with all brands of recovery machines

FEATURES:
- Easy access one bolt cover with 42 cubic inch solid core drier.
- High efficiency coalescent oil separator to remove oil and other contaminates from refrigerant.
- Ball Valves on the hoses for easy hook up and safe disconnection.
- Built in manifold with self clearing valve. Prepares the unit for the next refrigerant.
- Manifold utilizes CPS exclusive Triple Seal piston valves.
- Suction and discharge gauges for monitoring operation.
- 1/4" SAE Male flare oil drain port to remove recovered oil and contaminants.
- Light weight (15lbs) and ergonomically designed handle for portability.
- Heavy duty powder coated aluminum chassis surrounded by a tough high-density polyethylene case.
- 1/4" SAE Male flare fittings.

Refrigerant Recovery Tanks

ITEM	DESCRIPTION	Water Capacity	DOT Specification	Service Pressure
ARX134T	Automotive 50lb tank with 1/2" ACME M fitting	47.7lb / 21.7kg	DOT04BA-400	400 PSIG
ARX134TS	Automotive 50lb tank with 1/2" ACME M fitting and overfill sensor	47.7lb / 21.7kg	DOT04BA-400	400 PSIG
CRX390T	90lb tank with 1/4" SAE M fitting on tank. 1/4" SAE FM x 1/2" ACME M adapter fitting included	92 lb / 41.7kg	DOT04BW-400	400 PSIG
CRX390TS	90lb tank with 1/4" SAE M fitting on tank and overfill sensor. 1/4" SAE FM x 1/2" ACME M adapter fitting included	92 lb / 41.7kg	DOT04BW-400	400 PSIG
CRX400T	50lb tank with 1/4" SAE M fitting	47.7lb / 21.7kg	DOT04BA-400	400 PSIG
CRX400TS	50lb tank with 1/4" SAE M fitting and overfill sensor	47.7lb / 21.7kg	DOT04BA-400	400 PSIG
CRX430T	30lb tank with 1/4" SAE M fitting	26.2lb / 11.9kg	DOT04BA-400	400 PSIG
CRX430TS	30lb tank with 1/4" SAE M fitting and overfill sensor	26.2lb / 11.9kg	DOT04BA-400	400 PSIG

CRX430T
1/4" SAE tank
CRX430TS
1/4" SAE tank
with float

ARX134T
1/2" ACME (AR300/400)
U.S. Automotive
ARX134TS
1/2" ACME with float
(AR500)

CRX400T
1/4" SAE tank
CRX400TS
1/4" SAE tank
with float

CRX390T
1/4" SAE & 1/2" ACME
tank adapter
CRX390TS
1/4" SAE with float

CPS® PRO-SET®

VORTECH VALVE SYSTEM ™

PATENT PENDING

- Advanced VVS diaphragm valve system
- Certified 15 micron vacuum rating
- Red & blue protective gauge boots
- New 45° fittings for easy hose storage (2 valve series only)
- Anodized aircraft aluminum block body
- Precision flutter-free metal cased gauges
- Heavy duty plastic valve handles
- Oversized refrigerant sight glass
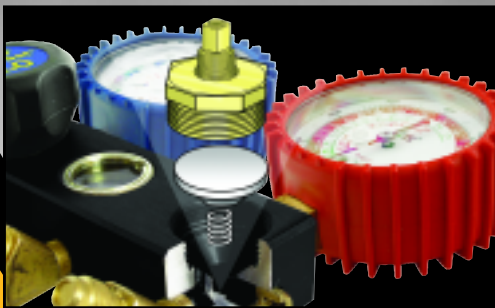
- Advanced diaphragm valve design
- Superior refrigerant metering capabilities
- Certified 5 year trouble-free valve life
- Maximum unrestricted refrigerant flow
- Light touch valve operation

1 VALVE SERIES	2 VALVE SERIES	4 VALVE SERIES	5 VALVE SERIES
MV1CH	MV2D	MV4D	MV5M
R-12 R-22 R-502	R-134a R-22 R-404A	R-134a R-22 R-404A	R-12 R-22 R-502

VORTECH™ 1/4" SAE Fittings On Anodized Black Body
All Gauges have Protective Rubber Boots Except for Oil Filled Type

REGION ▶	North America	North America	North America	North America	South America / Asia	Australia / South America	Australia / South America	Australia / South America
Gauge Description								
Refrigerant Scales	R-12, R22, R502	R22, R134a, R404A	R22, R134a, R404A	R22, R134a, R404A	R12, R134a, R22	R134a, R22, R404A	R22, R134a, R404A	R407C, R22
Gauge Size/ Type	2.5" / 68mm Dry	2.5" / 68mm Dry	3 1/8" / 80mm Dry	3 1/8" / 80mm Oil Filled	2.5" / 68mm Dry	2.5" / 68mm Dry	3 1/8" / 80mm Dry	2.5" / 68mm Dry
Pressure Scales	PSI	PSI	PSI	PSI	PSI/ kg/cm	PSI / Kpa	PSI / Kpa	PSI / Kpa
Temperature Scales	°F	°F	°F	°F	°F / °C	°C	°C	°C
One Valve Manifolds								
Low Side	MV1CL	MV1DL	N/A	N/A	MV1ZL	MV1TL	MV1PL	MV1YL
High Side	MV1CH	MV1DH	N/A	N/A	MV1ZH	MV1TH	MV1PH	MV1YH
Two Valve Manifolds								
Manifold & Gauges Only	MV2C	MV2D	MV2D2	MV2D3	MV2Z	MV2T	MV2P	MV2Y
3ft / 90cm Hoses	MV2CS3	MV2DP3	MV2D2P3	MV2D3P3	MV2ZP3	MV2TP3	MV2PP3	MV2YP3
5ft / 150cm Hoses	MV2CS5	MV2DP5	MV2D2P5	MV2D3P5	MV2ZP5	MV2TP5	MV2PP5	MV2YP5
5ft / 150cm AB Hoses	MV2CS5A	MV2DP5A	MV2D2P5A	MV2D3P5A	MV2ZP5A	MV2TP5A	MV2PP5A	MV2YP5A
5ft / 150cm BV Hoses	MV2CS5E	MV2DP5E	MV2D2P5E	MV2D3P5E	MV2ZP5E	MV2TP5E	MV2PP5E	MV2YP5E
Four Valve Manifolds								
Manifold & Gauges	MV4C	MV4D	MV4D2	MV4D3	MV4Z	MV4T	MV4P	MV4Y
5ft / 150cm Hoses	MV4CS5	MV4DP5	MV4D2P5	MV4D3P5	MV4ZP5	MV4TP5	MV4PP5	MV4YP5
*5ft / 150cm AB Hoses	MV4CS5A	MV4DP5A	MV4D2P5A	MV4D3P5A	MV4ZP5A	MV4TP5A	MV4PP5A	MV4YP5A
*5ft / 150cm BV Hoses	MV4CS5E	MV4DP5E	MV4D2P5E	MV4D3P5E	MV4ZP5E	MV4TP5E	MV4PP5E	MV4YP5E

* 3/8" Vacuum Hose Included with Hose Sets.

Five Valve Manifolds (All Include Carrying Case)								
Manifold, Gauges & Analog Vacuum Gauge	MV5C	N/A	MV5D2	MV5D3	N/A	MV5T	MV5P	MV5Y
Mnfld, Gauges & Digital Vac.Gauge	MV5CD	N/A	MV5D2D	MV5D3D	N/A	MV5TD	MV5PD	MV5YD
*5ft/150cm BV Hoses w/Analog Vac. Gauge	MV5CP5EC	N/A	MV5D2P5EC	MV5D3P5EC	N/A	MV5TP5EC	MV5PP5EC	MV5YP5EC
*5ft/150cm BV Hoses w/Digital Vac. Gauge	MV5CP5ECD	N/A	MV5D2P5ECD	MV5D3P5ECD	N/A	MV5TP5ECD	MV5PP5ECD	MV5YP5ECD

* 3/8" Vacuum Hose Included with Hose Sets.

Replacement Gauges								
Low Side	RGCLB	RGDLB	RGD2LB	*RGD3L	RGZLB	RGTLB	RGPLB	RGYLB
High Side	RGCHB	RGDHB	RGD2HB	*RGD3H	RGZHB	RGTHB	RGPHB	RGYHB

RGD3L and RGD3H do not include protective rubber boots.

CPS® PRO-SET®

VORTECH™ Anodized Pink Body For R-410A
All Gauges have Protective Rubber Boots Except for Oil Filled Type

- Advanced VVS diaphragm valve system
- Red & blue protective gauge boots
- New 45° fittings for easy hose storage (2 valve series only)
- Anodized aircraft aluminum block body
- Precision flutter-free metal cased gauges
- Heavy duty metal valve handles
- Oversized refrigerant sight glass

- Advanced one-piece diaphragm valve design
- Superior refrigerant metering capabilities
- Vacuum rated to 15 microns or better
- Certified 5 year trouble-free valve life
- Maximum unrestricted refrigerant flow
- Light touch valve operation
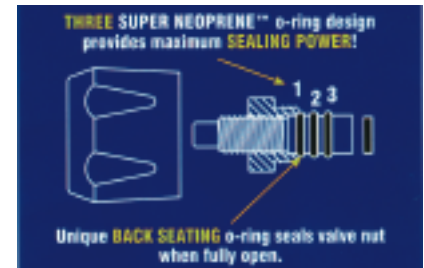
MV13R R-410A

MV3R R-410A

MV3B R-410A

		North America 1/4" SAE Fittings on manifold and hoses					Australia 1/2-20 UNF Fittings on manifold and hoses	
	REGION	North America	North America	North America	North America	North America	Australia / South America	Australia / South America
Gauge Description	Refrigerant Scales	R410A	R410A, R22, R404A	R410A, R22, R404A ,R134A	R410A, R22, R404A ,R134A	R410A	R410A	R410A
	Gauge Size/ Type	2.5" / 68mm Dry	2.5" / 68mm Dry	3 1/8" / 80mm Dry	3 1/8" / 80mm Oil-Filled	3 1/8" / 80mm Oil-Filled	3 1/8" / 80mm Oil-Filled	2.5" / 68mm Dry
	Pressure Scales	PSI / Kpa	PSI	PSI	PSI	PSI / Kpa	PSI / Kpa	PSI / Kpa
	Temperature Scales	°F / °C	°F	°F	°F	°F / °C	°F / °C	°F / °C
Fittings	Manifold and Hose Fittings	1/4" SAE	1/4" SAE	1/4" SAE	1/4" SAE	1/4" SAE	1/2"-20 UNF	1/2"-20 UNF
Two Valve Manifolds	Manifold & Gauges Only	MV3B	MV3H	MV3H2	MV3H3	MV3R	MV11R	MV11B
	5ft / 150cm Hoses	MV3BP5	MV3HP5	MV3H2P5	MV3H3P5	MV3RP5	MV11RJ5	MV11BJ5
	5ft / 150cm AB Hoses	MV3BP5A	MV3HP5A	MV3H2P5A	MV3H3P5A	MV3RP5A	MV11RJ5A	MV11BJ5A
	5ft / 150cm BV Hoses	MV3BP5E	MV3HP5E	MV3H2P5E	MV3H3P5E	MV3RP5E	MV11RJ5E	MV11BJ5E
Four Valve Manifolds	Manifold & Gauges	MV13B	MV13H	MV13H2	MV13H3	MV13R	MV12R	MV12B
	5ft / 150cm Hoses	MV13BP5	MV13HP5	MV13H2P5	MV13H3P5	MV13RP5	MV12RJ5	MV12BJ5
	5ft / 150cm AB Hoses	MV13BP5A	MV13HP5A	MV13H2P5A	MV13H3P5A	MV13RP5A	MV12RJ5A	MV12BJ5A
	5ft / 150cm BV Hoses	MV13BP5E	MV13HP5E	MV13H2P5E	MV13H3P5E	MV13RP5A	MV12RJ5E	MV12BJ5E
Replacement Gauges	Low Side	RGBLB	RGHLB	RGH2LB	*RGH3L	*RGRL	*RGRL	RGBLB
	High Side	RGBHB	RGHHB	RGH2HB	*RGH3H	*RGRH	*RGRH	RGBHB

* Do not include protective rubber boots.

BLACKMAX™ 2-Valve Piston Valve Manifolds With 1/4" SAE Fittings

NON-FLUTTER GAUGE
Design with Rugged Metal Housing

FRONT CALIBRATION
Access Port

ANODIZED ALUMINUM
Block Body

EASY-TO-GRAB
Large Knob

45°

MBD

R-134a R-22 R-404A

THREE SUPER NEOPRENE™ o-ring design provides maximum SEALING POWER!

1 2 3

Unique BACK SEATING o-ring seals valve nut when fully open.
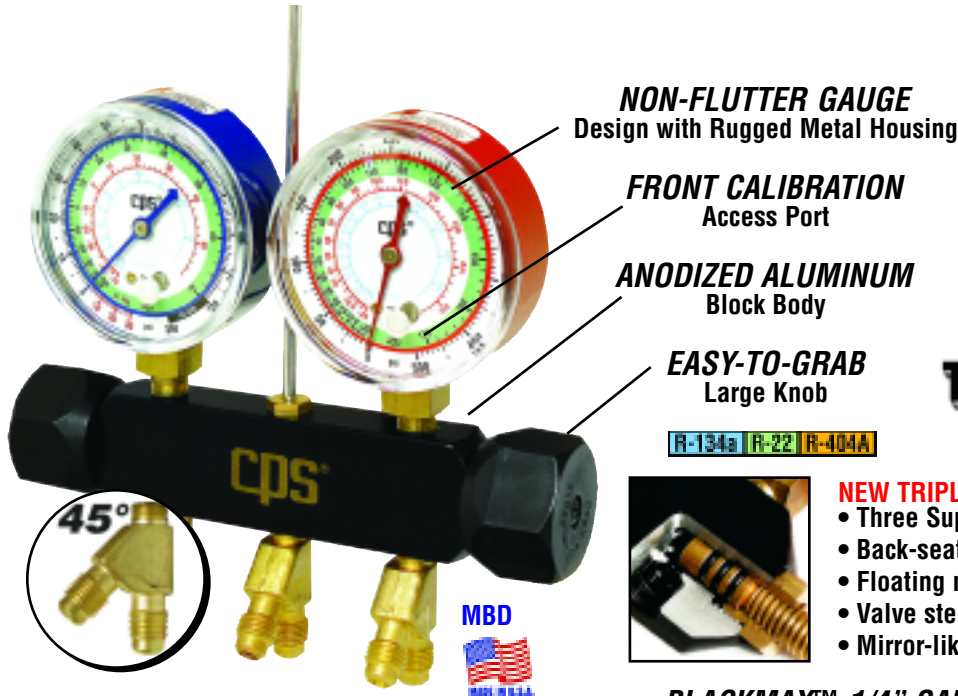
TRIPLE SEAL™ VALVES

NEW TRIPLE-SEAL™ PISTON VALVE SYSTEM
• Three Super Neoprene o-ring design
• Back-seating o-ring seals valve nut when fully open
• Floating nylon sealing disk
• Valve stems retract fully to provide maximum flow
• Mirror-like port finish for smooth valve movement

BLACKMAX™ 1/4" SAE ON ANODIZED BLACK BODY

MBZS3

R-12 R-134a R-22

(South America/Asia)

MBTP3

R-134a R-22 R-404A

(Australia)

	REGION	North America	North America	South America /Asia	Australia / South America	Australia / South America
Gauge Description	Refrigerant Scales	R12, R22, R502	R134a, R22, R404A	R12, R134a, R22	R134a, R22, R404A	R407C, R22
	Gauge Size/ Type	2.5" / 68mm Dry	2.5" / 68mm Dry	2.5" / 68mm Dry	2.5" / 68mm Dry	2.5" / 68mm Dry
	Pressure Scales	PSI	PSI	PSI / Kpa	PSI / Kpa	PSI / Kpa
	Temperature Scales	°F	°F	°F / °C	°C	°C
Fittings	Manifold and Hose Fittings	1/4" SAE	1/4" SAE	1/4" SAE	1/4" SAE	1/4" SAE
Two Valve Manifolds	Manifold & Gauges Only	MBC	MBD	MBZ	MBT	MBY
	3ft / 90cm Hoses	MBCS3	MBDP3	MBZP3	MBTP3	MBYP3
	5ft / 150cm Hoses	MBCS5	MBDP5	MBZP5	MBTP5	MBYP5
	5ft / 150cm AB Hoses	MBCS5A	MBDP5A	MBZP5A	MBTP5A	MBYP5A
	5ft / 150cm BV Hoses	MBCS5E	MBDP5E	MBZP5E	MBTP5E	MBYP5E
Replacement Gauges	Low Side	RGCL	RGDL	RGZL	RGTL	RGYL
	High Side	RGCH	RGDH	RGZH	RGTH	RGYH

BLACKMAX™ Manifold For R-410A

NON-FLUTTER GAUGE
Design with Rugged Metal Housing

FRONT CALIBRATION
Access Port

ANODIZED ALUMINUM
Block Body

EASY-TO-GRAB
Large Knob

MEB

MBHP5E

• Exclusive TripleSeal™ valve system
• Valve stems retract fully for maximum flow
• Back seating o-ring seals valve nut when fully open

• No flutter gauges with rugged Metal housings
• Aluminum block
• Additional Schraeder® valve "T" port
• Large easy-to-grip knobs

		Pink Body	Pink Body	Black Body	Pink Body
	REGION	North America	North America	North America	Australia / South America
Gauge Description	Refrigerant Scales	R-410A	R410A, R22, R404A	R410A, R22, R404A	R-410A
	Gauge Size/ Type	2.5" / 68mm Dry	2.5" / 68mm Dry	2.5" / 68mm Dry	2.5" / 68mm Dry
	Pressure Scales	PSI	PSI	PSI	PSI / Kpa
	Temperature Scales	°F / °C	°F	°F	°F / °C
Fittings	Manifold and Hose Fittings	1/4" SAE	1/4" SAE	1/4" SAE	1/2"-20 UNF
Two Valve Manifolds	Manifold & Gauges Only	MEB	MEH	MBH	MCB
	5ft / 150cm Hoses	MEBP5	MEHP5	MBHP5	MCBJ5
	5ft / 150cm AB Hoses	MEBP5A	MEHP5A	MBHP5A	MCBJ5A
	5ft / 150cm BV Hoses	MEBP5E	N/A	MBHP5E	MCBJ5E
Replacement Gauges	Low Side	RGBL	RGHL	RGHL	RGBL
	High Side	RGBH	RGHH	RGHH	RGBH

TRIPLE SEAL™ VALVES

• Three Super Neoprene o-ring design
• Back-seating o-ring seals valve nut when fully open
• Floating nylon sealing disk
• Valve stems retract fully to provide maximum flow
• Mirror-like port finish for smooth valve movement
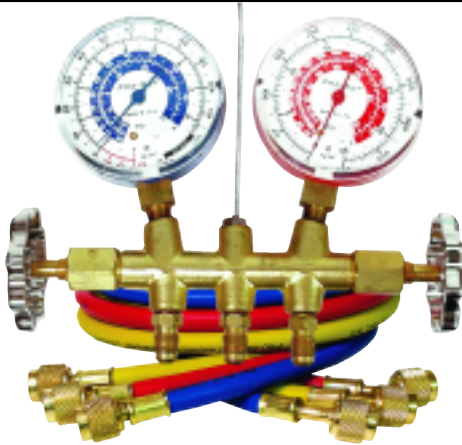

R-22 to R-410A Adapters

AD87
1/4 "SAE Male x
Female 1/2 "-20 UNF

AD78
1/4 "SAE Female x
Male 1/2 "-20 UNF

2-Valve Brass Manifolds With 1/4" SAE Fittings



Brass Manifolds

- Quality forged brass body
- Sliding double o-ring piston valve system
- Full sized porting for maximum flow
- No flutter gauges with rugged Metal housings
- Large easy-to-grip knobs

	REGION	North America	North America	South America /Asia	South America	South America
Gauge Description	Refrigerant Scales	R12, R22, R502	R134a, R22, R404A	R12, R134a, R22	R134a, R22, R404A	R407C, R22
	Gauge Size/ Type	2.5" / 68mm Dry	2.5" / 68mm Dry	2.5" / 68mm Dry	2.5" / 68mm Dry	2.5" / 68mm Dry
	Pressure Scales	PSI	PSI	PSI / Kpa	PSI / Kpa	PSI / Kpa
	Temperature Scales	°F	°F	°F / °C	°C	°C
Fittings	Manifold and Hose Fittings	1/4" SAE	1/4" SAE	1/4" SAE	1/4" SAE	1/4" SAE
Two Valve Manifolds	Manifold & Gauges Only	M6C	M6D	M6Z	M6T	M6Y
	3ft / 90cm Hoses	M6CS3	M6DP3	M6ZP3	M6TP3	M6YP3
	5ft / 150cm Hoses	M6CS5	M6DP5	M6ZP5	M6TP5	M6YP5
Replacement Gauges	Low Side	RGCL	RGDL	RGZL	RGTL	RGYL
	High Side	RGCH	RGDH	RGZH	RGTH	RGYH

Manifold Accessories

M2XHA	2-way hose anchor bracket for Vortech & diaphragm
M2XRK	Diaphragm valve repair kit: sevices 2 valves
M4XHA	4-way hose anchor bracket for Vortech & diaphragm
M4XRK	Diaphragm valve repair kit: sevices 4 valves
M5XRK	Diaphragm valve repair kit: sevices 5 valves
MV2XRK	Vortech valve repair kit: services 2 valves
MV4XRK	Vortech valve repair kit: services 4 valves
MV5XRK	Vortech valve repair kit: services 5 valves
MVXK	Replacement valve handle w/ plugs for Vortech manifolds
MXBK	Replacement valve handle for brass manifold
MXC	Plastic carrying case for manifolds
MXK	Replacement valve handle w/ labels for diaphragm manifolds
MXMH	Hanging hook for all manifolds
MXPK	Replacement valve handle w/ labels for BLACKMAX manifolds
MXPV	Complete BLACKMAX piston valve assembly
MXPVO	BLACKMAX piston valve seals repair kit: services 2 valves

CPS®
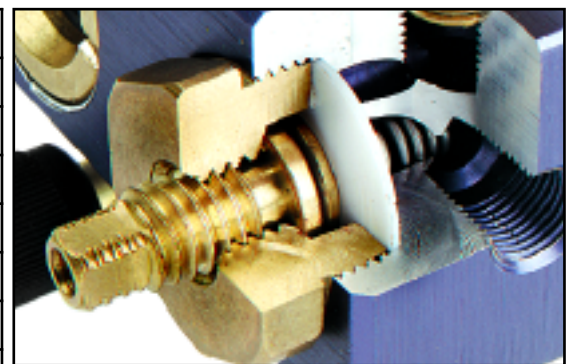
NEW!

PRO-SET® 2 1/2" 68mm Pressure Gauges

RGDH

RGDL
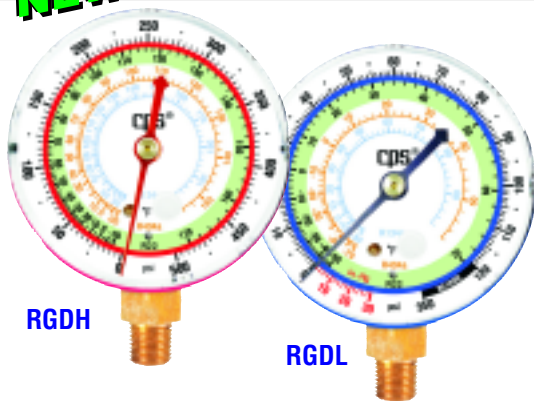
- No-flutter gauge design
- Easy to read color coded dials
- Durable metal casing
- Front calibration access port
- High impact pop-in lexan lens
- 1/8" NPT brass connection

R-134a **R-22** **R-404A**

Calibration access port

PRO-SET® 3 1/8" /80mm Pressure Gauges

RGH2H

RGH2L
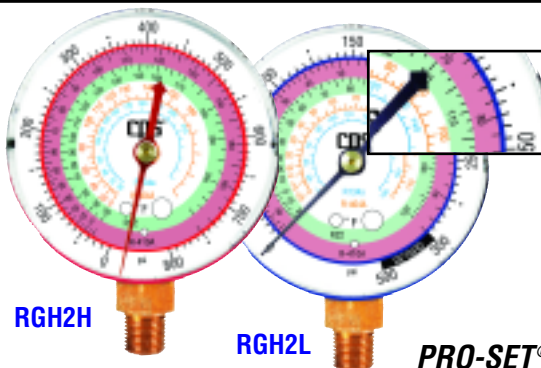
- Extra large easy to read scales
- No-flutter gauge design
- Durable metal casing
- Front calibration access port
- High impact pop-in lexan lens
- 1/8" NPT brass connection

R-134a **R-22** **R-404A** **R-410A**

PRO-SET® 3 1/8" /80mm Oil-Filled Pressure Gauges

RGRH

RGRL
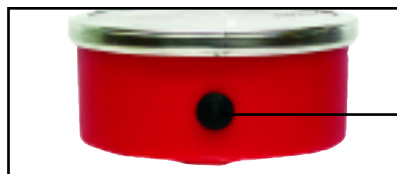
Fill Port

- Extra large scales
- No-flutter gauge design
- Rear calibration access port
- 1/8" NPT brass connection

R-410A

Protective Rubber Gauge Boots

FITS MOST MANUFACTURERS MODELS

RGHHB

RGHLB

Gauge Boots	Red	Blue
68mm Rubber Boots	RGX68RB	RGX68BB
80mm Rubber Boots	RGX80RB	RGX80BB

CPS®

PRO-SET® 2 1/2" /68mm Pressure Gauges

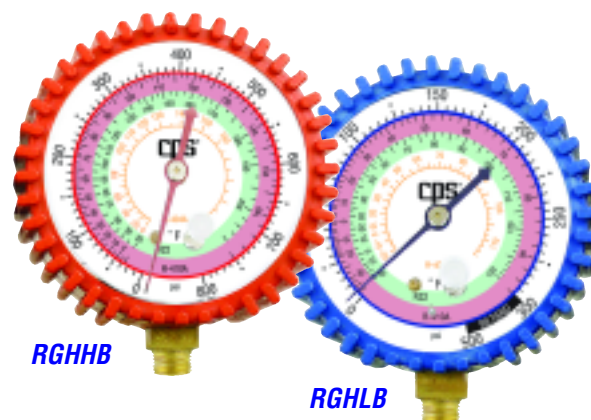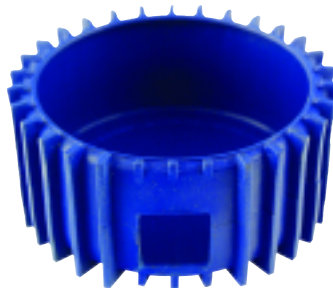| REGION	North America Australia	North America	North America	North America	South America / Asia	Australia / South America	Australia / South America
Gauge Description							
Refrigerant Scales	R410A	R12, R22, R502	R22, R134a, R404A	R410A, R22, R404A	R12, R134a, R22	R134a, R22, R404A	R407C, R22
Gauge Size/ Type	2.5" / 68mm Dry	2.5" / 68mm Dry	2.5" / 68mm Dry	2.5" / 68mm Dry	2.5" / 68mm Dry	2.5" / 68mm Dry	2.5" / 68mm Dry
Pressure Scales	PSI / Kpa	PSI	PSI	PSI	PSI/ kg/cm	PSI / Kpa	PSI / Kpa
Temperature Scales	˚F / ˚C	˚F	˚F	˚F	˚F / ˚C	˚C	˚C
Gauge Only							
Low Side	RGBL	RGCL	RGDL	RGHL	RGZL	RGTL	RGYL
High Side	RGBH	RGCH	RGDH	RGHH	RGZH	RGTH	RGYH
Gauge & Rubber Boot							
Low Side	RGBLB	RGCLB	RGDLB	RGHLB	RGZLB	RGTLB	RGYLB
High Side	RGBHB	RGCHB	RGDHB	RGHHB	RGZHB	RGTHB	RGYHB

RGX68L : Replacement lens for 2.5" / 68mm gauges listed above
RGX68BB : Protective rubber boot for 2.5" / 68mm gauges listed above
RGX68RB : Protective rubber boot for 2.5" / 68mm gauges listed above

PRO-SET® 3 1/8" /80mm Pressure Gauges

Brass Gauge Adapter

REGION	North America	North America	North America	North America	North America	North America Australia	Australia / South America
Gauge Description							
Refrigerant Scales	R22, R134a, R404A	R22, R134a, R404A	R12, R22, R502	R410A, R22, R404A, R134A	R410A, R22, R404A, R134A	R410A	R22, R134a, R404A
Gauge Size/ Type	3 1/8" / 80mm Dry	3 1/8" / 80mm Oil Filled	3 1/8" / 80mm Oil Filled	3 1/8" / 80mm Dry	3 1/8" / 80mm Oil Filled	3 1/8" / 80mm Oil Filled	3 1/8" / 80mm Dry
Pressure Scales	PSI	PSI	PSI	PSI	PSI	PSI / Kpa	PSI / Kpa
Temperature Scales	˚F	˚F	˚F	˚F	˚F	˚F / ˚C	˚C
Gauge Only							
Low Side	RGD2L	RGD3L	RGML	RGH2L	RGH3L	RGRL	RGPL
High Side	RGD2H	RGD3H	RGMH	RGH2H	RGH3H	RGRH	RGPH
Gauge & Rubber Boot							
Low Side	RGD2B	N/A	N/A	RGH2LB	N/A	N/A	RGPLB
High Side	RGD2B	N/A	N/A	RGH2HB	N/A	N/A	RGPHB

ABG18

*1/4" SAE FM Anti-blowback
x 1/8" NPT Female*

RGX80L : Replacement lens for 3 1/8" / 80mm gauges listed above
RGX80BB : Protective rubber boot for 3 1/8" / 80mm gauges listed above
RGX80RB : Protective rubber boot for 3 1/8" / 80mm gauges listed above
* 80mm Boots Do Not Fit Oil-Filled Gauges

Gas Pressure Test Assemblies

The GT1 and GT2 are designed to test the integrity of new installations for pressure leaks. Available with either a 3/4" or 1" FPT brass bell. Simply connect the test assembly, pressurize the system using the supplied access port and monitor the easy-to-read 3 1/2" / 80mm gauge for potential pressure drops that would indicate a leak.

GT1
GAS TEST GAUGE
• Large 3 1/8" gauge - easy to read
• 0-30 PSIG (0-2 BAR) pressure scale
• 1 PSIG increments
• 3/4" FPT hex style brass bell
• Access valve

GT2
GAS TEST GAUGE
• Large 3 1/8" gauge - easy to read
• 0-100 PSIG (0-7 BAR) pressure scale
• 2 PSIG increments
• 3/4" FPT hex style brass bell
• Access valve

Fuel Oil Test Kit

The GT3 is a comprehensive test kit which includes the components necessary to test oil fuel pump performance while diagnosing related burner efficiency issues such as cleaner light-offs and coasting stops.

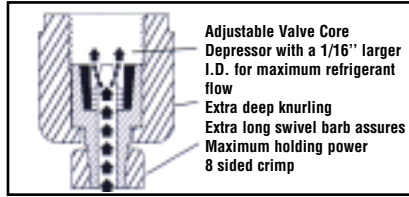**Carrying case included with kit**

FUEL OIL TEST KIT
Includes:
• 2 1/2" gauge, scale 30", 0-150 lbs.
• 2 1/2" gauge, scale 30", 0-300 lbs
• 12" hose 1/4" Fem swivel x 1/4" Fem 45˚ swivel
• 1/8 NPT x 1/4 Male SAE adapter
• 1/8 NPT x 1/4 Male SAE 90˚ adapter
• 1/4 NPT x 1/4 Male SAE adapter
• 1/4 NPT x 1/4 Male SAE 90˚ adapter
• Carrying Case

GT3

CPS®

STANDARD
- All-weather flexibility and strength
- Extra deep knurling on nuts for easy grip
- 750 psi working pressure; 3000 psi burst
- 1/4" SAE fittings with 45° bend on one end
- Available with MicroSeal™ or ball valve fittings
- Leak-proof eight-sided crimp
- Blow-off grooves channel refrigerant to prevent spray back

Adjustable Valve Core Depressor with a 1/16'' larger I.D. for maximum refrigerant flow
Extra deep knurling
Extra long swivel barb assures Maximum holding power
8 sided crimp

PREMIUM
- R-410A Compatible
- 800 psi working pressure; 4000 psi burst
- Environment friendly Nylon Permeation Barrier meets SAE J2196
- Compatible with CFC, HCFC and HFC refrigerants & blends
- Available with MicroSeal™ or ball valve fittings

Adjustable valve core depressor opens all out of tolerance Schraeder® valves.

1/4" Standard Hoses
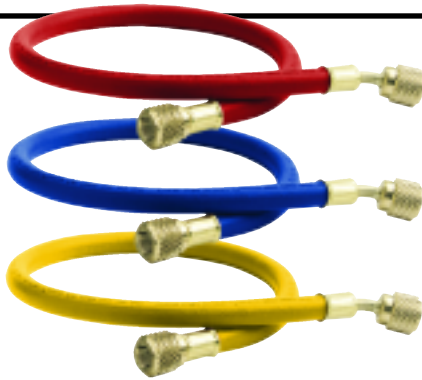
LENGTH	YELLOW	BLUE	RED	3-PACK
3' - 90cm	HS3Y	HS3B	HS3R	HS3
4' - 120cm	HS4Y	HS4B	HS4R	HS4
5' - 150cm	HS5Y	HS5B	HS5R	HS5
6' - 180cm	HS6Y	HS6B	HS6R	HS6
8' - 240cm	HS8Y	HS8B	HS8R	HS8
10' - 300cm	HS10Y	HS10B	HS10R	HS10

HXG - Replacements 1/4" Gaskets (10)   HXD - Replacements Depressors (10)

1/4" Standard Hoses With 45° Ball Valve On End

LENGTH	YELLOW	BLUE	RED	3-PACK
3' - 90cm	HS3YE	HS3BE	HS3RE	HS3E
5' - 150cm	HS5YE	HS5BE	HS5RE	HS5E
6' - 180cm	HS6YE	HS6BE	HS6RE	HS6E
8' - 240cm	HS8YE	HS8BE	HS8RE	HS8E

HXG - Replacements 1/4" Gaskets (10)   HXD - Replacements Depressors (10)
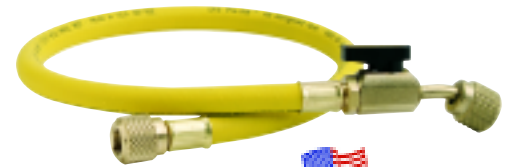
1/4" Standard Hoses With MICROSEAL™ Anti-Blowback Valve On One End
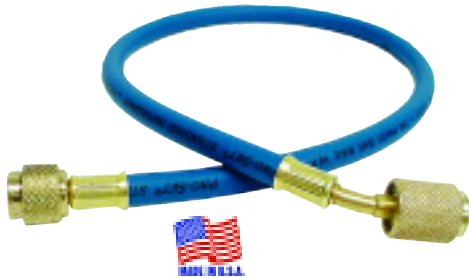
LENGTH	YELLOW	BLUE	RED	3-PACK
3' - 90cm	HS3YA	HS3BA	HS3RA	HS3A
5' - 150cm	HS5YA	HS5BA	HS5RA	HS5A
6' - 180cm	HS6YA	HS6BA	HS6RA	HS6A
8' - 240cm	HS8YA	HS8BA	HS8RA	HS8A

HXG - Replacements 1/4" Gaskets (10)   HXD - Replacements Depressors (10)

Super compact design (.75" x 1", 19mm x 25mm) enables access to service ports in tight quarters

1/4" Standard In-Line Ball Valve Hoses

LENGTH	YELLOW	BLUE	RED	3-PACK
3' - 90cm	HS3YL	HS3BL	HS3RL	HS3L
5' - 150cm	HS5YL	HS5BL	HS5RL	HS5L
6' - 180cm	HS6YL	HS6BL	HS6RL	HS6L
8' - 240cm	HS8YL	HS8BL	HS8RL	HS8L

HXG - Replacements 1/4" Gaskets (10)   HXD - Replacements Depressors (10)

1/4" Premium Hoses For All Refrigerants

LENGTH	YELLOW	BLUE	RED	3-PACK
3' - 90cm	HP3Y	HP3B	HP3R	HP3
5' - 150cm	HP5Y	HP5B	HP5R	HP5
6' - 180cm	HP6Y	HP6B	HP6R	HP6

HXG - Replacement 1/4" Gaskets (10) **HXD - Replacement Depressors (10)**
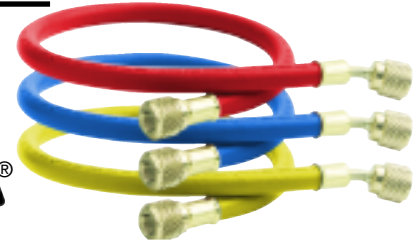
1/4" Premium Hoses With 45° Ball Valve On End
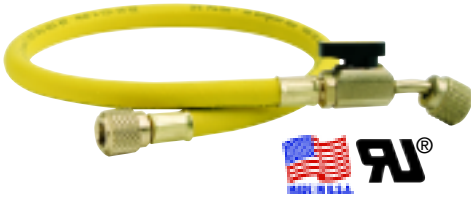
LENGTH	YELLOW	BLUE	RED	3-PACK
3' - 90cm	HP3YE	HP3BE	HP3RE	HP3E
5' - 150cm	HP5YE	HP5BE	HP5RE	HP5E
6' - 180cm	HP6YE	HP6BE	HP6RE	HP6E

HXG - Replacement 1/4" Gaskets (10) **HXD - Replacement Depressors (10)**

1/4" Premium Hoses With MICROSEAL™ Anti-Blowback Valve On One End

LENGTH	YELLOW	BLUE	RED	3-PACK
3' - 90cm	HP3YA	HP3BA	HP3RA	HP3A
5' - 150cm	HP5YA	HP5BA	HP5RA	HP5A
6' - 180cm	HP6YA	HP6BA	HP6RA	HP6A

HXGA - Replacements Gaskets (6)

Super compact design (.75" x 1", 19mm x 25mm) enables access to service ports in tight quarters
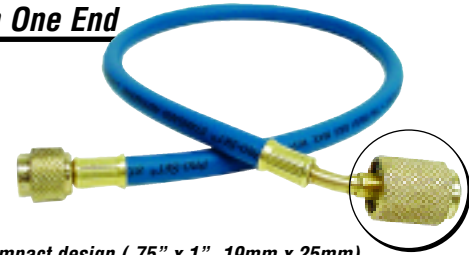
1/4" Premium In-Line Ball Valve Hoses
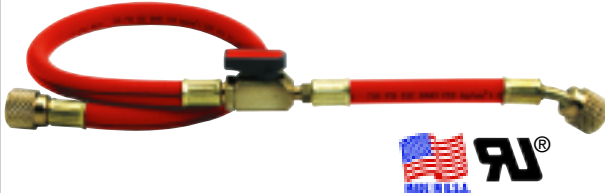
LENGTH	YELLOW	BLUE	RED	3-PACK
3' - 90cm	HP3YL	HP3BL	HP3RL	HP3L
5' - 150cm	HP5YL	HP5BL	HP5RL	HP5L
6' - 180cm	HP6YL	HP6BL	HP6RL	HP6L

HXG - Replacement 1/4" Gaskets (10) **HXD - Replacement Depressors (10)**

R-410A Premium Hose w/ Special 1/2"-20 UNF Fittings `R-410A`

LENGTH	YELLOW	BLUE	RED	3-PACK
3' - 90cm	HJ3Y	HJ3B	HJ3R	HJ3
5' - 150cm	HJ5Y	HJ5B	HJ5R	HJ5

WITH 45° BALL VALVE FITTING IN ONE END			
3' - 90cm	HJ3YE	HJ3BE	HJ3RE	HJ3E
5' - 150cm	HJ5YE	HJ5BE	HJ5RE	HJ5E

HXG2 - Gaskets (10) (1/2" ACME) & (1/2" - 20 UNF)
HXTG2 - Teflon Gaskets (10) (1/2" ACME) & (1/2" - 20 UNF)
HXD - Replacement Depressors (10)

6" - 12" Ball Valve Hose Extensions

LENGTH	FITTINGS	YELLOW	BLUE	RED	3 - PACK
6"	1/4 SAE	HTYE	HTBE	HTRE	HTE
12"	1/4 SAE	HT1YE	HT1BE	HT1RE	HT1E
6"	1/2-20 UNF	HT410YEJ	HT410BEJ	HT410REJ	HT410EJ

CPS® PRO-SET® SPECIALTY HOSES, REPLACEMENT GASKETS & DEPRESSORS

Premium Pressure Control Hoses

- Replaces Standard Copper Capillary Tubing
- 1/4" SAE Hex Style Fittings
- Do not exceed 203°F (95°C) for long term use

LENGTH	90° x 90°	Straight x 90°
2' - 60cm	HHC2	HHC2S
3' - 90cm	HHC3	HHC3S
4' - 120cm	HHC4	HHC4S

Premium 3/8" Vacuum/Charging Hoses

- 5/16" I.D. heavy-duty hose
- Permeation resistant barrier
- 460 psi working pressure; 2300 psi burst

HOSE P/N	LENGTH
WITHOUT BALL VALVE	
HV3	3' - 90cm
HV5	5' - 150cm
HV6	6' - 180cm
HV8	8' - 240cm

HOSE P/N	LENGTH
WITH IN-LINE BALL VALVE	
HV5E	5' - 150cm

HX38G - Replacement 3/8" Gaskets (10)

see page 51 Automotive Section

QCH14 high side

QCL14 low side

Replacement Hose Gaskets, Depressors & O-Rings

HXG

HXGD

HXTG

HXGD2

HXD
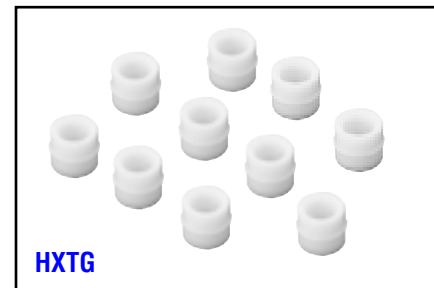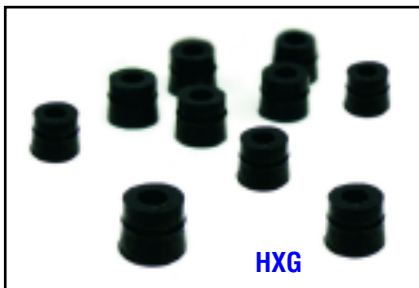
ITEM	PARTS DESCRIPTION
HXGD2	1/2"-20 UNF 1/2" ACME Hose Gaskets w/ Core Depressor
HX3G	3/16" Hose Gasket (10)
HX14R	14mm Hose Rings (10)
HX38G	3/8" Hose Gaskets (10)
HXG2	1/2" UNF 1/2" ACME Hose Gaskets (10)
HXD	1/4" SAE Hose Core Depressors (10)

ITEM	PARTS DESCRIPTION
HXGA	Microseal™ Antiblowback gaskets (10)
HXGA410	1/2"-20 UNF Microseal™ Antiblowback gaskets (10)
HXTG	1/4" SAE Teflon hose gasket (10)
HXTG2	1/2"-20 UNF & 1/2" ACME Teflon hose gasket (10)

PRO-SET® Ball Valves

PRO-SET®

MALE x MALE FULL FLOW BALL VALVE

BVM
1/4" SAE Male, x 1/4" SAE Male

90° SWIVEL ELBOW x MALE FLOW FLOW BALL VALVE

BV90
1/4" SAE Female, x 1/4" SAE Male

- Add to existing hose to eliminate refrigerant loss and comply with EPA regulations
- 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

45°SWIVEL ELBOW x MALE FULL FLOW BALL VALVE

BV45
1/4" SAE Female, x 1/4" SAE Male

SWIVEL NUT STRAIGHT x MALE FULL FLOW BALL VALVE
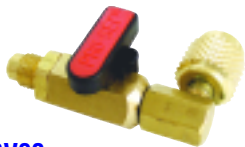
BV
1/4" SAE Female, x 1/4" SAE Male

Item	Qty / Pk	Female	Female	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
BV410	1	1/2" - 20 UNF	1/2" - 20 UNF	Straight
BV41018	1		1/2" 20 UNF x 1/8" MNPT	Straight
BV4103	3	1/2" - 20 UNF	1/2" - 20 UNF	Straight
BV41090A	1	1/2" - 20 UNF 90°	1/4" SAE	90° FM
BV410A	1	1/2" - 20 UNF	1/4" SAE	Straight
BV45	1	1/4" SAE 45°	1/4" SAE	45° FM
BV453	3	1/4" SAE 45°	1/4" SAE	45° FM
BV90	1	1/4" SAE 90°	1/4" SAE	90° FM
BV903	3	1/4" SAE 90°	1/4" SAE	90° FM
BVAD38	1	3/8" SAE	1/4" SAE	Straight
BVBH	1		1/4" SAE x 1/16" MNPT	Bulkhead
BVM	1		1/4" SAE x 1/4" SAE	Straight
BVM3	3		1/4" SAE x 1/4" SAE	Straight
BVXH	3	Replacement Ball Valve Handle w/1 ea (Yellow, Blue, Red) inserts		

Brass Gauge Adapter

MICROSEAL™ Anti-Blowback Valves

- Advanced automatic sealing valve eliminates refrigerant loss and blowback
- New micro valve technology enables use on systems with limited access to service ports
- Add to existing hose to eliminate refrigerant loss and comply with EPA regulations
- Deep easy grip knurling and non-restrictive porting for maximum refrigerant flow
- Up to 25% smaller O.D. than similar competitive models

Item	Qty / Pk	Female	Male	Other
AB	1	1/4" SAE	1/4" SAE	Straight
AB12	1	1/2" ACME	1/2" ACME	Straight
AB3	3	1/4" SAE	1/4" SAE	Straight
AB410	1	1/2" - 20 UNF	1/2" - 20 UNF	Straight
AB4103	3	1/2" - 20 UNF	1/2" - 20 UNF	Straight
AB41090A	1	1/2" - 20 UNF	1/4" SAE	90° FM
AB410A	1	1/2"- 20 UNF	1/4" SAE	Straight
AB90	1	1/4" SAE 90°	1/4" SAE	90° FM
AB903	3	1/4" SAE 90°	1/4" SAE	90° FM
ABG18	1	1/4" SAE x 1/8"FNPT		1/8" FNPT is not an AB

ABG18

1/4" SAE FM Anti-blowback x 1/8" NPT Female

AB90

AB

***HXGA** - Replacement O Rings (6)

HVAC/R ADAPTERS

| AD12 | AD41/AD61/AD81 | AD47 | AVC4 | AD44 | AD68 | AD78/AD87 |

ITEM	QTY	FEMALE	MALE	OTHER	APPLICATION
AD12		1/2" ACME	LO-side R-134a	Bulk	R-134a automotive tanks
AD12B	100	1/2" ACME	LO-side R-134a	Bulk	R-134a automotive tanks
AD14	-	-	14mm x 1/4" SAE		R-134a automotive couplers
AD14B	100	-	14mm x 1/4" SAE	Bulk	R-134a automotive couplers
AD18C	-	1/4" SAE	1/8" SAE	w/ valve core	Manifolds, Compressors
AD24	6	-	1/4" SAE x 1/8" MNPT	w/cap & valve core	Manifolds, Compressors
AD24B	100	-	1/4" SAE x 1/8" MNPT	Bulk	1/4" Service Manifolds
AD36	1	3/16" SAE	1/4" SAE	w/ valve core	TLVC Valve Core Tool for R-12 Auto. HI-side
AD36C	-	3/16" SAE	1/4" SAE	w/ valve core	-
AD41	1	3/4" -14	1/4" SAE	-	Large 125 lb cylinders
AD41B	100	3/4" -14	1/4" SAE	Bulk	Large 125 lb cylinders
AD61	1	3/4" -14	3/8" SAE		Large 125 lb cylinders
AD61B	100	3/4" -14	3/8" SAE	Bulk	Large 125 lb cylinders
AD44	6	-	1/4" SAE x 1/4" MNPT	w/cap & valve core	Vacuum Pumps, Compressors
AD44B	100	-	1/4" SAE x 1/4" MNPT	Bulk	Vacuum Pumps, Compressors
AD47	1	-	1/4" SAE X 1/4" SAE	-	1/4" Hose Union
AD47B	100	-	1/4" SAE X 1/4" SAE	Bulk	1/4" Hose Union
AD48	3	1/4" SAE	1/2" ACME	-	Vacuum Pumps/Manifolds/Recovery/Tanks
AD48B	50	1/4" SAE	1/2" ACME	Bulk	Vacuum Pumps/Manifolds/Recovery/Tanks
AD48C	300	1/4" SAE	1/2" ACME	no valve core	Vacuum Pumps/Manifolds/Recovery/Tanks
AD68	3	1/4" SAE	3/8" SAE	-	Vacuum Pumps
AD68V	-	1/2" ACME	3/8" SAE	male adapter	Vacuum Pumps
AD78	1	1/4" SAE	1/2"-20 UNF	w/core & Depressor	R-410A International
AD78B	100	1/4" SAE	1/2"-20 UNF	w/core & Depressor Bulk	R-410A International
AD81	1	3/4" -14	1/2" ACME	-	Large 125 lb cylinder
AD81B	100	3/4" -14	1/2" ACME	Bulk	Large 125 lb cylinder
AD84	3	1/2" ACME	1/4" SAE	-	Vacuum Pumps/Manifolds/Recovery/Tanks
AD84B	100	1/2" ACME	1/4" SAE	Bulk	Vacuum Pumps/Manifolds/Recovery/Tanks
AD84C	3	1/2" ACME	1/4" SAE	w/Core	Vacuum Pumps/Manifolds/Recovery/Tanks
AD87	1	1/2"-20 UNF	1/4" SAE	w/core & Depressor	R-410A International
AD87S	1	1/2"-20 UNF SWVL	1/4" 55° SAE	w/core & Depressor	R-410A International
AD149C	1	1/4" SAE	1/4" 90°SAE	adapter w/ valve core	-
AD369C	1	3/16" SAE	1/4" 90°SAE	adapter w/ valve core	-
AD849C	3	1/2" ACME 90°	1/4" SAE	w/Core	Vacuum Pumps/Manifolds/Recovery/Tanks
ADGM		R-12 GM POSI-SEAL ADAPTER			
ADK12		DELUXE PRO-SET R-12 ADAPTER KIT			

CPS®

VALVE CORE TOOLS

Quick Seal O-Ring Caps & Valve Cores

ITEM	Qty./Pk.	Description
AVC134C	2	1/2" ACME Brass Caps w/Chain
AVC134CB	100	1/2" ACME Brass Caps w/Chain (BULK)
AVC134H	10	R-134a HI Side Caps
AVC134HB	100	R-134a HI Side Caps
AVC134L	10	R-134a LO Side Caps
AVC134LB	100	R-134a LO Side Caps
AVC134PS	2	1/2" ACME Plastic Cap w/ Straps
AVC134PSB	100	1/2" ACME Plastic Cap w/ Straps
AVC2	10	1/4" Aluminum Term Caps
AVC3	10	3/16" Aluminum Term Caps
AVC3P	10	3/16" Plastic Caps
AVC3PB	10	3/16" Plastic Caps
AVC410	10	1/2"-20 UNF SAE Brass Caps
AVC410B	100	1/2"-20 UNF SAE Brass Caps
AVC410C	2	1/2" -20 UNF SAE Brass Caps w/ Chain
AVC410CB	100	1/2" -20 UNF SAE Brass Caps w/ Chain (BULK)
AVC4	10	1/4" SAE Brass Caps
AVC425	25	1/4" SAE Brass Caps
AVC4B	100	1/4" SAE Brass Caps Bulk
AVC4C	2	1/4" SAE Brass Caps w/ Chain
AVC4CB	100	1/4" SAE Brass Caps w/ Chain (BULK)
AVC4P	6	1/4" SAE Plastic Caps
AVC4PB	100	1/4" SAE Plastic Caps
AVC6C	2	3/8" SAE Brass Caps w/ Chain
AVC6CB	100	3/8" SAE Brass Caps w/ Chain (BULK)

ITEM	Qty./Pk.	Description
AVC8C	2	1/2" SAE Brass Caps w/ Chain
AVC8BC	100	1/2" SAE Brass Caps w/ Chain (BULK)
AVC4PS	6	1/4" SAE Plastic Caps w/ Straps
AVC4R	6	1/4" SAE Brass Caps w/ Core Remover
AVC4RB	100	1/4" SAE Brass Caps w/ Core Remover Bulk
AVC6P	3	3/8" SAE Plastic Caps
AVLP	1	Univ. Line Tap Valve 3/16" - 3/8" O.D.
AVS1	10	Valve Cores
AVS1V	6	Valve Cores- 6pk. w/ 1 Brass Cap in Vial
AVS125	25	Valve Cores
AVS1B	100	Valve Cores Bulk
AVS1BC	1000	Valve Cores Bulk
AVS2	10	GM Large Bore Valve Core
AVS3	10	JRA 6mm Valve Cores

NEW!

AVS1V - VALVE CORE KIT
Handy pocket sized kit includes a valve core remover/installer and 6 premium 1/4" valve cores all packaged in a small clear plastic tube.

AVC4 AVC4R

AVS1

AVC410C
AVC4C
AVC134C
AVC6C
AVC8C

Valve Core Tool Accessories

ITEM	DESCRIPTION
TLVC	1/4" SAE Remover & Installer
TLVCS	1/4" SAE valve core remover & installer w/side port
TLVC1	Standard Valve Core w/3 cores
TLVC2	Dual Valve Core Standard & Large Bore Remover/Installer
TLVC2B	Dual valve core tool (Bulk 100pk)
TLVC4	Valve Core Remover/Installer with Port Rethreader
TLVC6	JRA 6mm Valve Core Remover/Installer
TLVC134	R-134a Valve Core Remover & Installer
TLVC410	1/2"-20 UNF Remover/Installer
TLVCS410	1/2"-20 UNF Valve Core Remover/Installer w/side port
TLVC810	EATON 8 & 10mm Valve Core Remover/Installer
TLXVCBC	Broken Schrader Extractor Tool for TLVC/TLVCS
TLXVCRT	Schrader Rethreading Tool for TLVC/TLVCS
TLXVCT	Digital Thermometer Accessory for TLVC/TLVCS
TLXVC410BC	Broken Schrader Extractor Tool for TLVC410/TLVCS410
TLXVC410RT	Schrader Rethreading Tool for TLVC410/TLVCS410

TLXVCT
Digital Thermometer Accessory

TLXVCRT
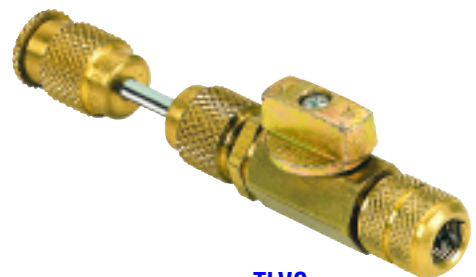**TLXVC410RT** R-410A
Schrader Rethreading Tool

TLXVCBC
TLXVC410BC R-410A
Broken Schrader Extractor Tool

TLVCS
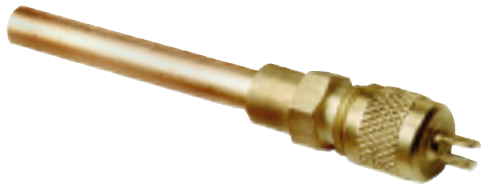**TLVCS410** R-410A
Remover & Installer w/ side port

TLVC1
Standard Valve Core w/ 3 cores

TLVC
TLVC410 R-410A
Valve Core Remover & Installer

HVAC/R Access Fittings

- Includes Wrench Cap
- For Use with all Refrigerants
- Valves Meet ARI Standard 720-97

AVS44 - 3PK
1/4" M with cap and core x 1/4 F swivel

- Extension length approx. 2"
- Material is CDA 360 Brass & Standard Refrigeration Tubing

Standard Cap		Description	Wrench Cap	
6pk	100pk		6pk	100pk
AV2	AV2B	1/8" O.D.x 1/16" I.D.	AV2R	AV2RB
AV2P	AV2PB	1/8" MPT x 1/4" I.D.	N/A	N/A
AV3	AV3B	3/16" O.D. x 1/8" I.D.	AV3R	AV3RB
AV4	AV4B	1/4" O.D. x 3/16" I.D.	AV4R	AV4RB
	AV4BU	1/4" O.D. x 3/16" I.D. UNASSMBLD	N/A	N/A
AV4L	AV4LB	1/4" O.D. x 3/16" I.D. W/4" COP-TB EXT	AV4LR	AV4LRB
AV4P	AV4PB	1/4" MPT x 1/4" I.D. SOL	N/A	N/A
AV5	AV5B	5/16" O.D. x 1/4" I.D.	AV5R	AV5RB
AV6	AV6B	3/8" O.D. x 5/16" I.D.	AV6R	AV6RB
AV6MM	AV6MB	6mm O.D. x 5mm I.D.	AV6MR	AV6MRB
AV4410	AV4410B	1/2-20 ACCES,1/4" O.D. X 3/16" I.D.	N/A	N/A
AV46M	AV46MB	6mm O.D. x 1/4" O.D.	N/A	N/A

1/4" SAE Brass Bodies /Multi-Step Access Valves

AVB34 - 6PK
AVB34B - 100PK
3/16" ID x 1/4" OD

AVB346 - 6PK
AVB346B - 100PK
AVB346BU - 100PK unassbld
AVB346RB - 100PK cap w/core tool
3/16" ID x 1/4" OD x 3/8" OD
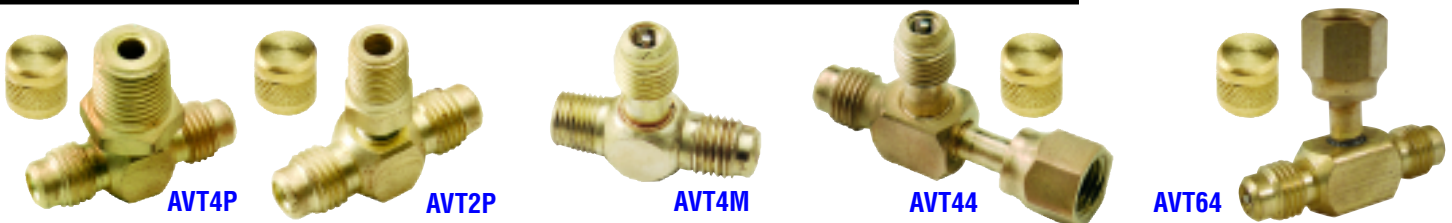
AVB46 - 6PK
AVB46B - 100PK
1/4" ID x 3/8" OD

AVB456 - 6PK
AVB456B - 100PK
1/8" ID x 3/16", 1/4", 5/16"

AVB6 - 6PK
AVB6B - 100PK
**AVB6BC -100PK w/o caps**
6-8-10mm OD Solder

1/4"SAE Tee Connectors

AVT4P **AVT2P** **AVT4M** **AVT44** **AVT64**

Item	Qty/pk	Description
AVT2P	3	1/4" Male w/Cap & Valve Core x 1/4" Male x 1/8" MNPT
AVT4	3	1/4" Male w/Cap & Valve Core x 1/8" MNPT x 1/4" Male
AVT4B	100	1/4" Male w/Cap & Valve Core x 1/8" MNPT x 1/4" Male
AVT4P	3	1/4" Male w/Cap & Valve Core x 1/4" Male x 1/4" MNPT
AVT4M	3	1/4" Male x 1/8" MNPT x 1/4" Male w/Core
AVT44	3	1/4" Female Hex x 1/4" SAE male x 1/4" male w/Cap & Valve Core

Item	Qty/pk	Description
AVT45	3	1/4" Male x 1/4" Female Knurl x 1/4" Male
AVT48	1	1/4" Male x 1/4" Female Knurl x 1/2" Acme Male
AVT64	3	1/4" Male w/Cap & Valve Core x 1/4" Male x 1/4" Female Hex
AVT64B	100	1/4" Male w/Cap & Valve Core x 1/4" Male x 1/4" Female Hex
AVT87	1	1/4" Male x 1/2"-20 UNF Female x 1/2"-20 UNF Male (R-410A)

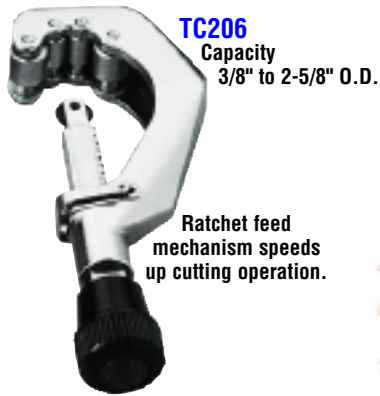## 1/4" SAE Access Valve With Copper Tube On Branch

Item	Qty./Pk.	Description
AVCT4	3	1/4" SAE x 1/4" O.D.F
AVCT4B	100	1/4" SAE x 1/4" O.D.F
AVCT5	3	1/4" SAE x 5/16" O.D.F
AVCT6	3	1/4" SAE x 3/8" O.D.F
AVCT8	3	1/4" SAE x 1/2" O.D.F
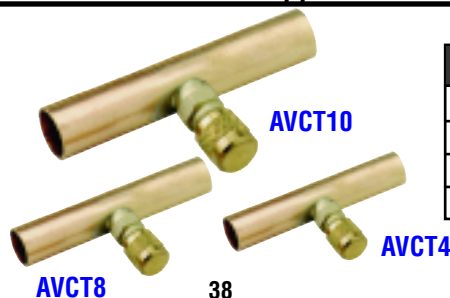
AVCT10

Item	Qty/pk	Description
AVCT10	1	1/4" SAE x 5/8" O.D.F
AVCT12	1	1/4" SAE x 3/4" O.D.F
AVCT14	1	1/4" SAE x 7/8" O.D.F
AVCT18	1	1/4" SAE x 1-1/8" O.D.F

AVCT4

AVCT8

PRO-SET® Tube Cutters

Premium ratchet feedtube cutter

TC206
Capacity
3/8" to 2-5/8" O.D.

Ratchet feed mechanism speeds up cutting operation.

Premium tube cutter

TC274
Capacity
1/8" to 1-1/8"
4mm to 28mm

Smooth Operation
provides consistent clean cuts.

Premium Cutting Wheel
Top grade steel for easy cutting and longer life.

Heavy duty tube cutter

TC312
Capacity
1/4" to 1-5/8"
7mm to 41mm

Retractable Reamer

Fold away, steel reamer tool with turned cutting edge removes inside burrs. Filing surface removes outside burrs.

Spare Cutting Wheel
Located under retractable locking reamer.

Big mini tube cutter

TC174
Capacity
3/8" to 1-1/8"
9.5mm to 28mm

Wide Flare Cut-off Groove
to accommodate flares on large size tubing.

Clearance
1 1/4"

Mini tube cutter

TC127
Capacity
1/8" to 5/8"
4mm to 15mm

Oversized Turning Wheel
Designed and approved by the service technician for a sure comfortable grip.

TCSET

PRO-SET® Tube Cutters

Capillary tube cutter

TCAP

Tube cutter

1/4", 7/8"
(6 to 23mm)

TC100

ITEM	DESCRIPTION
TC127	Mini Tube Cutter - 1/8" - 5/8", 4 - 15 mm
TC174	Big Mini Tube Cutter 3/8" - 1 1/8", 9.5 - 28 mm
TCX7C	TC127 Cutting Wheel- (10 PK)
TCX7S	TC127 Cutting Wheel Screw- (10 PK)
TC274	Tube Cutter 1/8" - 1 1/8", 4 - 28 mm
TC312	Heavy Duty Tube Cutter 1/4" to 1 5/8", 7 to 41 mm
TCX4C	TC274 / 312 Cutting Wheel- (10 PK)
TCX4R	TC274 / TC312 Reamer Blade
TCX4RS	TC274 / TC312 Reamer Blade Screw
TCX4S	TC274 / TC312 Cutting Wheel Screw- (10 PK)
TCAP	Capillary Tube Cutter
TCSET	TC127 / TC274 Tubing Cutter Set
TC100	Tube Cutter - 1/4" - 7/8". 6 - 23mm
TCX4CS	Cutting Wheel and Screw for TC274 / TC312
TCX7CS	Cutting Wheel and Screw for TC127
TCX100CS	Cutting Wheel and Screw for TC100
TCX4CTS	Titanium Cutting Wheel and Screw for TCTC174/274/312
TCX6CTS	Titanium Cutting Wheel and Screw for TC206
TCX7CTS	Titanium Cutting Wheel and Screw for TC127

CPS®

PRO-SET® Tube Benders

TB250
Universal ratchet tube bender for soft copper, aluminum, and light wall hydraulic tubing from 3/8" to 7/8"
Sizes: 1/4", 3/8", 1/2", 5/8", 3/4", 7/8" (6, 8,10, 12, 16, 19, 22mm)

TC274

REAMER INCLUDED

ITEM	DESCRIPTION
TB04	1/4" Tube Bender
TB05	5/16" - 8 mm Tube Bender
TB06	3/8" Tube Bender
TB08	1/2" Tube Bender
TB10	3/4" Tube Bender
TB12	5/8" Tube Bender
TB14	7/8" Tube Bender
TB250	Universal Tube Bender, TC274, Reamer
TB368	Universal Tube Bender 1/4"-5/16"-3/8" 6-8-10 mm
TB6MM	6 mm Tube Bender
TB10MM	10 mm Tube Bender
TB12MM	12 mm Tube Bender
TB15MM	15 mm Tube Bender
TB16MM	16 mm Tube Bender
TB10XH	TB10 Replacement Hook with Screw
TB12XH	TB12 Replacement Hook with Screw
TBS04	1/4" Spring Tube Bender
TBS05	5/16" Spring Tube Bender
TBS06	3/8" Spring Tube Bender
TBS08	1/2" Spring Tube Bender
TBS10	5/8" Spring Tube Bender
TBS12	3/4" Spring Tube Bender

ITEM	REPLACEMENT ACCESSORIES
TBXB1	Small Bending Bar
TBX2	Large Bending Bar
TBXM10	Mandrel 3/8" / 10MM
TBXM14	Mandrel 1/2" / 14MM
TBXM16	Mandrel 5/8" / 16MM
TBXM19	Mandrel 3/4" / 19MM
TBXM22	Mandrel 7/8" / 22MM
TBXM6	Mandrel 1/4" / 6MM
TBXM8	Mandrel 5/16" / 8MM
TBXR	Ratchet Mechanism

MULTIPLE BENDING CHANNELS
Compact and Durable Tool With Multiple Bending Capabilities
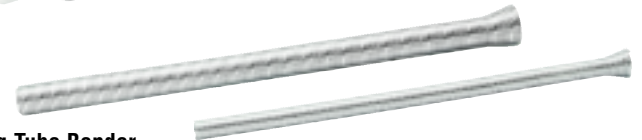
TB368
Universal Tube Bender

TB10
5/8" Tube Bender

TB04
1/4" Tube Bender

TB08
1/2" Tube Bender

TBS04
1/4" Spring Tube Bender
TBS10
5/8" Spring Tube Bender

PRO-SET® Flaring & Swaging Tools

FEATURES OF THE FT500
- Slot in yoke is used for tube height gauge.
- Sliding dies with lever clamping action.
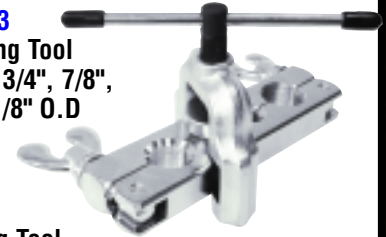- Yoke slips over top of bar, then locks into position with slight turn.

FT500

FT203
Flaring Tool
5/8", 3/4", 7/8", & 1 1/8" O.D

FT195
45° Flaring Tool
3/16" to 5/8"

FT525
Universal/ Adjustable Flaring Tool
3/16" to 5/8" (5mm to 16mm)

FS275
45° Flaring & Swaging Kit
1/8" - 3/4"

PRO-SET®

FT800FN

FT800FN R-410A
- Engineered specifically to create stronger flare joints for higher pressure R-410A systems.
- Unique clutch driven feed screw and eccentrically mounted cone produces uniform, clean flare walls without galling.
- Exclusive 3/8"sq drive incorporated directly in yoke handle for use with ratchet (included).
- Rugged polyethylene storage case included.
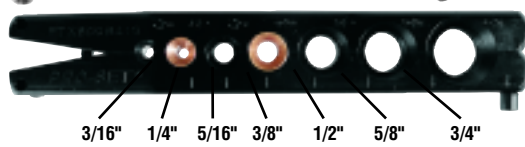
3/16" 1/4" 5/16" 3/8" 1/2" 5/8" 3/4"

Also Available FT806A / FT806M

PRO-SET® Flaring Tools, Kits, Replacement Parts

All flaring tools listed are recommended for softer thin-walled materials such as copper, aluminum, and brass

ITEM	DESCRIPTION
FS226	Tube Cutting/Double Flaring Set 1/8" - 3/4"
FS226M	Metric Tube Cutting/Double Flaring Set 4.75, 6, 8, 10mm
FS275	45° Flaring & Swaging Kit 1/8" - 3/4"
FS275M	45° Flaring & Swaging Kit Metric
FSX501	FS275 Bar 7/16", 1/4", 1/8", 3/16", 5/16", 3/8"
FSX502	FS275 Short Bar 1/2", 5/8", 3/4" O.D
FSX503	FS275 5/16" Swaging Adapter
FSX504	FS275 3/16" Swaging Adapter
FSX505	FS275 1/2" Swaging Adapter
FSX506	FS275 5/8" Swaging Adapter
FSX507	FS275M 8, 12, 14, 16, 22 MM Swaging Adapter
FSX508	FS275 3/4" Swaging Adapter
FSX509	FS275 Yoke Assembly
FSX511	FS275M 15, 16mm Flaring Bar Metric
FSX512	FS275M 4, 18, 22mm Flaring Bar Metric
FSX513	FS275 Compressor Cone
FT195	45° Flaring Tool 3/16" to 5/8"
FT500	45° Flaring/Burning Tool Metric 3/16" TO 5/8"
FT500M	45°Flaring/Burning Tool Metric 6mm to 16mm
FT525	Adjustable Flaring Tool 3/16" to 5/8"/ 5 to 16mm

ITEM	DESCRIPTION
FT800FN	R-410A Imperial Concentric Flaring Tool w/Ratchet 3/16",1/4", 5/16" 3/8", 1/2", 5/8", 3/4"
FT806A	Imperial Eccentric Flaring Tool w/Ratchet 3/16",1/4", 5/16", 3/8", 1/2", 5/8", 3/4"
FT806M	Metric Eccentric Flaring Tool w/Ratchet 6, 8, 10, 12, 15, 16, 18mm
FTX500	FT195 Yoke Assembly
FTX501	FT195 Flaring Bar 5/16", 3/8", 7/16"
FTX509	FT195 Compressor Cone
FTX510	FT195 Wing Nut
FTX513	FT500 Yoke Assembly
FTX514	FT500 Die Holder Assembly
FTX515	FT500M Die Holder Assembly
FTX516	FT525 Yoke Assembly
FTX517	FT525 Tube Holding Assembly
FTX518	FS275 Yoke Assembly
FTX800B410	FT800FN R410A Imperial Flaring Bar
FTX800BA	FT806A Imperial Flaring Bar
FTX800BM	FT806M Metric Flaring Bar
FTX800R	Ratchet for FT800FN/FT806A/FT806M
FTX800Y	Yoke Assembly FT800FN/FT806A/FT806M

CPS®

PRO-SET® Tube Expander/Swaging Set

Accessory Heads

Imperial

Model	Size
TLE6	Tube expander set with 6 heads 3/8", 1/2", 5/8", 3/4", 7/8", 1 1/8"
TLE6M	Tube expander set with case includes: 10, 12, 15, 18, 22, 28mm
TLE601	Expander tool only
TLH06	3/8" Expander Head (Standard in TLE6)
TLH08	1/2" Expander Head (Standard in TLE6)
TLH10	5/8" Expander Head (Standard in TLE6)
TLH12	3/4" Expander Head (Standard in TLE6)
TLH14	7/8" Expander Head (Standard in TLE6)
TLH16	1" Expander Head
TLH18	1 1/8" Expander Head (Standard in TLE6)
TLH22	1 3/8" Expander Head
TLH26	1 5/8" Expander Head

Metric

Model	Size
TLHM10	10mm Expander Head (Standard in TLE6M)
TLHM12	12mm Expander Head (Standard in TLE6M)
TLHM15	15mm Expander Head (Standard in TLE6M)
TLHM16	16mm Expander Head
TLHM18	18mm Expander Head (Standard in TLE6M)
TLHM20	20mm Expander Head
TLHM22	22mm Expander Head (Standard in TLE6M)
TLHM28	28mm Expander Head (Standard in TLE6M)
TLHM35	35mm Expander Head
TLHM42	42mm Expander Head

TLE6/TLE6M (metric)

- Create professional grade one seam pipe unions in the field.
- Multi-faceted interchangeable heads ensure equal linear expansion of tubing and uniformed wall thickness.
- Extended handle length provides added leverage for ease of operation.
- Re-round deformed tubing and fabricate couplings.
- Components are heat treated for durability.
- Ideal for copper, aluminum and soft steel tubing.
- Includes storage case for long-term protection.

PRO-SET® Metric Torque Wrench Set

Professional interchangeable jaw torque wrench set ensures compliance with OEM torque settings for high pressure R-410A systems.

- Interchangeable 17, 22, 24, 26, 27 & 29mm jaw sizes.
- Corresponding settings clearly marked on torque wrench in Newton Meters (10-75Nm).
- Provides consistently accurate readings and rugged, trouble free performance.
- Includes storage case for long-term protection.
- 1 year product warranty.

TLTWSM

PRO-SET® Deburring Tools /Universal Reamer Tool

TLDB2 - Pocket Deburring Tool
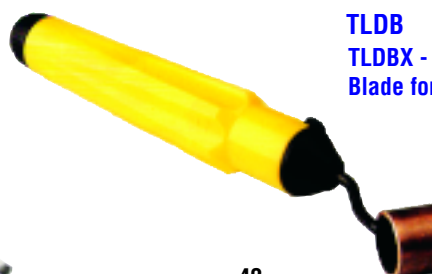
TLDB
TLDBX - Replacement Blade for TLDB

TLRM

CPS® PRO-SET® SPECIALTY HAND TOOLS
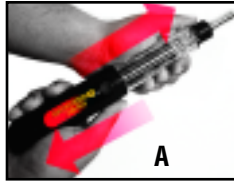
PRO-SET® 6-in-1 Auto-Loading Screwdriver

TLSD1

- Patented auto loading bit design
- 6 replaceable industrial grade 1/4" hex bits
- Includes standard valve core tool bit
- Magnetic head holds fastener in place
- Ergonomic high impact housing design
- Standard 1/4" hex drive

A Pull handle back to return bit to storage chamber

B Rotate handle to select bit

C Push handle forward to load bit

BITS INCLUDED

PRO-SET® Specialty Hex Key Wrench Sets

TLSWH
Inch Hex Key Set:
3/32",7/64", 1/8",
9/64", 5/32", 3/16",
7/32" and 1/4"
(Nickel Plated Finish)

*TLSWHB Two Piece Set:
Includes **TLSWH** and **TLSWB**

TLSWB
Inch Ball Point Key Set:
3/32", 7/64", 1/8", 9/64",
5/32", 3/16", 7/32"
and 1/4"
(Nickel Plated Finish)

TLSWHM
Metric Hex Key Set:
1.5, 2, 2.5, 3, 4,
5, 6, 8mm
(Nickel Plated Finish)

TLSWT
Torx Wrench Set

*TLSWHB Two Piece Set:
Includes **TLSWH** and **TLSWB**

PRO-SET® Swaging / Pinch-Off Tools

TLPORR
Pinch-Off tool & rerounds tubing on
1/4", 5/16", 3/8", and 1/2"
Copper and tubing

TLPK
Swage Punch Tool

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

TLMSP Multi Swage Punch Tool
6 sizes- 3/16" to 5/8"

PRO-SET® Service Pliers

TLPO
Pinch-Off Pliers

TLPP
Tube Piercing Pliers 1/4"

TLPPX

Replacement tip for TLPP

PRO-SET® Service Wrenches

127 Offset Wrench
3/8" - 5/16" x 1/4"
- 3/16" Sq.
TLSWO

127 Service Wrench
3/8" - 5/16" x 1/4"
- 3/16" Sq.
TLSWS

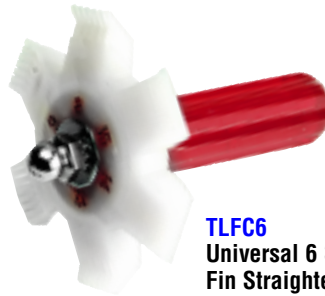124 Service Wrench
1/4" - 3/16" SQ x 9/16"
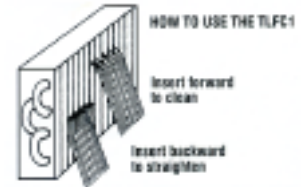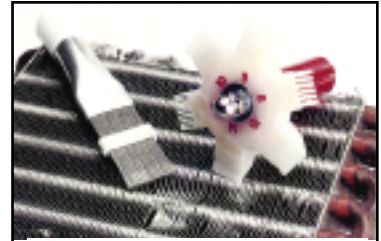1/2" HEX
TLSWL

43

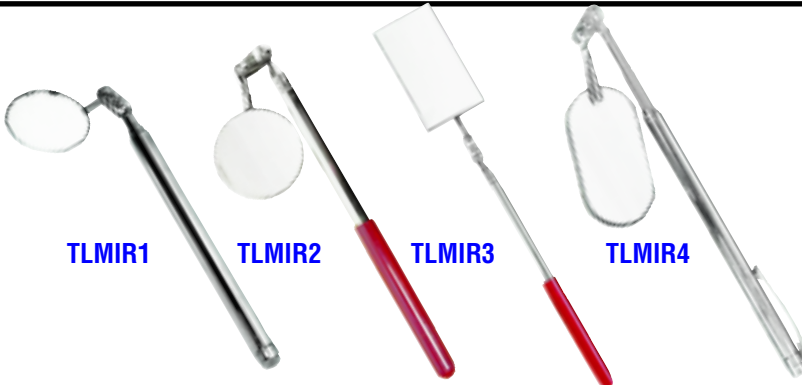### Fin Straightening Tools

TLFC1
Metal Fin
Straightening Tool

TLFC2
Fin Straighter
with large handle

TLFC6
Universal 6 Sided
Fin Straightening Tool
Repair bent condenser fins with the TLFC6 Universal 6 sided fin comb straightening tool.

HOW TO USE THE TLFC1

Insert forward to clean

Insert backward to straighten

PRO-SET® Inspection Mirrors

ITEM	DESCRIPTION
TLMIR1	Circular Telescoping Pocket Mirror ø 1.25"
TLMIR2	Circular Telescoping Mirror ø 2.24"
TLMIR3	Rectangular Telescoping Mirror 3.5 x 2.12"
TLMIR4	Oval Pocket Mirror 2 x .98"
TLXMIR1	Replacement Mirror Head for TLMIR1
TLXMIR2	Replacement Mirror Head for TLMIR2
TLXMIR3	Replacement Mirror Head for TLMIR3
TLXMIR4	Replacement Mirror Head for TLMIR4

TLMIR1   TLMIR2   TLMIR3   TLMIR4
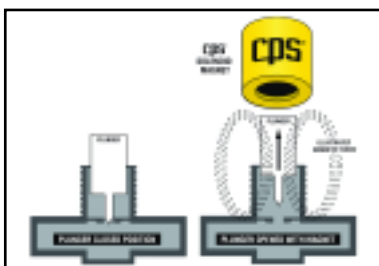
Solenoid Magnet

Compact Magnetizer/Demagnetizer

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"/18mm opening fits all common manufactured valves**

Use the **TLMAG1** to magnetize tools in order to keep small screws and nuts in position, especially helpful when working in confined spaces, or demagnetize tools when working on or near electronic circuit boards. Simply insert a screwdriver or nut driver into the (+) opening, slowly draw it out and it's magnetized. Leave the magnetizer on the tool for extra strength. To demagnetize, slowly draw the tool through the smallest area of the (-) opening. The TLMAG1 is an essential tool for the professional and do-it-yourselfer alike.

• Instantly Magnetize or Demagnetize Steel Tools & Parts
• Incorporates Two C5 Industrial Strength Magnets
• Impact Resistant ABS Molded Plastic
• No Batteries or Electricity Required
• Compact Design: 2" x 2" x 1"

TLMKC18

TLMAG1

CPS®

SPECIALTY HAND TOOLS

Composite Handle Adjustable Wrench

Super-strong tool that exceeds ANSI specifications providing years of service.

TLWA06
Size: 6"
Jaw Capacity:
15/16" / 24mm

TLWA08
Size: 8"
Jaw Capacity:
1 1/8" / 29mm

TLWA10
Size: 10"
Jaw Capacity:
1 5/16" / 33mm

TLWA12
Size: 12"
Jaw Capacity:
1 1/2" / 38mm

• Patented Light Weight Composite Handle Design
• Ergonomic, Comfortable Grip Reduces Fatigue
• Wide Jaw Opening With 45% More Torque
• Precision Machined for Smooth Operation
• Durable and Environment-Resistant
• One Year Warranty

Duct Knives

Used to fabricate fiberglass duct board. Stainless steel double edge resharpenable blade facilitates easy piercing for inside cuts. The double edge is also ideal for tapping into and trimming flex duct. Available with either ergonomic cushioned or a comfortable walnut wooden handle.

A double edge also ideal for tapping into and trimming flex duct.

TLDKRH
6" (152 mm.)

TLDKWH
6" (152 mm.)
Net Weight:5 oz. (142 g.)

Rechargeable Anodized Aluminum LED Work Light

Simply the best work light you will ever own, the *TLWL53A* is precision machined from aircraft grade aluminum and anodized for long life. Fifty three proprietary high output LEDs are incorporated in the work light segment with a 1W Luxeon LED integrated in the top. A powerful 2500mAh Ni-Mh rechargeable battery keeps the lights burning for hours; 7-8 hours for Luxeon spot, 4-5 hours for 53 white LEDs. The professional quality and intense output of the TLWL53A outperforms many competitive units incorporating 70 or more standard LEDs. Ideal for air conditioning contractors municipalities, law enforcement, fire fighters, automotive technicians, and wherever else a high performance, professional, durable work light is needed.

MOONLIGHT™

• Rugged Anodized Aluminum Body
• Super Bright 1W Luxeon Spot
• 53 Proprietary High Lumen Output LEDs
• Integrated 2500mAh 3.5V Rechargeable Battery
• Strong magnetic base for attaching to metal surfaces
• Universal UL/CUL Electronic Wall and Car Chargers Included
• Superior Durability and Shock Resistance
• High Quality Reflector Lens
• One Year Warranty
• Wall and Car charger Included

TLWL53A

Super Bright 1W Luxeon Spot
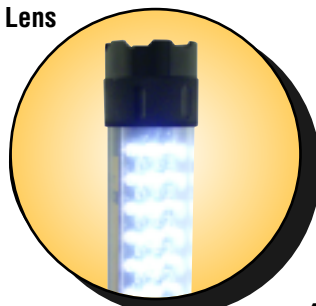
53 Proprietary High Lumen Output LEDs

Strong magnetic base for attaching to metal surfaces

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