cps®

TOOLS, INSTRUMENTS AND EQUIPMENT FOR THE HVAC/R INDUSTRY

2015 PRODUCT CATALOG

BLACKMAX®

Pro-Set®

Tech-Set™

STANDARD TERMS AND CONDITIONS OF SALE

Effective 16/01/2012

PRICES

Prices, discounts and payment terms are those in effect at the time of acceptance of the order.
Prices are Ex Warehouse Antwerp Belgium. Prices, discounts and terms are subject to change without notice.

PAYMENT TERMS

Terms are 30 days net on approval of credit, if not mentioned on the invoice.
Terms of payment are not based upon receipt of shipment. All invoices are considered past due on the day after the net due date and are subject to an overdue interest of 1% per month. Discrepancies should be reported in writing within 10 days after receipt of the invoice. No later complaints will be accepted and the invoice will be fully due.

MINIMUM ORDER

CPS Products maintains a minimum order of 250€. Any order for less than 250€ (net distributor) will be subject to a 25€ handling charge.

FREIGHT

Unless otherwise agreed, Ex Warehouse for all shipments, except:
1. CIP conditions for orders of EURO 3000 (net distributor) and more for following territories: Benelux, Germany, Austria, Denmark, UK, Ireland, France.
2. CIP conditions for orders of EURO 5000 (net distributor) and more for all other European destinations.
3. Shipments for destinations outside of Europe will be shipped Ex Warehouse, unless otherwise agreed.

WARRANTY AND REPAIR POLICY

CPS Products Inc. guarantees that its entire brand named products are free from manufacturing and material defects to the original owner for two years from the date of purchase. If an instrument should fail during the guarantee period it will be repaired or replaced (at our option) at no charge. This guarantee does not apply to instruments which have been altered, misused or solely in need of field service maintenance. All repaired instruments will carry an independent 90 days warranty. This policy does not include instruments which are determined to be beyond economical repair. The CPS Repair Policy and repair charges are available upon request.

SPECIFICATIONS

Materials, finish, packaging or specifications on product offered by CPS are subject to charge without notice.

TITLE OF PRODUCT

All goods will remain property of CPS Products until completely paid for.

PACKING DISCREPANCIES

Any discrepancies should be reported in writing within 10 days after receipt of the consignment. No later complaints will be accepted and the shipment will be considered as complete and correctly delivered.

RETURN OF GOODS

Discrepancies regarding wrong supplied goods should be reported in writing within 10 days after receipt of the consignment and may be subject to a 15% restocking charge. (details can be found in repair policy).

JURISDICTION

All commercial transactions to which these terms and conditions apply or which arise from the same are concluded or deemed concluded in Antwerp and are governed by Belgium law and the Antwerp practice of the trade insofar as they are not contrary to these terms and conditions.
All controversies and pending costs will be settled by the Courts of Antwerp.

CPS PRODUCTS NV
ANTWERP – BELGIUM

Subject to typing and printing errors

Just some of the reasons **to choose CPS®...**

Electronic Leak Detection 4-8
UV Leak Detection 9-12
Refrigerant Charging Scales 13-16
Charging Stations 17-18
Recovery Equipment 19-28
Vacuum Pumps 29-36
Digital Vacuum Gauges 37-38
Electrical and Specialty Meters 39-42
Temperature and System Measurement 43-48
Service Manifolds and Gauges 49-65
Charging Hoses 66-69
Charging Hose Valves 70-71
Tubing Tools 72-83
Specialty Hand Tools 84-90
Brazing and Soldering 91-93
Brass Adapters, Fittings and Valve Core Tools 94-97

The Leader in **Intuitive Innovation.**

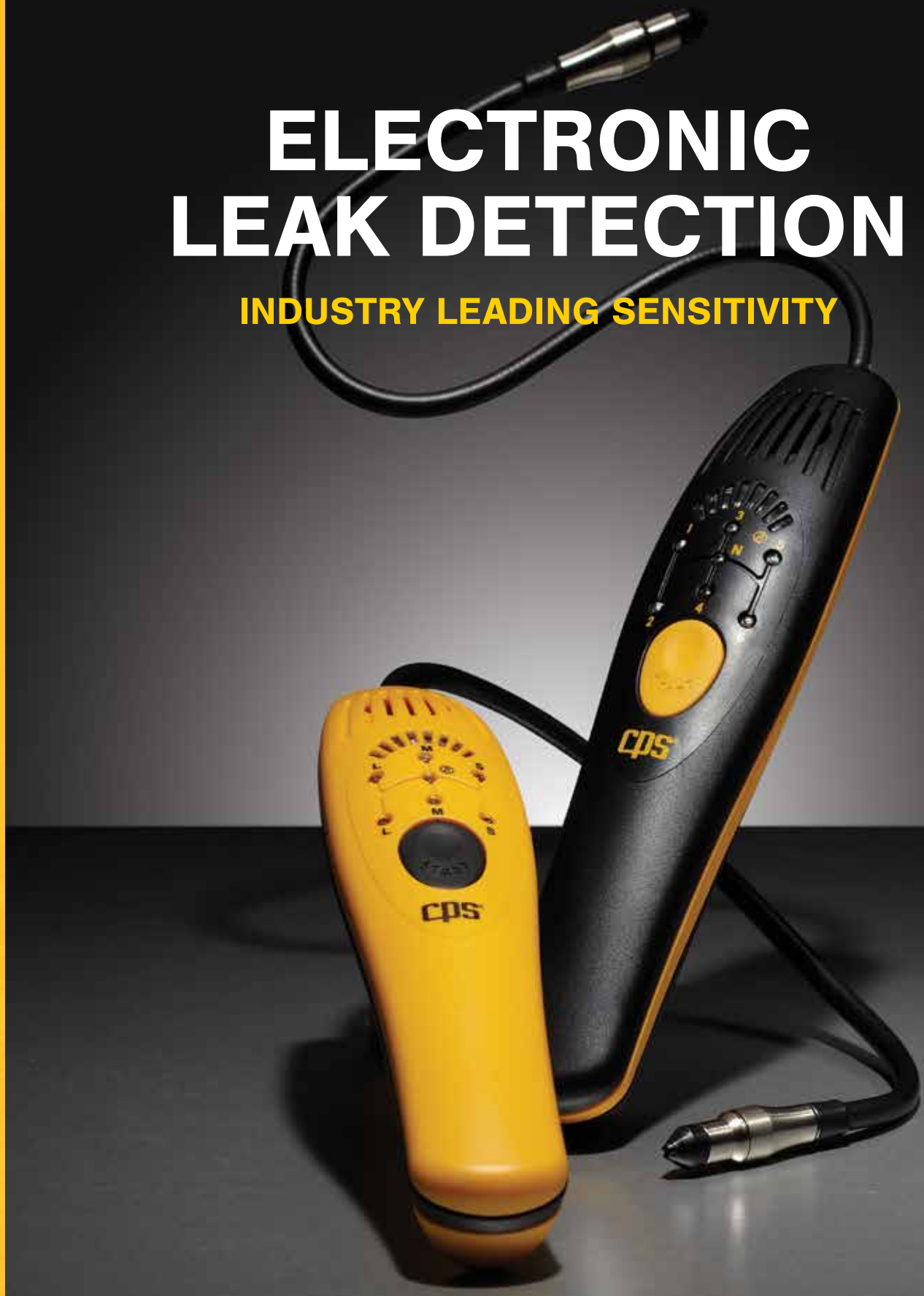
You already work hard. CPS tools are designed to help you work smarter too and to get more done, quickly. And while everybody wants to be “innovative”, few launch as many new products each year or can use “patent pending” as a descriptor as often. That’s because we make most of what we design at our 30,000 m^2 headquarters in Hialeah, Florida. So you get American engineered tools and equipment at reasonable pricing.

Use your hands. Use your head.

CPS designs for both.

ELECTRONIC LEAK DETECTION

INDUSTRY LEADING SENSITIVITY



Visit us online at **www.cpsproducts.com**

LEAK-SEEKER® ELECTRONIC REFRIGERANT LEAK DETECTORS

with E_MOS Technology

CPS Products has raised the bar again for leak detectors. The revolutionary E_MOS Technology developed by CPS is more sensitive, stable and accurate than any other detection method on the market.

FEATURES AND BENEFITS

- One button controls On/Off and all functions
- Microprocessor controlled sensor improves sensitivity and reduces false alarms
- Patented E_MOS detection technology increases battery and sensor life
- Replaceable EMOS2 sensor, sensor filter and sensor tip
- Metal sensor housing with patented water vapor stabilizing filter eliminates false alarms due to condensate
- Optimal leak-finding performance under a broad range of conditions
- Simple, intuitive bar graph LED display
- Software managed sensor rejuvenation at startup ensures highest sensitivity
- Meets or exceeds all US and international standards for automotive and commercial use (NEN14624)
- Ergonomic, high-impact housing with high output alarm speaker
- Low battery indication
- Includes owner's manual
- Designed and manufactured in U.S.A. with U.S. and globally sourced components

LEAK-SEEKER® I

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

LEAK-SEEKER® II

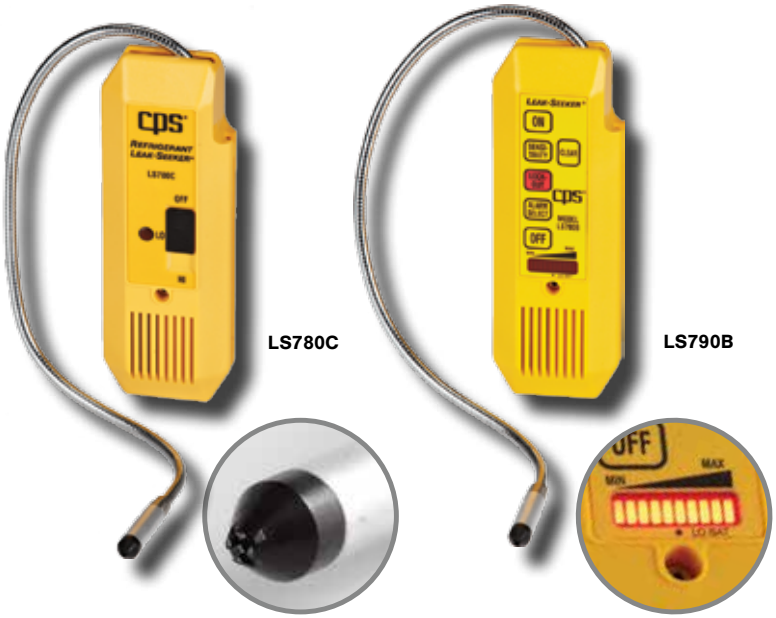
SIMPLY TURN IT ON AND PINPOINT THE LEAK.

- Simple, intuitive bar graph LED display
- 56 levels of sensitivity automatically selected by proprietary Powershift™ software
- Optimal leak-finding performance under a broad range of conditions
- The world's only leak detector with fully automatic sensitivity selection and control.

Contact Your Local CPS Distributor For Further Information

LEAK-SEEKER® ELECTRONIC REFRIGERANT LEAK DETECTORS WITH ION-PUMP® SENSOR TECHNOLOGY

Combines microcomputer circuitry with field proven Ion-Pump® sensor technology creating a highly sensitive, accurate electronic refrigerant leak detector. 128 computer-generated tones and display alerts the user to varying halogen concentrations. Leak-Seekers are designed and manufactured in the U.S.A. with U.S. and globally sourced components.



Specifications	Leak-Seeker® I	Leak-Seeker® II	Tech-Set™ LS780C	Leak-Seeker® LS790B
Detector Type	Patented E_Mos Detection Technology		Proprietary Ion-Pump sensor with built-in selective filter housing	
Sensitivity	Better than 3 gr / year		Better than 7 gr / year leak rate of HFC	
Sensitivity Selection	Manual	Fully automatic	Manual	
Refrigerant Sensitivity	All, including those with hydrocarbon components (CFC, HCFC, HFC, HFO, NH3, HC. tracer gas in 95% N2, 5% H2 mixture)		All, including those with hydrocarbon components (CFC, HCFC, HFC, HFO, NH3, HC)	
Visual Alarm	Visual tachometer-like bar graph display with 8 high intensity LEDs		High intensity LED (Varies in brightness)	High intensity bar graph display
Flex Probe	40 cm flexible probe for hard-to-reach areas		45,7 cm long metal flex probe	
Operating Temperature	-18°C to +60°C			
Controls	One button controls on/off and all functions		OFF, LO & HI sensitivity modes	6 button keypad
Power (Battery Life)	3 “C” batteries included (>50 hr continuous use)		4 “AA” alkaline batteries included (>40 hr continuous use)	
Weight	0,500 kg			
Audible Alarms	**In Progressive Mode:** Extended tone range **In Threshold Mode:** Single high pitch tone	2 user selectable alarm ranges	128 computer generated tones to precisely guide user to the source of the leak	
Lock-Out Mode	N/A		N/A	Yes
Low Battery Indication	Green (middle) LED turns off when batteries at 10% capacity	Rightmost (No Battery) LED stays on when batteries at 10% capacity	Center LED above “*” lights during operation	
Auto-Off	Yes, after 10 minutes of inactivity		No	Yes, after 15 minutes of inactivity
Sensor Life	>500 hr continuous use		Replace seasonally	
Warranty	2 year	2 year	1 year	2 year

Visit us online at **www.cpsproducts.com**

GAS-SEEKER® PORTABLE COMBUSTIBLE GAS DETECTOR

The **GS40** 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. Applications include the inspection of furnaces, valves, regulators, pipelines, meters and other devices associated with combustible gases. The **GS40** is designed and manufactured in U.S.A. with U.S. and globally sourced components.

GS40

GAS SEEKER® GS40 SPECIFICATIONS	
Detecting Range	0 - 100% LEL referenced to methane.
Alarm Indication	Both visual and audible (>40db) alarm indicators
Low Level Alarm	Preset at 10% Methane LEL
High Level Alarm	Preset at 30% Methane LEL
Operating Conditions	-20°C to +40°C at less than 98% RH (non-condensing)
Power	3VDC working voltage using four 1.5V AA batteries. (included)
Battery Life/Indicator	20 hr continuous use. Orange LED constant on when low battery
Sampling	Natural diffusion
Dimensions	20,3 x 6,9 x 3,8 cm
Weight	0,500 kg (including battery)
Warranty	2 year

Warning:
The GS-40 is not intrinsically safe in Class 1 (explosive) type atmospheres and is not suitable for the determination of human safety or habitability conditions.

REFRIGERANT MONITORS

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 1000 PPM 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
Refrigerant Monitor
Control Box and
Sensor Housing

REFRIGERANT MONITOR RM SPECIFICATIONS	
Sensitivity	100 to 1,000 ppm
Accuracy	±3% of setting (or ± 25 ppm)
Visual Alarms	High intensity LED display
Audible Alarm	85 dB @ 30cm
Operating Temperature (Control Module & Sensor)	-10°C to +65°C
Relative Humidity Range (Control Model & Sensor)	10 to 95% (Non-condensing)
Power	12 to 24V AC or DC
Sensor Failure Indicator	Visual indication in control module
Weight	0,500 kg
Warranty	2 years

Refrigerant Monitor	Detects Refrigerant	Replacement Sensor
RM134	R-134	RMX12
RM22	R-22	RMX11
RM404	R-404	RMX12
RM407C	R-407	RMX12
RM407a	R-407A	RMX12
RM410	R-410A	RMX12
RM502	R-502	RMX12
RM507	R-507	RMX12

Contact Your Local CPS Distributor For Further Information

NEW CO2 DETECTION

LSCO2 LEAK DETECTOR

The LSCO2 Carbon Dioxide Detector from CPS uses an advanced infrared, photo optics, permanent sensor and user friendly controls to allow the HVAC technician to quickly and easily detect harmful concentrations of CO2 gas in residential and commercial environments.

Depending on the environment being inspected, the LSCO2 offers three levels of sensitivity selection, which allows the user to more easily locate a CO2 source. The LSCO2 is powered by a rechargeable lithium ion polymer battery that will provide up to 8 hours of use prior to recharging with the wall or car charger (both included).

Ready for use within 30 seconds of activation, the LSCO2 is self-calibrating, so no special set up is required which is convenient and time saving.

The LSCO2 detector is packed in a rugged, plastic carrying case and includes interchangeable 25 cm and 41 cm flexible wands, a 23 cm brass needle probe, a standard wall charger, a convenient car charger, plus 10 replacement filters.

SPECIFICATION	DESCRIPTION
Sensing Element	Enhanced infrared photo optics-sensor never needs replacing and is good for the life of the LSCO2.
Operating Environment	0° C To 40°C
Leak Rate Detection Levels	Small: 3 gr / year
	Medium: 7 gr / year
	Large: 14 gr / year
Storage Environment	< 80% RH for detector and battery
Warm Up Time	30 Seconds
Response Time	< 1 Second
Battery	3.7V DC 1800 mAh Rechargeable Li-Ion Polymer
Battery Charge Life	8 Hour Continuous
Auto Off	After 10 Minutes Of Inactivity
Weight	0,40 Kg
Warranty	2 Year

LSCO2

Visit us online at **www.cpsproducts.com**

LSXSF

LSXBMK

LSXS

EMOS2

LS2XVF

REPLACEMENT PARTS FOR LEAK-SEEKER® & GAS-SEEKER®

ITEM	Description	LS780A*	LS780B*	LS780C	LS790A*	LS790B	LS3000*	LS3000B*	LS1	LS2	GS40
LSXSF	Selective Filter Housing (replaces LSXVF)	✓	✓	✓	✓	✓					
LSXBMK	Maintenance Kit: (1) LSXS + (1) LSXSF (replaces LSXMK)	✓	✓	✓	✓	✓					
LSXS	Ion-Pump Sensor	✓	✓	✓	✓	✓					
LSXBC	Battery Compartment Cover (Yellow)	✓	✓	✓	✓	✓					
LSXC	Carrying Case (Fabric)	✓	✓	✓	✓	✓					✓
LSXE	Earphone	✓	✓	✓	✓	✓					✓
EMOS2	E_MOS Technology Sensor								✓	✓	
LS2XF	E_MOS Technology Sensor Filters (10-Pk)								✓	✓	
LS2XVF	Vapor Filter Sensing Tip								✓	✓	
LSXC3	Molded Carrying Case						✓	✓	✓	✓	
LSXS3	CCD Sensor						✓	✓			
GSXS4	Sensor Element										✓

* Discontinued model

Contact Your Local CPS Distributor For Further Information

NEW
TRACER GAS KIT

TRACER GAS KIT

You don't want to test with Greenhouse gases in case of an abnormal leak of refrigerant from the system. Hydrogen with a high diffusing rate inside the test objects would be a far better and environmental friendlier alternative, the negative news tough is that Hydrogen still has a perception of 'flammable'. The flammable problem is easily solved by using a readily available standard mix 5% hydrogen/95% nitrogen, which is classified as 'non-flammable'. This tracer uses a non-toxic, non-flammable, environmentally-friendly (non-polluting) N2H2 Nitrogen gas. Can be used in the HVAC&R systems for removing the moisture / water vapour to create a dry environment, drain clearing, or, most important - Leak detection!
As a result, the mixture can be released into the environment after the leak detection is completed. The mixture complies with Art.6, paragraph 3 of the European directive 2006/40/EC

EASY to PERFORM

The gas is charged into an empty system at a pressure of approximately 5 Bar (75 Psi)
As Hydrogen is lighter than air, always probe slightly above the suspected
Simple connection of the kit to your airco system.

LDETRACH

The kit standard contains:

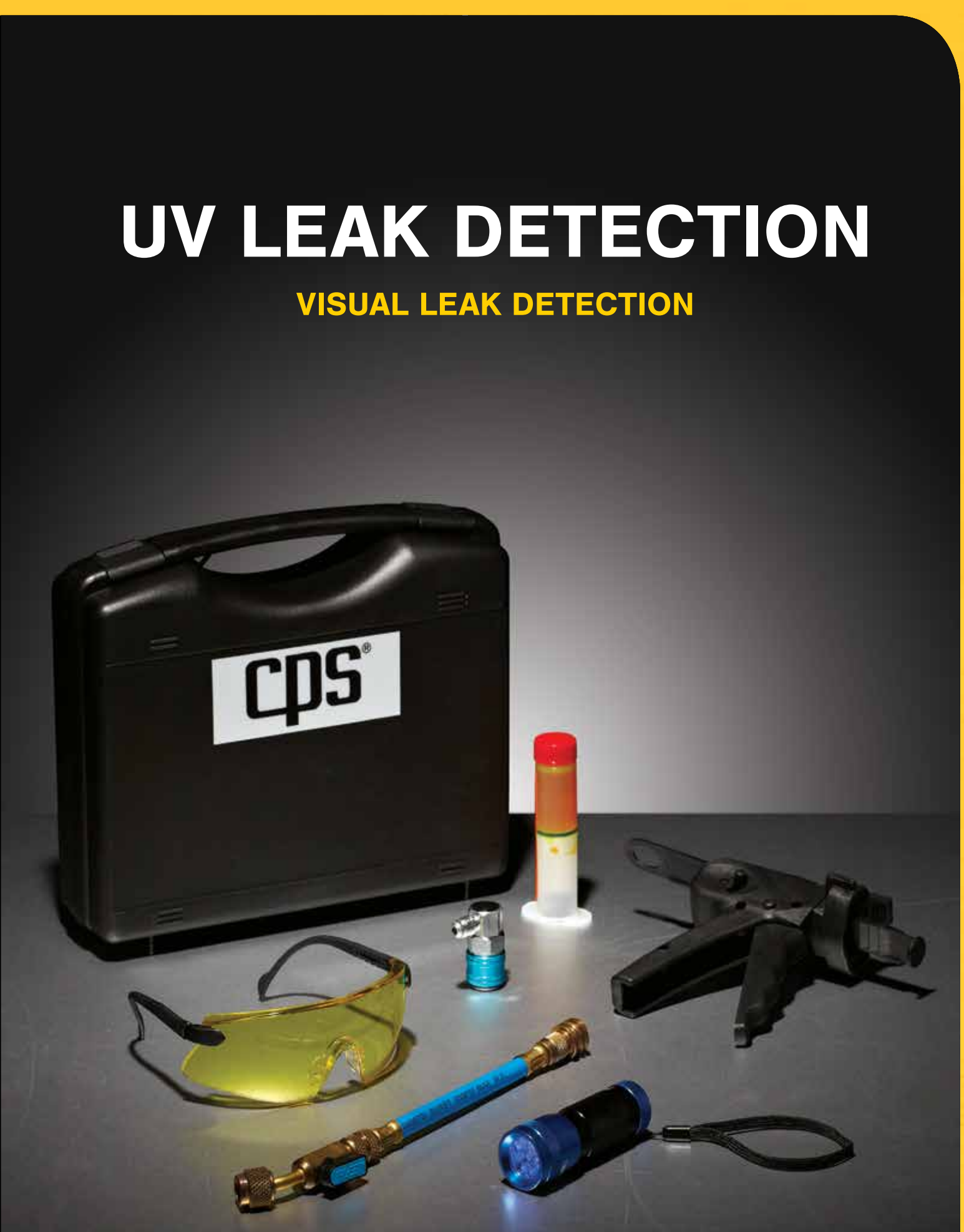
- Leak Detector
- Adapter 1/4"SAE Male x 1/8"MNPT
- T-adapter 1/4" BRCH x 1/4" x 1/4"
- Blue & Red Prem. Hose 150 cm 1/4" 45°
- N2H2 gas disposable cylinder 1,8L and 84 Bar (=177gr)
- Gas Pressure regulator incl. gauges up to 5 Bar

- You need between +/- 80ml gas H2N2 per 1 kg refrigerant, at a test pressure of 5 Bar

- Delivered in a solid carrying case incl. foam

UV LEAK DETECTION

VISUAL LEAK DETECTION



Contact Your Local CPS Distributor For Further Information

UVPRO KIT INCLUDES BOTH MOONLIGHT™ FLASHLIGHT AND MOONSHINE™ GLASSES

Our MoonLight™ flashlight is the most compact and efficient ultraviolet light we have ever designed. It contains nine high intensity, true ultraviolet LED engineered to maximize the fluorescing capabilities of today's most commonly used detection dyes used in AC systems, while greatly reducing the amount of "nuisance" background blue light emitted. MoonLight™ components are housed in a rugged, anodized aluminum body with an O-ring sealed battery compartment that will stand up to handle harsh field conditions.

- MoonLight™ flashlight with 9, true ultraviolet emitting LEDs
- Operates 8 hr (continuous on)
- Inspection range up to 90 cm
- 100,000 hour LED life
- Instant "ON" with no heat produced
- Compact, durable, anodized, lightweight aluminum flashlight body
- Works with all common dye additives
- 3 AAA batteries (included)

UVPRO

MOONLIGHT™

MOONSHINE™ BLUE-LIGHT BLOCKING GLASSES (included with UVPRO kit)

MoonShine™ glasses, when used in conjunction with the MoonLight™ flashlight, block the remaining amount of visible blue light, which provides an ideal means of viewing a fluorescing dye that might leak from a closed, pressurized AC system, thereby indicating where a repair is needed.

OTHER ACCESSORIES FOR UV LEAK DETECTION	
UVS5	Squeeze-Injector Universal Automotive Dye-Cartridges (4 Pk),(1 cartridge = 5 Applications)
UVMINI	Clip-on UV light
UVXB	12V Rechargeable Battery Pack for 50W or 100W Light
UVXBC	Battery Carrying Case
UVXBLB	UV Bulb for 50W Light
UVXC	110V Battery Charger
UVXCE	220V Battery Charger

MOONSHINE™ BOTTLED UNIVERSAL REFRIGERANT DYE

- Works with alkyl benzene, PAG, ester and mineral oil
- Lowest cost per application
- Excellent for large systems
- Built-in measuring cap
- For A/C&R, add 7,5 ml per 591 ml of system lubricants
- For automotive applications, use 7,5 ml per vehicle (32 vehicles per bottle)

MOONSHINE™ UNIVERSAL DYE AND CLEANER		
UVUD6	MoonShine™ Bottled Universal Refrigerant Dye	237 ml
UVUDS		30 ml
UVCLNR	MoonShine™ Dye Cleaner	946 ml

UVUD6

UVUDS

UVCLNR

Visit us online at **www.cpsproducts.com**

MOONSHINE™ PREFILLED/ DISPOSABLE REFRIGERANT DYE CAPSULES AND CARTRIDGES

- Universal OEM approved dye formula
- Cleanest, easiest and fastest method of injection
- No refigerant to inject dye
- 4 sizes to match capacity of system
- Eliminate air entering system
- Eliminates over-injection of dye
- All dyes include I.D. labels
- All MoonShine™ dye meets SAE J2297 standard.

AC System Size	For Refrigerant Charge Size	Refrigerant Oil	MoonShine™ Refrigerant Dye Capsule (Qty. 6)	MoonShine™ Refrigerant Dye Squeeze Cartridges (Qty. 6)
SMALL Ice machines, window AC units, autos, refrigerators	Up to 1,3 kg	Up to 0,44 L	UV101	UVS101 (Gold)
MEDIUM Residential systems	1,4 to 2,2 kg	0,45 to 1,8 L	UV1	UVS1 (Purple)
MEDIUM-LARGE LIght commercial and large residential systems	2,3 to 4,5 kg	1,9 to 3,7 L	UV2	UVS2 (Orange)
LARGE Commercial and light industrial, including all split systems	4,6 to 11,4 kg	3,8 to 9,1 L	UV3	UVS3 (Green)

REFILLABLE. EXPANDABLE SQUEEZE GUN™ DYE INJECTORS

Step 1: Load Cartridge

Step 2: Attach hose

Step 3: Connect and inject

Step 4: Clean port and discard empty cartridge

UVNJS
HVAC Squeeze gun 1/4"
* cartridges sold separately

UVNJ
In-line AC&R 1/4" 7,5 to 14 ml (1/4 to 1/2 oz)

TLJ2
1/4" SAE oil dye injector

Contact Your Local CPS Distributor For Further Information

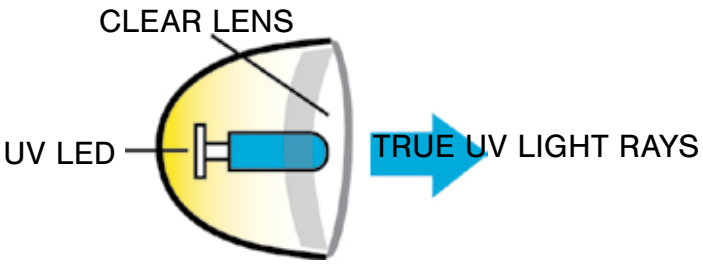
TECH-SET™ DYE BASED REFRIGERANT LEAK DETECTION KIT

Refrigerant leaks are the number one cause of poor A/C cooling. Having the correct amount of refrigerant in an A/C system is critical to achieve proper cooling. Any loss of refrigerant will reduce a system's ability to transfer heat, causing the compressor to work harder and the system to cool less efficiently. Therefore, finding and fixing refrigerant leaks is more important than ever before.

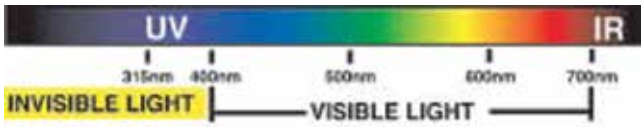
UV55

The Tech-Set™ **UV55** Leak Detection Kit enables you to conduct a fast, easy, mess-free air conditioning "leakdown" test whereby an orange, universal dye is injected into a closed (sealed) A/C system under full pressure. The orange dye will be visible under a "correctly tuned" ultra-violet light at the point of a leak anywhere in the system. Included in this detection kit are the following:

- MoonLight™ flashlight with 9, true ultraviolet LEDs
- Operates 8 hr (continuous on)
- Instant "ON" with no heat produced
- Compact, durable, anodized aluminum flashlight body
- Works with all common dye additives
- 3 AAA batteries (included)
- MoonShine™ blue light-blocking glasses.
- Mess-free and easy-to-use Squeeze Gun™ injector
- **UVS2** universal (orange) OEM approved dye cartridge
- R-34a 90° low side snap coupler
- Molded carrying case with internal padding.
- Operating instructions



UV LEDs 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

WHY BLUE IS NOT NECESSARILY COOL...

A correctly tuned ultraviolet (UV) lamp should predominantly emit invisible UV light waves, with a trace of visible "purple" or "blue" light. A 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 a leaking dye.

Lamps that emit large amounts of visible blue light have been marketed as being more powerful and more effective at fluorescing leaks, backed by the obvious high output of visible light.

Knowing that UV dye additives require 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.

COMPUTE-A-CHARGE® REFRIGERANT CHARGING SCALES

WORTH THEIR WEIGHT IN COLD

Contact Your Local CPS Distributor For Further Information

COMPUTE-A-CHARGE®

THE MOST TRUSTED BRAND OF CHARGING/RECOVERY SCALES ON THE PLANET

Recommended by OEMs and professional service technicians for over 30 years, the Compute-A-Charge series of scales have become the preferred tool for accurate, reliable charging of todays advanced AC&R systems. The range consists of fully automatic programmable or manually operated units, with or without wireless remote hand held controls. Models include variations in capacity and resolution specifications to meet all your job specific needs.

FEATURES AND BENEFITS (ALL UNITS)

- The world's most advanced strain gage bridge load cell technology
- Unparalleled accuracy, precision and reliability
- Calibrated to strict NIST (National Institute of Standards & Technology) standards
- Ergonomic hand held remote controls with large, high contrast wide angle LCD displays
- Rugged cast aluminum platform and base assemblies for stability and long life
- Electronic and mechanical overload protected to withstand 150% of capacity
- Environmentally sealed and temperature compensated for reliable operation in extreme environments
- Automatic tare upon every start up and manual zero function
- Magnetic backing on hand held display for mounting to metal services or 360° swivel hanging hook
- Durable protective transport case enables operation of scale in or out of enclosure
- Ideal for critical charging of systems large or small and all refrigerant recovery applications
- The widest range of programmable, manual, or wireless/hand-held configurations
- Designed and manufactured in the U.S.A. with U.S. and globally sourced components
- RF controlled unit, featuring "set it and forget it" software (CC240RF is non-programmable)
- CC840RF features 4 operating modes: Weigh, Set, Handle, Hold
- CC840RF is fully programmable in charging/recovery mode using the hand-held remote
- Weight Resolution: ± 10gr
- Includes a unique build-in "Smart Wake-Up" feature

WIRELESS HIGH CAPACITY CHARGING/RECOVERY SCALES

Full specifications listed on page 16

CC240RF
with Wireless Remote Hand-Held Controler

CC840RF
with Wireless Remote Hand-Held Controler

CC240RF HIGH CAPACITY SCALE

- 110 kg capacity / 10gr resolution
- Wireless remote, best-in-class accuracy & large capacity
- Accommodates with any type of cylinder having a diameter of 30 cm maximum
- Removable platform for operation in or out of protective case
- Easy to read, fast response measurement on large LCD
- Visual and mechanical overload protection

CC840RF HIGH CAPACITY SCALE

- 110 kg capacity / 10gr resolution
- Programmable for automatic charging or recovery via integrated solenoid valve
- Accommodates with any type of cylinder having a diameter of 30 cm maximum
- Easy to read, fast response measurement
- Visual and mechanical overload protection

Visit us online at **www.cpsproducts.com**

CHARGING/RECOVERY SCALES

Full specifications listed on page 16

CC50 HIGH RESOLUTION SCALE

- 25 kg capacity / 1gr resolution
- Ideal for critical charge, small volume systems
- Removable platform for operation in or out of protective case
- Easy to read, fast response measurement
- Visual and mechanical overload protection

Tech-Set™ CC110 STANDARD SCALE

- 50 kg capacity / 5gr resolution
- Best in class value and accuracy
- Accommodates 12 & 27 kg cylinders
- Removable platform for operation in or out of protective case
- Easy to read, fast response measurement
- Visual and mechanical overload protection

CC220 HIGH CAPACITY SCALE

- 100 kg capacity / 10gr resolution
- Our most versatile unit with best-in-class accuracy and enlarged capacity
- Accommodates with any type of cylinders having a diameter of 30 cm maximum
- Removable platform for operation in or out of protective case
- Easy to read, fast response measurement
- Visual and mechanical overload protection

AUTOMATIC PROGRAMMABLE CHARGING/RECOVERY SCALES

Full specifications listed on page 16

CC850 HIGH RESOLUTION SCALE

- 25 kg capacity / 1gr resolution
- Ideal for critical charge, small volume systems
- Programmable for automatic charging or recovery via integrated solenoid valve
- Versatile with best in class accuracy and resolution
- Easy to read, fast response measurement
- Visual and mechanical overload protection

CC800A HIGH CAPACITY SCALE

- 100 kg capacity / 10gr resolution
- Programmable for automatic charging or recovery via integrated solenoid valve
- Accommodates with any type of cylinders having a diameter of 30 cm maximum
- Easy to read, fast response measurement
- Visual and mechanical overload protection

CHARGING

HEATER BLANKET

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

RECOVERY

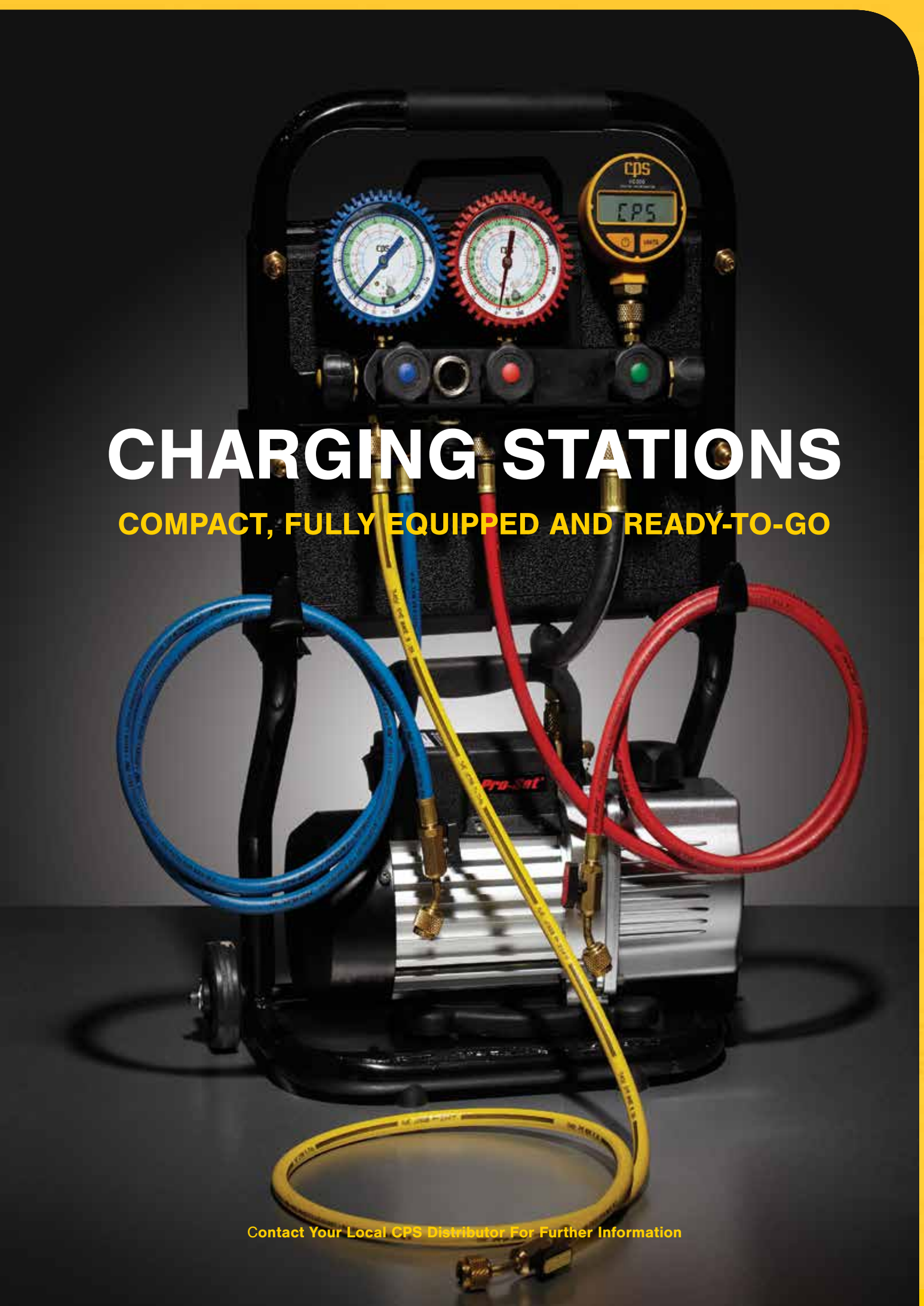
REPLACEMENT PARTS FOR COMPUTE-A-CHARGE SCALES	
CCXC	Protective carrying case for CC50, CC110, CC220
CCXC1	Protective carrying case for CC240RF, CC840RF
CCXHB	110V heater blanket for refrigerant cylinders
CCXHBV	220V heater blanket for refrigerant cylinders
CCX220BC	Battery door with magnet for CC50, CC110, CC220, CC800A, CC240RF, CC840RF

Contact Your Local CPS Distributor For Further Information

CHARGING/RECOVERY SCALE SPECIFICATIONS

Specifications	CC850	CC840RF	CC800A	CC240RF	CC220	CC110	CC50	CCLT
Programmable Recovery Mode	Yes			No				
Display (Maximum Load)	25 kg	110 kg	100 kg	110 kg	100 kg	50 kg	25 kg	50 kg
Platform Dimensions	25 cm x 25 cm		22 cm x 22 cm	25 cm x 25 cm	22 cm x 22 cm			
Display to Scale Connection	Flexcord	Wireless (RF)	Flexcord	Wireless (RF)	Flexcord			
RF Transmission Range	n/a	9,1 m	n/a	9,1m	n/a			
RF Frequency Range	n/a	2.4 GHz, ISM Band (Worldwide)	n/a	2.4 GHz, ISM Band (Worldwide)	n/a			
Power Source	**Remote:** (2) 9V Alkaline (Included)	**Remote:** (1) 9V Alkaline, (Included); **Scale Platform:** (4) AA Alkaline (Included)	**Remote:** (2) 9V Alkaline (Included)	**Remote:** (1) 9V Alkaline, (Included); **Scale Platform:** (4) AA Alkaline (Included)	**Remote:** (2) 9V Alkaline (Included)			
Continuous Battery Life	30 hr	32 hr	30 hr	32 hr	60 hr			
Display Resolution, gr Increments	1 gr	10 gr				5 gr	1 gr	20 gr
Weight Accuracy	0.05% of reading, or ± 1 gr (whichever greater)	0.05% of reading, or ± 10 gr (whichever greater)				0.05% of reading, or ± 5 gr (whichever greater)	0.05% of reading, or ± 1 gr (whichever greater)	Class III (Legal for Trade)
Legal for Trade	n/a							Yes
Unit Weight	4,4 kg		3,9 kg	4 kg	2,5 kg			
Display Flex Cord Length	180 cm Extended	n/a	180 cm Extended	n/a	180 cm Extended			
Maximum Working Pressure	n/a	35 BAR	35 BAR	n/a	n/a			
Maximum Operating Differential	n/a	33 BAR	33 BAR	n/a	n/a			
Rubber Platform Cover	Yes		No	Yes	No			
Weight Readout	lbs, oz, kg, g							kg
Molded Carrying Case	Yes							
Tare (Empty) Weight Mode	Yes							
Overload Protection	Mechanical (Internal Overload Stop)							
Battery Status Indicator	3 Segment Symbol (Display)							
Remote Control Mount	Magnetic Back and 360° Swivel Hook							
Operating Temperature Range	-10°C to +50°C							
Operating Humidity Range	0% to 95% (Non-Condensing)							
Warranty	2 Year	2 Year	2 Year	2 Year	2 Year	1 Year	2 Year	2 Year

Visit us online at **www.cpsproducts.com**



CHARGING STATIONS

COMPACT, FULLY EQUIPPED AND READY-TO-GO

Contact Your Local CPS Distributor For Further Information

Charging station with VP6D

PRO-SET® PORTABLE VACUUM/CHARGING STATIONS

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 job site with integrated storage areas for all components.

- Unsurpassed charging accuracy of ± 0.05% of reading
- Hanging ports and hooks for hose storage
- Rear wheels on frame for ease of mobility
- Contains all tools needed for charging and evacuation
- All components store easily on cart

Hard mounted manifolds

All components store easily on cart

Item	Application	Manifold Type	Refrig. Scales	Press./ Temp. Scales	Hoses	Vacuum pump	Scale
CS12DMV4JP5E	Appliance / Light Refrigeration	Vortech 4 Valve (MV4J)	R22, R134a, R404A, R407c (80mm)	BAR / PSI °C	3-pk of 150cm Prem. BV Hoses	Two Stage 48 l/m Pump (10 microns)	100 kg Compute-A-Charge Scale
CS12DMV5JP5E	Air conditioning	Vortech 5 Valve (MV5JD)	R22, R134a, R404A, R407c (80mm)	BAR / PSI °C	3-pk of 150cm Prem. BV Hoses	Two Stage 48 l/m Pump (10 microns)	100 kg Compute-A-Charge Scale
CS12DMV5J3P5E	Air conditioning / Refrigeration	Vortech 5 Valve (MV5J3D)	R22, R134a, R404A, R407c (80mm oil filled)	BAR / PSI °C	3-pk of 150cm Prem. BV Hoses	Two Stage 48 l/m Pump (10 microns)	100 kg Compute-A-Charge Scale
CS12DMV12O2J5E	Air conditioning / Refrigeration	Vortech 4 Valve (MV12O2)	R22, R410a, R407c (80mm)	BAR / PSI °C	3-pk of 150cm Prem. BV Hoses	Two Stage 48 l/m Pump (10 microns)	100 kg Compute-A-Charge Scale
CS12DMV5WS10Q	Air conditioning / Refrigeration	Vortech 5 Valve (MV5WD)	R22, R134a, R404A (80mm)	BAR °C	3-pk of 300cm Prem. BV Hoses	Two Stage 48 l/m Pump (10 microns)	100 kg Compute-A-Charge Scale
CS16DMV5JP5E	Air conditioning	Vortech 5 Valve (MV5JD)	R22, R134a, R404A, R407c (80mm)	BAR °C	3-pk of 150cm Prem. BV Hoses	Two Stage 144 l/m Pump (10 microns)	100 kg Compute-A-Charge Scale
Personal combination possible (upon request)	Air conditioning / Refrigeration	Vortech 4 Valve Vortech 5 Valve	Preferable	BAR / PSI °C	Preferable	48 l/m Pump 96 l/m Pump 144 l/m Pump 192 l/m Pump	25, 50 or 100kg Compute-A-Charge Scale

You need a different combination? Please contact our Sales dept. @ 0032 3 281 30 40

Visit us online at **www.cpsproducts.com**

RECOVERY EQUIPMENT

RECOVER REFRIGERANTS QUICKLY & EFFICIENTLY

Contact Your Local CPS Distributor For Further Information

BLACKMAX®
PREMIUM RECOVERY MACHINES

The ultimate in dependability.

TR700E SERIES REFRIGERANT RECOVERY MACHINES

Designed for servicing residential and commercial refrigeration systems, the BlackMAX® TR700E is the industry's best-looking and best-performing refrigerant recovery machine incorporating non-restrictive piston manifold valves, a powerful two cylinder oil-less reciprocating compressor and twin fans. The resulting system provides superior airflow and condensing, which maximizes speed in both direct liquid and direct vapor recovery speed in both direct liquid and direct vapor recovery.

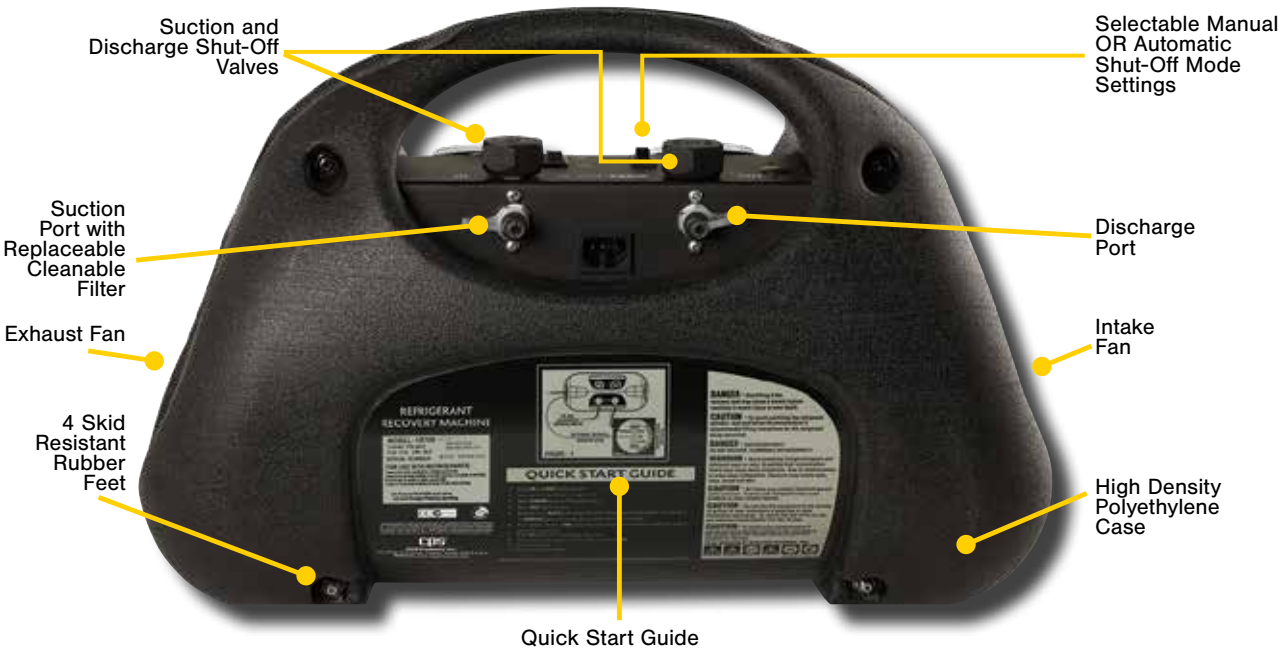
- Designed with high temperature materials
- High strength bourdon tubed gauges
- Twin fan design for ultra cool operation
- Simple inlet and outlet valve blocks
- 2 year warranty

KEY FEATURES

- Powerful 2/3 HP oil-less 2 cylinder reciprocating recovery compressor
- Exceptional compressor, condensing and cooling systems allow fast recovery in high temperature environments
- Automatic low pressure shut-off feature turns unit off when recovery is completed
- Rugged high density, double walled, contemporary plastic housing with easy view top mounted controls
- R-410a ready with 38 BAR high pressure shut-off switch
- Ergonomic, well balanced design for easy transport includes shoulder strap - weighs 14,5 kg
- Built-in, removable, replaceable suction filter located under suction port
- Worldwide patents pending
- Compact design with easy 4 bolt access
- Externally serviceable valves and gauges
- Integrated component moorings for quiet operation
- Less parts provide greater reliability

TR700E

Visit us online at **www.cpsproducts.com**



COMPETITOR COMPARISON

Refrigerant	TEST CONDITIONS		CPS TR700E	Appion G5	Yellow Jkt 95760	Promax RG5410EX	Promax RG5410A	Inficon Vortex AC	Stinger 2000-3300
Flow rate @ 50 Hz			Kg/Hr	Kg/Hr	Kg/Hr	Kg/Hr	Kg/Hr	Kg/Hr	Kg/Hr
R410a	@ 24°C	Liquid	276,42	80,58	38,76	118,83	94,35	84,66	69,87
		Push / Pull	733,38	236,13	282,54	325,89	250,41	262,65	338,13
		Vapor	16,32	15,30	11,22	10,20	8,16	4,08	5,10
R22	@ 24°C	Liquid	205,02	143,82	45,90	96,90	92,31	68,85	81,60
		Push / Pull	729,30	384,54	312,12	335,58	220,32	127,50	284,58
		Vapor	13,77	14,28	7,65	9,18	7,65	5,61	6,63
	@ 40°C	High Temp Vapor	19,89	9,69	7,65	7,14	6,63	6,63	6,63
R134a	@ 24°C	Liquid	180,54	100,47	57,63	55,59	80,07	57,63	61,71
		Push / Pull	593,64	256,53	312,12	270,30	185,13	175,44	253,98
		Vapor	11,73	9,69	5,10	7,14	5,61	5,10	5,10
NRTL Ratings			(UL) QVBC SA12068	(UL) QVBC SA13136	(UL) QVBC SA12038	(UL) QVBC SA12994	(UL) QVBC SA12994	(UL) QVBC SA12798	(AR) RRRE-05040-1Q

All trademarks are owned by their respective companies.

REPLACEMENT PARTS AND ACCESSORIES FOR CR & TR SERIES RECOVERY MACHINES	
CRXCR1	Compressor Rebuild Kit for CR600E series (all)
CRXCR2	Compressor Rebuild Kit for CR500E (115V)
CRXCR3	Compressor Rebuild Kit for CR500E (230V)
CRXTOS3	Overfill Sensor Cord Kit 230V
CRXF2	(6) Suction Filters for CR400E, 500E, 600E
CRXF3	(6) Suction Filters for TR700E, TR19E, TR21E, TR600E

TR700E SERIES SERVICE PARTS		
Item	Description	Where Used (Series)
TR21X1	Valve Rebuild Kit	All TR Recovery Machines
TR21X3	TR21E Piston/Connecting Rod Replacement	
TR21X2	Complete Rebuild Kit	TR700E
TR21X5	Eccentric Crank Set	
TR700X1	Head Replacement	

Contact Your Local CPS Distributor For Further Information

BLACKMAX® TR700 SERIES SPECIFICATIONS				
Attribute		TR710S (H)	TR700E (H)	TR700JUK (H)
Voltage		220-240V (50/60 Hz)		115V (50 Hz)
Motor Size (Horsepower)		2/3 HP		
Overload Protection		10 Amp		15 Amp
Power Consumption		1000W		
Tank Overfill Switch		✓	✗	✗
Two Cylinder, Oil-less Reciprocating Compressor		✓		
ON-Off Power Switch		✓		
Selectable Manual OR Automatic Shut-Off Mode Settings		✓		
Suction Pressure Gauge		-76 cm hg to 35 kg/cm	-0,1 to 3,5 MPA	-100 to 2000 kPa
Discharge Pressure Gauge		0 to 55 kg/cm		
High Pressure Shut-Off		38 bar		
Maximum Flow Rate @ 50 Hz	Direct Vapor @ R410a	16,32 Kg/Hr		
	Direct Liquid @ R410a	276,42 Kg/Hr		
	Push-Pull Liquid @ R410a	733,38 Kg/Hr		
Refrigerants		Most common refrigerants		
Operating Temperature Range		0° to 49°C		
Twin Fans, High Airflow, High Efficiency Condensing Capability		✓		
Suction and Discharge Shut-Off valves		✓		
Large 2-1/4”(44 mm) Diameter Suction & Discharge Gauges		✓		
Cleanable, 100-Mesh Screen Filtration (Into Suction Port)		✓		
Indicator Lights for High Pressure or Low Pressure Status		✓		
Heavy Gauge Aluminum Chassis & High Density Polyethylene Case		✓		
Skid Resistant Rubber Feet		✓		
Power Cord Length, Type		1,82 m Detachable		
Dimensions (W x L x H)		24,7 x 53,3 x 35,6 cm		
Weight		14,5 kg		
Certifications		UL, CSA. Meets Or Exceeds EPA Regulations per ARI Standard 740-98		
Warranty		2 Year		

*(H) = including hoses with ball valves type HP6BE and HP6RE

Pro-Set®

Reliable. Compact. Fast.

COMING SOON
*pre-order possible

TR600 SERIES REFRIGERANT RECOVERY MACHINES

CPS introduces a new addition to its recovery machine line-up, the Pro-Set TR600E. A lightweight, efficient and reliable refrigerant recovery machine in a compact, rugged, contemporary housing – the TR600E offers the ideal combination of form and function to make refrigerant recovery fast and easy!

TR600E Series

KEY FEATURES

- Powerful 2/3 HP oil-less 2 cylinder reciprocating recovery compressor
- Exceptional compressor, condensing and cooling systems allow fast recovery in high temperature environments
- Automatic low pressure shut-off feature turns unit off when recovery is completed
- Rugged high density, double walled, contemporary plastic housing with easy view top mounted controls
- R-410a ready with 38 BAR high pressure shut-off switch
- Ergonomic well balanced design for easy transport - weighs 11,8 kg
- No tool access suction housing for easy filter clean/change
- Worldwide patents pending
- Durable inlet and outlet ball valve construction with gauges
- Integrated component moorings for quiet operation
- Less parts provides greater reliability

Contact Your Local CPS Distributor For Further Information

TR600 SERIES SPECIFICATIONS		
Attribute		TR600E (H)*
Voltage		220-240V (50Hz)
Motor Size (Horsepower)		2/3 HP
Overload Protection		15 amp
Power Consumption		1000W
Tank Overfill Switch		✗
Two Cylinder, Oil-less Reciprocating Compressor		✓
ON-Off Power Switch		✓
Selectable Manual OR Automatic Shut-Off Mode Settings		✗
Suction Pressure Gauge		38 BAR
Discharge Pressure Gauge		45 BAR
High Pressure Shut-Off		38 bar
Maximum Flow Rate @ 50 Hz	Direct Vapor @ R410a	12,96 Kg/Hr
	Direct Liquid @ R410a	221,00 Kg/Hr
	Push-Pull Liquid @ R410a	602,50 Kg/Hr
Refrigerants		Most common refrigerants
Operating Temperature Range		0° to 49°C
Single Fan, High Airflow, High Efficiency Condensing Capability		✓
Suction and Discharge Shut-Off valves		✓
Large 2-1/4"(44 mm) Diameter Suction & Discharge Gauges		✓
Cleanable, 100-Mesh Screen Filtration (Into Suction Port)		✓
Skid Resistant Rubber Feet		✓
Dimensions (W x L x H)		24,7 x 53,3 x 35,6 cm
Weight		11,8 kg
Certifications		UL, CSA. Meets Or Exceeds EPA Regulations per ARI Standard 740-98, TÜV
Warranty		2 Year

*(H) = including hoses with ball valves type HP6BE and HP6RE

TR600 SERIES SERVICE PARTS		
Item	Description	Where Used (Series)
TR21X1	Valve Rebuild Kit	All TR Recovery Machines
TR21X3	TR21E Piston/Connecting Rod Replacement	
TR21X2	Complete Rebuild Kit	TR600E
TR21X5	TR19E/TR21E Eccentric Set	
TR700X1	Head Replacement	

RECOVER LOST TIME

The smallest, lightest, fastest and most reliable recovery machine found anywhere in the world!

TR21E

Anybody can say they are the “fastest.” We can prove it!

Pro-Set® TR21E certified ARI recovery rates are shown below as well as online at UL http://database.ul.com . Compare them to other brands (competing machines are listed on our website) NOBODY is FASTER or MORE RELIABLE!

FEATURES & BENEFITS:

- Weighs only 11,5 KG!
- Fastest ARI recovery rates in its class, best speed-to-weight ratio in the industry!
- Revolutionary “vacuum pump” style design.
- Five unique patented and patent pending design elements
- Vapor or liquid recovery, including R-410A
- Extremely compact and easy to carry

TR19E, TR21E, TR22E SERIES SERVICE KITS		
Item	Description	Where Used (Series)
TR21X1	Valve Rebuild Kit	All TR Recovery Machines
TR21X3	TR21E Piston/Connecting Rod Replacement	
TR19X1	TR19E Complete Rebuilt Kit	TR19E
TR19X2	Eccentric Crank Set	
TR21X4	TR21E Complete Head Replacement	TR19E, TR21E, TR22E
TR21X2	Complete Rebuild Kit	TR21E, TR22E
TR21X5	Eccentric Set	

Premium Brass Fittings

TR21E SERIES RECOVERY RATES PER ARI-740 - 98				
Type	Push Pull	Liquid	Vapor	High Temp Vapor (40˚C)
	Kg/Hr			
R22	729,30	205,02	13,821	19,890
R134a	593,64	180,54	11,628	N/A
R407C	674,22	219,81	12,393	N/A
R410A	733,38	276,42	16,269	18,870

Contact Your Local CPS Distributor For Further Information

RECOVERY EQUIPMENT SPECIFICATIONS						
Attribute		TECH-SET®	PRO-SET®			
		TR19E (H)	TR21E (H)	TRA21E (H)	TRS21E Spark / Ignition Proof	TR21JUK (H)
Voltage		220-240V (50 Hz)	220-240V (50 Hz)			115V (50 Hz)
Motor Size (Horsepower)		1/2 HP	2/3 HP			
Overload Protection		10 Amp	15 Amp			
Power Consumption		550W	850W			
Two Cylinder, Oil-less Reciprocating Compressor		✓				
ON-Off Power Switch		✓				
Spark Proof Starting Components		No			Yes	No
High Pressure Shut-Off (Psig/bar)		38 BAR				
Selectable Manual OR Automatic Shut-Off Mode Settings		Auto Reset High Pressure Switch				
Tank Overfill Switch Kit		No				
Maximum Flow Rate @ 50 Hz	Direct Vapor	6,324 Kg/Hr	16,269 Kg/Hr			
	Direct Liquid	193,29 Kg/Hr	276 Kg/Hr			
	Push-Pull Liquid	561 Kg/Hr	733,38 Kg/Hr			
Refrigerants		Most common refrigerants	Most common refrigerants		Most common refrigerants +R32 and HFO	Most common refrigerants
Operating Temperature Range		0° to 49°C				
Cleanable, 100-Mesh Screen Filtration (Into Suction Port)		✓				
High Pressure Cutout LED		✓				
Heavy Gauge Aluminum Chassis		✓				
Skid Resistant Rubber Feet		✓				
Power Cord Length, Type		1,82 m Detachable				
Dimensions (W x L x H)		15 x 30 x 23 cm				
Weight		8,5 kg	11 kg			
Certifications		UL (ARI740-98)	UL (ARI740-98)			UL (ARI740-98)
Warranty		1 Year	2 Year			

*(H) = including hoses with ball valves type HP6BE and HP6RE

TRANSFORM YOUR BOTTOM LINE WITH THE MT69 MOLECULAR TRANSFORMATOR. IT DRAMATICALLY INCREASES THE SPEED OF ANY RECOVERY MACHINE.

CUT YOUR RECOVERY TIME IN HALF.

The MT69 is the only commercialized recovery subcooler manufactured for the professional A/C & R technician. It transforms molecules of hot refrigerant gas into molecules of refrigerant liquid and also transforms molecules of cold refrigerant liquid into a warm refrigerant gas. Use the MT69 in-line with the discharge line of any recovery machine to dramatically increase the speed of recovery.

MT69

FEATURES & BENEFITS:

- Dramatically increases the speed and performance of your recovery machine- (up to 95% increase in recovery speed!)
- The hotter it gets, the better it works
- Functions as a submersible condenser or evaporator
- Rugged, compact and easy to use Eliminates the need to change tanks when recovering R410A
- Patents Pending
- Eliminates annoying shutdown due to high pressure switch limit
- Essential for recovering R410A on hot days
- Essential for recovering liquid refrigerant on cold days
- Eliminates liquid slugging at colder temperatures
- Designed and manufactured in U.S.A. with U.S. and globally source components

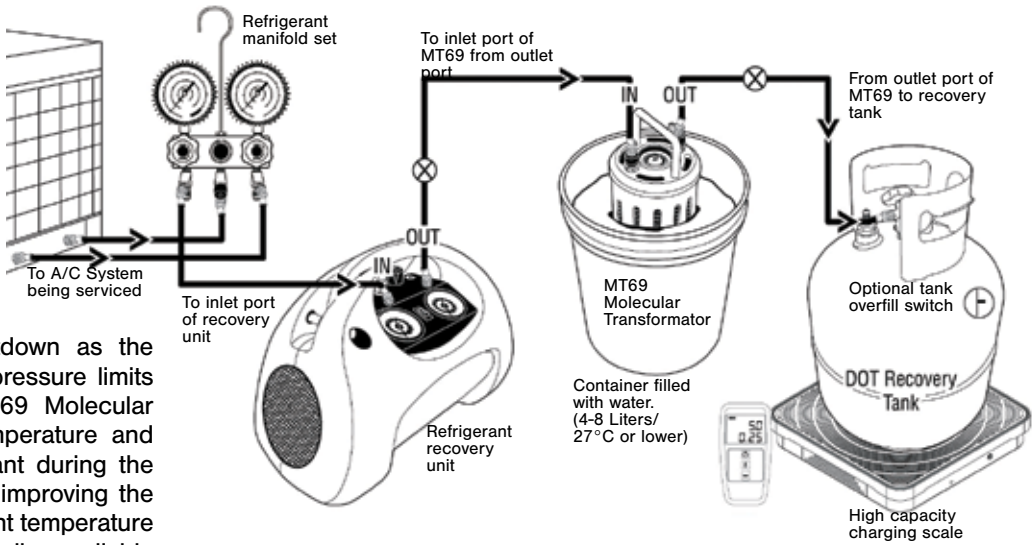
MT69 SPECIFICATIONS	
Dimensions	10,9 cm (Dia.) x 22.9 cm (H)
Weight	1,6 kg
Maximum Operation Pressure	35 BAR
Discharge Pressure Gauge	0 to 42 BAR
Inlet/Outlet Connections	¼" SAE male
Refrigerant Compatability	All

COMPARATIVE DATA		
Time needed to recover 7 Kg of R22 at 49°C:	WITH CPS MT69	WITHOUT CPS MT69
	17 minutes	32 minutes

Item	Description
MT69	MT69 Molecular Transformator
TR21EMT69KIT	TR21E & MT69 (set)

HOW THE MT69 MOLECULAR TRANSFORMATOR WORKS:

The effects of ambient temperature and elevated tank pressures on the speed of the refrigerant recovery process are in many cases more important than the speed of the recovery machine itself. As ambient temperature increases, pressure in the recovery cylinder increases, reducing the recovery speed and in many cases can lead to a high pressure shutdown as the recovery equipment and tank pressure limits are reached. The Pro-Set MT69 Molecular Transformator reduces the temperature and pressure of recovered refrigerant during the recovery process, dramatically improving the recovery speed and high ambient temperature performance of all commercially available recovery machines in addition to extending the life of the equipment.



Contact Your Local CPS Distributor For Further Information

REFRIGERANT RECOVERY TANKS

- Recover, reclaim, transport, recycle, and use for storage
- Available in sizes ranging from 12L to 40L
- Cylinders for R11, R12, R22, R134A, R500, R502, R410A, and many others
- Reusable and refillable
- Working pressures of 32 - 42 BAR
- Cylinders available for automotive or HVAC use
- All cylinders have powder coat paint for maximum rust protection

ITEM	DESCRIPTION	WATER CAPACITY	Service Pressure	Test Pressure
T-12L	12,5 Liter tank with 1/4" SAE M port	12,5 Kg	32 BAR	42 BAR
T-40L	40 Liter tank with 1/4" SAE M port	31,7 Kg	32 BAR	42 BAR
CRX400T	50 lb tank with 1/4" SAE male fitting	20 Kg	32 BAR	42 BAR

* Other sizes possible per larger order qty.

CCXHB

CCXHBV (220v)

RECOVERY TANK ACCESSORIES	
CCXHB	Refrigerant Cylinder Heater/Strap (110V)
CCXHBV	Refrigerant Cylinder Heater/Strap (220V/240V)

Visit us online at **www.cpsproducts.com**

VACUUM PUMPS

LIGHT WEIGHT DESIGN
HEAVY WEIGHT PERFORMANCE

Contact Your Local CPS Distributor For Further Information

Pro-Set®

PRO-SET® VACUUM PUMPS

There are good pumps, better pumps, then Pro-Set® Vacuum Pumps! Innovative changes in vacuum cartridge design, materials, lubrication and cooling enable Pro-Set vacuum pumps to achieve incredibly deep vacuum performance ratings that are unmatched in the industry. Pro-Set has the product line breadth and depth to suit just about any HVAC/R job or fit any job site requirement you might have!

Pro-Set vacuum pumps are offered in a variety of single and dual stage models with numerous voltage, horsepower and free air displacement (CFM) options, while contained in either standard size or compact size housings to suit your work environment. All Pro-Set vacuum pumps boast the same high quality, high value features engineered into all of our products, providing years of reliable performance while servicing air conditioning and refrigeration equipment.

PRO-SET® VACUUM PUMP KEY FEATURES

- All models are for use with class A1 (non-toxic, non-flammable), class A2 (non-toxic, low-flammable) refrigerants
- Air cooled, thermally protected motors encased in a durable aluminum housing
- Oil filled rotary vacuum pump cartridge construction
- Large oil-fill port with proprietary, mist-free exhaust cap
- Easily accessible oil drain port
- Large oil sight glass
- Multiple SAE and ACME intake fittings with check valve
- On/Off power switch
- Rubber lined handle, skid resistant rubber feet
- Gas ballast valve

Sealed starting switch on ignition-proof models VPS6DE & VPS12DE

Pro-Set®

DUAL STAGE VACUUM PUMPS

Pro-Set® Dual Stage Vacuum Pumps

Pro-Set dual stage vacuum pumps are your premium solution for obtaining the deepest ultimate vacuum (10 to 25 microns, depending on model), the greatest range of horsepower (1/3 to 1) and free air displacement (from 48 l/m to 288 l/m) within the Pro-Set line. These pumps also include a gas ballast valve which speeds attainment of deep vacuum and are offered in both single and dual voltage models. All models are for use with Class A1 (non-toxic, non-flammable) and A2 (non-toxic, low flammable) refrigerants. The VPS Series with its sealed components is also for use with Class A3 (non-toxic, explosive) refrigerants and ammonia systems.

CE N11445

Visit us online at **www.cpsproducts.com**

SMALL SIZE,

BIG PERFORMANCE

Pro-Set® DUAL OR SINGLE STAGE COMPACT VACUUM PUMPS

Pro-Set® Dual Or Single Stage Compact Vacuum Pumps

The Pro-Set line of dual or single stage compact vacuum pumps provide an ultimate vacuum ranging from 15 to 100 microns, horsepower ratings from 1/5 to 1/4, and free air displacement from 48 l/m to 96 l/m. These pumps offer dedicated 115VAC or 220-240VAC operation and are hardwired with either NEMA 115VAC or 220-240VAC plugs. Best of all, these pumps feature some the smallest, lightest and most compact aluminum housings in the industry.

Pro-Set® SINGLE STAGE VACUUM PUMPS

Pro-Set® Single Stage Vacuum Pumps

Pro-Set single stage standard size vacuum pumps provide a deep vacuum (down to 50 microns), with horsepower ratings from 1/3 to 1, and free air displacement from 48 l/m to 288 l/m. These pumps include a gas ballast valve and are offered in both single and dual voltage and have a voltage selector switch.

Contact Your Local CPS Distributor For Further Information

Pro-Set® DUAL STAGE VACUUM PUMPS

Pro-Set® dual stage vacuum pumps are your premium solution for obtaining the deepest ultimate vacuum (10 or 25 microns, depending on model) and provide the greatest range of horsepower (1/3 to 1) and free air displacement (from 48 l/m to 288 l/m) within the Pro-Set line. These pumps also include a gas ballast valve which speeds attainment of deep vacuum and are offered in both single and dual voltage models. All models are for use with Class A1 (non-toxic, non-flammable) and A2 (non-toxic, flammable) refrigerants. Model **VPS6DE** (U) and **VPS12DE** (U) with its sealed components are also for use with Class A3 (non-toxic, explosive) refrigerants and ammonia systems.

Model	VP2D	VP2DE	VP4D	VP4DE	VP6D	VP6DE	VPS6DE	VPS6DU
Stage	2							
Ultimate Vacuum	10 Microns							
Refrigerant Class	A1, A2						A1, A2, A3	
Dimensions (Inches)	31 x 12,7 x 24,38 cm		33,27 x 13,97 x 25,4 cm					
Weight	8 kg		10 kg		10,2 kg			
Free Air Displacement	48 l/m @ 50Hz		96 l/m @ 50Hz		144 l/m @ 50 Hz			
Motor Size (HP), RPM @ 50/60Hz	1/3 HP 1440 / 1720 RPM		1/2 HP 2880 / 3440 RPM					
Voltage	110-120V Or 220-240V @ 50/60Hz	220-240V, 50 Hz	110-120V Or 220-240V @ 50/60Hz	220-240V, 50 Hz	110-120V Or 220-240V @ 50/60Hz	220-240V, 50 Hz	220-240V, 50Hz	115V 60Hz
Power Cord Connection to Pump	Universal IEC Socket & Voltage Selector Switch	Universal IEC Socket	Universal IEC Socket & Voltage Selector Switch	Universal IEC Socket	Universal IEC Socket & Voltage Selector Switch	Universal IEC Socket	Hard Wired Schuko Plug	Hard Wired
On/Off Power Switch	Yes						Yes (Ignition-proof sealed starting components)	
Operating Temperature Range	0°C to 52°C							
Pro-Set® Vacuum Pump Oil Capacity	330 ml		450 ml		470 ml			
Gas Ballast Valve	Yes							
Intake Fittings	SAE: 1/4", 3/8", ACME: 1/2"						SAE 1/4", 3/8", 1/2"	
Warranty	2 Year							

Legend: VP= Vacuum Pump, VPS = Ignition Proof VP; 2,4,6,8,10,12 = CFM; D = Dual stage; A or E = 220-240VAC 50 Hz; J = 100VAC 50/60 Hz; U=115VAC 60Hz, No Consonant After "D" =Dual Voltage 110-120VAC or 220-240VAC 50/60Hz. Refrigerant Classes: A1 (non-toxic, non-flammable); A2 (non-toxic, flammable); A3 (non-toxic, explosive)

Visit us online at **www.cpsproducts.com**

VPOP12

VPOQ12

VPOG6

PRO-SET® 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.

Model	VP8D	VP8DE	VP10D	VP10DE	VP12D	VP12DE	VPS12DE	VPS12DU
Stage	2							
Ultimate Vacuum	10 Microns							
Refrigerant Class	A1, A2							
Dimensions (Inches)	37,85 x 14,5 x 27 cm							
Weight	13,5 kg		13,7 kg		14,0 kg			
Free Air Displacement	192 l/m @ 50 Hz		240 l/m @ 50Hz		288 l/m @ 50Hz			
Motor Size (HP), RPM @ 50/60Hz	$^{2}/_{3}$ HP 2880 / 3440 RPM		$^{3}/_{4}$ HP 2880 / 3440 RPM		1 HP 2880 / 3440 RPM			
Voltage	110-120V Or 220-240V @ 50/60Hz	220-240V, 50 Hz	110-120V Or 220-240V @ 50/60Hz	220-240V, 50 Hz	110-120V Or 220-240V @ 50/60Hz	220-240V, 50 Hz		115V 60Hz
Power Cord Connection to Pump	Universal IEC Socket, Voltage Selector Switch	Universal IEC Socket	Universal IEC Socket, Voltage Selector Switch	Universal IEC Socket	Universal IEC Socket, Voltage Selector Switch	Universal IEC Socket	Hard Wired Schuko Plug	Hard wired
On/Off Power Switch	Yes						Yes (Ignition-proof sealed starting components)	
Operating Temperature Range	0°C to 52°C							
Pro-Set® Vacuum Pump Oil Capacity	860 ml		830 ml		800 ml			
Gas Ballast Valve	Yes							
Intake Fittings	SAE $^{1}/_{4}$", $^{3}/_{8}$", $^{1}/_{2}$"							
Warranty	2 Year							

CE N11445

Contact Your Local CPS Distributor For Further Information

Pro-Set®
DUAL OR SINGLE STAGE COMPACT VACUUM PUMPS

The Pro-Set® line of dual or single stage, compact vacuum pumps provide an ultimate vacuum ranging from 15 to 100 microns, horsepower ratings from 1/5 to 1/4, and free air displacement from 48 l/m to 96 l/m. These pumps offer dedicated 115VAC or 220-240VAC operation and are hardwired with either NEMA 115VAC or 220-240VAC plugs. Best of all, these pumps feature some the smallest, lightest, most compact aluminum housings in the industry.

Model	VPC2DU	VPC2DE	VPC2SU	VPC2SE	VPC4SE	VPC4SU
Stage	2		1			
Ultimate Vacuum	15 Microns		100 Microns			
Refrigerant Class	A1, A2					
Dimensions (Inches)	28,7 x 11,4 x 20,3 cm		23,11 x 11,43 x 20,3 cm		28,7 x 11,4 x 20,3 cm	
Weight	5,5 kg		4,2 kg		5 kg	
Free Air Displacement	48 l/m @ 50Hz				96 l/m @ 50 Hz	
Motor Size (HP) RPM @ 50/60Hz	1/4 HP 2880 / 3440 RPM		1/5 HP 2880 / 3440 RPM		1/4 HP 2880 / 3440 RPM	
Voltage	115V @ 60 Hz	220-240V @ 50 Hz	115V @ 60 Hz	220-240V @ 50 Hz	115V @ 60 Hz	220-240V @ 50 Hz
Power Cord Connection to Pump (& Plug Type)	Hardwired, Nema 115V Plug	Universal IEC, Schuko Plug	Hardwired, Nema 115V Plug	Universal IEC, Schuko Plug	Hardwired, Nema 115V Plug	Universal IEC, Schuko Plug
On/Off Power Switch	Yes					
Operating Temperature Range	0°C to 52°C					
Oil Capacity	250 ml	250 ml			300 ml	
Gas Ballast	No					
Intake Fittings	SAE: 1/4", ACME: 1/2"					
Warranty	2 Year					

Legend: VP= Vacuum Pump; C = Compact; 2,4 = CFM; E = 220-240VAC 50 Hz; S = Single Stage; U = 115VAC, 50/60 Hz. Refrigerant Classes: A1 (non-toxic, non-flammable); A2 (non-toxic, flammable)

CE N11445

ANTI-SIPHON VALVE KITS

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.

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

Pro-Set® SINGLE STAGE VACUUM PUMPS

Pro-Set® single stage, standard size vacuum pumps provide a deep vacuum (down to 50 microns), with horsepower ratings from 1/3 to 1, and free air displacement from 48 l/m to 288 l/m. These pumps include a gas ballast valve and are offered in both single and dual voltage and have a voltage selector switch.

Model	VP2S	VP4S	VP6S
Stage	1		
Ultimate Vacuum	50 Microns		
Refrigerant Class	A1, A2		
Dimensions (Inches)	31 x 12,7 x 24,38 cm		33,28 x 13,98 x 25,4 cm
Weight	6,2 kg	6,8 kg	8,3 kg
Free Air Displacement	48 l/m @ 50Hz	96 l/m @ 50Hz	144 l/m @ 50 Hz
Motor Size (HP), RPM @ 50/60Hz	1/4 HP 1440 / 1720 RPM	1/3 HP 2880 / 3440	1/2 HP 2880 / 3440 RPM
Voltage	Dual (110-120V / 220-240V @ 50/60Hz)		
Power Cord Connection to Pump (& Plug Type)	Universal IEC Socket, Voltage Selector Switch, Nema 15 Plug		
On/Off Power Switch	Yes		
Operating Temperature Range	0°C to 52°C		
Oil Capacity	470 ml		540 ml
Gas Ballast	No		
Intake Fittings	SAE: 1/4" & 3/8", ACME: 1/2"		
Warranty	2 Year		

Legend: VP= Vacuum Pump; 2,4,6 = CFM; S = Single Stage; Dual Voltage: 110-120VAC or 220-240VAC 50/60 Hz. Refrigerant Classes: A1 (non-toxic, non-flammable); A2 (non-toxic, flammable)

CE N11445

VPAS8

VPASU

VACUUM PUMP CAP KIT

Vacuum pump cap kit with chains on one common ring

Contact Your Local CPS Distributor For Further Information

Tech-Set™

SINGLE STAGE, COMPACT VACUUM PUMPS

The Tech-Set line of vacuum pumps are designed for the working HVAC technician, and feature a core, essential line of good value vacuum pumps that provide affordable, reliable and dependable service. All models are single stage and feature small, lightweight and compact housings with dedicated 115VAC or 220VAC IEC plug configurations. Models range from 48, 96 or 144 l/m, 1/5 to 1/3 horsepower, and ultimate vacuum ratings from 50 to 100 microns.

Model	TAVPC48SU	TAVPC48SE	TAVPC96SU	TAVPC96SE	TAVPC144SU	TAVPC144SE
Stage	1					
Ultimate Vacuum	100				50	
Refrigerant Class	A1, A2					
Dimensions (Inches)	22,22 x 10,41 x 23,50 cm		28,57 x 10,41 x 23,50 cm		32,05 x 12,19 x 24,43 cm	
Weight	4,3 kg		5,0 kg		6,7 kg	
Free Air Displacement	48 l/m @ 50 Hz		96 l/m @ 50 Hz		144 l/m @ 50 Hz	
Motor Size (HP) RPM @ 50/60Hz	1/5 HP 2880 / 3440 RPM		1/4 HP 2880 / 3440 RPM		1/3 HP 2880 / 3440 RPM	
Voltage	115V @ 50/60 Hz	220-240V @ 50 Hz	115V @ 50/60 Hz	220-240V @ 50 Hz	115V @ 50/60 Hz	220-240V @ 50 Hz
Power Cord Connection to Pump (& Plug Type)	Hardwired, Nema 115V Plug	Universal IEC, Schuko Plug	Hardwired, Nema 115V Plug	Universal IEC, Schuko Plug	Hardwired, Nema 115V Plug	Universal IEC, Schuko Plug
On/Off Power Switch	Yes					
Operating Temperature Range	0°C to 52°C					
Oil Capacity	250 ml		400 ml			
Gas Ballast	No					
Intake Fittings	SAE: 1/4". ACME: 1/2"					
Warranty	1 Year					

Legend: T = Tech-Set; VP = Vacuum Pump; C = Compact; 48, 96 or 144 = lpM; E = 220-240VAC 50 Hz; S = Single Stage; U = 115VAC, 50/60 Hz Refrigerant Classes: A1 (non-toxic, non-flammable); A2 (non-toxic, flammable)

PORT CAPS

Oil mist preventer exhaust port.

VPXOMP for 2-6 CFM Models
VPXOMP2 for 8-12 CFM Models

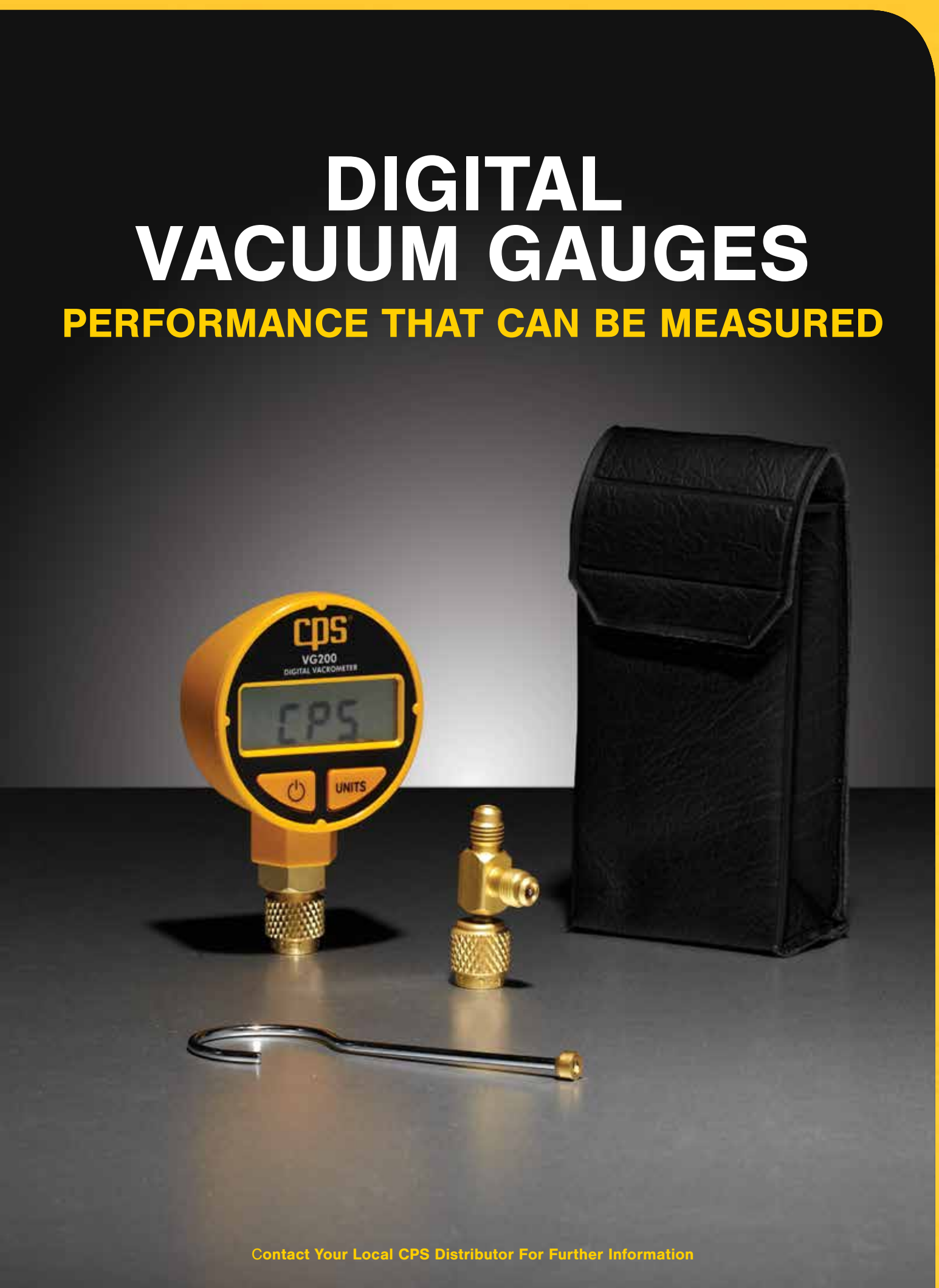
JUMPER CORD KIT

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

VPXJ220

DIGITAL VACUUM GAUGES

PERFORMANCE THAT CAN BE MEASURED



Contact Your Local CPS Distributor For Further Information

VG100A & VG200 VACROMETER DIGITAL VACUUM GAUGES

VG100A & VG200:

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

VG100A **Tech-Set™**:

- Vacuum level indication at Atm (Atmosphere), 5000, 2000, 1000, 500, 250, 100, 50 & 25 microns

VG200:

- Continual digital readout of evacuation process on large, easy to read 5 digit LCD display
- User selectable units: Microns, Torr, in/hg or mBar

Specifications	VG200	VG201	VG100A "Tech-Set"	VG101
Sensor Type	Self - heated thermistor bridge [with integral temperature compensation from 0 to 50° C]			
Field Cleanable Sensor	Yes			
Accuracy	+/- 10% Of Reading		+/- 10% Value Of Lighted LED	
Display Type	5 Digit LCD		9 High Intensity LEDs	
Display Auto-Off	After 5 Minutes Of Operation			
Operating Vacuum Range	Atmospheric pressure to 0 microns		Atmospheric pressure to 25 microns	
Maximum Working Pressure	28 BAR			
Operating Temp Range	Compensated (accuracy as stated): 0°C - 50°C Non-compensated: Add +/- 0.5% error for every °C outside compensated range			
Storage Temperature	-30° C to 85° C			
Operating & Storage Humidity	0 - 95%, Non-condensing			
Power Source	One 9V Alkaline Battery (ANSI 1604AC – IEC 6LR61), included			
Battery Life	20 hr continuous use		18 hr continuous use	
Battery Indicator	Battery symbol with 3 segment Power Level Bar Graph		Symbol for 500 Microns Glows	
Weight (Excluding Battery)	156 g		136 g	
Dimensions	68 mm Dia. x 40 mm Dp x 124 H			
Mechanical Connection	Standard 1/4" female SAE refrigerant hose w/core depressor	1/8" NPT thread connection	Standard 1/4" female SAE refrigerant hose w/ core depressor	1/8" NPT thread connection

GAUGE ADAPTERS

The AVT45, AVT48 and AVT87 are premium built brass adapters. The AVT45 is included for use with the VG100A & VG200 (purchased separately for VG201 & VG101) and has a 1/4" SAE male to 1/4" SAE male to 1/4" SAE swivel female tee.

AVT45

AVT48

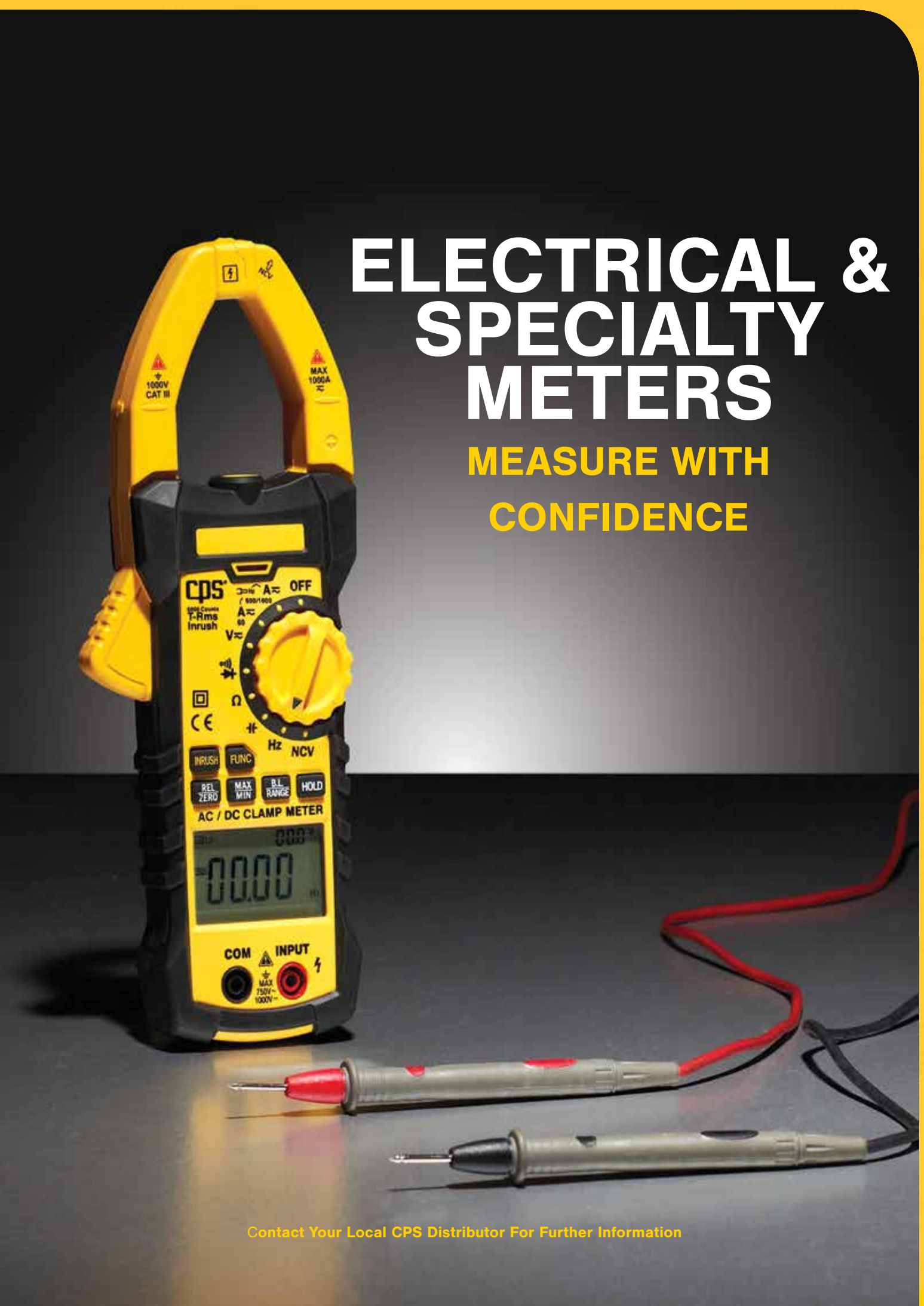
VACUUM GAUGE ACCESSORIES & SPARE PARTS FOR VG200, VG201, 100A, VG101	
AVT44	1/4" SAE female hex nut x 1/4" SAE male x 1/4" SAE male w/cap & core
AVT45	1/4" SAE female knurl nut x 1/4" SAE male x 1/4" SAE male w/cap & core
AVT87	1/4" SAE male x 1/2-20" SAE female x 1/2-20" SAE male tee adapter
VGXC	Carrying case for VG Series
VGXH	Hanging hook for VG Series

AVT87

Visit us online at **www.cpsproducts.com**

ELECTRICAL & SPECIALTY METERS

MEASURE WITH CONFIDENCE



Contact Your Local CPS Distributor For Further Information

DIGITAL CLAMP METER

The AC750 is a multi-functional AC/DC clamp meter and hosts an array of enhanced features such as ability to capture true InRush measurements, non-contact voltage detection, and data logging of output readings to a PC (USB connection cable included).

FEATURES AND BENEFITS

- Versatile for testing AC/DC voltage, AC/DC current, resistance and frequency
- True RMS AC measurement
- Max/min value measurement
- Audible continuity and diode test
- Non-contact voltage detection
- Integrated 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 1000V CAT III
- Includes DMXTL CAT 3, 1000V test leads (shown below)

USB data connection

Extra strength grip clamp

Built-in flashlight

Back view

AC750

AC750 DIGITAL CLAMP METER SPECIFICATIONS

Display	6000 count dual display
Range Control	Auto range mode
Battery	9V battery (included)
Dimensions (W,H,D)	225 mm x 86 mm x 33 mm
Weight	320 gr

DMXTL 1000V CAT 3 TEST LEADS

Captures True Motor InRush Current

Includes Built-in Data Logging with Software

DMXTL (Replacement Probes For AC750)

Visit us online at **www.cpsproducts.com**

AM50

VELOCITOR™ AIR VELOCITY METER

A professional grade, precision, hand held, detached vane anemometer that provides fast, accurate air velocity measurements for balancing HVAC systems or determining CFM calculations. Includes large ¾" display digits and low battery indicator, as well as Data Hold, Max Hold (°F,°C); Function Selection (°F,°C, Anemometer); Units Selection (m/s, ft/min, Knots, Km/Hr). Kit also includes a convenient K Type thermocouple integrated into the remote vane providing quick measurement of grill/duct outflow temperatures from 0° to 50°C. An easy-to-read chart allows quick conversion of air velocity measurements into CFM data. Also included is an instruction manual, CFM Chart (Grill Size, Free Air), 9 V battery, molded carrying case. Factory calibrated.

AM50 AIR VELOCITY METER SPECIFICATIONS				
Temperature Sensor	K-type thermocouple			
Average Period (Seconds) for Wind Speed Measurement	Feet/Minute	~1.2		
	Meters/Second	~0.6		
	Knots	~1.2		
	Km/Hr	~2.2		
Flex Cord	150 cm			
Power Consumption	Approx 6 mA			
Battery Life	9V			
Battery Type	50 hr (for 300 mA-hr battery)			
Operating Pressure	500 mb ~ 2 Bar			
Operating Temperature Range (Meter)	0°C to 50°C			
Operating Temperature Range (Vane)	0°C to 60°C			
Operating Humidity for Thermocouple	<80% RH			
Storage Temperature Range	-10°C to 60°C			
Bearing	Ultralow friction sapphire jewel			
Weight	350 gr			
Mounting Nut	¼" x 20			
Dimensions (L x W x H)	168 x 88 x 26 mm			
Units	Range	Threshold	Resolution	Accuracy
Feet/Minute	0 to 8,800	60	0.1	±3% or 0.1
Meters/Second	0 to 45	0.3		
Kilometers/Hour	0 to 140	1.0		
Knots	0 to 88	0.6		

TECH-SET™ AUTO-RANGING DIGITAL MULTIMETER CAT III 600V

The DM350 is a Multi-Functional Meter and is designed to international safety standard IEC1010 CAT III 600V. The DM350 is encased in a secondary injection mold and supports such features as auto ranging, data hold and maximum value measurement.

DM350 AUTO-RANGING DIGITAL MULTIMETER SPECIFICATIONS	
Display	4 digit large character LCD
Range Control	Auto range mode
Battery	(2) 1.5V AA batteries (included)
Dimensions	158 x 74 x 31mm
Weight	Approx. 220gr (including batteries)
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%
(with optional clamp)	200/2000A (0.1mV/0.1A) ±1.2%
AC Current	200 µ / 2000 µ / 20m / 200mA ±1.5%, 2/10A±3.0%
(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%
Warranty	1 Year

DM350

Contact Your Local CPS Distributor For Further Information

SM150

SOUND LEVEL METER

A professional grade, hand held, lightweight sound level meter for measuring noise levels from 35 to 130dB. Common applications include monitoring sound output from HVAC/R compressors, blowers, health and safety requirements, offices, factory machinery, airports, auditoriums, studio acoustics, etc. Features switches for Hi/Lo dB, slow/fast/impulse, and A & C Weighting. Includes a large, 4 digit LCD display, maximum hold (captures & holds maximum noise level), Over/under range indicator, peak and average response settings. Includes a 3.5 mm output jack for downloading AC or DC signals to a frequency analyzer, level recorder, FFT analyzer, graphic recorder, etc. Kit includes instruction manual, foam windscreen, 3.5 mm plug, calibration screwdriver, 9 V battery, foam padded carrying case. Factory calibrated. CE approved. Meets or exceeds ANSI S1.4 Type 2; IEC 61672-1 Class 2.

SM150 SOUND LEVEL METER SPECIFICATIONS	
Frequency Range	20 Hz ~ 8KHz
Measuring Level Range	35~ 130 dB
Frequency Weighting	A/C
Time Weighting	Fast (125 mS), Slow (1 sec.) Impulse (35 mS)
Microphone	½" Electret Condenser
Display	LCD (4 Digits)
Resolution	0.1 dB
Display Period	0.5 sec.
Level Ranges	Lo (35-95dB); Hi (65~130dB)
Accuracy	±1.4dB (Under Reference Conditions)
Dynamic Range	65 dB
Alarm Function	"OVER" displays when input out of range
Weight	220 gr
Mounting Nut	¼" x 20
Dimensions (LxWxH)	158 x 74 x 31 mm
Maximum Hold	Hold readings, with decay , 1 dB/3 minutes
Calibration	Electrical calibration via internal oscillator (1 KHz) sine wave
AC Output	0.6 Vrms at FS (full scale), output impedance approx. 5KΩ
DC Output	10mV/dB, output impedance approx. 5KΩ
Power Supply	One 9V battery
Power Life	Approx 50 hr (alkaline)
Operating Temperature Range	0°C to 40°C
Operating Humidity Range	25% to 90% RH
Storage Temperature	-10°C to 60°C
Storage Humidity	10% to 70% RH

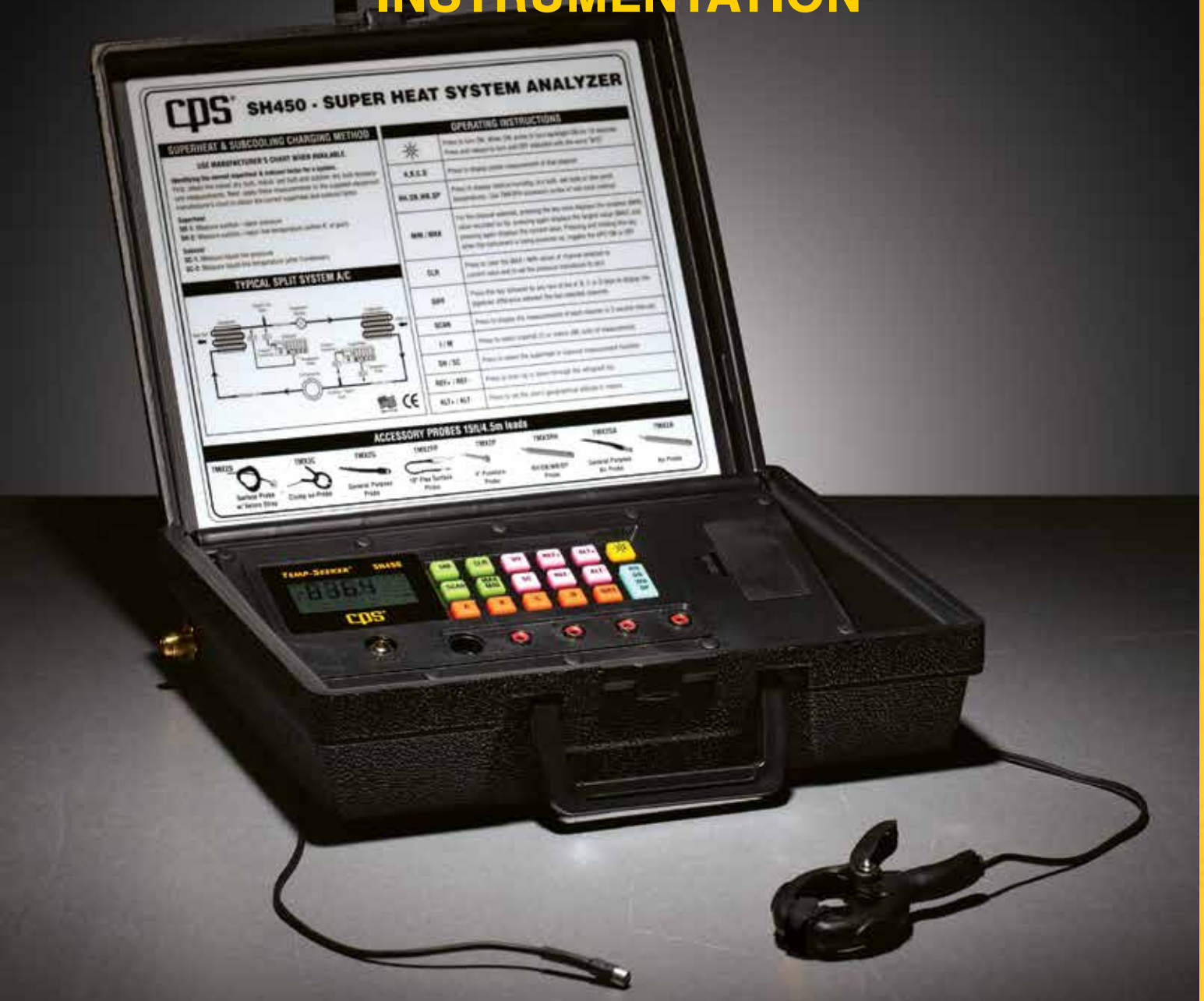
TECH-SET™ DIGITAL CLAMP METER

The AC400 is a auto-ranging clamp on meter. The AC400 is designed to international safety standard IEC1010 CAT III 600V. The AC400 is encased in a secondary injection mold and supports such features as auto ranging, data hold and maximum value measurement.
1 year Warranty

AC400

ELECTRONIC TEMPERATURE & SYSTEM MEASUREMENT

INNOVATIVE SYSTEM ANALYSIS INSTRUMENTATION



Contact Your Local CPS Distributor For Further Information

SH450 MULTI-FUNCTION SUPERHEAT THERMOMETER & SYSTEM ANALYZER

The SH450 system analyzer is a versatile diagnostic tool for accurately measuring and evaluating the performance of today's advanced HVAC/R systems.
Measurement capabilities include pressure, superheat, sub cooling, relative humidity, wet bulb, dry bulb and dew point with a range of highly accurate, job specific probes and sensors. The unit is also an advanced multi-channel thermometer, incorporating 4 discrete temperature channels with temperature differential between any 2 of the 4 inputs, min/max, scan and data record functions. Powered by one 9V alkaline battery (included), the unit is designed for portability, yet can still be powered via an optional 110V power supply for permanent, stationary applications.

The versatile SH450 comes standard with one clamp-on temperature probe TMX3C, one Velcro™ strap pipe probe, one general purpose temperature probe TMX2G and a six pack of wet bulb socks TMX3WB. Optional accessory probes are shown on page 46 and offer the convenience of interchangeable use with other CPS manufactured products including our advanced line of digital manifolds.

SH450

SH450 SUPERHEAT/SUBCOOL SPECIFICATIONS	
Pressure Range	-1 BAR to 50 BAR (-100 kPa to 5000 kPa)
Pressure Accuracy	±1% of reading or ± 0.5 Psig (± 3.5 kPa)
Pressure Units	Psig, kPa, bar, Hg, kg/cm2
Proof Pressure	70 BAR (7000 KPa)
Dew or Bubble Saturation Temperature	±1.0˚C
SH450 TEMPERATURE & HUMIDITY SPECIFICATIONS	
Measurement Temperature Range	-40˚C to +150˚C Actual temp range depends on the probe being used
Temperature Resolution	±0.1˚C
Superheat/Subcool Accuracy	±0.2˚C from -10.0˚F to 70˚C 0.3˚C elsewhere in the range
RH Range	0 to 100%RH
RH Accuracy (TMX3RH)	±1.8%RH from 10 to 90%RH; ± 3% elsewhere in the range
DB Accuracy (TMX3RH)	± 1.2% of reading ± 0.5˚C from -40˚C to 90˚C
SH450 GENERAL SPECIFICATIONS	
Power Source	9V alkaline battery or optional TMX3PS AC adapter for 100 to 240VAC
Battery Life	30hr continuous use
Automatic Power Off	After 10 minutes of inactivity
Dimensions	30,5 x 25,4 x 7,6 cm
Weight	1,4 kg with probes
Warranty	2 year

SH450 KEY FEATURES:

- Integrated 90+ refrigerant PT (pressure/ temperature) table
- Four discrete temperature channels
- Superheat and subcool measuring functions
- Displays bubble and vapor saturation temperatures
- Direct relative humidity and wet bulb measurements
- Temperature differential with min / max memory
- Stainless steel pressure-vacuum sensor with a range of -1 BAR to 50 BAR
- Reads in Psig, KPa, bar, Hg, kg/cm2
- High accuracy silicon humidity transducer probe port
- Operates on 9V battery or optional wall transformer
- Auto-off or continuous on mode
- Large 4-digit backlit display
- Calibrated to NIST traceable standards
- Includes: general purpose probe TMX2G; clamp-on surface probe TMX3C; 9V alkaline battery and owner's manual

Premium build pressure port

TM360 SERIES, 4 STATION THERMO-PSYCHROMETER

TM360 Series are professional grade instruments that can accommodate all your temperature, humidity, dry/wet bulb and dew point measurements. TM360 incorporates 4 discrete temperature ports capable of min/max and memory functions including temperature differential between any 2 of the 4 available ports. Press the SCAN key and the display will alternate between all 4 ports in 3 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. Housed in a rugged polyethylene case, the TM360 is engineered to provide laboratory accuracy in rough field conditions. A generous probe storage area is provided to contain all your job specific probes.

TM360 & TM360C

TM360 SERIES THERMO-PSYCHROMETER SPECIFICATIONS	
Temperature Resolution	±0.1˚C
Temperature	±0.2˚C from -10.0 to 70˚C 0.3˚C elsewhere in the range
RH Range	0 to 100%RH
RH Accuracy (TMX3RH)	±1.8% RH from 10 to 90%RH; ± 3% elsewhere in the range
DB Accuracy (TMX3RH)	± 1.2% of reading ± 0.5˚C from -40˚C to 90˚C
TM360 SERIES GENERAL SPECIFICATIONS	
Power Source	9V alkaline battery or optional TMX3PS AC adapter for 100 to 240VAC (40 to 60 Hz)
Battery Life	30hr continuous use
Automatic Power	Off After 10 minutes of non-use, or user selectable continuous ON mode
Backlight	15 seconds
Dimensions	30,5cm x 25,4cm x 7,6 cm
Weight	1,4 kg with probes
Warranty	2 year

TM360 KEY FEATURES:

- Four discrete temperature channels
- High accuracy silicon humidity transducer probe port
- Large 4-digit, easy-to-read, backlit display
- Min/Max and memory functions
- Temperature differential between any 2 of the 4 temperature ports
- Direct relative humidity and wet bulb measurements
- Calibrated to NIST traceable standards
- Auto-off after 10 minutes of non-use or continuous ON mode
- Operates 30 continuous hr on (1) 9V alkaline battery
- Integrated battery eliminator jack
- Rugged polyethylene carrying case
- Large probe storage area
- Switchable ˚C/˚F
- TM360 includes accessory probes TMX2A, TMX2G, TMX2S
- TM360C includes accessory probes TMX2A, TMX2S, TMX3C

Contact Your Local CPS Distributor For Further Information

TMX2A

TMX2G

TMX2GA

TMX2P

TMX2S

TMX3C

TMX2RH

TMX3RH

ACCESSORIES & SPECIFICATIONS FOR USE WITH SH450, TM360 AND TM360C					for Use With		
Item	Description	Common Uses	Qty	Operating Temperature Range	TM360	TM360C	SH450
TMX2A	Moving Air Probe, 4,5 m Lead	Air: Ducting, registers, aire movement across concensers, am bient air.	1	-40°C to +105°C	Yes*	Yes*	Yes
TMX2G	General Purpose Probe, 4,5 m Lead	Surface, Air, Liquids: Copper pipe, ambient air, RH wet sock method.	1	-40°C to +125°C	Yes*	n/a	Yes*
TMX2GA	General Purpose Air Probe, 4,5 m Lead	Air, Surface, Liquids: Ambient air, ducting, registers, air movement across condensers.	1	-40°C to +125°C	n/a	n/a	Yes
TMX2P	Puncture Probe , 4,5 m Lead	Surface, Liquids (Shaft Only): Internal temperatures of frozen materials, air ducts.	1	-40°C to +125°C	Yes	n/a	Yes
TMX2S	Velcro Strap Pipe Probe, 4,5 m Lead	Surface: Surface temperatures of copper tubing	1	-40˚C to +125°C	Yes*	Yes*	Yes
TMX3C	Clamp-On Surface Probe, 4,5 m Lead	Surface: Surface temperatures of copper tubing	1	-40°C to +105°C	Yes	Yes*	Yes*
TMX2RH	Relative Humidity / Dewpoint Probe	Specialty RH Probe: Measure indoor air quality, set/ troubleshoot humidity devices	1	-40°C to +90°C	Yes	Yes	No
TMX3RH	Relative Humidity / Dry Bulb / Wet Bulb / Dew Point Probe	Specialty RH Probe: Measure indoor air quality, set/ troubleshoot humidity devices	1	-40°C to +90°C	Yes	Yes	Yes
TMX3WB	Wet Bulb Socks	for Use With TM360	6	-40°C to +90°C	Yes	Yes	n/a
TMX3PS	AC Adapter for 100 to 240V (40-60 Hz)- USA Plug	for TM360, SH450	1	0°C to +60°C	Yes	Yes	Yes

*Indicates accessory is included with the model

Visit us online at **www.cpsproducts.com**

TECH-SET™ TMINI12 NON-CONTACT THERMOMETER

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

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

Built in LED Light

TMINI12

TECH-SET™ TMINI12 THERMOMETER SPECIFICATIONS	
Temperature Range	-60°C to 500°C
D:S (Distance to Spot Size)	12:1
Emissivity	Emmisivity pre-set at 0.95 - adjustable
Accuracy	Accuracy ±2°C or ±2% of reading
Display	Display Digital Backlit LCD
Resolution	Resolution 1°C
Batteries	2 AAA (included)
Warranty	1 year

TMAPC

TMDP

TECH-SET™ DIGITAL AND ANALOG POCKET THERMOMETER SPECIFICATIONS				
Item	Description	Temperature Range	Probe Length	Probe Cord Length
TM50	Hand held digital pocket thermometer with stainless steel puncture probe	-50° to 300°C	96 mm	122 cm
TMDP	Digital pocket thermometer with stainless steel probe	-50° to 150°C	127 mm	n/a
TMAPC	Analog pocket thermometer (Celsius scale) with 1" dial and stainless steel probe and pocket clip.	-40°C to 80°C	127 mm	n/a
Warranty	1 Year			

TECH-SET™ TM50 DIGITAL POCKET THERMOMETER

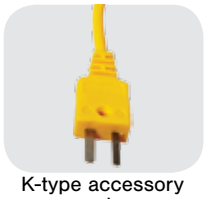
A step above the standard pocket thermometer, the TM50 is packed full of features, including a user selectable temperature alarm, a countdown timer, min/max, °F/°C selectable and memory functions. The unit incorporates a highly accurate stainless steel 96 mm puncture probe with a 122 cm cord. Temperature measurement range is -50° to 300°C. The TM50 operates on a single AAA alkaline battery with 25 hr of battery life and a low battery indicator.

TM50

Contact Your Local CPS Distributor For Further Information

Coiled lead

Flat-spring ribbons


K-type accessory probe

Ribbed handle

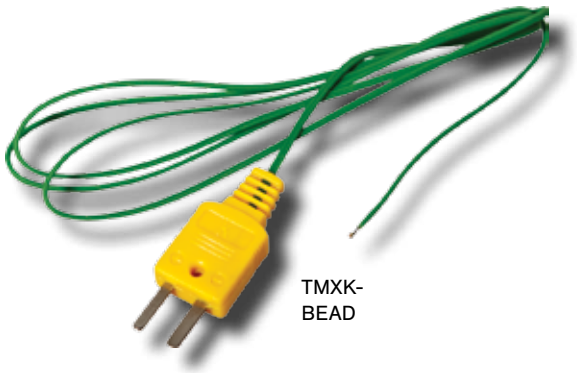
TMXSK90 K-TYPE TEMPERATURE PROBE

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 square, ribbed handle for grip and a 90 cm 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 TEMPERATURE PROBE

Identical to the TMXSK90, but with a straight probe and round, ribbed handle.

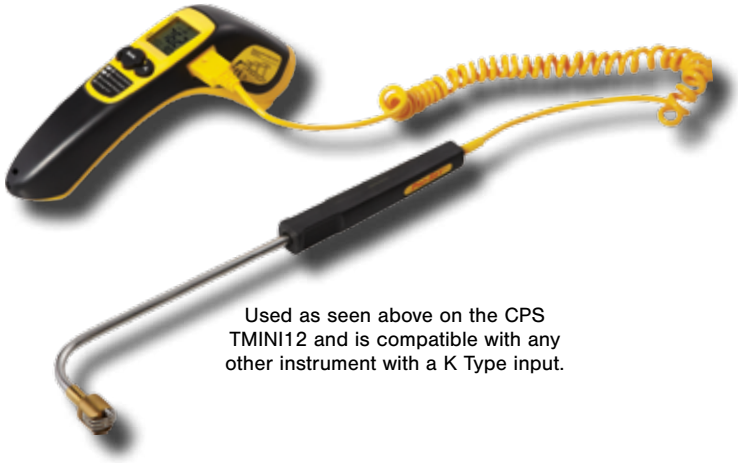
TMXSK


TMXK-BEAD

TMXKBEAD TEMPERATURE PROBE

The TMXKBEAD is a standard K-type bead probe ideally suited for getting fast results when measuring temperature in a variety of media. This 1 meter long probe provides accurate readings in less than 5 seconds over -50 to 204° C range.

THERMOMETER ACCESSORY SPECIFICATIONS		
TMXSK90	K-Type Surface Probe (Angled, 90 Degree Head)	Max Temp:400°C
TMXSK	K-Type Surface Probe (Straight Head)	Max Temp:400°C
TMXKBEAD	K-Type Flexible Probe (0,9 M)	Max Temp: 204°C Min Temp:-50°C


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

Visit us online at **www.cpsproducts.com**

BLACKMAX®

DIGITAL MANIFOLDS

INDUSTRY LEADING ACCURACY

Contact Your Local CPS Distributor For Further Information

Perform any function on your manifold using your iPhone, iPad, or Android device.

BLACKMAX® WIRELESS DIGITAL MANIFOLDS

CPS is pleased to announce the introduction of its wireless digital manifold designed to let users communicate and control your manifold using Bluetooth® LE (Low Energy) technology. Users can perform all manifold capabilities without the need to physically touch the device.

BLACKMAX® APP for iOS and ANDROID DEVICES

CPS is pleased to announce the introduction of a mobile application (APP) that will communicate with, and control wireless versions of BlackMAX® Digital Manifolds through Bluetooth® LE (Low Energy). Bluetooth is a wireless technology standard for exchanging data over short distances from fixed and mobile devices.

BEST-IN-CLASS ACCURACY

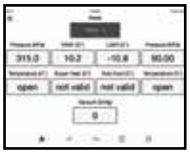
- Pressure: 1% of reading pressure
- Temperature: superior thermistor sensors for +/- 0.2°C accuracy
- Vacuum: direct system attachment achieves +/- 10 microns from 0 to 25,000 microns

MD100W

* Delivered in a solid carrying case

Pressure decay test chart

Data Logging



Small screen option

FULL SYSTEM CONTROL FROM ANY SMART DEVICE

Monitor full system measurements as they happen. Export, save or e-mail results to your company, yourself or your customer.

- Alternate views for smaller devices (cell phones, etc.)
- Saves your favorite five refrigerants
- Change manifold units; (Pressure, Temperature, Vacuum)
- Main color scheme around all buttons change according to the refrigerant being used
- All refrigerants supported
- Real-time information displayed on screen
- Perform pressure decay or vacuum tests
- Pressure decay test can be viewed, saved, stored or emailed as a graph
- Data “logged” or saved to files. Those files can be deleted, viewed, saved, filed away or e-mailed
- Change language (English to Spanish)

BLACKMAX® DIGITAL MANIFOLDS

BlackMAX® digital manifolds from CPS Products, Inc. combine the latest manifold design and electronic measurement features into one easy-to-use, accurate and water resistant product in a rugged nylon plastic housing, incorporating a durable elastomeric keypad and large backlighted LCD display. Two and four valve manifolds are designed and manufactured in the U.S.A. with U.S. and globally sourced components.

MD100

BEST-IN-CLASS ACCURACY

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

SIMPLICITY AND VERSATILITY

- One key ON/OFF and function select
- Preloaded with over 93 refrigerants
- Compatible with R744 subcritical CO2 refrigerants
- One-touch access to your 5 favorite refrigerants
- Performs pressure decay and vacuum rise tests
- Uses 4AA alkaline or rechargeable batteries
- 25 hours of continuous battery life with backlight; 40 hours without

FULL SYSTEM MEASUREMENT

- 2 Pressures, 2 temperatures and vacuum (using MDXVG accessory)
- Vacuum rise and pressure decay test functions
- Simultaneously displays:
  - HI & LO Pressures, Superheat & Subcooling
  - HI & LO Pressures, T1 & T2
  - HI & LO Pressures, Saturation T1 & Saturation T2
  - HI & LO Pressures, Displays T1, T2 & Delta T

RUGGED DESIGN

- Rain-proof, high strength glass-filled nylon housing
- Precision machined anodized aluminum manifold body
- Proprietary Vortech™ valve systems (certified to 15 microns)
- High-impact polycarbonate LCD window
- Advanced sight glass design

MD50

* Delivered in a solid carrying case

Contact Your Local CPS Distributor For Further Information

BLACKMAX® Digital Manifolds	Number Of Valves	Wireless	150 cm Black & Chrome Ball Valve Charging Hoses (3 Pk)	150 cm Heavy Duty Black & Chrome Vacuum Hose (1)	Thermocouple Clamp With 180cm leads (MDXCP) x 2	MDXVG Vacuum Gauge Accessory Kit*	MDXBK Rechargeable NiMH Battery & Universal Plug Kit**	MDXSC Soft Case for MD Series
MD50	2				✓	Optional	Optional	Optional
MD50W		✓			✓	Optional	Optional	Optional
MD50HE			✓		✓	Optional	Optional	Optional
MD50HEW		✓	✓		✓	Optional	Optional	Optional
MD50VHE			✓		✓	✓	Optional	Optional
MD50VHEW		✓	✓		✓	✓	Optional	Optional
MD100	4		Optional		✓	Optional	Optional	Optional
MD100W		✓			✓	Optional	Optional	Optional
MD100HE			✓***	Included	✓	Optional	Optional	Optional
MD100HEW		✓	✓***		✓	Optional	Optional	Optional
MD100VHE			✓***		✓	✓	Optional	Optional
MD100VHEW		✓	✓***		✓	✓	Optional	Optional

*Includes Vacuum Accessory & 1 AVT45 ¼" SAE Brass Tee Connector. **Includes 1 Universal Charger With 5' Cord; 4 rechargeable NiMH batteries, 1 U.S. Plug, 1 Euro Plug, 1 Australia/New Zeeland/China Plug, 1 UK/Ireland/Singapore/Hong Kong Plug. *** Includes 5' (HV5Z) Vacuum Hose

BLACKMAX®

BLACK & CHROME MANIFOLDS

ENGINEERED FOR PERFORMANCE AND RELIABILITY

Contact Your Local CPS Distributor For Further Information

BLACKMAX® BLACK & CHROME MANIFOLDS WITH VORTECH™ VALVES

- Two and four valve manifolds designed and manufactured in U.S.A. with U.S. and globally sourced components
- Proprietary Vortech™ valves (certified to 15 microns)
- Black anodized aluminum body with large sight glass
- Heavy duty nickel plated metal handles
- Auxiliary center access port with Schrader valve (2 valve units)
- Protective gauge boots and packaged in display tin
- Superior refrigerant metering and control

BLACKMAX® BLACK & CHROME VORTECH™ VALVE MANIFOLDS			
Specifications		68 mm	80 mm
Gauge Description	Refrigerant Scales	R410a, R22, R407c	R410a, R22, R407c
	Gauge Size / Type	Class 1.6	Class 1.0
		* Gauges built with internal silicon dampening cup for flutter-free operation	
	Pressure Scales	BAR / PSI	BAR / PSI
	Temperature Scales	°C	°C
Fittings	Manifold & Hose fittings	1/4" SAE 45° fittings	
Two Valve Manifolds	3 Premium 150 cm Pro-Set® Black & Chrome Hoses	MV2O5P5Z	MV2O4P5Z
	3 Premium 150 cm Pro-Set® Black & Chrome BV Hoses	MV2O5P5EZ	MV2O4P5EZ
Four Valve Manifolds	3 Premium 150 cm Pro-Set® Black & Chrome Hoses	MV4O5P5Z	MV4O4P5Z
	3 Premium 150 cm Pro-Set® Black & Chrome BV Hoses	MV4O5P5EZ	MV4O4P5EZ
Replacement Gauges	Low Side Gauge	RGO5L	RGO4L
	High Side Gauge	RGO5H	RGO4H
	Gauge Boot	RGX80IB	RGX80IB

BLACKMAX® BLACK & CHROME BARRIER CHARGING HOSES

HP5BKEZ
5' premium barrier ball valve chrome charging hoses (black)

HP5BKZ
5' premium chrome charging hoses (black)

HV5Z
5' premium 3/8" chrome hose (black)

Visit us online at **www.cpsproducts.com**

BLACKMAX® BLACK & CHROME MANIFOLDS WITH TRIPLE-SEAL VALVES

- Proprietary Triple Seal valve systems
- 2 valve units designed and manufactured in U.S.A. with U.S. and globally sourced components
- Black anodized aluminum block body
- No flutter gauges with protective boots and rugged metal housings
- Nickel plated 1/4" SAE 45 fittings
- Auxiliary center access port with Schrader valve
- Heavy duty nickel plated metal handles
- Protective gauge boots and packaged in display tin
- Proprietary Vortech™ valves

RGO5L

RGO5H

RGX68SB
(Spider Design)

RGX80IB
(Ribbed Design)

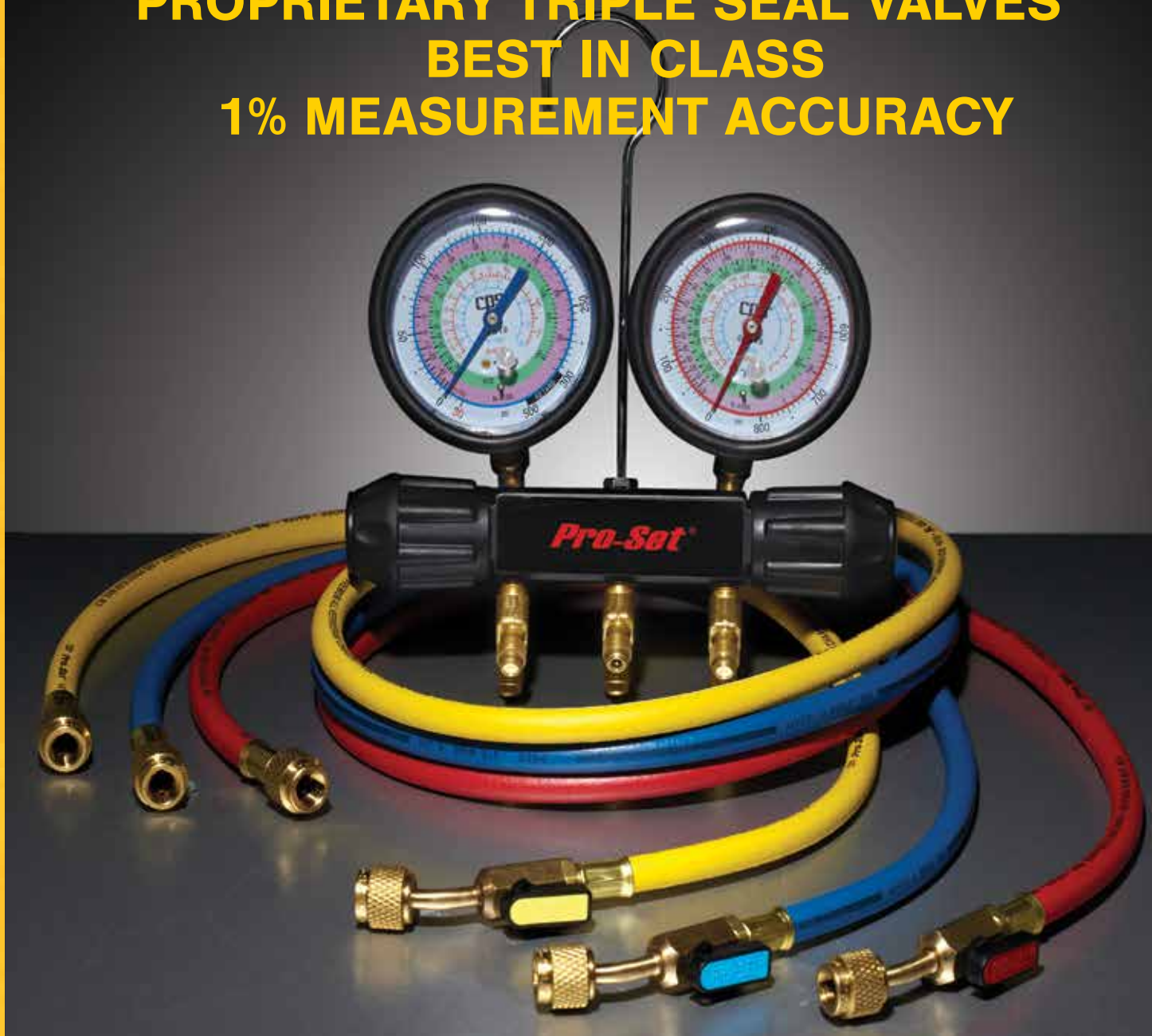
BLACKMAX® BLACK & CHROME TRIPLE SEAL VALVE MANIFOLDS			
Specifications		80 mm	68 mm
Gauge Description	Refrigerant Scales	R22, R410a, R407C	R22, R407C, R410a
	Gauge Size / Type	Class 1.0 accuracy	Class 1.6 accuracy
		* Gauges built with internal silicon dampening cup for flutter-free operation	
	Pressure Scales	BAR / PSI	BAR / PSI
	Temperature Scales	°C	°C
Fittings	Manifold and Hose Fittings	1/4" SAE 45° fittings	
Two Valve Manifolds	Manifold & Gauges Only	MBO4Z	MBO5Z
	3 Premium 150 cm Pro-Set® Black & Chrome Hoses	MBO4P5Z	MBO5P5Z
	3 Premium 150 cm Pro-Set® Black & Chrome BV Hoses	MBO4P5EZ	MBO5P5EZ
Replacement Gauges	Low Side Gauge	RGO4L	RGO5L
	High Side Gauge	RGO4H	RGO5H
	Gauge Boot	RGX80IB Ribbed	RGX68SB Spider

Contact Your Local CPS Distributor For Further Information

Pro-Set®

PREMIUM PISTON SERIES

PROPRIETARY TRIPLE SEAL VALVES
BEST IN CLASS
1% MEASUREMENT ACCURACY



Visit us online at www.cpsproducts.com

PRO-SET® THE WORKINGMAN'S CHOICE PREMIUM PISTON SERIES

The Workingman's Choice series 2 valve anodized aluminum block body with 1/4" SAE 45° fittings, Triple Seal piston valves, sure grip rubber over metal valve handles, easy-to-read 80 mm Class 1.0 or 1.6 accuracy gauges, protective gauge boots, extra access port in center with Schrader valve and hanging hook.

TRIPLE SEAL™ VALVES

- 3 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

* Different combinations possible on demand

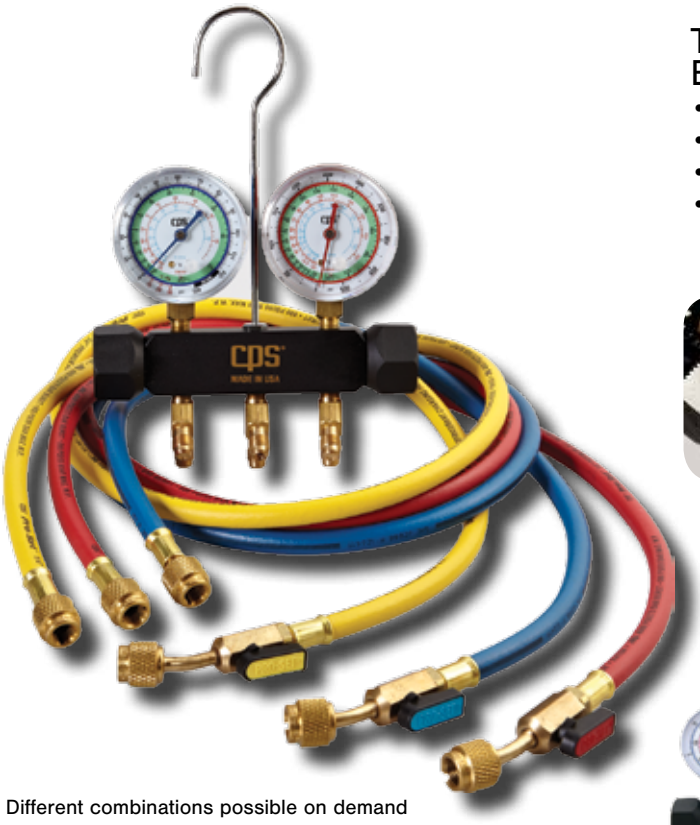
Durable, protective gauge boots

RGO2L

RGO2H

PRO-SET® WORKINGMAN'S CHOICE 2 VALVE MANIFOLDS			
Specifications		80 mm	
Gauge Description	Refrigerant Scales	R744	R410a, R22, R407c
	Gauge Size / Type	Class 1.0 Accuracy (subcritical)	Class 1.6 Accuracy
		* Gauges built with internal silicon dampening cup for flutter-free operation	
	Pressure Scales	BAR/PSI/kPa	BAR/PSI
	Temperature Scales	°C	°C
Fittings	Manifold and Hose fittings	1/4" SAE 45° fittings	
Two Valve Manifolds	Manifold & Gauges Only	MT2CO2	MT2O2
	3 Premium 150 cm Pro-Set® Hoses	MT2CO2P5	MT2O2P5
	3 Premium 150 cm Pro-Set® AB Hoses	MT2CO2P5A	MT2O2P5A
	3 Premium 150 cm Pro-Set® BV Hoses	MT2CO2P5E	MT2O2P5E
Replacement Gauges	Low Side Gauge	RGCO2L	RGO2L
	High Side Gauge	RGCO2H	RGO2H
	Replacement Gauge Boot	RGXBW	RGXBW

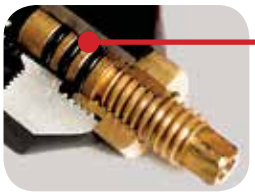
Contact Your Local CPS Distributor For Further Information



* Different combinations possible on demand

TRIPLE SEAL™ PISTON 2 VALVE BLACK BODY SERIES

- 2 valve anodized aluminum block body
- ¼" SAE 45° fittings
- 68 mm class 1.6 accuracy gauges
- Extra access port in center with Schrader valve and hanging hook



TRIPLE SEAL™ VALVES

- 3 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

MBO

MBG

MBF

TRIPLE SEAL™ PISTON 2 VALVE BLACK BODY MANIFOLDS					
Specifications		68 mm			
Gauge Description	Refrigerant Scales	R12, R22, R502	R134a, R404a, R407C	R22, R410a, R407C,	R134a, R22, R1404a
	Gauge Size / Type	Class 1.6 accuracy			
		* Gauges built with internal silicon dampening cup for flutter-free operation			
	Pressure Scales	BAR/PSI			
	Temperature Scales	°C			
Fittings	Manifold & Gauges Only	¼" SAE 45° fittings			
Two Valve Manifolds	Manifold & Gauges Only	MBG	MBF	MBO	MBV
	Standard 90 cm Pro-Set® Hoses	MBGS3	MBFS3	MBOS3	MBVS3
	Standard 150 cm Pro-Set® Hoses	MBGS5	MBFS5	MBOS5	MBVS5
	Premium 150 cm Pro-Set® AB Hoses	NA	MBFP5A	MBOP5A	MBVP5A
	Premium 150 cm Pro-Set® BV Hoses	NA	MBFP5E	MBOP5E	MBVP5E
Replacement Gauges	Low Side Gauge	RGGL	RGFL	RGOL	RGVL
	High Side Gauge	RGGH	RGFH	RGOH	RGVH

PISTON PINK BODY MANIFOLD SERIES

Piston series 2 valve anodized aluminum block body with ¼" SAE 45° fittings, Triple Seal piston valves, 68 mm/ 80 mm Class 1.0 / 1.6 accuracy gauges, extra access port in center with Schrader valve and hanging hook.

NON-FLUTTER GAUGE
Design with Rugged Metal Housing

FRONT CALIBRATION
Access Port

ANODIZED ALUMINUM
Block Body

EASY-TO-GRAB
Large Knob

TRIPLE SEAL™ VALVES

- 3 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

* Different combinations possible on demand

MCO

MCA

TRIPLE SEAL™ PISTON 2 VALVE PINK BODY MANIFOLDS			
Specifications		68 mm	80 mm
Gauge Description	Refrigerant Scales	R22, R407C, R410a	R410a, R32
	Gauge Size / Type	Class 1.6 accuracy	Class 1.0 accuracy
		*Gauges built with internal silicon dampening cup for flutter-free operation	
	Pressure Scales	BAR	BAR/PSI
	Temperature Scales	°C	°C
Fittings	Manifold & Gauges Only	1/2" - 20 UNF	1/2" - 20 UNF
Two Valve Manifolds	Manifold & Gauges Only	MCO	MCA
	3 Premium 90 cm Pro-Set® Hoses	MCOJ3	MCAJ3
	3 Premium 150 cm Pro-Set® Hoses	MCOJ5	MCAJ5
	3 Premium 150 cm Pro-Set® AB Hoses	-	-
	3 Premium 150 cm Pro-Set® BV Hoses	MCOJ5E	MCAJ5E
Replacement Gauges	Low Side Gauge	RGOL	RGAL
	High Side Gauge	RGOH	RGAH

1/2"- 20 UNF = 5/16" SAE

Contact Your Local CPS Distributor For Further Information

* Many different combinations available

VORTECH™ DEEP VACUUM MANIFOLD SERIES

- Two-valve, anodized aircraft aluminum block body
- ¼" SAE 45° fittings
- Vortech™ deep vacuum valves
- Extra large sight glass
- Easy-to-read 68 mm & 80 mm Class 1.6 and 1.0 accuracy gauges
- Protective gauge boots
- Extra access port in center with Schrader valve and hanging hook

1 Valve series

2 Valve series

2 Valve body

VORTECH™ DEEP VACUUM VALVE MANIFOLDS									
Specifications		68 mm				80 mm			
Gauge Description	Refrigerant Scales	R134a,R404A, R407C	R410A, R22, R407C	R12, R22, R502	R22, R134a, R404A	R22, R134A, R404A, R407C	R134a, R404A, R407C, R507	R134a, R404A, R407C, R507	R134a
	Gauge Size/Type	Class 1.6 Accuracy				Class 1.6 Accuracy		Class 1.0 Accuracy	
		* Gauges built with internal silicon dampening cup for flutter-free operation							
	Pressure Scales	BAR / PSI	BAR / PSI	BAR / PSI	BAR / PSI	BAR / PSI	BAR / PSI	BAR	BAR
	Temperature Scales	C°	C°	C°	C°	C°	C°	C°	C°
Fittings	Manifold & Hose Fittings	¼" SAE 45° fittings							
1 - Valve Manifolds	Manifold & Gauges Only Low side	MV1FL	MV1OL	MV1GL	MV1VL	MV1JL	MV1KL	MV1WL	MV1LL
	Manifold & Gauges Only High side	MV1FH	MV1OH	MV1GH	MV1VH	MV1JH	MV1KH	MV1WH	MV1LH
2 - Valve Manifolds	Manifold & Gauges Only	MV2F	MV2O	MV2G	MV2V	MV2J	MV2K	MV2W	MV2L
	3 Standard 90cm Pro-Set® hoses	MV2FS3	MV2OS3	MV2GS3	MV2VS3	MV2JS3	MV2KS3	MV2WS3	MV2LS3
	3 Standard 90cm Pro-Set® hoses + carrying case	MV2FS3C	MV2OS3C	MV2GS3C	MV2VS3C	MV2JS3C	MV2KS3C	MV2WS3C	MV2LS3C
	3 Standard 150cm Pro-Set® hoses	MV2FS5	MV2OS5	MV2GS5	MV2VS5	MV2JS5	MV2KS5	MV2WS5	MV2LS5
	3 Standard 150cm Pro-Set® hoses + carrying case	MV2FS5C	MV2OS5C	MV2GS5C	MV2VS5C	MV2JS5C	MV2KS5C	MV2WS5C	MV2LS5C
Replacement Gauges	Low Side Gauge	RGFL	RGOL	RGGL	RGVL	RGJL	RGKL	RGWL	RGLL
	High Side Gauge	RGFH	RGOH	RGGH	RGVH	RGJH	RGKH	RGWH	RGLH
Rubber Boot	Low Side Boot	RGX68BB				RGX80BB			
	High Side Boot	RGX68RB				RGX80RB			

VORTECH™ DEEP VACUUM MANIFOLD SERIES

- Four-valve, anodized aircraft aluminum block body
- 1/4" SAE 45° fittings
- Vortech™ deep vacuum valves
- Extra large sight glass
- Easy-to-read 68 mm & 80 mm Class 1.6 and 1.0 accuracy gauges
- Protective gauge boots
- Extra access port in center with Schrader valve and hanging hook

4 Valve series

5 Valve series with digital vac. gauge

* Many different combinations available

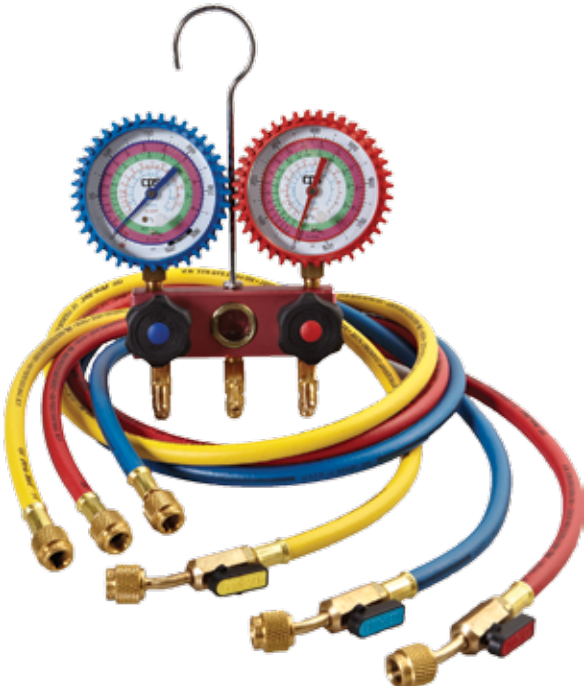
VORTECH™ DEEP VACUUM VALVE MANIFOLDS									
Specifications		68 mm				80 mm			
Gauge Description	Refrigerant Scales	R134a,R404A, R407C	R410A, R22, R407C	R12, R22, R502	R600a, R290, R600a/R290 blend	R22, R134A, R404A,R407C Oilfilled	R12, R22, R502	R22, R134a, R404A, R407C	R134a, R404A, R407C, R507
	Gauge Size/Type	Class 1.6 Accuracy				Class 1.6 Accuracy		Class 1.0 Accuracy	
		* Gauges built with internal silicon dampening cup for flutter-free operation							
	Pressure Scales	BAR / PSI	BAR / PSI	BAR / PSI	BAR / PSI	BAR / PSI	BAR	BAR	BAR
	Temperature Scales	C°	C°	C°	C°	C°	C°	C°	C°
Fittings	Manifold & Hose Fittings	1/4" SAE 45° fittings							
4 - Valve Manifolds	Manifold & Gauges Only	MV4F	MV4O	MV4G	MV4HC	MV4J3	MV4Q	MV4U	MV4W
	3 Standard 150cm Pro-Set® hoses	MV4FS5	MV4OS5	MV4GS5	-	MV4J3S5	MV4QS5	MV4US5	MV4WS5
	3 Standard 150cm Pro-Set® hoses + carrying case	MV4FS5C	MV4OS5C	MV4GS5C	-	MV4J3S5C	MV4QS5C	MV4US5C	MV4WS5C
	3 Standard 150cm Pro-Set® hoses BV	MV4FS5E	MV4OS5E	MV4GS5E	MV4HCP5E*	MV4J3S5E	MV4QS5E	MV4US5E	MV4WS5E
	3 Standard 150cm Pro-Set® hoses BV + carrying case	MV4FS5EC	MV4OS5EC	MV4GS5EC	MV4HCP5EC*	MV4J3S5EC	MV4QS5EC	MV4US5EC	MV4WS5EC
5 - Valve Manifolds (Digital vac. gauge)	Manifold & Gauges Only	-	-	-	MV5HCD	MV5J3D	MV5QD	MV5UD	MV5WD
	3 Premium 150cm Pro-Set® hoses BV	-	-	-	MV5HCDP5E	MV5J3DP5E	MV5QDP5E	MV5UDP5E	MV5WDP5E
	3 Premium 150cm Pro-Set® hoses BV + carrying case	-	-	-	MV5HCDP5EC	MV5J3DP5EC	MV5QDP5EC	MV5UDP5EC	MV5WDP5EC
Replacement Gauges	Low Side Gauge	RGFL	RGOL	RGGL	RGHCL	RGJ3L	RGQL	RGUL	RGWL
	High Side Gauge	RGFH	RGOH	RGGH	RGHCH	RGJ3H	RGQH	RGUH	RGWH
Rubber Boot	Low Side Boot	RGX68BB				RGX80BB			
	High Side Boot	RGX68RB				RGX80RB			

*With premium hoses instead of standard hoses

Contact Your Local CPS Distributor For Further Information

VORTECH™ DEEP VACUUM MANIFOLD SERIES

- Two-valve, r410A pink anodized aluminum block body
- 1/4" SAE 45° fittings
- Vortech™ deep vacuum valves
- Extra large sight glass
- Easy-to-read 80 mm Class 1.6 and 1.0 accuracy gauges
- Protective gauge boots
- Extra access port in center with Schrader valve and hanging hook



* Different combinations available

MV11A

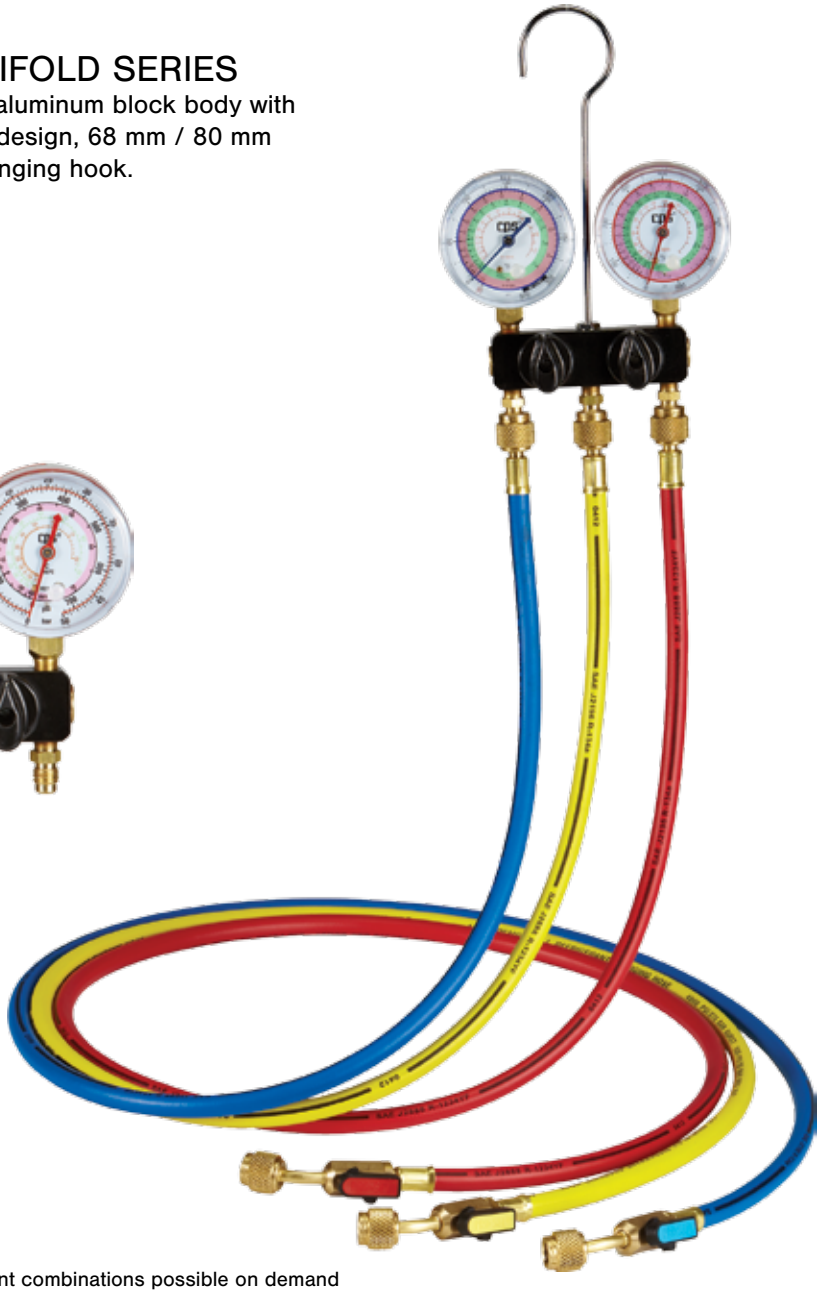
MV12A

VORTECH™ DEEP VACUUM VALVE MANIFOLDS				
Specifications		80 mm		
Gauge Description	Refrigerant Scales	R410a, R32	R410a, R22, R407C	R410a, R32
	Gauge Size/Type	Class 1.6 Accuracy	Class 1.6 Accuracy	Class 1.0 Accuracy
		* Gauges built with internal silicon dampening cup for flutter-free operation		
	Pressure Scales	BAR	BAR/PSI	BAR
	Temperature Scales	°C	°C	°C
Fittings	Manifold & Hose Fittings	1/4" SAE 45° fittings		
Two Valve Manifolds	Manifold & Gauges Only	MV11A	MV11O2	MV11E
	3 Premium 150 cm Pro-Set® Hoses	MV11AJ5	MV11O2J5	MV11EJ5
	3 Premium 150 cm Pro-Set® BV Hoses	MV11AJ5E	MV11O2J5E	MV11EJ5E
	3 Premium 150 cm Pro-Set® BV Hoses + case	MV11AJ5EC	MV11O2J5EC	MV11EJ5EC
Four Valve Manifolds	Manifold & Gauges Only	MV12A	MV12O2	MV12E
	3 Premium 150 cm Pro-Set® Hoses	MV12AJ5	MV12O2J5	MV12EJ5
	3 Premium 150 cm Pro-Set® BV Hoses	MV12AJ5E	MV12O2J5E	MV12EJ5E
	3 Premium 150 cm Pro-Set® BV Hoses + case	MV12AJ5EC	MV12O2J5EC	MV12EJ5EC
Replacement Gauges	Low Side Gauge	RGAL	RGO2L	RGEL
	High Side Gauge	RGAH	RGO2H	RGEH
Rubber Boot	Low Side Boot	RGX80BB	RGX80BB	RGX80BB
	High Side Boot	RGX80RB	RGX80RB	RGX80RB

BALL VALVE BODY MANIFOLD SERIES

Ball Valve series 2 valve anodized aluminum block body with 1/4" SAE fittings, full flow ball valve design, 68 mm / 80 mm Class 1.6 accuracy gauges and hanging hook.

MGO



* Different combinations possible on demand

BALL VALVE BODY MANIFOLD SERIES			
Specifications		68 mm	80 mm
Gauge Description	Refrigerant Scales	R410a, R22, R407C	R22, R134a, R404a
	Gauge Size / Type	Class 1.6 accuracy	
		* Gauges built with internal silicon dampening cup for flutter-free operation	
	Pressure Scales	BAR / PSI	BAR
	Temperature Scales	°C	°C
Fittings	Manifold and Hose Fittings	1/4" SAE 45° fittings	
Two Valve Manifolds	Manifold & Gauges Only	MGO	MGV
	3 Premium 150 cm Barrier Hoses	MGOP5	MGVP5
	3 Premium 150 cm Barrier AB Hoses	MGOP5A	MGVP5A
	3 Premium 150 cm Barrier BV Hoses	MGOP5E	MGVP5E
Replacement Gauges	Low Side Gauge	RGHL	RGVL
	High Side Gauge	RGHH	RGVH

Contact Your Local CPS Distributor For Further Information

Tech-Set™

BRASS BODY SERIES

THE ORIGINAL MANIFOLD DESIGN

Visit us online at www.cpsproducts.com

TECH-SET™ BRASS BODY MANIFOLD SERIES

2 valve forged brass body with ¼" SAE 45° fittings, TripleSeal™ piston valves and hanging hook.

- Quality forged brass body
- Full sized porting for maximum flow
- No flutter gauges with rugged metal housings
- Large easy-to-grip knobs

TRIPLE SEAL VALVES

- 3 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

TECH-SET™ BRASS BODY 2 VALVE MANIFOLDS & HOSE SETS					
SPECIFICATIONS		68 mm			
Gauge Description	Refrigerant Scales	R12, R22, R502	R134a, R404A, R407C	R410a, R22, R407C	R22, R134a, R404A
	Gauge Size / Type	Class 1.6 Accuracy			
		*Gauges built with internal silicon dampening cup for flutter-free operation			
	Pressure Scales	BAR / PSI	BAR / PSI	BAR / PSI	BAR / PSI
	Temperature Scales	°C	°C	°C	°C
Fittings	Manifold and Hose fittings	1/4" SAE 45° fittings			
Two Valve Manifolds	3 Standard 90 cm Hoses	M6GG3	M6FG3	M6OG3	M6VG3
	3 Prem-Flex 150 cm Hoses	M6GPF5	M6FPF5	M6OFP5	M6VPF5
Replacement Hoses	3 Prem-Flex 90 cm Hoses	HPF3	HPF3	HPF3	HPF3
	3 Prem-Flex 150 cmHoses	HPF5	HPF5	HPF5	HPF5
	3 Standard 90 cm Hoses	HG3	HG3	HG3	HG3
	3 Standard 150 cm Hoses	HG5	HG5	HG5	HG5
Replacement Gauges	Low side gauge	RGGL	RGFL	RGOL	RGVL
	High side gauge	RGGH	RGFH	RGOH	RGVH

Contact Your Local CPS Distributor For Further Information

MANIFOLD/GAUGE ACCESSORIES AND REPLACEMENT PARTS

A complete line of repair kits, parts and accessories to keep your manifold in brand-new condition. If you are looking for something or are unsure of the part you need, give us a call and let our specialists assist you.

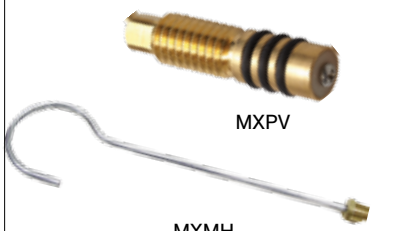
MXC2

ITEM	DESCRIPTION
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
MX2C	Rugged canvas 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

MXC

M2XHA

MVXK



MXPV

MXMH

MVXKC

M2XRK

MXPK

MXPVO

MXPVO

Visit us online at **www.cpsproducts.com**

GT1

GT2

GT4

GT SERIES GAS TEST GAUGES

Our GT Series 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 gauge, pressurize the system using the supplied access port and monitor the easy-to-read 80 mm gauge for potential pressure drops that would indicate a leak.

GAS TEST GAUGE SPECIFICATIONS					
Test Gauge Model	Large 80 mm Gauge	BAR Pressure Scale Range	Gauge BAR Increments	Brass Bell	Access Valve
GT1	✓	0-2 bar	0,05 bar	3/4" FPT	✓
GT2	✓	0-7 bar	0,20 bar	3/4" FPT	✓
GT4	✓	0-2 bar	0,05 bar	1" FPT	✓

GT3

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.

INCLUDES:

- 2 1/2" gauge, scale 30", 0-150 lbs
- 2 1/2" gauge, scale 30", 0-300 lbs
- 12" hose 1/4" female swivel x 1/4" female 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

Contact Your Local CPS Distributor For Further Information

CHARGING HOSES

OUR OFFERING IS AS FLEXIBLE AS OUR HOSES

Visit us online at www.cpsproducts.com

PRO-SET® CHARGING HOSES

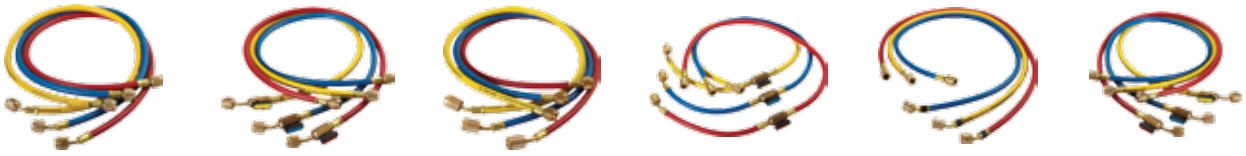
PREMIUM UL/SAE BARRIER REFRIGERANT SERVICE HOSES

- Nylon permeation barrier (Meets SAE J2196)
- Leak-proof 8-sided crimp
- 55 BAR working pressure (per UL1963)
- 276 BAR burst pressure
- Extra deep knurling on nuts for easy grip
- Adjustable valve core depressor
- Blow off grooves preventing spray back
- R-410A compatible, as well as CFC, HCFC and HFC refrigerants and blends

* UL listed, File SA11622

STANDARD REFRIGERANT SERVICE HOSES

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



Hose Length and Color		1/4" Hoses for all refrigerants		1/4" Hoses w/45° ball valve on end		1/4" Hoses w/ Microseal™ anti-blowback valve on one end		1/4" In-line ball valve hoses		R-410A Hose w/ special 1/2"-20 UNF fittings	w/45° ball valve fitting in one end	Conversion Hose w/ special 1/2"-20 UNF fittings	w/45° ball valve fitting in one end
		Premium	Standard	Premium	Standard	Premium	Standard	Premium	Standard	Premium		Premium	
90 cm	Yellow	HP3Y	HS3Y	HP3YE	HS3YE	HP3YA	HS3YA	HP3YL	HS3YL	HJ3Y	HJ3YE	-	-
	Blue	HP3B	HS3B	HP3BE	HS3BE	HP3BA	HS3BA	HP3BL	HS3BL	HJ3B	HJ3BE	-	-
	Red	HP3R	HS3R	HP3RE	HS3RE	HP3RA	HS3RA	HP3RL	HS3RL	HJ3R	HJ3RE	-	-
	3-Pack	HP3	HS3*	HP3E	HS3E	HP3A	HS3A	HP3L	HS3L	HJ3	HJ3E	HK3	-
120 cm	Yellow	HP4Y	HS4Y	HP4YE	HS4YE	-	-	HP4YL	HS4YL	-	-	-	-
	Blue	HP4B	HS4B	HP4BE	HS4BE	-	-	HP4BL	HS4BL	-	-	-	-
	Red	HP4R	HS4R	HP4RE	HS4RE	-	-	HP4RL	HS4RL	-	-	-	-
	3-Pack	HP4	HS4*	HP4E	HS4E	-	-	HP4L	HS4L	-	-	-	-
150 cm	Yellow	HP5Y	HS5Y	HP5YE	HS5YE	HP5YA	HS5YA	HP5YL	HS5YL	HJ5Y	HJ5YE	-	-
	Blue	HP5B	HS5B	HP5BE	HS5BE	HP5BA	HS5BA	HP5BL	HS5BL	HJ5B	HJ5BE	-	-
	Red	HP5R	HS5R	HP5RE	HS5RE	HP5RA	HS5RA	HP5RL	HS5RL	HJ5R	HJ5RE	-	-
	3-Pack	HP5	HS5*	HP5E	HS5E	HP5A	HS5A	HP5L	HS5L	HJ5	HJ5E	HK5	HK5E
180 cm	Yellow	HP6Y	HS6Y	HP6YE	HS6YE	HP6YA	HS6YA	HP6YL	HS6YL	-	-	HK5Y	-
	Blue	HP6B	HS6B	HP6BE	HS6BE	HP6BA	HS6BA	HP6BL	HS6BL	-	-	HK5B	-
	Red	HP6R	HS6R	HP6RE	HS6RE	HP6RA	HS6RA	HP6RL	HS6RL	-	-	HK5R	-
	3-Pack	HP6	HS6*	HP6E	HS6E	HP6A	HS6A	HP6L	HS6L	-	-	-	-
240 cm	Yellow	HP8Y	HS8Y	HP8YE	HS8YE	-	HS8YA	HP8YL	HS8YL	-	-	-	-
	Blue	HP8B	HS8B	HP8BE	HS8BE	-	HS8BA	HP8BL	HS8BL	-	-	-	-
	Red	HP8R	HS8R	HP8RE	HS8RE	-	HS8RA	HP8RL	HS8RL	-	-	-	-
	3-Pack	HP8	HS8*	HP8E	HS8E	-	HS8A	HP8L	HS8L	-	-	-	-
300 cm	Yellow	HP10Y	HS10Y	HP10YE	-	-	-	-	-	-	-	-	-
	Blue	HP10B	HS10B	HP10BE	-	-	-	-	-	-	-	-	-
	Red	HP10R	HS10R	HP10RE	-	-	-	-	-	-	-	-	-
	3-Pack	HP10	HS10*	HP10E	-	-	-	-	-	-	-	-	-

* HS version also available with Teflon gaskets

** Other lenghts possible on demand

1/2"- 20 UNF = 5/16" SAE

Contact Your Local CPS Distributor For Further Information

SPECIALTY HOSES

PRO-SET® PREMIUM 6” to 12” BALL VALVE HOSE EXTENSIONS

- Nylon permeation barrier (Meets SAE J2196)
- Leak-proof 8-sided crimp
- 55 BAR working pressure
- 275 BAR burst pressure
- Extra deep knurling on nuts for easy grip
- Adjustable valve core depressor
- Blow off grooves (prevents spray back)
- R-410A compatible, as well as CFC, HCFC and HFC refrigerants and blends

Length	Description	Yellow	Blue	Red	3-Pack
15,2 cm	1/4 ”SAE	HTYE	HTBE	HTRE	HTE
30,5 cm	1/4” SAE	HT1YE	HT1BE	HT1RE	HT1E
15,2 cm	1/2”- 20 UNF	HT410YEJ	HT410BEJ	HT410REJ	HT410EJ

1/2”- 20 UNF = 5/16” SAE

PRO-SET® PREMIUM PRESSURE CONTROL HOSES

Pro-Set pressure control hoses are constructed with a thermoplastic polymer inner tube and cover to eliminate the vibration failures of copper capillary tube installations. The higher temperature ratings of the thermoplastic (to 130°C) eliminates failures caused by maximum load conditions on rubber type pressure control hoses.

HHC2S

Length	90° x 90°	Straight x 90°	Straight x Straight	Fitting	Operating Temperature Range	Minimum Bend Radius
60 cm	HHC2	HHC2S	HHC2SS*	1/4” SAE Hex Style. Straight & 90°, With Copper Gaskets	-45° to 130°C	102 mm
90 cm	HHC3	HHC3S	HHC3SS*			
120 cm	HHC4	HHC4S	HHC4SS*			

*Non-stock item (made to order). Contact our Sales dept for price and lead time.

PRO-SET® PREMIUM 3/8” VACUUM/CHARGING HOSES (HEAVY DUTY)

- 5/16” I.D. heavy-duty hose
- Permeation resistant barrier
- 32 BAR working pressure; 158 BAR burst

HV3

Length	Without Ball Valve	With In-Line Ball Valve	Nylon Permeation Barrier	Leak Proof 8 Sided Crimp	Working Pressure	Burst Pressure	Deep Knurl On Fittings
90 cm	HV3	-	Yes	3/8” SAE	32 BAR	158 BAR	Yes
150 cm	HV5	HV5E					
180 cm	HV6	-					
240 cm	HV8	-					

TECH-SET™ CHARGING HOSES

Tech-Set chargings hoses are all-weather resistant with rugged flexiblity and durabliity.

- Leak-proof 8-sided crimp
- 55 BAR working pressure
- 275 BAR burst pressure
- Extra deep knurling on nuts for easy grip
- Adjustable valve core depressor
- Blow off grooves (prevent spray back)
- Compatable with CFC, HCFC, HFC refrigerants and blends

TECH-SET™ 1/4" CHARGING HOSES		
Length	3-Pack	Hose Type
90 cm	HG3	Standard
150 cm	HG5	Standard
150 cm	HPF3	Prem-Flex Premium
150 cm	HPF5	Prem-Flex Premium

REPLACEMENT HOSE GASKETS, DEPRESSORS & O-RINGS

REPLACEMENT PARTS FOR ALL PRO-SET® HOSES		
Item	Description	Qty
HXG	Hose Gaskets, 1/4" SAE Neoprene	10
HXGD	Hose Gasket & Core Depressor 1/4" SAE Neoprene	10
HX38G	Hose Gaskets, 3/8" SAE Neoprene	10
HXGD2	Hose Gaskets, 1/2"-20 UNF	6
HXG2	Hose Gaskets, Core Depressors, 1/2" UNF	10
HXGA	Hose Gaskets, 1/4" SAE Microseal Antiblowback	10
HXGA410	Hose Gaskets, 1/2"-20 UNF Microseal Antiblowback	10
HXTG	Hose Gaskets, 1/4" SAE Teflon	10
HXTG2	Hose Gaskets, 1/2"-20 UNF & 1/2" ACME Teflon	10

1/2"- 20 UNF = 5/16" SAE

HXGD2

HXTG2

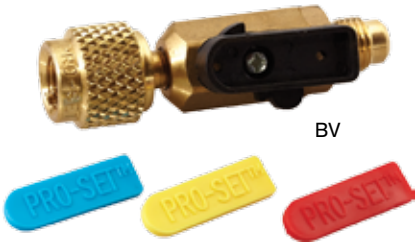
HXG2

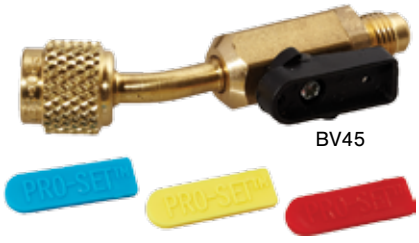
Contact Your Local CPS Distributor For Further Information

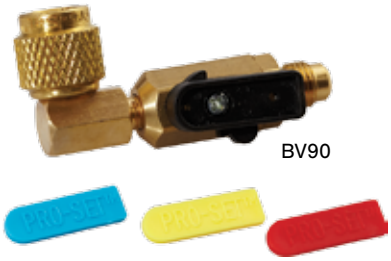
CHARGING HOSE VALVES

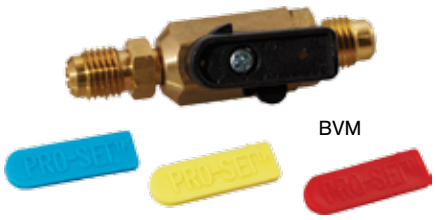
PRECISION MACHINED, SOLID BRASS

Visit us online at www.cpsproducts.com









PRO-SET® PREMIUM BALL VALVES

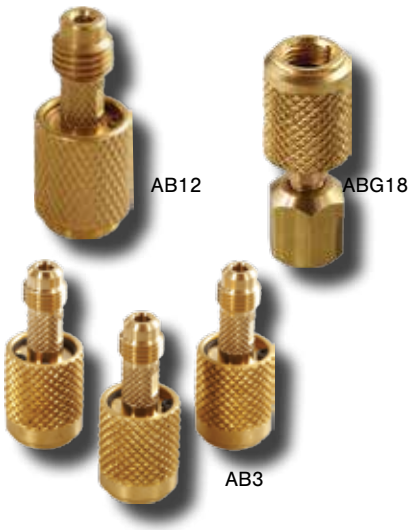
Pro-Set® premium ball valves can be added to any existing hose to eliminate refrigerant loss and comply with EPA regulations.

- 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

PRO-SET® BALL VALVE SPECIFICATIONS				
ITEM	Qty / Pk	Female	Male	Other
BV	1	1/4" SAE	1/4" SAE	Straight
BV3	3	1/4" SAE	1/4" SAE	Straight
BV38	1	3/8" SAE	3/8" SAE	Straight
BV410	1	1/2" - 20 UNF	1/2" - 20 UNF	Straight
BV410A	1	1/2" - 20 UNF	1/4" SAE	Straight
BV45	1	1/4" SAE 45°	1/4" SAE	45° female
BV453	3	1/4" SAE 45°	1/4" SAE	45° female
BV90	1	1/4" SAE 90°	1/4" SAE	90° female
BV903	3	1/4" SAE 90°	1/4" SAE	90° female
BVAD38	1	3/8" SAE	1/4" SAE	Straight
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		

1/2"- 20 UNF = 5/16" SAE

MICROSEAL™ ANTI-BLOWBACK VALVE SPECIFICATIONS				
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
AB41090A	1	1/2" - 20 UNF	1/4" SAE	90° female
AB410A	1	1/2" - 20 UNF	1/4" SAE	Straight
AB90	1	1/4" SAE 90°	1/4" SAE	90° female
AB903	3	1/4" SAE 90°	1/4" SAE	90° female
ABG18	1	1/4" SAE x 1/8"FNPT		1/8" FNPT is not an AB



Contact Your Local CPS Distributor For Further Information

TUBING TOOLS

ERGONOMIC TOOLS FOR CUTTING, FORMING and BENDING

Visit us online at www.cpsproducts.com

BLACKMAX® PREMIUM TUBING TOOLS

Introducing BlackMAX® hand tools- a new line of premium grade, good-looking and hard-working hand tools from CPS. BlackMAX tools make easy work out of cutting, deburing, flaring, expanding and bending soft copper and aluminum tubing. BlackMAX tubing tools also include a line of 2 and 3 jaw gear and pulley removers. Premium form, function and ergonomics at affordable prices. Try them today and see the difference!

BTC200R

Set N Cut™ BLACKMAX® MINI RATCHET TUBE CUTTER

- Excellent for small tube, confined spaces
- Use with or without ratchet handle
- Quick release pin for fast replacement of cutting wheels
- Chromed, hardened cutting wheel
- Patented SetNCut™ spring-loaded center groove rollers for fast, automatic cuts. Provides a smooth cut, even for slightly deformed tube
- “Soft” setting for annealed or soft copper and aluminum
- “Hard” setting for rigid copper and aluminum
- Durable aluminum and rubber knob

BTC200

Set N Cut™ BLACKMAX® MINI TUBE CUTTER

- Quick release pin for fast replacement of cutting wheels
- Chromed, hardened cutting wheel
- Patented SetNCut™ spring-loaded center groove rollers for fast, automatic cuts. Provides a smooth cut, even for slightly deformed tube
- “Soft” setting for annealed or soft copper and aluminum
- “Hard” setting for rigid copper and aluminum
- Durable aluminum and rubber knob

BTC300

Set N Cut™ BLACKMAX® TUBE CUTTER

- Two quick-change, chromed, hardened cutting wheels
- Enclosed feed screw elimates clogging, jamming
- SetNCut™ spring-loaded cutting wheel for a perfect
- cut every time

BLACKMAX® TUBE CUTTERS	
Item	Description
BTC 200	Mini Tube Cutter (1/8” - 7/8”) 3-22 mm O.D.
BTC 200R	Mini Ratchet Tube Cutter (1/8” - 7/8”), 3-22 mm O.D.
BTC 300	Tube Cutter (3/16” -1 1/4”), 5 - 32 mm O.D.
BTC 400	Heavy Duty Tube Cutter (1/4” -1 1/4”), 6 - 32 mm O.D. (shown next page)
BTC 500	Large Tube Cutter (3/8” -2 5/8”), 10 - 67 mm O.D. (shown next page)

“O.D.” = Outside Diameter (of tube)

Soft or hard setting for copper or aluminum tube

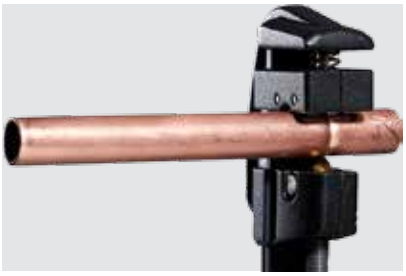
Quick release pin for fast replacement of cutting wheels

Contact Your Local CPS Distributor For Further Information

Set N Cut™

BLACKMAX® HEAVY DUTY TUBE CUTTER

- For brass, copper, aluminum, stainless tube and electrical conduit
- Patented SetNCut™ technology for the perfect cut every time
- Spring-loaded rollers for easy, precision cut
- Heavy duty performace from lightweight aluminum forged body
- Quick change cutting wheel
- Titanium finish cutting wheel included



BTC400

BTC500

Set N Cut™

BLACKMAX® LARGE TUBE CUTTER

- Patented SetNCut™ Technology for the perfect cut every time
- Two hardened cutting wheels with quick-change pin design
- Enclosed feed screw eliminates clogging and jamming
- Four grooved rollers for precise tube rotation
- Rapid adjustment with quick-slide feed mechanism
- Durable aluminum/rubber knob

REPLACEMENT PARTS FOR BLACKMAX® TUBE CUTTERS

Item	Description
BTCXB	Cutting Wheel Bearing (Std for BTC400, optional for BTC500)
BTCXR	Plastic Ratchet (for BTC 200R)
BTCXC1	Cutting Wheel (Chrome Plated) for BTC 200, 300
BTCXC2	Cutting Wheel (Chrome Plated) for BTC 400, 500
BTCXCT1	Cutting Wheel (Titanium Coated) for BTC200, 300
BTCXCT2	Cutting Wheel (Titanium Coated) for BTC400, 500
BTCXP1	Quick Release Pin (BTC200, 200R, 300)
BTCXP2	Quick Release Pin (BTC400)
BTCXP3	Quick Release Pin (BTC500)

Visit us online at **www.cpsproducts.com**

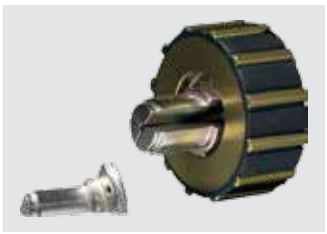
*D = Version with 16mm and 35mm instead of 15mm and 32mm expander head

BTLE9M
TUBE EXPANDER KIT

BLACKMAX®
TUBE EXPANDERS

- Nine quick-change tube expanders for soft copper and aluminum tube
- Durable, color-coded, aluminum heads
- Compact, professional, patented design
- Rugged carrying case

BTLE9
TUBE EXPANDER KIT



BLACKMAX® TUBE EXPANDERS (IMPERIAL)

		Item	Description
Imperial		BTLE9	Tube Expander Set (9 Heads) includes all parts listed below:
		REPLACEMENT PARTS	
		BTLEXH	Tube Expander (Replacement Tool)
	Expander Heads	BTLEX14	1/4" (Standard in BTLE9)
		BTLEX516	5/16" (Standard in BTLE9)
		BTLEX38	3/8" (Standard in BTLE9)
		BTLEX12	1/2" (Standard in BTLE9)
		BTLEX58	5/8" (Standard in BTLE9)
		BTLEX34	3/4" (Standard in BTLE9)
		BTLEX78	7/8" (Standard in BTLE9)
		BTLEX1	1" (Standard in BTLE9)
		BTLEX118	1 1/8" (Standard in BTLE9)
	Expander Blades	BTLEX14B	1/4"
		BTLEX516B	5/16"
		BTLEX38B	3/8"
		BTLEX12B	1/2"
		BTLEX58B	5/8"
		BTLEX34B	3/4"
		BTLEX78B	7/8"
		BTLEX1B	1"
		BTLEX118B	1 1/8"

BLACKMAX® TUBE EXPANDERS (METRIC)

		Item	Description
Metric		BTLE9M (-D*)	Tube Expander Set (9 Heads) includes all parts listed below:
		REPLACEMENT PARTS	
		BTLEXH	Tube Expander (Replacement Tool)
	Expander Heads	BTLEX6M	6 mm (Standard in BTLE9M)
		BTLEX8M	8 mm (Standard in BTLE9M)
		BTLEX10M	10 mm (Standard in BTLE9M)
		BTLEX12M	12 mm (Standard in BTLE9M)
		BTLEX15M	15 mm (Standard in BTLE9M)
		BTLEX16M*	16 mm (only included in -D version)
		BTLEX18M	18 mm (Standard in BTLE9M)
		BTLEX22M	22 mm (Standard in BTLE9M)
		BTLEX28M	28 mm (Standard in BTLE9M)
		BTLEX32M	32 mm (Standard in BTLE9M)
		BTLEX35M*	35 mm (only included in -D version)
	Expander Blades	BTLEX6MB	6 mm
		BTLEX8MB	8 mm
		BTLEX10MB	10 mm
		BTLEX12MB	12 mm
		BTLEX15MB	15 mm
		BTLEX16MB*	16 mm
		BTLEX18MB	18 mm
		BTLEX22MB	22 mm
		BTLEX28MB	28 mm
		BTLEX32MB	32 mm
		BTLEX35MB*	35 mm

Contact Your Local CPS Distributor For Further Information

BLACKMAX®
PREMIUM TUBE BENDERS

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

BTB300
TUBE BENDER KIT

Forward bend configuration

Reverse bend configuration

BLACKMAX® TUBE BENDERS (IMPERIAL)

	Item		Description
Imperial	BTB300		Tube Bender Set (7 Benders) includes all parts listed below:
	REPLACEMENT PARTS		
	Mandrels	BTBX14	1/4" O.D.
		BTBX516	5/16" O.D.
		BTBX38	3/8" O.D.
		BTBX12	1/2" O.D.
		BTBX58	5/8" O.D.
		BTBX34	3/4" O.D.
		BTBX78	7/8" O.D.
	BTBXH		Ratchet Tool
	BTBXA1		1/4"-3/8" Shoe Arm
	BTBXA2		1/2"-7/8" Shoe Arm
	BTBXR1		Reverse Bender Mandrel Arm
	BTBXR2		Reverse Bender Shoe Arm

"O.D." = Outside Diameter (of tube)

BLACKMAX® TUBE BENDERS (METRIC)

	Item		Description	
Metric	BTB300M		Tube Bender Set (7 Benders) includes all parts indicated below. (not BTBX16M)	
	REPLACEMENT PARTS			
	Mandrels	BTBX6M	6 mm O.D.	
		BTBX8M	8 mm O.D.	
		BTBX10M	10 mm O.D.	
		BTBX12M	12 mm O.D.	
		BTBX15M	15 mm O.D.	
		BTBX16M	16 mm O.D.	Optional for BTB300M
		BTBX18M	18 mm O.D.	
		BTBX22M	22 mm O.D.	
	BTBXHM		Ratchet Tool, Metric	
	BTBXA1		6-10 mm Shoe Arm	
	BTBXA2		12 - 22 mm Shoe Arm	
	BTBXR1		Reverse Bender Mandrel Arm	
	BTBXR2		Reverse Bender Shoe Arm	

"O.D." = Outside Diameter (of tube)

Visit us online at **www.cpsproducts.com**

BFT850

BLACKMAX®
TUBE FLARING TOOL

- Aluminum body is 50% lighter than steel designs
- Internal clutch indicates when formed flare is complete
- Seven quick-change positions for flaring soft copper and aluminum tube
- Compact, professional, patented design
- Eccentric cone forms precise 45° flared ends
- Rugged carrying case
- Imperial tool for 3/16", 1/4" 5/16", 3/8", 1/2", 5/8", 3/4" O.D.
- Metric tool for 6, 8, 10, 12, 15, 16, 18 mm O.D.
- Built in slide gauge for tube height adjustment

Seven quick change positions

Slide gauge for perfect tube alignment

Eccentric flaring cone for precision flares

BLACKMAX® TUBE FLARING TOOLS		
Item		Description
Imperial	BFT 850	Tube Flaring Tool, Imperial Eccentric 7 Position for: $^{3}/_{16}$", $^{1}/_{4}$" $^{5}/_{16}$", $^{3}/_{8}$", $^{1}/_{2}$", $^{5}/_{8}$", $^{3}/_{4}$" O.D. Tube
Metric	BFT 850M	Tube Flaring Tool, Metric Eccentric 7 Position for: 6, 8, 10, 12, 15, 16, 18 mm O.D. Tube

"O.D." = Outside Diameter (of tube)

Rugged carrying case

BTLDB3 BlackMAX® Premium Deburring Tool
TLDB2X Replacement Blade for BTLDB3

Contact Your Local CPS Distributor For Further Information

BLACKMAX® GEAR PULLER

- Quick-change: 2 or 3 reversible jaw
- Internal/external pull
- 9,5 cm reach, 14,60 cm spread
- Forged chrome, vanadium steel
- Patented design enables fast configuration of two or three puller arms for inward or outward gripping positions.

BTLGP4

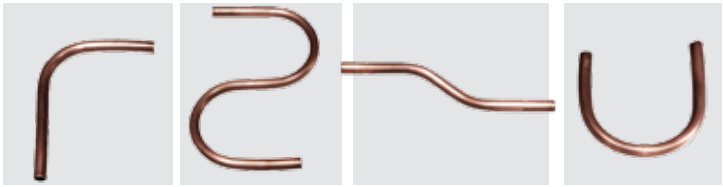
BTLGP7

BLACKMAX® GEAR & PULLEY REMOVERS	
Item	Description
BTLGP4*	Gear Pulley Remover, 10,1 cm
BTLGP7*	Gear Pulley Remover, 17,8 cm

*Non-stock item, order on demand

BLACKMAX® LEVER TUBE BENDERS

- Patented 2-position handle
- For soft copper, aluminum tube
- Double hinged bending arms for tight quarters
- Two pull points for smooth, easy bends
- Bends from 0° to 180°



BTB12

LEVER TUBE BENDERS (IMPERIAL)		
	Item	Description
Imperial	BTB06	Lever Tube Bender, for 3/8" O.D. Tube
	BTB08	Lever Tube Bender, for 1/2" O.D. Tube
	BTB10	Lever Tube Bender, for 5/8" O.D. Tube
	BTB12	Lever Tube Bender, for 3/4" O.D. Tube
	BTB14	Lever Tube Bender, for 7/8" O.D. Tube

"O.D." = Outside Diameter (of tube)

LEVER TUBE BENDERS (METRIC)		
	Item	Description
Metric	BTB10MM	Lever Tube Bender, for 10 mm O.D. Tube
	BTB12MM	Lever Tube Bender, for 12 mm O.D. Tube
	BTB15MM	Lever Tube Bender, for 15 mm O.D. Tube
	BTB16MM	Lever Tube Bender, for 16 mm O.D. Tube
	BTB18MM	Lever Tube Bender, for 18 mm O.D. Tube

"O.D." = Outside Diameter (of tube)

PRO-SET® HEAVY DUTY TITANIUM TUBE CUTTERS

You need tools that work as hard as you do and nothing outperforms like the power of the Pro-Set® Titanium HD series. Put them to work for you on your next job.

- All cutter wheels are precision machined from high grade chromium steel and plated with titanium nitride to extend life—up to 5 times longer!
- Precision machined rollers feature cut-off groove to reduce tube loss in damaged flare removal
- Durable metal handle with industrial grade rubber boot provides comfortable grip
- Integrated retractable and replaceable rotary reamer tool for ease in deburring pipe
- Enclosed hardened steel, thrust bearing feed mechanism for smooth cutting action and trouble free operation
- Available in 5 popular configurations to accommodate cutting of 4 mm up to 66 mm O.D. tubing
- Produces clean right angle cuts every time

PRO-SET® TITANIUM TUBE CUTTERS		
ITEM	Cutting Range	
	Inches	Millimeters
TCPVC	1/4" to 2 5/8"	6 to 68 mm
TCT174	1/8" to 1 1/8"	3 to 30 mm
TCT206	1/4" to 2 5/8"	6 to 68 mm
TCT127	1/8" to 5/8"	3 to 16 mm
TCT274	1/8" to 1 3/8"	3 to 35 mm
TCT312	1/8" to 1 3/4"	3 to 45 mm

PRO-SET® TUBE CUTTERS

- Easy grip knobs with rubber boot over solid metal core
- Advanced tracking system will not walk while cutting
- Rollers feature flare cut-off groove to reduce tube loss
- Integrated retractable rotary deburring tool
- Durable metal handle with industrial grade rubber boot provides sure comfortable grip
- Produces clean right angle cuts every time.
- Precision machined rollers feature cut-off groove to reduce tube loss in damaged flare removal.

PRO-SET® TUBE CUTTERS	
ITEM	DESCRIPTION
TC100	Tube Cutter for 1/4"-7/8" (6 - 22 mm) O.D.
TCX100CS	TC 100 Cutting Wheel (1) & Screw (1)
TC174	Big Mini Tube Cutter for 3/8"- 1 1/8" (10 - 29 mm) O.D.
TCX4CTS	Titanium Cutting Wheel and Screw for TCTC174/274/312
TCPVC	Ratcheting PVC Tube Cutter up to 5/8" (16 mm) O.D.

"O.D." = Outside Diameter (of tube)

TC174

Contact Your Local CPS Distributor For Further Information

PRO-SET® LEVER TUBE BENDERS

	ITEM	DESCRIPTION
Imperial	TB04	1/4" O.D. Lever Tube Bender
	TB05	5/16" O.D. Lever Tube Bender
	TB06	3/8" O.D. Lever Tube Bender
	TB08	1/2" O.D. Lever Tube Bender
	TB10	3/4" O.D. Lever Tube Bender
	TB12	5/8" O.D. Lever Tube Bender
	TB14	7/8" O.D. Lever Tube Bender
Metric	TB6 MM	6 mm O.D. Lever Tube Bender
	TB10 MM	10 mm O.D. Lever Tube Bender
	TB12 MM	12 mm O.D. Lever Tube Bender
	TB15 MM	15 mm O.D. Lever Tube Bender
	TB16 MM	16 mm O.D. Lever Tube Bender
	TB10XH	TB10 Replacement Hook with Screw
	TB12XH	TB12 Replacement Hook with Screw

"O.D." = Outside Diameter (of tube)

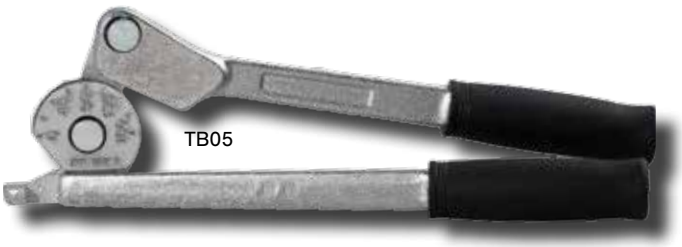
TB08

TB10

TB10MM

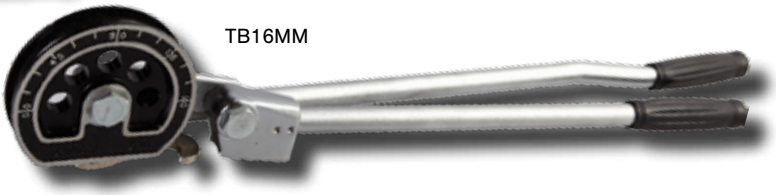
TB15MM

TB05



TB12MM

TB16MM



TB250

PRO-SET® RATCHET TUBE BENDER

Imperial and Metric	TB250	Ratchet Tube Bender Set: includes all parts shown below plus TC274, Reamer (1)
	REPLACEMENT PARTS	
	TBXM6	Molded Plastic Mandrel 1/4" (6 mm)
	TBXM8	Molded Plastic Mandrel 5/16" (8 mm)
	TBXM10	Molded Plastic Mandrel 3/8" (10 mm)
	TBXM14	Molded Plastic Mandrel 1/2" (14 mm)
	TBXM16	Molded Plastic Mandrel 5/8" (16 mm)
	TBXM19	Molded Plastic Mandrel 3/4" (19 mm)
	TBXM22	Molded Plastic Mandrel 7/8" (22 mm)
	TBXR	Ratchet Mechanism
	TBXB1	Small bending bar replacement
	TBXB2	Large bending bar replacement

"O.D." = Outside Diameter (of tube)

Efficiently connect gas pipes and copper tubing with premium Pro-Set® branded flaring and swaging tools.

R-410A Imperial Concentric Flaring Tool & Ratchet

- 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

FT800FN

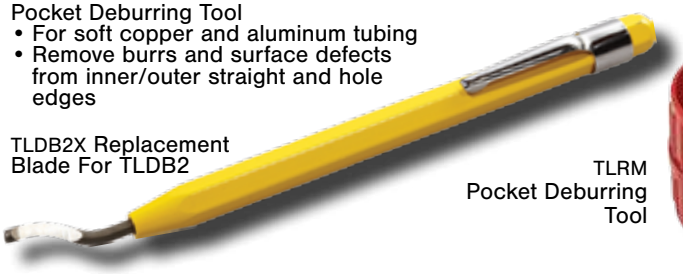
PRO-SET® FLARING TOOLS		
	ITEM	DESCRIPTION
Imperial	FS226	Tube Cutting/Double Flaring Set $^1/_8$"-$^3/_4$"
	FT806A	Imperial Eccentric Flaring Tool & Ratchet ($^3/_{16}$",$^1/_4$", $^5/_{16}$", $^3/_8$", $^1/_2$", $^5/_8$", $^3/_4$")
	FT800FN	R-410A Imperial Concentric Flaring Tool & Ratchet ($^3/_{16}$",$^1/_4$", $^5/_{16}$", $^3/_8$", $^1/_2$", $^5/_8$", $^3/_4$")
	FTX800B410	FT800FN R410A Imperial Flaring Bar (Replacement)
	FTX800BA	FT806A Imperial Flaring Bar (Replacement)
Metric	FT806M	Metric Eccentric Flaring Tool & Ratchet (6, 8, 10, 12, 15, 16, 18 mm)
	FTX800BM	FT806M Metric Flaring Bar (Replacement)
	FTX800Y	Yoke Assembly (for FT800FN, FT806A, FT806M)

FS275

TECH-SET™ FLARING/SWAGING TOOLS AND REPLACEMENT PARTS		
	ITEM	DESCRIPTION
Imperial	FS275	45° Flaring & Swaging Kit $^1/_8$" - $^3/_4$"
	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
	FSX509	FS275 Yoke Assembly
	FSX513	FS275 Compressor Cone
	FSX508	FS275 $^3/_4$" Swaging Adapter
Metric	FS275M	45° Flaring & Swaging Kit, Metric
	FSX507	FS275M 8, 12, 14, 16, 22 mm Swaging Adapter

TLDB2
Pocket Deburring Tool
- For soft copper and aluminum tubing
- Remove burrs and surface defects from inner/outer straight and hole edges

TLDB2X Replacement Blade For TLDB2



TLRM
Pocket Deburring Tool

PRO-SET® DEBURRING AND UNIVERSAL REAMER TOOL

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

Contact Your Local CPS Distributor For Further Information

TECH-SET™ TUBE CUTTERS

You need tools that work as hard as you do and nothing outperforms like the power of the Tech-Set series. Put them to work for you on your next job.

TECH-SET™ TUBE CUTTERS AND REPLACEMENT PARTS	
ITEM	DESCRIPTION
TC127	Mini Tube Cutter for 1/8" to 5/8" (3 to 16 mm) O.D.
TCX7C	TC127 Cutting Wheel (10 PK)
TCX7S	TC127 Cutting Wheel Screws (10 PK)
TCX7CTS	TC127 Titanium Cutting Wheel (1) & Screw (1)
TCX7CS	TC127 Cutting Wheel (1) and Screw (1)
TCSET	TC127 Tube Cutter (1) & TC274 Tube Cutter (1) Combo Pack
TC206	Sliding Tube Cutter for 3/8" to 2 5/8" (10 to 67 mm) O.D.
TCX6CTS	TC 206 Titanium Cutting Wheel (1) and Screw (1)
TC274	Tube Cutter for 1/8" to 1 1/8" (3 to 29 mm) O.D.
TCX4R	TC274/TC312 Reamer Blade
TCX4RS	TC274/TC312 Reamer Blade Screw
TCX4C	TC274/312 Cutting Wheel (10 PK)
TCX4CS	TC274/TC312 Cutting Wheel and Screw
TCX4S	TC274/TC312 Cutting Wheel Screw- (10 PK)
TCX4CTS	TC274/TC312 (1) Titanium Cutting Wheel and (1) Screw
TC312	Tube Cutter for 1/4" to 1 5/8" (6 to 41 mm) O.D.
TCAP	Capillary Tube Cutter

TC127

- Ideal for cutting pipe in limited access areas
- Screw feed mechanism for smooth operation
- Precision machined chromium steel cutting wheels
- Rollers feature flare cut-off groove to reduce tube loss

TC206

Premium ratchet feed tube cutter
Capacity: 3/8" to 2-5/8" O.D.

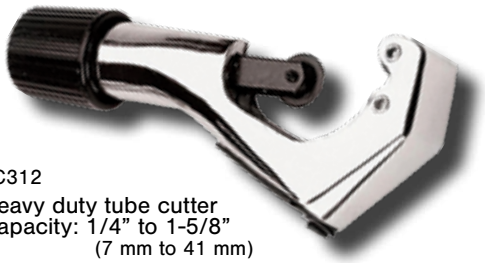
* Ratchet feed mechanism speeds up cutting operation.

TC274

- Hardened steel thrust bearing feed mechanisms for smooth operation
- Precision machined chromium steel cutting wheels
- Rollers feature flare cut-off groove to reduce tube loss
- Foldaway hardened steel reamers for deburring

TCX4S

TCX4C



TC312

Heavy duty tube cutter
Capacity: 1/4" to 1-5/8"
(7 mm to 41 mm)

* Spare cutting wheel located under retractable locking reamer.

TCX4R

TLDB

Pocket Deburring Tool (With Blade Storage)

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

TLDBX Replacement Blade for TLDB

TECH-SET™ TUBE BENDERS	
ITEM	DESCRIPTION
TB368	Tech-Set Universal Tube Bender (1/4", 5/16", 3/8")
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

TBS08

TBS04

FT525

FT195

FT203

FT500

TECH-SET™ TUBE FLARING TOOLS AND REPLACEMENT PARTS		
	ITEM	DESCRIPTION
Imperial	FT195	45° Flaring Tool ($^{3}/_{16}$", $^{1}/_{4}$", $^{5}/_{16}$", $^{3}/_{8}$", $^{7}/_{16}$", $^{1}/_{2}$", $^{5}/_{8}$")
	FTX501	FT195 Flaring Bar ($^{5}/_{16}$", $^{3}/_{8}$", $^{7}/_{16}$")
	FT500	45° Flaring/Burnishing Tool ($^{3}/_{16}$" to $^{5}/_{8}$")
	FTX514	FT500 Die Holder Assembly
	FT203	45° Flaring Tool ($^{5}/_{8}$", $^{3}/_{4}$", $^{7}/_{8}$", 1 $^{1}/_{18}$") O.D. Tube
Metric	FT500M	45°Flaring/Burnishing Tool (6 - 16 mm)
	FT525	Universal Adjustable Flaring Tool $^{3}/_{16}$" to $^{5}/_{8}$" (5 to 16 mm)
	FTX515	FT500M Die Holder Assembly

PRO-SET® TUBE EXPANDER/ SWAGING SET

- 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.

*** EU version will remain available**

TLE6/TLE6M
Metric

PRO-SET TUBE EXPANDERS (IMPERIAL)		
	ITEM	DESCRIPTION
Imperial	TLE6	Tube Expander Set With Case (6 Heads) includes all parts shown below, plus Debur Tool (1)
		REPLACEMENT PARTS
	TLE601	Expander Tool
	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 (Optional)
	TLH18	1$^{1}/_{8}$" Expander Head (Standard in TLE6)
	TLH22	1$^{3}/_{8}$" Expander Head (Optional)
	TLH26	1$^{5}/_{8}$" Expander Head (Optional)

PRO-SET TUBE EXPANDERS (METRIC)		
	ITEM	DESCRIPTION
Metric	TLE6M	Tube Expander Set With Case includes all parts shown below, plus Debur Tool (1)
		REPLACEMENT PARTS
	TLE601	Expander Tool
	TLHM10	10 mm Expander Head (Standard in TLE6M)
	TLHM12	12 mm Expander Head (Standard in TLE6M)
	TLHM15	15 mm Expander Head (Standard in TLE6M)
	TLHM16	16 mm Expander Head (Optional)
	TLHM18	18 mm Expander Head (Standard in TLE6M)
	TLHM20	20 mm Expander Head (Optional)
	TLHM22	22 mm Expander Head (Standard in TLE6M)
	TLHM28	28 mm Expander Head (Standard in TLE6M)
	TLHM35	35 mm Expander Head (Optional)
	TLHM42	42 mm Expander Head (Optional)

Contact Your Local CPS Distributor For Further Information

SPECIALTY HAND TOOLS

COMPLETE TOOL KITS FOR FAST, CONVENIENT REPAIRS

Visit us online at www.cpsproducts.com

UNIVERSAL R-410A SERVICE TOOL KITS

Our tool kits contain everything you need to service ductless mini-split and central A/C systems with 1/4" & 5/16" service ports including the following components;

TLB410A

1

Two Valve Service Manifold (Varies by kit. See chart below)
- R-410A/R-22/R404A gauges
- 1/4" SAE fittings
- Triple seal valve system

2

Premium 3-Pack 5' Hoses (Varies by kit. See chart below)
- 1/4" SAE 45˚ fittings
- 800Psi working pressure
- 4000Psi burst pressure

3

Flaring Tool
- Clutch driven feed screw
- Eccentrically mounted cone
- Creates perfect, strong flares
- Ratchet drive in yoke
- 3/16", 1/4", 1/16", 3/8", 1/2" 1/8",3/4"

Torque Wrench Sets;

4

3/16" included in metric set (see chart below)
- Metric Set: 12, 22, 24, 26, 27, 29 mm and 13/16" jaw sizes

-or-
- Imperial Set: 5/8", 11/16", 13/16", 15/16", 1 1/16", 1 5/16"

(1) Imperial and (1) Metric Hex

5a

5b

Wrench Set
- Metric Set: 1.5, 2, 2.5, 3, 4, 5, 5, 6, 8 mm
- Imperial Set: 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4"

Valve Core Tool

6

- 5/16" female fitting allows direct connection to mini-split service ports
- 5/16" female x 1/4" SAE male

Brass Adapters and Caps

7

- (10) 1/2"-20 UNF Caps, (2) Male: 1/4" SAE 55D; female; 1/2"-20 UNF SWVL, and (2) Male: 1/4" SAE female; 1/2"-20 UNF

13" Large Square Tool Bag
- 24 separate compartments for quick, easy-access
- Molded handle for durability and comfort

8

Kit Contents	Qty	UNIVERSAL SERVICE TOOL KITS				
		TLB410A	TLB410SAE	TLB410AC	TLB410ACE	TLB410M
1 2 Valve Manifold	1	Pro-Set® Piston Pink Body 1/4" SAE 45° fittings "O" Gauge (MCOj5E)		BlackMAX® Black & Chrome 1/4" SAE 45° fittings "O5" Gauge (MBO5P5Z)	BlackMAX® Black & Chrome 1/4" SAE 45° fittings "O5" Gauge (MBO5P5EZ)	No Manifold
2 Hoses	1	Pro-Set® Premium (3) 5' red/blue/yellow ball valve hoses		Pro-Set® Premium (3) 5' Black & Chrome hoses	Pro-Set® Premium (3) 5' Black & Chrome ball valve hoses	No Hoses
3 Flaring Tool	1	FT800FN				
4 Torque Wrench Set	1	Metric TLTWSM	SAE/Imperial TLTWSAE	Metric TLTWSM		
5a Hex Wrench Set (Metric)	1	TLSWHM				
5b Hex Wrench Set (Imperial)	1	TLSWH				
6 Valve Core Tool	1	TLVC410A				
7 Brass Adapters and Brass Caps	14	Includes; (10) AVC410 1/2"-20 UNF SAE Brass Caps, (2) AD87 Brass Adapter Male: 1/4" SAE 55D; female; 1/2"-20 UNF SWVL w/ Valve Core Tool, and (2) AD87S Brass Adapter (Male: 1/4" SAE; female; 1/2"-20 UNF) w/Valve Core Tool				
8 Tool Bag	1	TLBAG1				

1/2"- 20 UNF = 5/16" SAE

Contact Your Local CPS Distributor For Further Information

CPS® EXTRA DURABLE TOOL BAGS

Organize your tools with care with this extra strong, premium built series of tool bags from CPS.

TLBAG1
Square Tool Organizer

TLBAG2
Rubber Bottom Tool Organizer

TLBAG3
Tool Belt Tool Organizer

ALUMINUM, RECHARGEABLE WORK LIGHT- WITH 53 LEDS, HANGING HOOK, CAR & WALL PLUG CHARGER

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 hr for Luxeon spot, 4-5 hr 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.

- 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
- Wall and car charger included
- One year warranty

TLWL53A

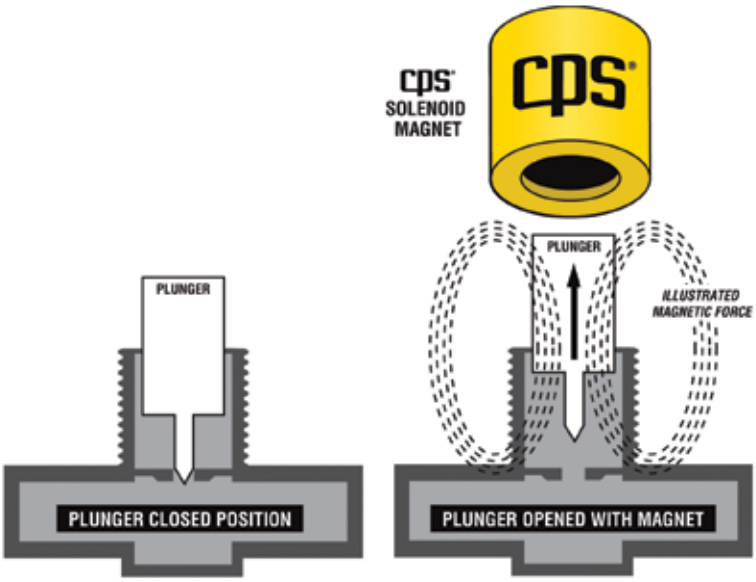
Visit us online at **www.cpsproducts.com**

TLMKC18

CPS® SOLENOID MAGNET

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

- 18 mm opening fits all common manufactured valves



CPS® COMPACT MAGNETIZER/DEMAGNETIZER

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.

- 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: 5 x 5 x 2,5 cm

TLMAG1

CPS® 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.

TLDWH
152 mm Duct Knife With Wood Handle

TLDKRH
152 mm Duct Knife
With Rubber Handle

Contact Your Local CPS Distributor For Further Information

SUPER-STRONG TOOLS THAT EXCEED ANSI SPECIFICATIONS, PROVIDING YEARS OF SERVICE

PRO-SET® ADJUSTABLE HANDLE WRENCH

- Patented light weight composite handle design
- Wide jaw opening with 45% more torque
- Precision machined for smooth operation
- Ergonomic, comfortable grip reduces fatigue
- Durable and environment-resistant
- One year warranty

TLWA06
Size: 6”
Jaw Capacity: $1^{5}/_{16}$” / 24 mm

TLWA08
Size: 8”
Jaw Capacity: $1^{1}/_{8}$” / 29 mm

TLWA10
Size: 10”
Jaw Capacity: $1^{5}/_{16}$” / 33 mm

PRO-SET® HEX KEY WRENCH SETS

Item	Description
TLSWH	Inch Hex Key Set ($^{3}/_{32}$", $^{7}/_{64}$", $^{1}/_{8}$", $^{9}/_{64}$", $^{5}/_{32}$", $^{3}/_{16}$", $^{7}/_{32}$", $^{1}/_{4}$"). Nickel plated finish
TLSWHM	Metric Hex Wrench Set (1.5, 2, 2.5, 3, 4, 5, 5, 6, 8 mm). Nickel Plated
TLSWT	Torx Wrench Set (Nickel Plated)
TLSWB	Inch Ball Point Key Set ($^{3}/_{32}$”, $^{7}/_{64}$”, $^{1}/_{8}$”, $^{9}/_{64}$”, $^{5}/_{32}$”, $^{3}/_{16}$”, $^{7}/_{32}$”, $^{1}/_{4}$”). Nickel plated finish
TLSWHB	Inch Hex Wrench Combo Set: Includes TLSWH (Inch Hex Key) & TLSWB (Inch Ball Point Key Set)

TLSWH

TLSWHM

TLSWT

TLSWB

PRO-SET® SERVICE WRENCHES

Item	Description
TLSWL	$^{3}/_{16}$”, $^{1}/_{4}$” Square; $^{1}/_{2}$”, $^{9}/_{16}$” Hex
TLSWO	Offset $^{3}/_{16}$", $^{1}/_{4}$", $^{5}/_{16}$", $^{3}/_{8}$" Square
TLSWS	$^{3}/_{16}$", $^{1}/_{4}$", $^{5}/_{16}$", $^{3}/_{8}$" Square
TLSWSA	$^{3}/_{16}$", $^{1}/_{4}$", $^{5}/_{16}$", $^{3}/_{8}$" Square , $^{3}/_{16}$" & $^{5}/_{16}$" Hex Driver Bit

TLTWSM

PRO-SET® TORQUE WRENCHES

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

- Interchangeable 17, 22, 24, 26, 27 & 29 mm 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

PRO-SET® TORQUE WRENCHES	
Item	Description
TLTWSM	Metric Multi-Head Torque Wrench Set (17, 22, 24, 26, 27, 29 mm)
TLTWSAE	SAE Multi-Head Torque Wrench Set ($^{5}/_{8}$", $^{11}/_{16}$", $^{13}/_{16}$", $^{15}/_{16}$", $1^{1}/_{16}$", $1^{5}/_{16}$")

TLPK

PRO-SET® SWAGE PUNCH SET

5 Punches (1/4”, 5/16”, 3/8”, 1/2”, 5/8”)

TLPP

PRO-SET® TUBE PIERCING PLIERS

Tube Piercing Pliers 1/4”

PRO-SET® HAND OIL PUMP

The TLOP refrigerant oil pump is designed to allow service technicians to pump refrigerant oil directly into a refrigeration system while the system is still under pressure. This eliminates the need to recover the refrigerant from a system when adding oil is required

TLOP

TLPORR

PRO-SET® PINCH-OFF & RE-ROUND TOOL

Pinch-Off tool & rerounds 1/4”, 5/16”, 3/8”, and 1/2” copper and tubing

Contact Your Local CPS Distributor For Further Information

TLPO

TECH-SET™ PINCH-OFF PLIERS

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

TLMSP

6-in-1 SWAGING PUNCH

- (3/16”, 1/4”, 5/16”, 3/8”, 1/2”, 5/8”)
- Swages six sizes of tubing
- Chrome plated for strength and durability

TLFC1
Universal Metal Fin Comb

TLFC6
Repair bent condenser fins with the TLFC6 Universal 6-sided fin comb straightening tool.

TLFC2
Fin Straightener with large durable, easy grip handle.

TECH-SET™ SERVICE WRENCHES	
Item	Description
TSWS	Small Service Wrench: $^{3}/_{16}$", $^{1}/_{4}$", $^{5}/_{16}$", $^{3}/_{8}$" Square Drive
TSWSO	Small Offset Service Wrench: $^{3}/_{16}$", $^{1}/_{4}$", $^{5}/_{16}$", $^{3}/_{8}$" Square Drive
TSWSH	Large Service Wrench: $^{3}/_{16}$ & $^{1}/_{4}$ Square Drive; $^{1}/_{2}$ & $^{9}/_{16}$ Hex Drive
Warranty	1 Year

TECH-SET™ INSPECTION MIRRORS

For fast, accurate inspection of any hidden area. Universal ball joints hold mirrors firmly at any angle.

TLMIR1
Circular Telescoping Mirror
1 ¼” diameter

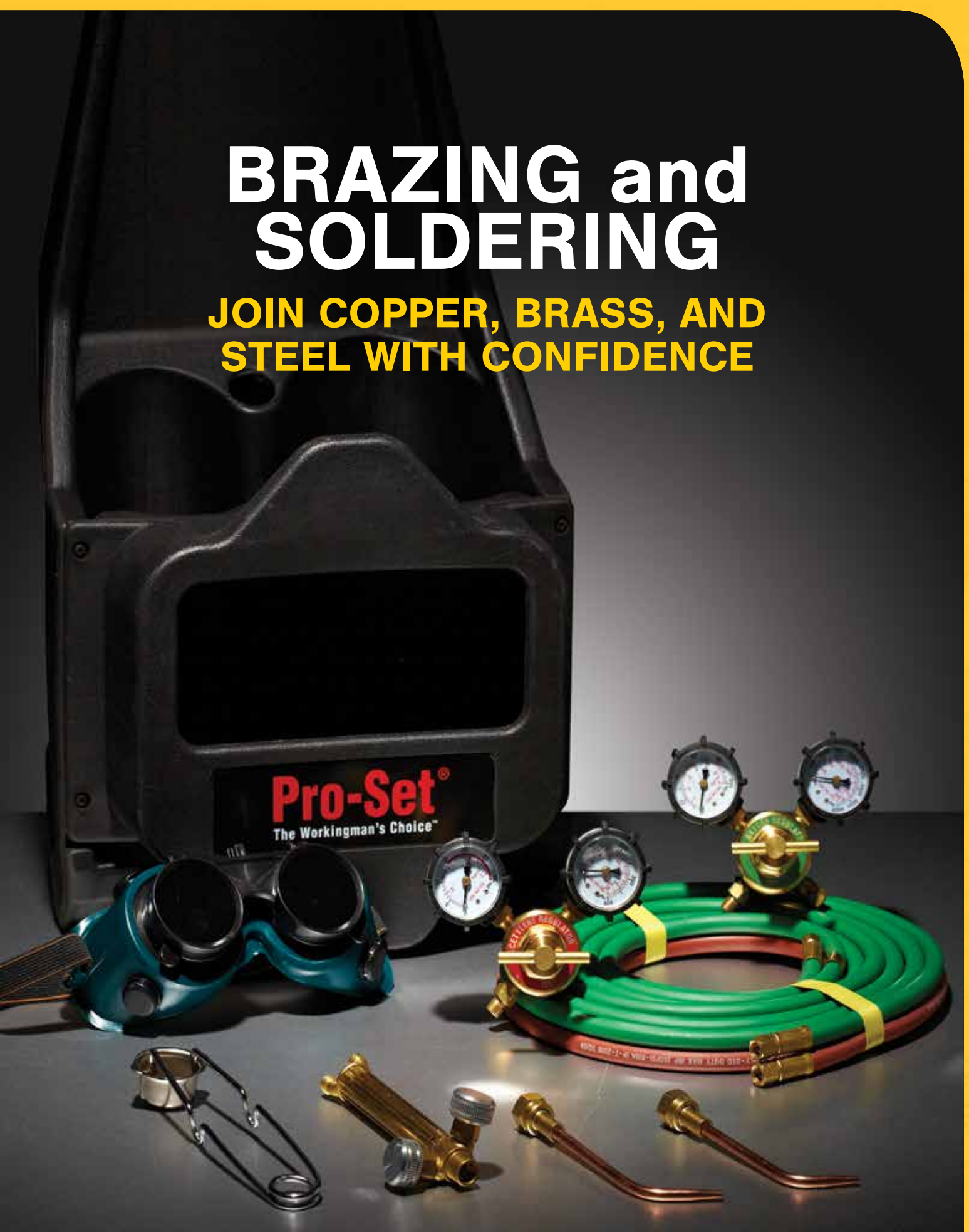
TLMIR2
Circular Telescoping Mirror
2 ¼” diameter

TLMIR3
Rectangular Telescoping Mirror
3 ½” x 2”

TLMIR4
Oval Pocket Mirror
1” x 2”

BRAZING and SOLDERING

JOIN COPPER, BRASS, AND STEEL WITH CONFIDENCE



Contact Your Local CPS Distributor For Further Information

PRO-SET® OXYACETYLENE WELDING/BRAZING KIT

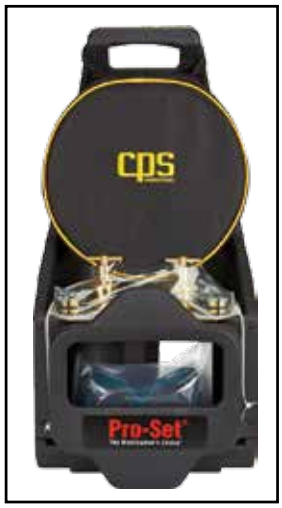
Comes with oxy regulator, acetylene regulator, torch handle, torch tips, goggles, hoses, plastic tote and check valves. Brazes up to 1" copper tubing and welds up to 1/8" steel. The BRHVACR1 OxyAcetylene Welding/Brazing Kit comes with oxy regulator, acetylene regulator, torch handle, torch tips, goggles, hoses, plastic tote and check valves.

EU-version COMING SOON

Kit Includes:

- Torch handle
- Oxygen regulator
- Acetylene regulator
- Brazing tips
- Check valves
- Striker
- Goggles
- 12.5' twin hose
- Carrying tote
- Circular storage case

USA Version



* tanks not included

BRHVACR1
(USA version)

PRO-SET® BRAZING & SOLDERING ACCESSORIES OR REPLACEMENT PARTS USA Version

Item	Optional Replacement Part	Description
BRRA1	✓	Acetylene/Fuel Regulator "A" Ftg. Outlet / CGA 200 Inlet (UL Listed)
BRRN1		Nitrogen Regulator
BRRO1	✓	Oxygen Regulator "A" Ftg. Outlet CGA / 540 Inlet (UL Listed)
BRXCVA1	✓	Check-Valve Set / Left & Right "A" Ftg.
BRXG1	✓	Welding / Brazing Goggles
BRXHTA12	✓	12.5', $^{3}/_{16}$" Oxy-Acetylene Twin Hose Set "A" Ftg.
BRXHTPTB1		C-Shaped Burner Head Accessory for BRHTPKIT
BRXHTPTB2		Flame Spreading Burner Head Accessory for BRHTPKIT
BRXHTS1		Replacement Torch Burner Tube Assembly for BRHTS1
BRXHTST1		Replacement Torch Tip for BRHT1 and BRHTS1A

Be Brazen, with our new Pro-Set® Workingman's Choice Torch...

PRO-SET® PREMIUM HAND TORCH WITH INTERCHANGEABLE TIPS

Auto-Ignite Hand Torch for MAPP, propane or propylene and 3 changeable tips with plastic case.

BRHT2

BRAZING AND SOLDERING TORCHES							
Specifications	Pro-Set					Tech-Set	Pro-Set
	BRHT1	BRHT2	BRHT5	BRHTS1A	BRHTPKIT	BRHTS1	BRHVACR1
Torch Type	Auto-Ignite Hand Torch	Auto-Ignite Power Torch	Auto-Ignite Hand Torch w/5' hose & valve	Auto-Ignite Swivel Hand Torch	Pencil Flame Hand Torch (Manual Ignition)	Swivel Hand Torch (Manual Ignition)	Oxy-Acetylene Brazing Kit
Flame Control	Adjustable						
For Use With	Propylene (MAPPRO), MAPP and Propane						Oxy-Acetylene
Inlet Connection	CGA600 Inlet Connection						CGA540/ CGA200
Construction	Cast Aluminum & stainless steel burn tube	Reinforced Plastic & stainless steel burn tube	Brass regulator, composite handle & stainless steel burn tube	Brass regulator & stainless steel burn tube	All brass construction	All brass and stainless steel	Brass components
Other	Flame lock button, precise flame adjustment	Tips & storage case with space for 2 cylinders	New brass regulator and 150 cm hose length	Torch tube swivels 360 degrees, operates in any position	Pencil flame torch, general heating and round tip included	High output swirl flame	Includes complete kit for brazing, welding, soldering

HAND TORCH

Auto-ignite hand torch (cast aluminum) for disposable 0,45 kg bottles for MAPP, propane or propylene

BRHT1

HAND TORCH

Auto-ignite hand torch kit with 150cm hose and valve for MAPP, propane or propylene

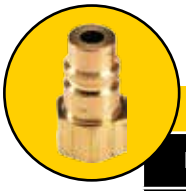
BRHT5

Contact Your Local CPS Distributor For Further Information

BRASS ADAPTERS, FITTINGS & VALVE CORE TOOLS

MANUFACTURED TO STRINGENT INDUSTRY STANDARDS

Visit us online at www.cpsproducts.com



BRASS ADAPTERS

ITEM	Female	Male	Other	Male	Qty / Pk
AD12	1/2" ACME	LO-side R-134a	-	R-134a automotive tanks	1
AD14	-	14 mm x 1/4" SAE	-	R-134a automotive couplers	1
AD18C	1/4" SAE	1/8" SAE	w/ valve core	Manifolds, compressors	1
AD24	-	1/4" SAE x 1/8" MNPT	w/ valve core	Manifolds, compressors	6
AD24B	-	1/4" SAE x 1/8" MNPT	Bulk	1/4" service manifolds	100
AD36	3/16" SAE	1/4" SAE	no valve core	TLVC Valve Core Tool for R-12 Auto. HI-side	1
AD36C	3/16" SAE	1/4" SAE	w/ valve core	Automotive adapter	1
AD41	3/4" -14	1/4" SAE	w/ gasket	Large 125 lb cylinders	1
AD41B	3/4" -14	1/4" SAE	Bulk	Large 125 lb cylinders	100
AD61	3/4" -14	3/8" SAE	w/ gasket	Large 125 lb cylinders	1
AD44	-	1/4" SAE x 1/4" MNPT	w/ valve core & cap	Vacuum Pumps, compressors	6
AD44B	-	1/4" SAE x 1/4" MNPT	Bulk	Vacuum Pumps, compressors	100
AD47	-	1/4" SAE x 1/4" SAE	-	1/4" Hose union	1
AD47B	-	1/4" SAE x 1/4" SAE	Bulk	1/4" Hose union	100
AD48	1/4" SAE	1/2" ACME	w/ valve core	Vacuum pumps/manifolds/recovery/ tanks	3
AD48B	1/4" SAE	1/2" ACME	w/ valve core	Vacuum pumps/manifolds/recovery/ tanks	50
AD68	1/4" SAE	3/8" SAE	w/core & Depressor	Vacuum pumps	3
AD68V	1/2" ACME	3/8" SAE	w/core & Depressor Bulk	Vacuum pumps	1
AD71	3/4" -14	1/2"-20 UNF	w/gasket	Large 125 lb cylinder	1
AD78	1/4" SAE	1/2"-20 UNF	w/ valve core	R-410A International	1
AD78B	1/4" SAE	1/2"-20 UNF	Bulk	R-410A International	100
AD81	3/4" -14	1/2" ACME	w/ gasket	Large 125 lb cylinder	1
AD81B	3/4" -14	1/2" ACME	Bulk	Large 125 lb cylinder	100
AD84	1/2" ACME	1/4" SAE	no valve core	Vacuum pumps/manifolds/recovery/ tanks	3
AD84B	1/2" ACME	1/4" SAE	Bulk	Vacuum pumps/manifolds/recovery/ tanks	100
AD84C	1/2" ACME	1/4" SAE	w/ valve core	Vacuum pumps/manifolds/recovery/ tanks	3
AD87	1/2"-20 UNF	1/4" SAE	w/ valve core	R-410A International	1
AD87S	1/2"-20 UNF SWVL	1/4" SAE 55D	w/ valve core	R-410A International	1
AD149C	1/4" SAE	1/4" SAE 90D	w/ valve core	Automotive adapter	1
AD369C	3/16" SAE	1/4" SAE 90D	w/ valve core	Automotive adapter	1
AD849C	1/2" ACME 90°	1/4" SAE 90D	w/ valve core	Automotive adapter	3
AD91	21.8 Whitworth	3/8" SAE	w/ gasket	Large cylinder adapter	1
AD91B	21.8 Whitworth	1/4" SAE	Bulk	Large cylinder adapter	100

AD12

AD36C

AD78/AD87

AD369C

AD87S

AD44

AD68V

1/2"- 20 UNF = 5/16" SAE

AD41 / AD81

Contact Your Local CPS Distributor For Further Information

QUICK SEAL O-RING CAPS & VALVE CORES

ITEM	Qty / Pk	Description
AVC134C	2	1/2" ACME brass caps w/chain
AVC134H	10	R-134a hl side caps
AVC134L	10	R-134a low side caps
AVC134PS	2	1/2" ACME plastic cap w/ straps
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
AVC4P	6	1/4" SAE plastic caps
AVC4PB	100	1/4" SAE plastic caps
AVC6C	2	3/8" SAE brass caps w/ chain
AVC8C	2	1/2" SAE brass caps w/ chain
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
AVCVAC	1	Vacuum pump brass cap kit w/chain
AVS1	10	Valve cores
AVS125	25	Valve cores
AVS1B	100	Valve cores bulk
AVS1BC	1000	Valve cores bulk
AVS1V	6	Tech-Set valve cores w/1 cap in vial
AVS44	3	1/4" SAE x 1/4" F swivel

AVS1

AVC4

AVC4R

AVC134H

AVC134L

AVC6C

AVS44

VALVE CORE TOOL ACCESSORIES

Item	Description
TLVC	1/4" SAE valve core remover and installer
TLVCS	1/4" SAE valve core remover and installer w/side port
TLVC1	Standard valve core tool w/3 core
TLVC2	Dual valve core standard and large bore tool
TLVC2B	Dual valve core tool (bulk 100pk)
TLVC4	Valve core tool with port rethreader
TLVC6	JRA 6 mm valve core tool
TLVC410	1/2"-20 UNF valve core remover and installer
TLVCS410	1/2"-20 UNF valve core remover and installer w/side port
TLVC810	EATON 8 and 10 mm valve core remover and installer
TLVCD1	1/4" SAE male x 1/4" SAE female swivel valve core depressor tool back seating type
TLVCD2	5/16" SAE male x 5/16" SAE female valve core depressor tool back seating type
TLVCD3	1/4" SAE male x 5/16" SAE female swivel valve core depressor tool back seating type
TLXVCRT	Schrader rethreading tool for TLVC/TLVCS
TLXVCT	Digital thermometer accessory for TLVC/TLVCS
TLXVCBC	Broken Schrader extractor tool for TLVC/TLVCS
TLXVC410BC	Broken Schrader extractor tool for TLVC410/TLVCS410
TLXVC410RT	Schrader rethreading tool for TLVC410/TLVCS410

TLVC

TLVC410

TLXVCT
Digital Thermometer Accessory

TLXVCBC

TLVCD1

1/2"- 20 UNF = 5/16" SAE

AVT4P

AVT2P

AVT64

AVT4M

AVT44

1/4"SAE TEE CONNECTORS

ITEM	Qty / Pk	Description
AVT2P	3	1/4" male w/cap and valve core x 1/4" male x 1/8" MNPT
AVT4	3	1/4" male w/cap and valve core x 1/8" MNPT x 1/4" male
AVT4P	3	1/4" male w/cap and valve core x 1/4" male x 1/4" MNPT
AVT44	3	1/4" female hex x 1/4" SAE male x 1/4" male w/cap and valve core
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 and valve core x 1/4" male x 1/4" female hex
AVT64B	100	1/4" male w/cap and valve core x 1/4" male 1/4" female Hex
AVT64Z	1	1/4" male w/cap and valve core x 1/4" male x 1/4" female, no depressors
AVT87	1	1/4" male x 1/2"-20 UNF female x 1/2"-20 UNF male (R-410A)

AV2

Standard cap

Wrench cap

HVAC/R ACCESS FITTINGS

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

*Non-stock item. Call for availability

AVB34

AVB346

AVB46

AVB456

AVB6

MISCELLANEOUS ACCESS FITTINGS

6pk	100pk	Description
AVB34	AVB34B	3/16" ID x 1/4" OD solder
AVB46	AVB46B	3/16"I.D.X 1/4"O.D. x 3/8" solder
AVB346	AVB346B (assembled)	3/16" ID x 1/4" OD x 3/8" OD
	AVB346BU (unassembled)	
	AVB346RB (cap w/core tool)	
	AVB346BO	
AVB456	AVB456B	1/8" ID x 3/16", 1/4", 5/16"
AVB6	AVB6B (w/caps)	6-8-10 mm OD solder
	AVB6BC (w/o caps)	

AVCT10

AVCT8

AVCT4

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
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	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

Contact Your Local CPS Distributor For Further Information

1/2"- 20 UNF = 5/16" SAE

Index

AB	Pg 75	AV4R	Pg 101	AVCT8	Pg 101	BTC200	Pg 77	BTLGP7	Pg 82
AB12	Pg 75	AV4RB	Pg 101	AVCVAC	Pg 37, 100	BTC200R	Pg 77	BV	Pg 75
AB3	Pg 75	AV5	Pg 101	AVS1	Pg 100	BTC300	Pg 77	BV3	Pg 75
AB410A	Pg 75	AV5B	Pg 101	AVS125	Pg 100	BTC400	Pg 77, 78	BV38	Pg 75
AB90	Pg 75	AV5R	Pg 101	AVS1B	Pg 100	BTC500	Pg 77, 78	BV410	Pg 75
AB903	Pg 75	AV5RB	Pg 101	AVS1BC	Pg 100	BTCXB	Pg 78	BV410A	Pg 75
ABG18	Pg 75	AV6	Pg 101	AVS1V	Pg 100	BTCXC1	Pg 78	BV45	Pg 75
AC400	Pg 44	AV6B	Pg 101	AVS44	Pg 100	BTCXC2	Pg 78	BV453	Pg 75
AC750	Pg 42	AV6MB	Pg 101	AVT2P	Pg 101	BTCXCT1	Pg 78	BV90	Pg 75
AD12	Pg 99	AV6MM	Pg 101	AVT4	Pg 101	BTCXCT2	Pg 78	BV903	Pg 75
AD14	Pg 99	AV6MR	Pg 101	AVT44	Pg 40, 101	BTCXP1	Pg 78	BVAD38	Pg 75
AD149C	Pg 99	AV6MRB	Pg 101	AVT45	Pg 40, 101	BTCXP2	Pg 78	BVM	Pg 75
AD18C	Pg 99	AV6R	Pg 101	AVT48	Pg 101	BTCXP3	Pg 78	BVM3	Pg 75
AD24	Pg 99	AV6RB	Pg 101	AVT4P	Pg 101	BTCXR	Pg 78	BVXH	Pg 75
AD24B	Pg 99	AVB34	Pg 101	AVT64	Pg 101	BTLDB3	Pg 81	CC110	Pg 17, 18
AD36	Pg 99	AVB346	Pg 101	AVT64B	Pg 101	BTLE9	Pg 79	CC220	Pg 17, 18
AD369C	Pg 99	AVB346B	Pg 101	AVT64Z	Pg 101	BTLE9M	Pg 79	CC240RF	Pg 16, 18
AD36C	Pg 99	AVB346BO	Pg 101	AVT87	Pg 40, 101	BTLE9M-D	Pg 79	CC50	Pg 17, 18
AD41	Pg 99	AVB346BU	Pg 101	BFT850	Pg 81	BTLEX1	Pg 79	CC800A	Pg 17, 18
AD41090A	Pg 75	AVB346RB	Pg 101	BFT850M	Pg 81	BTLEX10M	Pg 79	CC840RF	Pg 16, 18
AD41B	Pg 99	AVB34B	Pg 101	BRHT1	Pg 97	BTLEX10MB	Pg 79	CC850	Pg 17, 18
AD44	Pg 99	AVB456	Pg 101	BRHT2	Pg 97	BTLEX118	Pg 79	CCX220BC	Pg 17
AD44B	Pg 99	AVB456B	Pg 101	BRHT5	Pg 97	BTLEX118B	Pg 79	CCXC	Pg 17
AD47	Pg 99	AVB46	Pg 101	BRHTPKIT	Pg 97	BTLEX12	Pg 79	CCXC1	Pg 17
AD47B	Pg 99	AVB46B	Pg 101	BRHTS1	Pg 97	BTLEX12B	Pg 79	CCXHB	Pg 17, 30
AD48	Pg 99	AVB6	Pg 101	BRHTS1A	Pg 97	BTLEX12M	Pg 79	CCXHBV	Pg 17, 30
AD48B	Pg 99	AVB6B	Pg 101	BRHVACR1	Pg 96, 97	BTLEX12MB	Pg 79	CRX400T	Pg 30
AD61	Pg 99	AVB6BC	Pg 101	BTB06	Pg 82	BTLEX14	Pg 79	CRXCR1	Pg 23
AD68	Pg 99	AVC134C	Pg 100	BTB08	Pg 82	BTLEX14B	Pg 79	CRXCR2	Pg 23
AD68V	Pg 99	AVC134H	Pg 100	BTB10	Pg 82	BTLEX15M	Pg 79	CRXCR3	Pg 23
AD71	Pg 99	AVC134L	Pg 100	BTB10MM	Pg 82	BTLEX15MB	Pg 79	CRXF2	Pg 23
AD78	Pg 99	AVC134PS	Pg 100	BTB12	Pg 82	BTLEX16M	Pg 79	CRXF3	Pg 23
AD78B	Pg 99	AVC4	Pg 100	BTB12MM	Pg 82	BTLEX16MB	Pg 79	CRXTOS3	Pg 23
AD81	Pg 99	AVC410	Pg 100	BTB14	Pg 82	BTLEX18M	Pg 79	CS12DMV12O2J5E	Pg 20
AD81B	Pg 99	AVC410B	Pg 100	BTB15MM	Pg 82	BTLEX18MB	Pg 79	CS12DMV4JP5E	Pg 20
AD84	Pg 99	AVC410CB	Pg 100	BTB16MM	Pg 82	BTLEX1B	Pg 79	CS12DMV5J3P5E	Pg 20
AD849C	Pg 99	AVC425	Pg 100	BTB18MM	Pg 82	BTLEX22M	Pg 79	CS12DMV5JP5E	Pg 20
AD84B	Pg 99	AVC4B	Pg 100	BTB300	Pg 80	BTLEX22MB	Pg 79	CS12DMV5WS10Q	Pg 20
AD84C	Pg 99	AVC4C	Pg 100	BTB300M	Pg 80	BTLEX28M	Pg 79	CS16DMV5JP5E	Pg 20
AD87	Pg 99	AVC4P	Pg 100	BTBX10M	Pg 80	BTLEX28MB	Pg 79	DM350	Pg 43
AD87S	Pg 99	AVC4PB	Pg 100	BTBX12	Pg 80	BTLEX32M	Pg 79	DMXTL	Pg 42
AD91	Pg 99	AVC4PS	Pg 100	BTBX12M	Pg 80	BTLEX32MB	Pg 79	EMOS2	Pg 9
AD91B	Pg 99	AVC4R	Pg 100	BTBX14	Pg 80	BTLEX34	Pg 79	FS226	Pg 84
AM50	Pg 43	AVC4RB	Pg 100	BTBX15M	Pg 80	BTLEX34B	Pg 79	FS275	Pg 85
AV2	Pg 101	AVC6C	Pg 100	BTBX16M	Pg 80	BTLEX35M	Pg 79	FS275M	Pg 85
AV2B	Pg 101	AVC6P	Pg 100	BTBX18M	Pg 80	BTLEX35MB	Pg 79	FSX501	Pg 85
AV2R	Pg 101	AVC8C	Pg 100	BTBX22M	Pg 80	BTLEX38	Pg 79	FSX502	Pg 85
AV2RB	Pg 101	AVCT10	Pg 101	BTBX34	Pg 80	BTLEX38B	Pg 79	FSX503	Pg 85
AV3	Pg 101	AVC4R	Pg 100	BTBX38	Pg 80	BTLEX516	Pg 79	FSX504	Pg 85
AV3B	Pg 101	AVC4RB	Pg 100	BTBX516	Pg 80	BTLEX516B	Pg 79	FSX505	Pg 85
AV3R	Pg 101	AVC6C	Pg 100	BTBX58	Pg 80	BTLEX58	Pg 79	FSX506	Pg 85
AV3RB	Pg 101	AVC6P	Pg 100	BTBX6M	Pg 80	BTLEX58B	Pg 79	FSX507	Pg 85
AV4	Pg 101	AVC8C	Pg 100	BTBX78	Pg 80	BTLEX6M	Pg 79	FSX508	Pg 85
AV4410	Pg 101	AVCT10	Pg 101	BTBX8M	Pg 80	BTLEX6MB	Pg 79	FSX509	Pg 85
AV4410B	Pg 101	AVCT12	Pg 101	BTBXA1	Pg 80	BTLEX78	Pg 79	FSX513	Pg 85
AV4B	Pg 101	AVCT14	Pg 101	BTBXA2	Pg 80	BTLEX78B	Pg 79	FT195	Pg 87
AV4L	Pg 101	AVCT18	Pg 101	BTBXH	Pg 80	BTLEX8M	Pg 79	FT203	Pg 87
AV4LB	Pg 101	AVCT4	Pg 101	BTBXHM	Pg 80	BTLEX8MB	Pg 79	FT500	Pg 87
AV4LR	Pg 101	AVCT5	Pg 101	BTBXR1	Pg 80	BTLEXH	Pg 79	FT500M	Pg 87
AV4LRB	Pg 101	AVCT6	Pg 101	BTBXR2	Pg 80	BTLGP4	Pg 82	FT525	Pg 87

Index

FT800FN Pg 84
FT806A Pg 84
FT806M Pg 85
FTX501 Pg 87
FTX514 Pg 87
FTX515 Pg 87
FTX800B410 Pg 84
FTX800BA Pg 85
FTX800BM Pg 85
FTX800Y Pg 85
GS40 Pg 7
GT1 Pg 69
GT2 Pg 69
GT3 Pg 69
GT4 Pg 69
HG3 Pg 67, 73
HG5 Pg 67, 73
HHC2 Pg 72
HHC2S Pg 72
HHC2SS Pg 75
HHC3 Pg 72
HHC3S Pg 72
HHC3SS Pg 72
HHC4 Pg 72
HHC4S Pg 72
HHC4SS Pg 72
HJ3 Pg 71
HJ3B Pg 71
HJ3BE Pg 71
HJ3E Pg 71
HJ3R Pg 71
HJ3RE Pg 71
HJ3Y Pg 71
HJ3YE Pg 71
HJ5 Pg 71
HJ5B Pg 71
HJ5BE Pg 71
HJ5E Pg 71
HJ5R Pg 71
HJ5RE Pg 71
HJ5Y Pg 71
HJ5YE Pg 71
HK3 Pg 71
HK5 Pg 71
HK5B Pg 71
HK5E Pg 71
HK5R Pg 71
HK5Y Pg 71
HP10 Pg 71
HP10B Pg 71
HP10BE Pg 71
HP10E Pg 71
HP10R Pg 71
HP10RE Pg 71
HP10Y Pg 71
HP10YE Pg 71
HP3 Pg 71
HP3A Pg 71
HP3B Pg 71
HP3BA Pg 71
HP3BE Pg 71
HP3BL Pg 71
HP3E Pg 71
HP3L Pg 71
HP3R Pg 71
HP3RA Pg 71
HP3RE Pg 71
HP3RL Pg 71
HP3Y Pg 71
HP3YA Pg 71
HP3YE Pg 71
HP3YL Pg 71
HP4 Pg 71
HP4B Pg 71
HP4BE Pg 71
HP4BL Pg 71
HP4E Pg 71
HP4L Pg 71
HP4R Pg 71
HP4RE Pg 71
HP4RL Pg 71
HP4Y Pg 71
HP4YE Pg 71
HP4YL Pg 71
HP5 Pg 71
HP5A Pg 71
HP5B Pg 71
HP5BA Pg 71
HP5BE Pg 71
HP5BKEZ Pg 56
HP5BKZ Pg 56
HP5BL Pg 71
HP5E Pg 71
HP5L Pg 71
HP5R Pg 71
HP5RA Pg 71
HP5RE Pg 71
HP5RL Pg 71
HP5Y Pg 71
HP5YA Pg 71
HP5YE Pg 71
HP5YL Pg 71
HP6 Pg 71
HP6A Pg 71
HP6B Pg 71
HP6BA Pg 71
HP6BE Pg 71
HP6BL Pg 71
HP6E Pg 71
HP6L Pg 71
HP6R Pg 71
HP6RA Pg 71
HP6RE Pg 71
HP6RL Pg 71
HP6Y Pg 71
HP6YA Pg 71
HP6YE Pg 71
HP6YL Pg 71
HP8 Pg 71
HP8B Pg 71
HP8BE Pg 71
HP8BL Pg 71
HP8E Pg 71
HP8L Pg 71
HP8R Pg 71
HP8RE Pg 71
HP8RL Pg 71
HP8Y Pg 71
HP8YE Pg 71
HP8YL Pg 71
HPF3 Pg 67, 73
HPF5 Pg 67, 73
HS10 Pg 71
HS10B Pg 71
HS10R Pg 71
HS10Y Pg 71
HS3 Pg 71
HS3A Pg 71
HS3B Pg 71
HS3BA Pg 71
HS3BE Pg 71
HS3BL Pg 71
HS3E Pg 71
HS3L Pg 71
HS3R Pg 71
HS3RA Pg 71
HS3RE Pg 71
HS3RL Pg 71
HS3Y Pg 71
HS3YA Pg 71
HS3YE Pg 71
HS3YL Pg 71
HS4 Pg 71
HS4B Pg 71
HS4BE Pg 71
HS4BL Pg 71
HS4E Pg 71
HS4L Pg 71
HS4R Pg 71
HS4RE Pg 71
HS4RL Pg 71
HS4Y Pg 71
HS4YE Pg 71
HS4YL Pg 71
HS5 Pg 71
HS5A Pg 71
HS5B Pg 71
HS5BA Pg 71
HS5BE Pg 71
HS5BL Pg 71
HS5E Pg 71
HS5L Pg 71
HS5R Pg 71
HS5RA Pg 71
HS5RE Pg 71
HS5RL Pg 71
HS5Y Pg 71
HS5YA Pg 71
HS5YE Pg 71
HS5YL Pg 71
HS6 Pg 71
HS6A Pg 71
HS6B Pg 71
HS6BA Pg 71
HS6BE Pg 71
HS6BL Pg 71
HS6E Pg 71
HS6L Pg 71
HS6R Pg 71
HS6RA Pg 71
HS6RE Pg 71
HS6RL Pg 71
HS6Y Pg 71
HS6YA Pg 71
HS6YE Pg 71
HS6YL Pg 71
HS8 Pg 71
HS8A Pg 71
HS8B Pg 71
HS8BA Pg 71
HS8BE Pg 71
HS8BL Pg 71
HS8E Pg 71
HS8L Pg 71
HS8R Pg 71
HS8RA Pg 71
HS8RE Pg 71
HS8RL Pg 71
HS8Y Pg 71
HS8YA Pg 71
HS8YE Pg 71
HS8YL Pg 71
HT1BE Pg 72
HT1E Pg 72
HT1RE Pg 72
HT1YE Pg 72
HT410BEJ Pg 72
HT410EJ Pg 72
HT410REJ Pg 72
HT410YEJ Pg 72
HTBE Pg 72
HTE Pg 72
HTRE Pg 72
HTYE Pg 72
HV3 Pg 72
HV5 Pg 72
HV5E Pg 72
HV5Z Pg 56
HV6 Pg 72
HV8 Pg 72
HX38G Pg 73
HXG Pg 73
HXG2 Pg 73
HXGA Pg 73
HXGA410 Pg 73
HXGD Pg 73
HXGD2 Pg 73
HXTG Pg 73
HXTG2 Pg 73
LDETRACH Pg 10
LS1 Pg 5, 6
LS2 Pg 5, 6
LS2XF Pg 9
LS2XVF Pg 9
LS780C Pg 6
LS790B Pg 6
LSCO2 Pg 8
LSXBC Pg 9
LSXBMK Pg 9
LSXC Pg 9
LSXC3 Pg 9
LSXE Pg 9
LSXS Pg 9
LSXS3 Pg 9
LSXSF Pg 9
M2XHA Pg 68
M2XRK Pg 68
M4XHA Pg 68
M4XRK Pg 68
M5XRK Pg 68
M6FG3 Pg 67
M6FPF5 Pg 67
M6GG3 Pg 67
M6GFP5 Pg 67
M6OFP5 Pg 67
M6OG3 Pg 67
M6VG3 Pg 67
M6VPF5 Pg 67
MBF Pg 60
MBFP5A Pg 60
MBFP5E Pg 60
MBFS3 Pg 60
MBFS5 Pg 60
MBG Pg 60
MBGS3 Pg 60
MBGS5 Pg 60
MBO Pg 60
MBO4P5EZ Pg 57
MBO4P5Z Pg 57
MBO4Z Pg 57
MBO5P5EZ Pg 57
MBO5P5Z Pg 57
MBO5Z Pg 57
MBOP5A Pg 60
MBOP5E Pg 60
MBOS3 Pg 60
MBOS5 Pg 60
MBV Pg 60
MBVP5A Pg 60
MBVP5E Pg 60
MBVS3 Pg 60
MBVS5 Pg 60
MCA Pg 61
MCAJ3 Pg 61
MCAJ5 Pg 61
MCAJ5E Pg 61
MCO Pg 61
MCOJ3 Pg 61
MCOJ5 Pg 61
MCOJ5E Pg 61

Index

MD100 Pg 53, 54
MD100HE Pg 54
MD100HEW Pg 54
MD100VHE Pg 54
MD100VHEW Pg 54
MD100W Pg 52, 54
MD50 Pg 53, 54
MD50HE Pg 54
MD50HEW Pg 54
MD50VHE Pg 54
MD50VHEW Pg 54
MD50W Pg 54
MGO Pg 65
MGOP5 Pg 65
MGOP5A Pg 65
MGOP5E Pg 65
MGV Pg 65
MGVP5 Pg 65
MGVP5A Pg 65
MGVP5E Pg 65
MT2CO2 Pg 59
MT2CO2P5 Pg 59
MT2CO2P5A Pg 59
MT2CO2P5E Pg 59
MT2O2 Pg 59
MT2O2P5 Pg 59
MT2O2P5A Pg 59
MT2O2P5E Pg 59
MT69 Pg 29
MV11A Pg 64
MV11AJ5 Pg 64
MV11AJ5E Pg 64
MV11AJ5EC Pg 64
MV11E Pg 64
MV11EJ5 Pg 64
MV11EJ5E Pg 64
MV11EJ5EC Pg 64
MV11O2 Pg 64
MV11O2J5 Pg 64
MV11O2J5E Pg 64
MV11O2J5EC Pg 64
MV12A Pg 64
MV12AJ5 Pg 64
MV12AJ5E Pg 64
MV12AJ5EC Pg 64
MV12E Pg 64
MV12EJ5 Pg 64
MV12EJ5E Pg 64
MV12EJ5EC Pg 64
MV12O2 Pg 64
MV12O2J5 Pg 64
MV12O2J5E Pg 64
MV12O2J5EC Pg 64
MV1FH Pg 62
MV1FL Pg 62
MV1GH Pg 62
MV1GL Pg 62
MV1JH Pg 62
MV1JL Pg 62
MV1KH Pg 62
MV1KL Pg 62
MV1LH Pg 62
MV1LL Pg 62
MV1OH Pg 62
MV1OL Pg 62
MV1VH Pg 62
MV1VL Pg 62
MV1WH Pg 62
MV1WL Pg 62
MV2 Pg 62
MV2F Pg 62
MV2FS3 Pg 62
MV2FS3C Pg 62
MV2FS5 Pg 62
MV2FS5C Pg 62
MV2G Pg 62
MV2GS3 Pg 62
MV2GS3C Pg 62
MV2GS5 Pg 62
MV2GS5C Pg 62
MV2J Pg 62
MV2JS3 Pg 62
MV2JS3C Pg 62
MV2JS5 Pg 62
MV2JS5C Pg 62
MV2K Pg 62
MV2KS3 Pg 62
MV2KS3C Pg 62
MV2KS5 Pg 62
MV2KS5C Pg 62
MV2L Pg 62
MV2LS3 Pg 62
MV2LS3C Pg 62
MV2LS5 Pg 62
MV2LS5C Pg 62
MV2O Pg 62
MV2O4P5EZ Pg 56
MV2O4P5Z Pg 56
MV2O5P5EZ Pg 56
MV2O5P5Z Pg 56
MV2OS3 Pg 62
MV2OS3C Pg 62
MV2OS5 Pg 62
MV2OS5C Pg 62
MV2V Pg 62
MV2VS3 Pg 62
MV2VS3C Pg 62
MV2VS5 Pg 62
MV2VS5C Pg 62
MV2W Pg 62
MV2WS3 Pg 62
MV2WS3C Pg 62
MV2WS5 Pg 62
MV2WS5C Pg 62
MV2XRK Pg 68
MV4F Pg 63
MV4FS5 Pg 63
MV4FS5C Pg 63
MV4FS5E Pg 63
MV4FS5EC Pg 63
MV4G Pg 63
MV4GS5 Pg 63
MV4GS5C Pg 63
MV4GS5E Pg 63
MV4GS5EC Pg 63
MV4HC Pg 63
MV4HCP5E Pg 63
MV4HCP5EC Pg 63
MV4J3 Pg 63
MV4J3S5 Pg 63
MV4J3S5C Pg 63
MV4J3S5E Pg 63
MV4J3S5EC Pg 63
MV4O Pg 63
MV4O4P5EZ Pg 56
MV4O4P5Z Pg 56
MV4O5P5EZ Pg 56
MV4O5P5Z Pg 56
MV4OS5 Pg 63
MV4OS5C Pg 63
MV4OS5E Pg 63
MV4OS5EC Pg 63
MV4Q Pg 63
MV4QS5 Pg 63
MV4QS5C Pg 63
MV4QS5E Pg 63
MV4QS5EC Pg 63
MV4U Pg 63
MV4US5 Pg 63
MV4US5C Pg 63
MV4US5E Pg 63
MV4US5EC Pg 63
MV4W Pg 63
MV4WS5 Pg 63
MV4WS5C Pg 63
MV4WS5E Pg 63
MV4WS5EC Pg 63
MV4XRK Pg 68
MV5HCD Pg 63
MV5HCDP5E Pg 63
MV5HCDP5EC Pg 63
MV5J3D Pg 63
MV5J3DP5E Pg 63
MV5J3DP5EC Pg 63
MV5QD Pg 63
MV5QDP5E Pg 63
MV5QDP5EC Pg 63
MV5UD Pg 63
MV5UDP5E Pg 63
MV5UDP5EC Pg 63
MV5WD Pg 63
MV5WDP5E Pg 63
MV5WDP5EC Pg 63
MV5XRK Pg 68
MVXK Pg 68
MXBK Pg 68
MXC Pg 68
MXC2 Pg 68
MXK Pg 68
MXMH Pg 68
MXPK Pg 68
MXPV Pg 68
MXPVO Pg 68
RGAH Pg 61, 64
RGAL Pg 61, 64
RGCO2H Pg 59
RGCO2L Pg 59
RGEH Pg 64
RGEL Pg 64
RGFH Pg 60,62,63,67
RGFL Pg 60,62,63,67
RGGH Pg 60,62,63,67
RGGL Pg 60,62,63,67
RGHCH Pg 63
RGHCL Pg 63
RGHH Pg 65
RGHL Pg 65
RGJ3H Pg 63
RGJ3L Pg 63
RGJH Pg 62
RGJL Pg 62
RGKH Pg 62
RGKL Pg 62
RGLH Pg 62
RGLL Pg 62
RGO2H Pg 59, 64
RGO2L Pg 59, 64
RGO4H Pg 56, 57
RGO4L Pg 56, 57
RGO5H Pg 56, 57
RGO5L Pg 56, 57
RGOH Pg 60,61,62,63,67
RGOL Pg 60,61,62,63,67
RGQH Pg 63
RGQL Pg 63
RGVH Pg 60,62,65,67
RGVL Pg 60,62,65,67
RGWH Pg 62,63
RGWL Pg 62,63
RGX68BB Pg 62,63
RGX68RB Pg 62,63
RGX68SB Pg 57
RGX80BB Pg 62,63
RGX80IB Pg 57
RGX80RB Pg 62,63
RGXBW Pg 59
RM134 Pg 7
RM22 Pg 7
RM404 Pg 7
RM407C Pg 7
RM407A Pg 7
RM410 Pg 7
RM502 Pg 7
RM507 Pg 7
SH450 Pg 46
SM150 Pg 44
T-12L Pg 30
T-40L Pg 30
TAVPC144SE Pg 38
TAVPC144SU Pg 38
TAVPC48SE Pg 38
TAVPC48SU Pg 38
TAVPC96SE Pg 38
TAVPC96SU Pg 38
TB04 Pg 84
TB05 Pg 84
TB06 Pg 84
TB08 Pg 84
TB10 Pg 84
TB10MM Pg 84
TB10XH Pg 84
TB12 Pg 84
TB12MM Pg 84
TB12XH Pg 84
TB14 Pg 84
TB15MM Pg 84
TB16MM Pg 84
TB250 Pg 84
TB368 Pg 86
TB6MM Pg 84
TBS04 Pg 86
TBS05 Pg 86
TBS06 Pg 86
TBS08 Pg 86
TBS10 Pg 86
TBS12 Pg 86
TBXB1 Pg 84
TBXB2 Pg 84
TBXM10 Pg 84
TBXM14 Pg 84
TBXM16 Pg 84
TBXM19 Pg 84
TBXM22 Pg 84
TBXM6 Pg 84
TBXM8 Pg 84
TBXR Pg 84
TC100 Pg 83
TC127 Pg 86
TC174 Pg 83
TC206 Pg 86
TC274 Pg 86
TC312 Pg 86
TCAP Pg 86
TCPVC Pg 83
TCSET Pg 86
TCT127 Pg 83
TCT174 Pg 83
TCT206 Pg 83
TCT274 Pg 83
TCT312 Pg 83
TCX100S Pg 83
TCX4C Pg 86
TCX4CS Pg 86
TCX4CTS Pg 83, 86
TCX4R Pg 86
TCX4RS Pg 86
TCX4S Pg 86
TCX6CTS Pg 86
TCX7C Pg 86
TCX7CS Pg 86

Index

TCX7CTS Pg 86
TCX7S Pg 86
TLB410A Pg 89
TLB410AC Pg 89
TLB410ACE Pg 89
TLB410M Pg 89
TLB410SAE Pg 89
TLBAG1 Pg 90
TLBAG2 Pg 90
TLBAG3 Pg 90
TLDB Pg 86
TLDB2 Pg 85
TLDB2X Pg 81, 85
TLDKRH Pg 91
TLDWH Pg 91
TLE6 Pg 87
TLE601 Pg 87
TLE6M Pg 87
TLFC1 Pg 94
TLFC2 Pg 94
TLFC6 Pg 94
TLH06 Pg 87
TLH08 Pg 87
TLH10 Pg 87
TLH12 Pg 87
TLH14 Pg 87
TLH16 Pg 87
TLH18 Pg 87
TLH22 Pg 87
TLH26 Pg 87
TLHM10 Pg 87
TLHM12 Pg 87
TLHM15 Pg 87
TLHM16 Pg 87
TLHM18 Pg 87
TLHM20 Pg 87
TLHM22 Pg 87
TLHM28 Pg 87
TLHM35 Pg 87
TLHM42 Pg 87
TLJ2 Pg 13
TLMAG1 Pg 91
TLMIR1 Pg 94
TLMIR2 Pg 94
TLMIR3 Pg 94
TLMIR4 Pg 94
TLMKC18 Pg 91
TLMSP Pg 94
TLOP Pg 93
TLPK Pg 93
TLPO Pg 94
TLPORR Pg 93
TLPP Pg 93
TLRM Pg 85
TLSWB Pg 92
TLSWH Pg 92
TLSWHB Pg 92
TLSWHM Pg 92
TLSWL Pg 92
TLSWO Pg 92
TLSWS Pg 92
TLSWSA Pg 92
TLSWT Pg 92
TLTWSAE Pg 93
TLTWSM Pg 93
TLVC Pg 100
TLVC1 Pg 100
TLVC2 Pg 100
TLVC2B Pg 100
TLVC4 Pg 100
TLVC410 Pg 100
TLVC6 Pg 100
TLVC810 Pg 100
TLVCD1 Pg 100
TLVCD2 Pg 100
TLVCD3 Pg 100
TLVCS Pg 100
TLVCS410 Pg 100
TLWA06 Pg 92
TLWA08 Pg 92
TLWA10 Pg 92
TLWL53A Pg 90
TLXVC410BC Pg 100
TLXVC410RT Pg 100
TLXVCBC Pg 100
TLXVCRT Pg 100
TLXVCT Pg 100
TM360 Pg 47
TM360C Pg 47
TM50 Pg 49
TMAPC Pg 49
TMDP Pg 49
TMINI12 Pg 49
TMX2A Pg 47, 48
TMX2G Pg 47, 48
TMX2GA Pg 48
TMX2P Pg 48
TMX2RH Pg 48
TMX2S Pg 47, 48
TMX3C Pg 47, 48
TMX3PS Pg 48
TMX3RH Pg 48
TMX3WB Pg 48
TMXKBEAD Pg 50
TMXSK Pg 50
TMXSK90 Pg 50
TR19E Pg 28
TR19X1 Pg 27
TR19X2 Pg 27
TR21E Pg 27, 28
TR21JUK Pg 28
TR21X1 Pg 23, 26, 27
TR21X2 Pg 23, 26, 27
TR21X3 Pg 23, 26, 27
TR21X4 Pg 27
TR21X5 Pg 23, 26, 27
TR600E Pg 25, 26
TR700E Pg 22, 23, 24
TR700JUK Pg 24
TR700S Pg 24
TR700X1 Pg 23, 26
TRA21E Pg 28
TRS21E Pg 24
TSWO Pg 94
TSWS Pg 94
TSWSH Pg 94
UV1 Pg 13
UV101 Pg 13
UV2 Pg 13
UV3 Pg 13
UV55 Pg 14
UVCLNR Pg 12
UVMINI Pg 12
UVNJ Pg 13
UVNJS Pg 13
UVPRO Pg 12
UVS1 Pg 13
UVS101 Pg 13
UVS2 Pg 13
UVS3 Pg 13
UVS5 Pg 12
UVUD6 Pg 12
UVUDS Pg 12
UVXB Pg 12
UVXBC Pg 12
UVXBLB Pg 12
UVXCE Pg 12
VG100A Pg 40
VG101 Pg 40
VG200 Pg 40
VG201 Pg 40
VGXC Pg 40
VGXH Pg 40
VP10D Pg 35
VP10DE Pg 35
VP12D Pg 35
VP12DE Pg 35
VP2D Pg 34
VP2DE Pg 34
VP2S Pg 37
VP4D Pg 34
VP4DE Pg 34
VP4S Pg 37
VP6D Pg 34
VP6DE Pg 34
VP6S Pg 37
VP8D Pg 35
VP8DE Pg 35
VPAS4 Pg 36
VPAS8 Pg 36, 37
VPASU Pg 36, 37
VPC2DE Pg 36
VPC2DU Pg 36
VPC2SE Pg 36
VPC2SU Pg 36
VPC4SE Pg 36
VPC4SU Pg 36
VPOG6 Pg 35
VPOP12 Pg 35
VPOQ12 Pg 35
VPS12DE Pg 35
VPS12DU Pg 35
VPS6DE Pg 34
VPS6DU Pg 34
VPXJ220 Pg 38
VPXOMP Pg 38
VPXOMP2 Pg 38

CPS Products, Inc. U.S.A. (Headquarters)
1010 East 31st Street, Hialeah, Florida 33013, USA
Tel: 305-687-4121, 1-800-277-3808, Fax: 305-687-3743
E-mail: info@cpsproducts.com
Website: www.cpsproducts.com

CPS Products Canada Ltd.
1324 Blundell Road, Mississauga, ON, L4Y 1M5
Tel: 905-615-8620, Fax: 905-615-9745
E-mail: info@cpsproducts.com

CPS PRODUCTS N.V
Krijgsbaan 241, 2070 Zwijndrecht, Belgium
Tel: +32 3 281 30 40, Fax: +32 3 281 65 83
E-mail: info@cpsproducts.be

CPS AUSTRALIA PTY. LTD.
109 Welland Avenue, Welland, South Australia 5007
Tel: +61 8 8340 7055, Fax: +61 8 8340 7033
E-mail: sales@cpsaustralia.com.au

CPS ASIA
87 Bukit Timah Road, Unit B2, Singapore 229834
Tel: +65 63375691, Fax: +65 63375692
E-mail: cpsasia@singnet.com.sg

CPS®

Product Guarantee

CPS guarantees that all products are free of manufacturing and material defects for 2 year from the date of purchase (on exception of the Tech-Set range, this only covers a 1 year warranty period). If a product should fail during the guarantee period due to defective material or workmanship, it will be repaired or replaced (at our CPS repair department) at no charge. This guarantee does not apply to products that have been altered, misused, or are in need of field service maintenance. All repaired products will carry an independent 90 day warranty.

Subject to typing and printing errors