BLACKMAX®

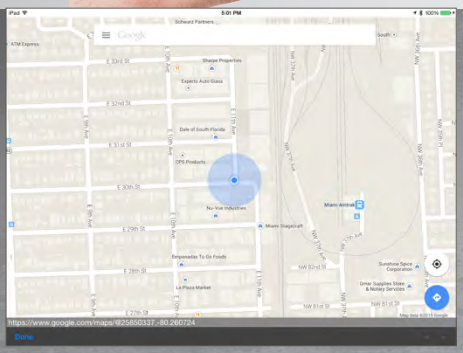
DIGITAL MANIFOLDS

US Patent No. 9,043,161

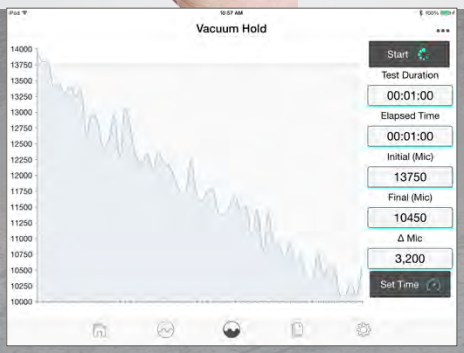
WIRELESS MANIFOLDS WITH CPS LINK™ APP

CPS Link™ is a free iOS and Android based mobile application (APP), designed to communicate with and control select functions of BLACKMAX® Digital Wireless Manifolds.

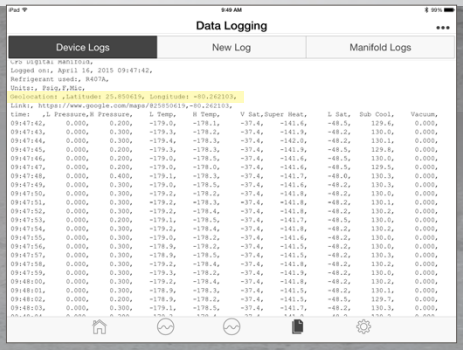
- Monitor and perform full system measurements—in real time
- Fast, convenient touch screen control
- Perform select manifold functions without the need to physically touch the manifold
- Pressure hold or vacuum hold tests can be viewed, saved, stored or emailed as a graph
- Supports over 90 common refrigerants, with quick access to your favorite five
- Bilingual CPS Link™ app (English or Spanish)
- Built-in geolocation and data logging
- Change units, pressure, temperature, vacuum or languages at the touch of a button



Geolocation coordinates



Vacuum Hold Test



Test Data Log and Geolocation Coordinates

CPS Global Headquarters
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For more information call: In the U.S.A. (800) 277-3808 **In Canada** (905)358-3124
In Europe 323 281 30 40 **In Australia** 61 8 8340 7055 **In Asia** 65 6 337 5691

DIGITAL MANIFOLDS

MD50

MD100

2 & 4 Valve Manifolds

- BLACKMAX® digital manifolds combine the latest measurement technology with best-in-class accuracy for pressure, temperature and vacuum (See specifications on back).

Wireless and Standard

- BLACKMAX manifolds are available in standard digital models as well as wireless. Wireless models require the use of the free CPS Link™ app for Android and iOS devices.

Rugged Design

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

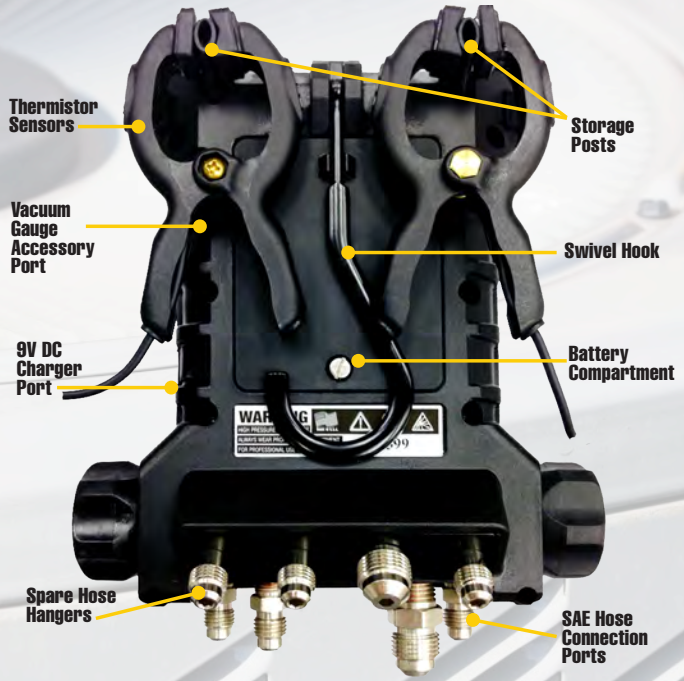
Simplicity & Versatility

- One key ON/OFF and function select
- Preloaded with over 90 of the most common refrigerants
- Compatible with R744 subcritical CO2 refrigerants
- One-touch access to your 5 favorite refrigerants
- 25 hours of continuous use with full backlight illumination

Full System Measurement

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

AT A GLANCE



WIRELESS MANIFOLDS

BLACKMAX® wireless manifolds let you perform select manifold functions from up to 300 feet away and provides additional features not available with standard digital models.

MD50W

MD100W

MD100WVHEC

Configurations






BLACKMAX® Digital Manifolds	Number Of Valves	Wireless or Standard	Thermistor Sensor with 6' leads (MDXCP) x 2	5' Black & Chrome Ball Valve Charging Hoses 3 Pk (HP5BKEZ)	5' Heavy Duty Black & Chrome Vacuum Hose (1) (HV5Z)	Vacuum Gauge Accessory Kit* (MDXVG)	Rechargeable NiMH Battery and Universal Plug Kit** (MDXBK)	Soft Case For All MD Series (MDXSC)
MD50	2	Standard	**Included**			Optional	Optional	Optional
MD50W		**Wireless**	**Included**			Optional	Optional	Optional
MD50HE		Standard	**Included**	**Included**		Optional	Optional	Optional
MD50WHE		**Wireless**	**Included**	**Included**		Optional	Optional	Optional
MD50VHE		Standard	**Included**	**Included**		**Included**	Optional	Optional
MD50WVHE		**Wireless**	**Included**	**Included**		**Included**	Optional	Optional
MD100	4	Standard	**Included**	Optional		Optional	Optional	Optional
MD100W		**Wireless**	**Included**			Optional	Optional	Optional
MD100HE		Standard	**Included**	**Included**	**Included**	Optional	Optional	Optional
MD100WHE		**Wireless**	**Included**	**Included**	**Included**	Optional	Optional	Optional
MD100VHE		Standard	**Included**	**Included**	**Included**	**Included**	Optional	Optional
MD100WVHE		**Wireless**	**Included**	**Included**	**Included**	**Included**	Optional	Optional
MD100WVHEC NEW! CAMO		**Wireless**	**Included**	**Included**	**Included**	**Included**	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.

93 *Refrigerants Stored In Memory

R11	R124	R143	R236FA	R402B	R407D	R412A	R421A	R427A / M089 / FX100	R504
R113	R125	R143A	R245ca	R403A	R407F	R413A / M049	R421B	R428A	R507A
R114	R1270	R152A	R245fa	R403B	R408A	R414A	R422A / M079	R434A	R508A
R115	R13	R176	R290	R404A	R409A	R414B	R422B	R437A / M049PLUS	R508B
R116	R134	R21	R32	R405A	R41	R415A	R422C	R438A / M099	R509A
R12	R134A	R218	R401A	R406A	R410A	R416A	R422D / M029	R500	R600
R123	R13B1	R22	R401B	R407A	R410B	R417A / M059	R423A / 39TC	R501	R600A
R123A	R141B	R23	R401C	R407B	R411A	R418A	R424A	R502	R601
R1234YF	R142B	R236ea	R402A	R407C	R411B	R419A	R425A	R503	R601A
						R420A	R426A		R744 (Sub-critical range only)

* Free periodic app updates will update your manifold with any new refrigerants.

BLACKMAX®

DIGITAL MANIFOLDS

Manifold Specifications

High side pressure range		-14.5 to 800.0 PSIG (-1.0 to 55 bar)
Low side pressure range		-14.5 to 800.0 PSIG (-1.0 to 55 bar)
Pressure reading accuracy		+/- 1% of reading or +/- 0.5 PSIG (+/- 0.05 bar)
Pressure reading resolution		0.5 PSIG (0.05 bar)
High and low side burst pressure		1500.0 PSIG (103.4 bar)
High side temperature range		-58.0 °F to 302 °F (-50 °C to 150°C)
Low side temperature range		-58.0 °F to 302 °F (-50 °C to 150°C)
Temperature reading accuracy		+/- 0.36 °F (+/- 0.2°C)
Vacuum indication accuracy		+/- 10 microns (requires MDXVG accessory)
SH, SC and saturation temperature accuracy		+/- 0.5°F (+/- 0.3°C)
Instrument working temperature		-4.0 °F to 122°F (-20°C to 50°C)
Instrument communication range (with CPS Link™)		300 ft. maximum (Dependent on connected device capabilities)
Instrument working RH range		0% to 100% non-condensing
APO (Automatic Power Off)		10 minutes. Can be disabled by user.
MD100 size (L x H x W)		8.1" x 3.5" x 7.0" (20.5 cm x 8.9 cm x 17.8cm)
MD50 size (L x H x W)		8.1" x 2.5" x 7.0" (20.5 cm x 6.4 cm x 17.8cm)
MD100 weight		3.3 lb. (1.5 kg)
MD50 weight		3.0 lb. (1.4 kg)
Display Life using 4 industrial alkaline AA batteries (included)	**Backlight full ON:**	25+ hrs. continuous duty
	Backlight full OFF:	60+ hrs. continuous duty
Display Life using 4 Rechargeable NiMH AA batteries (not included)	**Backlight full ON:**	20+ hrs. continuous duty from full charge
	Backlight full OFF:	50+ hrs. continuous duty from full charge

MDXVG Vacuum Gauge Specifications

Sensor Type	Self - heated thermistor bridge with integral temperature compensation from 0 to 50 °C (32 to 122 °F).	
Display Pressure Range	AUTO-RANGING SCALES:	
	0 to 99 microns	1 micron resolution
	100 to 990 microns	10 micron resolution
	1000 to 9900 microns	20 micron resolution
	10000 to 25000 microns	50 micron resolution
Accuracy	+/- 10% of reading or +/- 10 microns, whichever is greater	
Operating Temperature Range	Compensated (accuracy as stated): 0°C TO 50°C (32°F TO 122°F)	
	Non-compensated (add +/- 0.5% of reading error for every °C outside compensated range): -10 to 0°C (14 to 32°F)	
Operating and Storage Humidity	0 to 95%, non-condensing	
Storage Temperature	-40 to 85°C (-40 to 185°F)	

MDXBK Charger Specifications

Operating Temperature Range	32°F to 122°F (0°C to 50°C)
Operating and Storage Humidity	0-95%
Power Source	100-240VAC input, 9VDC 2.0 amp maximum output
Battery Type	AA size, NiMH rechargeable, approximate battery life is 20,000 to 50,000 hours*
Rechargeable Battery Cycle Life	1000 recharges *based on usage with or without the LCD backlight energized.

Distinctive Display Box
(With **Clear Window**) for Select MD50W & MD100W Manifolds