BLACK

DIGITAL MANIFOLDS US Patent No. 9,043,161



WIRELESS MANIFOLDS WITH CPS LINK™ APP

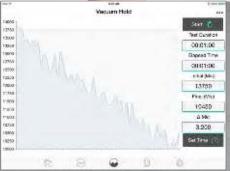
CPS Link™ is a free iOS and Android based mobile application (APP), designed to communicate with and control select functions of BLACKMAX® Digital Wireless Manifolds.

- 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













DIGITAL MANIFOLDS





MD100

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

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.

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



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.



Configurations













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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		Standard	Included			Optional	Optional	Optional
MD50W		Wireless	Included			Optional	Optional	Optional
MD50HE	2	Standard	Included	Included		Optional	Optional	Optional
MD50WHE	2	Wireless	Included	Included		Optional	Optional	Optional
MD50VHE		Standard	Included	Included		Included	Optional	Optional
MD50WVHE		Wireless	Included	Included		Included	Optional	Optional
MD100		Standard	Included	Optional		Optional	Optional	Optional
MD100W		Wireless	Included			Optional	Optional	Optional
MD100HE		Standard	Included	Included	Included	Optional	Optional	Optional
MD100WHE	4	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! GAMO		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
R113	R125
R114	R1270
R115	R13
R116	R134
R12	R134A
R123	R13B1
R123A	R141B
R1234YF	R142R

R143	R236FA
R143A	R245ca
R152A	R245fa
R176	R290
R21	R32
R218	R401A
R22	R401B
R23	R401C
R236ea	R402A

R402B	R407D	R412A
R403A	R407F	R413A
R403B	R408A	R414A
R404A	R409A	R414B
R405A	R41	R415A
R406A	R410A	R416A
R407A	R410B	R417A
R407B	R411A	R418A
R407C	R411B	R419A
		R420A

A	R421A
A / M049	R421B
A	R422A / M079
3	R422B
Ą	R422C
A	R422D / M029
A / M059	R423A / 39TC
Ą	R424A
A	R425A
Ą	R426A

R427A / M089 /	R504
X100	R507A
R428A	R508A
R434A	R508B
R437A /	R509A
M049PLUS	R600
R438A / M099	R600A
R500	B601
R501	B601A
R502	R744 (Sub-critical
R503	range only)

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



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)	
Dienlay Life using A industrial alkaling AA bettering (included)		25+ hrs. continuous duty	
Display Life using 4 industrial alkaline AA batteries (included)	Backlight full OFF:	60+ hrs. continuous duty	
Display Life using 4 Peebargeeble NiMU AA batteries (not included)	Backlight full ON:	20+ hrs. continuous duty from full charge	
Display Life using 4 Rechargeable NiMH AA batteries (not included)	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).			
	AUTO-RANGING SCALES:			
	0 to 99 microns 1 micron resolution			
Display Pressure Range	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			
	Compensated (accuracy as stated): 0°C TO 50°C (32°F TO 122°F)			
Operating Temperature Range Non-compensated (add +/- 0.5% of reading error for every °C outside compensated (add +/- 0.5% of		0.5% of reading error for every °C outside compensated range):		
Operating and Storage Humidity	0 to 95%, non-condensing			
Storage Temperature	-40 to 85°C (-40 to 185°F)			

MDXBK Charger Specifications

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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