



DISTRIBUTING AIR CONDITIONING, REFRIGERATION,
SERVICE TOOLS & EQUIPMENT WORLDWIDE

Corporate Office
Manufacturing and USA Warehouse

For 40 years Mastercool has been supplying professional quality air conditioning service tools and equipment. As one of the fastest growing companies in this market, our primary goal is to drive new product innovation and technologies to make the every day work of the HVAC/R technician easier!

With our never-ending focus on innovation and new technology, Mastercool has been awarded many patents worldwide. Our products are currently being distributed in over 76 countries and growing everyday!

MASTERCool LOCATIONS:

**Corporate Office,
Manufacturing and USA Warehouse**
1 Aspen Drive, Randolph, NJ 07869
USA

European Sales Office and Warehouse
Zone Waas 2334
Laagstraat 19
9140 Temse, Belgium

Brazil Sales Office and Warehouse
Rua Inácio Luis da Costa, 908 Pq. São Domingos
05112-010 - São Paolo - SP - Brasil

Australian Sales Office
3 Tozer Street
Port Macquarie, NSW 2444
Australia



European Sales Office and Warehouse



Brazil Sales Office and Warehouse



Australian Sales Office

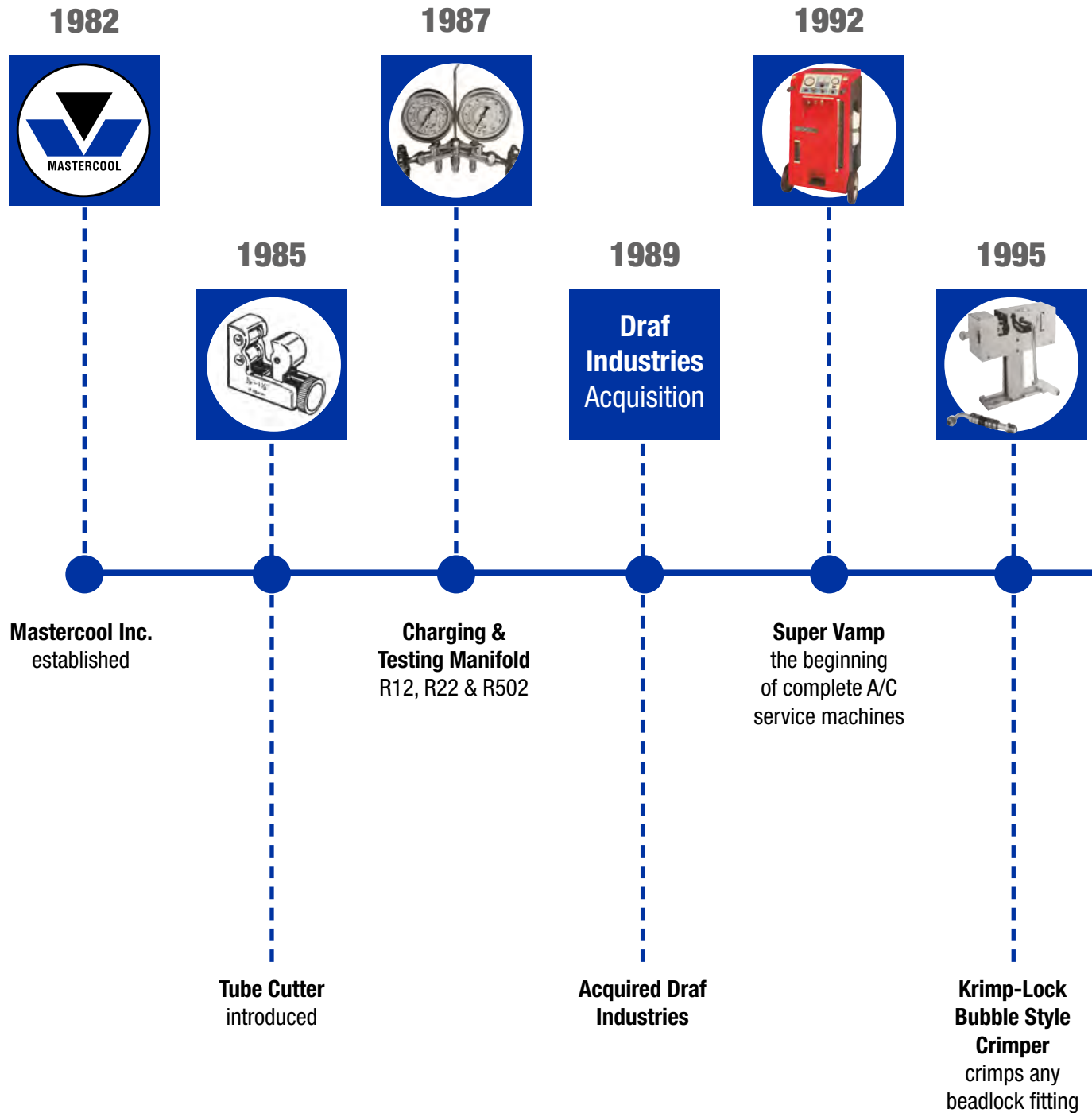


MASTERCool INC. a world leader in supplying professional air conditioning, service tools and equipment is celebrating 40 years since its inception in 1982.

Headquartered in the northeast United States, Mastercool was established with the objective of supplying superior quality products to automotive and HVAC technicians. Mastercool's name has become synonymous with "World Class Quality" and uniquely innovative product design.

Formed as a family owned and operated company, in Randolph, New Jersey, Mastercool has now expanded with offices featuring full inventory and staff in Belgium, Brazil and Australia and distribution to over 76 countries.

The flexibility and support of a privately owned mid-sized company has allowed Mastercool to manufacture all of its products with the highest quality components and management systems. All products are checked and tested directly at our headquarters in





Randolph, New Jersey, USA.

The past few years have been specifically noteworthy with the addition of our Arctic Commander line of recovery/recycle/recharge machines completely designed and assembled in the United States as well as the addition of a line of smart tools utilizing Bluetooth® wireless technology in coordination with our Mastercool Connect app. Adding to our wide range of products by focusing on new technology has always been a primary goal

while driving product innovations to make the every day work of the technician easier.

We would like to thank all of our partners and distributors for their continued support as we celebrate Mastercool's past and look forward to the exciting future ahead.

2002



Hydraulic Tool Line introduced

2003



Mastercool's Belgium Office & Warehouse established

2014



Mastercool's Brazil Office & Warehouse established

2016



Mastercool's Australian Office established

2017














Arctic Commander line of R/R/R machines created

2020









Line of Smart Tools with Bluetooth® Technology launched

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





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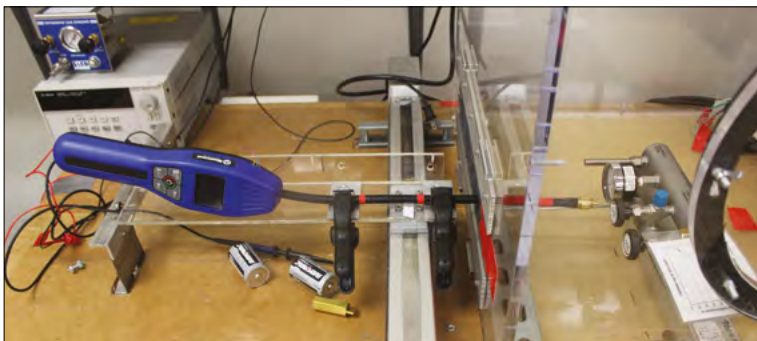
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MASTERCool PRODUCTS ARE MADE/ASSEMBLED IN THE USA



Mastercool manufactures all of its products with the highest quality components and management systems. All products are checked and tested directly at Mastercool headquarters in Randolph, New Jersey, USA.

Our products comply in every respect with the requirements set forth by SAE and EPA Standards as well as ARI Standard 740-98, EU Directives and PROP 65 guidelines.



⚠ All of our products comply with current PROP 65 guidelines, for more information please visit www.mastercool.com



MANIFOLDS

JOIN THE SPARTAN REVOLUTION AND MOVE WITH US INTO THE FUTURE OF A/C DIAGNOSTICS AND SERVICE



4.3" Color LCD provides easy to read diagnostic information



Responsive Touchscreen enables navigation with a quick tap of the finger



Bluetooth® Wireless Technology allows information to be viewed on compatible hand-held smart devices via the Mastercool Connect app

FEATURES:

- CLASS 1.0 GAUGE provides accurate, high quality readings
- 4.3" COLOR TOUCHSCREEN to navigate with a touch of the finger
- PREMIUM BUILT-IN VACUUM SENSOR with a resolution down to 1 micron
- DISPLAYS PRESSURE, VACUUM, TEMPERATURE and will automatically calculate superheat and subcool temperatures
- OVER 60 pre-programmed refrigerants included (see www.mastercool.com for complete list)
- BLUETOOTH® WIRELESS TECHNOLOGY provides communication with the Mastercool Connect app to allow for full mobility as activity can be easily viewed on all compatible hand-held devices
- LOW BATTERY INDICATOR on the LCD shows when battery needs charging
- RECORD AND STORE UP TO 36 HOURS OF DATA to the manifold memory
- OPTIONAL PREMIUM TEMPERATURE CLAMP with K-type connector
- AUTO-OFF AFTER 30 MINUTES of inactivity helps to conserve battery life
- PRESSURE LEAK TEST FUNCTION displays delta for both vacuum and positive pressure measurements
- EASILY SWITCH BETWEEN DIGITAL AND ANALOG depictions of pressure and temperature
- SIMPLE CALIBRATION for ultimate utility

SPECIFICATIONS:

- Gauge: class 1.0
- Pressure display: psi, bar, MPa, kg/cm²
- Temperature display: °F or °C
- Deep vacuum display: micron, mBar, kPa, Pa, Torr, mTorr, mmHg
- Sensing resolution: 1 psi (.07 bar, .007 MPa, .07 kg/cm²)
- Sensing accuracy: ±1 psi or 1% of reading (whichever is greater)
- Working pressure: 0 to 725 psi (50 bar, 5 MPa, 52 kg/cm²)
- Proof pressure: 1000 psi (70 bar, 7 MPa, 70 kg/cm²) (tolerable pressure without internal damage)
- Refrigerant temperature range: -40 to 200°F (-40 to 93°C)
- Operating temperature: 32 to 122°F (0 to 45°C)
- Temperature accuracy: ±1°F (±0.5°C) between 32 to 160°F (0 to 71°C)
- Storage temperature: 10 to 120°F (-12 to 49°C) (non-condensing)
- Vacuum sensor: range 20,000 to 1 micron
- Connections: 1/4" m-flare and 3/8" m-fl (vacuum hose connection (4 way only))
- Power: lithium-ion rechargeable battery (USB type C connector supplied)
- Battery life: 30-36 hours normal use (25-30 hours with bluetooth enabled)
- Auto-off: after 30 minutes, sleep mode 4 minutes

Specifications for Bluetooth® Wireless Technology:

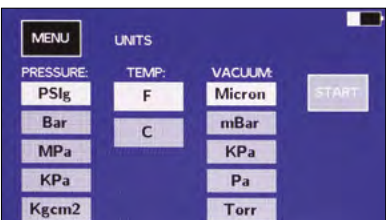
- 260' (80m) maximum line-of-sight range
- Bluetooth® 4.2 and 5



Analog Dashboard



Digital Dashboard



Units Dashboard



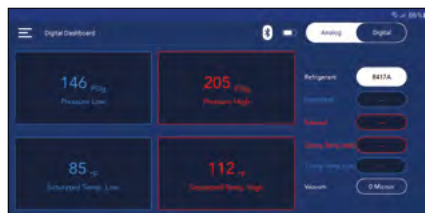
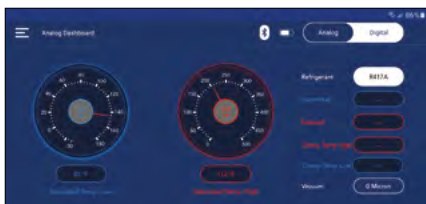
MASTERCOOL CONNECT APP

Simply download the free Mastercool Connect app to begin receiving and analyzing data from any nearby Mastercool Spartan Smart Manifold.



Use the Spartan Smart Manifold and the Mastercool Connect App to:

- Provide all of the manifold's data remotely. Sit back in a comfortable location and watch the system's performance.
- Leak test for both pressure and vacuum. Check on the test's progress while performing other tasks away from the unit.
- Datalog the system's performance for up to 36 hours. Save all of the values of the system's performance throughout the day and overnight without having to manually record them. The app gives you a way to download the information from the manifold and forward the file to your favorite spreadsheet program for analysis.



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SPARTAN SMART MANIFOLD with Bluetooth® Wireless Technology

Mastercool's SPARTAN series smart manifold with Bluetooth® wireless technology is equipped with a 4.3" color touchscreen LCD, allowing the user to navigate through all of the screens and options with a quick tap of their finger. Now with a built-in premium vacuum sensor and an accuracy down to 1 micron, there is no need for additional equipment to properly diagnose and service your A/C system.

SPARTAN 2 WAY SMART MANIFOLD



99923-BT-2



99926-BT-2



99946-BT-2

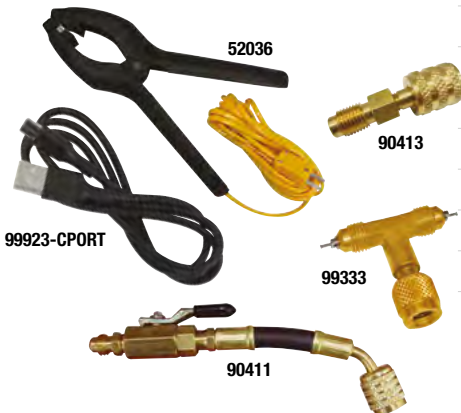
	HOSES	TEMPERATURE CLAMP	BLACK VACUUM HOSE	USB TYPE C CONNECTOR	STRAIGHT ADAPTER FITTING (90413)
99923-BT*	-	-	-	1	-
99923-BT-2*	-	2	-	1	-
High Pressure Hoses with Standard Fittings					
99926-BT**	60"	1	-	1	-
99926-BT-2**	60"	2	-	1	-
99927-BT**	72"	1	-	1	-
99927-BT-2**	72"	2	-	1	-
99926-BT-EU**		1	-	1	2
99927-BT-EU**	72"	1	-	1	2
High Pressure Hoses with Ball Valves At The End					
99926-BT-2BVE**	60"	2	-	1	2

SPARTAN 4 WAY SMART MANIFOLD

99943-BT*	-	-	-	1	-
99943-BT-2 *	-	2	-	1	-
High Pressure Hoses with Standard Fittings					
99946-BT**	60"	1	1	1	-
99946-BT-2**	60"	2	1	1	-
99947-BT**	72"	1	1	1	-
99947-BT-2**	72"	2	1	1	-
99946-BT-EU**	60"	1	1	1	2
99947-BT-EU**	72"	1	1	1	2
High Pressure Hoses with Ball Valves At The End					
99946-BT-2BVE**	60"	2	1	1	2

* packaged in a cardboard box / ** packaged in a blow molded plastic case

OPTIONAL ACCESSORIES



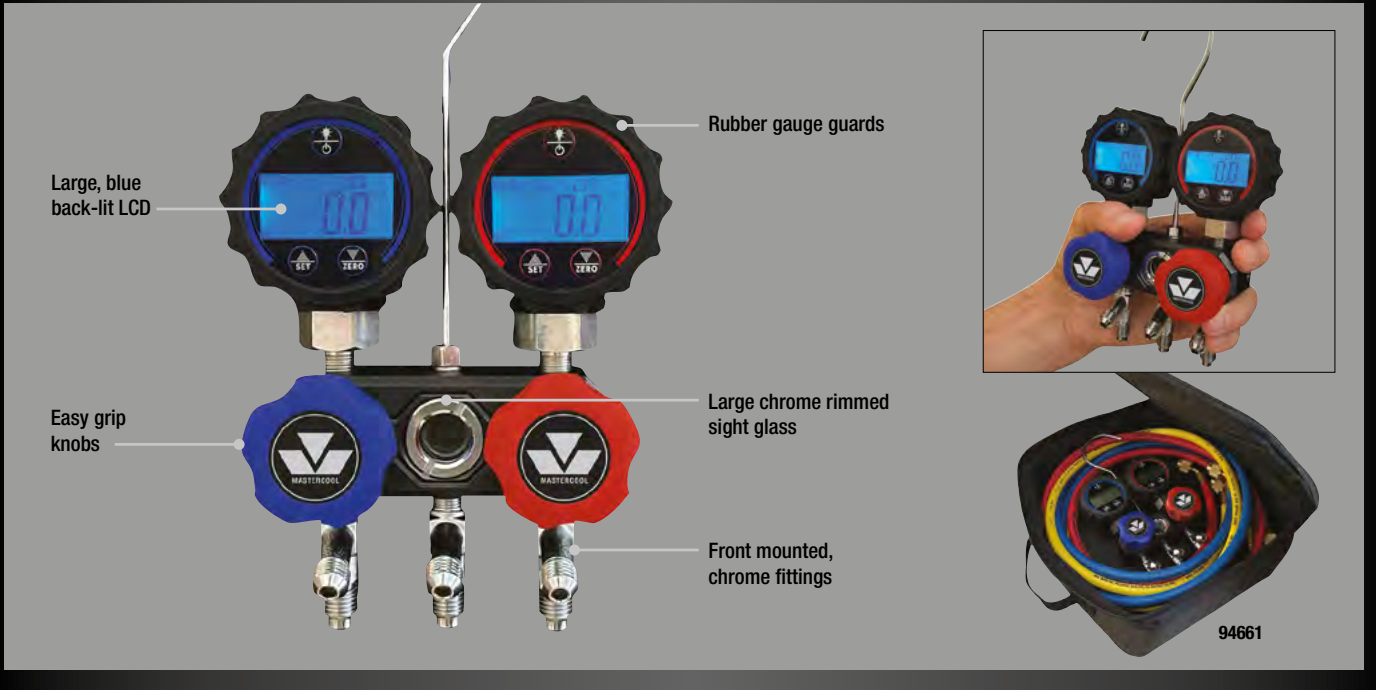
52036	Ergonomic Clamp-on K Type Probe – 3 ft (1 m)
52108	Ergonomic Clamp-on K Type Probe – 10 ft (3 m)
99923-CPORT	USB Type C Cable
90413	R410A Straight Adapter 1/4" FL-M x 5/16" Swivel-F
99332	1/8" NPT x 1/4" -FL Swivel Adapter
90411	1/4" x 5/16" Flex Adapter with Ball Valve
99333	1/4" FL-M x 1/4" FL-M x 1/4" FL-F Tee
99923-PB	Plastic Molded Case

Black Series **Mini-fold** COMPACT 2-WAY ALUMINUM MANIFOLD



COMPACT MANIFOLD, WITH FRONT MOUNTED HOSE HOLDERS, ALLOWS FOR PRECISE CALCULATIONS IN THE PALM OF YOUR HAND

Mastercool's Black Series Mini-fold compact 2-way digital manifold gauge set effortlessly performs pressure and temperature calculations and displays them on a large blue back-lit LCD display. Constructed of the finest materials and machined with precision to the highest quality standards, this compact manifold provides automatic shut-off, units conversion, over range alarm, max and min values and refrigerants selection providing for a powerful tool for the hard-working technician.



FEATURES:

- Compact black anodized aluminum block with matte chrome fittings offer an extremely portable solution to fit the needs of every busy technician
- Easily perform pressure/temperature calculations for up to 91 different refrigerants including R134a, R410a and R22 refrigerants
- Unit conversion between MPa, kPa, bar, psi, kg/m2, inHg
- Large 4-digit "blue" back-lit LCD display provides vibrant readings in even the darkest of environments
- Displays alarm indication when over range, celcius or fahrenheit designation and low battery warning directly on the LCD screen
- Large sight glass for quick visual refrigerant checks
- Easy to grip knobs

INCLUDED REFRIGERANTS:

R11, R113, R114, R115, R116, R12, R123, R1234yf, R1234ze, R124, R125, R13, R134a, R14, R141B, R142B, R413A, R152A, R161, R170, R21, R218, R22, R23, R290, R32, R401A, R401B, R401C, R402A, R402B, R403A, R403B, R404A, R406A, R407A, R407B, R407C, R407D, R407E, R407F, R408A, R409A, R409B, R41, R410A, R410B, R412A, R413A, R414A, R414B, R415B, R416A, R417A, R419A, R420A, R421A, R421B, R422A, R422B, R422C, R422D, R423A, R427A, R437A, R441A, R442A, R443A, R444A, R448A, R449A, R449B, R450A, R452A, R455A, R50, R500, R502, R503, R504, R507A, R508A, R508B, R509A, R513A, R600, R600a, R601, R601a, R740, R744

- 1/4" SAE flare fittings
- Front facing hose holder
- Packaged in a zippered carry case

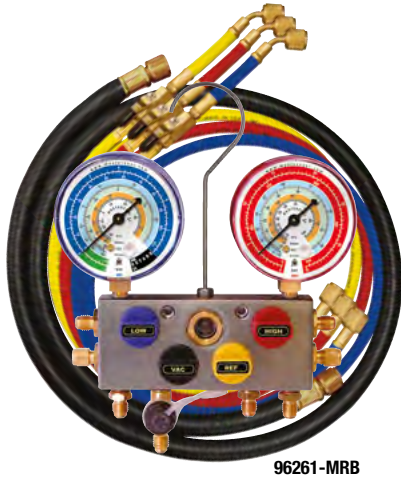
SPECIFICATIONS:

- Pressure range:
 - Low pressure range: -14.5 – 500 psi (-0.1 – 3.4 MPa)
 - High pressure range: -14.5 – 800 psi (-0.1 – 5.5 MPa)
- Resolution: 0.5 psi
- Accuracy: +/-0.5% FS
- Measurement units: MPA, kPa, bar, psi, kg/cm2, inHg
- Temperature units: °C/°F
- Over range alarm: display -OL-
- Operating temperature: -10°C to 60°C
- Battery: CR2450
- Battery life: approximately 6 months
- Sampling rate: 1 second
- Low battery indication: icon on LCD
- Display: 30 mm x 17 mm LCD
- Blue back-light: auto-off after 6 seconds

Compact Manifold with gauges only	94103
Compact Manifold with 3-150 cm high pressure hoses	94661
Compact Manifold with 3-150 cm high pressure hoses with ball valves	94261
Compact Manifold with 3-150 cm high pressure hoses with in-line ball valve (red and blue 1/4" x 5/16", yellow 1/4" x 1/4")	94261-JT

* Manifolds assembled with ball valves at the end of hoses, add a -E

3/8" BORE 4-WAY BALL VALVE MANIFOLD

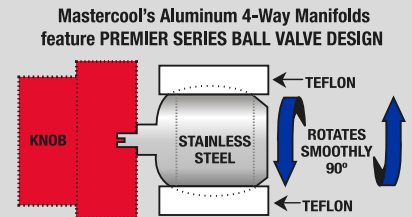
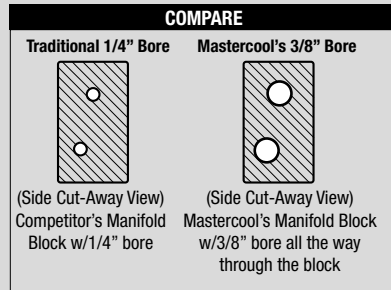


CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

Mastercool is the leading manufacturer of professional quality A/C manifold gauge sets. Our manifold gauge sets are constructed of the finest materials and machined with precision to the highest quality standards. At Mastercool, every manifold we build is built to last.

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

- Full 3/8" bore through the block increases flow considerably, providing faster charging & recovery
- Ball valve rotates 90° between two teflon washers requiring little effort to turn, even under pressure
- Opens and closes quickly with only a quarter turn
- Knob position shows whether valves are open or closed (Vertical = OPEN, Horizontal = CLOSED)



All fittings 1/4" SAE, tee with branch 3/8"
Assemblies packed in custom molded plastic carrying case, p/n 86772-PB

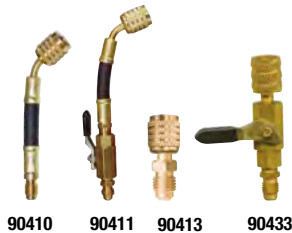
Gauge class – diameter			
Units	Bar/°C	Bar/PSI/°C	Bar/°C
Refrigerant scales	R134a, R404A, R407C, R22, R507A	R410A, R407C, R22	R22, R422A, R427A, R422D, R417A
Gauge p/n (HP/LP)	MBH - MBL	EBH - EBL	EBRL - EBRH
Manifold body only	95102	95102	95102
Manifold with gauges only	96203-MB	96203-EB	96203-EBR
Manifold (as above) with 3-150 cm ball valve hoses (p/n 49262-60) + 1 - 150 cm black 3/8" hose (p/n 94160)	96261-MB	96261-EB	96261-EBR
Manifold (as above) with 3-180 cm ball valve hoses (p/n 49262-72) + 1 - 180 cm black 3/8" hose (p/n 94172)	96272-MB	96272-EB	96272-EBR

* Manifolds assembled with teflon gasket hoses, add a -T

* Manifolds assembled with ball valves at the end of hoses, add a -E

OPTIONAL 1/4 X 5/16" ADAPTERS

For all manifolds ending in -E, -EB and -EB1 add the suffix



-410 to include 2 pieces of 90410 flex adapters to convert 1/4 SAE hose into 5/16 SAE

-411 to include 2 pieces of 90411 flex adapters with ball valve to convert 1/4 SAE hose into 5/16 SAE

-413 to include 2 pieces of 90413 straight adapter fittings to convert 1/4 to 5/16 SAE

-433 to include 2 pieces of 90433 adapter with fittings to convert 1/4 to 5/16 SAE

4-WAY BALL VALVE MANIFOLD FOR AUTOMOTIVE A/C



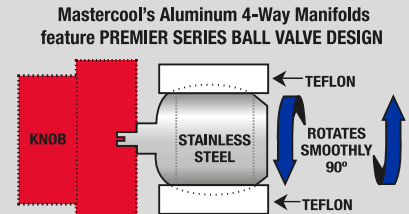
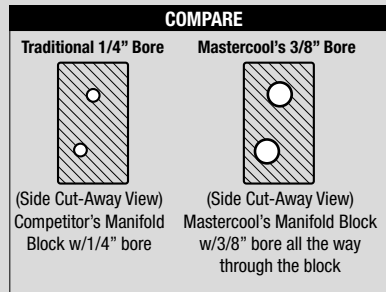
86972-MRB

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Mastercool is the leading manufacturer of professional quality A/C manifold gauge sets. Our manifold gauge sets are constructed of the finest materials and machined with precision to the highest quality standards. At Mastercool, every manifold we build is built to last.

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

- Full 3/8" bore through the block increases flow considerably, providing faster charging & recovery
- Ball valve rotates 90° between two teflon washers requiring little effort to turn, even under pressure
- Opens and closes quickly with only a quarter turn
- Knob position shows whether valves are open or closed (Vertical = OPEN, Horizontal = CLOSED)



All fittings 1/4" SAE, blind connections for automotive quick couplers.

Assemblies packed in custom molded carrying case, inclusive quick couplers (p/n 82834-E and 82934-E)

Gauge class – diameter	1.6 - 80 mm	
	Bar/°C	Bar/PSI/°C
Units	R134a, R404A, R407C, R507A, R22	R134a, R22, R12, R404A
Refrigerant scales	MBH - MBL	MRBH - MRBL
Gauge p/n (HP/LP)	86102-1/4	86103-1/4
Manifold body only, 1/4"	86103-MB	86103-MRB
Manifold with gauges only	86572-MB	86572-MRB
Manifold with 3-180 cm 1/4" hoses (p/n 40372) + (1) 180 cm black 1/4" hose (p/n 47724) - No quick couplers	86972-MB	86972-MRB
Manifold with 3-180 cm 1/4" hoses (p/n 40372) + (1) 180 cm black 1/4" hose (p/n 47724) - Manual quick couplers	86596-MB	86596-MRB
Manifold with 3-250 cm 1/4" hoses (p/n 40396) + (1) 250 cm black 1/4" hose (p/n 47964) - No quick couplers	86996-MB	86996-MRB
Manifold with 3-250 cm 1/4" hoses (p/n 40396) + (1) 250 cm black 1/4" hose (p/n 47964) - Manual quick couplers		

* Manifolds assembled with teflon gasket hoses, add a -T

* Manifolds assembled with ball valves at the end of hoses, add a -E

2-WAY SIGHT GLASS MANIFOLD – BALL VALVES



57261-MR

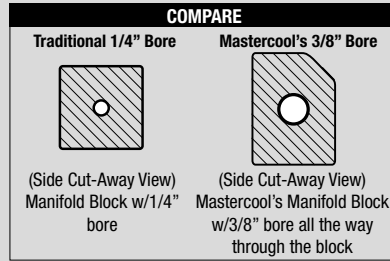


90530

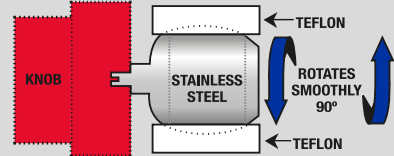
Optional 90° 3/8" swivel ball valve (90530) for 3/8" vacuum, makes 2-valve into 3-valve full control 4-way manifold

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

- Full 3/8" bore all the way through the block increases flow considerably providing faster charging and time savings
- Ball valve rotates 90° between two teflon washers requiring little effort to turn, even under pressure
- Opens and closes quickly with only a quarter turn
- Knob position shows whether valves are open or closed
- Includes nylon barrier GY5 hoses with manual ball valves
- Assemblies packed in plastic carrying case. Plastic carrying case, p/n 58102-PBR



Mastercool's Aluminum 2-Way Manifolds feature PREMIER SERIES BALL VALVE DESIGN



1.6 GAUGE CLASS - 63 MM DIAMETER

Units	Bar/PSI/°C	Bar/PSI/°C	Bar/°C
Refrigerant scales	R410A, R507, R404A, R22	R134a, R22, R12, R404A	R134, R404A, R407C, R22, R507A
Gauge p/n (HP/LP)	EH - EL	MRH - MRL	MH - ML
Hoses 1/4" SAE	nylon barrier with in-line ball valve		
Manifold with gauges 2 x 1/4" fittings + central tee 1/4" SAE with branch 3/8"	58103-E	58103-MR	58103-M
Manifold with 3-90 cm ball valve hoses	57236-E	57236-MR	57236-M
Manifold with 3-150 cm ball valve hoses	57261-E	57261-MR	57261-M
Manifold with 3-180 cm ball valve hoses	57272-E	57272-MR	57272-M
R410A manifold with 3-150 cm nylon barrier with in-line ball valve - red and blue 1/4" x 5/16", yellow 1/4" x 1/4" hoses	57261-E-JT	-	-

1.6 GAUGE CLASS - 80 MM DIAMETER

Units	Bar/PSI/°C	Bar/°C	Bar/°C
Refrigerant scales	R410A, R407C, R22	R134, R404A, R407C, R22, R507A	R22, R422A, R427A, R422D, R417A
Gauge p/n (HP/LP)	EBH - EBL	MBH - MBL	EBRL - EBRH
Hoses 1/4" SAE	nylon barrier with in-line ball valve		
Manifold with gauges 2 x 1/4" fittings + central tee 1/4" SAE with branch 3/8"	58103-EB	58103-MB	58103-EBR
Manifold with 3-90 cm ball valve hoses	57236-EB	57236-MB	57236-EBR
Manifold with 3-150 cm ball valve hoses	57261-EB	57261-MB	57261-EBR
Manifold with 3-180 cm ball valve hoses	57272-EB	57272-MB	57272-EBR
R410A manifold with 3-150 cm nylon barrier with in-line ball valve - red and blue 1/4" x 5/16", yellow 1/4" x 1/4" hoses	57261-EB-JT	-	-

* Manifolds assembled with teflon gasket hoses, add a -T

* Manifolds assembled with ball valves at the end of hoses, add a -E

OPTIONAL 1/4 X 5/16" ADAPTERS

For all manifolds ending in -E, -EB and -EB1 add the suffix



90410

90411

90413

90433

-410 to include 2 pieces of 90410 flex adapters to convert 1/4 SAE hose into 5/16 SAE

-411 to include 2 pieces of 90411 flex adapters with ball valve to convert 1/4 SAE hose into 5/16 SAE

-413 to include 2 pieces of 90413 straight adapter fittings to convert 1/4 to 5/16 SAE

-433 to include 2 pieces of 90433 adapter with fittings to convert 1/4 to 5/16 SAE



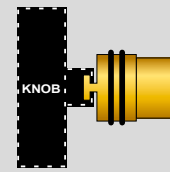
2-WAY ALUMINUM MANIFOLD – PISTON VALVES



CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

- Our free floating piston valve results in less wear and tear in comparison to market standard twisting piston valves
- Double o-ring allows for a much better seal resulting in less leaks



Mastercool's 2-Way Manifolds feature FREE FLOATING PISTON VALVE DESIGN

1.6 GAUGE CLASS - 63 MM DIAMETER

Units	Bar/PSI/°C	Bar/PSI/°C	Bar/°C
Refrigerant scales	R410A, R507A, R404A, R22	R134a, R22, R12, R404A	R134a, R404A, R407C, R22, R507A
Gauge p/n (HP/LP)	EH - EL	MRH - MRL	MH - ML
Hoses 1/4" SAE	standard		
Manifold with gauges, fittings + central tee 1/4" SAE	93103-E	93103-MR	93103-M
Manifold with 3-90 cm hoses	93636-E	93636-MR	93636-M
Manifold with 3-150 cm hoses	93661-E	93661-MR	93661-M
Manifold with 3-150 cm ball valve hoses	92661-E	92661-MR	92661-M
Manifold with 3-180 cm hoses	93772-E	93772-MR	93772-M
R410 manifold with 3-150 cm standard with in-line ball valve - red and blue 1/4" x 5/16", yellow 1/4" x 1/4" hoses	92661-E-JT	-	-

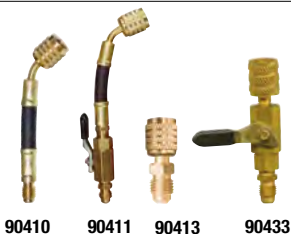
1.6 GAUGE CLASS - 80 MM DIAMETER

Units	Bar/PSI/°C	Bar/PSI/°C	Bar/°C	Bar/°C
Refrigerant scales	R410A, R407C, R22	R134a, R22, R12, R404A	R134a, R404A, R407C, R22, R507A	R22, R422A, R407C, R22, R507A
Gauge p/n (HP/LP)	EBH - EBL	MRBH - MRBL	MBH - MBL	EBRL - EBRH
Hoses 1/4" SAE	standard			
Manifold with gauges, fittings + central tee 1/4" SAE	93103-EB	93103-MRB	93103-MB	93103-EBR
Manifold with 3-90 cm hoses	93636-EB	93636-MRB	93636-MB	93636-EBR
Manifold with 3-150 cm hoses	93661-EB	93661-MRB	93661-MB	93661-EBR
Manifold with 3-150 cm ball valve hoses	92661-EB	92661-MRB	92661-MB	92661-EBR
Manifold with 3-180 cm hoses	93772-EB	93772-MRB	93772-MB	93772-EBR
R410 manifold with 3-150 cm standard with in-line ball valve - red and blue 1/4" x 5/16", yellow 1/4" x 1/4" hoses	92661-EB-JT	-	-	-

* Manifolds assembled with teflon gasket hoses, add a -T
 * Manifolds assembled with ball valves at the end of hoses, add a -E
 * For packaging please see page 20

OPTIONAL 1/4 X 5/16" ADAPTERS

For all manifolds ending in -E, -EB and -EB1 add the suffix



-410 to include 2 pieces of 90410 flex adapters to convert 1/4 SAE hose into 5/16 SAE

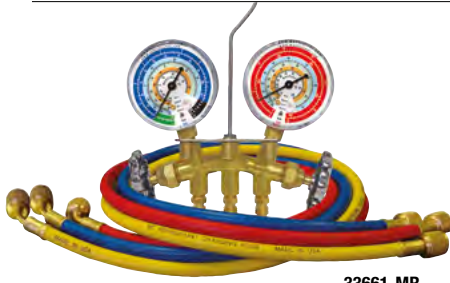
-411 to include 2 pieces of 90411 flex adapters with ball valve to convert 1/4 SAE hose into 5/16 SAE

-413 to include 2 pieces of 90413 straight adapter fittings to convert 1/4 to 5/16 SAE

-433 to include 2 pieces of 90433 adapter with fittings to convert 1/4 to 5/16 SAE



2-WAY BRASS MANIFOLD – PISTON VALVES

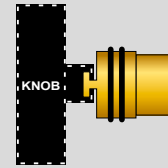


33661-MR

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

- Our free floating piston valve results in less wear and tear in comparison to market standard twisting piston valves
- Double o-ring allows for a much better seal resulting in less leaks



Mastercool's
2-Way Manifolds
feature
**FREE FLOATING PISTON
VALVE DESIGN**

1.6 GAUGE CLASS - 63 MM DIAMETER

Unit	Bar/PSI/°C	Bar/PSI/°C	Bar/°C
Refrigerant scales	R410A, R507A, R404A, R22	R134a, R22, R12, R404A	R134a, R404A, R407C, R22, R507A
Gauge p/n (HP/LP)	EH - EL	MRH - MRL	MH - ML
Hoses 1/4" SAE	standard		
Manifold with gauges, 3 x 1/4" SAE fittings	33103-E	33103-MR	33103-M
Manifold with 3-90 cm hoses	33636-E	33636-MR	33636-M
Manifold with 3-150 cm hoses	33661-E	33661-MR	33661-M
Manifold with 3-150 cm ball valve hoses	32661-E	32661-MR	32661-M
Manifold with 3-180 cm hoses	33772-E	33772-MR	33772-M
R410 manifold with 3-150 cm standard with in-line ball valve - red and blue 1/4" x 5/16", yellow 1/4" x 1/4" hoses	33661-E-JT	-	-

1.6 GAUGE CLASS - 80 MM DIAMETER

Unit	Bar/PSI/°C	Bar/PSI/°C	Bar/°C	Bar/°C
Refrigerant scales	R410A, R407C, R22	R134a, R22, R12, R404A	R134a, R404A, R407C, R22, R507A	R22, R422A, R427A, R422D, R417A
Gauge p/n (HP/LP)	EBH - EBL	MRBH - MRBL	MBH - MBL	EBRL - EBRH
Hoses 1/4" SAE	standard			
Manifold with gauges, 3 x 1/4" SAE fittings	33103-EB	33103-MRB	33103-MB	33103-EBR
Manifold with 3-90 cm hoses	33636-EB	33636-MRB	33636-MB	33636-EBR
Manifold with 3-150 cm hoses	33661-EB	33661-MRB	33661-MB	33661-EBR
Manifold with 3-150 cm ball valve hoses	32661-EB	32661-MRB	32661-MB	32661-EBR
Manifold with 3-180 cm hoses	33772-EB	33772-MRB	33772-MB	33772-EBR
R410 manifold with 3-150 cm standard with in-line ball valve - red and blue 1/4" x 5/16", yellow 1/4" x 1/4" hoses	32661-EB-JT	-	-	-

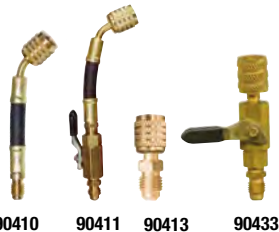
* Manifolds assembled with teflon gasket hoses, add a -T

* Manifolds assembled with ball valves at the end of hoses, add a -E

* For packaging please see page 20

OPTIONAL 1/4 X 5/16" ADAPTERS

For all manifolds ending in -E, -EB and -EB1 add the suffix



90410

90411

90413

90433

-410 to include 2 pieces of 90410 flex adapters to convert 1/4 SAE hose into 5/16 SAE

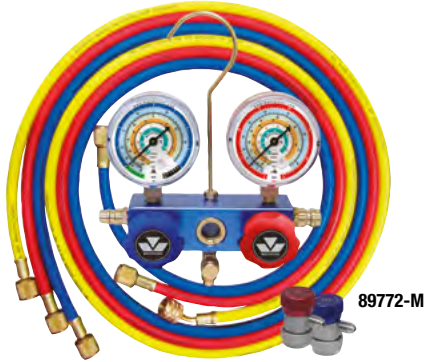
-411 to include 2 pieces of 90411 flex adapters with ball valve to convert 1/4 SAE hose into 5/16 SAE

-413 to include 2 pieces of 90413 straight adapter fittings to convert 1/4 to 5/16 SAE

-433 to include 2 pieces of 90433 adapter with fittings to convert 1/4 to 5/16 SAE



2-WAY PISTON VALVE MANIFOLD FOR AUTOMOTIVE A/C - R134a



CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

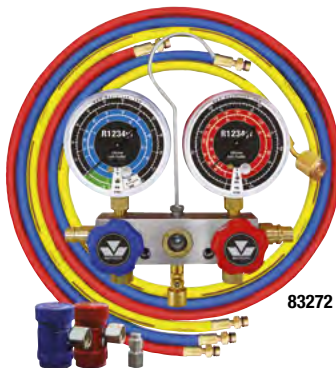
- Free floating piston valve results in less wear and tear in comparison to market standard twisting piston valves
- Double o-ring allows for a much better seal resulting in less leaks
- Solid extruded aluminum body
- Extra access port for vacuum line
- Silicone dampened gauges smooth out needle movement
- Gauges can be easily re-calibrated in the field to maintain accuracy
- Extra large sight glass for visual refrigerant check
- Large easy-to-grip knobs

Gauge class – diameter	1.6 - 63 mm	1.6 - 80 mm	
Units	Bar/°C	Bar/°C	Bar/PSI/°C
Refrigerant scales	R134a, R404A, R407C, R22, R507A	R134a, R404A, R407C, R22, R507A	R134a, R22, R12, R404A
Gauge p/n (HP/LP)	MH - ML	MBH - MBL	MRBH - MRBL
Manifold body only (1/4" SAE)	85102-1/4	85102-1/4	85102-1/4
Manifold with gauges only (1/4" SAE)	85103-M	85103-MB	85103-MRB
Manifold (as above) with 3-180 cm hoses, 1/4" SAE (p/n 40372) w/quick couplers (p/n 82834-E & 82934-E)	89772-M	89772-MB	89772-MRB
Manifold (as above) with 3-250 cm hoses, 1/4" SAE (p/n 40396) w/quick couplers (p/n 82834-E & 82934-E)	89996-M	89996-MB	89996-MRB

* For packaging please see page 20



2-WAY PISTON VALVE MANIFOLD FOR AUTOMOTIVE A/C - R1234yf



CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

- Anti-flutter gauges smooth out needle movement
- Easy to read temperature scales on gauge face
- Easy to recalibrate gauges to insure accuracy
- Extra large sight glass for visual checks of refrigerant
- Easy grip front-facing knobs
- Piston type free-floating valves reduce o-ring wear
- Manifold block assembled with (3) 12 mm-F fittings per SAE J2888
- Red & blue nylon barrier hoses with 12 mm-M fittings on both sides meets SAE J2888, EPA, SAE & UL standards
- Yellow hose 12 mm fitting on one side and 1/2 x 16 ACME LH on the other meets SAE J2888
- R1234yf high and low side couplers with extended disconnect protection sleeve meets SAE J639 & J2888

Gauge class – diameter	1.6 - 80 mm
Unit	Bar/PSI
Refrigerant scales	R1234yf
Gauge p/n (HP/LP)	87500-87350
Manifold with gauges, 3 x 12 mm-F fittings	83102
Manifold with 3-180 cm hoses and R1234yf couplers packaged in a clam shell	83272

83634-M VACUUM PUMP ADAPTER FITTING



1/4 FL-F x 1/2 ACME LH male vacuum pump adapter fitting for R1234yf systems



2-WAY ALUMINUM MANIFOLD – PISTON VALVES – CLASS 1.0 GAUGES



93661-EB1



93661-MRB1

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

- Our free floating piston valve results in less wear and tear in comparison to market standard twisting piston valves
- Double o-ring allows for a much better seal resulting in less leaks

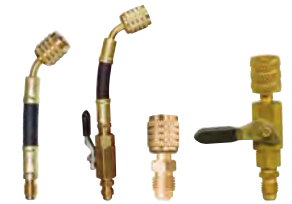
1.0 GAUGE CLASS - 80 MM DIAMETER

Units	Bar/PSI/°C	Bar/PSI/°C	Bar/PSI/°C
Refrigerant scales	R22	R22	R455A
	R407C	R404A	R448A
	R32	R407F	R449A
	R410A	R134a	R452A
Gauge p/n (HP/LP)	EBH1 EBL1	MRBH1 MRBL1	MNBH1 MNBL1
Hoses 1/4" SAE	standard		
Manifold with gauges, fittings + central tee 1/4" SAE	93103-EB1	93103-MRB1	93103-MNB1
Manifold with 3-90 cm hoses	93636-EB1	93636-MRB1	93636-MNB1
Manifold with 3-150 cm hoses	93661-EB1	93661-MRB1	93661-MNB1
Manifold with 3-150 cm ball valve hoses	92661-EB1	92661-MRB1	92661-MNB1
Manifold with 3-180 cm hoses	93772-EB1	93772-MRB1	93772-MNB1
R410 manifold with 3-150 cm standard with in-line ball valve - red and blue 1/4" x 5/16", yellow 1/4" x 1/4" hoses	92661-EB1-JT	-	-

- * Manifolds assembled with teflon gasket hoses, add a -T
- * Manifolds assembled with ball valves at the end of hoses, add a -E
- * For packaging please see below

OPTIONAL 1/4 X 5/16" ADAPTERS

For all manifolds ending in -E, -EB and -EB1 add the suffix



90410 90411 90413 90433

- 410 to include 2 pieces of 90410 flex adapters to convert 1/4 SAE hose into 5/16 SAE
- 411 to include 2 pieces of 90411 flex adapters with ball valve to convert 1/4 SAE hose into 5/16 SAE
- 413 to include 2 pieces of 90413 straight adapter fittings to convert 1/4 to 5/16 SAE
- 433 to include 2 pieces of 90433 adapter with fittings to convert 1/4 to 5/16 SAE

*Packaging Note



clamshell cardboard box 58102-PBR

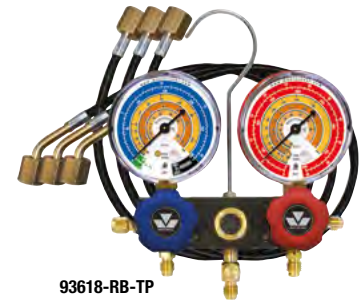
- All piston valve 2-way manifold gauge sets are packaged in a clamshell
- European standard packaging - cardboard box
- For plastic carrying case, please order Part# 58102-PBR



2-WAY ALUMINUM MANIFOLD – PISTON VALVES – ISOBUTANE GAUGES



93661-RB



93618-RB-TP

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

1.6 GAUGE CLASS - 80 MM DIAMETER

Units	Bar/PSI/°C
Refrigerant scales	R1270, R290, R600a
Gauge p/n (HP/LP)	RBH - RBL
Manifold with gauges, fittings + central tee 1/4" SAE	93103-RB
Manifold with 3-90 cm 1/4" SAE standard hoses	93636-RB
Manifold with 3-150 cm 1/4" SAE standard hoses	93661-RB
Manifold with 3-150 cm 1/4" SAE standard hoses with ball valves	92661-RB
Manifold with 3-180 cm 1/4" SAE standard hoses	93772-RB
Manifold with 3-45 cm thermoplastic capillary hoses with straight x 45° fittings with depressor for maximum precision on small capacity systems	93618-RB-TP
Manifold with 3-60 cm thermoplastic capillary hoses with straight x 45° fittings with depressor for maximum precision on small capacity systems	93624-RB-TP

* Manifolds assembled with teflon gasket hoses, add a -T (standard hoses only)

* Manifolds assembled with standard ball valves at the end of hoses, add a -E (standard hoses only)

* For packaging please see page 20



2-WAY PISTON VALVE MANIFOLD FOR CO2 (R744)

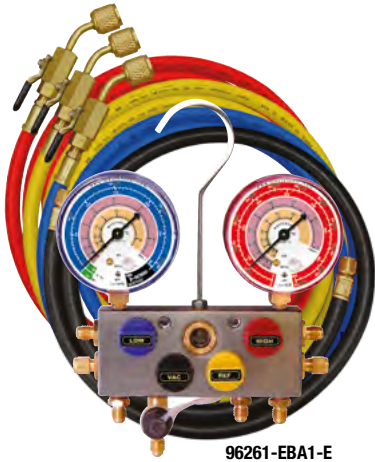


CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

- Our free floating piston valve results in less wear and tear in comparison to market standard twisting piston valves
- Double o-ring allows for a much better seal resulting in less leaks
- Oil filled, class 1.0, 70 mm gauges
- Low side gauge max pressure of 10 MPA (1400 PSI), high side gauge max pressure of 16 MPA (2400 PSI)
- E-Z to read pressure scales on gauge face
- Solid extruded aluminum body
- Large easy-to-grip-knobs
- 1/4" SAE
- Steel braided hoses for CO2 with 200 bar working pressure and 800 bar burst
- Assemblies packed in plastic carrying case
- Plastic carrying case, p/n 58102-PBR

Gauge class – diameter	1.0 - 70 mm
Units	PSI/MPa
Refrigerant scales	R744
Gauge p/n (HP/LP)	55102-2400 55102-1400
Manifold with oil filled gauges only (1/4" SAE)	55103
Manifold (as above) with 3-150 cm braided hoses	55661

3/8" BORE 4-WAY BALL VALVE MANIFOLD - R410A & R32



96261-EBA1-E

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

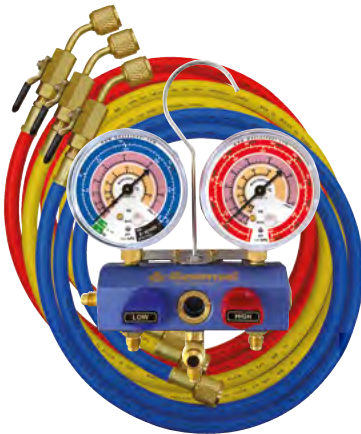
All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

- Includes a set of R32/R410A nylon barrier hoses with manual ball valves at the end (red/blue 1/4 x 5/16", yellow 1/4 x 1/4") and one 3/8" SAE black vacuum hose
- Packaged in a plastic case

1.0 GAUGE CLASS - 80 MM DIAMETER

Units	Bar/PSI/°C
Refrigerant scales	R32, R410A
Gauge p/n (HP/LP)	EBAL1 - EBAH1
Manifold with gauges	96203-EBA1
Manifold with 3-90 cm hoses	96236-EBA1-JT-E
Manifold with 3-150 cm hoses	96261-EBA1-JT-E

3/8" BORE 2-3-WAY BALL VALVE MANIFOLD - R410A & R32



57261-EBA1-E

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

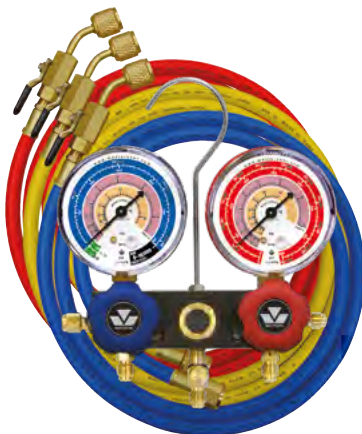
All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

- Includes a set of R32/R410A nylon barrier hoses with manual ball valves at the end (red/blue 1/4 x 5/16", yellow 1/4 x 1/4")
- Packaged in a plastic case

1.0 GAUGE CLASS - 80 MM DIAMETER

Units	Bar/PSI/°C
Refrigerant scales	R32, R410A
Gauge p/n (HP/LP)	EBAL1 - EBAH1
Manifold with gauges	58103-EBA1
Manifold with 3-90 cm hoses	57236-EBA1-JT-E
Manifold with 3-150 cm hoses	57261-EBA1-JT-E
Manifold with 3-180 cm hoses	57272-EBA1-JT-E

2-WAY PISTON VALVE MANIFOLD - R410A & R32



92661-EBA1-E

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

- Packaged in a plastic case

1.0 GAUGE CLASS - 80 MM DIAMETER

Units	Bar/PSI/°C	
Refrigerant scales	R32, R410A	
Gauge p/n (HP/LP)	EBAL1 - EBAH1	
Manifold with gauges	93103-EBA1	
Hoses	nylon barrier R32/R410 hoses	nylon barrier R32/R410 hoses with ball valves (red/blue 1/4 x 5/16", yellow 1/4 x 1/4")
Manifold with 3-90 cm hoses	93636-EBA1	92636-EBA1-JT-E
Manifold with 3-150 cm hoses	93661-EBA1	92661-EBA1-JT-E
Manifold with 3-180 cm hoses	93772-EBA1	92772-EBA1-JT-E

* All gauges above are available with shock resistant gauge protectors – to order, add -G after the Part#



1/4" SINGLE VALVE MANIFOLD – BALL VALVE



CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST
(packaged in a clamshell)

Single Valve Manifold	Gauge Class Diameter	Unit	Refrigerant Scales	Gauge p/n (HP/LP)
92103-EL	1.6 63 mm	Bar/PSI/°C	R410A, R507A, R404A, R22	EL
92103-MRL		Bar/PSI/°C	R134a, R22, R12, R404A	MRL
92103-ML		Bar/°C	R134a, R404A, R407C, R22, R507A	ML
92103-EBL	1.6 80 mm	Bar/PSI/°C	R410A, R407C, R22	EBL
92103-MRBL		Bar/PSI/°C	R134a, R22, R12, R404A	MRBL
92103-MBL		Bar/°C	R134a, R404A, R407C, R22, R507A	MBL
92103-EBRL		Bar/°C	R22, R422A, R427A, R422D, R417A	EBRL
92103-RB	1.0 80 mm	Bar/PSI/°C	R1270, R290, R600a	RBL
92103-MRB1		Bar/PSI/°C	R22, R404A, R407F, R134a	MRBL1
92103-EB1		Bar/PSI/°C	R22, R407C, R32, R410A	EBL1
NEW 92103-EBAL1		Bar/kPA/PSI/°C	R410A, R32	EBAL1
NEW 92103-EBAH1		Bar/kPA/PSI/°C	R410A, R32	EBAH1

* Manifolds assembled with gauge guards, add a -G

5/16" SINGLE VALVE MANIFOLD – BALL VALVE



CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST
(packaged in a clamshell)

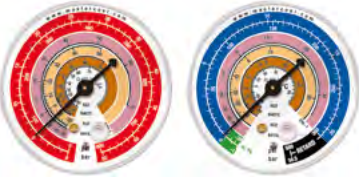

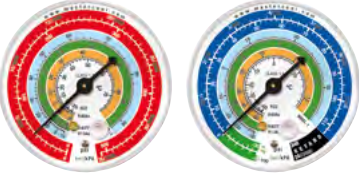
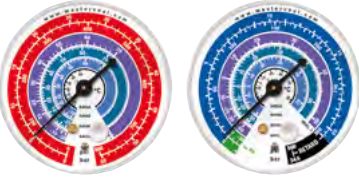

Single Valve Manifold	Gauge Class Diameter	Unit	Refrigerant Scales	Gauge p/n (HP/LP)
92103-EL-5/16	1.6 63 mm	Bar/PSI/°C	R410A, R507A, R404A, R22	EL
92103-MRL-5/16		Bar/PSI/°C	R134a, R22, R12, R404A	MRL
92103-ML-5/16		Bar/°C	R134a, R404A, R407C, R22, R507A	ML
92103-EBL-5/16	1.6 80 mm	Bar/PSI/°C	R410A, R407C, R22	EBL
92103-MRBL-5/16		Bar/PSI/°C	R134a, R22, R12, R404A	MRBL
92103-MBL-5/16		Bar/°C	R134a, R404A, R407C, R22, R507A	MBL
92103-EBRL-5/16		Bar/°C	R22, R422A, R427A, R422D, R417A	EBRL
92103-RB-5/16	1.0 80 mm	Bar/PSI/°C	R1270, R290, R600a	RBL
92103-MRB1-5/16		Bar/PSI/°C	R22, R404A, R407F, R134a	MRBL1
92103-EB1-5/16		Bar/PSI/°C	R22, R407C, R32, R410A	EBL1
NEW 92103-EBAL1-5/16		Bar/kPA/PSI/°C	R410A, R32	EBAL1
NEW 92103-EBAH1-5/16		Bar/kPA/PSI/°C	R410A, R32	EBAH1

* Manifolds assembled with gauge guards, add a -G

CLASS 1.6 REPLACEMENT GAUGES

	High pressure p/n	Low pressure p/n	Gauge diameter	Units	Refrigerant scales
	MH	ML	63 mm	Bar/°C	R134a R404A R407C R22 R507A
	MRH	MRL	63 mm	Bar/PSI/°C	R134a R22 R404A R12
	EH	EL	63 mm	Bar/PSI/°C	R410A R404A R507A R22
	MBH	MBL	80 mm	Bar/°C	R134a R404A R407C R22 R507A
	MRBH	MRBL	80 mm	Bar/PSI/°C	R134a R22 R404A R12
	EBH	EBL	80 mm	Bar/PSI/°C	R410A R407C R22
	EBRH	EBRL	80 mm	Bar/°C	R22 R422A R427A R422D R417A
	RBH	RBL	80 mm	Bar/PSI/°C	R1270 R290 R600a
	87500	87350	80 mm	Bar/PSI/°F/°C	R1234yf

CLASS 1.0 REPLACEMENT GAUGES

	High pressure p/n	Low pressure p/n	Gauge diameter	Units	Refrigerant scales
	EBH1	EBL1	80 mm	Bar/PSI/°C	R22 R407C R32 R410A
	EBAH1	EBAL1	80 mm	Bar/kPA/PSI/°C	R32 R410A
	MRBH1	MRBL1	80 mm	Bar/kPA/PSI/°C	R22 R404A R407F R134a
	MNBH1	MNBL1	80 mm	Bar/PSI/°C	R455A R448A R449A R452A
	MBRKH1	MBRKL1	80 mm	kg/cm ² /PSI/°C	R407C R404A R22 R134a

CLASS 1.0 REPLACEMENT GAUGE FOR CO2



Oil filled

High pressure p/n	Low pressure p/n	Gauge diameter	Units	Refrigerant scales
55102-2400	55102-1400	70 mm	PSI/MPa	R744

63 MM GAUGE PROTECTORS



93253-E	63 mm Blue Gauge Protector
93503-E	63 mm Red Gauge Protector
93553-E	63 mm Set (Red & Blue)

80 MM GAUGE PROTECTORS



91253-EE	80 mm Red Gauge Protector
91503-EE	80 mm Blue Gauge Protector
91553-EE	80 mm Set (Red & Blue)

LENS



85253-E	63 mm (2 1/2") Lens
98251-E	80 mm (3 1/8") Lens

4-WAY MANIFOLD REPLACEMENT KNOBS



58211	Blue Knob
58212	Red Knob
58213	Yellow Knob
58214	Black Knob

2-WAY MANIFOLD REPLACEMENT KNOBS



85211	Blue Knob
85212	Red Knob
93211	Black Knob
85211-R	Blue Knob
85212-R	Red Knob
93211-R	Black Knob

PARTS FOR PISTON MANIFOLDS



85215	O-rings (4 pcs)
85216	Seal & Seat Assembly (2 pcs)

PARTS FOR 2-3 AND 4 WAY BALL VALVE MANIFOLDS



95102-R-KIT	O-ring Repair Kit for 2-3 and 4 Way Ball Valve Manifold
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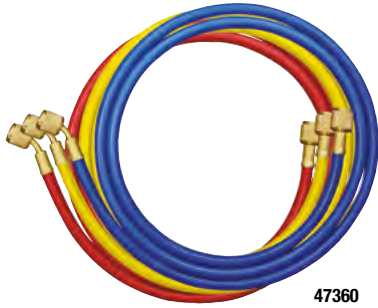


HOSES, ADAPTERS & ACCESSORIES

Mastercool uses only **(GRADE 5 HOSE)** with a selection of standard and nylon barrier for high pressure applications. Knurled brass nuts make finger tightening easy. **Crimped with 8 segment dies for secure fit and maximum durability.** Hoses are available in sets and a variety of lengths to meet all EPA, SAE and UL requirements for containment of refrigerant.

- Sets include one blue, one red and one yellow hose
- Hoses assembled with teflon gaskets, add a -T to the p/n
- For special length hoses, please inquire

STANDARD & HIGH PRESSURE HOSES WITH STANDARD FITTINGS (1/4" SAE)



47360

Standard Hoses, Working Pressure 41 BAR, Burst 210 BAR

HOSE LENGTH	90 cm	150 cm	180 cm	250 cm	3 m	5 m
Blue 1/4" x 1/4"	41361	41601	41721	41961	41961-120	41961-200
Yellow 1/4" x 1/4"	41362	41602	41722	41962	41962-120	41962-200
Red 1/4" x 1/4"	41363	41603	41723	41963	41963-120	41963-200
SETS 1/4" x 1/4"	40336	40360	40372	40396	40396-120	40396-200

Nylon Barrier Hoses, Working Pressure 56 BAR, Burst 280 BAR

Blue 1/4" x 1/4"	47361	47601	47721	47961	47961-120	47961-200
Yellow 1/4" x 1/4"	47362	47602	47722	47962	47962-120	47962-200
Red 1/4" x 1/4"	47363	47603	47723	47963	47963-120	47963-200
Black 1/4" x 1/4"	47364	47604	47724	47964	N/A	N/A
SETS 1/4" x 1/4"	47336	47360	47372	47396	47396-120	47396-200
Black 1/4" hose with (3/8" x 3/8" fitting)	48364	48604	48724	48964	N/A	N/A

R410A HOSES

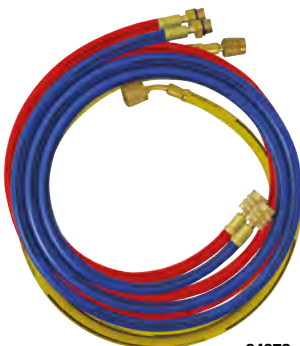


49360-J

Nylon Barrier Hoses, Working Pressure 56 BAR, Burst 280 BAR

HOSE LENGTH	90 cm	150 cm
Blue 5/16" SAE x 5/16" SAE	49361-J	49601-J
Yellow 5/16" SAE x 5/16" SAE	49362-J	49602-J
Red 5/16" SAE x 5/16" SAE	49363-J	49603-J
SETS 5/16" SAE x 5/16" SAE	49336-J	49360-J
Blue 1/4" x 5/16"	-	96411
Red 1/4" x 5/16"	-	96413
SETS Blue/Red 1/4" x 5/16" and Yellow 1/4" x 1/4"	49336-JT	49360-JT

R134a HOSES WITH 1/2" ACME-F AND 14 MM-M AUTO A/C FITTINGS



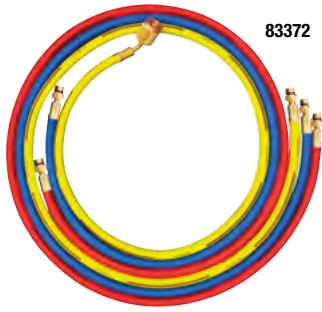
84372

Nylon Barrier Hoses, Working Pressure 56 BAR, Burst 280 BAR

HOSE LENGTH	90 cm	150 cm	180 cm	240 cm
Blue 14 mm-M x 1/2" ACME-F	84361	84601	84721	84961
Yellow with Shut-off Valve 1/2" ACME-F x 1/2" ACME-F	84362	84602	84722	84962
Red 14 mm-M x 1/2" ACME-F	84363	84603	84723	84963
Black 1/2" ACME-F x 1/2" ACME-F	84364	84604	84724	84964
Yellow without Shut-off Valve 1/2" ACME-F x 1/2" ACME-F	84365	84605	84725	84965
SETS Blue/Red 14 mm-M x 1/2" ACME-F and Yellow with Shut-off Valve 1/2" ACME-F x 1/2" ACME-F	84336	84360	84372	84396

Mastercool R134a charging hoses meet SAE J2196 specifications and are UL tested.

R1234yf HOSES (Meets J2888, EPA, SAE & UL Standards)

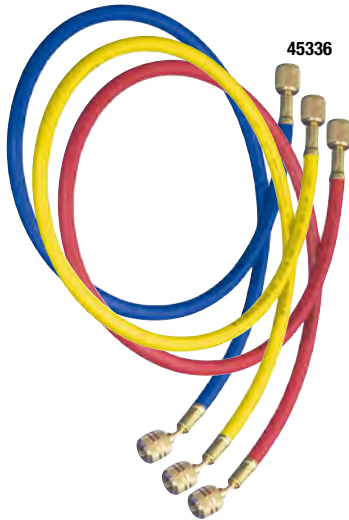


83372

Nylon Barrier Hoses, Working Pressure 56 BAR, Burst 280 BAR

HOSE LENGTH	180 cm
Blue 12 mm-M x 12 mm-M	83721
Yellow 12 mm fitting x 1/2 x 16 ACME LH	83722
Red 12 mm-M x 12 mm-M	83723
SET Blue/Red 12 mm-M x 12 mm-M and Yellow 12 mm fitting x 1/2 x 16 ACME LH	83372

STANDARD & HIGH PRESSURE HOSES WITH AUTOMATIC SHUT-OFF VALVE FITTINGS (1/4" SAE)



45336

Standard Hoses, Working Pressure 41 BAR, Burst 210 BAR

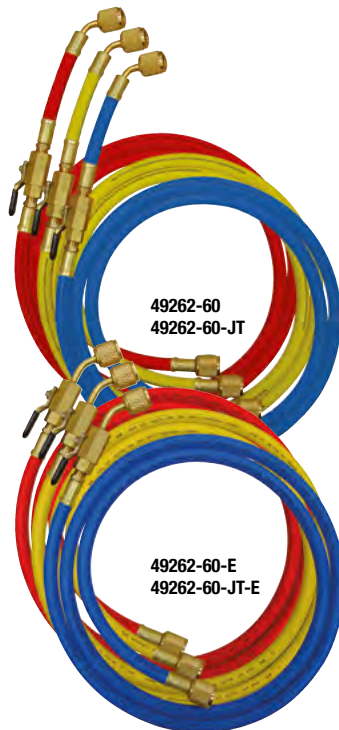
HOSE LENGTH	90 cm	150 cm	180 cm	250 cm
Blue 1/4" x 1/4"	45361	45601	45721	45961
Yellow 1/4" x 1/4"	45362	45602	45722	45962
Red 1/4" x 1/4"	45363	45603	45723	45963
Black 1/4" x 1/4"	N/A	N/A	N/A	N/A
SETS 1/4" x 1/4"	45336	45360	45372	45396

Nylon Barrier Hoses, Working Pressure 56 BAR, Burst 280 BAR

Blue 1/4" x 1/4"	46361	46601	46721	46961
Yellow 1/4" x 1/4"	46362	46602	46722	46962
Red 1/4" x 1/4"	46363	46603	46723	46963
Black 1/4" x 1/4"	46364	46604	46724	46964
SETS 1/4" x 1/4"	46336	46360	46372	46396

Auto shut-off valves automatically retain refrigerant in the service hose when they are removed from the system, meets EPA, SAE and UL standards for containment of refrigerant.

STANDARD & HIGH PRESSURE HOSES WITH MANUAL SHUT-OFF VALVE FITTINGS (1/4" SAE)



49262-60
49262-60-JT

49262-60-E
49262-60-JT-E

Standard Hoses, Working Pressure 41 BAR, Burst 210 BAR

HOSE LENGTH	90 cm	150 cm	180 cm
Blue 1/4" x 1/4"	90263-36	90263-60	90263-72
Yellow 1/4" x 1/4"	90264-36	90264-60	90264-72
Red 1/4" x 1/4"	90265-36	90265-60	90265-72
SETS 1/4" x 1/4"	90262-36	90262-60	90262-72

Nylon Barrier Hoses, Working Pressure 56 BAR, Burst 280 BAR

Blue 1/4" x 1/4"	49263-36	49263-60	49263-72
Yellow 1/4" x 1/4"	49264-36	49264-60	49264-72
Red 1/4" x 1/4"	49265-36	49265-60	49265-72
SETS 1/4" x 1/4"	49262-36	49262-60	49262-72
Red 1/4 x 5/16"	49265-36-JT	49265-60-JT	49265-72-JT
Blue 1/4 x 5/16"	49263-36-JT	49263-60-JT	49263-72-JT
SETS Red/Blue 1/4 x 5/16", Yellow 1/4 x 1/4"	49262-36-JT	49262-60-JT	49262-72-JT

Add a -E for ball valve at the end hoses

3/8" SAE REPLACEMENT BLACK HOSE



- Knurled brass nuts make finger tightening easy
- Crimped with 8 segment dies for secure fit and maximum durability
- 3/8" hose diameter with 3/8" x 3/8" fittings, inline ball valve

Nylon Barrier Hoses, Working Pressure 56 BAR, Burst 280 BAR

HOSE LENGTH	90 cm	150 cm	180 cm
Black 3/8" x 3/8"	94136	94160	94172
Black 3/8" x 3/8" with manual shut-off valve fittings	94236	94260	94272

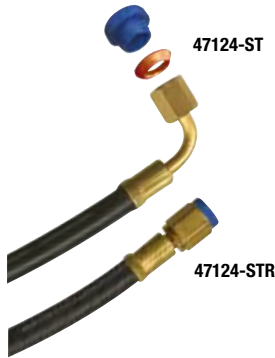
STEEL BRAIDED HOSES FOR CO2



- Outer diameter of stainless steel rope: 0.18 mm braided by 4 wires
- Section:
PTFE tube: 7 mm x 5 mm / sandwich: 0.5 mm
- Outside diameter 9 mm
- Thread 7/16-20UNF
- Working pressure 200 BAR
- Burst 800 BAR

HOSE LENGTH	150 cm
Steel braided hose for CO2	55601
SET of 3 steel braided hoses for CO2	55360

PRESSURE CONTROL HOSES



Replaces regular copper capillary tubing and eliminates capillary failure due to work hardening from vibration.

- 1/4" operates to 600 psi (42 bar) and 200°F (93°C)
- Operational temperature: -20° to 200°F (-29° to 93°C)

Hex Style Fittings with 1/4" SAE Thread

HOSE LENGTH	STRAIGHT X STRAIGHT	STRAIGHT X 90°
12"	47124-STR	47124-ST
18"	47184-STR	47184-ST
24"	47244-STR	47244-ST
36"	47364-STR	47364-ST
48"	47484-STR	47484-ST
60"	47604-STR	47604-ST

SERVICE HOSE REPLACEMENT PARTS

	1/4" SAE		1/2" ACME		14 mm-M O-RING	3/8" GASKET	UNF 1/2 - 20"	
	GASKET	DEPRESSOR	GASKET	DEPRESSOR			GASKET	DEPRESSOR
Charging Hoses	42010-10	42014-10	82010-10	42014-10	83341-10	48010-10	82010-10	42016-10
	42010-T-10 (Teflon)	42016-10 (Screw-Type)						
Shut-Off Valve	90336-10	N/A	90336-10	N/A	N/A	N/A	N/A	N/A

- Provides a quick and easy connection to components like pressure switches, gauges, oil return circuits and oil leveling in air conditioning and refrigeration systems
- No need for brazing, flaring or bending
- Essential noise reduction and vibration absorption
- Excellent impermeability

SPECIFICATIONS:

- EN 1736 and ISO 13971 - Class 2
- Inner diameter 2 mm
- Outer diameter 5.9 mm
- Tolerances 0.1 mm
- Bending radius 10 mm
- Max allowable pressure 60 bar (870 psi)
- Working temperature 248°F (120°C)
- Min/max allowable temperature -40 to 266°F (-40 to 130°C)
- Weight 25 g/m

NEW

THERMOPLASTIC CAPILLARY TUBE ASSEMBLIES - STRAIGHT X 45° FITTINGS WITH DEPRESSOR



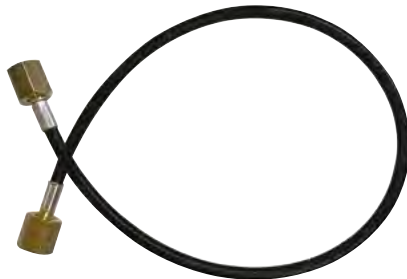
44184-S45

- 2 mm thermoplastic capillary hose for maximum precision on small capacity systems

- | | |
|------------------|---|
| 44318 | Set of 3-18" (450 mm) capillary hoses with straight x 45° fittings with depressor |
| 44324 | Set of 3-24" (600 mm) capillary hoses with straight x 45° fittings with depressor |
| 44184-S45 | 18" (450 mm) capillary hose with straight x 45° fittings with depressor |
| 44244-S45 | 24" (600 mm) capillary hose with straight x 45° fittings with depressor |

NEW

THERMOPLASTIC CAPILLARY TUBE ASSEMBLIES - STRAIGHT X STRAIGHT FITTING



44184-STR

- 2 mm thermoplastic capillary hose

- | | |
|------------------|--|
| 44124-STR | 12" (30 cm) capillary hose assembly with straight x straight fittings |
| 44184-STR | 18" (45 cm) capillary hose assembly with straight x straight fittings |
| 44244-STR | 24" (60 cm) capillary hose assembly with straight x straight fittings |
| 44484-STR | 48" (120 cm) capillary hose assembly with straight x straight fittings |
| 44604-STR | 60" (150 cm) capillary hose assembly with straight x straight fittings |

NEW

THERMOPLASTIC CAPILLARY TUBE ASSEMBLIES - STRAIGHT X 90° FITTING



44184-ST

- 2 mm thermoplastic capillary hose

- | | |
|-----------------|---|
| 44124-ST | 12" (30 cm) capillary hose assembly with straight x 90° fittings |
| 44184-ST | 18" (45 cm) capillary hose assembly with straight x 90° fittings |
| 44244-ST | 24" (60 cm) capillary hose assembly with straight x 90° fittings |
| 44484-ST | 48" (120 cm) capillary hose assembly with straight x 90° fittings |
| 44604-ST | 60" (150 cm) capillary hose assembly with straight x 90° fittings |

NEW

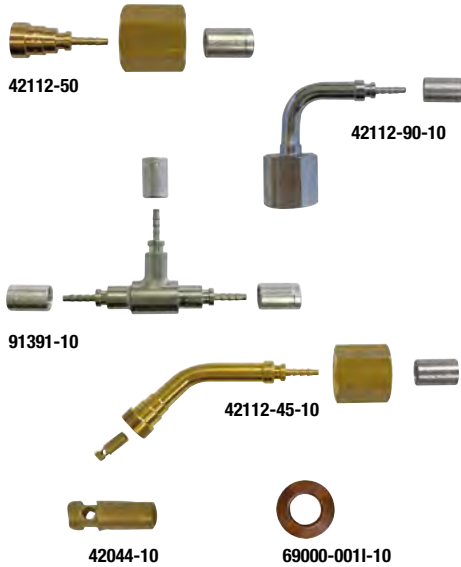
2MM THERMOPLASTIC CAPILLARY HOSE



- | | |
|-------------------|--|
| 44004-1000 | 2 mm thermoplastic capillary hose, roll of 1000 inches (25 meters) |
| 44004-2000 | 2 mm thermoplastic capillary hose, roll of 2000 inches (50 meters) |

NEW

CRIMP FITTINGS FOR 2 MM CAPILLARY HOSE



42112-50 Straight Crimp Fitting with Hex Nut packaged in a box of 50 pieces

- Straight female fitting 1/4" SAE
- Short nut 16 mm
- Thread SAE J513 - 7/16" 20 UNF

42112-90-10 90° Crimp Fitting with Hex Nut packaged in a box of 10 pieces

- 90° female fitting 1/4" SAE
- Short nut 16 mm
- Thread SAE J513 - 7/16" 20 UNF

91391-10 Tee Fitting packaged in a box of 10 pieces

42112-45-10 45° Crimp Fitting with Hex Nut packaged in a box of 10 pieces

- 45° female fitting 1/4" SAE
- Short nut 16 mm
- Thread SAE J513 - 7/16" 20 UNF

42044-10 Depressor packaged in a bag of 10

69000-0011-10 1/4" Copper Gasket packaged in a bag of 10

71551 MANUAL CRIMPER

NEW



Manual hose crimper for 2 mm capillary hose

80013 CAPILLARY TUBE CUTTER



Capillary tube cutter for 2 mm capillary hose

44425 CAPILLARY TUBE KIT

NEW



All the components necessary to crimp your own capillary hoses housed in Mastercool's nylon backpack.

Kit consists of:

- 50 meters thermoplastic capillary hose (44004-2000)
- Manual crimper (71551)
- Capillary tube cutter (80013)
- Straight crimp fitting with hex nut (50 pieces) (42112-50)
- Depressor (10 pieces) (42044-10)

AUTOMATIC SHUT-OFF VALVES



Valve simply screws onto hose end. Available in straight and 90° models. Meets SAE, EPA and UL requirements for containment of refrigerant.

<< **QUICK DISCONNECT : NO LOSS OF REFRIGERANT** >>

- 90333-R 90° 1/4 x 1/4"
- 90333-UV 90° 1/4" FFL x 13 mm
- 90335-R Straight 1/4 x 1/4"

MANUAL SHUT-OFF BALL VALVES



For custom application, Mastercool offers swivel ball valves without the hoses. This valve may be used to add shut-off valves to recycling equipment, manifold sets, flushing equipment, etc.

- 90430 1/4 x 1/4" Swivel Ball Valve
- 90433 1/4 x 5/16" Swivel Ball Valve

CONTROL VALVE



Ideal for use on charged systems. Eliminates refrigerant, oil or dye from spraying during connections.

- 90328 1/4" FFL x 1/4" MFL
- 90328-5/16 5/16" FFL x 5/16" MFL

CONNECTORS

MALE x MALE CONNECTORS



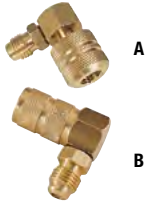
- 82734 14 mm-M x 1/4" FL-M (7/16-20") Connector
- 82735 14 mm-M x M10 x 1.5-M Connector
- 82736 14 mm-M x M12 x 1.75-M Connector
- 82738 14 mm-M x 3/8" FL-M Connector
- 83734 **NEW** 12mm-m x 1/4" FL-M R1234yf Connector
- 83341 O-Ring for 82733, 82734, 82735 and 82736
- 80234 O-Ring for 82634, 82634-M, 90364 and 90365

FEMALE x MALE CONNECTORS



- 82635 1/2" ACME-F x 1/4" FL (7/16-20")-M R134a Adapter Coupler
- 82733 14 mm-F x 1/2" ACME-M Connector
- 90364 1/4" (7/16-20")-F x M10 x 1.5-M Adapter
- 90363 5/16" (1/2-20 UNF)-F x 1/4" FL-M Connector
- 82634 1/4" FL-F (7/16-20") x 1/2" ACME-M R134a Connector
- 82634-M 1/4" FL-F (7/16-20") x 1/2" ACME-M R134a Connector without check valve
- 83633 **NEW** 1/2" ACME-M x 1/2" ACME-F LH Connector
- 83735 **NEW** 12mm-M x 14mm-F R1234yf Adapter
- 90366 1/4" SAE FL-F x 5/16" FL-Male

90° ADAPTERS



		REPLACEMENT	GASKET/O-RING	DEPRESSOR
A	90333-R	Shut-Off Valve 1/4" MFL x 1/4" FFL	90336	-
B	90314*	1/4" MFL x 1/4" FFL	42010	42014
B	90340*	1/4" MFL x 1/8" FFL (High Side) Ford 1977-1980	90341	90368
B	90354*	1/4" MFL x 3/16" FFL (High Side) GM 1976 & Later	90369	90368

45° ADAPTERS



		REPLACEMENT	GASKET/O-RING	DEPRESSOR
C	90924	1/4" MFL x 1/4" FFL	42010	42014
C	90927*	1/4" MFL x 3/16" FFL (High-Side)	90369	90368

STRAIGHT ADAPTERS



		REPLACEMENT	GASKET/O-RING	DEPRESSOR
D	82272*	R134a 1/2" ACME-F x 13 mm R134a (Low-Side)	85511	-
E	82335	R134a Shut-Off Valve 1/2" ACME-M x 1/2" ACME-F	90336	-
E	90335-R	Shut-Off Valve 1/4" MFL x 1/4" FFL	90336	-
F	82634*	1/4" FFL x 1/2" ACME-M	90331	-
F	82634-M	1/4" FFL x 1/2" ACME-M without Core Valve	90331	-
G	82734	14 mm-M x 1/4" MFL	83341	-
H	90358*	1/4" MFL x 3/16" FFL (High-Side)	42010	42014
I	90274	1/4" MFL x 1/4" FFL Swivel	42010	42014
I	90332**	1/4" MFL x 1/4" FFL Anti-Blowback Fitting	42010	42014
I	90357	1/4" MFL x 3/16" FFL (High-Side) Swivel	90369	90368
I	91084*	1/4" MFL x 3/16" FFL (High-Side) Swivel Adapter GM 1976 & Later, Ford 1981 & Later	90369	90368
J	90338*	GM 1991 & Later Service Adapter	90339	-
K	90633	1/4" MFL x 1/4" MFL Union	-	-
K	82633	1/2" ACME-M x 1/2" ACME-M Union	-	-
L	90413	Convert 1/4 To 5/16 SAE (1/2-20 UNF) Swivel Female Nut with Depressor	-	-
M	83634-M	1/4 FL-F x 1/2 ACME LH-M Fitting for R1234yf Systems without Check Valve	90331	-

90416 SWIVEL/ANGLE ADAPTER FITTING



R410A/R32 1/4" SAE x 5/16 SAE (1/2" - 20 UNF) swivel/angle adapter fitting

FLEX ADAPTERS



		REPLACEMENT	GASKET/O-RING	DEPRESSOR
N	90355*	1/4" MFL x 3/16" FFL (High-Side) GM 1976 & Later, Ford 1981 & Later	90369	90368
N	90356*	1/4" MFL x 1/4" FFL	42010	42014
N	90373*	1/4" MFL x 1/8" FFL (High-Side) Ford 1977-1980	90341	90368

90410 FLEX ADAPTER



Convert 1/4 SAE hose into 5/16 SAE, 1/2-20 UNF swivel connection for R410A.

90411 FLEX ADAPTER WITH BALL VALVE



Convert 1/4 SAE hose into 5/16 SAE, 1/2-20 UNF swivel connection for R410A.

ACCESS SERVICE TOOLS



		REPLACEMENT	GASKET/O-RING	DEPRESSOR
0	90296*	1/4" MFL x 1/8" NPT	-	-
0	80296*	1/2" ACME-M x 1/8" NPT	-	-

* Includes Access Valve Core (0377-001) – (90-110 PSI Opening)

** Includes Check Valve Core (0332-002) – (8-12 PSI Opening)

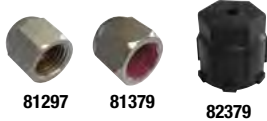
RETROFIT ADAPTERS

82357 GM HIGH FLOW ADAPTER WITH VALVE CORE & SERVICE PORT CAPS



GM High Flow Adapter

INDIVIDUAL TERMINATION (BLOCK OFF) CAPS



81297	1/4 (7/16" - 20) Aluminum
81379	3/16 (3/8" - 24) Aluminum
82297	Universal Blue Cap
82379	Universal Black Cap

STRAIGHT ADAPTERS WITH VALVE CORE & SERVICE PORT CAPS



82274	Low Side, 1/4 (7/16" - 20) x 13 mm
82332	High Side, 1/4 (7/16" - 20) x 16 mm
82358	High Side, 3/16 (3/8" - 24) x 16 mm

90° ADAPTERS WITH VALVE CORE & SERVICE PORT CAPS



82275	Low Side, 1/4 (7/16" - 20) x 13 mm
82354	High Side, 3/16 (3/8" - 24) x 16 mm

91207 CHARGING AND DEPRESSOR ASSORTMENT



Replacement gaskets, o-rings and depressors for charging hoses and adapters.

Consists of:

42010	1/4" Gasket (3 pcs)
42014	1/4" Depressor (3 pcs)
90368	3/16" Depressor (3 pcs)
90369	3/16" Gasket (3 pcs)
90341	1/8" O-Ring (3 pcs)

91334 CHARGING ADAPTER REPAIR KIT



55 piece assortment of replacement gaskets, o-rings and depressors for charging hoses and adapters.

Consists of:

42010	1/4" Gasket (10 pcs)
42014	1/4" Depressor (10 pcs)
90368	3/16" Depressor (10 pcs)
90369	3/16" Gasket (10 pcs)
90341	1/8" O-Ring (10 pcs)
92107	Quick Disconnect Gasket (5 pcs)

91334-A R12/R134a CHARGING HOSE REPLACEMENT PARTS ASSORTMENT



Consists of:

42010	1/4" FL Gasket (10 pcs)
42014	1/4" FL Depressor (5 pcs)
42016	Screw Type Depressor (5 pcs)
90336	Gasket for 90335 (5 pcs)
82010	Black Gasket for R134a Hose (10 pcs)
83341	O-Ring for R134a Hose (5 pcs)
80034-2	Black O-Ring for High Side (5 pcs)
80134-2	Black O-Ring for Low Side (5 pcs)

85200 DELUXE A/C SERVICE REPAIR KIT

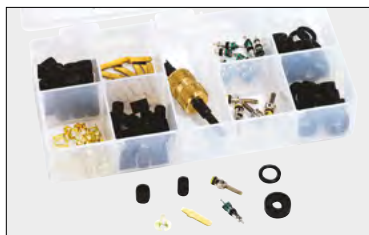


Replacement gaskets, depressors, o-rings and nylon guides for charging hoses and adapters.

Consists of:

42010	1/4" Gasket (10 pcs)
42014	1/4" Depressor (10 pcs)
80034	O-Ring for 82834 (10 pcs)
80034-1	High Side Nylon Guide (5 pcs)
80134	O-Ring for 82934 (10 pcs)
80134-1	Low Side Nylon Guide (5 pcs)
82010	Gasket for R134a Hose (10 pcs)
82336	Gasket for 82335 (10 pcs)
83341	O-Ring for R134a Hose (10 pcs)
90336	Gasket for 90335 Shut-off Valve (10 pcs)

91335 MASTER A/C CHARGING ADAPTER REPAIR KIT



126 piece assortment of replacement gaskets, o-rings and depressors for charging hoses and adapters. Also includes valve core removal tool and replacement valve cores.

Consists of:

- 42010** 1/4" Gasket (20 pcs)
- 42014** 1/4" Depressor (20 pcs)
- 90368** 3/16" Depressor (20 pcs)
- 90369** 3/16" Gasket (20 pcs)
- 90341** 1/8" O-Ring (20 pcs)
- 92107** Quick Disconnect Gasket (10 pcs)
- 0377-001** Refrigeration Valve Core (10 pcs)
- 90378** GM Large Bore Valve Core (5 pcs)
- 91290** Universal Valve Core Remover (1 pc)

91336 FORD SPRING LOCK REPLACEMENT O-RING AND GARTER SPRING ASSORTMENT

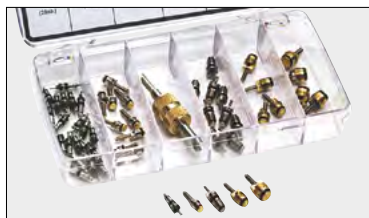


Compatible with R12 and R134a systems.

Consists of:

- 1336-006** #6 O-Ring (10 pcs)
- 1336-008** #8 O-Ring (10 pcs)
- 1336-010** #10 O-Ring (10 pcs)
- 1336-012** #12 O-Ring (10 pcs)
- 1336-016** #6 Garter Spring (5 pcs)
- 1336-018** #8 Garter Spring (5 pcs)
- 1336-110** #10 Garter Spring (5 pcs)
- 1336-112** #12 Garter Spring (5 pcs)

91337 R12/R134a VALVE CORE REPAIR KIT



Replacement valve cores for valve core removers & installers.

Consists of:

- 0377-001** Access Valve Core (20 pcs)
- 0378-001** Valve Core (10 pcs)
- 0531-001** R134a JRA High/Low Import Valve Core (10 pcs)
- 0768-001** R134a Domestic High Flow Valve Core M8 (5 pcs)
- 0769-001** R134a Domestic High Flow Valve Core M10 (5 pcs)
- 81290** R12/R134a Valve Core Remover/Installer (1 pc)

91339 AUTOMOTIVE R12 & R134a O-RING ASSORTMENT (270 PIECE HNBR)



Consists of:

- | | |
|---|--|
| 91339-01 7/32" x 1/16"
(5.29 x 1.78 mm) (20 pcs) | 91339-10 11 x 2 mm (15 pcs) |
| 91339-02 1/4" x 1/16"
(6.07 x 1.78 mm) (20 pcs) | 91339-11 12 x 2 mm (15 pcs) |
| 91339-03 6.8 x 1.9 mm (20 pcs) | 91339-12 13.9 x 1.8 mm (10 pcs) |
| 91339-04 5/16" x 1/16"
(7.65 x 1.78 mm) (20 pcs) | 91339-13 9/16" x 3/32"
(13.95 x 2.62 mm) (10 pcs) |
| 91339-05 7.8 x 1.9 mm (20 pcs) | 91339-14 14 x 2 mm (10 pcs) |
| 91339-06 8 x 2 mm (20 pcs) | 91339-15 15 x 2 (10 pcs) |
| 91339-07 8.8 x 1.9 mm (20 pcs) | 91339-16 17 x 2 (10 pcs) |
| 91339-08 7/16" x 1/16"
(10.82 x 1.78 mm) (15 pcs) | 91339-17 11/16" x 1/16"
(17.17 x 1.78 mm) (10 pcs) |
| 91339-09 7/16" x 3/32"
(10.77 x 2.62 mm) (15 pcs) | 91339-18 11/16" x 1/8"
(17.04 x 3.53 mm) (10 pcs) |

MANUAL COUPLERS



82834 82934



82834-E 82934-E

Patented manual couplers adjust easily to R134a service ports with varying dimensions. All metal construction for extra durability. Patented, spring loaded depressor will not damage service valves. Can be removed from service ports regardless of knob position without losing refrigerant. Meets SAE, UL and EPA requirements for containment of refrigerant. **PATENT# 5,370,359**

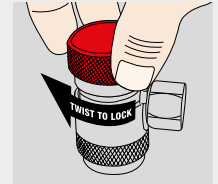
- 82834** High Side Manual R134a 14 mm-F x 16 mm Quick Coupler
- 82934** Low Side Manual R134a 14 mm-F x 13 mm Quick Coupler
- 82834-E** High Side Manual R134a 1/4" FL-M x 16 mm Quick Coupler
- 82934-E** Low Side Manual R134a 1/4" FL-M x 13 mm Quick Coupler
- 82834-3/8** High Side Manual R134a 3/8" FL-M x 16 mm Quick Coupler
- 82934-3/8** Low Side Manual R134a 3/8" FL-M x 13 mm Quick Coupler
- 82834-J** High Side Manual R134a M12 x 1.75 x 16 mm Quick Coupler
- 82934-J** Low Side Manual R134a M10 x 1.5 x 13 mm Quick Coupler
- 80034** O-Ring for 16 mm Quick Coupler (10 pcs)
- 80134** O-Ring for 13 mm Quick Coupler (10 pcs)

SAFETY-LOCK MANUAL COUPLERS



82834-SL 82934-SL

Mastercool's safety-lock manual couplers are designed for use on all R134a systems. This unique design allows the technician to work on the system without the worry of accidentally disconnecting the hose regardless of movement. Once the coupler is connected to the system, the safety-lock sleeve slides into place guaranteeing that the coupler cannot be taken off without unscrewing the manual valve. Meets all SAE, UL and EPA requirements for containment of refrigerant.



- 82834-SL** High Side Manual R134a Safety Lock Coupler 14 mm-F x 16 mm
- 82934-SL** Low Side Manual R134a Safety Lock Coupler 14 mm-F x 13 mm
- 82834-SL-E** High Side Manual R134a Safety Lock Coupler 1/4" FL-M x 16 mm
- 82934-SL-E** Low Side Manual R134a Safety Lock Coupler 1/4" FL-M x 13 mm
- 82834-SL-3/8** High Side Manual R134a Safety Lock Coupler 3/8" FL-M x 16 mm
- 82934-SL-3/8** Low Side Manual R134a Safety Lock Coupler 3/8" FL-M x 13 mm
- 82834-SL-J** High Side Manual R134a Safety Lock Coupler M12 x 1.75 x 16 mm
- 82934-SL-J** Low Side Manual R134a Safety Lock Coupler M10 x 1.5 x 13 mm
- 80034** O-Ring for 16 mm Quick Coupler (10 pcs)
- 80134** O-Ring for 13 mm Quick Coupler (10 pcs)

E-Z SNAP™ COUPLERS



82214 82224



82214-E 82224-E

This unique patented design easily snaps on and off the A/C systems service ports under any pressure. The E-Z Snap™ automatically adjusts to various service port dimensions allowing fast and immediate access into the A/C system. The swivel feature enables the user to easily access all service ports, even in the tightest quarters. Meets SAE, UL, and EPA requirements for containment of refrigerant. **PATENT# 5,244,010**

- 82214** High Side E-Z Snap R134a 14 mm-F x 16 mm Quick Coupler
- 82224** Low Side E-Z Snap R134a 14 mm-F x 13 mm Quick Coupler
- 82214-E** High Side E-Z Snap R134a 1/4" FL-M x 16 mm Quick Coupler
- 82224-E** Low Side E-Z Snap R134a 1/4" FL-M x 13 mm Quick Coupler
- 82214-3/8** High Side E-Z Snap R134a 3/8" FL-M x 16 mm Quick Coupler
- 82224-3/8** Low Side E-Z Snap R134a 3/8" FL-M x 13 mm Quick Coupler
- 82214-J** High Side E-Z Snap R134a M12 x 1.75 x 16 mm Quick Coupler
- 82224-J** Low Side E-Z Snap R134a M10 x 1.5 x 13 mm Quick Coupler
- 80034** O-Ring for 16 mm Quick Coupler (10 pcs)
- 80134** O-Ring for 13 mm Quick Coupler (10 pcs)

ECONOMY COUPLERS



Specially designed to work in the tightest quarters. Attaches to your existing 1/4" flare hoses and snaps easily to A/C service ports.

- 66434-R** High Side R134a 1/4" FL-M x 16 mm Economy Coupler
- 66534-R** Low Side R134a 1/4" FL-M x 13 mm Economy Coupler
- 60034-10** O-Ring for 66434 (10 pcs)
- 60134-10** O-Ring for 66534 (10 pcs)

R1234yf COUPLERS



- Meets SAE J639 & J2888
- Allows recovery of entire refrigerant, including the space between the coupler and fitting

- 83834** High Side R1234yf 12 mm-F x 17 mm Coupler with Extended Disconnect Protection Sleeve
- 83934** Low Side R1234yf 12 mm-F x 14 mm Coupler with Extended Disconnect Protection Sleeve
- 67434** High Side R1234yf 12 mm-F x 17 mm Quick Coupler
- 67534** Low Side R1234yf 12 mm-F x 14 mm Quick Coupler

R134a EXTRA LONG COUPLERS



Extra long high side R134a coupler used on BMW E60 (2003-2009 5 series), Volvo and Renault models. This extra long high side coupler can easily reach the service port.

- 82836** High Side Extra Long 14 mm-F x 16 mm
- 82836-E** High Side Extra Long 1/4" SAE-M x 16 mm

83736-K DELUXE R134A/R1234YF CONVERSION KIT



Easily convert any R134a manifold gauge set to a R1234yf manifold gauge set.

Consists of:

- 83834** High Side R1234yf 12 mm-F x 17 mm Coupler
- 83934** Low Side R1234yf 12 mm-F x 14 mm Coupler
- 83633** 1/2" ACME-M x 1/2" ACME-F LH Thread Adapter
- 83735** 12mm-M x 14mm-F R1234yf Adapters (2 pieces)

58490 UNIVERSAL R12/R134a MASTER KIT



Mastercool's valve core remover/installer has a built-in ball valve to retain charge and allow access to the A/C system. Excellent for replacing valve cores without discharging the system, speeding recovery and recharging large systems. Its heavy-duty design for R134a and R12 systems allows the user to change valve cores while under pressure without any refrigerant loss. **Patent # 6253436.**

- Designed for use of servicing valve cores in R134a and R12 systems
- Universal valve core remover/installer for standard, JRA, Eaton and GM large bore valve cores
- Access and change valve cores while the A/C system is still filled with refrigerant
- Stainless steel ball valve design and patented thread remover lets the user block off the system while changing the valves cores, allowing for no refrigerant loss

This kit consists of valve assembly, R134a high side 16mm connector, R134a low side 13mm connector, 1/4" FL swivel connector, standard valve core remover/installer assembly, GM large bore valve core remover/installer assembly, JRA R134a valve core remover/installer assembly, Eaton R134a low side valve core remover/installer assembly, Eaton R134a high side valve core remover/installer assembly, adapter 1/4"-M x 3/16"-F high side GM/Ford, adapter 1/4"-M x 1/8"-F high side Ford.

58490-YF UNIVERSAL R1234yf MASTER KIT



The perfect tool for replacing damaged valve cores with R1234yf refrigerant in the system without losing the systems charge.

- Attaches to R1234yf service ports to quickly and easily remove and replace valve cores without the loss of refrigerant
- Ball Valve design with stainless steel ball provides smooth movement and durability
- Kit covers 17 mm and 14 mm high and low side service ports

Kit includes: valve assembly, high side 17 mm connector, low side 14 mm connector, standard valve core shaft, GM large bore valve core shaft, eaton R134a/R1234yf high side valve core shaft

VALVE CORE REMOVERS



81290

R134a Universal Large Bore Remover
Used on R12/R134a standard and JRA/EATON large bore R134a valve cores.

91290

Universal Valve Core Remover
Double ended for easy replacement of standard and GM R12 large bore valve cores.

81490 R134a VALVE CORE REMOVER AND INSTALLER



- For 13 mm and 16 mm high and low service port standard type valve
- Built-in ball valve retains charge and allows access to A/C system
- Excellent for replacing valve cores without discharging the system and for speeding recovery and recharging large systems

90376 VALVE CORE REMOVER WITH VALVE CORES FOR R12



Quickly removes valve cores. Storage area includes six replacement access valve cores.

90377 Replacement Standard Valve Cores for 90376 (6 pcs of 0377-001)

91490 STANDARD VALVE CORE REMOVER/INSTALLER



Sturdy ball valve design controls refrigerant flow with 1/4 turn of the valve lever. Lever position also gives visual indication of whether valve is opened or closed.

91496 Valve Core Remover/Installer with 1/4" MFL Side Port

91498 UNIVERSAL VALVE CORE REMOVER/INSTALLER KIT



(for High Pressure Refrigerants) (410A) Designed with patented locking mechanism, the 91498 is the only valve core remover kit that has a safety nut allowing the technician to freely access the valve core without fighting high pressures. Packaged in a blow molded carrying case, this kit also offers 1/2"-20 UNF and 1/4" flare fittings for all refrigerant applications. **PATENT# 6,253,436**



SERVICE TOOLS & ACCESSORIES

91390 R12 SERVICE PORT THREAD REPAIR TOOL



Recuts stripped R12 service port threads. All-in-one design for 1/8", 3/16" and 1/4" service ports. An excellent retrofit tool - it will ensure that the R134a retrofit adapters will fit securely.

R134a OCTAGON SERVICE PORT SOCKETS



- 98134** R134a Low Side Octagon Socket
- 98234** R134a High Side Octagon Socket

93000 SPRING LOCK COUPLING TOOL SET



Four sizes 3/8" (#6), 1/2" (#8), 5/8" (#10) and 3/4" (#12) used on Fords and Chryslers. Durable spring loaded design for long life and reliable fit.

Set includes:

93098	3/8" (#6) Red	93100	5/8" (#10) Black
93099	1/2" (#8) Blue	93101	3/4" (#12) Beige

80011 HEAVY DUTY RATCHET HOSE CUTTER



Ratcheted action makes this cutter extremely easy to operate resulting in quick, clean cuts. Cutting blade is made of special alloy, heat treated steel for long life. Cuts all rubber hoses and PVC pipe up to 1 1/2" (38 mm) O.D. (Not recommended for PVC200)

80111 Replacement Blade for 80011

80013 AUTOMOTIVE REFRIGERANT HOSE CUTTER



Makes quick, clean cuts. Cuts rubber automotive refrigerant hoses up to 1 1/2" O.D.

80113 Replacement Blade for 80013

90925 CONDENSER FIN COMB



Cleans and straightens condenser and evaporator fins. Six sided head for 8, 9, 10, 12, 14 and 15 fins per inch applications.

CAN TAP VALVES



85510-E 1/4" SAE Can Tap Valve - Screw-On Model (European Standard)

85510-J R134a Can Tap Valve - Screw-On Model (Japanese Standard) M14-F x M10-FL-M



85510-YF R1234yf 1/2" Acme-LH Thread Piercing Design Can Tap Valve

- Exclusive "full grip" valve knob
- All metal construction provides durability
- Gasket assures leak proof operation
- Built-in safety check
- Meets SAE J2844



85512-YF R1234yf 1/2" Acme-LH Thread Self-Sealing Design Can Tap Valve

- Exclusive "full grip" valve knob
- All metal construction provides durability
- Gasket assures leak proof operation
- Built-in safety check
- Meets SAE J2844





MEASURE & TEST INSTRUMENTS



THE COMPLETE A/C DIAGNOSTIC TOOL



52251

Mastercool's A/C system analyzer is an all in one tool that not only calculates critical information for the air conditioning system but also diagnoses basic system problems. The LCD display leads the technician through basic tests making service quicker and less complicated. The A/C system analyzer is able to calculate: actual superheat, subcool, target superheat, temperature split, dry bulb, wet bulb, relative humidity, dew point, air velocity and air flow volume. The A/C system analyzer easily guides the technician in determining if the refrigerant charge is correct. No calculations or charts are needed. Easily save test results under a customer and technician name and even download the data for future reference.

FEATURES:

- Calculates actual superheat and subcool temperatures for the following refrigerants: R22, R114, R123, R124, R134, R134a, R141, R142, R401A, R401B, R404A, R407A, R407B, R407C, R407D, R408A, R409A, R410A, R411A, R411B, R414A, R414B, R417A, R507A
- Provides all the functions of a high-end anemometer: airflow volume, air velocity, dry bulb temperature, wet bulb temperature, relative humidity and dew point
- Save results and download in Excel format for future use
- Optional pressure transducer for direct system readings
- Optional antenna type meter for any hard to reach locations

SPECIFICATIONS:

- Operating temperature: 0 to 50°C (32 to 122°F), humidity <80%
- Storage temperature: -20 to 50°C (-4 to 122°F), humidity <90%
- Dimensions with boot: 191mm x 93 mm x 41 mm
- Weight: (meter w/ batteries & round vane) 500 g
- Temperature display: °F and °C
- Pressure display: PSI and Bar
- Back-lit LCD display
- Low battery indicator
- K-type thermocouple connection
- USB connection
- 6 AA batteries

Please add the suffix below to the part number for the corresponding languages

-ES : English and Spanish

-EI : English and Italian



52270



52280

Part #	52251 System Analyzer	52253 Round Vane	52254 Antenna Type Meter (extends to 37")	52336 3 Ft. Clamp-on Thermocouple	52252 Pressure Transducer
SYSTEM ANALYZER KITS in a blow molded plastic box					
52255	✓	✓	-	✓	-
52260	✓	-	✓	✓	-
52270	✓	✓	-	✓	✓
52280	✓	-	✓	✓	✓

52253 ROUND VANE



Temp. Range/Resolution/Accuracy:

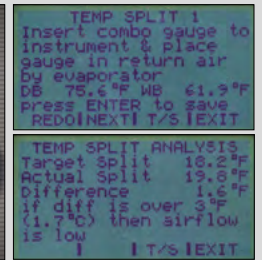
- -20 to 60°C (-4 to 140°F)
- 0.1°C (0.2°F)
- ±0.6°C (1.1°F) (-20 to 50°C (-4 to 122°F)), ±1.2°C (2.2°F) at other range

Humidity Range/Resolution/Accuracy:

- 0.1% to 99.9% RH
- 0.1% RH
- ±3% RH (at 25°C (77°F), 10 to 90% RH), ±5% RH at other range

Windspeed Range/Resolution/Accuracy:

- 0.6 to 32 m/s
- 0.1 m/s
- ±2% of full scale



Just two measurements with the probe will give the target temperature split and actual temperature split across the evaporator and compare the two.

52254 ANTENNA TYPE METER



Temp. Range/Resolution/Accuracy:

- -20 to 60°C (-4 to 140°F)
- 0.1°C (0.2°F)
- ±0.6°C (1.1°F) (-20 to 50°C (-4 to 122°F)), ±1.2°C (2.2°F) at other range

Humidity Range/Resolution/Accuracy:

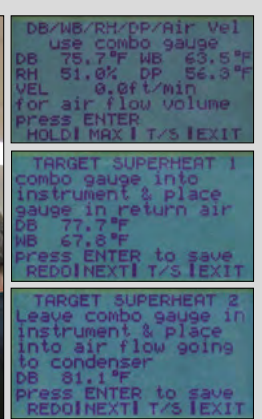
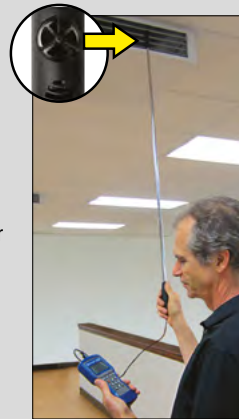
- 0.1% to 99.9% RH
- 0.1% RH
- ±3% RH (at 25°C (77°F), 10 to 90% RH), ±5% RH at other range

Windspeed Range/Resolution/Accuracy:

- 0.5 to 25 m/s
- 0.1 m/s
- ±(2% of reading +0.3 m/s)

Probe will measure dry bulb, wet bulb, relative humidity, dew point, air velocity and air volume.

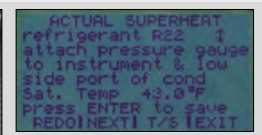
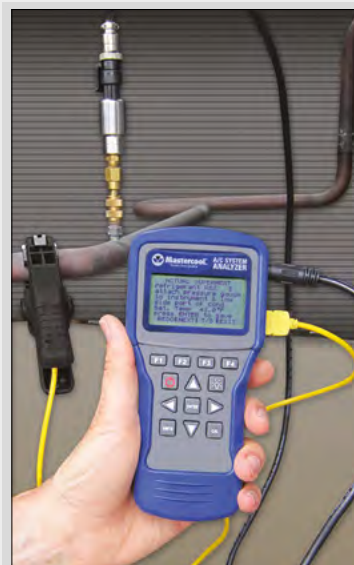
Get target superheat temperature by following screen instructions for two simple measurements with the probe.



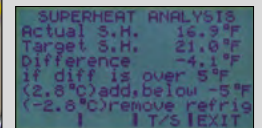
52252 PRESSURE TRANSDUCER



- Operating pressure range: 0-750 psi (0-52 bar)
- 1/4 FL swivel nut connection
- Accuracy: ±0.5, ±1% F.S.
- Operating temperature: -40 to 100°C (-40 to 212°F)
- Certification: CE, Explosion-proof D
EMC: EN50081-1/-2; EMS: EN50082-2



Pressure transducer and thermocouple will measure saturated temperature and actual temperature, to calculate actual superheat and subcool temperature.



System will compare target and actual superheat.

52336 CLAMP-ON THERMOCOUPLE (extends 3 ft (1 M))



Temp. Range/Resolution

- -40 to 121°C (-40 to 250°F)
- 0.1°C (0.2°F)

52230 PEN TYPE HYGROMETER



- Rotating cap to protect sensor
- Temperature and humidity in °F or °C
- Data hold to capture readings
- LCD digital display
- Max/Min record function
- Auto-off function

SPECIFICATIONS:

- Size: 6.8" x 1.6" x 0.6" (17 x 4 x 1.5 cm)
- Sensor: electronic capacitance polymer film
- Temperature range: -4 to 140°F (-20 to 60°C)
- RH range: 0 to 100%
- Accuracy: ±3% from 10 to 95% RH at 77°F (25°C) / ±1% from other RH range
- Resolution: 0.1°F / 0.1°C / 0.1%
- Storage temperature: 14 to 140°F (-10 to 60°C) / Storage RH%: <95%
- Battery: (1) CR2032 (lithium coin cell)
- Battery life: 100 hours

52233 DIGITAL PSYCHROMETER



- Rotating cap to protect sensor
- LCD digital display
- Low battery indicator
- Max/Min record function
- Auto power off with disabling capability
- External temperature probe (optional)
- Data hold to capture readings
- Fast response, accurate reading
- Microprocessor circuitry for reliability

SPECIFICATIONS:

- Temperature range: -4 to 122°F (-20 to 50°C)
- RH% range: 0 to 100% RH
- Wet bulb range: -6.88 to 122°F (-21.6 to 50.0°C)
- Dew point range: -109.7 to 122°F (-78.7 to 50.0°C)
- External temperature range: -4 to 158°F (-20 to 70°C)
- Accuracy: RH% 3% at 77°F (25°C) / Temperature: 1°F (0.6°C)
- Response time: 60 seconds
- Pocket size: 0.9" (h) x 1.9" (w) x 7.0" (l) (2 x 5 x 18 cm)
- Power: (2) 1.5V AAA battery

52231 Probe for 52233



52236 AIRFLOW+PSYCHROMETER



Reads humidity, air temperature, dew point, wet bulb, air velocity, air volume & BTU. The sensor is built into the remote fan and is protected by a rotating cap.

FEATURES:

- Auto-off with disabling capability
- Large back-lit LCD display
- Metric & inch unit selection
- Fast response & accurate reading
- Tripod mountable for extended use
- Dew point & wet bulb
- Microprocessor circuitry
- 4 AAA batteries
- Professional remote vane
- Low battery indicator

SPECIFICATIONS:

- Temperature: -4 to 140°F (-20 to 60°C) / Accuracy: ±1°F (±0.6°C)
- Relative humidity: 0 to 100% RH / Accuracy: ±3% at 10 to 90% RH (cal. temp.) ±5% at other range
- Dew point: -90 to 158°F (-68 to 70°C)
- Wet bulb temperature: -7.6 to 158°F (-22 to 70°C)
- Air velocity: 0.3 to 35 m/s (1 to 114 ft/s)
- Air volume: 0 to 99999 m3/s (0 to 99999 cfm)

52237 Data Logger CD & USB Cable for use with 52236 AirFlow+Psychrometer



52238 DIGITAL SOUND LEVEL METER

- Automatic or manual ranging
- Four measurement ranges from 40 to 130 dB
- 0.1dB resolution
- ± 1.5 dB accuracy
- Select fast or slow response times
- Select A or C weighting
- Maximum hold function
- Record maximum or minimum measurements
- Jacks provide AC analog output

52240 PROFESSIONAL HVAC/R CLAMP METER

- Multi-function: frequency count, diode check and alarm
- Current: (AC) 20 mA - 600A
- Voltage: AC 200 mv - 750V / DC 1V-1000V
- Auto power off
- Frequency: 10Hz - 2KHZ
- Ohms: (resistance) 200m ohm-20K ohm
- Peak data hold
- Unit and sign display

43705 REFRACTOMETER (°F)

- Offers a quick and easy way to test the freezing point of coolant/anti-freeze
- Compatible with ethylene or propylene glycol
- Measures battery acid specific gravity
- Automatic temperature compensation
- Large, easy to read graphics and high contrast lens
- Adjustable focus viewfinder
- Strong, metal body structure
- Includes storage case, fluid dropper and calibration screw driver
- Not for use with OAT coolants or DEF
- Fahrenheit temperature scale (celsius conversion chart supplied)



52224-A INFRARED THERMOMETER WITH LASER



The 52224-A offers laser targeting accuracy, enhanced back-lit color LCD display and an expanded temperature range. The compact design is simple to use and easy to store.

SPECIFICATIONS:

- Non-contact temperature range: -50 to 550°C (-58 to 1022°F)
- Field of view: 12 : 1
- Display illumination: back-lit lcd color display
- Target indicator: circular laser
- Emissivity: 0.95
- Resolution: 0.1°F / 0.1°C
- Accuracy: $\pm 2^{\circ}\text{C}$ (4°F) or $\pm 2\%$ of reading
- Response time: 0.5 Seconds
- Power off: automatic after 15 seconds
- Battery life: approximately 14 hours
- Included accessories: 2 aaa batteries, instruction manual, plastic molded case



52224-CC INFRARED THERMOMETER WITH CIRCULAR LASER



Features both infrared and circular laser technologies.

SPECIFICATIONS:

- Non-contact temperature range: -60 to 760°C (-76 to 1400°F)
- Field of view: 12 : 1
- Display illumination: back-lit lcd color display
- Target indicator: circular laser
- Emissivity: 0.95
- Resolution: 0.1°F / 0.1°C
- Accuracy: $\pm 2^{\circ}\text{C}$ (4°F) or $\pm 2\%$ of reading
- Response time: 1 second
- Power off: automatic after 15 seconds
- Battery life: approximately 14 hours
- Included accessories: 2 aaa batteries, instruction manual, plastic molded carrying case



52224-D MULTI-LASER INFRARED THERMOMETER



The multi-laser infrared thermometer safely monitors hot, hazardous, or hard to reach materials without contamination or damage to the surface. Simply point at target, pull the trigger, and read the temperature.

SPECIFICATIONS:

- Measurement range: -60 to 760°C (-76 to 1400°F)
- Operating range: 0 to 50°C (32 to 122°F)
- Field of view: 12 : 1
- Display illumination: back-lit lcd color display
- Target indicator: eight laser
- Emissivity: 0.95 Default - adjustable 0.1 To 1 step .01
- Resolution: 0.1°C/0.1°F at -76 to 999.9(°C/°F), otherwise 1°C/1°F
- Modes: E, MAX, MIN, DIF and AVG
- Accuracy, (tobj=15-35°C, tamb=25°C): $\pm 1.0^{\circ}\text{C}$ (1.8°F)
- Accuracy, (tamb=23 $\pm 3^{\circ}\text{C}$): 0 to 760°C: $\pm 2\%$ of reading or 2°C (4°F) whichever is greater -60 to 0°C $\pm (2^{\circ}\text{C} + 0.05/\text{degree})$
- Battery life: 7 hours continuous use (alkaline, with laser and back-light)
- Included accessories: 2 aaa batteries, instruction manual, plastic molded case



52225-A DUAL TEMP PLUS INFRARED THERMOMETER



3 ft. (1m) Wire Thermocouple Included

Features both infrared and contact thermometer technologies. Includes programmable HI/LO alarms and lock mode to capture temperature readings. The contact function offers a built-in K type jack and wire thermocouple.

SPECIFICATIONS:

- Non-contact temperature range: -60 to 760°C (-76 to 1400°F)
- Thermocouple temperature range: -64 to 1400°C (-83 to 1999°F)
- Field of view: 30 : 1
- Display illumination: back-lit lcd display
- Target indicator: single laser spot
- Emissivity: 0.10 (10E) to 1.0 (100E)
- Resolution: 0.1°F / 0.1°C
- Modes: MIN, MAX, DIFF & AVG
- Accuracy: ±2°C (4°F) or ±2% of reading
- Response time: 1 second
- Power off: automatic after 15 seconds
- Battery life: approximately 14 hours
- Included accessories: 2 aaa batteries, 1m thermocouple probe, instruction manual, plastic molded case
- Optional accessories: 3 m wire thermocouple probe, piercing penetration probe, surface probe, air probe



52225-B ULTRA TEMP DUAL LASER THERMOMETER



Optional Wire Thermocouple

Features both infrared and contact thermometer technologies. Includes programmable HI/LO alarms, and lock mode to capture temperature readings. The built-in K type jack offers optional contact functions. Illuminates working area with built-in LED light.

SPECIFICATIONS:

- Non-contact temperature range: -60 to 1000°C (-76 to 1832°F)
- Thermocouple temperature range: -64 to 1400°C (-83 to 1999°F)
- Field of view: 50 : 1
- Display illumination: back-lit lcd display
- Target indicator: dual laser spot
- Emissivity: 0.95
- Resolution: 0.1°F / 0.1°C
- Modes: MIN, MAX, DIFF & AVG
- Accuracy: ±2°C (4°F) or ±2% of reading
- Response time: 1 second
- Power off: automatic after 15 seconds
- Battery life: approximately 14 hours
- Included accessories: 2 aaa batteries, instruction manual, plastic molded case
- Optional accessories: 1 m, 3 m wire thermocouple probes, piercing penetration probe, surface probe, air probe



52234-BT DIGITAL THERMOMETER/HYGROMETER with Bluetooth® Wireless Technology



Mastercool's Digital Thermometer/Hygrometer with Bluetooth® Wireless Technology works with our Mastercool Connect app to remotely provide dry bulb temperature, wet bulb temperature and relative humidity. Integrated into this unit is a high-performance ceramic antenna which offers maximum Bluetooth® wireless technology range. This digital thermometer/hygrometer will allow for varying the refrigerant charge in a system and seeing in real time how the supply parameters change.

The convenient clip, can easily be attached to a vent louver or register to see results more accurately. The mode key switches between dry bulb, wet bulb and relative humidity while the °C/°F key toggles between fahrenheit and celcius for easy to read calculations.

SPECIFICATIONS:

- Relative humidity (tamb=73±9°F (23±5°C)): 1~99%, accuracy: ±3% from 20~80%, otherwise ±5%
- Dry bulb temperature (DBT): -4 - 150°F (-20 - 65°C), accuracy: ±4.5°F (±2.5°C)
- Wet bulb temperature (WBT): -4 - 150°F (-20 - 65°C), accuracy: ±4.5°F (±2.5°C)
- Battery life: 40 hours continuous use, battery shelf life 8 months
- Battery: one CR2032 lithium cell battery
- Dimensions: 2.2 x 2.1 x 1.7" (54.9 x 52.6 x 43 mm)
- Weight: 1.2 oz (35 g)
- Specifications for Bluetooth® wireless technology:
 - 260' (80m) maximum line-of-sight range
 - Bluetooth® 4.2 and 5

DOWNLOAD OUR APP



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52325 THERMAL IMAGING WITH VISIBLE CAMERA

with carry case, micro SD card, CD, USB cord, batteries and instructions

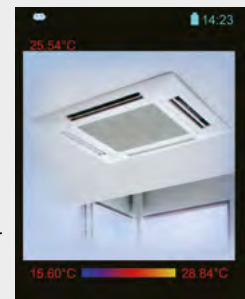


- Fully automatic
- Focus free
- Superior measurement/accuracy
- Micro SD card storage
- Reporting software included

SPECIFICATIONS:

- Thermal image resolution: 32 x 31 pixels
- Visual image resolution: 640 x 480
- Measurement range: -4 to 662°F (-20 to 350°C)
- Accuracy (tamb=20 to 26°C): ±2% of reading, or 4°F (2°C) whichever is greater
- Thermal sensitivity: 0.1°F (0.1°C)
- Frame rate: 9 Hz
- Field of view: 40 x 40 deg
- Emissivity range: 0.95 default – adjustable 0.1 to 1 step 0.1
- Focus: focus free
- LCD size: 2.8" (71 mm)
- LCD: color
- Image storage: stores up to 25,000 images, BMP format (typical 8G micro SD card)
- Memory type: micro SD card
- Sensor filter: 8 to 14 um
- Interface: USB
- Battery type: 3.6V li-ion rechargeable battery
- Battery life (with back-lit): 3 hours continuous use
- Dimensions: 3.73 x 2.91 x 9.20 inch

VISIBLE CAMERA:



Visual



Fusion

52226 DUAL TEMP INFRARED/PROBE THERMOMETER



The 52226 dual temp thermometer offers both infrared and contact probe technologies.

- Infrared temperature range: -67 to 428°F (-55 to 220°C)
- Probe temperature range: -67 to 626°F (-55 to 330°C)
- Field of view ratio 1 : 1
- Adjustable emissivity
- Lock mode for hands free scanning
- Minimum/maximum capture mode
- Contact probe locks safely on the side of the unit

52227 POCKET INFRARED THERMOMETER



The 52227 pocket infrared thermometer offers accurate non-contact temperature measurement in a compact and easy to use size.

- Temperature range: -67 to 428°F (-55 to 220°C)
- Field of view ratio 1 : 1
- Adjustable emissivity
- Back-lit LCD display
- Minimum/maximum capture mode



52228 DIGITAL DIFFERENTIAL THERMOMETER



The 52228 digital differential thermometer provides instant measurements of two points. (T1, T2) and T1 – T2.

- Max hold function
- Data hold function
- Temperature in °F or °C
- Aux output jacks
- T1 – t2 differential
- Temperature range: -50 to 1300°C
- Type K thermocouple input
- Resolution: 1°F (1°C)
- Includes two 3 ft (1m) thermocouple probes

52229 HAND-HELD WATERPROOF DIGITAL THERMOMETER



- Measuring range: -58 to 572°F / -50 to 300°C
- Wide measurement range
- Maximum/minimum temperature memory
- Celsius and fahrenheit exchange
- Data hold function
- High/low temperature alarm setting
- Key tone for operation confirmation
- Stainless steel probe
- Foldaway stand

POCKET ANALOG DESIGNS



All thermometers include pocket holder and clip.

Item#	Dial Size	Temperature Scale
52220-C	25 mm	-10 to 100°C
52161	35 mm	-40 to 70°C (-40 to 160°F)
91120	44.5 mm	0 to 220°F

POCKET DIGITAL DESIGN

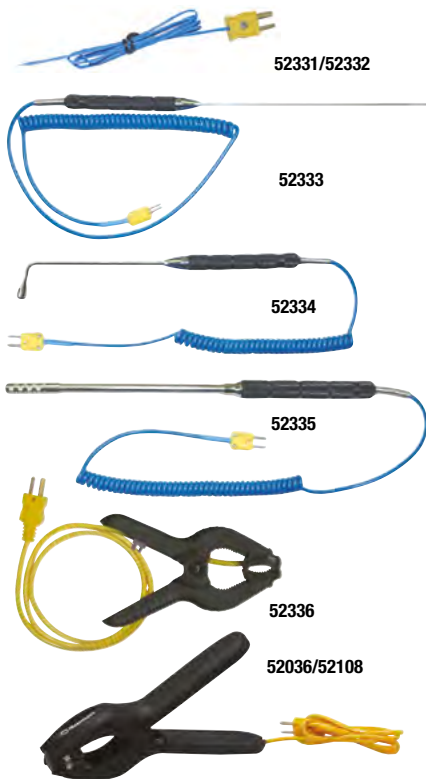


All thermometers include pocket holder and clip.
Battery operated, (on/off and auto shut-off after 10 minutes)

- ±1°C accuracy
- 0.1°C resolution

Item#	Dial Size	Temperature Scale
52223-A	25 mm	-50 to 150°C (-58 to 302°F)

OPTIONAL THERMOCOUPLE PROBES

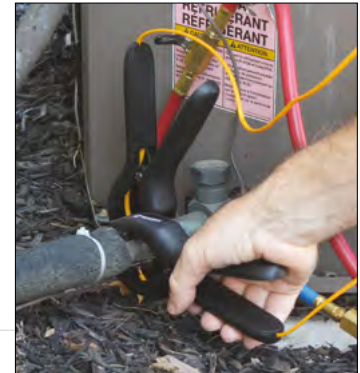


52331	Wire Probe - 3 ft (1 m)
52332	Wire Probe - 10 ft (3 m)
52333	Piercing Penetration Probe with Coil Cord
52334	Surface Probe with Coil Cord
52335	Air Probe with Coil Cord
52336	Clamp-On Probe - 3 ft (1 m)
52036	NEW

Ergonomic Clamp-on K Type Probe (3 ft (1 m))
Mastercool's ergonomic clamp-on K type probe features a spring-loaded jaw for secure grip on pipes up to 1 5/8". The sturdy, hands-free design makes this the ideal tool for superheat/subcooling temperature measurement. This probe can be used on any unit with a type K thermocouple input.

- Maximum clamp size: 1 5/8"
- Response time: 3 seconds
- Temperature range: -40 to 250°F (-40 to 121°C)
- Resolution: 0.2°F (0.1°C)

52108	NEW
	Ergonomic Clamp-on K Type Probe (10 ft (3 m))

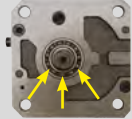




VACUUM PUMPS

2 STAGE ELITE BALL BEARING DESIGN VACUUM PUMPS

A good quality vacuum pump is an integral tool for complete A/C service. Mastercool vacuum pumps are durable and time tested. They stand up to the most grueling conditions and will provide years of reliable service. Mastercool offers a complete selection of pumps. Regardless of your service requirements, Mastercool has a model for your application.



BALL BEARING CARTRIDGE DESIGN

reduces running temperatures by 30% and extends the life of the pump.

Manifold valve isolates pump from the system when testing for leaks. Includes three inlet ports – 1/4", 3/8" SAE and 1/2" ACME on 5 and 7.5 CFM models

Internal check valve stops oil blowout in case of accidental power loss



Gas ballast valve helps prevent oil contamination caused by high moisture

Center oil fill port is accessible from front as well as sides

Durable lightweight die cast aluminum housing
Two-stage design allows lower pumping pressure resulting in deeper ultimate vacuum

Oil drain valve positioned at bottom of oil reservoir assures maximum drainage



119 LIT/MIN - 142 LIT/MIN - 5 CFM VACUUM PUMP

*Japanese Standard



MODEL	90065-220	90065	90065-J*
NO. OF STAGES		2	
FREE AIR DISPLACEMENT	119 lit/min 142 lit/min	5 CFM	119 lit/min 142 lit/min
ULTIMATE VACUUM		25 Microns	
MOTOR		1/3 HP	
PUMP SPEED		1425 RPM 1725 RPM	
ELECTRICAL SPECS	220 V / 50 HZ 220 V / 60 HZ	110 V / 60 HZ	100 V / 50/60 HZ
WEIGHT		13.2 kg (29 lbs)	
DIMENSIONS IN CM		37 x 15.5 x 27.5 x 24	

178 LIT/MIN - 213 LIT/MIN - 7 CFM VACUUM PUMP

*Japanese Standard



MODEL	90067-220	90067	90067-J*
NO. OF STAGES		2	
FREE AIR DISPLACEMENT	178 lit/min 213 lit/min	7.5 CFM	178 lit/min 213 lit/min
ULTIMATE VACUUM		25 Microns	
MOTOR		1/2 HP	
PUMP SPEED		1425 RPM 1725 RPM	
ELECTRICAL SPECS	220 V / 50 HZ 220 V / 60 HZ	110 V / 60 HZ	100 V / 50/60 HZ
WEIGHT		16.0 kg (35.5 lbs)	
DIMENSIONS IN CM		41 x 15.5 x 27.5 x 24	

2 STAGE *Black Series* VACUUM PUMPS



Mastercool's "Black Series" vacuum pumps are durable and time tested to stand up to the most grueling conditions and will provide years of reliable service. This vacuum pump provides the power and mobility necessary for a wide variety of applications.

- Refined cartridge machining process creates an improved surface finish extending the longevity of the pump life
- Expanded internal oil path creates less friction and ultimately less heat
- Upgraded seals insure maximum vacuum
- U.S. designed and tested



MODEL	STAGES	FREE AIR DISPLACEMENT	ULTIMATE VACUUM	MOTOR	PUMP SPEED	ELECTRICAL SPECS	POWER	WEIGHT	DIMENSIONS IN CM
90063-2V-110-BL	2	3 CFM	15 Microns	1/3 HP	1720 RPM	110/220 V, 50/60 HZ	110 V Cable (US)	7.25 kg (16 lbs)	27 x 15 x 25
90063-2V-220-BL	2	85 lit/min (60Hz), 70 lit/min (50Hz)	15 Microns	1/3 HP	1440 RPM	110/220 V, 50/60 HZ	220 V Cable (Schuko)	7.25 kg (16 lbs)	27 x 15 x 25
90066-2V-110-BL	2	6 CFM	15 Microns	1/2 HP	1720 RPM	110/220 V, 50/60 HZ	110 V Cable (US)	11.4 kg (25 lbs)	37.9 x 16.7 x 27.5
90066-2V-220-BL	2	170 lit/min (60Hz), 142 lit/min (50Hz)	15 Microns	1/2 HP	1440 RPM	110/220 V, 50/60 HZ	220 V Cable (Schuko)	11.4 kg (25 lbs)	37.9 x 16.7 x 27.5
90068-2V-110-BL	2	8 CFM	15 Microns	3/4 HP	1720 RPM	110/220 V, 50/60 HZ	110 V Cable (US)	15.65 kg (34.5 lbs)	38 x 18 x 27
90068-2V-220-BL	2	227 lit/min (60Hz), 198 lit/min (50Hz)	15 Microns	3/4 HP	1440 RPM	110/220 V, 50/60 HZ	220 V Cable (Schuko)	15.65 kg (34.5 lbs)	38 x 18 x 27
90612-2V-110-BL	2	12 CFM	15 Microns	1 HP	1720 RPM	110/220 V, 50/60 HZ	110 V Cable (US)	16 kg (35.5 lbs)	39 x 18 x 27
90612-2V-220-BL	2	340 lit/min (60Hz), 283 lit/min (50Hz)	15 Microns	1 HP	1440 RPM	110/220 V, 50/60 HZ	220 V Cable (Schuko)	16 kg (35 lbs)	39 x 18 x 27

2 STAGE VACUUM PUMPS WITH SOLENOID VALVE

ELITE BALL BEARING DESIGN WITH SOLENOID VALVE



MODEL	90065-220-SV	90067-220-SV
NO. OF STAGES	2	
FREE AIR DISPLACEMENT	119 lit/min, 142 lit/min	178 lit/min, 213 lit/min
ULTIMATE VACUUM	25 Microns	
MOTOR	1/3 HP	1/2 HP
PUMP SPEED	1425 RPM , 1725 RPM	
ELECTRICAL SPECS	220 V, 50/60 HZ	
POWER CORD	220 V Cable (Schuko)	
WEIGHT	13.6 kg (30 lbs)	17 kg (36.5 lbs)



Black Series WITH SOLENOID VALVE



MODEL	90063-2V-220SVBL	90066-2V-220SVBL	90068-2V-220SVBL	90612-2V-220SVBL
NO. OF STAGES	2			
FREE AIR DISPLACEMENT	85 lit/min (60Hz), 70 lit/min (50Hz)	170 lit/min (60Hz), 142 lit/min (50Hz)	227 lit/min (60Hz), 198 lit/min (50Hz)	340 lit/min (60Hz), 283 lit/min (50Hz)
ULTIMATE VACUUM	15 Microns			
MOTOR	1/3 HP	1/2 HP	3/4 HP	1 HP
PUMP SPEED	1440 RPM			
ELECTRICAL SPECS	220 V, 50/60 HZ			
POWER CORD	220 V Cable (Schuko)			
WEIGHT	8 kg (17.6 lbs)	12.15 kg (26.8 lbs)	16.4 kg (36.15 lbs)	16.75 kg (40 lbs)

90066-SV-220 UNIVERSAL SOLENOID VALVE AND GAUGE ASSEMBLY



Mastercool's universal solenoid valve and gauge assembly can be assembled on any vacuum pump for protection of pump and systems with full control by solenoid valve. Gauge assembly will also allow for vacuum leak test.

- 3/8 NPT vacuum connection port
- 1/4" flare hose connection port

*Note: some internal wiring assembly necessary

90066-SV-G Replacement Gauge For Universal Solenoid Valve And Gauge Assembly

* PLEASE NOTE: The micron readings on all vacuum pumps represent optimal laboratory conditions. Field conditions may vary from these readings.

All vacuum pumps are available with either a UK or Australian cable, please add a: **AUS** for an Australian cable, **UK** for a UK cable

2 STAGE *Black Series* SPARK FREE VACUUM PUMP

170 LIT/MIN - 142 LIT/MIN 2 STAGE VACUUM PUMP <<SPARK FREE>>



♦ Approved for all Air Conditioning Refrigerants including A2L and A3 Flammable Refrigerants ♦

MODEL	90066-220-BLSF
NO. OF STAGES	2
FREE AIR DISPLACEMENT	170 lit/min (60Hz), 142 lit/min (50Hz)
ULTIMATE VACUUM	15 Microns
MOTOR	1/2 HP
PUMP SPEED	1440 RPM
ELECTRICAL SPECS	220 V, 50/60 HZ
POWER CORD	220 V Cable (Schuko)
WEIGHT	11.22 kg (24.75 lbs)
DIMENSIONS IN CM	37.9 x 16.7 x 27.5

SINGLE STAGE *Black Series* VACUUM PUMPS

51 LIT/MIN - 42 LIT/MIN / 1.8 CFM SINGLE STAGE VACUUM PUMP



MODEL	90059-220-BL	90059-BL
NO. OF STAGES	1	
FREE AIR DISPLACEMENT	51 lit/min, 42 lit/min	1.8 CFM
ULTIMATE VACUUM	80 Microns	
MOTOR	1/4 HP	
PUMP SPEED	1440 RPM	1720 RPM
ELECTRICAL SPECS	220 V, 50/60 HZ	110/120 V, 60 HZ
WEIGHT	6.35 kg (14 lbs)	
DIMENSIONS IN CM	30 x 15 x 26	

SERVICE INFORMATION

	OIL CAPACITY	REPLACEMENT CARTRIDGE	SEAL SERVICE KIT
90065, 90065-220	531 ml / 18 oz	90165-R	90062-11-SEAL
90067, 90067-220	708 ml / 24 oz	90167-R	90062-11-SEAL
90063-2V-110-BL, 90063-2V-220-BL	250 ml / 8.5 oz	-	-
90066-2V-110-BL, 90066-2V-220-BL	440 ml / 15 oz	90166-B	-
90068-2V-110-BL, 90068-2V-220-BL	570 ml / 19 oz	90168-B	-
90612-2V-110-BL, 90612-2V-220-BL	536 ml / 18 oz	90112-B	-
90059-BL, 90059-220-BL	342 ml / 12 oz	-	-
90066-220-BLSF	440 ml / 15 oz	90166-B	-

VACUUM PUMP OIL



90010-6	(Six) - 295 ml / 10 oz bottles (90063-2V-BL)
90016-6	(Six) - 450 ml / 16 oz bottles (90059-BL)
90018-6	(Six) - 531 ml / 18 oz bottles (90065, 90066-2V-BL, 90612-2V-BL, 90066-220-BLSF)
90024-6	(Six) - 708 ml / 24 oz bottles (90067, 90068-2V-BL)
90032-6	(Six) - 946 ml / 32 oz bottles
90128-4	(Four) - 3.7 liter / 1 gallon bottles

18 VOLT CORDLESS, 1.5 CFM, 2 STAGE VACUUM PUMP



90058-A

- Sure-grip handle, ergonomically designed for superior comfort and portability
- Reinforced base provides extreme shock resistance
- Air cooled motor design allows for operation under high temperature conditions
- Pump runs with extremely high ultimate vacuum and low noise
- Accessible oil drain port & sight glass make both oil maintenance and accuracy easy
- Built-in device eliminates oil mist and an oil-gas separator at the air exhaust outlet prevents oil contamination in the air exhaust

SPECIFICATIONS:

- No. of stages: 2
- Free air displacement: 1.5 CFM
- Motor: DC 18V, 90 W
- Ultimate vacuum: 15 microns/3 Pa
- Oil capacity: 3.5 oz.
- Dimensions without battery: 9.9 x 3.7 x 6.1"
- Net weight: 7.9 lb

Rechargeable Battery

- Li-ion 18 V 5.0 Ah

Battery Charger

- Input: 100-240 V, 50-60 Hz, 73 W
- Output: 18V/14.4V 3A

* Mastercool does not recommend this pump be used with any other battery



90058-CH



90058-BAT-5A



90058-SL-MC

90058-5A

Complete Kit Includes:

- 18 V cordless vacuum pump, 1/4" SAE port
- Mastercool designed rechargeable battery
- Mastercool adapter sleeve
- Standard battery charger, 110V standard US cable
- 3.5 oz of oil

90058-5A-EU

Complete Kit Includes:

- 18 V cordless vacuum pump, 1/4" SAE port
- Mastercool designed rechargeable battery
- Mastercool adapter sleeve
- Standard battery charger with 220V schuko cable
- 3.5 oz of oil

90058-A

18 V Cordless Vacuum Pump, 1/4" SAE Port and 3.5 oz of Oil (without battery and adapter sleeve)

90058-BAT-KT-5A

Mastercool Rechargeable Battery and Adapter Sleeve

90058-BAT-5A

Mastercool Rechargeable Battery

90058-CH

Mastercool Battery Charger, 110V Standard Us Cable

90058-CH-E

Mastercool Battery Charger, 220V Schuko Cable

90058-CH-AUS

Mastercool Battery Charger, 220V Australia Cable

90058-CH-BR

Mastercool Battery Charger, 220V Brazil Cable

90058-SL-MC

Adapter Sleeve to allow for use with Mastercool batteries

98063-BT DIGITAL VACUUM GAUGE WITH BLUETOOTH® WIRELESS TECHNOLOGY



Packaged in a zippered carry case

Mastercool introduces its new compact hand-held digital vacuum gauge with Bluetooth® wireless technology which combines the most advanced features to provide quick and accurate responses every time. Utilizing a state-of-the-art glass beaded thermistor and temperature compensation, Mastercool is offering the latest technology to the HVAC/R technician.

Included in this package will be the capability to download our free Mastercool Connect app. This will allow for full mobility as activity can be easily viewed on all compatible hand-held smart devices.

FEATURES:

- Sintered bronze inlet filter to protect the sensor
- 5-digit LCD screen features an ultra-vibrant blue back-light allowing for easy readability
- Chemical resistant sensor for ease of cleaning
- Low battery icon displayed on the LCD indicates that the batteries are low and need to be replaced
- Calibration can be performed while in the field environment
- Audio and visual alarm when vacuum goes below a user adjustable set point
- Bluetooth® wireless technology provides communication to hand-held smart devices through the Mastercool Connect app

SPECIFICATIONS:

- Sensor: glass bead thermistor with temperature compensation
- Connection fitting: 1/4 SAE F-FL with stem depressor
- Operating temperature: 32 to 120°F (0 to 45°C)
- Vacuum units: Micron, Torr, mTorr, mmHg, mBar, Pa
- Range: 20,000 to 1 micron
- Accuracy: ±10% of reading (from 10,000 to 100 microns)
- Proof pressure: 450 psi
- Auto-off: automatic after 10 minutes, blue back-light after 3 minutes
- Power: 2 AA batteries included
- Battery life: 100+ continuous hours (depending on back-light use)
- Weight: 0.3 lb (0.13 kg) without batteries
0.5 lb (0.23 kg) with batteries
- Dimensions: 1.9" x 6.3" x 1.4" (50 mm x 160 mm x 36 mm)

Specifications for Bluetooth® wireless technology:

- 260' (80m) maximum line-of-sight range
- Bluetooth® 4.2 and 5

DOWNLOAD OUR APP



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Optional Accessories

99333 1/4 FL-M x 1/4 FL-M x 1/4 FL-F Tee

DIGITAL VACUUM GAUGE



As a professional technician the assurance of a deep vacuum on a system is imperative. The main problem with many small hand-held units is their inaccuracy and durability. Although the thermocouple sensor has been proven to be much more accurate and durable than the thermistor type, the problem has been the inconvenience of a cumbersome tabletop unit. Mastercool's hand held unit uses thermocouple technology. This vacuum gauge has been designed with the technician's field environment in mind, allowing for self-calibration and a sensor that will not be damaged by small mists of oil. The Mastercool unit allows for a target vacuum range to be programmed with a light sensor indicator. Now you have the freedom to continue with your other work and come back to the system once you see the indicator light signaling your target vacuum.

SPECIFICATIONS:

- Response time: 250 mSec.
- Sensor cable: spiral cable extended to 6.5 feet (2.6 meter)
- Sensor: thermocouple sensor
- Connection fitting: 1/4" flare female adapter
- Operating temperature: 32 to 120°F (0 to 45°C)
- Power: 9V DC battery (AC/DC Adapter optional)
- Battery life: 36 hours
- Low battery indicator: special ICON on LCD
- Vacuum units: micron, Torr, mTorr, mmHg, mBar, Pa
- Range: 20,000 to 1 micron
- Accuracy range*: ATM-1000 microns: ±10% of reading
 1000 - 100 microns: ±7% of reading,
 100 - 1 micron: ±5% of reading

* Unit accuracy refers to sensor specifications and is based on optimal laboratory conditions. Field operations may greatly deviate from these levels.



98061 Digital Vacuum Gauge packaged in a blow molded case

98061-C Digital Vacuum Gauge packaged in a clamshell

Optional Accessories

98061-SENSOR Replacement Sensor

99334-110 110 V AC/DC Adapter

99333 1/4 FL-M x 1/4 FL-M x 1/4 FL-F Tee

ANALOG VACUUM GAUGE

NEW



Mastercool's hand-held analog vacuum, class 1.0, gauge is designed with the highest quality to provide accurate readings every time. This bourdon tube type analog vacuum gauge is used for determining system vacuum.

- Large, 80 mm gauge makes it easier and more accurate to read than smaller gauges
- Indicator needle, to mark pressure for testing, provides a backup in case you forget to write the pressure down. You can see if the pressure has changed with a quick glance
- Barometric pressure compensation allows for the most accurate reading regardless of altitude or local weather conditions

SPECIFICATIONS:

- Gauge size: 80 mm
- Units: inhg 30-0 and mbar 0-1000
- Atmospheric pressure compensation: 1065-655 mbar
- Accuracy: EU Class 1, ASME Grade 1A

98065 Analog Vacuum Gauge with 1/8" NPT Male Thread Fitting
 Allows for mounting directly to manifold block

98066 Analog Vacuum Gauge with 1/4" Flare Female Swivel Nut Connection
 Allows for direct attachment to system or vacuum pump

98067-R Analog Vacuum Gauge with Control Valve 1/4" Flare Female X 1/4" Flare Male
 Allows for attachment to all connections and isolated leak testing



CHARGING & RECOVERY EQUIPMENT

98210-BL **Black Series** ELECTRONIC CHARGING SCALE WITH BLUETOOTH® WIRELESS TECHNOLOGY



THE ULTIMATE DEVICE FOR CHARGING AND RECOVERING OF REFRIGERANT

Mastercool's electronic charging scale with Bluetooth® wireless technology features an extra-large LCD display for easy reading from any angle and features three display modes (kgs, lbs, oz). With a high capacity of up to 243 lbs (110 kgs) it is easily one of the best on the market. Included in this package will be the capability to download our free Mastercool Connect app. This will allow for full mobility as activity can be easily viewed on all compatible hand-held smart devices.

Platform level eye to easily make sure unit is placed on a level surface

Rugged platform for easy weighing of refrigerant tanks

Compact control panel features a large back-lit LCD screen and keypad

Long flexible coil allows user to easily place control panel in an array of convenient positions

SPECIFICATIONS:

- 243 lbs (110 kg capacity)
- Accuracy: $\leq \pm 0.05\%$ of reading
- Resolution: 0.05 lb / 0.5 oz / 0.01 kg
- Automatic Shut-off: After 3 hrs
- Operating Temperature: 32 to 120°F (0 to 49°C)
- Battery Life: Approximately 40 hrs
- 9" x 9" (22 cm x 22 cm) platform

Specifications for Bluetooth® wireless technology:

- 260' (80m) maximum line-of-sight range
- Bluetooth® 4.2 and 5

DOWNLOAD OUR APP

Download on the **App Store** | **GET IT ON Google Play**

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

Durable and Portable

Strong aluminum base with a rugged, non-slip platform provides extra durability while working in any environment. The included compact and heavy-duty carrying case allows for easy portability to any job site.

Manufactured for Performance

The large 9 x 9" platform provides for easy weighing of refrigerant tanks with an accuracy of $\leq \pm 0.05\%$ of reading.

FUNCTIONS:

- **CHARGE PROGRAMMING:** Allows user to program desired quantities. Before charge is complete, an alarm will sound allowing ample time to turn off refrigerant supply
- **PAUSE/CHARGE** (Using the 98230 Charging Solenoid Module): This feature allows user to stop and continue charging
- **TANK CAPACITY PROGRAMMING:** EMPTY/FULL tank feature allows user to know the amount of refrigerant in the tank at any time
- **REPEAT:** Allows user to charge previously stored amount



98211-B **Black Series** CERTIFIED ELECTRONIC CHARGING SCALE WITH BLUETOOTH® WIRELESS TECHNOLOGY



OIML & CE Approved, Legal for Trade. Included in this package will be the capability to download our free Mastercool Connect app. This will allow for full mobility as activity can be easily viewed on all compatible hand-held smart devices.

FUNCTIONS:

- **CHARGE PROGRAMMING:** Allows user to program desired quantities. Before charge is complete, an alarm will sound allowing ample time to turn off refrigerant supply
- **PAUSE/CHARGE** (Using the 98230 Charging Solenoid Module): This feature allows user to stop and continue charging
- **TANK CAPACITY PROGRAMMING:** EMPTY/FULL tank feature allows user to know the amount of refrigerant in the tank at any time
- **REPEAT:** Allows user to charge previously stored amount

SPECIFICATIONS:

- Accuracy class: III
- Maximum capacity: 55 kg / 110 kg
- Minimum capacity: 400 g
- Verification scale interval: e = 20 g / 50 g
- Actual scale interval: d = 20 g / 50 g
- Maximum number of scale intervals: n = 2750 / 2200
- Weighing range (s): multiple interval
- Temperature range: 0°C / +40°C
- Power supply voltage: 9 V battery; 9 V AC/DC plug in power supply
- Automatic Shut Off: 3 hours
- Battery Life: approximately 40 hours
- Platform: 22 x 22 cm (9 x 9")

Operating Instructions

EC type approval Certificate

WIRELESS REFRIGERANT CHARGING SCALE



98315 with solenoid



When remote is out of range the unit will automatically pause. This pause mechanism allows unit to restart when remote is back in range.

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

FEATURES:

- Wireless unit prevents unwanted tangles in wires
- Easily store the remote in the body of the platform
- Keypad provides synchronization and zeroing
- Extremely accurate weight sensor
- Magnet on remote allows easy placement on fixtures
- Battery life symbol for platform and remote constantly displayed on LCD
- Wireless signal strength indicator conveniently displays on remote

FUNCTIONS:

- **CHARGE PROGRAMMING:**
Allows user to program desired quantities. Before charge is complete, an alarm will sound allowing ample time to turn off refrigerant supply.
- **PAUSE/CHARGE (98315 model only):**
This feature allows user to stop and continue charging.
- **TANK CAPACITY PROGRAMMING:**
Empty/full tank feature allows user to know the amount of refrigerant in the tank at any time.
- **REPEAT (98315 model only):**
Allows user to charge previously stored amount.

SPECIFICATIONS:

- Capacity: 243 lbs (110 kg)
- Accuracy: $\leq \pm 0.05\%$ of reading
- Resolution: 0.05 lb / 0.5 oz / 0.01 kg
- 3 hrs auto off function
- Operating temperature: 32°F to 120°F (0°C to 49°C)
- Battery life: approximately 20 hours
- 31 cm platform
- Accepts all US & EU standard cylinders



REMOTE RANGE:
100 FEET (30 M),
LINE OF SIGHT

- 98310 Wireless Refrigerant Charging Scale
- 98315 Wireless Refrigerant Charging Scale with Solenoid

ELECTRONIC TANK HEATER BLANKET



The Mastercool refrigerant tank heater blanket speeds up recharging time.

- Assures total discharge of refrigerant from 30 lb and 50 lb tanks. Heats tanks to 125°F resulting in maximum pressure of 185 psi for R134a
- Quick working 300W heater element
- An excellent complement to all Mastercool refrigerant scales

- 98250 110 V
- 98250-220 220 V

98230 CHARGING SOLENOID MODULE



The 98230 Charging Solenoid Module turns the 98210-BL ACCU-CHARGE II & 98211-B ACCU-CHARGE III into Automatic Programmable Scales!

This module allows the user to control the exact amount of refrigerant transferring to and from the A/C system. The compact design is battery powered (9V), lightweight, portable and works with all types of refrigerant. The 98230 with 1/4" x 1/4" fittings includes a short hose for tank connection, USB cord and 1/4" FL - 1/2" ACME adapters.



98209 ELECTRONIC CHARGING SCALE



- Slim design for easy storage
- Two keys for easy operation
- Unit change (grams & ounces)
- One touch tare weighing function
- Auto zero and auto off (after 3 hours)

SPECIFICATIONS:

- Capacity: 176 oz / 5000 g
- Sensitivity: 0.035 oz / 1 g
- Dimensions: 140 (w) x 185 (l) x 35 (h) mm
- Platform size: 120 mm
- Power source: 2 x AAA 1.5v battery

HIGH PRECISION CHARGING SCALE



Mastercool's high precision charging scale accurately measures small cans of refrigerant for charging systems that need a precise charge. Small cans of refrigerant attach directly to the scale for ease of use.

- 7/16"-28 hex cylinder adapter included for easy attachment of refrigerant cylinder to scale
- Specially designed for R600a and R290
- 36" thermoplastic capillary hose with 1/4" swivel female fittings
- Built-in check valve will hold any remaining refrigerant within the 36" capillary hose
- Slim design for easy storage
- Two button keypad for easy operation
- Large LCD display accurately shows units in grams or ounces
- One touch tare weighing function
- Auto zero

SPECIFICATIONS:

- Capacity: 176 ounces (5000 grams)
- Resolution: 0.035 ounces (1 gram)
- Accuracy: $\leq \pm 6$ g
- Dimensions: 5.5 (w) x 7.3 (l) x 1.6 (h) inches (140 (w) x 185 (l) x 40 (h) mm)
- Power source: 3 x AA 1.5V battery
- Auto-off: after 3 hours of inactivity
- Fitting: 1/4" SAE-M flare fitting with check valve



98201-A High Precision Charging Scale packaged in a Mastercool labeled cardboard box

98202-A High Precision Charging Scale with storage for a 14 oz. refrigerant cylinder (sold separately) packaged in a custom molded plastic case

98202-A-600 High Precision Charging Scale packaged in a custom molded plastic case with a can of R600a refrigerant (14.8 oz (420 g))

98202-A-290 High Precision Charging Scale packaged in a custom molded plastic case with a can of R290 refrigerant (13 oz (370 g))

91050-600-12 R600a Refrigerant Cylinder (box of 12)
14.8 oz (420 g) can of R600a refrigerant

91050-290-12 R290 Refrigerant Cylinder (box of 12)
13 oz (370 g) can of R290 refrigerant



91050-290-12

- Y-valve for liquid/vapour TPED approved
- Single valve for vapour TPED approved
- Raised collar for ease of handling and protection

- Tanks conform to PED and ADR regulations
- CE and TÜV approved
- Used for storage and transport of refrigerant gases



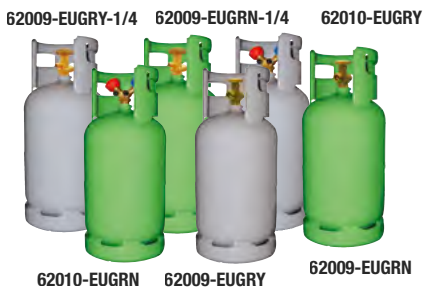
6 LITER REFRIGERANT/RECOVERY CYLINDERS



- Size (w x h): 185 mm x 338 mm
- Tare weight: 5.18 Kg
- Standard specification: ADR/RID2009, EN13322-1N D TUV 1
- Nominal water capacity: 6 l
- Tank test pressure: 48 bar
- Air tightness test pressure: 32 bar
- Bursting pressure: >108 bar
- Bursting volumetric expansion rate: >20%
- Body material: HP295
- Service pressure: 32 bar

SINGLE VALVE (available from US factory)		
Connection	1/4" FL-M (7/16-20)	W21.8-14.M
Model (grey tank)	NA	61009-EUGRY
Model (green tank)	61009-EUGRN-1/4	61009-EUGRN
DOUBLE VALVE		
Model (green tank)	61010-EUGRN	NA

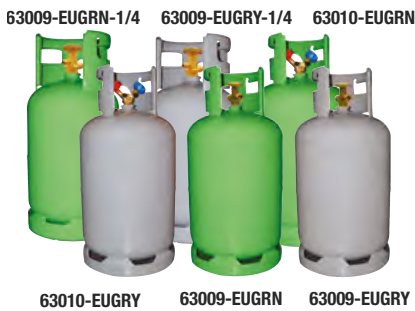
12.5 LITER REFRIGERANT/RECOVERY CYLINDERS



- Size (w x h): 228 mm x 516 mm
- Tare weight: 8 Kg
- Standard specification: ADR/RID2009, EN13322-1N D TUV 1
- Nominal water capacity: 12.5 l
- Tank test pressure: 48 bar
- Air tightness test pressure: 32 bar
- Bursting pressure: >108 bar
- Bursting volumetric expansion rate: >20%
- Body material: HP295
- Service pressure: 32 bar

SINGLE VALVE (available from US factory)		
Connection	1/4" FL-M (7/16-20)	W21.8-14.M
Model (grey tank)	62009-EUGRY-1/4	62009-EUGRY
Model (green tank)	62009-EUGRN-1/4	62009-EUGRN
DOUBLE VALVE		
Model (grey tank)	62010-EUGRY	NA
Model (green tank)	62010-EUGRN	NA

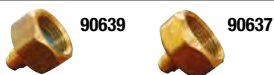
27.2 LITER REFRIGERANT/RECOVERY CYLINDERS



- Size (w x h): 298 mm x 613 mm
- Tare weight: 15.7 Kg
- Standard specification: ADR/RID2009, EN13322-1N D TUV 1
- Nominal water capacity: 27.2 l
- Service pressure: 32 bar
- Air tightness test pressure: 32 bar
- Bursting pressure: >108 bar
- Bursting volumetric expansion rate: >20%
- Body material: HP295
- Tank test pressure: 48 bar

SINGLE VALVE (available from US factory)		
Connection	1/4" FL-M (7/16-20)	W21.8-14.M
Model (grey tank)	63009-EUGRY-1/4	63009-EUGRY
Model (green tank)	63009-EUGRN-1/4	63009-EUGRN
DOUBLE VALVE		
Model (grey tank)	63010-EUGRY	NA
Model (green tank)	63010-EUGRN	NA

TANK ADAPTERS

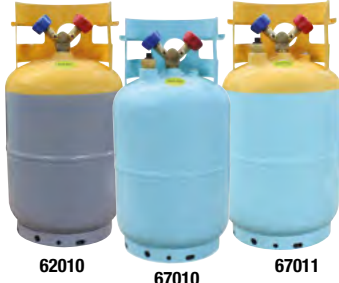


90639	W21.8-14 x 1/4" FL (EU Standard)	90640	Gasket for 90639
90637	3/4-16 x 1/4" FL (US Standard)	90638	Gasket for 90637

DOT-APPROVED RECOVERY CYLINDERS

- Powder coated cylinder for high gloss, durable finish
- Pre-charged cylinder provides a clean, dry interior
- 3/4" NPT opening accepts 80% fill float switch shut-off device
- Reusable and conforms to DOT-4BA400 specs and ARI guidelines
- Collar design for ease of handling
- Storage and transport of recovered refrigerant gases
- Y-valve for liquid/vapor
- AUS Approved and TC Canadian Approved

30 LB. DOT-APPROVED RECOVERY CYLINDERS



- Size (w x h): 9.125" x 17.52"
- Standard spec.: DOT - 4BA400
- Service pressure: 400 PSI / 2.7 MPa
- Tare weight: 17.99 LB
- Body material: HP295
- Relief valve pressure: 600 PSI / 4.1 MPa
- Nominal water capacity: >26.2 LB / 11.9 L
- Tank test pressure: 800 PSI / 5.5 MPa
- Air tightness test pressure: 400 PSI / 2.7 MPa

Connection	1/4" FL-M (7/16-20)			1/2" ACME		
Model	62010 without float switch	62011 with float switch	62012 with float switch & 1/4" SAE Port	64010 without float switch	67010 with float switch	67011 with float switch
Color	yellow/gray			blue		yellow/blue

50 LB. DOT-APPROVED RECOVERY CYLINDERS



- Size (w x h): 12.25" x 18.78"
- Standard spec.: DOT - 4BA400
- Service pressure: 400 PSI / 2.7 MPa
- Tare weight: 28.71 LB
- Body material: HP325 or HP345
- Relief valve pressure: 600 PSI / 4.1 MPa
- Nominal water capacity: >47.7 LB / 21.6 L
- Tank test pressure: 800 PSI / 5.5 MPa
- Air tightness test pressure: 400 PSI / 2.7 MPa

Connection	1/4" FL-M (7/16-20)			1/2" ACME	
Model	63010 without float switch	65010 with float switch	66012 with float switch & NCG Port	66010 without float switch	66011 with float switch
Color	yellow/gray				

100 LB. DOT-APPROVED RECOVERY CYLINDERS



- Size (w x h): 11.25" x 31.81"
- Standard spec.: DOT - 4BW400
- Service pressure: 400 PSI / 2.7 MPa
- Tare weight: 50.5 LB
- Body material: HP325
- Relief valve pressure: 600 PSI / 4.1 MPa
- Nominal water capacity: >92.5 LB / 41.9 L
- Tank test pressure: 800 PSI / 5.5 MPa
- Air tightness test pressure: >87 PSI / 0.6 MPa

Connection	1/4" FL-M (7/16-20)
Model	68010 without float switch
Color	yellow/gray

ENVIRO TANK (REFILLABLE CYLINDER)

30 LB. REFILLABLE CYLINDER



- Size (w x h): 8.39" x 20"
- Standard spec.: DOT - 4BA400
- Service pressure: 400 PSI / 2.7 MPa
- Tare weight: 19.9 LB
- Body material: HP295
- Relief valve pressure: 600 PSI / 4.1 MPa
- Nominal water capacity: >30 LB / 13.6 L
- Tank test pressure: 800 PSI / 5.5 MPa
- Air tightness test pressure: >87 PSI / 0.6 MPa

Connection	1/4" FL-M (7/16-20)
Model	62020-WX
Color	white

ARCTIC COMMANDER



Mastercool's ARCTIC COMMANDER line of R/R/R machines are equipped with all the latest technology. All models come standard with an 8" command center. The graphic user interface (GUI) will enable navigation through all functions and features with the greatest of ease. There is no longer a need to read any external instructions or paper manuals, simply sit back, watch and learn how to use your machines. All machines are also equipped with Wi-Fi capabilities; allowing for real-time, interactive communication and troubleshooting.

SPECIFICATIONS:

- Design certified:
R1234yf - SAE J2843
R134a - SAE J2788
- Voltage: 110 V / 60 Hz or 220 V / 50/60 Hz
- Scale resolution: .02 lb (10 g)
- Working temperature range: 50/120°F (10/49°C)
- Compressor: hermetically sealed, 12cc, high pressure
- Recovery speed: 95% at 70 to 75°F (21 to 24°C) <30 minutes
- Recovery cylinder: 30 lb (12.5 liters), refillable
- Charge accuracy: ±0.5 oz. at 70 to 75°F (±15 g at 21 to 24°C)
- Filter system:
R1234yf - 1 filter for cleaning and water removal
R134a - 2 filters for cleaning and water removal
- Hoses: 96" (250 cm)
- Pressure gauges: class 1
- Cylinder temperature sensor: integrated
- Cylinder heater: standard equipment
- Dimensions (mm): 1150 (h) x 600 (w) x 770 (d)



WI-FI

Wi-Fi capability allows for real time, interactive communication and troubleshooting



COMPACT DESIGN

The machine's compact design makes it easy to maneuver and requires minimal shop space



COOLING FAN

Dedicated PC board cooling fan keeps the PC board consistently cool

8" COLOR TABLET WITH TOUCH SCREEN FEATURES:



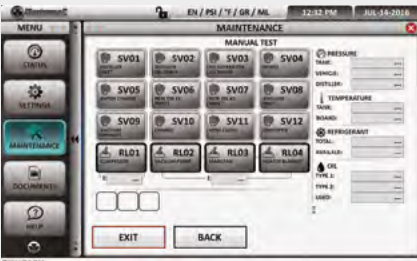
Home Screen
allows for quick touch selection of options



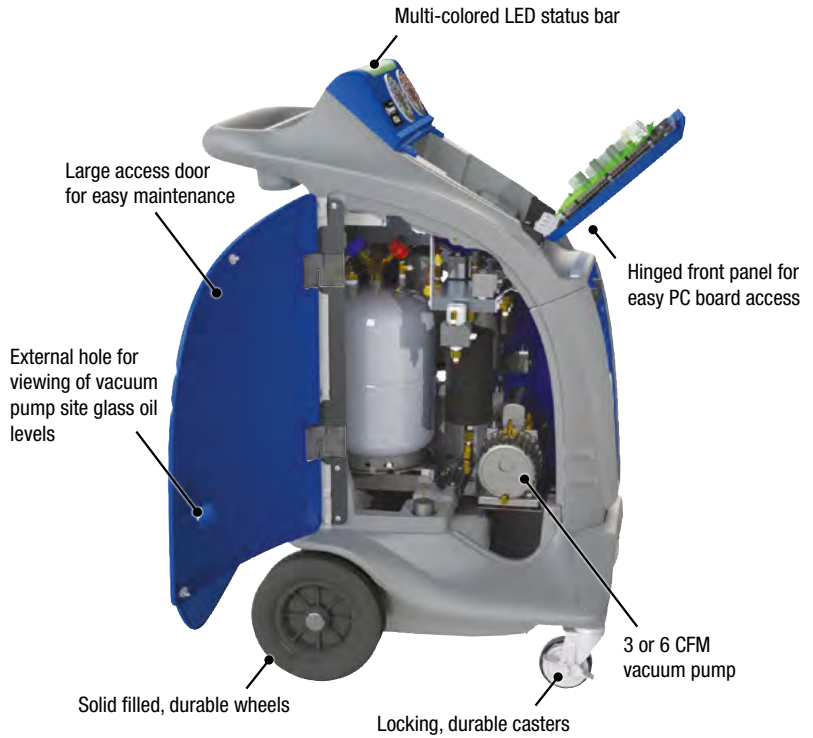
Status Screen
for quick reference of resources



Settings Screen
allows the user to select a default language, units, temperature, volume and weight measurement



Maintenance Screen
offered only to authorized service technicians allowing for quick and easy diagnosis





COMMANDER4000-E



COMMANDER3000-E



COMMANDER2000-E



COMMANDER1000-E

	COMMANDER4000 (110V) COMMANDER4000-E (220V) R1234yf	COMMANDER3000 (110V) COMMANDER3000-E (220V) R134a HYBRID	COMMANDER2000 (110V) COMMANDER2000-E (220V) R134a FULLY AUTOMATIC	COMMANDER1000 (110V) COMMANDER1000-E (220V) R134a MANUAL
8" Color Touch Screen	X	X	X	X
Automatic and Manual Procedures	X	X	X	Manual procedures only
Refrigerant Database	X	X	X	Optional
Automatic Vacuum Leak Test: Programmable	X	X	X	X
Auto Oil Discharge	X	X	X	X
Auto and Manual Air Purge	X	X	X	X
Auto Filter and Full Tank Alarm	X	X	X	X
Low Refrigerant Alarm	X	X	X	X
Auto Oil Injection	COMMANDER4000-E only	COMMANDER3000-E only	X	NA
Thermal Printer with E-Printing Capability	X	X	Optional	Optional
Hose Flushing	X	X	NA	NA
Vehicle A/C System Flushing	Optional	Optional	NA	NA
Tank Heater	X	X	X	X
Vacuum Pump	6 CFM	6 CFM	6 CFM	3 CFM
Refrigerant Identifier	X	NA	NA	NA
On-board Instructions	X	X	X	X
Multiple Languages	X	X	X	X
On-board Unit Conversion Calculator	X	X	X	X
Cabinet Designed for Increased Air Flow	X	X	X	X
Large Analog Gauges	X	X	X	X
Hard Wired Power Cord	X	X	X	X
Hose Coupler Storage	X	X	X	X
Solid Durable Wheels with Locking Casters	X	X	X	X
Multi-colored LED Status Bar	X	X	X	NA
Wi-Fi Capable	X	X	X	X

For R1234yf machines without a refrigerant identifier, use COMMANDER4000-E-X (220V model)

NEW UNIVERSAL R/R/R MACHINE OPTION: COMMANDER4000-EX-U please see <https://www.mastercool.com/product/commander4000-ex-u> for more information

All Commander Machines are available with the following cables, please add:



-E for 220V schuko



-E-AUS for Australia



-E-UK for UK



-E-BR for Brazil

COMMANDER CONSUMABLES

Mastercool uses only the highest quality oils and dies with their products. In order to keep your warranty valid, please use Mastercool oils and dies at all times. For the Commander line of machines, Mastercool recommends the following consumables:

COMPRESSOR OILS



92709-65-8 92709-65-32

Maximum protection with excellent thermal & oxidative stability. Moisture tolerant. OEM approved.

- 92709-65-8 PAG 65 Oil (8 oz (236 ml) bottle)
- 92709-65-32 PAG 65 Oil (32 oz (1 L) bottle)
- 92709-100-8 PAG 100 Oil (8 oz (236 ml) bottle)
- 92709-100-32 PAG 100 Oil (32 oz (1 L) bottle)
- 92709-150-8 PAG 150 Oil (8 oz (236 ml) bottle)
- 92709-150-32 PAG 150 Oil (32 oz (1 L) bottle)

ZEROL[®] HD46 R1234yf MOBILE AIR CONDITIONING COMPRESSOR LUBRICANT



92709-YF-8 92709-YF-32

- Optimized miscibility in HFO refrigerant R1234yf
- Superior lubricity
- Exceptional viscosity index (VI)
- Good high temperature and chemical stability
- Low hygroscopicity (tendency to absorb moisture)
- Formulating expertise
- Excellent electrical resistivity properties for electrically driven systems

- 92709-YF-8 8 fl. oz (236 ml) Bottle
- 92709-YF-32 32 fl. oz (946 ml) Bottle

ULTRAVIOLET A/C DYES



92708 92732 53625

- 92708 Standard Universal Dye
8 oz (240 ml) Bottle - 32 Applications
- 92732 Standard Universal Dye
32 oz (1 L) Bottle - 128 Applications
- 53625 Concentrated Universal Dye
2 oz (60 ml) Bottle - 25 Applications

COMMANDER REPLACEMENT FILTERS



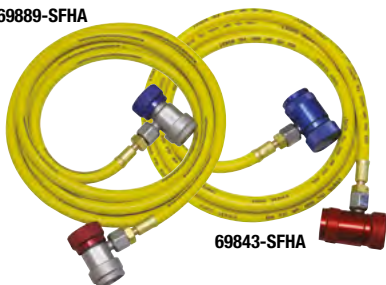
COMD2-FLTRPK

Change the filter-drier when notified by the machine to assure adequate moisture and contaminant removal as well as prevent lockout.

- COMD2-FLTRPK 2 Filter Pack
for COMMANDER1000, COMMANDER2000, COMMANDER3000. Has a 175 lb filtering capacity
- COMD1-FLTRPK 1 Filter
for COMMANDER4000, COMMANDER4000-E, COMMANDER3000-E, COMMANDER2000-E, COMMANDER1000-E. Has a 350 lb filtering capacity

A/C SYSTEM FLUSH HOSE ASSEMBLY

69889-SFHA



69843-SFHA

- 69889-SFHA R134a A/C System Flush Hose Assembly
includes high and low side couplers (82834, 82934) and 8 foot yellow hose
- 69843-SFHA R1234yf A/C System Flush Hose Assembly
includes high and low side couplers (83834, 83934) and 8 foot yellow hose

TWINTURBO

REFRIGERANT RECOVERY MACHINE



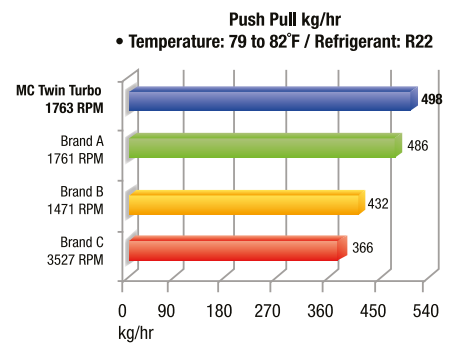
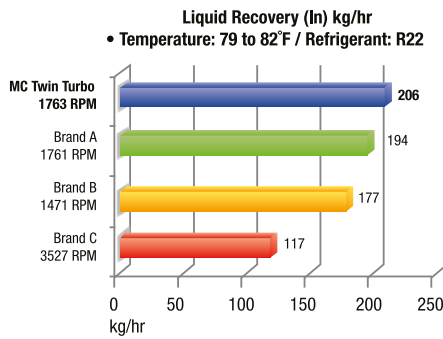
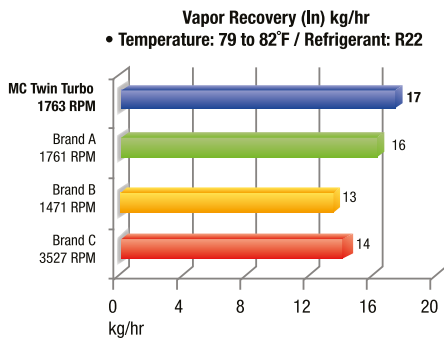
FEATURES & BENEFITS:

- Revolutionary double piston oil-less compressor
- Safety high pressure switch
- Simple internal structure for field service
- Largest volume recovery rate in market
- For use with all refrigerants including R410A
- Injection molded high density polyethylene case for maximum durability
- Front cover has bumper guards built in to reduce damage to the control knobs
- Compatible refrigerants: All CFC, HCFC, and HFC's

SPECIFICATIONS:

- 1/2 hp oil less compressor
- Recovery rate:

<p>R134a</p> <ul style="list-style-type: none"> • Direct vapor up to 14 kg/hr • Direct liquid up to 130 kg/hr • Push pull up to 318 kg/hr 	<p>R22</p> <ul style="list-style-type: none"> • Direct vapor up to 17 kg/hr • Direct liquid up to 206 kg/hr • Push pull up to 498 kg/hr
---	---
- Operating temperature: 0 to 50°C / 32 to 122°F
- Weight: 12.8 kg / 28.3 lbs
- Dimensions: 457 mm (l) x 254 mm (w) x 356 mm (h) (18" (l) x 10" (w) x 14" (h))
- Case material is HDPE (high density polyethylene)



All twin turbo recovery machines are available with either a UK or Australian cable, please add a: **-AUS** for an Australian cable / **-UK** for a UK cable

THE TWIN TURBO SERIES IS THE MOST COMPLETE SOLUTION TO YOUR RECOVERY NEEDS!

TWIN TURBO REFRIGERANT RECOVERY MACHINE



69300-220

Mastercool's addition to the recovery machine lineup takes the reliability of the 69000 series machines and enhances those features to allow for maximum recovery capacity while at the same time decreasing size and weight. The design of the double piston compressor and cooling by the largest fan and condenser in the market makes the 69300 series the most complete solution to your recovery needs!

♦ **Approved for all Air Conditioning Refrigerants including A2L Mildly Flammable Refrigerants** ♦

69300	115 V - 60 Hz
69300-220	220 V - 50/60 Hz
69300-220-EU	220 V - 50/60 Hz includes a manual restart button per EU standards

TWIN TURBO REFRIGERANT RECOVERY MACHINE



69350-220

This unit offers all the same functions and features as the 69300. In addition it has an oil separation module, filter dryer and sight glass.

69350	115 V - 60 Hz
69350-220	220 V - 50/60 Hz
69350-220-EU	220 V - 50/60 Hz includes a manual restart button per EU standards
69500-DR	Replacement Filter Dryer

MOBILE RECOVERY MACHINE



COMPATIBLE WITH COMBUSTIBLE GASES

♦ **Approved for all Air Conditioning Refrigerants including A2L and A3 Flammable Refrigerants** ♦



69390-220

69390	115 V - 60 Hz FOR MOBILE A/C SYSTEMS DESIGNED FOR R1234yf This unit offers all the same functions and features as the 69300. In addition: • Meets all requirements of SAE J2851 • 60" R1234yf blue hose and low side (1/4 FL-M x 13 mm) coupler • 60" yellow transfer hose Comes equipped with overfill protection switch cutting off at 80% tank capacity (Recovery tanks must have floats using 3 pin Brad Harris plug)
69390-220	220 V - 50/60 Hz (same as above)
69395-220	HVAC Combustible Gas Recovery Machine (220 V - 50/60 Hz) comes as pictured less hoses and couplers with 1/4" flare fittings

mini
TWINTURBO
 REFRIGERANT RECOVERY MACHINE

CE



COMPATIBLE WITH COMBUSTIBLE GASES

♦ Approved for all Air Conditioning Refrigerants including A2L and A3 Flammable Refrigerants ♦

Mastercool's "Mini Twin" all in one recovery machine is equipped with the same high quality twin piston compressor as the Twin Turbo series and has been designed to work in all applications. Whether you find yourself up a ladder, in a crawl space or just not looking forward to lugging around a heavy piece of equipment, this is the right machine for you. Best of all, this machine has been constructed with the safest spark free component allowing for use with all combustibles gases.

SPECIFICATIONS:

- 1/2 HP motor
- Operating temperature: 0 to 50°C (32 to 122°F)
- Compatible with all CFC, HCFC, HFC's, and combustibles gases
- Weight: 11 kg (24 lbs)
- Dimensions: 300 mm (l) x 200 mm (w) x 270 mm (h) (11.8" (l) x 7.9" (w) x 10.6" (h))

69400 115 V - 60 Hz

69400-220 220 V - 50/60 Hz

69500 RECOVERYMATE



Turn any recovery machine into a portable recycler by adding the RECOVERYMATE!

SPECIFICATIONS:

- Lightweight and easy to carry
- 4-way ball valve manifold controls the flow smoothly and quickly with only 1/4 turn
- Large capacity oil separator
- High performance dryer eliminates moisture from recovered refrigerant
- Extra large sight glass monitors refrigerant flow and changes color when a dryer change is necessary
- Rugged carrying case can stand on its own or be mounted on a wall or bench
- Length: 38 cm (15")
- Width: 10 cm (4")
- Height: 43 cm (17")
- Weight: 5.5 kg (12.25 lbs)
- Includes 60" nylon barrier hoses ((2) blue, (2) red, (1) yellow and (1) black)

REFRIGERANT RECOVERY SYSTEM



These recovery systems are compact, lightweight and work with all refrigerants. They're ideal for commercial, residential or industrial appliance applications. Our recovery systems offer a state-of-the-art 1/2 HP oil-less compressor with a built-in high volume cooling fan. This innovative design delivers maximum cooling efficiency which keeps the compressor working at high capacities in even the hottest climates. The compressor is also protected by an automatic low pressure cut-off switch that shuts off the unit once the recovery is complete. This auto shut-off feature eliminates the risk of compressor failure and reduces the user's need to monitor the entire recovery system. All of our recovery systems offer our color-coded gauges with pressure readings in PSI, BAR and MPa. Our stainless steel ball valve designed manifold, controls the flow smoothly and quickly with only a 1/4 turn. With all of this protected by a reinforced hard plastic case, Mastercool's recovery systems will meet all your refrigerant recovery needs.

FEATURES:

- High performance oil-less compressor
- High volume cooling fan design
- Automatic low pressure cut-off switch
- Liquid compatible head-valve system
- Safety high pressure cut-off switch
- Fully reinforced hard plastic casing

SPECIFICATIONS:

- 1/2 HP oil-less compressor
- Recovery rate:
 Direct vapor up to 12 kg/h
 Direct liquid up to 71 kg/h
 Push-pull up to 326 kg/h
- Operating temperature range: 0 to 50°C (32 to 122°F)
- Weight: 16 kg (38 lbs)
- Dimensions: 432 mm (l) x 254 mm (w) x 305 mm (h) (17" (l) x 10" (w) x 12" (h))
- Refrigerants: CFC's, HCFC's, HFC's

69000	115 V - 60 Hz
69000-220	220 V - 50/60 Hz
69000-220-TUV	220 V - 50 Hz certified to TUV/GS and E35-421
69000-J	100 V - 50 Hz (Japanese Standard)

69200-220 COMPLETE A/C RECOVERY SYSTEM



This unit offers all the same functions and features as the reliable 69000 recovery machine. In addition, Mastercool has strategically placed an oil separation module inside the unit that will dispense used oil effortlessly. Together with its filter dryer and sight glass this unit allows for the technician to actually clean the used refrigerant and potentially re-use.

69500-DR Replacement Filter Dryer

PORTABLE ELECTRONIC CHARGING STATION



91585-220

A lightweight, durable, steel frame cart that contains all the necessary tools to quickly and conveniently charge the A/C system.

FEATURES:

- A rugged, lightweight steel cart with wheels and convenient storage pocket for scale and hoses allows this portable charging station to be taken almost anywhere
- Dimensions: 26" x 17" x 13" (66 cm x 43 cm x 33 cm)
- Extruded aluminum manifold with long lasting valve design
- Large 80 mm gauges make it easy to read the pressure and temperature scales
- Rugged die cast 109 kg (240 lb) capacity electronic scale with long lasting 9V battery (60 hrs)
- Deep micron, rotary vane vacuum pumps. Available in 119 lit/min and 178 lit/min.
- Includes set of 180 cm (72") hoses

ALSO AVAILABLE:

- Refrigerant tank heater blanket #98250 and #98250-220
- * R134a automotive service couplers not included

Vacuum Pump	5 CFM	119 lit/min (50 Hz) 142 lit/min (60 Hz)	7.5 CFM	178 lit/min (50 Hz) 213 lit/min (60 Hz)
Voltage	110 V	220 V	110 V	220 V
2 Way Aluminum Block	91585	91585-220	91587	91587-220
4 Way Aluminum Block	91586	91586-220	91588	91588-220



91586-RBSF-2VB-220

DUAL VOLTAGE PORTABLE CHARGING STATION

Vacuum Pump	90063-2V-220-B	90066-2V-220-B
Voltage	110/220 V	110/220 V
2 Way Aluminum Block	91583-2V-220	91585-2V-220
4 Way Aluminum Block	91584-2V-220	91586-2V-220

91586-RBSF-2VB-220 SPARK FREE DUAL VOLTAGE PORTABLE CHARGING STATION



- 4-way aluminum manifold with large 80mm gauges includes R1270, R290 and R600a temperature scale, BAR/PSI/°C and 1.6 gauge class
- Blue, red, yellow and black ball valve hoses
- 6 CFM, 2 stage spark free vacuum pump (90066-220-BSF) with ultimate vacuum of 15 microns and 1/2 hp
- High precision charging scale (98201) with hex cylinder adapter for easy attachment of refrigerant cylinder to scale
- Analog vacuum gauge with 1/4" flare female swivel nut connection (98066) allows for direct attachment to system or vacuum pump

MOBILE ELECTRONIC CHARGING STATION



91680

Keeping the same ideals in mind as the portable electronic charging station, the mobile unit is directed towards the garage technician. With an enlarged carry cart and larger wheels, this unit can get around the shop with the greatest of ease!

- Dimensions: 45" x 18" x 16.5" (114 cm x 46 cm x 42 cm)

Vacuum Pump	5 CFM	119 lit/min	7.5 CFM	178 lit/min
Voltage	110 V	220 V	110 V	220 V
2 Way Aluminum Block	91685	91685-220	91687	91687-220
4 Way Aluminum Block	91686	91686-220	91688	91688-220

DUAL VOLTAGE MOBILE CHARGING STATION

Vacuum Pump	90063-2V-220-B	90066-2V-220-B
Voltage	110/220 V	110/220 V
2 Way Aluminum Block	91683-2V-220	91685-2V-220
4 Way Aluminum Block	91684-2V-220	91686-2V-220

All charging stations are available with either a UK or Australian cable, please add a: **-AUS** for an Australian cable / **-UK** for a UK cable



69134-A REFRIGERANT IDENTIFIER FOR R134a



This refrigerant identifier helps confirm the presence and quality of R134a refrigerant in vehicle air conditioning systems.

SPECIFICATIONS:

- Weight: 0.8 kg
- Refrigerant detected: R134a (tetrafluoroethane)
- Accuracy: PASS/FAIL - 95% Pure R134a
- Power requirements: 12 VDC
- User interface: membrane type with visual indicators and function key
- Calibration method: manual pump aspirator
- Storage temperature: -10° to 50°C
- Operating temperature: 10 to 45°C
- Minimum input pressure: 1.38 Bar (20 Psig), maximum input pressure: 20.70 Bar (300 Psig)
- Construction material: molded ABS housing/molded rubber sleeve



691234YF-MINI MINI ID REFRIGERANT IDENTIFIER FOR R1234yf



The 691234YF-MINI helps verify the presence and quality of R1234yf refrigerant in vehicle air conditioning systems, to avoid potential damage from refrigerant contamination. The MINI ID delivers fast and accurate refrigerant analysis in a self-contained, compact, and extremely portable package. It automatically provides step-by-step indication of the gas sampling process.

SPECIFICATIONS:

- Weight: 0.8 kg
- Refrigerant detected: R1234yf (tetrafluoropropene)
- Accuracy: PASS/FAIL - 95% Pure R1234yf
- Power requirements: 12 VDC
- Approvals: UL, CE, RoHS compliant
- User interface: membrane type with visual indicators and function key
- Calibration method: manual pump aspirator
- Storage temperature: -10° to 50°C
- Operating temperature: 10°C to 45°C
- Construction material: molded ABS
- Housing/molded rubber sleeve

69LEGEND-HFC LEGEND SERIES™ HFC REFRIGERANT ANALYZER



DIAGNOSTIC REFRIGERANT ANALYZER FOR MULTIPLE HVAC AND REFRIGERATION APPLICATIONS

Clean air calibration is all you need to analyze your refrigerant in less than 2 minutes. No matter the application, the Legend HFC Refrigerant Analyzer is capable of measuring vapor or liquid refrigerant to confirm purity while detecting the presence of other harmful refrigerants or air.

- Only mobile device to provide a high level of accuracy for measured refrigerants
- Accurate results within minutes
- Accuracy of ±1% of single component refrigerants
- Blend analysis for measured R400 series refrigerants
- Vapor or liquid sampling
- Store test data on external USB drive
- Internal thermal printer
- Remote software updates for new refrigerants
- Supports 10 languages for global operations
- Low flow indications to alarm user if flow restrictor becomes clogged

SPECIFICATIONS:

- Weight: less than 10 lbs.
- Accuracy: ±1% of indicated gasses or better
- Power requirements: 12 VDC @ 2A via 110/220 VAC, 50 – 60 Hz Adapter
- Approvals: CE, UL and CUL
- User interface: graphic display, soft keys, built in printer
- Sample gas extraction: pressure from cylinder or system
- Temperature range: 50 – 120°F (10 – 49°C)
- Humidity: 0 – 95% RH non-condensing
- Test sample size: 5 g per test
- Test pressure: 30 psig – 500 psig
- Identified refrigerants: R12, R1234yf, R408A, R409A, R417A, R421A, R421B, R422A, R422B, R422C, R427A, hydrocarbons
- Analyzed refrigerants: R22, R32, R134a, R404A, R407C, R410A, hydrocarbons (HC) and air





LEGEND SERIES™ R1234yf & R134a REFRIGERANT ANALYZER



With the introduction of the new HFO-1234yf refrigerant to the automotive market, vehicle manufacturers worldwide have developed new standards for vehicle A/C service. Included in these standards is the requirement to verify the purity of the refrigerant prior to recovery of the refrigerant in the system. The Legend™ is a worldwide ready tool to meet the service needs of HFO-1234yf equipped vehicles. It is certified to the SAE J2912 standard and connects directly to SAE J2843 and J3030 AC service machines that have an external analyzer USB port.

- Quickly and accurately determines refrigerant purity
- Displays percentage purity of R1234yf, R134a, R12, R22 and hydrocarbons
- Displays % air in pure R1234yf & R134a
- Capable of testing R12 with optional R12 hose accessory
- Easily prints test results with optional printer
- Uses standard 2.25" (57 mm) thermal paper
- Improved oil resistance with the user replaceable oil restrictor

SPECIFICATIONS:

- Refrigerants measured: R1234yf, R134a, R12
- Contaminants measured: R22, hydrocarbons, unknown
- Accuracy: exceeds the requirements of SAE J2912
- Refrigerant % displayed: R1234yf, R134a, R22, R12, HC, unknown, air
- Ambient operating temperature range: 10°C to 49°C
- Power: 12VDC @ 1.5 amps
- Communication protocols: USB 2.0, Bluetooth 2.0
- User interface: 5" color LCD with soft keys
- Ten languages: ENG, FRE, GER, ITA, POR, SPA, CHI, JAP, KOR, RUS
- Approvals: CE, UL, SAE J2912

FEATURES:

- Suitable for R134a, R1234yf & R12 vehicles
- Large color display
- Internal lithium battery
- Ergonomic design
- Optional built-in printer
- Optional Bluetooth® communication

Comes complete with:
 R1234yf & R134a refrigerant identifier
 R1234yf and R134a low side service couplers
 R1234yf and R134a cylinder adapters
 (2) R1234yf sample hoses
 (2) R134a sample hoses
 Charging adapter
 Custom case



69LEGEND	Legend Series™ R1234yf & R134a Refrigerant Analyzer without Bluetooth® / without printer
69LEGEND-P	Legend Series™ R1234yf & R134a Refrigerant Analyzer without Bluetooth® / with printer
69LEGEND-BT	Legend Series™ R1234yf & R134a Refrigerant Analyzer with Bluetooth® / without printer
69LEGEND-BTP	Legend Series™ R1234yf & R134a Refrigerant Analyzer with Bluetooth® / with printer



VISUAL INSPECTION SIGHT GLASS



SAVE TIME BY EASILY DETERMINING IF THE A/C SYSTEM NEEDS TO BE FLUSHED

The condition of the refrigerant in your A/C system is an important factor in the proper operation of all components and overall cooling efficiency. The only way to actually see the condition of the refrigerant in your vehicle's A/C system is with the use of the Mastercool visual inspection sight glass.

This unit can be used with a standard vacuum pump or with the vacuum function on your R/R/R machine. Easy to follow instructions will guide you through the use of either option.

- Allows user to visually inspect the refrigerant in any R134a or R1234yf system and identify excess dye, oil or debris
- Allows the user to extract a small portion of the refrigerant for actual visual inspection
- Leak free, ball valve controlled and will allow the refrigerant extracted for the visual inspection to be deposited back into the system

53376 R134a Visual Inspection Sight Glass with R134a Quick Couplers

Kit Includes:

- Refrigerant Oil Visual Inspection Sight Glass
- Low side, 1/4" (7/16"-20) x 13 mm Retrofit Adapter
- 60" Blue R134a Charging Hose
- 60" Red R134a Charging Hose
- High Side R134a 14 mm-F x 16 mm Quick Coupler
- Low Side R134a 14 mm-F x 13 mm Quick Coupler



53376-YF R1234yf Visual Inspection Sight Glass with R1234yf Quick Couplers

Kit Includes:

- Refrigerant Oil Visual Inspection Sight Glass
- 1/4 fl-f x 17 mm-m R1234yf Adapter with Valve Core
- 60" Blue R1234yf Charging Hose
- 60" Red R1234yf Charging Hose
- High Side R1234yf 12 mm-F x 17 mm Quick Coupler
- Low Side R1234yf 12 mm-F x 14 mm Quick Coupler



53377 R134a Visual Inspection Sight Glass with R134a Manual Couplers

Kit Includes:

- Refrigerant Oil Visual Inspection Sight Glass
- Low side, 1/4" (7/16"-20) x 13 mm Retrofit Adapter
- 60" Blue R134a Charging Hose
- 60" Red R134a Charging Hose
- High Side R134a 14 mm-F x 16 mm Manual Coupler
- Low Side R134a 14 mm-F x 13 mm Manual Coupler



53377-YF R1234yf Visual Inspection Sight Glass with R1234yf Manual Couplers

Kit Includes:

- Refrigerant Oil Visual Inspection Sight Glass
- 1/4 fl-f x 17 mm-m R1234yf Adapter with Valve Core
- 60" Blue R1234yf Charging Hose
- 60" Red R1234yf Charging Hose
- High Side R1234yf 12 mm-F x 17 mm Manual Coupler
- Low Side R1234yf 12 mm-F x 14 mm Manual Coupler





LEAK DETECTION

LEAK DETECTOR OVERVIEW

Model	55800	55975	56100	56200	55600	55745
Refrigerants	Detects all refrigerants (CFC's, HCFC's, HFC's and blends), combustible gases, hydrogen	Detects combustible gases, hydrogen	Detects all refrigerants (CFC's, HCFC's, HFC's and blends)	Detects all refrigerants (CFC's, HCFC's, HFC's and blends)	Detects all halogenated refrigerants (HFC's, HCFC's, CFC's, PFC's, HFO's)	R744
Sensor Life	2000 hours	2000 hours	20 hours	20 hours	10 years	40,000 hours
Power	2 "D" batteries	2 "C" batteries	2 "C" batteries	2 "C" batteries	3.78V 3000mAh lithium battery	3.78V 3000mAh lithium battery

THE ONLY LEAK DETECTOR YOU WILL EVER NEED



LCD Display



Keypad

IntellaSense REFRIGERANT LEAK DETECTOR

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

Detects: Combustible Gases, Hydrogen, Refrigerants: All CFC's, HCFC's & HFC's and blends

<< MEETS AND EXCEEDS J2791 (R134A), J2913 (R1234YF) AND EN 14624 >>

The 55800 leak detector employs a metal oxide gas sensor for the detection of chlorofluorocarbon gases and blends. This tin oxide sensor is characterized by high sensitivity and a fast response, upon detecting the presence of extremely small levels of chlorofluorocarbon gases. Integrated into the design is a powerful microprocessor that automatically selects the best operating conditions for the sensor, to ensure optimum performance. The optimum sensor performance is maintained and monitored throughout the life of the sensor.

SPECIFICATIONS:

- SENSITIVITY (*based on optimal laboratory conditions):
 - HIGH \geq 0.15 oz/yr (4.25 g/yr), MEDIUM \geq 0.25 oz/yr (7 g/yr), LOW \geq 0.5 oz/yr (14 g/yr)
- PROBE:
 - Intelligent tip design that senses the condition of the environment, to eliminate the potential of false alarms
 - Flexible 16" probe for difficult to reach locations
- DISPLAY:
 - Progressive LCD with vertical bars corresponding to the magnitude of the detected leak
 - Visual indication of the selected sensitivity range
- REFRIGERANTS: Detects all refrigerants (CFC's, HCFC's, & HFC's) Unit has been tested and approved to work with R1234yf as well as R32 and R410a
- SENSOR LIFE: 2000 hours
- OPERATING TEMPERATURE RANGE: 0 to 140°F
- POWER: Two (2) D batteries
- BATTERY LIFE: 60 hours continuous use
- WEIGHT: 1 lb. 8 oz

"SUPER SENSITIVE FUNCTION" allows the unit further sensitizing beyond the standard settings for locating small leaks with gases such as R1234yf and R407C

LCD FEATURES:

Wait mode, ready mode, INT mode, low battery indication, high-medium-low sensitivity range, signal level bars, error signals

KEYPAD FUNCTIONS:

On/off, volume/mute, HML sensitivity, hold and peak

55800 Intella Sense Refrigerant Leak Detector packaged in a blow molded case with 2 "D" batteries, leak test vial and replacement filters

55800-FILTER 3 Replacement Filters

55800-VL Leak Test Vial

55850

IntellaSense

REFRIGERANT LEAK DETECTOR KIT



CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

Intella-Sense Refrigerant Leak Detector Kit includes:

- Intella-Sense Refrigerant Leak Detector
- Mini UV light (53513-UV)
- UV safety glasses (92398)
- 2 "D" batteries
- Replacement filters (55800-FILTER)
- Leak test vial (55800-VL)
- Blow molded case (55800-PB)

55975

IntellaSense III

COMBUSTIBLE GAS LEAK DETECTOR



 COMPATIBLE WITH COMBUSTIBLE GASES

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

Intella-Sense III Combustible Gas Leak Detector is packaged in a blow molded case with 2 "C" batteries, leak test vial and replacement filters

SPECIFICATIONS

- Sensing element: heated tin oxide
- Sensor life: 2000 hours
- Refrigerants: detects combustible gases
- Response time: less than 1 second
- Battery: 2 "C" alkaline 6000 mAh batteries
- Operating temperature range: 0°F to 120°F
- Ultimate sensitivity: 50 – 1000 ppm
- Probe:
 - Intelligent tip, with environment sensing element to eliminate the potential of false alarms
 - Flexible 15.5 inch probe length for difficult to reach locations
- Display:
 - Six vertical LED's enable selectively (red, yellow or green) to display the following information to the user such as:
 - The relative signal level of the detected leak
 - The selected sensitivity range (low/medium or high) of the unit
 - Diagnostic information: low battery, interference/wait, contaminated atmosphere, readiness of the unit or fault conditions of the unit
- Keypad controls: ON/OFF, volume/mute, sensitivity for high, medium and low level selection, peak button when multiple leaks are suspected

DETECTS: Acetone, Acetylene, Ammonia, Benzene, Butane, Butanol, Chlorine, Ethane, Ethanol, Gasoline, Hexane, Hydrogen, Hydrogen Sulfide, Isobutane, Methane (natural gas), Methanol, Methyl Acetate, Methyl Chloride, Methyl Ether, Naptha, N-Butane, Pentane, Propane, Propanol, Sulfur Dioxide and Trichloroethane

56100



CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

The *Raptor Refrigerant Leak Detector* offers state-of-the-art features and micro-processing technology while the design sensor delivers an accurate and instantaneous response. Packaged in a blow molded case with 2 “C” batteries and sensor tip.

FEATURES:

- Digital signal micro-processor
- Visual leak level indicator
- Reset function and keypad control
- Sensitivity level adjustment
- Battery test function
- Variable frequency audible alarm
- Meets and exceeds SAE J1627

SPECIFICATIONS:

- 3 levels of sensitivity (5 levels of detection)
- Detects leaks as small as 1/10 oz per year*
*based on optimal laboratory conditions
- Detects all refrigerants (CFC's, HCFC's, HFC's)
- Power: 2 “C” batteries
- Probe: flexible 16” (43 cm)



56200



WITH UV BLUE LIGHT



CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

The *Raptor Refrigerant Leak Detector with UV Blue Light* offers state-of-the-art features and micro-processing technology while the design sensor delivers an accurate and instantaneous response. An ultra bright UV light is built into the end of the probe allowing for both electronic and UV leak detection of even the toughest leaks. Packaged in a blow molded case with UV glasses, 2 “C” batteries and sensor tip.

FEATURES:

- Digital signal micro-processor
- Visual leak level indicator
- Reset function and keypad control
- Battery test function
- Sensitivity level adjustment
- Ultra bright UV/blue LED light
- Variable frequency audible alarm
- Meets and exceeds SAE J1627

SPECIFICATIONS:

- 6 levels of sensitivity (15 levels of detection)
- Detects leaks as small as 1/10 oz per year*
*based on optimal laboratory conditions
- Detects all refrigerants (CFC's, HCFC's, HFC's)
- Power: 2 “C” batteries
- Probe: flexible 16” (43 cm)



COMPLETE ELECTRONIC & UV LEAK DETECTION KIT



56300

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

The ultimate solution for all your A/C leak detection needs.

56300

Kit Includes: 56200 “Raptor” electronic leak detector with UV blue light, UV dye injector w/25 application dye cartridge, dye injector connection hose with R12 adapter, dye cleaner, UV safety glasses, custom molded carrying case

56400

Kit Includes: 56200 “Raptor” electronic leak detector with UV blue light, refillable dye injector, dye injector connection hose with R12 adapter, 2 oz bottle of concentrated universal dye, UV safety glasses, dye cleaner, custom molded carrying case

55600 Black Series INFRARED REFRIGERANT LEAK DETECTOR

PROVIDING A RELIABLE SOLUTION TO EFFICIENTLY FINDING SENSITIVE LEAKS

Mastercool's 55600 hand-held infrared refrigerant leak detector uses an infrared sensor to effectively identify halogenated gases. The ergonomic design and rugged construction provides effortless refrigerant leak detection all while allowing the technician to easily adjust sensitivity to adapt to different environments.

This superior IR (infrared) leak detector detects the refrigerant by scanning the area in a slow target scan mode. Moving the sensor back and forth until the alarm sounds; the IR sensor zeroes out when held over a leak. This unit provides the same trigger conditions for all refrigerants which is an advantage over other technologies that work better for some refrigerants than others.

Packaged in a zippered carry case this kit includes the 55600 infrared refrigerant leak detector, charging cable and replacement filters.


FEATURES:

- Innovative infrared sensor offers an extended sensor life of 10 years
- Easily select high, medium and low sensitivity levels with a maximum sensitivity up to 0.14 oz/yr
- Advanced TFT screen provides clear and easy readings using color graphics that show leakage, sensitivity, battery level and sensor fault indicators
- Peak button indicates the maximum leak detected during measurements
- Auto-off function will automatically shut down the unit after 10 minutes
- Designed to meet EN14624, SAE1627, SAE2791 and SAE2913 standards

APPLICATIONS:

- Responds to all halogenated refrigerants including but not limited to:
 HFC's (R134a, R410A, R407C, R417A, R404A, R507, R23, R508B, R152a, R32)
 HCFC's (R22, R123, R124, R141b, R142b, R402A, R402B, R408, R409)
 CFC's (R11, R12, R13, R500, R502, R503)
 PFC's (PFC-14, PFC-116, PCF-218)
 HFO's (R1234yf)
- Responds to blends such as R410A and R407
- Detects SF-6 in high voltage circuit breakers
- Detects halogen gases in fire-extinguishing systems

SPECIFICATIONS:

- Sensor: UV spectrum absorption
- Sensor life: 10 years
- Alarm mode: visual and audible
- Display: high resolution bright TFT active matrix LCD
- Automatic shutdown: 10 minutes without operation
- Operating temperature: -10 to 52°C (14 to 125.6°F)
- Operating relative humidity: 50% to 85% RH
- Storage temperature: -20 to 60°C (-4 to 140°F)
- Probe length: 14.37"
- Battery: rechargeable (6 hours of detection)
- Weight: 15 oz.
- Size: 7.8 x 3 x 1.5"

55745 **Black Series** INFRARED CO₂ LEAK DETECTOR



EXTREMELY EFFECTIVE AT LOCATING CO₂ LEAKS

Mastercool's 55745 hand-held CO₂ leak detector uses an advanced infrared sensor to effectively pinpoint R744 (CO₂). The efficient design and rugged construction provides effortless leak detection all while allowing the technician to easily adjust sensitivity to adapt to different environments.

Packaged in a zippered carry case, this kit includes the 55745 infrared CO₂ leak detector, charging cable and replacement filters.



FEATURES:

- Flexible probe is easy to use and extremely effective at locating difficult leaks
- Advanced infrared sensor with a sensor life of 40,000 hours
- Easily select high, medium and low sensitivity levels
- Advanced TFT screen provides clear and easy readings using color graphics that show leakage, sensitivity, battery level and sensor fault indicators
- Peak button indicates the maximum leak detected during measurements
- Auto-off function will automatically shut down the unit after 10 minutes
- Compliant to RoHS, SAE-J1627 and EN14624

SPECIFICATIONS:

- Sensor life: 40,000 hours
- Sensitivity:
 High < 350 ppm at 350 ppm ambient
 Low < 3500 ppm at 350 ppm ambient
- Alarm mode: visual and audible
- Display: high resolution bright TFT active matrix LCD
- Automatic shutdown: 10 minutes without operation
- Reset time: <3 seconds
- Warm-up time: 30 seconds
- Response time: <1 second
- Refrigerants: R744 (CO₂)
- Battery: rechargeable (8 hours of detection)
- Storage temperature: -20 to 60°C (-4 to 140°F)
- Operating temperature: -10 to 52°C (14 to 125.6°F)
- Humidity: maximum 90% RH (non-condensing)
- Probe length: 14.37"
- Weight: 15 oz.
- Size: 7.8 x 3 x 1.5"

53518-UV RECHARGEABLE 110 V UV FLASHLIGHT (LED)
53518-UV-220 RECHARGEABLE 220 V UV FLASHLIGHT (LED)



- AAA battery holder provides backup power to flashlight (3 AAA batteries included)
- Battery life: 3 to 5 hours continuous leak detection
- Includes safety glasses

SPECIFICATIONS:

- High intensity LED
- Lamp power: 2W
- 154 - 170 $\mu\text{W}/\text{cm}^2$ which is compatible to a 50 watt UV flashlight
- Battery: lithium li-ion, full discharge and cut-off discharge of 4.2V and 2.75V



53513-UV MINI UV FLASHLIGHT (LED)



When dye has been added to the system, easily search for a bright green/yellow glow where the system is leaking with this high intensity LED illumination mini flashlight.

- High intensity LED bulb – UV illumination
- Aluminum body with anodized finish
- Easy grip texture
- Includes UV enhancing safety glasses

SPECIFICATIONS:

- UV wavelength: 390-400
- Bulb life: 25,000 hours
- Batteries: 3 AAA

53515 MACH IV FLEXIBLE UV LIGHT (LED)



The Mach IV flexible UV light has **4 TRUE UV LEDS** delivering a brilliant fluorescent glow.

- Gets into tight areas easily
- Includes UV enhancing safety glasses

PATENT NO. 6,647,761

53515-B Light Bulb

53312 UV MINI LIGHT (12 V/50 WATTS)



- High intensity
- 16ft. (5m) cord
- Compact & lightweight
- Instant ON
- Includes UV enhancing safety glasses



53312-B Light Bulb

53312-L Lens

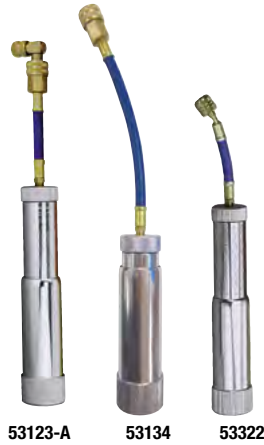
COMPACT UV LEAK LOCATOR KITS

Leading the way in UV LEAK DETECTION, Mastercool offers a variety of compact UV leak locator kits. Each kit offers a powerful inspection lamp, a “refillable” or “cartridge type” dye injector and accessories. All kits are packaged in a clamshell or custom molded carrying case.



KIT PART#	INJECTOR / LIGHT	CONTENTS OF EACH KIT	VOLTAGE/WATT
53451-110	53123/ 53518-UV	Rechargeable UV light, batteries, rechargeable batteries, battery holder, refillable 2 oz dye injector, 2 oz concentrated universal A/C fluorescent dye (25 application), 4 oz dye remover, 25 service information labels, UV enhancing safety glasses	LED
53451-220	53123/ 53518-UV-220	Rechargeable UV light, batteries, rechargeable batteries, battery holder, refillable 2 oz dye injector, 2 oz concentrated universal A/C fluorescent dye (25 application), 4 oz dye remover, 25 service information labels, UV enhancing safety glasses	LED
53451-C-110	53223/ 53518-UV	Same as 53451-110 but with replaceable 2 oz dye cartridge (25 applications)	LED
53451-C-220	53223/ 53518-UV-220	Same as 53451-220 but with replaceable 2 oz dye cartridge (25 applications)	LED
53580	53809/ 53515	MACH IV flexible LED UV light with 1 oz (30 ml) dye injector, with replaceable 1 oz (30 ml) dye cartridge (10 applications), low-side hose with R134a coupler, 1/4" FL adapter, 10 service information labels & UV enhancing safety glasses	LED
53585	53809/ 53515	Same as above, but with 1 oz OIL/ATF/Gas (53610) and diesel fluorescent dye and 1 oz (30 ml) engine coolant fluorescent dye (53609)	LED
53500	53123/ 53312	High intensity mini light with refillable 2 oz (60 ml) dye injector, 2 oz (60 ml) concentrated universal A/C fluorescent dye (25 applications), 4 oz (120 ml) dye remover, 25 service information labels and UV enhancing safety glasses	12 V/50 WATT
53500-C	53223/ 53312	Same as 53500, but with replaceable 2 oz (60 ml) dye cartridge (25 applications)	12 V/50 WATT

REFILLABLE “PISTON TYPE” UNIVERSAL OIL/DYE INJECTOR



To inject the oil or dye, simply connect the injector to the low side of the A/C system and twist the handle until you reach the desired amount.

- 53123** Refillable Universal Dye Injector with auto shut-off valve adapter and 2 oz (60 ml) bottle of concentrated A/C dye (25 applications)
- 53123-A** Refillable Universal Dye/Oil Injector (without dye) with auto shut-off valve adapter
- 53134** Refillable Oil/Dye Injector (with R134a 13 mm Connection) and 2 oz (60 ml) bottle of concentrated A/C dye (25 applications)
- 53322** Refillable Dye Injector (with 1/4” Auto Shut-off Valve Connection) and 2 oz (60 ml) bottle of concentrated A/C dye (25 applications)

53223 “CARTRIDGE TYPE” UNIVERSAL DYE/OIL INJECTOR



Adding dye with the 53223 is fast and easy, simply connect the injector to the low side of the A/C system and twist the handle to the next application line. The replaceable cartridge provides 25 applications of universal dye that is compatible with all systems. The injector hose comes complete with an auto shut-off valve adapter for 1/4” FL systems.

53809 MINI DYE INJECTOR



“Cartridge Type” dye injector with (10 applications) of concentrated dye.

53123-YF REFILLABLE R1234yf OIL/DYE INJECTOR



To inject the oil or dye, simply connect the injector to the low side of the A/C system and twist the handle until you reach the desired amount.

- Heavy duty, anodized aluminum, 2 oz container with dye scales represented in 1/10 ounce, 1/4 ounce and milliliters
- Nylon barrier blue hose meets J2888, EPA, SAE and UL standards
- R1234yf low side coupler with extended disconnect sleeve and meets SAEJ639 and J2888



OIL INJECTOR



Excellent method for adding refrigerant oil or large amounts of UV leak detection dye to the A/C system. Add oil by allowing vacuum to pull it in after evacuation process, or use refrigerant to push it in using the recharge system.

- 90375** Standard 1/4” FFL x 1/4” MFL
- 82375** ACME 1/2” FFL x 1/2” MFL

STANDARD UNIVERSAL ULTRAVIOLET A/C DYES



- 92699** Standard Universal Dye - Six 1/4 oz Packs (6 pcs)
pack 1/4 oz (7.5 ml) - 1 application

- 92708** Standard Universal Dye
8 oz (240 ml) bottle - 32 applications

- 92732** Standard Universal Dye
32 oz (1 L) bottle - 128 applications

CONCENTRATED UNIVERSAL ULTRAVIOLET A/C DYES



- 53825** Concentrated Universal Dye Cartridge Replaceable Cartridge
25 applications

- 53810** Concentrated Universal Dye Cartridge Replaceable Cartridge
10 applications

- 53625** Concentrated Universal Dye
2 oz (60 ml) bottle - 25 applications

FLUORESCENT DYE



- 53609** Engine Coolant (1 oz. (30 ml) bottle)
• 1 oz for 1 vehicle application per 16 quarts (15 L) of fluid

- 53610** Engine Oil (1 oz. (30 ml) bottle)
• Engine oil (gas & diesel) - 1 vehicle application per 4-5 quarts (4 L-5 L) of oil
• Automatic transmission fluid - 1 vehicle application per 4-5 quarts (4 L-5 L) of fluid
• Gasoline and diesel fuel - 1 vehicle application per 2 gallons (8 L) of fuel

ACCESSORIES



- 53314** Dye Remover
4 oz (120 ml)

- 53315** Service Labels
25 per pack, bright yellow label indicating that the system has been charged with UV dye

- 92398** UV Enhancing Safety Glasses
This is a must for protection against ultraviolet light during leak detection



Intertek LABORATORY TESTED
 ✓ NO DAMAGE
 ✓ NO RESTRICTION



- Lubricates system and helps prevent leaks
- Seals small leaks
- Illuminates larger leaks through the use of high quality universal fluorescent dye
- Compatible with all refrigerants and oils
- No need to recover refrigerant during application
- Stops leaks in metal and rubber air conditioner and refrigeration parts including evaporators, o-rings, gaskets and hoses
- Patented delivery system prevents any residual sealant from being left in can

53615 Master Leak Shield HVAC - up to 1.5 Tons (5.3 kW)
 1 oz can of master leak shield HVAC sealant with dye for use on systems up to 1.5 tons

53660 Master Leak Shield HVAC - 1.5 to 6 Tons (5.3 kW to 21 kW)
 3 oz can of master leak shield HVAC sealant with dye for use on systems 1.5 to 6 tons



Intertek LABORATORY TESTED
 ✓ NO DAMAGE
 ✓ NO RESTRICTION

- Lubricates system and helps prevent leaks
- Seals small leaks in evaporator, condenser, hoses, o-rings and gaskets
- Illuminates larger leaks through the use of high quality universal fluorescent dye
- For R134a A/C systems
- Safe for hybrid and electric compressors

53909 Mini Auto A/C Master Leak Shield Dye Injector
 "Cartridge type" 1 oz injector with auto A/C master leak shield sealant with dye, low side hose, 1/4" FL adapter

53910 Auto A/C Master Leak Shield
 1 oz replacement cartridge of auto A/C master leak shield sealant with dye

53593 Mini UV Flashlight Kit
 Mini UV flashlight (53513-UV), "cartridge type" 1 oz injector with auto A/C master leak shield sealant with dye, low side hose, 1/4" FL adapter, UV safety glasses, service information labels, packaged in a clam shell

Easy to use! Stops leaks in metal and rubber automotive air conditioner parts including evaporators, condensers, o-rings, gaskets and hoses.

- For use in R134a, HFO-1234yf, hybrid and electronic A/C systems
- Includes o-ring conditioner, proprietary anti-wear and anti-oxidant additives
- Adds 1 oz. (30 ml) leak stop with UV leak detection dye
- Patented delivery system, does not contain refrigerant
- Safe, does not contain harmful polymers
- HFC free aerosol

US Patent No. 8,074,009, other US and foreign patents pending

53615-A Auto Master Leak Shield
 1 oz can of auto master leak shield sealant with dye



43060-EV EVAP DIAGNOSTIC SMOKE MACHINE



For all evap, intake, exhaust, vacuum lines and vacuum components, passenger compartment window and sunroof, headlight/tail-light fixtures and much more. This unit provides the option of compressed air, inert gases and a built-in internal compressor to inject the smoke into the system.

Accessories included: full set of block off caps, exhaust cone, evap schrader valve remover/installer, evap service port adapter hose (green cap), high intensity smoke illuminating battery powered flashlight and 8 oz smoke producing fluid

FEATURES:

- Compact, heavy-duty design for years of reliable service
- Multiple options for smoke injection include built-in internal compressor, shop air and inert gases
- Quick smoke generation
- Built-in safety pressure relief valve
- Built-in pressure regulated at 0.5 PSI for safe evap testing
- Large easy to read pressure decay gauge 0-30 in. H2O (70 mbar)
- Easy to read and clean flow meter
- Non-toxic and non-corrosive smoke
- 10' 12V power cables with durable clamps
- Heavy-duty 10' smoke injection hose
- Velcro strap for hose and power cable storage
- High intensity, battery operated smoke illuminating telescoping flashlight

SPECIFICATIONS:

- Voltage: 12 VDC
- Output pressure: 12 – 14 inH2O (30 – 35 mBar)
- Auto shut-off: 5 minutes
- Flow meter: 0 - 0.040 in. (0 - 1.0 mm)
- Operating humidity: No Restrictions
- Operating temperature: 0°F to 140°F (-17°C to 60°C)
- Power cable: 10 feet
- Input pressure: max 100 psi (7 bar)
- Safety pressure relief: 120 (±5) psi
- Oil fill line indicator: 3.4 oz (100 ml (±10 ml))
- Power consumption: max 6.5 amps
- Operating altitude: No restrictions
- Vapor output hose: 10 feet
- Pressure supply: air/inert gas/pump



43060-HD HEAVY DUTY TRUCK DIAGNOSTIC SMOKE MACHINE



For all HD truck intakes, exhaust, vacuum lines and components, cabin air and water leaks and much more. Not for EVAP testing

Accessories included: two large inflatable block-off bladders with safety chains, 6" rigid smoke stack ring, pressure sensor port adapter, oxygen sensor port adapter, temperature sensor port adapter, high intensity battery powered smoke illuminating flashlight and 8 oz smoke producing fluid

FEATURES:

- Compact, heavy-duty design for years of reliable service
- Operates on shop air or inert gas
- Quick smoke generation
- Built-in safety pressure relief valve
- Pressure can be regulated from 0 to 28 PSI
- Large easy to read pressure decay gauge 0 to 30 PSI
- Non-toxic and non-corrosive smoke
- 10' 12V power cables with durable clamps
- Heavy-duty 10' smoke injection hose
- Velcro strap for hose and power cable storage

SPECIFICATIONS:

- Voltage: 12 VDC
- Output pressure: Max 28 psi (190 kPa)
- Auto shut-off: 5 minutes
- Flow meter: 0 - 0.040 in. (0 - 1.0 mm)
- Operating humidity: no restrictions
- Operating temperature: 0°F to 140°F (-17°C to 60°C)
- Power cable: 10 feet
- Input pressure: max 100 psi (7 bar)
- Safety pressure relief: 120 (±5) psi
- Oil fill line indicator: 3.4 oz (100 ml (±10 ml))
- Power consumption: max 6.5 amps
- Operating altitude: no restrictions
- Vapor output hose: 10 feet
- Pressure supply: air/inert gas

Optional Accessories

43060-DW-LG Diffuser Assembly - Long

43060-HDBR-9 9" Bladder Ring

43060-HDLB-9 Large Bladder for Heavy-Duty Truck



43060-TB TURBO/INTAKE DIAGNOSTIC SMOKE MACHINE



For all turbo, intakes, exhaust, vacuum lines and vacuum components, manifolds, passenger compartment window and sunroof, headlight/tail-light fixtures and much more. Not for EVAP testing. This unit provides the option of compressed air, inert gases and a built-in internal compressor to inject the smoke into the system. Accessories included: inflatable intake bladder, full set of block off caps, exhaust cone, high intensity battery powered smoke illuminating flashlight and 8 oz smoke producing fluid

FEATURES:

- Compact, heavy-duty design for years of reliable service
- Multiple options for smoke injection include built-in internal compressor, shop air and inert gases
- Quick smoke generation
- Built-in safety pressure relief valve
- Pressure can be regulated from 0 to 28 PSI
- Large easy to read pressure decay gauge 0 - 30 PSI
- Non-toxic and non-corrosive smoke
- 10' 12V power cables with durable clamps
- Heavy-duty 10' smoke injection hose
- Velcro strap for hose and power cable storage

SPECIFICATIONS:

- Voltage: 12 VDC
- Internal pump max 22 psi (150 kPa)
- External pressure source max 28 psi (190 kPa)
- Auto shut-off: 5 minutes
- Flow meter: 0 - 0.040 in. (0 - 1.0 mm)
- Operating humidity: no restrictions
- Operating temperature: 0°F to 140°F (-17°C to 60°C)
- Pressure supply: air/inert gas/pump
- Input pressure: max 100 psi (7 bar)
- Vapor output hose: 10 feet
- Safety pressure relief: 120 (±5) psi
- Oil fill line indicator: 3.4 oz (100 ml (±10 ml))
- Power consumption: max 6.5 amps
- Operating altitude: no restrictions
- Power cable: 10 feet

Optional Accessories

43060-DW-ST Diffuser Assembly - Short

43060-UHA HEAVY DUTY/TRUCK SMOKE MACHINE UNIVERSAL COOLING SYSTEM ADAPTER KIT



Mastercool's heavy duty/truck smoke machine universal cooling system adapter is used with our heavy duty diagnostic smoke machine (43060-HD) or any smoke machine with a standard quick disconnect.

- Universal design will fit most heavy duty radiator and expansion tanks
- Easily smoke test any empty cooling system with the use of the universal adapter
- Ultimate coverage provided by 3 rubber ring gaskets included in the kit
- Secure fit using the simple twist style design

43060-UTA HIGH PRESSURE/TURBO SMOKE MACHINE UNIVERSAL COOLING SYSTEM ADAPTER KIT



Mastercool's high pressure/turbo smoke machine universal cooling system adapter is used with diagnostic smoke machines.

- Universal design will fit most automotive radiators and expansion tanks
- Easily smoke test any empty cooling system with the use of the universal adapter
- Rubber hose fitting on adapter will connect to most diagnostic smoke machines
- Ultimate coverage provided by 3 rubber ring gaskets included in the kit
- Secure fit using the simple twist style design

DUAL EVAP/HIGH PRESSURE DIAGNOSTIC SMOKE MACHINES

These units are for evap, turbo/intake and heavy duty truck testing providing a solution to difficult to diagnose automotive leaks. Mobile repairs are now possible as both units include an internal compressor which allows use without the need of shop air while also having the ability to utilize shop air and inert gases. These specifically engineered units allow today's technician to quickly and efficiently locate and repair the complete spectrum of evap, turbo, heavy duty truck, intakes, exhausts, vacuum lines, cooling systems, manifolds, catalytic converters, brake boosters, passenger compartment air, water leaks and much more. The 43065 comes complete with all the adapters for evap low pressure testing and universal high pressure testing capabilities. The 43070 includes all the adapters for evap, high pressure and heavy duty truck testing. Mastercool now offers the professional technician the capability of complete automotive smoke detection testing in a single unit.



43070



DUAL EVAP/HIGH PRESSURE DIAGNOSTIC SMOKE MACHINE



43065



43062

FEATURES:

- Compact, heavy-duty design for years of reliable service
- Multiple options for smoke injection include built-in internal compressor, shop air and inert gases
- Quick smoke generation
- Built-in safety pressure relief valve
- Built-in pressure regulated at 0.5 PSI for safe evap testing
- Large easy to read pressure decay gauge 0-30 in. H₂O (70 mbar)
- Easy to read and clean flow meter
- Non-toxic and non-corrosive smoke
- 10' 12V power cables with durable clamps
- Heavy-duty 10' smoke injection hose
- Velcro strap for hose and power cable storage
- High intensity, battery operated smoke illuminating telescoping flashlight

SPECIFICATIONS:

- Voltage: 12 VDC
- Output pressure: 12 – 14 inH₂O (30 – 35 mBar)
- Auto shut-off: 5 minutes
- Flow meter: 0 - 0.040 in. (0 - 1.0 mm)
- Operating humidity: No restrictions
- Operating temperature: 0°F to 140°F (-17°C to 60°C)
- Power cable: 10 feet
- Input pressure: max 100 psi (7 bar)
- Safety pressure relief: 120 (±5) psi
- Oil fill line indicator: 3.4 oz (100 ml ±10 ml)
- Power consumption: max 6.5 amps
- Operating altitude: no restrictions
- Vapor output hose: 10 feet
- Pressure supply: air/inert gas/pump

43065 Dual Evap/High Pressure Diagnostic Smoke Machine
 Accessories included: smoke hose, power cord, full set of block off caps, exhaust cone, evap schrader valve remover/installer, evap service port adapter hose, high intensity smoke illuminating battery powered flashlight, 8 oz smoke producing fluid and bladder for intake testing

43070 Dual Evap/High Pressure Diagnostic Smoke Machine with Truck Adapter Accessory Kit
 Accessories included: smoke hose, power cord, full set of block off caps, exhaust cone, evap schrader valve remover/installer, evap service port adapter hose, high intensity smoke illuminating battery powered flashlight, 8 oz smoke producing fluid, bladder for intake testing, (2) bladders for heavy duty/truck applications, 6" ring, temperature sensor port adapter, oxygen sensor port adapter and pressure sensor port adapter

43062 Truck Adapter Diagnostic Smoke Machine Accessory Kit
 The 43062 contains the bladders and adapters to service trucks and heavy-duty equipment. Standard quick connect fittings, large bladders and sensor test fittings allow for easy and quick smoke diagnosis. The 43062 can also be used in conjunction with the 43060-TB to allow the technician to perform high-pressure diagnostic leak tests on all passenger cars and trucks as well as all commercial and heavy duty vehicles.
 Accessories included:

- Smoke hose
- (2) bladders for heavy duty/truck applications
- 6" ring
- Temperature sensor port adapter
- Oxygen sensor port adapter
- Pressure sensor port adapter



SERVICE ACCESSORIES & CONSUMABLES

NITROGEN PRESSURE REGULATORS

Mastercool's nitrogen regulator is specifically designed to meet the specifications of HVAC/R and automotive A/C systems. This single stage nitrogen regulator is used to test systems for leaks when they do not contain refrigerant.

- 1/4" SAE flare outlet port, with control valve, to keep pressure on the regulator at all times
- T-Handle for ease of pressure adjustment
- 63 mm (2 1/2") gauges with guards
- High pressure gauge 4400 psig (300 bar), Low pressure gauge 1000 psig (70 bar)

53001	53002	53003	53004	53005	53006
CGA580 (US)	DIN477#6 and DIN477#10 (This unit includes an adapter to convert DIN477#6 to DIN477#10) (France/Germany)	BS3 (England)	AS2473.2 (Australia)	5-UNI11144 (Italy)	21.8 L NEN 3268 Left hand thread, for Hydrogenated Nitrogen

1/4 FL-M outlet connection

PRESSURE TESTING REGULATOR KITS



53010

- 53010** Pressure Testing Regulator Kit (US)
Nitrogen pressure regulator (53001), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), blow molded case (53000-PB)
- 53020** Pressure Testing Regulator Kit (France/Germany)
Nitrogen pressure regulator (53002), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), blow molded case (53000-PB)
- 53030** Pressure Testing Regulator Kit (England)
Nitrogen pressure regulator (53003), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), blow molded case (53000-PB)
- 53040** Pressure Testing Regulator Kit (Australia)
Nitrogen pressure regulator (53004), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), blow molded case (53000-PB)
- 53050** Pressure Testing Regulator Kit (Italy)
Nitrogen pressure regulator (53005), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), blow molded case (53000-PB)
- 53060** Nitrogen/Hydrogen Pressure Testing Regulator Kit
Nitrogen/Hydrogen pressure regulator (53006), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), blow molded case (53000-PB)

53042-YF LEAK TESTING ADAPTER FOR R1234YF



- 80 mm gauge
- R1234yf low side coupler

OPTIONAL ACCESSORIES

66434-R	High Side Standard R134a 1/4" FL-M x 16 mm Economy Coupler	53000-70	Low Pressure Regulator Gauge
82834-E	High-Side Manual R134a 1/4" FL-M x 16 mm Coupler	53000-300	High Pressure Regulator Gauge
90413	R410a Straight Adapter 1/4" FL-M x 5/16" Swivel-F	47482	48" Yellow Charging Hose
53042	Leak Testing Adapter	93254-E	Black Gauge Guard
53000-42	Leak Testing Gauge	53000-W	Teflon Washer

PRESSURE TESTING REGULATOR KITS*

ONLY FOR SALE IN EUROPE



- 53025** Pressure Testing Regulator Kit (France/Germany)
Nitrogen pressure regulator (53002), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), regulator adapter (53002-AD), 1 liter bottle of nitrogen (91150), blow molded case (53015-PB)

- 53035** Pressure Testing Regulator Kit (England)
Nitrogen pressure regulator (53003), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), 1 liter bottle of nitrogen (91150), regulator adapter (53003-AD), blow molded case (53015-PB)

- 53055** Pressure Testing Regulator Kit (Italy)
Nitrogen pressure regulator (53005), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), 1 liter bottle of nitrogen (91150), regulator adapter (53004-AD), blow molded case (53015-PB)

- 53025-NH** Pressure Testing Regulator Kit (France/Germany)
Nitrogen pressure regulator (53002), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), 1 liter bottle of NitroH (91151), regulator adapter (53002-AD), blow molded case (53015-PB)

- 53035-NH** Pressure Testing Regulator Kit (England)
Nitrogen pressure regulator (53003), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), 1 liter bottle of NitroH (91151), regulator adapter (53003-AD), blow molded case (53015-PB)

- 53055-NH** Pressure Testing Regulator Kit (Italy)
Nitrogen pressure regulator (53005), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), 1 liter bottle of NitroH (91151), regulator adapter (53004-AD), blow molded case (53015-PB)

* add an **-A** to include a low side manual R134a 1/4" FL-M x 13mm quick coupler (82934-e)
* add an **-AYF** to convert the leak testing adapter to a R1234yf leak testing adapter (53042-yf)

REGULATOR ADAPTER

ONLY FOR SALE IN EUROPE

53003-AD



These adapters are designed to work with Mastercool's line of Nitrogen Pressure Regulators and allow for the use of our 1 Liter Nitrogen and NitroH bottles.

53002-AD	France/Germany	53003-AD	England	53005-AD	Italy
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1 LITER NITROGEN BOTTLE (max filling pressure 110 bar)

ONLY FOR SALE IN EUROPE



The nitrogen bottles are commonly used for:

- Testing for leaks in pressure of HVAC & A/C
- Flushing of HVAC & A/C systems
- Fluxing during soldering in HVAC & A/C
- Calibration of pressure switches
- Gauge calibration and much more

91150-6	(6 pcs.) 1 Liter Bottle of Nitrogen
91150-48	(48 pcs.) 1 Liter Bottle of Nitrogen
91150-96	(96 pcs.) 1 Liter Bottle of Nitrogen

1 LITER NITRO H BOTTLE (max filling pressure 110 bar)

ONLY FOR SALE IN EUROPE



NitroH is a mixture of 95% nitrogen and 5% hydrogen. This unique combination allows this gas to be used for leak detection in conjunction with Mastercool's 55800 Intella-Sense Refrigerant Leak Detector.

91151-6	(6 pcs.) 1 Liter Bottle of NitroH
91151-48	(48 pcs.) 1 Liter Bottle of NitroH
91151-96	(96 pcs.) 1 Liter Bottle of NitroH

SPECIAL CONFIGURATION NITROGEN-HYDROGEN KIT FOR AUTOMOTIVE



53035-NH-YF

This single stage nitrogen regulator is used to test systems for leaks when they do not contain refrigerant.

SPECIFICATIONS:

- 1/4" SAE flare outlet port, with control valve, to keep pressure on the regulator at all times
- T-Handle for ease of pressure adjustment
- 63 mm (2 1/2") gauges with guards
- High pressure gauge 4400 psig (300 bar)
- Low pressure gauge 1000 psig (70 bar)

53025-NH-YF

Special Configuration Nitrogen/Hydrogen Kit for Automotive (France/Germany)

- 53002 Nitrogen Pressure Regulator
- 47382 38" Yellow Charging Hose
- 53042 Leak Testing Adapter
- 53002-AD Regulator Adapter
- 91151 1 Liter NitroH Bottle
- 82934-E Low-Side Manual R134a 1/4" FL-M x 13 mm Quick Coupler
- 83934 Low Side R1234yf Coupler (12 mm-F x 14 mm)
- 83734 12mm-m x 1/4" fl-m Adapter
- 55975 IntellaSense III Combustible Gas Leak Detector with 2 "C" Batteries, Leak Test Vial and Replacement Filters

53035-NH-YF

Special Configuration Nitrogen/Hydrogen Kit for Automotive (England)

- 53003 Nitrogen Pressure Regulator
- 47382 38" Yellow Charging Hose
- 53042 Leak Testing Adapter
- 53003-AD Regulator Adapter
- 91151 1 Liter NitroH Bottle
- 82934-E Low-Side Manual R134a 1/4" FL-M x 13 mm Quick Coupler
- 83934 Low Side R1234yf Coupler (12 mm-F x 14 mm)
- 83734 12mm-m x 1/4" fl-m Adapter
- 55975 IntellaSense III Combustible Gas Leak Detector with 2 "C" Batteries, Leak Test Vial and Replacement Filters

53055-NH-YF

Special Configuration Nitrogen/Hydrogen Kit for Automotive (Italy)

- 53005 Nitrogen Pressure Regulator
- 47382 38" Yellow Charging Hose
- 53042 Leak Testing Adapter
- 53005-AD Regulator Adapter
- 91151 1 Liter NitroH Bottle
- 82934-E Low-Side Manual R134a 1/4" FL-M x 13 mm Quick Coupler
- 83934 Low Side R1234yf Coupler (12 mm-F x 14 mm)
- 83734 12mm-m x 1/4" fl-m Adapter
- 55975 IntellaSense III Combustible Gas Leak Detector with 2 "C" Batteries, Leak Test Vial and Replacement Filters

SPECIAL CONFIGURATION NITROGEN/HYDROGEN KIT FOR HVAC



53055-NH-HVKT

This single stage nitrogen regulator is used to test systems for leaks when they do not contain refrigerant.

SPECIFICATIONS:

- 1/4" SAE flare outlet port, with control valve, to keep pressure on the regulator at all times
- T-Handle for ease of pressure adjustment
- 63 mm (2 1/2") gauges with guards
- High pressure gauge 4400 psig (300 bar)
- Low pressure gauge 1000 psig (70 bar)

53025-NH-HVKT

Special Configuration Nitrogen/Hydrogen Kit for HVAC (France/Germany)

- 53002 Nitrogen Pressure Regulator
- 47382 38" Yellow Charging Hose
- 53042 Leak Testing Adapter
- 53002-AD Regulator Adapter
- 91151 1 Liter NitroH Bottle
- 90413 R32/R410A Straight Adapter 1/4 FL-M x 5/16 Swivel-F
- 55975 IntellaSense III Combustible Gas Leak Detector with 2 "C" Batteries, Leak Test Vial and Replacement Filters

53035-NH-HVKT

Special Configuration Nitrogen/Hydrogen Kit for HVAC (England)

- 53003 Nitrogen Pressure Regulator
- 47382 38" Yellow Charging Hose
- 53042 Leak Testing Adapter
- 53003-AD Regulator Adapter
- 91151 1 Liter NitroH Bottle
- 90413 R32/R410A Straight Adapter 1/4 FL-M x 5/16 Swivel-F
- 55975 IntellaSense III Combustible Gas Leak Detector with 2 "C" Batteries, Leak Test Vial and Replacement Filters

53055-NH-HVKT

Special Configuration Nitrogen/Hydrogen Kit for HVAC (Italy)

- 53005 Nitrogen Pressure Regulator
- 47382 38" Yellow Charging Hose
- 53042 Leak Testing Adapter
- 53005-AD Regulator Adapter
- 91151 1 Liter NitroH Bottle
- 90413 R32/R410A Straight Adapter 1/4 FL-M x 5/16 Swivel-F
- 55975 IntellaSense III Combustible Gas Leak Detector with 2 "C" Batteries, Leak Test Vial and Replacement Filters

“MASTERCLEANSE” FLUSH MACHINE



Mastercool's "MASTERCLEANSE" large volume flush machines are designed to flush all HVAC/R and automotive systems. "MASTERCLEANSE" will be commonly used for the removal of all solids and residues caused by breakage of compressor or filters. Designed with durable roll-away wheels and handle, this machine can conveniently move as needed.

FEATURES:

- Stainless steel ball valve controls
- 1/4" SAE connection
- Additional external container connection
- External nitrogen bottle connection
- Pump equipped with mechanical seal and PTFE gasket
- Mechanical filter present at suction side

SPECIFICATIONS:

- Pump flow rate: 4 g/min (16 l/min)
- Pump motor: 300 watts
- Pump horsepower: 110V/60 Hz - 0.4 HP, 220-240V/50/60 Hz - 0.28 HP
- Full load amperage: 110V/60 Hz - 2.4 amps, 220-240V/50/60 Hz - 1.7 amps
- Flush container: 2.6 gal (10 l)
- Hoses: 9 ft (3 m) flexible, clear coiled
- Dimensions: 15" (l) x 16" (w) x 24" (h) /with handle extended 36" (h) (381 mm (l) x 406 mm (w) x 609 mm (h) /with handle extended 914 mm (h))
- Weight: 42 lbs (19 kg)



69900 110 V / 60 Hz

69900-220 220-240 V / 50/60 Hz

69901-220 220-240 V / 50/60 Hz with internal nitrogen regulator for use with European standard 1 liter nitrogen bottle

69925 MULTIPLE FLUSHING & LEAK TEST ADAPTER KIT FOR FLUSH MACHINE



Multi-purpose leak test and flushing adapters suitable for more than 80% of the automotive air conditioning systems in the market!

- Isolates A/C system components for closed loop flushing
- Flush individual components without removing them from the vehicle
- Install adapters on A/C line ends to allow attachment of flushing equipment



A/C FLUSH SOLVENT



91049-32 91049-128

- Effectively removes debris and sludge from A/C components
- Solvent-based
- Evaporates quickly
- Leaves no residue
- O-Ring safe
- Non-Flammable
- Non-Corrosive
- Flush any A/C system

91049-32 32 oz. Flush Solvent

91049-32-6 6 pack - 32 oz. Flush Solvent

91049-128 1 Gallon Flush Solvent

91049-128-4 4 pack - 1 Gallon Flush Solvent

TOTAL A/C QUICK FLUSH



Specific fluid for the inner flushing of air conditioning and refrigeration systems.

- O-Ring safe
- Non-Flammable
- Non-Corrosive
- For professional use
- Pressurized container ready to use

91051	Total A/C Quick Flush Kit
91050	17 oz. Total A/C Quick Flush Can
91050-6	6 Pack - 17 oz. Total A/C Quick Flush Cans

A/C SYSTEM FLUSH KIT



Includes flush gun, hose, canister and canister adapter.

Designed to work with any light weight flushing agent which can be mixed with pressurized air. Excellent for quickly and effectively removing refrigerant oil debris during retrofitting or compressor replacement.



91046-A	A/C System Flush Kit with standard compressed air connection
91046-OEX	A/C System Flush Kit with 1/4" male flare connection

92707 HYBRID A/C COMPRESSOR OIL



- Formulated for vehicles with electric A/C compressors
- High dielectric formula provides advanced compressor protection
- Synthetic lubricant specifically created for electric hybrid air conditioning compressors
- For replenishing hybrid or electric compressor oil in accordance with the quantity evacuated or the quantity recommended by the compressor manufacturer
- Provides outstanding lubricity and compressor protection
- Compatible replacement lubricant for compressors using Honda 38899RCJA01, ND-10, ND-OIL 11 (ND-11), and SE-10Y
- High dielectric protection formula has excellent "resistivity" to potential electrical current leakage in high voltage hybrid A/C systems
- Contains conditioners, inhibitors and anti-wear agents
- Net contents 7 oz. (210 mL)

COMPRESSOR OILS



Maximum protection with excellent thermal & oxidative stability. Moisture tolerant. OEM approved.

PAG 46

92709-46-32 **NEW** PAG 46 Oil (32 oz (1 L) bottle)

PAG 65

92709-65-8 PAG 65 Oil (8 oz (236 ml) bottle)

92709-65-32 PAG 65 Oil (32 oz (1 L) bottle)

PAG 100

53826 PAG 100 Oil (2 oz (60 ml) cartridge)

92709-100-8 PAG 100 Oil (8 oz (236 ml) bottle)

92709-100-32 PAG 100 Oil (32 oz (1 L) bottle)

PAG 150

92709-150-8 PAG 150 Oil (8 oz (236 ml) bottle)

92709-150-32 PAG 150 Oil (32 oz (1 L) bottle)

Ester 100 Oil

53827 Ester Oil (2 oz (60 ml) cartridge)

92710 Ester Oil (8 oz (236 ml) bottle)

92712 Ester Oil (32 oz (1 L) bottle)

ZEROL[®] HD46 R1234yf MOBILE AIR CONDITIONING COMPRESSOR LUBRICANT



ZEROL HD46 is a fully formulated ISO VG46 grade polyalkylene glycol lubricant designed specifically for application with HFO refrigerant R1234yf in mobile air conditioning (MAC) systems. The product is a double end-capped PAG, and is manufactured to exacting standards of high double endcapping efficiency. ZEROL HD46 is suitable for use in both belt and electrically driven compressors utilizing R1234yf, and is also fully suitable for use in R134a belt-driven and electric MAC compressors.

- Optimized miscibility in HFO refrigerant R1234yf
- Superior lubricity compared to alternative lubricant types, including standard 'single end-capped' PAG products, and di-capped PAGs with lower di-capped material content
- Exceptional viscosity index (VI) – The high VI enhances compressor life by ensuring efficient running at temperature extremes. The high VI may also allow the user to select a lower viscosity fluid than typically used, with associated power usage savings.
- Good high temperature and chemical stability, even in presence of water, resulting in system lifetime extension and reduced maintenance costs.
- Low hygroscopicity (tendency to absorb moisture) compared to alternative PAG products with lower di-capping content.
- Formulating expertise – ZEROL HD46 series contain optimized additive technology to provide additional corrosion protection within the A/C system, to further enhance the extreme pressure and anti-wear performance of the PAG, and to maximize fluid lifetime by ensuring against thermal or oxidative deterioration of the lubricant.
- Excellent electrical resistivity properties for electrically driven systems.

SPECIFICATIONS:

- Viscosity @ 40°C (cSt): 42.0 – 48.0
- Colour (gardner): 1 max.
- Water content (ppm): 300 max.
- Total acid value (mgKOH/g): 0.03 max.
- Pour point (°C): <-25
- Capping efficiency: 85.0% minimum
- Appearance: clear to slightly hazy, free of visible particles

92709-YF-8 8 fl. oz (236 ml) Bottle

92709-YF-32 32 fl. oz (946 ml) Bottle

ALUM BOND



A two-component epoxy formula highly concentrated with carefully selected pure aluminum particles, modified curing agents and special high quality additives to provide maximum strength, durability and ease of application. Alumbond is aluminum filled epoxy specially formulated for repairing condenser coils, tanks, valves, pumps, castings, water jackets, radiators, etc., where non-rusting, non-magnetic aluminum finish is desired.

PHYSICAL PROPERTIES:

- Hardness (Shore, ASTM D 1706): 83D
- Coefficient of thermal expansion: 40 x 10⁻⁶ cm/cm/°C
- Compression strength (ASTM D 695): 8600 psi (59 M Pa)
- Tensile strength (ASTM D 638): 3500 psi (24 M Pa)
- Maximum line pressure (after 5 hrs application time): 650 psi



90935 Aluminum Repair Kit (6.5 oz package)

90935-12 Aluminum Repair Kit - box of 12 (each box contains Hardener & Resin (3.25 oz. (94g) each)

90936 HVAC SUPER PRO KIT (1.85 oz, 50g) packaged in a clamshell



LIFETIME SOLDERLESS BONDING FOR COPPER, BRASS & ALUMINUM

- Compatible with all refrigerants and oils
- Holds 850 psi of refrigerant pressure 12 minutes after bonding (20 minutes for aluminum)
- Holds 1200 psi of refrigerant pressure - fully cured
- In 12 minutes the bond will withstand 850 psi of refrigerant pressure
- Bonding time in 1 minute for aluminum and is set in 4 minutes
- Approximately 2 hours is fully cured and will withstand 1200 psi of refrigerant pressure
- Starts to set up in 20 seconds and forms a solid bond in 3 minutes
- Makes approximately 200 bonds on 1/2 inch pipe
- Temperature Range -65° to 350°F (-54° to 176°C)
- Adherence Strength (ASTM 4541): Pull Apart 1500 foot pounds, Rotational 450 foot pounds

92329 TOYOTA A/C DISCONNECT TOOL



The Toyota spring lock A/C hose couplings require this special disconnect tool. Simply insert the end of the tool into the coupling to disengage the hose.

91000-B DELUXE CLUTCH HUB PULLER/INSTALLER KIT



Kit contains a complete offering of A/C compressor clutch hub pullers and installers for GM, Ford, Chrysler and Imports. Includes a universal clutch holding tool and comes in a custom molded case.

92311 DELUXE ORIFICE TUBE SERVICE KIT



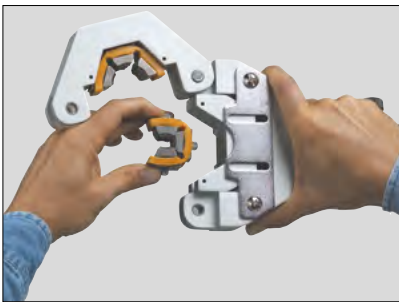
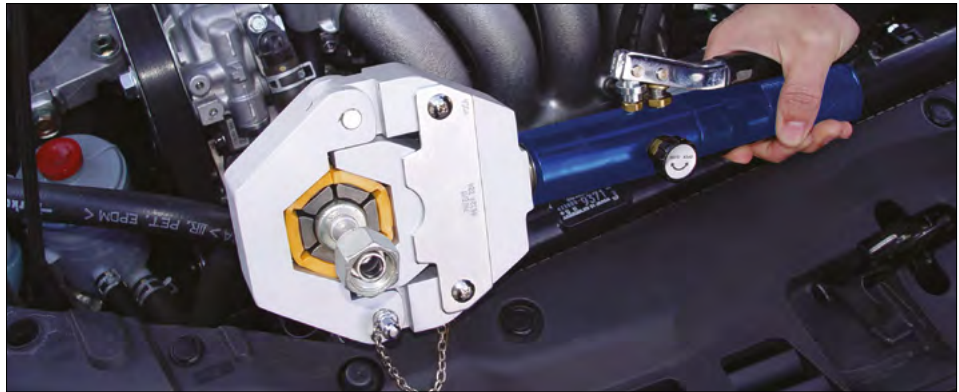
This 5 piece universal kit will remove and install any style orifice tube. Comes in custom molded box.



TUBE & HOSE FORMING



71500-A HYDRA-KRIMP



The die snaps quickly into the press fixture requiring no pins or screws



Fabricating A/C Hoses Just Got Easier...

Mastercool's patented "Hydra-Krimp" makes crimping barbed and beaded fittings as easy as 1 - 2 - 3! The lightweight hand-held hydraulic press is very portable and ideal for shop and field applications. The kit comes with a complete set of dies covering hose sizes #6, #8, #10, #12 and reduced barrier #6, #8, #10 and #12. The dies snap quickly into the press fixture requiring no pins or screws. **PATENT# 6,324,884**

Kit comes in a custom molded case and includes:

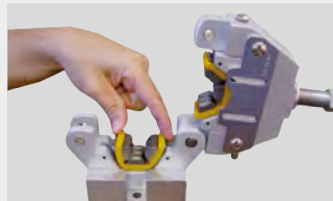
- 71500-001AB** Hydra-Krimp Pump
- 71500-001B** Hydra-Krimp Yoke
- 71500-001C** Complete Die Set Assembly (7 pc. set)
- 71500-6** Die Set - #6 (5/16"), Die Set - #8 (13/32" Reduced Barrier)
- 71500-8** Die Set - #8 (13/32")
- 71500-10** Die Set - #10 (1/2")
- 71500-12** Die Set - #12 (5/8")
- 71500-6SRB** Die Set - #6 (5/16" Reduced Barrier)
- 71500-10SRB** Die Set - #10 (1/2" Reduced Barrier)
- 71500-12SRB** Die Set - #12 (5/8" Reduced Barrier)
- 71500-PB** Custom Molded Box

71550 A/C HOSE CRIMPER



The 71550 is our "manual style" A/C hose crimper. The dies snap quickly into place requiring no pins or screws. The unit can be easily mounted to a bench using the holding fixture or held securely in a vice. This kit comes with a complete set of dies covering standard hose sizes #6, #8, #10 and #12. **PATENT# 6,324,884**

***Optional reduced barrier sizes are available.**



The die snaps quickly into the press fixture requiring no pins or screws



Close yoke, insert pin and turn arbor screw

Kit comes in a custom molded case and includes:

- | | |
|---|---|
| 71550-001 Yoke Assembly | 71500-8 Die Set - #8 (13/32") |
| 71550-002 Arbor Assembly | 71500-10 Die Set - #10 (1/2") |
| 71550-003 Holding Fixture Assembly | 71500-12 Die Set - #12 (5/8") |
| 71500-6 Die Set - #6 (5/16") | 71500-PB Custom Molded Carrying Case |





HYDRA-SWAGE



Fabricates and Expands Copper, Aluminum and Soft Steel Tubing Using Hydraulic Power.
PATENT# 6,619,099

- 71600-A** (7 HEAD KIT) Consists of expander heads 3/8, 1/2, 5/8, 3/4, 7/8, 1 and 1 1/8", hydra-swage 71601, adapter and inner-outer reamer
- 71600-A-M** (7 HEAD KIT) Same as 71600, but using metric expander heads 10, 12, 15, 16, 18, 22 and 28 mm
- 71650-A** (10 HEAD KIT) Consists of expander heads 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 3/8, 1 5/8, and 2 1/8", hydra-swage 71601, adapter and inner-outer reamer
- 71601-A** Hydra-Swage
- 71601-D** Adapter for 71601
- 71685** Inner - Outer Reamer
- 71600-PB** Molded Box for 71600, 71600-M & 71650



PART#	DESCRIPTION	TUBE O.D.
71600-03	Expander Head	3/8"
71600-04	Expander Head	1/2"
71600-05	Expander Head	5/8"
71600-06	Expander Head	3/4"
71600-07	Expander Head	7/8"
71600-08	Expander Head	1"
71600-09	Expander Head	1 1/8"
71600-11	Expander Head	1 3/8" (35 mm)
71600-13	Expander Head	1 5/8"
71600-17	Expander Head	2 1/8" (54 mm)
71600-10M	Expander Head	10 mm
71600-12M	Expander Head	12 mm
71600-15M	Expander Head	15 mm
71600-16M	Expander Head	16 mm
71600-18M	Expander Head	18 mm
71600-22M	Expander Head	22 mm
71600-28M	Expander Head	28 mm



HYDRAULIC FLARING AND EXPANDING



These kits are an upgrade to the existing hydra-swage expanding kits, allowing the user to easily make OEM flares with a pump of the handle.
PATENT# 6,619,099

71675

(7 HEAD KIT)

Complete Hydraulic Flaring and Expanding Kit
 Consists of expander heads 3/8, 1/2, 5/8, 3/4, 7/8, 1 and 1 1/8", hydra-swage 71601, adapter, inner-outer reamer and hydraulic flaring accessory 71680 packaged in a blow molded case



71676

(10 HEAD KIT)

Complete Hydraulic Flaring and Expanding Kit
 Consists of expander heads 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 3/8, 1 5/8, and 2 1/8", hydra-swage 71601, adapter, inner-outer reamer and hydraulic flaring accessory 71680 packaged in a blow molded case



71680 HYDRAULIC FLARING ACCESSORY



Add the 71680 to your existing Mastercool hydraulic expanding kits to allow for the ability to make OEM flares with a simple pump of the handle.

Flares 7 sizes: 1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8."



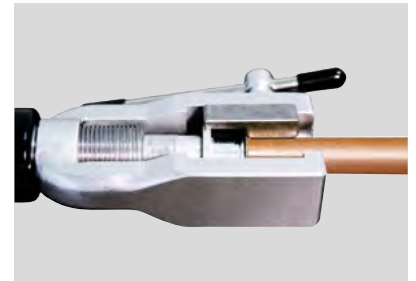
71700 HYDRAULIC FLARING & SWAGING TOOL



This kit features a hand-held hydraulic press that accurately flares & swages copper tubing. Once the die and adapter are secured in the fixture, a few pumps of the handle and you're done! This tool really takes the work out of swaging and flaring, especially on larger tube sizes. The kit includes dies and adapters for flaring and swaging copper tubing sizes 1/4, 5/16, 3/8, 1/2, 5/8, 3/4 and 7/8." Comes in a custom molded carrying case.

PATENT# 5,782,128

- 71700-A** Flaring & Swaging Pump
- 71700-B** Yoke Assembly
- 71700-PB** Plastic Molded Box
- 71700-01** 45° Flaring Cone
- 71700-04** 1/4" Swaging Adapter
- 71700-05** 5/16" Swaging Adapter
- 71700-06** 3/8" Swaging Adapter
- 71700-08** 1/2" Swaging Adapter
- 71700-10** 5/8" Swaging Adapter
- 71700-12** 3/4" Swaging Adapter
- 71700-14** 7/8" Swaging Adapter
- 71700-104** 1/4" Die Set
- 71700-105** 5/16" Die Set
- 71700-106** 3/8" Die Set
- 71700-108** 1/2" Die Set
- 71700-110** 5/8" Die Set
- 71700-112** 3/4" Die Set
- 71700-114** 7/8" Die Set
- 71685** Inner-Outer Reamer
- 70087** Steel Brush Thread Cleaner



The copper tube is secured in the holding fixture by the forming dies. The hydraulic pump pushes in the forming adapter to fabricate the flare or swage. This cut-away photo shows the forming process.



72475 UNIVERSAL HYDRAULIC FLARING TOOL SET



- This kit fabricates:
- Push connect 1/4, 5/16 and 3/8"
 - GM fuel line flare
 - Brake lines and transmission 5/16 and 3/8"
 - Flare/double flare 3/16, 1/4, 5/16, 3/8 and 1/2"
 - Metric bubble flare 4.75, 6, 8, and 10 mm
 - Comes in a custom molded box

PATENT# 5,782,128

- Push Connect
- GM Fuel
- 45° Double Flare
- ISO Bubble Flare



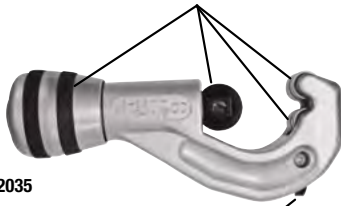
72485-PB Custom Molded Plastic Box for 72475



BALL BEARING CUTTERS





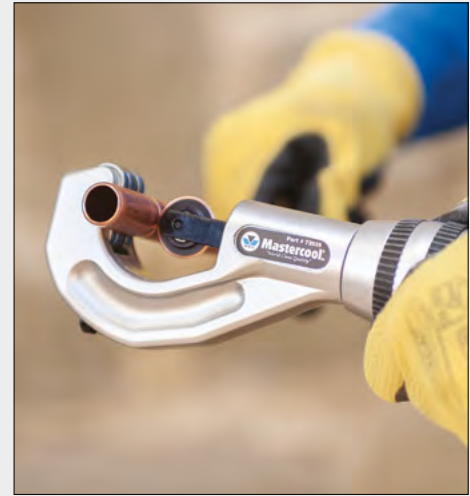
Each cutter includes up to 8 ball bearings for easy operation and extra smooth cut.



Includes a detachable swivel deburring tool for smooth surface

Mastercool's ball bearing tube cutters offer the latest "Reduced Friction" technology! Our reduced friction design incorporates ball bearings into the cutter wheel, tube rollers and a control knob. Reducing the resistance in these high friction areas allows the cutter to roll fast and easy as it slices through the tube. The "Reduced Friction" design is sure to save time and reduce fatigue!

COMPARE	
	
Standard steel cutting wheel used on competing cutters	Re-enforced steel cutting wheel with internal ball bearings for extra smooth cut



- 72029** "Reduced Friction" Tube Cutter for 1/8 to 1 1/8" (3-28 mm)
- 72035** "Reduced Friction" Tube Cutter for 1/4 to 1 1/2" (6-38 mm)
- 72030** Replacement Cutting Wheel for 72029
- 72034** Replacement Cutting Wheel for 72035

TUBE CUTTERS



70027



70029



70033



70037

Mastercool tube cutters are lightweight yet durable. Carbide steel cutting wheels work with hard and soft copper, aluminum, brass, thin wall steel and stainless steel. All cutters feature rollers with flare cut-off grooves to salvage as much old tubing material as possible.

- 70027** Mini Tube Cutter for 1/8 to 5/8" (3-16 mm) O.D. Tubing (1/8 to 1/2" Nominal)
- 70029** Mini Tube Cutter for 3/8 to 1 1/8" (4-28 mm) O.D. Tubing (1/4 to 1" Nominal)
- 70033** Heavy Duty Tube Cutter for 1/8 to 1 1/8" (4-28 mm) O.D. Tubing (1/4 to 1" Nominal)
- 70035** Heavy Duty Tube Cutter for 1/4 to 1 5/8" (6-40 mm) O.D. Tubing (1/4 to 1 1/2" Nominal)
- 70037** Sliding Ratchet Tube Cutter for 1/4 to 2 5/8" (6-67 mm) O.D. Tubing (1/4 to 2 3/4" Nominal), Triple Chrome Plated
- 70038** Sliding Ratchet Tube Cutter for 1/4 to 3 1/2" (6-89 mm) O.D. Tubing (1/4 to 3" Nominal)

RATCHET STYLE TUBE CUTTER



When you don't have swing room, ratchet action allows for easy cutting all the way around the tubing.

- 70030** (1/4 to 7/8" O.D. Tubing)
- 70031** (5/16 to 1 1/8" O.D. Tubing)

70025 CAPILLARY TUBE CUTTER



Cuts all sizes of capillary tubes without collapsing the tube.

80021 PLUMBERS TYPE MINI CUTTER



Designed for applications with limited working space. Cuts soft copper, aluminum and thin wall steel tubing. Plumbers type mini tube cutter for 1/8 to 7/8" (4-22 mm) O.D. tubing. (1/8 to 3/4" nom.)

- 80121** Spare Cutting Wheel for 80021

REPLACEMENT CUTTER WHEELS



70028



70034

- 70028** Replacement Cutting Wheels for 70027 (10 pcs)
- 70034** Replacement Cutting Wheels for 70029, 70030, 70031, 70033, 70035, 70037 (10 pcs + 1 holding screw)
- 70128** Carbide Cutting Wheel & Screw Set for 70027 includes: 2 spare cutting wheels and 1 holding screw
- 70134** Carbide Cutting Wheel and Screw Set for 70029, 70035. Includes: 2 spare cutting wheels and 1 holding screw
- 70138** Replacement Cutting Wheel for 70038 (1 per pkg.) Cut hard and soft copper, aluminum, brass, thin wall steel and stainless steel
- 70237** PVC Cutting Wheel for 70037. Cuts PVC and ABS
- 70238** Oversize PVC Cutting Wheel for 70038. Wheel is 1 5/8" diameter. Cuts PVC and ABS

TUBE CONSTRICTOR WHEEL



- 70233** Used with 70033 or 70035

INNER-OUTER REAMERS



70085



71685

- 70085** Inner/Outer Reamer for 3/16 to 1 1/2" O.D. Tubing
- 71685** Inner/Outer Reamer
Designed to remove inner burrs easily. Full metal grip. Includes one spare tungsten blade for long use.
- 71686-2** Two spare blades for 71685 (2 pcs).



ONLY ECCENTRIC FLARING TOOL ON THE MARKET TO COVER UP TO 7/8"

Make the perfect flare every time.

This eccentric flaring tool is the only tool on the market to cover up to 7/8" making the job of the HVAC/R technician easier everyday! Its automatic torque release prevents cracking of copper caused by over flaring.

Flares 6 sizes: 1/4, 3/8, 1/2, 5/8, 3/4, 7/8" O.D. Tubing



Railing allows yoke to smoothly travel while keeping the flaring tool and bar aligned



3/8" access drive allows for use with impact wrench

70059 45° Eccentric Flaring Tool
Flares 6 sizes: 1/4, 3/8, 1/2, 5/8, 3/4, 7/8" O.D. tubing

70060 45° Eccentric Flaring Tool Kit includes: Eccentric Flaring Tool (70059), Inner-Outer Reamer (71685), Heavy Duty Tube Cutter (70033) for (1/8" – 1 1/8") 4 to 28 mm

ECCENTRIC FLARING TOOLS



- Aluminum design
- Light weight and durable
- Automatic torque release

70057-A Flares 6 Sizes: 1/4, 5/16, 3/8, 1/2, 5/8 and 3/4" O.D. Tubing

70057-AM Flares 7 Metric Sizes: 6, 8, 10, 12, 14, 16 and 18 mm O.D. Tubing

70058-A Kit includes: Eccentric Flaring Tool (70057-A), Inner-Outer Reamer (71685), Heavy Duty Tube Cutter (70033) for (1/8 – 1 1/8") 4 to 28 mm. O.D. Tubing (1/4 to 1" Nominal)

70058-AM Same as Kit 70058-A, but with Metric Eccentric Flaring Tool (70057-AM)

STANDARD 45° FLARING TOOL



70051 Standard 45° Flaring Tool
 Flares 7 sizes: 3/16, 1/4, 5/16, 3/8, 7/16, 1/2 and 5/8" O.D. tubing

70051-M Metric 45° Flaring Tool
 Flares 7 metric sizes: 4, 6, 8, 10, 12, 15 and 16 mm O.D. tubing

70052 SLIDING DIE-BLOCK 45° FLARING TOOL



Sliding die-block 45° flaring tool flares and burnishes 6 sizes: 3/16, 1/4, 5/16, 3/8, 1/2 and 5/8" O.D. tubing.

70053 45° FLARING & SWAGING TOOL SET



Durable forged steel slip-on yoke. Bars are chrome plated, hardened steel. Swages in close quarters where punch style cannot be used. Includes custom molded plastic box.

45° Flaring & Swaging Tool Set includes:
 Two flaring bars covering 9 sizes: 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 5/8 and 3/4" O.D. tubing
 Five swaging adapters covering 7 sizes: 3/16, 1/4, 5/16, 3/8, 1/2, 5/8 and 3/4" O.D. tubing

PUNCH-TYPE SWAGING TOOLS



Enlarge one end of copper tubing to accept piece of original size tubing then solder together like a fitting. Tools are heat treated for durability.

- 70040** All-In-One Swaging Punch
Nickel-chrome finish. Swages 1/4, 5/16, 3/8, 1/2 and 5/8”.
- 70048** Set of 5 Swaging Punches
for 1/4, 5/16, 3/8, 1/2 and 5/8” O.D.
- 70049** Flaring Bar and Set of 5 Punches
for 1/4, 5/16, 3/8, 1/2 and 5/8” O.D. all in case.

MODEL#	SIZE	LENGTH
70041	1/4”	1/8”
70042	5/16”	–
70043	3/8”	1/4”
70044	1/2”	3/8”
70045	5/8”	1/2”
70046	3/4”	5/8”
70047	7/8”	3/4”

70078 TORQUE WRENCH



Ensures accurate tightness of fittings, especially R410A. Kit in a blow molded case includes sizes: 17, 22, 24, 26, 27 and 29 mm.

Optional Wrench Sizes Available:

- 70078-19** 19 mm
- 70078-25** 25 mm
- 70078-28** 28 mm
- 70078-32** 32 mm

RATCHET WRENCHES



- 70081** Steel forged wrench with reversible ratchet. 9/16”, 1/2” hex, 1/4” and 3/16” square.
- 70082** Compact chrome satin plated wrench specially designed for use in hard to reach places. 1/4, 3/8, 3/16 and 5/16” square ratchet.

70088 1/4” TUBE PIERCING PLIER



- 70088-TIP** Replacement Tip for 70088

70083 PINCH-OFF PLIER



Specially designed for the refrigeration industry. Pinches off and locks on copper tubing.
Size: Throat 7”, Depth 1”, Jaw thickness 1/4”

70069-A 4-IN-1 LEVER STYLE TUBE BENDER



Complete 180° bend all metal multi-purpose tube bender for 3/16, 1/4, 5/16 and 3/8" O.D. tubing.

70069-AM Metric complete 180° bend all metal multi-purpose tube bender for 6, 8, 10 mm O.D. tubing

SPRING STYLE TUBE BENDERS



Economical and effective tools for bending soft copper or aluminum tubing without kinks. Special nickel plated, spring steel is flared on one end for quick tube insertion. Each tool bends one size.

MODEL#	SIZE	LENGTH
70071	1/4"	10"
70072	5/16"	10"
70073	3/8"	10"
70074	1/2"	12"
70075	5/8"	14"
70077	3/4"	14"

70076 SPRING STYLE TUBE BENDER SET



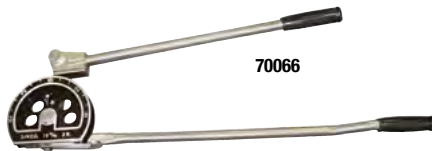
Set of 5 spring benders for 1/4, 5/16, 3/8, 1/2 and 5/8" O.D. tubing.

LEVER STYLE TUBE BENDERS



70061

Open side design slips over tube at any point. Makes smooth short radius bends up to 180° with minimum effort. Calibrated to show angle of bend. Easy 90° start requires much less effort to make fast and accurate bends. Each tool bends one size.



70066

MODEL #	OUTSIDE DIAMETER OF TUBING	NOMINAL SIZE	RADIUS TO CENTER OF TUBE
70061	1/4"	1/8"	9/16"
70062	5/16"	-	11/16"
70063	3/8"	1/4"	15/16"
70064	1/2"	3/8"	1 1/2"
70065	5/8"	1/2"	2 1/4"
70066	3/4"	5/8"	3"
70067	7/8"	3/4"	3"

"Ratchet Style" TUBE BENDER KIT - 5 SIZES



- Hand-operated ratchet design bends annealed (soft) copper, annealed (soft) brass, SAE 1010 (soft) and brazed Bundy GM steel and annealed (soft) stainless
- Bends 5 sizes: 3/8, 1/2, 5/8, 3/4 and 7/8" O.D. soft tubing
- Bending radius from 1 3/16" to 3 3/8", easily bends to 90° without creasing the tubing
- Compact and portable design
- Includes heavy duty tube cutter for 1/8 - 1 1/8" O.D. tubing
- Includes inner-outer reamer for 3/16 - 1 1/2" O.D. tubing
- Comes in custom molded case



70070 "Ratchet Style Tube Bender Kit

70070-M "Ratchet Style" Metric Tube Bender Kit
 Same as 70070 less 70033 cutter & 70085 reamer. Bends 8, 10, 12, 14, 16, 18 & 22 mm O.D. soft tubing.

70070-RD REVERSE DIRECTION BENDING ADAPTER



Bends: 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8" O.D. tubing



MC-DISP STEEL DISPLAY



Steel display with light box to promote Mastercool products.

- Four tier cold rolled steel black display
- Adjustable shelves
- 900 x 410 x 1900 mm
- Each tier can bear 65 kg of weight
- Shipped with 220 V schuko plug, 110 V standard US transformer available upon request

MC-CRDBD-DISP-21 FULL COLOR CARDBOARD DISPLAY



Cardboard display to promote Mastercool products.

- Full color, 3 tier cardboard display
- Pegs included for hanging product on first tier
- Dimensions: 1828 mm (h) x 508 mm (w) x 724 mm (d)

MC-LCD-DISP LCD MONITOR



17" LCD monitor that mounts to ceiling. This monitor displays video containing information and operation procedures of various Mastercool products.

- Dimensions: 370 mm (h) x 540 mm (w)

APPAREL



This T-shirt is made with 100% combed ringspun, preshrunk cotton material and features Mastercool's screen-printed logo on the front.

Adult-size solid-color cotton hat features Mastercool's embroidered logo on the front. Cloth strap with buckle closure in back.

MC-SHIRT-SS Small Silver T-Shirt

MC-SHIRT-MS Medium Silver T-Shirt

MC-SHIRT-LS Large Silver T-Shirt

MC-SHIRT-XLS Extra Large Silver T-Shirt

MC-SHIRT-SB Small Black T-Shirt

MC-SHIRT-MB Medium Black T-Shirt

MC-SHIRT-LB Large Black T-Shirt

MC-SHIRT-XLB Extra Large Black T-Shirt

MC-HAT Hat

MC-BANNER12-LG LARGE VINYL BANNER



Heavy-Duty vinyl banner with grommets for easy hanging.

- Dimensions: 48" (w) x 24" (h)

MC-SIGN12-SM CARDBOARD SIGN



Cardboard sign for top of display

- Dimensions: 30" (w) x 6" (h)

COUNTERPAD-22 COUNTERPAD



Counterpad features a scratch resistant surface and non-slip base to provide durability.

- Dimensions: 20" (w) x 14" (h)



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