



# Mastercool<sup>®</sup> Inc.

*"World Class Quality"*



# AUTOMOTIVE

AIR CONDITIONING, SERVICE TOOLS & EQUIPMENT

For over 30 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!

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Corporate Office  
Manufacturing and USA Warehouse



European Sales Office and Warehouse









Brazil Sales Office and Warehouse









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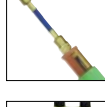


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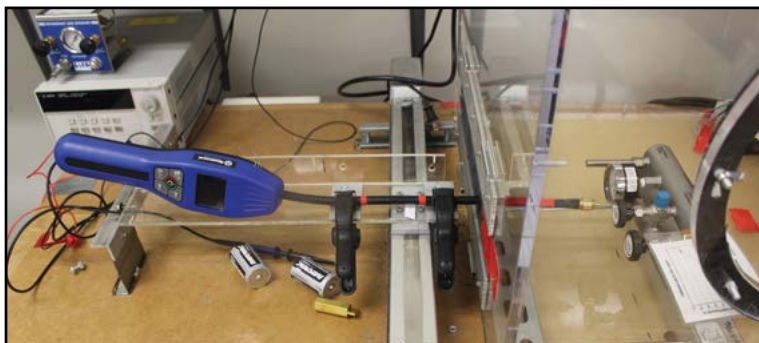
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**MASTERCool PRODUCTS ARE  
MADE/ASSEMBLED IN THE USA**

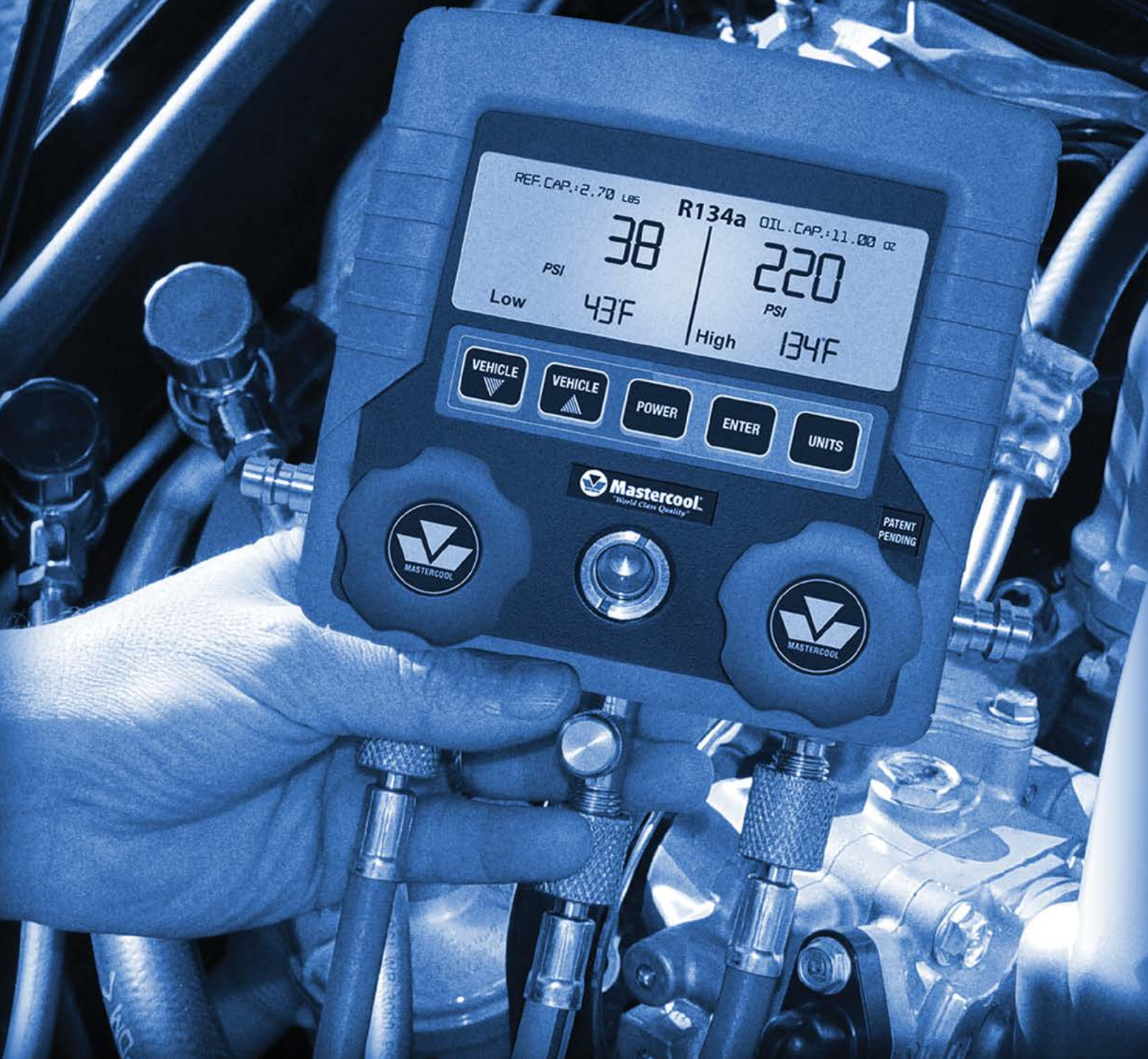


Mastercool manufactures all of its products with the highest quality components and management systems. All products are checked and tested directly at Mastercool headquarters in Randolph, New Jersey, USA.

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



# MANIFOLDS



**ALL THE INFORMATION YOU NEED IN THE PALM OF YOUR HAND!**

Patent Pending



This manifold offers a large easy to read LCD that displays temperature, pressure and vacuum readings for R134a. The unit easily allows the technician to obtain refrigerant and oil capacity readings for 55 automobile manufacturers. This unit also performs systems leak check at the conclusion of the evacuation process. To insure lasting performance and durability the manifold case is constructed of ABS material and protected by a rugged rubber boot. The technician now has a fully functional manifold with the intelligence to quickly access and deliver the accurate information needed to do the job right!

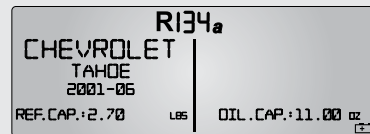


**SPECIFICATIONS**

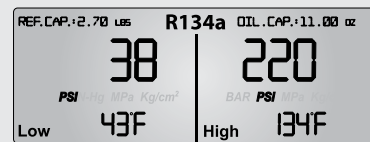
- Refrigerant: R134a
- Pressure & Vacuum Display: Low Side - PSI, Bar, MPa, Kg/cm<sup>2</sup> & IN-Hg  
High Side - PSI, Bar, MPa, Kg/cm<sup>2</sup>
- Temperature Display: -40 to 200°F (-4 to 93°C)
- Response Time: 250 mSec.
- Connection: 1/4" FL-M
- Operating Temperature: 32 to 122°F (0 to 45°C)
- Power: 9V DC battery
- Battery Life: 50-60 hours continuous use
- Low Battery Indicator: Special ICON on LCD
- Auto-Off: 15 min. with disabling capability

**MANUFACTURERS INCLUDE:**

Acura	Dodge	Kia	Oldsmobile	Seat
Alfa Romeo	Fiat	Lancia	Opel-Vauxhall	Scion
Audi	Ford	Land Rover	Peugeot	Smart
BMW	GMC	Lexus	Plymouth	Subaru
Buick	Honda	Lincoln	Pontiac	Suzuki
Cadillac	Hummer	Mazda	Porsche	Toyota
Chevrolet	Hyundai	Mercury	Renault	Volkswagen
Chrysler	Infiniti	Mini	Rover	Volvo
Citroen	Isuzu	Mitsubishi	Saab	
Daewoo	Jaguar	Mercedes Benz	Saturn	
Daihatsu	Jeep	Nissan	Scion	



**MANUFACTURER/MODEL/YEAR REFRIGERANT (LB/KG) & OIL CAPACITY (OZ/ML) DISPLAY**

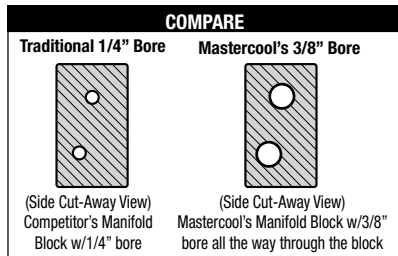


**TEMPERATURE/PRESSURE DISPLAY**

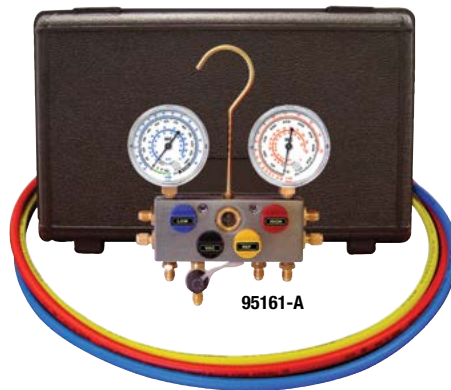
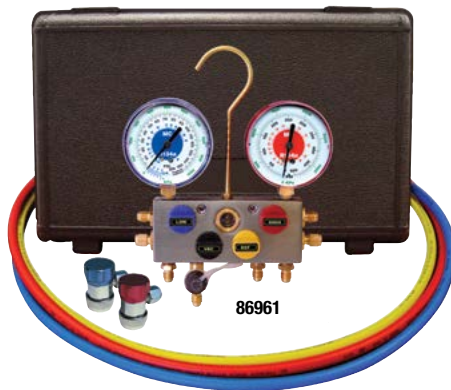
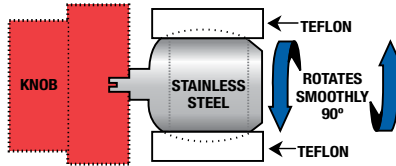


- 99134-A** Manifold only
- 99860-A** Complete Kit in a blow molded case includes: manifold with a set of 3-60" hoses and a set of manual couplers (82834 & 82934).
- 99872-A** Complete Kit in a blow molded case includes: manifold with a set of 3-72" hoses and a set of manual couplers (82834 & 82934).
- 99134A-UPDT-12** CD for software upgrade with vehicle capacities up to 2012

3/8" BORE 4-WAY BALL VALVE MANIFOLD



Mastercool's Aluminum 4-Way Manifolds feature PREMIER SERIES BALL VALVE DESIGN.



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, 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)

**R134a AUTO A/C 4-WAY MANIFOLD GAUGE SETS**

with hoses packaged in blow molded cases. Hose connections for blue and red are 14mm-M. Yellow hose is 1/2" ACME-F with auto shut-off valve. Gauges are 3 1/8" in PSI/Kpa & °F.

HOSE LENGTH	W/O COUPLERS	W/MANUAL COUPLERS	W/E-Z SNAP™ COUPLERS
36"	86536	86936	86436
60"	86561	86961	86461
72"	86572	86972	86472

**R12, R22 AND R502 4-WAY MANIFOLD GAUGE SETS**

with hoses packaged in blow molded cases. Hose connections are 1/4" SAE and gauges are 2 1/2" in PSI & °F.

HOSE LENGTH	STANDARD HOSES STANDARD FITTINGS	STANDARD HOSES AUTO SHUT-OFF VALVES	NYLON BARRIER HOSES STANDARD FITTINGS	NYLON BARRIER HOSES AUTO SHUT-OFF VALVES
36"	95136-A	95336-A	95236-A	95436-A
60"	95161-A	95361-A	95261-A	95461-A
72"	95172-A	95372-A	95272-A	95472-A

To order manifolds with shock-resistant gauge protectors, simply place a "-G" after the part number.

**4-WAY MANIFOLDS WITH GAUGES ONLY**

86103	R134a (3 1/8" Gauges) 1/2" Acme-M
95103-A	R12, R22 & R502 (2 1/2" Gauges) 1/4" MFL

PARTS FOR 4 WAY BALL VALVE MANIFOLDS



95102-R-KIT O-Ring Repair Kit for 4 Way Ball Valve Manifold

# ALUMINUM 2-WAY MANIFOLD GAUGE SETS

## R134a AUTO A/C 2-WAY MANIFOLD GAUGE SETS WITH HOSES PACKAGED IN CLAMSHELLS

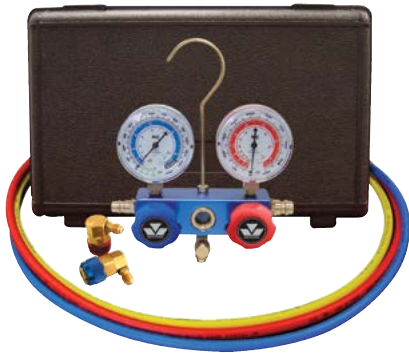


- Hose connections for blue and red are 14mm-M
- Yellow hose is 1/2" ACME-F with auto shut-off valve.
- Gauges are 2 1/2" in PSI/°F, 3 1/8" in PSI/Kpa & °F.

HOSE LENGTH (SET OF 3)	W/MANUAL COUPLERS		W/E-Z SNAP™ COUPLERS		W/O COUPLERS	
	2 1/2"	3 1/8"	2 1/2"	3 1/8"	2 1/2"	3 1/8"
GAUGE SIZE						
36"	<b>89636</b>	<b>89136</b>	<b>88436</b>	<b>88136</b>	<b>85636</b>	<b>85136</b>
60"	<b>89661</b>	<b>89161</b>	<b>88461</b>	<b>88161</b>	<b>85661</b>	<b>85161</b>
72"	<b>89772</b>	<b>89172</b>	<b>88472</b>	<b>88172</b>	<b>85772</b>	<b>85172</b>

To order manifolds with shock-resistant gauge protectors, simply place a "-G" after the part no. (2 1/2" only)

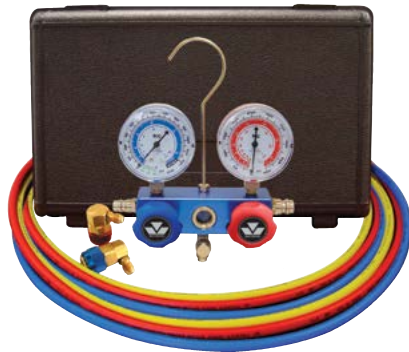
### 89660 AUTOMOTIVE R134a MANIFOLD GAUGE SET



- Professional Extruded Aluminum Block
- Silicone Dampened, Recalibrateable Gauges
- 3 - SAE Approved Nylon Barrier Hoses
- Professional R134a Couplers
- Custom Molded Carrying Case



### 98660 DUAL R134a/R12 MANIFOLD GAUGE SET



- Professional Extruded Aluminum Block
- Silicone Dampened, Recalibrateable Gauges
- Set of 3 - R134a Nylon Barrier Hoses
- Set of 3 - R12 Nylon Barrier Hoses
- Professional R134a Couplers
- Custom Molded Carrying Case

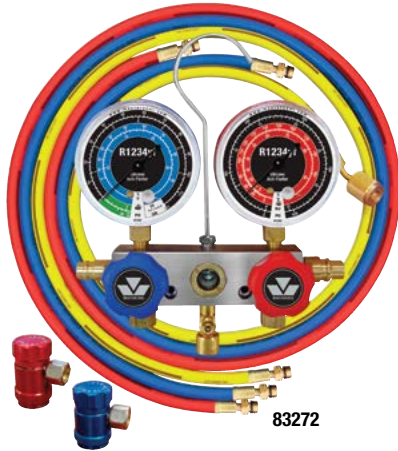
### 98661 DUAL R134a/R12 MANIFOLD GAUGE SET



- Professional Extruded Aluminum Block
- Silicone Dampened, Recalibrateable Gauges
- Set of 3 - R134a Nylon Barrier Hoses
- Set of 3 - R12 Nylon Barrier Hoses
- Manual Couplers
- Custom Molded Carrying Case



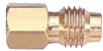
**2-WAY PISTON VALVE MANIFOLD FOR AUTOMOTIVE A/C - R1234yf**



- Manifold block assembled with (3) 12mm-F fittings per SAE J2888
- Red & Blue nylon barrier hoses with 12mm-M fittings on both sides meets SAE J2888, EPA, SAE & UL standards
- Yellow hose 12mm 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
- Piston type free-floating valves reduce o-ring wear
- Extra large sight glass for visual checks of refrigerant
- Easy to recalibrate gauges to insure accuracy

Gauge class – diameter	3 1/8"
Unit	Bar/PSI
Refrigerant scales	R1234yf
Gauge p/n (HP/LP)	87500-87350
Manifold with gauges, 3 x 12 mm-F fittings	<b>83102</b>
Manifold with 3 – 72" hoses and R1234yf couplers packaged in a clam shell	<b>83272</b>

**83634 VACUUM PUMP ADAPTER FITTING**



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

**R12, R22 AND R502 2-WAY ALUMINUM MANIFOLD GAUGE SETS WITH HOSES PACKAGED IN CLAMSHELLS**



- Hose connections are 1/4" SAE
- Gauges are 2 1/2" in PSI & °F

HOSE LENGTH (SET OF 3)	STANDARD HOSES STANDARD FITTINGS	STANDARD HOSES AUTO SHUT-OFF VALVES	NYLON BARRIER HOSES STANDARD FITTINGS	NYLON BARRIER HOSES AUTO SHUT-OFF VALVES	NYLON BARRIER HOSES MANUAL BALL VALVES
36"	<b>93636</b>	<b>95636</b>	<b>96636</b>	<b>97636</b>	<b>92636</b>
60"	<b>93661</b>	<b>95661</b>	<b>96661</b>	<b>97661</b>	<b>92661</b>
72"	<b>93772</b>	<b>95772</b>	<b>96772</b>	<b>97772</b>	<b>92772</b>

To order manifolds with shock-resistant gauge protectors, simply place a "-G" after the part no. (2 1/2" only)

**2-WAY ALUMINUM MANIFOLDS WITH GAUGES ONLY**

<b>93103</b>	R12, R22 & R502 (2 1/2" gauges) 1/4" MFL
<b>85103</b>	R134a (2 1/2" gauges) 1/2" Acme-M
<b>85113</b>	R134a (3 1/8" gauges) 1/2" Acme-M

**PARTS FOR 2-WAY ALUMINUM MANIFOLDS**

<b>85215</b>	O-rings for Al. Manifold (4 pcs)
<b>85216</b>	Seal & Seat Assembly (2 pcs)

# BRASS 2-WAY MANIFOLD GAUGE SETS

## R12, R22 AND R502 2-WAY BRASS MANIFOLD GAUGE SETS WITH HOSES PACKAGED IN CLAMSHELLS

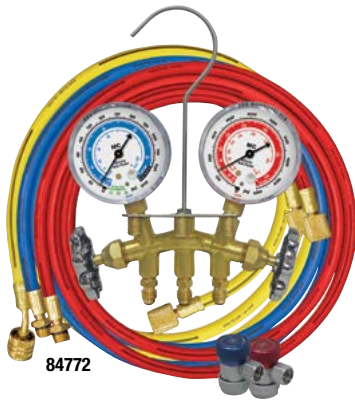


- Hose connections are 1/4" SAE
- Gauges are 2 1/2" in PSI & °F.

HOSE LENGTH (SET OF 3)	STANDARD HOSES STANDARD FITTINGS	STANDARD HOSES AUTO SHUT-OFF VALVES	NYLON BARRIER HOSES STANDARD FITTINGS	NYLON BARRIER HOSES AUTO SHUT-OFF VALVES	NYLON BARRIER HOSES MANUAL BALL VALVES
36"	<b>33636</b>	<b>35636</b>	<b>36636</b>	<b>37636</b>	<b>32636</b>
60"	<b>33661</b>	<b>35661</b>	<b>36661</b>	<b>37661</b>	<b>32661</b>
72"	<b>33772</b>	<b>35772</b>	<b>36772</b>	<b>37772</b>	<b>32772</b>

To order manifolds with shock-resistant gauge protectors, simply place a "-G" after the part number. (2 1/2" only)

## R134A AUTO A/C 2-WAY BRASS MANIFOLD GAUGE SETS WITH HOSES PACKAGED IN CLAMSHELLS



- Hose connections for blue and red are 14mm-M
- Yellow hose is 1/2" ACME-F with auto shut-off valve.
- Gauges are 2 1/2" in PSI & °F.

HOSE LENGTH (SET OF 3)	W/MANUAL COUPLERS		W/E-Z SNAP™ COUPLERS		W/O COUPLERS	
	2 1/2"	3 1/8"	2 1/2"	3 1/8"	2 1/2"	3 1/8"
36"	<b>84636</b>	<b>84136</b>	<b>83436</b>	<b>83136</b>	<b>80636</b>	<b>80136</b>
60"	<b>84661</b>	<b>84161</b>	<b>83461</b>	<b>83161</b>	<b>80661</b>	<b>80161</b>
72"	<b>84772</b>	<b>84172</b>	<b>83472</b>	<b>83172</b>	<b>80772</b>	<b>80172</b>

To order manifolds with shock-resistant gauge protectors, simply place a "-G" after the part number. (2 1/2" only)

## AUTOMOTIVE R134a MANIFOLD GAUGE SETS WITH ECONOMY COUPLERS



**66660** Brass R134a Manifold Gauge Set comes complete with 1 – 60" hose, 2 – 36" hoses and economy couplers. Packaged in a clamshell.

**66661** Brass R134a Manifold Gauge Set comes complete with 3 – 60" hoses and economy couplers. Packaged in a clamshell.

## 2-WAY BRASS MANIFOLDS WITH GAUGES ONLY

- 80103** R134a (2 1/2" gauges) 1/2" Acme-M
- 81113** R134a (3 1/8" gauges) 1/2" Acme-M
- 33103** R12, R22, R502 (2 1/2" gauges) 1/4" MFL

## PARTS FOR 2-WAY BRASS MANIFOLD

- 34215** O-rings for Brass Manifolds
- 34216** Seal & seat assembly for Brass Manifolds

**REPLACEMENT GAUGES**

Mastercool offers one of the most extensive lines of high quality replacement gauges. Our wide variety of gauge scales are available in different sizes and styles. All of our gauges are designed with the **ANTI-FLUTTER** feature that reduces needle fluctuation and increases reading accuracy.

	High pressure p/n	Low pressure p/n	Gauge Diameter	Units	Refrigerant Scales
	93500	93350	2 1/2"	PSI/F	R12 R22 R502
	85500	85350	2 1/2"	PSI/F	R134a R12
	86500	86350	3 1/8"	PSI/Kpa/F	R134a
	87500	87350	3 1/8"	Bar/PSI F/C	R1234yf

## GAUGE PROTECTORS



Mastercool gauge protectors are built to cushion shock due to rough handling. The unique ribbing deadens bumps and deflects shocks. Snug fitting. Color coded. All Mastercool manifold gauge sets are available with gauge protectors installed. To order, simply place a “-G” after any gauge set number.

### 2 1/2” (63 MM) GAUGE PROTECTORS

**93253-E** 2 1/2” (63 mm) Blue Gauge Protector

**93503-E** 2 1/2” (63 mm) Red Gauge Protector

**93553-E** 2 1/2” (63 mm) Set (Red & Blue)

### 3 1/8” (80 MM) GAUGE PROTECTORS

**91253-EE** 3 1/8” (80 mm) Red Gauge Protector

**91503-EE** 3 1/8” (80 mm) Blue Gauge Protector

**91553-EE** 3 1/8” (80 mm) Set (Red & Blue)

## LENS



**85253-E** 2 1/2” (63 mm) Lens

**98251-E** 3 1/8” (80 mm) Lens

## 4-WAY MANIFOLD REPLACEMENT KNOBS



**58211** Blue Knob

**58212** Red Knob

**58213** Yellow Knob

**58214** Black Knob

## 2-WAY MANIFOLD REPLACEMENT KNOBS

85212-R / 85211-R



**85211** Blue Knob

**85212** Red Knob

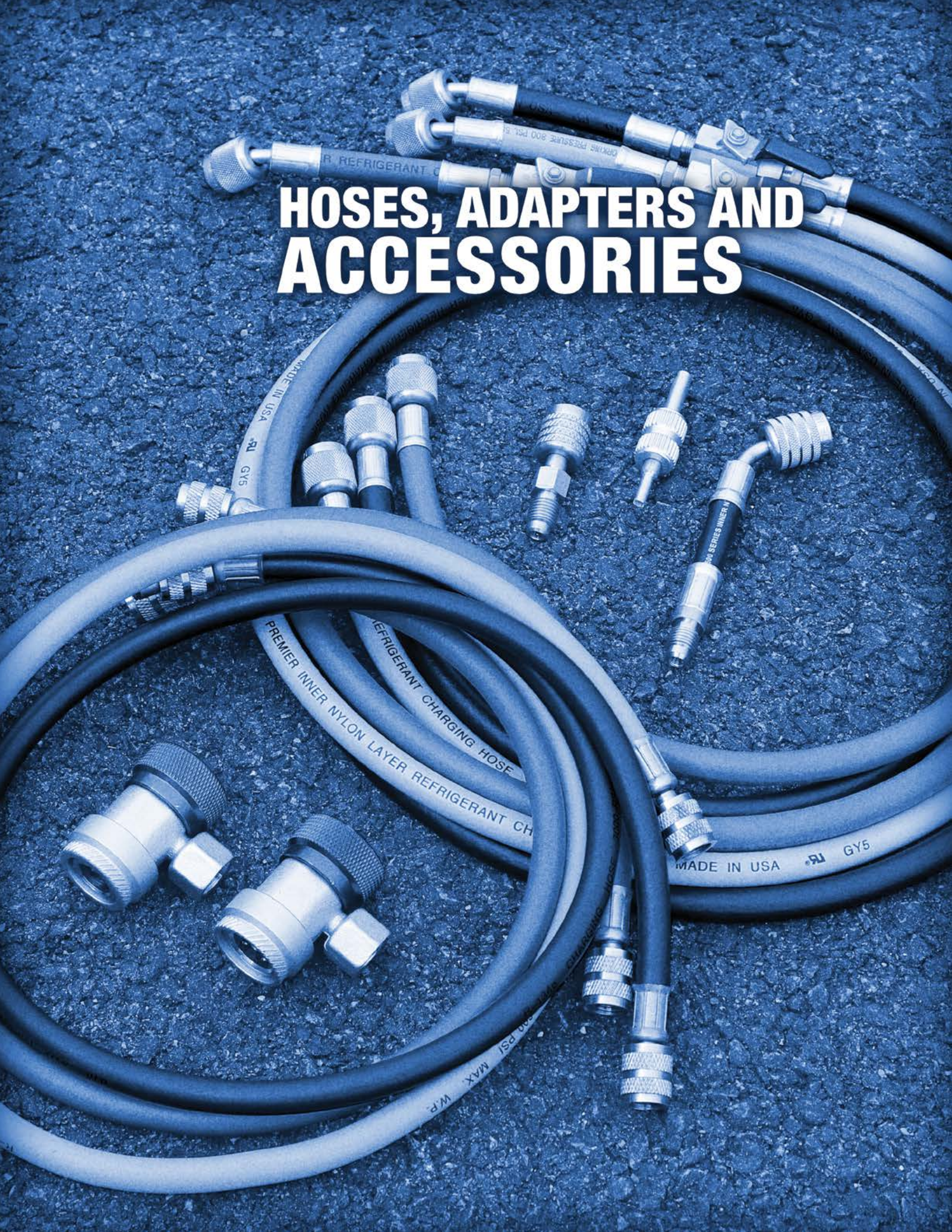
**93211** Black Knob

**85211-R** Blue Knob

**85212-R** Red Knob

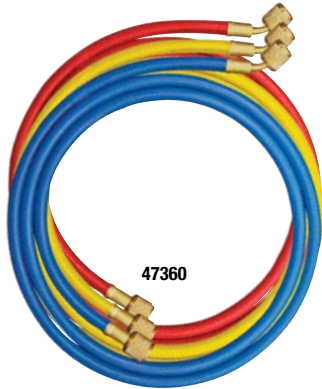
**93211-R** Black Knob

# HOSES, ADAPTERS AND 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.**

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



Standard Hoses, Working pressure 750 PSI, Burst 3000 PSI

HOSE LENGTH	36"	60"	72"	96"
Blue 1/4" x 1/4"	41361	41601	41721	41961
Yellow 1/4" x 1/4"	41362	41602	41722	41962
Red 1/4" x 1/4"	41363	41603	41723	41963
<b>SETS 1/4" x 1/4"</b>	<b>40336</b>	<b>40360</b>	<b>40372</b>	<b>40396</b>

Nylon Barrier Hoses, Working Pressure 800 PSI, Burst 4000 PSI

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

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



Standard Hoses, Working pressure 750 PSI, Burst 3000 PSI

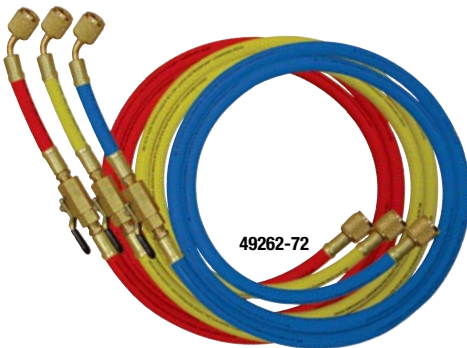
HOSE LENGTH	36"	60"	72"	96"
Blue 1/4" x 1/4"	45361	45601	45721	45961
Yellow 1/4" x 1/4"	45362	45602	45722	45962
Red 1/4" x 1/4"	45363	45603	45723	45963
<b>SETS 1/4" x 1/4"</b>	<b>45336</b>	<b>45360</b>	<b>45372</b>	<b>45396</b>

Nylon Barrier Hoses, Working Pressure 800 PSI, Burst 4000 PSI

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
<b>SETS 1/4" x 1/4"</b>	<b>46336</b>	<b>46360</b>	<b>46372</b>	<b>46396</b>

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 W/MANUAL SHUT-OFF VALVE FITTINGS (1/4" SAE)



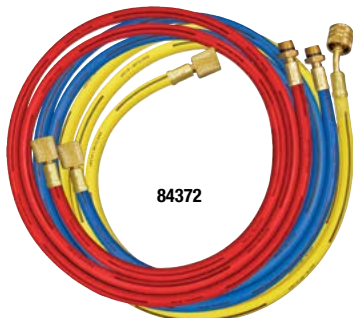
Standard Hoses, Working pressure 750 PSI, Burst 3000 PSI

HOSE LENGTH	36"	60"	72"
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
<b>SETS 1/4" x 1/4"</b>	<b>90262-36</b>	<b>90262-60</b>	<b>90262-72</b>

Nylon Barrier Hoses, Working Pressure 800 PSI, Burst 4000 PSI

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
<b>SETS 1/4" x 1/4"</b>	<b>49262-36</b>	<b>49262-60</b>	<b>49262-72</b>

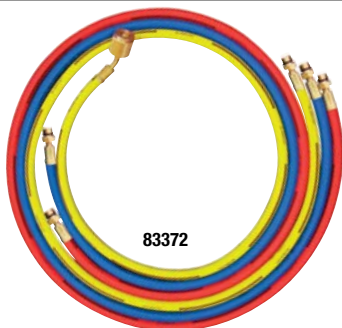
## R134a HOSES WITH 1/2" ACME-F AND 14 MM-M AUTO A/C FITTINGS



HOSE LENGTH	90 cm	150 cm	180 cm	240 cm
Blue-14 mm-M x 1/2" ACME-F	84361	84601	84721	84961
Yellow w/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
Black Conversion Hose 1/2" ACME-F x 1/4" FL-F	98364	98604	98724	98964
Yellow w/o Shut-off Valve 1/2" ACME-F x 1/2" ACME-F	84365	84605	84725	84965
<b>SETS Blue/Red 14 mm-M x 1/2" ACME-F and Yellow w/Shut-off Valve 1/2" ACME-F x 1/2" ACME-F</b>	<b>84336</b>	<b>84360</b>	<b>84372</b>	<b>84396</b>

Mastercool R134a charging hoses meet SAE J2196 specifications and are UL tested. Tested for working pressure of 600 PSI and burst pressure of 3000 PSI.

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



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

HOSE LENGTH	72"
Blue-12mm-M x 12mm-M	83721
Yellow-12mm fitting x 1/2 x 16 ACME LH	83722
Red-12mm-M x 12mm-M	83723
SET Blue/Red 12mm-M x 12mm-M and Yellow 12mm fitting x 1/2 x 16 ACME LH	83372

Mastercool manufactures a complete line of shut-off valves for containment of refrigerant. EPA requires shut-off valves within 12 inches of the charging hose ends to prevent unnecessary venting of refrigerant. Using shut-off valves is much safer than allowing refrigerant to blow out during service.

### 90259 90° MANUAL SHUT-OFF VALVE SET



Needle valve design with flexible hose controls refrigerant with a twist of a knob. Meets SAE, EPA and UL requirements for containment of refrigerant. Screws onto charging hose end.

90° Manual Shut-Off Valve Set Includes:

- 90269** Blue 1/4" x 1/4"
- 90279** Yellow 1/4" x 1/4"
- 90289** Red 1/4" x 1/4"

Also Available:

- 90389** Red 1/4" x 3/16" (Automotive)

### 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 FL-M x 1/4 FL-F
- 90333-UV** 90° 1/4" FFL x 13 mm
- 90335-R** Straight 1/4 FL-M x 1/4 FL-F
- 90337** Straight 1/4 FL-M x 3/16 FL-F

### 90262 STRAIGHT MANUAL SHUT-OFF VALVE SET



Ball valve design with flexible hose controls refrigerant with a quarter turn of the valve handle. Meets SAE, EPA and UL requirements for containment of refrigerant. One hand operation. Screws onto charging hose end.

Straight and Manual Shut-Off Valve Set includes:

- 90263** Blue 1/4" x 1/4"
- 90264** Yellow 1/4" x 1/4"
- 90265** Red 1/4" x 1/4"

Also Available:

- 90365** Red 1/4" x 3/16"

### CONTROL VALVE



Ideal for use on charged systems. Eliminates refrigerant, oil or dye from spraying during connections. Brass body with 1/4" FFL swivel coupler.

- 90328** 1/4" FFL x 1/4" MFL

### 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 FL-F x 1/4 FL-M Swivel Ball Valve (less hose)
- 82495** 1/2" ACME x 1/2" ACME R134a Ball Valve

### SERVICE HOSE REPLACEMENT PARTS



	1/4" SAE		1/2" ACME		14 mm-M O-RING	UNF 1/2 - 20"	
	GASKET	DEPRESSOR	GASKET	DEPRESSOR		GASKET	DEPRESSOR
Charging Hoses	<b>42010-10</b>	<b>42014-10</b>	<b>82010-10</b>	<b>42014-10</b>	<b>83341-10</b>	<b>42010-10</b>	<b>42014-10</b>
Shut-Off Valve	<b>90336-10</b>	N/A	<b>82336-10</b>	N/A	N/A	N/A	N/A

## MANUAL COUPLERS

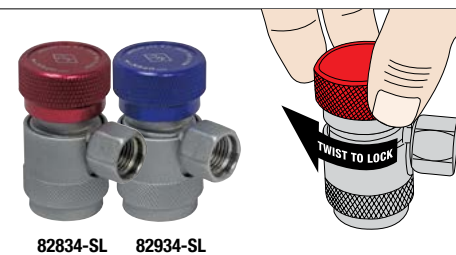


Patented manual couplers adjust easily to R134a service ports with varying dimensions. All metal construction for extra durability. Patented, spring loaded depressor will not damage service valves. Can be removed from service ports regardless of knob position without losing refrigerant. Meets SAE, UL and EPA requirements for containment of refrigerant. Color coded. **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
- 80034** O-ring for 16 mm Quick Coupler (10 pcs)
- 80134** O-ring for 13 mm Quick Coupler (10 pcs)

## SAFETY-LOCK MANUAL COUPLERS



Mastercool's new 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. Color coded.



- 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
- 80034** O-ring for 16 mm Quick Coupler (10 pcs)
- 80134** O-ring for 13 mm Quick Coupler (10 pcs)

## E-Z SNAP™ COUPLERS

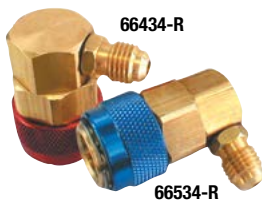


This unique patented design easily snaps on and off the A/C systems service ports under any pressure. The E-Z Snap™ automatically adjusts to various service port dimensions allowing fast and immediate access into the A/C system. The swivel feature enables the user to easily access all service ports, 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
- 80034** O-ring for 16 mm Quick Coupler (10 pcs)
- 80134** O-ring for 13 mm Quick Coupler (10 pcs)

## ECONOMY COUPLERS

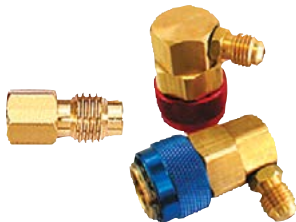


Specially designed to work in the tightest quarters. Attaches to your existing R12 hoses and snaps easily to A/C service ports.

- 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)



**98370 R134a CONVERSION KIT**



Includes High and Low Side R134a Couplers and R134a Tank Adapter.

**R1234yf COUPLERS**



- High and low couplers with extended disconnect protection sleeve
- Meets SAE J639 & J2888
- Allows recovery of entire refrigerant, including the space between the coupler and fitting.

<b>83834</b>	High Side R1234yf Coupler
<b>83934</b>	Low Side R1234yf 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.

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

**MALE x MALE CONNECTORS**



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

**FEMALE x MALE CONNECTORS**



<b>82635</b>	1/2" ACME-F x 1/4" FL (7/16-20")-M R134a Adapter Coupler
<b>82733</b>	14 mm-F x 1/2" ACME-M Connector
<b>90364</b>	1/4" (7/16-20")-F x M10 x 1.5-M Adapter
<b>90363</b>	5/16" (1/2-20 UNF)-F x 1/4" FL-M Connector
<b>82634</b>	1/4" FL-F (7/16-20") x 1/2" ACME-M Connector
<b>82634-M</b>	1/4" FL-F (7/16-20") x 1/2" ACME-M R134a Connector

**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:

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

## 91207 CHARGING AND DEPRESSOR ASSORTMENT



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

Consists of:

<b>42010</b>	1/4" Gasket (3 pcs)
<b>42014</b>	1/4" Depressor (3 pcs)
<b>90368</b>	3/16" Depressor (3 pcs)
<b>90369</b>	3/16" Gasket (3 pcs)
<b>90341</b>	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:

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

## 91334-A R12/R134a CHARGING HOSE REPLACEMENT PARTS ASSORTMENT



Consists of:

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

<b>42010</b>	1/4" Gasket (10 pcs)
<b>42014</b>	1/4" Depressor (10 pcs)
<b>80034</b>	O-ring for 82834 (10 pcs)
<b>80034-1</b>	High Side Nylon Guide (5 pcs)
<b>80134</b>	O-ring for 82934 (10 pcs)
<b>80134-1</b>	Low Side Nylon Guide (5 pcs)
<b>82010</b>	Gasket for R134a Hose (10 pcs)
<b>82336</b>	Gasket for 82335 (10 pcs)
<b>83341</b>	O-ring for R134a Hose (10 pcs)
<b>90336</b>	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)

**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:

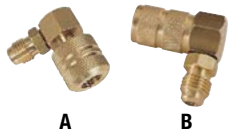
- |  |   |
|--|---|
| <b>91339-01</b> 7/32" x 1/6" (5.29 x 1.78 mm) (25 pcs)   | <b>91339-10</b> 11 x 2 mm (15 pcs)                        |
| <b>91339-02</b> 1/4" x 1/16" (6.07 x 1.78 mm) (20 pcs)   | <b>91339-11</b> 12 x 2 mm (15 pcs)                        |
| <b>91339-03</b> 6.8 x 1.9 mm (20 pcs)                    | <b>91339-12</b> 13.9 x 1.8 mm (10 pcs)                    |
| <b>91339-04</b> 5/16" x 1/16" (7.65 x 1.78 mm) (20 pcs)  | <b>91339-13</b> 9/16" x 3/32" (13.95 x 2.62 mm) (10 pcs)  |
| <b>91339-05</b> 7.8 x 1.9 mm (20 pcs)                    | <b>91339-14</b> 14 x 2 mm (10 pcs)                        |
| <b>91339-06</b> 8 x 2 mm (20 pcs)                        | <b>91339-15</b> 15 x 2 (10 pcs)                           |
| <b>91339-07</b> 8.8 x 1.9 mm (20 pcs)                    | <b>91339-16</b> 17 x 2 (10 pcs)                           |
| <b>91339-08</b> 7/16" x 1/16" (10.82 x 1.78 mm) (15 pcs) | <b>91339-17</b> 11/16" x 1/16" (17.17 x 1.78 mm) (10 pcs) |
| <b>91339-09</b> 7/16" x 3/32" (10.77 x 2.62 mm) (15 pcs) | <b>91339-18</b> 11/16" x 1/8" (17.04 x 3.53 mm) (10 pcs)  |



# CHARGING ADAPTERS, REPLACEMENT GASKETS, DEPRESSORS & RETROFIT ADAPTERS

\* Includes Access Valve Core (0377-001) – (90-110 PSI Opening) / \*\* Includes Check Valve Core (0332-002) – (8-12 PSI Opening)

## 90° ADAPTERS



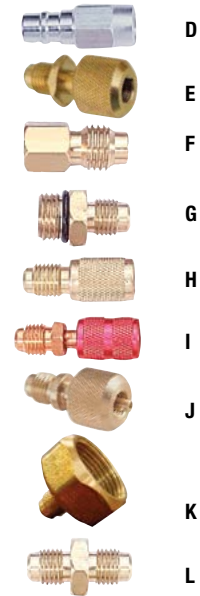
		REPLACEMENT	GASKET/O-RING	DEPRESSOR
A	90333-R	Shut-Off Valve 1/4" MFL x 1/4" FFL	90336	-
B	90314*	1/4" MFL x 1/4" FFL	42010	42014
B	90340*	1/4" MFL x 1/8" FFL (High Side) Ford 1977-1980	90341	90368
B	90354*	1/4" MFL x 3/16" FFL (High Side) GM 1976 & Later	90369	90368

## 45° ADAPTERS



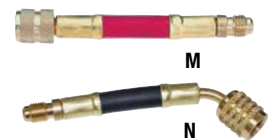
C	90924	1/4" MFL x 1/4" FFL	42010	42014
C	90927*	1/4" MFL x 3/16" FFL (High-Side)	90369	90368

## STRAIGHT ADAPTERS



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	-
E	90337	Shut-Off Valve 1/4" MFL x 3/16" FFL	90331	-
F	82634*	1/4" FFL x 1/2" ACME-M	80234	-
F	82634-M	1/4" FFL x 1/2" ACME-M Without Core Valve	80234	-
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
J	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	90637	3/4" NPSF x 1/4" MFL Refrigeration Tank Adapter	90638	-
L	90633	1/4" MFL x 1/4" MFL Union	-	-
L	82633	1/2" ACME-M x 1/2" ACME-M Union	-	-

## FLEX ADAPTERS



M	90355*	1/4" MFL x 3/16" FFL (High-Side) GM 1976 & Later, Ford 1981 & Later	90369	90368
M	90356*	1/4" MFL x 1/4" FFL	42010	42014
M	90373*	1/4" MFL x 1/8" FFL (High-Side) Ford 1977-1980	90341	90368
N	90410	Convert 1/4 SAE Hose Into 5/16 SAE, Swivel Connection	82010	-

## ACCESS SERVICE TOOLS



O	90296*	1/4" MFL x 1/8" NPT	-	-
O	80296*	1/2" ACME-M x 1/8" NPT	-	-

## RETROFIT ADAPTERS

### INDIVIDUAL TERMINATION (BLOCK OFF) CAPS



81297	1/4 (7/16" - 20) alum.
81379	3/16 (3/8" - 24) alum.
82297	Low Side R134a blue cap
82379	High Side R134a red cap

### STRAIGHT ADAPTERS W/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 W/VALVE CORE & SERVICE PORT CAPS



82275	Low Side, 1/4 (7/16" - 20) x 13 mm
82333	High Side, 1/4 (7/16" - 20) x 16 mm
82354	High Side, 3/16 (3/8" - 24) x 16 mm

### 82357 GM HIGH FLOW ADAPTER W/ VALVE CORE & SERVICE PORT CAPS



GM High Flow Adapter

**58490 UNIVERSAL R12/R134a MASTER KIT**



Kit covers all R12 & R134a system valve cores for Standard, JRA, Eaton and GM Large Bore.  
**PATENT# 6,253,436**



**58531 R134a STANDARD & JRA (M6) VALVE CORE KIT**



Kit covers the most popular R134a valve cores.

**58560 R134a EATON (M8 & M10) VALVE CORE KIT**



Kit covers the Eaton style R134a valve cores.

**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

**91490 STANDARD VALVE CORE REMOVER/INSTALLER**



VALVE CORE REMOVERS/INSTALLERS AUTOMOTIVE/HVAC (1/4" FL)  
 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.

**90376 VALVE CORE REMOVER W/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)

## SERVICE TOOLS

### 85530 3-IN-1 SIDE MOUNT CAN TAP VALVE



This unique design covers 2 7/8" (R134a), 2 1/2" and 2" (OIL) charge cans. Includes 1/2" ACME-M and 1/4" FL-M ports. Internal safety check valve prevents system back flow.

### 85510 R134a CAN TAP VALVE - SCREW-ON MODEL



Screw-on design for R134a ACME male can taps. Gasket assures leak proof operation. Built-in safety check. Exclusive "full grip" valve knob. 1/2" ACME-M.

### 85525 R134a RECHARGE KIT



Charge A/C systems using R134a cans with 1/2" ACME fitting

### 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

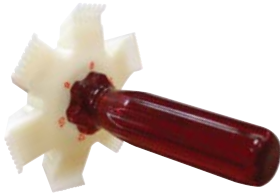
### 80013 AUTOMOTIVE REFRIGERANT HOSE CUTTER



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.

## ALUM BOND



90935

90934

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:  $40 \times 10^{-6}$  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 hours application time): 650 psi

**90935** Aluminum Repair Kit (6.5 oz package)


**90934** Aluminum Repair Kit (2 oz package)





## 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.



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

Includes two inlet ports – 1/4" SAE and 1/2" ACME on 1.5 CFM models

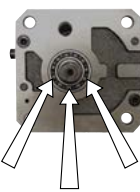
Gas ballast valve helps prevent oil contamination caused by high moisture

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



**Ball Bearing Cartridge Design** reduces running temperatures by 30% and extends the life of the pump.

### 1.5 CFM VACUUM PUMP




MODEL	90060
NO. OF STAGES	2
FREE AIR DISPLACEMENT	1.5 CFM
ULTIMATE VACUUM	25 Microns
MOTOR	1/6 HP
PUMP SPEED	2850 RPM 3450 RPM
ELECTRICAL SPECS	110 V / 60 HZ
WEIGHT	12 lbs (5.40 kg)
DIMENSIONS IN CM	29.5 x 11.5 x 21.5 x 18

### SERVICE INFORMATION

90060	
OIL CAPACITY	10 oz / 295 ml
REPL. CARTRIDGE	90160-R
SEAL SERVICE KIT	-
90065	
OIL CAPACITY	18 oz / 531 ml
REPL. CARTRIDGE	90165-R
SEAL SERVICE KIT	90062-11-SEAL
90067	
OIL CAPACITY	24 oz / 708 ml
REPL. CARTRIDGE	90167-R
SEAL SERVICE KIT	90062-11-SEAL

### 5 CFM VACUUM PUMP



MODEL	90065	
NO. OF STAGES	2	
FREE AIR DISPLACEMENT	5 CFM	
ULTIMATE VACUUM	25 Microns	
MOTOR	1/3 HP	
PUMP SPEED	1425 RPM 1725 RPM	
ELECTRICAL SPECS	110 V / 60 HZ	
WEIGHT	32 lbs (15.0 kg)	
DIMENSIONS IN CM	37 x 15.5 x 27.5 x 24	

### VACUUM PUMP OIL



90010-6	(Six) - 10 oz bottles
90018-6	(Six) - 18 oz bottles
90024-6	(Six) - 24 oz bottles
90061-8	(Eight) - 8 oz bottles
90016-6	(Six) - 16 oz bottles
90032-6	(Six) - 32 oz bottles
90128-4	(Four) - 1 gallon bottles

### 7 CFM VACUUM PUMP



MODEL	90067
NO. OF STAGES	2
FREE AIR DISPLACEMENT	7.5 CFM
ULTIMATE VACUUM	25 Microns
MOTOR	1/2 HP
PUMP SPEED	1425 RPM 1725 RPM
ELECTRICAL SPECS	110 V / 60 HZ
WEIGHT	34 lbs (15.40 kg)
DIMENSIONS IN CM	41 x 15.5 x 27.5 x 24

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




## 2 STAGE DUAL VOLTAGE VACUUM PUMPS

### 6 & 10 CFM DUAL VOLTAGE VACUUM PUMPS



90066-2V-110

90070-2V-110

MODEL	90066-2V-110		90070-2V-110
NO. OF STAGES	2		2
FREE AIR DISPLACEMENT	6 CFM		10 CFM
ULTIMATE VACUUM	15 Microns		12 Microns
MOTOR	1/3 HP		1/2 HP
PUMP SPEED	3440 RPM		3440 RPM
ELECTRICAL SPECS	110/220 V 50/60 HZ		110/220 V 50/60 HZ
POWER CORD	110 V Cable (US Standard)		110 V Cable (US Standard)
WEIGHT	25 lbs (11.2 kg)		33 lbs (14.8 kg)
DIMENSIONS IN CM	35 x 14.3 x 26.5		38 x 16 x 28.5

## SINGLE STAGE VACUUM PUMPS

- High volume fan provides cool air to motor and pump
- Vapor discharge/oil fill port, easily removable, contains internal check valve to prevent escape of liquid oil
- Includes T-fitting with 1/4" flare and 1/2" ACME ports
- Cooling fins to keep temperature cooler during extended motor operation
- Manifold valve isolates pump from the system testing for leaks. Includes 3 inlet ports, 1/4", 3/8" SAE and 1/2" ACME.

### 1.5 CFM SINGLE STAGE VACUUM PUMP



MODEL	90059-R
NO. OF STAGES	1
FREE AIR DISPLACEMENT	1.5 CFM
ULTIMATE VACUUM	75 Microns
MOTOR	1/6 HP
PUMP SPEED	3450 RPM
ELECTRICAL SPECS	110 V / 60 HZ
WEIGHT	16 lbs (7.25 kg)

### 3 & 6 CFM SINGLE STAGE VACUUM PUMP



90062-A

90066-A

MODEL	90062-A	90066-A
NO. OF STAGES	1	1
FREE AIR DISPLACEMENT	3 CFM	6 CFM
ULTIMATE VACUUM	75 Microns	75 Microns
MOTOR	1/4 HP	1/4 HP
PUMP SPEED	1720 RPM	1720 RPM
ELECTRICAL SPECS	110 V / 60 HZ	110 V / 60 HZ
WEIGHT	17 lbs (7.7 kg)	22 lbs (10.2 kg)

### 91200 AIR OPERATED LIGHT DUTY VACUUM PUMP



Requires 4.5 CFM/90 PSI shop air. No moving parts, no oil required, 1.3 CFM air displacement venturi type pump will pull up to 29 inches of vacuum (Hg.) at sea level. Includes 1/4" flare (R12) connection and 1/2" ACME (R134a) connection.

### 82031 VACUUM PUMP SWIVEL ADAPTER



"T" style adapter screws onto existing 1/4" flare fitting and converts to 1/4"-FL and 1/2" ACME

VACUUM PUMPS



**98061** DIGITAL VACUUM GAUGE in blow molded case  
**98061-C** DIGITAL VACUUM GAUGE in a clamshell



**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.

**Optional Accessories**

<b>98061-SENSOR</b>	Replacement Sensor
<b>99334-110</b>	110 V AC/DC Adapter
<b>99333</b>	1/4 FL-M x 1/4 FL-M x 1/4 FL-F Tee

## BLOWER FANS



- 120 Volts, 60 Hz
- Rated Power: 2.0 Amp
- For indoor or outdoor use
- Variable Speed Switch Controls Motor Speed: 950-1650 RPM
- Built-in Overload Protection
- (2 pcs) 11 Amp Built-In Grounded Receptacles
- Housing Material: Impact Resistant ABS
- 8.5 ft Cord Length, SJTW 14AWG
- 4-position adjustment feet



**21200**

**1200 CFM BLOWER FAN**

- Moves air up to: 1200 CFM
- Unit weight: 15.9 lbs

**20300**

**300 CFM BLOWER FAN**

- Moves air up to: 300 CFM
- Unit weight: 11.5 lbs

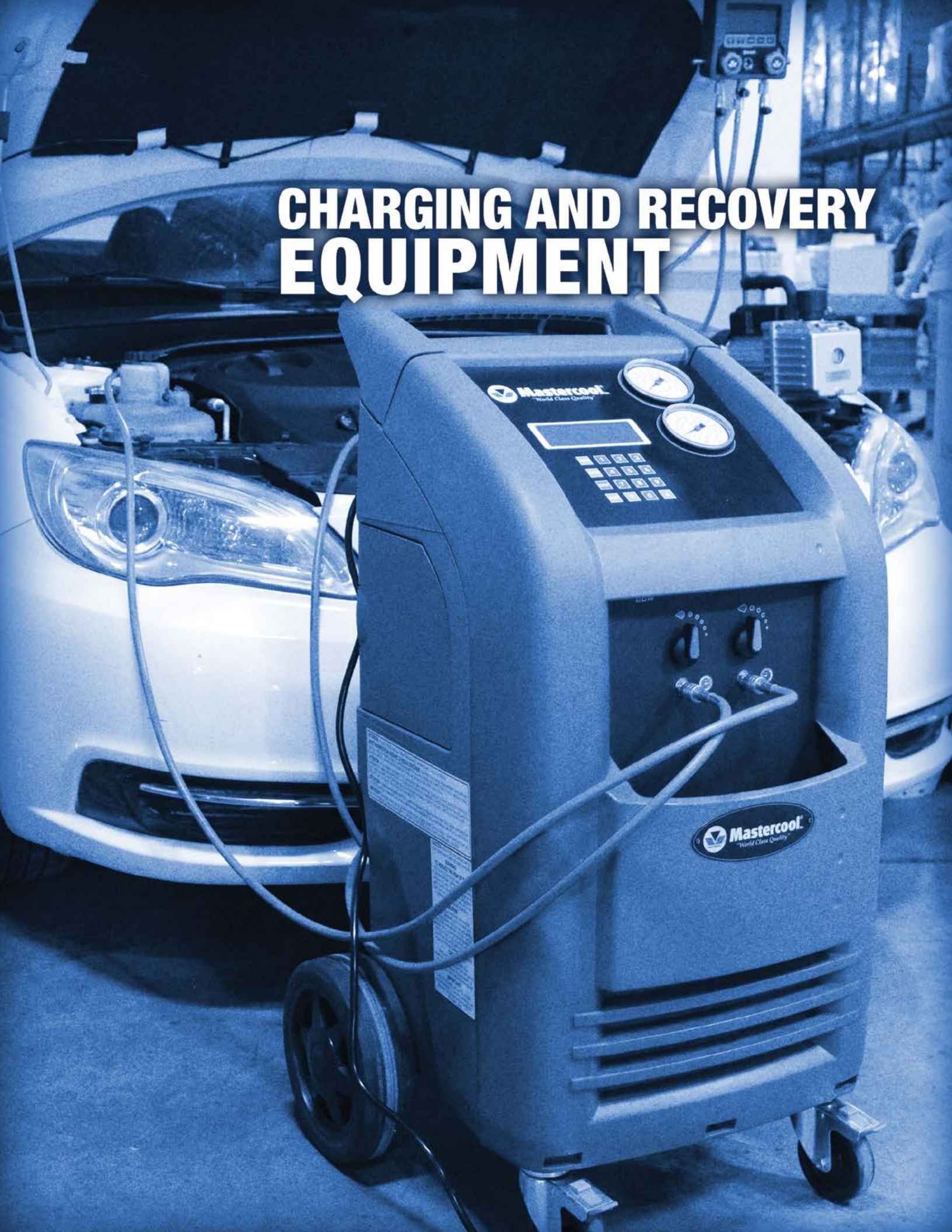
**20300-HTR HEATER ATTACHMENT FOR 300 CFM BLOWER FAN**



- 1320 Watts, 120 Volts
- 11 Amps, 5000 BTU
- Converts Blower into a Heater
- Clips Securely onto the Front of the Blower and Plugs into one of the Outlets on the Side of the Blower
- 14AWG SJT Cord, Grounded Plug



# CHARGING AND RECOVERY EQUIPMENT



## 98310 WIRELESS REFRIGERANT CHARGING SCALE

## 98315 WIRELESS REFRIGERANT CHARGING SCALE WITH SOLENOID

## 98315-AUT WIRELESS REFRIGERANT CHARGING SCALE WITH SOLENOID (includes 1/4" F-FL x 1/2 ACME-M fitting without valve core (82634-M))



98315 with solenoid



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

### 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:  $[\pm 0.01 \text{ lb} / \pm 0.005 \text{ kg}]$  or 0.1% of reading whichever is greater
- Resolution: 0.02 lb / 0.01 kg
- Automatic Shut-Off: After 20 minutes
- 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



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

## 98210-A ACCU-CHARGE II



Mastercool's ACCU-CHARGE II is the most advanced electronic refrigerant scale in the market today. Constructed with a rugged aluminum cast body, the ACCU-CHARGE II now offers programming capabilities.

### FUNCTIONS:

#### CHARGE PROGRAMMING:

Allows user to program desired quantities. Before charge is complete, an alarm will sound allowing user ample time to turn off refrigerant supply.

#### TANK CAPACITY PROGRAMMING:

Allows user to know the amount of refrigerant that is left in the tank at any time.

#### REPEAT:

Allows user to charge previously stored amount.

### SPECIFICATIONS:

- Capacity: 240 lbs (110 kg)
- Accuracy:  $\pm 0.01 \text{ kg}$   
 $\pm 0.16 \text{ oz}$   
 $\pm 0.01 \text{ lb}$  } or 0.1% of reading  
(whichever is greater)
- Resolution: 0.02 lb / 0.01 kg
- 3 hrs Auto Off Function
- Operating Temperature is 32 to 120°F (0 to 49°C)
- Battery Life (approximately 40 hrs)
- Works w/110 or 220V Transformer  
(part no. 99334-110)
- 9 x 9" (22 x 22 cm) Platform



Platform  
Level Eye

Adjustable  
Leveling Feet



**98211-A ACCU-CHARGE III CERTIFIED REFRIGERANT SCALE (OIML & CE Approved, Legal for Trade)**



**FUNCTIONS:**  
**CHARGE PROGRAMMING:**  
 Allows user to program desired quantities. Before charge is complete, an alarm will sound allowing user ample time to turn off refrigerant supply.  
**PAUSE/CHARGE:**  
 (Using the 98230 Charging Solenoid Module)  
**TANK CAPACITY PROGRAMMING:**  
 Allows user to know the amount of refrigerant that is left in the tank at any time.  
**REPEAT:**  
 Allows user to charge previously stored amount.

**SPECIFICATIONS:**

- Complies with European (OIML) Standards
- Capacity: 110 lbs (50 kg)
- Accuracy: ± 50 g
- Resolution: 0.05 kg
- 3 hrs AUTO OFF Function
- Operating Temperature is 32 to 120°F (0 to 49°C)
- Battery Life (approximately 40 hrs)
- 9 x 9" (22 x 22 cm) Platform



**98230 CHARGING SOLENOID MODULE**



**The 98230 Charging Solenoid Module turns the 98210-A ACCU-CHARGE II & 98211-A 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. 98230 includes a short hose for tank connection, USB cord and 1/4"FL - 1/2" ACME adapters.



**98250 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 and 170 psi for R12.
- Quick working 300W heater element
- An excellent complement to all Mastercool Refrigerant Scales

**98100 AIR CONTENT ANALYZER**



When an A/C system leaks, refrigerant is lost and air enters the system. Your refrigerant recycler cannot tell the difference between refrigerant and air - it recycles both from partially filled systems. You end up with an unknown quantity of efficiency robbing air in your supply tank. Excess actual pressure in your supply tank, indicates the pressure of air also called "non-condensable gases" or NCG's. When you release the excess pressure, you are releasing air. The result is purer refrigerant, which will work more efficiently. The Mastercool Air Content Analyzer is more accurate than most automatic purging systems. It can be left on your supply tank for regular monitoring or it can be removed to check all your tanks. (R12/R134a)



CHARGING AND RECOVERY EQUIPMENT

# TWIN TURBO

REFRIGERANT RECOVERY MACHINE



69300



69370



69360

Mastercool's newest 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 new 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!



**FEATURES & BENEFITS:**

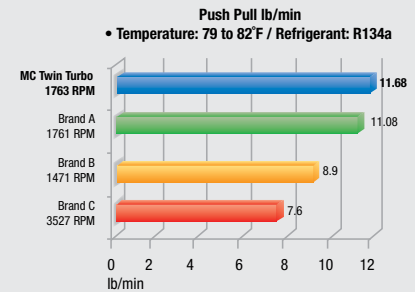
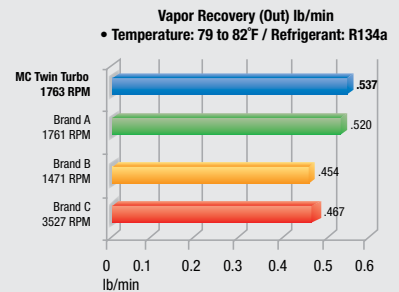
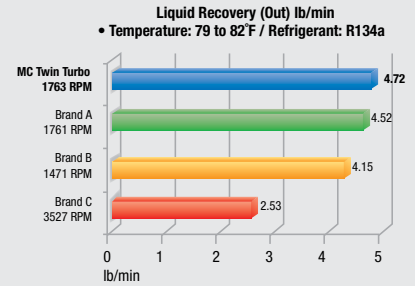
- Revolutionary double piston oil-less compressor
- Safety high pressure switch
- Simple internal structure for field service
- Largest volume recovery rate in market
- For use with all refrigerants including R410A
- Injection molded high density polyethylene case for maximum durability
- Front cover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

**SPECIFICATIONS:**

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

R134a	• Direct vapor up to .537 lb/min
	• Direct liquid up to 4.72 lb/min
	• Push pull up to 11.68 lb/min
R22	• Direct vapor up to .63 lb/min
	• Direct liquid up to 7.56 lb/min
	• Push pull up to 18.3 lb/min
R410A	• Direct vapor up to .70 lb/min
	• Direct liquid up to 7.7 lb/min
	• Push pull up to 20.2 lb/min

- Operating Temperature: 32 to 122°F
- Weight: 28.3 lbs
- Dimensions: 18" (l) x 10" (w) x 14" (h)
- Case Material is HDPE (High Density Polyethylene)
- Compatible refrigerants: All CFC, HCFC, and HFC's



**69300** 115 V - 60 Hz

**69370** 115 V - 60 Hz  
This unit offers all the same functions and features as the 69300. In addition it has a 6' 3 pole female float switch cable



3 pole female float switch cable

**69360** 115V - 60HZ  
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.

**69500-DR** Replacement Filter Dryer for 69360 and 69100

**69000 REFRIGERANT RECOVERY SYSTEM (115 V - 60 Hz)**



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
- Automatic low pressure Cut-Off Switch
- Safety high pressure Cut-Off Switch
- High volume cooling fan design
- Liquid compatible head-valve system
- Fully reinforced hard plastic casing

**SPECIFICATIONS:**

- 1/2 HP oil-less compressor
- Recovery Rate: Direct vapor up to .44 lb/min, Direct liquid up to 2.6 lb/min, Push-pull up to 11.9 lb
- Operating Temp. Range: 32 to 122°F
- Weight: 38 lbs / Dimensions: 17" (l) x 10" (w) x 12" (h)
- Refrigerants: CFC's, HCFC's, HFC's

**69100 COMPLETE A/C RECOVERY SYSTEM (115 V - 60 Hz)**



- Compact, lightweight and works with all refrigerants.
- State of the art 1/2 hp oil-less compressor with built-in high volume cooling fan. Delivers maximum cooling efficiency which keeps compressor working at high capacities in even the warmest climates. Compressor is protected by an automatic low pressure cut-off switch that shuts off unit once the recovery is complete. This feature eliminates the risk of compressor failure and reduces user's need to monitor entire recovery process.
- Includes an oil separator and filter dryer to cleanse the refrigerant during the recovery process.
- Color-coded gauges with pressure readings in PSI, BAR and MPA.
- Stainless steel ball valve designed manifold controls the refrigerant flow smoothly and quickly with only a 1/4 turn.
- Internal components have been arranged and isolated to ensure a smooth and quiet performance.
- Protected by a reinforced hard plastic case



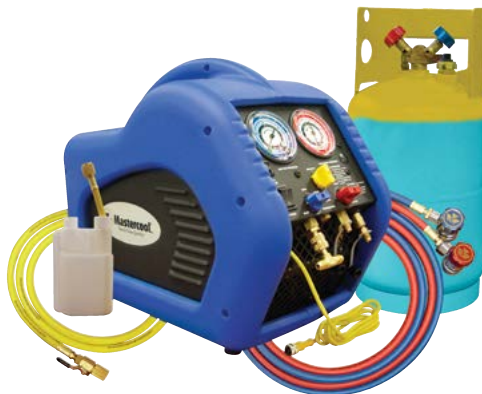
**FEATURES & BENEFITS:**

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

**SPECIFICATIONS:**

- 1/2 HP oil-less compressor
- Recovery Rate: Direct vapor up to .44 lb/min, Direct liquid up to 2.62 lb/min, Push pull up to 12 lb/min
- Operating temp. range: 32 to 122°F
- Weight: 38 lbs / Dim.: 17" L x 10" W x 12" H
- Refrigerants: all

**69110 AUTOMOTIVE A/C RECOVERY SYSTEM**



- Includes Recovery Unit, 30 lb DOT Tank, 60" Yellow Service Hose, 72" Blue and Red Conversion Hoses, UL Approved High and Low Side R134a Manual Couplers and Oil Purge Bottle
- Designed to meet SAE J2810 and works with all refrigerants.
- Recovers and removes oil from refrigerant.
- All internal components have been arranged and isolated to ensure smooth and quiet performance.
- State of the art 1/2 hp oil-less compressor with built-in high volume cooling fan.
- Delivers maximum cooling efficiency, keeping compressor working at high capacities even in warmest climates.
- Compressor protected by automatic low pressure cut-off switch eliminating risk of compressor failure and reducing need to monitor entire recovery process.
- Stainless steel ball valve design manifold controls refrigerant flow smoothly and quickly with only 1/4 turn.
- Gauges provide pressure readings in PSI, BAR and MPA.



**SPECIFICATIONS:**

- Refrigerant R134a
- High Side Design Pressure 500 psig
- 1 PH, 60 HZ., 8.6 Amps, 1.25 S/F
- 115 Volts AC
- Low Side Design Pressure 174 psig
- Service Factor 10.75 AMP

CHARGING AND RECOVERY EQUIPMENT

## 69500 RECOVERYMATE



Speed up the recovery process! Remove unwanted moisture and separate oil from Recovered Refrigerant. (Use with any Recovery Machine.)

**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: 15" / Width: 4" / Height: 17"
- Weight: 12.25 lbs

## 69134-A REFRIGERANT IDENTIFIER FOR R134a



- Keeps Equipment Safe
- Prevents Contamination
- Detects Air Contamination

The Refrigerant Identifier helps confirm the presence and quality of R134a refrigerant in vehicle air conditioning systems. This process will help avoid potential damage from refrigerant contamination. This unit delivers quick and precise refrigerant analysis in a rugged, compact and portable package. The refrigerant identifier automatically provides step-by-step indication of the gas sampling process.

**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
- Minimum Input Pressure: 1.38 Bar (20 Psig)
- Maximum Input Pressure: 20.70 Bar (300 Psig)
- Storage Temperature: -10° to 50°C
- Operating Temperature: 10 to 45°C
- Construction Material: Molded ABS housing/molded rubber sleeve





**MOBILE ELECTRONIC CHARGING STATION**



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"

VACUUM PUMP	1.5 CFM
MANIFOLD	110 V
2 Way Alum Block	<b>91680</b>
4 Way Alum Block	<b>91681</b>
VACUUM PUMP	5 CFM
MANIFOLD	110 V
2 Way Alum Block	<b>91685</b>
4 Way Alum Block	<b>91686</b>
VACUUM PUMP	7.5 CFM
MANIFOLD	110 V
2 Way Alum Block	<b>91687</b>
4 Way Alum Block	<b>91688</b>

**PORTABLE ELECTRONIC CHARGING STATION**



A lightweight, durable, steel frame cart that contains all the necessary tools to quickly and conveniently charge the A/C system. No need for different sized charging cylinders with Mastercool's rugged die cast electronic scale. Simply place the refrigerant cylinder on the scale and charge.

**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
- 240 lb capacity scale with long lasting 9V battery (60 hrs)
- Deep micron, rotary vane vacuum pumps.
- Extruded aluminum manifold with long lasting valve design

**2 STAGE PORTABLE ELECTRONIC CHARGING STATION**

- Large 3 1/8" gauges make it easy to read the pressure and temperature scales
- Deep micron, rotary vane vacuum pumps Available in 1.5, 5 and 7.5 CFM
- Includes set of 72" hoses

Also available:

- Refrigerant tank heater blanket #98250
- D.O.T. cylinder #62010-R12 w/o float
- \* R134a Automotive Service Couplers not included

VACUUM PUMP	1.5 CFM	5 CFM	7.5 CFM
MANIFOLD	110 V	110 V	110 V
2 Way Alum Block	<b>91580</b>	<b>91585</b>	<b>91587</b>
4 Way Alum Block	<b>91581</b>	<b>91586</b>	<b>91588</b>

**SINGLE STAGE PORTABLE ELECTRONIC CHARGING STATION**

- R134a 2-way Manifold with 2 1/2" gauges
- Electronic Charging Scale, Manual Couplers, Set of Hoses
- Deep micron, rotary vane vacuum pumps. Available in 1.5, 3 and 6 CFM

Also available:

1.5 CFM Single Stage Vacuum Pump	<b>91580-A</b>
3 CFM Single Stage Vacuum Pump	<b>91580-B</b>
6 CFM Single Stage Vacuum Pump	<b>91585-B</b>



CHARGING AND RECOVERY EQUIPMENT

## 69788-A AUTOMATIC R134a R/R/R



- Large Display: 4.8" (w) x 1.7" (h) (122mm (w) x 42mm (h))
- Quality Performance Year after Year
- Design Certified for Compliance with SAE J2788: New A/C systems are smaller. Machines must charge within .5 oz and recover 95% of the refrigerant.
- Automatic/Programmable or Manual: Can be programmed to complete a continuous recovery/recycle, vacuum and recharge. Can also be set to run each operation individually.
- Includes Refrigerant Capacity Database (over 1000 vehicles): Includes refrigerant capacities for US and Import makes and models from 1995 to 2012. Capable of database upgrades as well.
- Auto Vacuum Leak Test: Can be programmed to perform a vacuum leak test and will inform the technician of possible leaks.
- Auto Oil Discharge: Oil is automatically discharged during the recovery process. If oil is present, it will drain into a graduated container clearly displaying the amount of oil that was removed.
- Auto Air Purge: Automatically purges non-condensable gas (NCG) from the storage tank during recovery.
- Auto Filter Alarm: The machine's LCD and alarm will warn that a filter change is required.
- Compact Footprint: Easy to maneuver and requires minimal shop space.
- Full Tank Alarm: Notifies operator when tank is full.
- Low Refrigerant Alarm: Notifies operator when refrigerant is low.

### SPECIFICATIONS:

- Service Procedure: Automatic/Programmable or Manual
- Working Temperature: 59/120°F (11/49°C)
- Filter System: 2 filters for humidity
- Vacuum Pump: 6 CFM (100 litre/min)
- Compressor: Hermetically sealed, 12cc, high pressure
- Recovery Cylinder: Internally mounted 30 lb. DOT tank
- Bottle Temperature Sensor: Integrated
- Bottle Heater: Standard Equipment
- Dimensions: 40.25" (h) x 22.75" (w) x 20" (d) (102 x 58 x 51 cm)
- Type of Refrigerant: R134a
- Hoses: 96" (250 cm)
- Couplers: Manual
- Weight: 157 lbs (71 kg)
- Voltage: 115 V / 60 Hz
- Scale Resolution: .02 lb (10 g)

## 69788-FLTR FILTER PACK



Filter pack for 69788-A, 69789, 69789-H



**69789 FULLY AUTOMATIC R134a R/R/R**

- Large Graphic Display: 4.3" (w) x 2.4" (h) (110mm (w) x 60mm (h))
- Quality Performance Year after Year
- Design Certified for Compliance with SAE J2788: New A/C systems are smaller. Machines must charge within .5 oz and recover 95% of the refrigerant.
- Automatic/Programmable or Manual: Can be programmed to complete a continuous recovery/recycle, vacuum and recharge. Can also be set to run each operation individually.
- Includes Refrigerant Capacity Database (over 1000 vehicles): Includes refrigerant capacities for US and Import makes and models from 1995 to 2012. Capable of database upgrades as well.
- Auto Vacuum Leak Test: Can be programmed to perform a vacuum leak test and will inform the technician of possible leaks.
- Auto Oil Discharge: Oil is automatically discharged during the recovery process. If oil is present, it will drain into a graduated container clearly displaying the amount of oil that was removed.
- Auto Air Purge: Automatically purges non-condensable gas (NCG) from the storage tank during recovery.
- Auto Filter Alarm: The machine's LCD and alarm will warn that a filter change is required.
- Compact Footprint: Easy to maneuver and requires minimal shop space.
- Full Tank Alarm: Notifies operator when tank is full.
- Low Refrigerant Alarm: Notifies operator when refrigerant is low.
- Automatic Oil Injection: With electronic scale to protect the contents against contact and ambient humidity.
- Thermal Printer: For a complete, detailed report.

**SPECIFICATIONS:**

- Service Procedure: Fully automatic or manual
- Oil Scale Resolution: .01 lb (5 g)
- Working Temperature Range: 59/120°F (11/49°C)
- Filter System: 2 filters for humidity
- Recovery Speed: .66 lb/min (300 g/min) in liquid phase
- Vacuum Pump: 6 CFM (100 litre/min) capacity, (.001 psi) 0.1 mbar vacuum level
- Recovery Cylinder: 30 lb (22 litres), refillable
- Thermal Printer: Standard Equipment
- Bottle Temperature Sensor: Integrated
- Bottle Heater: Standard Equipment
- Dimensions: 41.3" (h) x 23.6" (w) x 21.6" (d) (105 x 60 x 55 cm)
- Type of refrigerant: R134a
- Voltage: 115 V / 60 Hz
- Scale Resolution: .02 lb (10 g)
- Couplers: Manual
- Pressure Gauges: Class 1
- Compressor: Hermetically sealed, 12cc, high pressure
- Weight: 176 lbs (80 kg)
- Hoses: 96" (250 cm)

**69789-H R134a AND HYBRID R/R/R**

Includes all of features of the 69789 along with the following:

- Fully Integrated Real "Loop," Flushes Service Hoses Only by Refrigerant Circulation: Flushing eliminates the risk that residues of different (non-insulating) oils may be injected into the A/C system, jeopardizing its safety and operation.
- High Voltage Protection
- Used on all Hybrid and R134a Vehicles

**SPECIFICATIONS:**

Please see specifications for 69789



Features refrigerant oil flush system

## DOT-APPROVED RECOVERY CYLINDERS

### Features:

- 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
- 1/4" opening for air purge valve
- Valve & Float Switch UL Listed



### 30 LB. DOT-APPROVED RECOVERY CYLINDERS



62010      67010      67011

- 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

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

### 50 LB. DOT-APPROVED RECOVERY CYLINDERS



63010      66010      63010-AUS

- 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

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

### 100 LB. DOT-APPROVED RECOVERY CYLINDERS



68010

- 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



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

## ENVIRO TANK (REFILLABLE CYLINDER)

### 30 LB. REFILLABLE CYLINDER



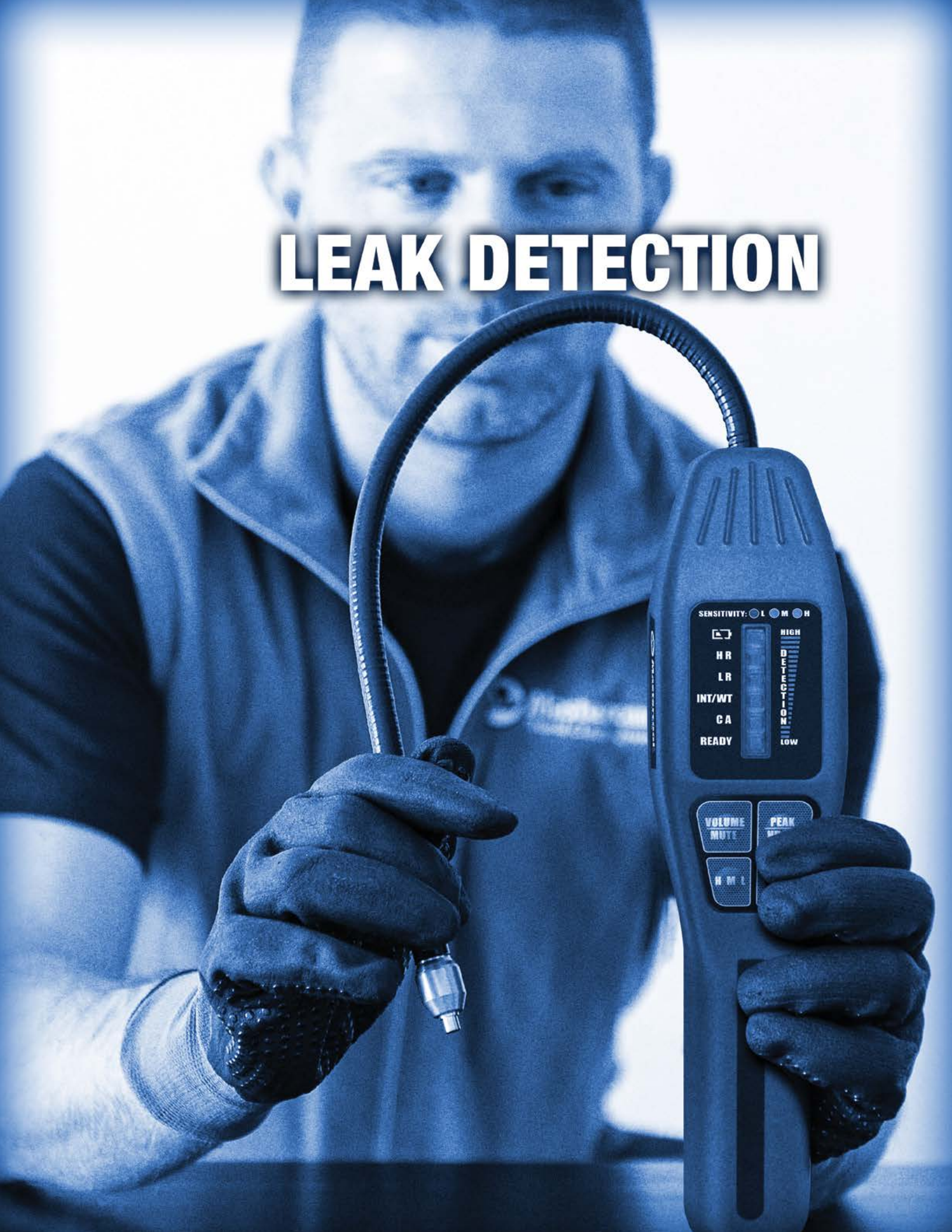
62020-W

- 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



Model	<b>62020-W</b>
Connection	1/4" FL-M (7/16-20)
Color	white

# LEAK DETECTION



SENSITIVITY: L M H



VOLUME MUTE  
PEAK  
H M L



At the heart of this leak detector is a new low power metal oxide gas sensor with superior performance properties such as lower current consumption and sensor longevity. The new sensor is characterized by high sensitivity and fast response upon detecting the presence of extremely small levels of chlorofluorocarbon gases. For this reason, this sensor was selected and integrated into the 55900 Leak Detector. In addition, a powerful microprocessor was integrated into the design that automatically selects the best operating condition for the sensor to ensure optimum performance throughout its life.

This unit comes packaged in a blow molded case with 2 "C" batteries, leak test vial and replacement filters.

<< **DESIGN CERTIFIED BY INTERTEK TO MEET J2791 (R134A), J2913 (R1234YF) AND EN 4624** >>

**SPECIFICATIONS:**

**SENSITIVITY:**

- HIGH ≥ 0.15 oz/yr (4 g/yr)
- MEDIUM ≥ 0.25 oz/yr (7 g/yr)
- LOW ≥ 0.50 oz/yr (14 g/yr)

**PROBE:**

- Intelligent tip design that senses the condition of the environment, to eliminate the potential of false alarms.
- Flexible 15.5" probe for difficult to reach locations

**DISPLAY:**

Six vertical LED's (red, yellow or green) display the following information to the user such as:

- Relative signal level of the detected leak
- 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

**REFRIGERANTS:** Detects all refrigerants (CFC's, HCFC's, & HFC's and blends)

**SENSOR LIFE:** 2000 hours

**SENSING ELEMENT:** Heated tin oxide

**OPERATING TEMPERATURE RANGE:** 0 to 140°F

**RESPONSE TIME:** Less than 1 second

**POWER:** 2 C Alkaline 6000 mAh batteries

**BATTERY LIFE:** 30 hours

**WEIGHT:** 1.08 lbs

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

**KEYPAD FUNCTIONS:**

**ON/OFF:** Press the ON/OFF button to turn the unit on or off.

**VOLUME/MUTE:** Press the VOLUME/MUTE button to control the volume of the unit.

**H M L SENSITIVITY:** Press the H M L SENSITIVITY button to select the desired sensitivity level.

**PEAK/HR/LR:** The PEAK/HR/LR key serves a dual purpose:

- (1) To assist the user in locating the "largest leak" in a system with multiple leaks present.
- (2) To enable the user to switch between HR (high range) and LR (low range) modes.



Display



Keypad

The **55200 "INSPECTOR"** and **55100** offer revolutionary features and state of the art micro processing technology. The design sensor delivers an accurate and instantaneous response. Both units come in a heavy duty custom molded carrying case and meet SAE J1627 and CE conformity.

**55100 / 55200 GENERAL FEATURES & SPECIFICATIONS:**

- Digital Signal Micro Processor
- Auto Release Feature
- Keypad Control
- Detects All Halogenated Refrigerants
- Battery Test Feature
- Power Supply (2 "C" Batteries)
- Meets SAE J1627 / CE Conformity
- Flexible 16" Probe
- Variable Frequency Audible Alarm

**55100 ELECTRONIC LEAK DETECTOR**



The 55100 offers an accurate and reliable solution to Electronic Leak Detection.



**SPECIFIC FEATURES:**

- 3 Levels Of Sensitivity (5 Levels Of Detection)
- Visual Leak Level Indicator
- Detects Leaks As Small As 3 gr (1/10 oz) Per Year
- Detects All Refrigerants, CFC'S, HCFC'S, HFC'S
- Includes a Custom Molded Carrying Case



**55100-SEN** Sensor Tip for 55100, 55200, 55300 & 55400

**55200 "INSPECTOR" 2 IN 1 ELECTRONIC / UV LEAK DETECTOR**



This revolutionary design allows the user to perform Electronic and UV Leak Detection all with one tool. The "INSPECTOR" offers six levels of sensitivity (15 levels of detection) with a tri-colored LED indicator. This allows the "INSPECTOR" to pin-point leaks as small as 3 gr (1/10 oz) per year. The ultra bright UV light is built into the end of the probe allowing easy access into tight areas. Incorporating both electronic and UV technology into one unit insures that even the toughest leaks can be found. **PATENT# 6,647,761**



**SPECIFIC FEATURES:**

- Ultra Bright UV/Blue LED Light
- UV Safety Glasses
- 6 Levels Of Sensitivity (15 Levels Of Detection)
- Tri-colored Visual Leak Level Indicator
- Mute Function
- Detects Leaks As Small As 3 gr (1/10 oz) Per Year
- Detects All Refrigerants, CFC'S, HCFC'S, HFC'S
- Includes A Custom Molded Carrying Case



**53515-B** LED Bulb for 55200, 55300 & 55400

**55100-SEN** Sensor Tip for 55100, 55200, 55300 & 55400

LEAK DETECTION

## 55310 COMPLETE ELECTRONIC & UV LEAK DETECTION KIT



The 55310 kit is the ultimate solution for all your A/C leak detection needs.

Kit Includes:

55200 "INSPECTOR" Electronic Leak Detector, UV Dye Injector w/10 Application Dye Cartridge, Dye Injector Connection Hose w/R12 Adapter, Dye Cleaner & UV Safety Glasses, Comes In A Custom Molded Carrying Case

**55300** Same as 55310 (with 25 application Dye Cartridge)

## 55400 COMPLETE ELECTRONIC & UV LEAK DETECTION KIT



The 55400 kit is the ultimate solution for all your A/C leak detection needs.

Kit Includes:

55200 "INSPECTOR" Electronic Leak Detector, Refillable Dye Injector, Dye Injector Connection Hose w/R12 Adapter, 2 oz Bottle of Concentrated Universal Dye, UV Safety Glasses & Dye Cleaner, Custom Molded Carrying Case

## 55500 ELECTRONIC LEAK DETECTOR W/HEATED SENSOR WITH 110 V BATTERY CHARGER



The HEATED SENSOR technology delivers fast and accurate results while eliminating non-refrigerant false alarms. The flexible 381 mm (15") probe has a patented UV Blue Light built into the tip allowing dual UV and Electronic Leak Detection.

**PATENT# 6,647,761**

### SPECIFICATIONS:

- Operating Temp: 32-125°F (0 to 52°C)
- Power Supply: 2 C-Size 1.5V Ni-MH Battery
- Battery Life: 8 hrs per cycle (1000 cycles)
- Warm-Up Time: 25 Seconds
- Probe/Core Length: 15" (381 mm)
- Dimension: 7 x 7" (178 x 178 mm)
- Weight: 1.10 lbs (.49 kg)
- Ultimate Sensitivity: 1/10 oz (3 gr) per year

### FEATURES:

- Six Sensitivity Levels
- Low Battery Indicator
- Automatic Warm Up
- High Volume Pump
- Reset Function
- Blue UV LED Light
- Dual-colored Visual LED Leak Size Display
- Detects all Refrigerants (CFC's, HCFC's, HFC's)
- Rechargeable Ni-MH Battery
- Meets and Exceeds SAE J1627



**53515-B** LED Bulb for 55500

**55500-SEN** Replacement Sensor

**55750-CH-110** 110 V Battery Charger



**55750 COMBUSTIBLE GAS LEAK DETECTOR W/110 V BATTERY CHARGER**

Offering the most advanced sensor technology with a state-of-the-art microprocessor, these units detect leaks fast and accurately. The flexible 15" probe has a bright LED light built into the tip for easy viewing in hard to reach locations. The membrane switch panel offers easy one touch control and operation. Each of the six levels of sensitivity has an audible alarm and visual indicator to identify leak activity. These units include the rechargeable Ni-MH battery (nearly double the power of existing Ni-Cad batteries) and comes in a custom molded case.

**PATENT# 6,647,761**

**SPECIFICATIONS:**

- Operating Temp: 32-125°F (0 to 52°C)
- Power Supply: 2 C-Size 1.5V Ni-MH Battery
- Battery Life: 8 hrs per cycle (1000 cycles)
- Warm-Up Time: 25 seconds
- Probe/Core Length: 15" (381 mm)
- Dimension: 7 x 7" (178 x 178 mm)
- Weight: 1.10 lbs (.49 kg)
- Ultimate Sensitivity: 50 – 1000 ppm

**FEATURES:**

- Six Sensitivity Levels
- Reset Function
- Automatic Warm Up
- Bright LED Light
- Low Battery Indicator
- Custom Molded Carrying Case
- Audible Leak Alarm & Visual Leak Size Indicator
- Rechargeable Ni-MH Battery

**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, Sulfer Dioxide and Trichloroethane



**55750-CH-110** 110 V Battery Charger

## NITROGEN PRESSURE REGULATOR



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** CGA580 (US) Standard, 1/4 FL-M outlet connection

- 53010-AUT** Pressure Testing Regulator Kit
- 53001 Nitrogen Pressure Regulator
    - CGA580 (US) Standard
    - 1/4 FL-M outlet connection
  - 48" Yellow Charging Hose (47482)
  - Leak Testing Adapter (53042)
  - High Side Standard R134a, 1/4" FL-M x 13mm Economy Coupler (66434-R)
  - Blow molded case (53000-PB)

### OPTIONAL ACCESSORIES

**66434-R** High Side Standard R134a 1/4" FL-M x 13 mm Economy Coupler

**82834** High Side Manual R134a 14 mm-F x 16 mm Coupler

**90413** R410a Straight Adapter 1/4" FL-M x 5/16" Swivel-F

**53042** Leak Testing Adapter

**53000-42** Leak Testing Gauge

**53000-70** Low Pressure Regulator Gauge

**53000-300** High Pressure Regulator Gauge

**47482** 48" Yellow Charging Hose

**93254-E** Black Gauge Guard

**53000-W** Teflon Washer

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



- Twist the handle to zoom the UV light in or out
- 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
- 154 - 170  $\mu\text{W}/\text{cm}^2$  which is compatible to a 50 watt UV flashlight
- 2 Illumination Modes: super bright and battery conservation
- Battery: Lithium Li-Ion, full discharge and cut-off discharge of 4.2V and 2.75V
- 53518-UV includes 110V, 53518-UV-220 includes 220V charger



**53512-UV MINI UV FLASHLIGHT (LED)**



- 12 LED Bulb UV Illumination
- Aluminum body with Type III anodized finish
- 25,000 hour bulb life
- Includes safety glasses
- Battery Life: 5 hours continuous leak detection
- Easy grip texture
- 3 AAA batteries

**53517-UV COMPACT UV FLASHLIGHT (LED)**



- 17 LED Bulb UV Illumination
- Aluminum body with Type III anodized finish
- 25,000 hour bulb life
- Includes safety glasses
- Battery Life: 4 hours continuous leak detection
- Easy grip texture
- 3 AAA batteries

**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

**53012 UV SWIVEL HEAD LIGHT (12 V/100 WATTS)**



- 180° Swivel Heads Get Into Tight Places
- Heavy Duty Metal Construction
- Instant ON
- Includes UV Enhancing Safety Glasses

**53012-B** Light Bulb

**53012-L** Lens

**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

LEAK DETECTION

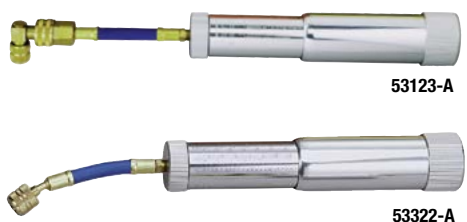
## COMPACT UV LEAK LOCATOR KITS

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-C-110	53223/ 53518-UV	Same as 53451-110 but with Replaceable 2 oz Dye Cartridge (25 Applications)	LED
53582	53809/ 53512-UV	53512-UV Mini UV Flashlight (12 LED), "Cartridge Type" 1 oz die injector with replaceable die cartridge, Low side hose, R12 adapter, UV safety glasses, Service info. labels	LED 
53587	53809/ 53517-UV	Compact UV Flashlight (53517-UV), 1 oz die injector with replaceable 1 oz die cartridge (10 application), Low Side Hose, R12 adapter, UV Enhancing Safety Glasses, Service Information Labels, Packaged in a clam shell	LED 
53585	53809/ 53515	MACH IV Flexible LED UV Light w/1 oz (30 ml) Dye Injector, w/Replaceable 1 oz (30 ml) Dye Cartridge (10 Appl.), Low-Side Hose w/R134a Coupler, R12 Adapter, 10 Serv. Info. Lbls. & UV Enhancing Safety Glasses	LED
53351	53809/ 53515	Same as above, but w/1 oz OIL/ATF/Gas (53610) & Diesel Fluorescent Dye and 1oz (30ml) Engine Coolant Fluorescent Dye (53609)	LED
53100	53123/ 53012	High Intensity Swivel Head Light, w/ Refillable 2 oz (60 ml) Dye Injector, 2 oz (60 ml) Concentrated Universal A/C Fluorescent Dye (25 Appl.), 4 oz (1200 ml) Dye Remover, 25 Serv. Info. Lbls. & UV Enhancing Safety Glasses	12 V/100 WATT
53100-C	53223/ 53012	Same as 53100, but with Replaceable 2 oz (60 ml) Dye Cartridge (25 Appl.)	12 V/100 WATT
53500	53123/ 53312	High Intensity Mini Light w/Refillable 2 oz (60 ml) Dye Injector, 2 oz (60 ml) Concentrated Universal A/C Fluorescent Dye (25 Appl.), 4 oz (120 ml) Dye Remover, 25 Serv. Info. Lbls. & 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 Appl.)	12 V/50 WATT
53351	53809/ 53312	High Intensity, 12V/50 Watt, Mini Light (53312, Replaceable 1 oz (10 application) Dye Cartridge (53809), A/C Connection Hose w/R134a Coupler, R12 Adapter, 1 oz OIL/ATF/Gas and Diesel Fluorescent Dye, 1 oz Engine Coolant Dye, 4 oz Dye Remover, 25 Service Information Labels, UV Enhancing Safety Glasses	12 V/50 WATT

**REFILLABLE UNIVERSAL DYE/OIL 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. The injector hose comes complete with a R134a coupler and auto shut-off valve adapter for 1/4" FL systems.

- 53123** Refillable Universal Dye Injector with 2 oz (60 ml) Bottle of Concentrated A/C Dye (25 Apps)

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- 53123-A** Refillable Universal Dye/Oil Injector (w/o dye)

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- 53134** Refillable Dye Injector with (R134a 13 mm Connection) and 2 oz (60 ml) Bottle of Concentrated A/C Dye (25 Applications)

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- 53322** Refillable Dye Injector with (1/4" Auto Shut-off Valve Connection) and 2 oz (60 ml) Bottle of Concentrated A/C Dye (25 Apps)

**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 (2 oz.) of universal dye that is compatible with R12/22/502 and R134a systems. The injector hose comes complete with a R134a coupler and auto shut-off valve adapter for 1/4" FL systems.



**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 the evacuation process, or use refrigerant to push it in using the recharge system. Rugged all metal 2 oz canister. Available in standard or "easy connect" design. The standard models use a needle style valve attached between the manifold gauge set or charging equipment and A/C hose. The "easy connect" models use a ball valve design attached directly onto the end of the A/C hose. Model 82374 includes a low-side coupler on the outlet hose. Model 92376 includes auto shut-off valve on the outside hose.

- STANDARD**
- 90375** Standard 1/4" FFL x 1/4" MFL

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  - 82375** ACME 1/2" FFL x 1/2" MFL
- EASY CONNECT**
- 82374** 13mm-M x 13mm-F Low-Side Coupler (R134a)

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  - 92376** 1/4" FFL x 1/4" MFL

**53809 MINI DYE INJECTOR**



"Cartridge Type" Dye Injector (10 Applications) Concentrated Dye.

**ACCESSORIES**



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

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

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

LEAK DETECTION

**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 & Diesel Fuel - 1 vehicle application per 2 gallons (8 L) of fuel



- 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 R12, 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, R12 adapter
- 53910** Auto A/C Master Leak Shield  
1 oz Replacement Cartridge of Auto A/C Master Leak Shield Sealant with Dye
- 53592** Mini UV Flashlight Kit  
53512-UV Mini UV Flashlight (12 LED), "Cartridge Type" 1 oz Injector with Auto A/C Master Leak Shield Sealant with Dye, Low side hose, R12 adapter, UV safety glasses, Service info. labels, Packaged in clam shell
- 53597** Compact UV Flashlight Kit  
53517-UV Compact UV Flashlight (17 LED), "Cartridge Type" 1 oz Injector with Auto A/C Master Leak Shield Sealant with Dye, Low side hose, R12 adapter, UV safety glasses, Service info. labels, Packaged in clam shell

**TOTAL A/C QUICK FLUSH**



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



- 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

**91046-A 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.



**91048 FLUSH CAPTURING UNIT**



Special self adjusting tool to easily recover flush material for reuse or disposal. A unique rubber bladder coupler fits over the discharge lines of the component being flushed. As flush material leaves the A/C system, it is automatically collected for reuse or disposal.

**A/C FLUSH SOLVENT**



- Effectively removes debris and sludge from A/C components
- Solvent-based
- Evaporates quickly
- Leaves no residue



- 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

LEAK DETECTION

**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 65**

- 92709-65-8** PAG 65 Oil (8 oz (240 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 (240 ml) bottle)
- 92709-100-32** PAG 100 Oil (32 oz (1 L) bottle)

**PAG 150**

- 92709-150-8** PAG 150 Oil (8 oz (240 ml) bottle)
- 92709-150-32** PAG 150 Oil (32 oz (1 L) bottle)

**ESTER OIL**

- 53827** Ester Oil (2 oz (60 ml) cartridge)
- 92710** Ester Oil (8 oz (240 ml) bottle)
- 92712** Ester Oil (32 oz (1 L) bottle)



ContiTouringContact



# MEASURE AND TEST INSTRUMENTS

## 52224-A INFRARED THERMOMETER WITH LASER



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

### SPECIFICATIONS:

**Non-Contact Temperature Range:** -58 to 932°F (-50 to 500°C)

**Field of View:** 12 : 1

**Display Illumination:** Backlit LCD Color Display

**Target Indicator:** Single Laser Spot

**Emissivity:** 0.98

**Resolution:** 0.5°F / 0.5°C

**Accuracy:** ±4°F (2°C) or ±2% of reading

**Response Time:** 0.5 seconds

**Power Off:** Automatic after 15 seconds

**Battery Life:** Approximately 180 hours

**Included Accessories:** 2 AAA batteries, instruction manual, plastic molded case



## 52224-C INFRARED THERMOMETER WITH DUAL LASER



Features both infrared and dual laser technologies.

### SPECIFICATIONS:

**Non-Contact Temperature Range:** -76 to 1022°F (-60 to 550°C)

**Field of View:** 12 : 1

**Display Illumination:** Backlit LCD Color Display

**Target Indicator:** Dual Laser Spot

**Emissivity:** 0.95

**Resolution:** 0.1°F / 0.1°C

**Accuracy:** ±4°F (2°C) or ±2% of reading

**Response Time:** 1 second

**Power Off:** Automatic after 15 seconds

**Battery Life:** Approximately 180 hours

**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:** -76 to 1400°F (-60 to 760°C)

**Thermocouple Temp. Range:** -83 to 1999°F (-64 to 1400°C)

**Field of View:** 30 : 1

**Display Illumination:** Backlit 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:** ±4°F (2°C) or ±2% of reading

**Response Time:** 1 second

**Power Off:** Automatic after 15 seconds

**Battery Life:** Approximately 180 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: -76 to 1832°F (-60 to 1000°C)
- Thermocouple Temp. Range: -83 to 1999°F (-64 to 1400°C)
- Field of View: 50 : 1
- Display Illumination: Backlit LCD display
- Target Indicator: Dual Laser Spot
- Emissivity: 0.95
- Resolution: 0.1°F / 0.1°C
- Modes: MIN, MAX, DIFF & AVG
- Accuracy: ±4°F (2°C) or ±2% of reading
- Response Time: 1 second
- Power Off: Automatic after 15 seconds
- Battery Life: Approximately 180 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, Removable Magnetic Base



**52226 DUAL TEMP INFRARED/PROBE THERMOMETER**



The 52226 Dual Temp Thermometer offers both infrared and contact probe technologies.

- Infrared Temp Range: -67 to 428°F (-55 to 220°C)
- Probe Temp 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.

- Temp Range: -67 to 428°F (-55 to 220°C)
- Field of View Ratio 1 : 1
- Adjustable Emissivity
- Backlit LCD Display
- Minimum/Maximum capture mode



**POCKET ANALOG DESIGNS**



All thermometers include pocket holder and clip.

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

**POCKET DIGITAL DESIGN**



All thermometers include pocket holder and clip. Battery operated (1.5V, life of 5000 hours), (on/off and auto shut-off after 10 minutes)

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

TAKE TEMPERATURE MEASURING TO ANOTHER LEVEL...



**THERMAL**  
IMAGING CAMERA

Mastercool's thermal imaging camera can measure from -4 to 482°F (-20 to 250°C) and display thermal images and temperature. Thermal images can be saved to a micro SD card and transferred to the software included for image reporting.

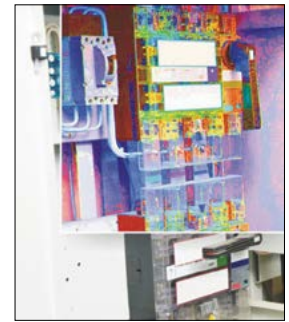
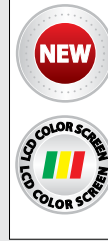
- Fully Automatic
- Focus Free
- Superior Measurement/Accuracy
- Micro SD Card Storage
- Reporting Software Included

**SPECIFICATIONS:**

Thermal Image Resolution: 32 x 31 pixels  
 Measurement Range: -4 to 482°F (-20 to 250°C)  
 Accuracy (Tamb=20 to 26°C): ±2% of reading, or 4°F (2°C) whichever is greater  
 Thermal Sensitivity: 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 per gb, bmp file format  
 Memory Type: Support 8G micro SD card  
 Sensor Filter: 8 to 14 um  
 Interface: USB  
 Battery Type: (4) AA  
 Battery Life (hr) (backlit): 6 hours  
 Dimensions: 5.7" (l) x 2.8" (w) x 9.3" (h) (145 x 71 x 236 mm)  
 Weight: 11.5 oz (0.33 kg)

**Automotive Applications:**

- Tire contact and wear diagnostics
- Brake and engine system evaluation for performance and cooling
- Rotor temperatures and wear patterns
- Faulty fuel injection nozzles
- Faulty wheel bearings
- Passenger compartment AC comfort analysis
- Proper fluid temperatures, static and full load
- Rear differential temps
- AC liquid and gas lines and hose analysis
- Turbo chargers and catalytic converters
- Evaporators, condensers and radiators for proper heat exchange



Electrical/Mechanical



Solar



Building Diagnostics

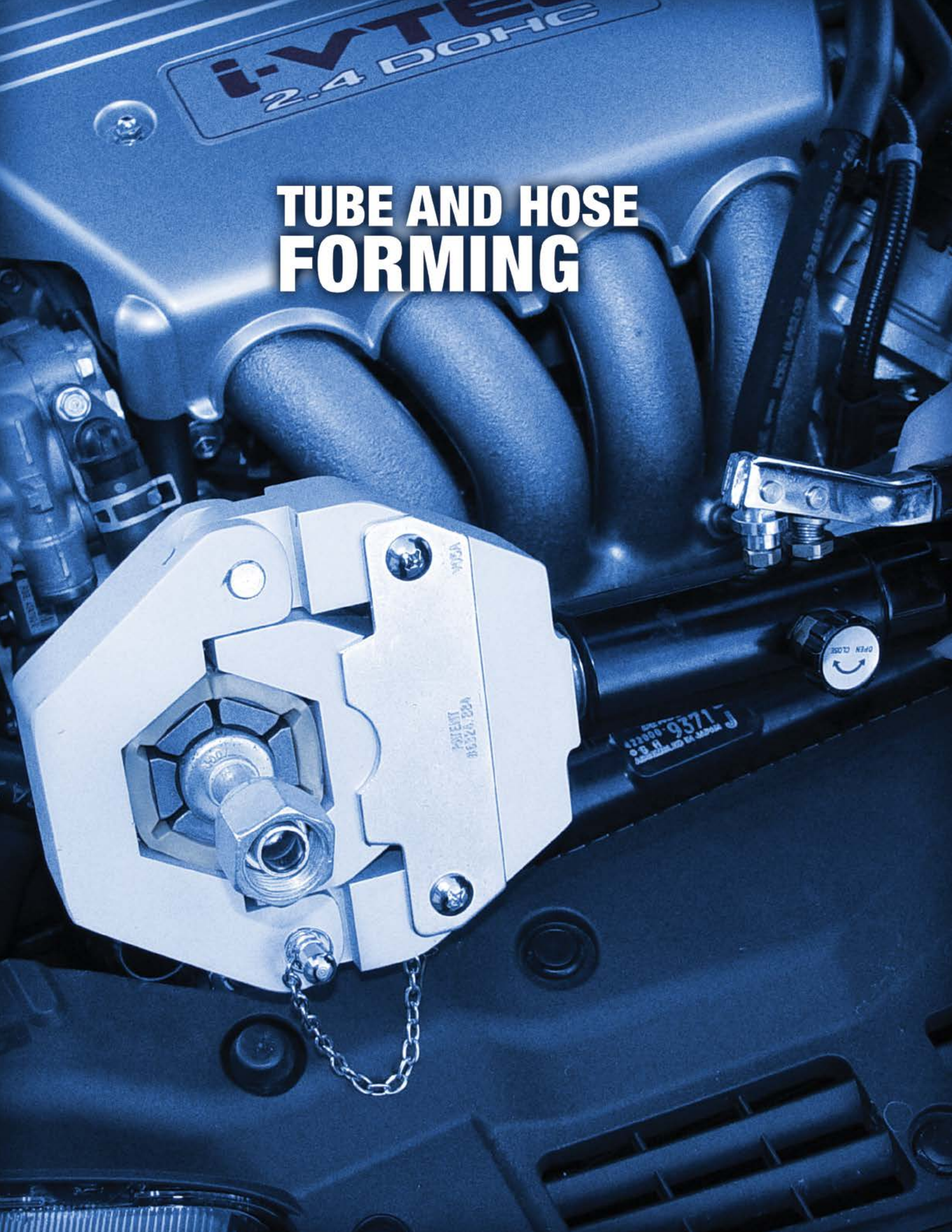
**52300** Thermal Imaging Camera with carry case, 8 gb micro SD card, CD, USB cord, batteries and instructions

OPTIONAL THERMOCOUPLE PROBES



- 52331** Wire Probe - 3 ft (1 m)
- 52332** Wire Probe- 10 ft (3 m)
- 52333** Piercing Penetration Probe w/coil cord
- 52334** Surface Probe w/coil cord
- 52335** Air Probe w/coil cord
- 52336** Clamp-On Probe - 3 ft (1 m)
- 52337** Clamp-On Probe - 10 ft (3 m)

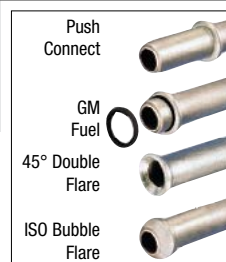
# TUBE AND HOSE FORMING



## 71475 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**



- 71201** Hydra-flare Yoke & Pump Assembly
- 71097-01** 45° Flaring Cone
- 71475-PB** Custom Molded Plastic Box for 71475
- 71201-001A-REPK** Repair Kit for 71475, 71480, 71300, 71400, 71450

### Push Connect Adapters

- 71204** 1/4" Adapter
- 71205** 5/16" Adapter
- 71206** 3/8" Adapter

### Push Connect Die Sets

- 71214** 1/4" Die Set
- 71215** 5/16" Die Set
- 71216** 3/8" Die Set

### GM Fuel Line Adapters

- 71405** 5/16" Adapter
- 71406** 3/8" Adapter

### GM Fuel Line Die Sets

- 71415** 5/16" Die Set
- 71416** 3/8" Die Set

### 45° & Double Flaring Adapters

- 71097-03** 3/16" Adapter
- 71097-04** 1/4" Adapter
- 71097-05** 5/16" Adapter
- 71097-06** 3/8" Adapter
- 71097-08** 1/2" Adapter

### 45° & Double Flaring Die Sets

- 71097-13** 3/16" Die Set
- 71097-14** 1/4" Die Set
- 71097-15** 5/16" Die Set
- 71097-16** 3/8" Die Set
- 71097-18** 1/2" Die Set

### Metric Bubble Flaring Adapters

- 71475-4M** 4.75mm Adapter
- 71475-6M** 6mm Adapter
- 71475-8M** 8mm Adapter
- 71475-10M** 10mm Adapter

### Metric Bubble Flaring Die Sets

- 71475-14M** 4.75mm Die Set
- 71475-16M** 6mm Die Set
- 71475-18M** 8mm Die Set
- 71475-110M** 10mm Die Set

## 71197 DOUBLE FLARING ADAPTERS AND DIES FOR HYDRA-FLARE YOKE AND PUMP ASSEMBLY

Includes: 71097-03, 71097-04, 71097-05, 71097-06, 71097-08, 71097-13, 71097-14, 71097-15, 71097-16, 71097-18, 71097-01

## 71144 GM FUEL LINE ADAPTERS AND DIES FOR HYDRA-FLARE YOKE AND PUMP ASSEMBLY

Includes: 71405, 71406, 71415, 71416

## 71175 METRIC BUBBLE FLARING ADAPTERS AND DIES FOR HYDRA-FLARE YOKE AND PUMP ASSEMBLY

Includes: 71475-4M, 71475-6M, 71475-8M, 71475-10M, 71475-14M, 71475-16M, 71475-18M, 71475-110M

## 71099-TC 3/8" GM TRANSMISSION COOLING LINE DIE AND ADAPTER SET



GM Transmission Cooling Line

Set includes 71099-06 adapter and 71099-16 die set. To be used with 71475 hydraulic pump assembly.

## 71098 37° FLARING & DOUBLE FLARING ADAPTER SET



- Dies: 3/16, 1/4, 5/16, 3/8 and 1/2"
- Double Flare Adapters: 3/16, 1/4, 5/16, 3/8 and 1/2"
- 37° Cone



**71480 37° FLARING AND DOUBLE FLARING HYDRAULIC TOOL KIT**



This kit fabricates factory style 37° and 37° double flare found on aviation and specialty automotive applications. The handheld hydraulic pump operates easily with all steel and light stainless tubing. Includes: 3/16, 1/4, 5/16, 3/8 and 1/2" dies 3/16, 1/4, 5/16, 3/8 and 1/2" double flare adapters and 37° Cone.

**71201** Hydra-flare Yoke & Pump Assembly

**71098-01** 37° Cone

**37° Double Flaring Adapters & Die Sets**

**71098-03** 3/16" Double Flare Adapter

**71098-13** 3/16" Double Flare Die Set

**71097-04** 1/4" Double Flare Adapter

**71098-14** 1/4" Double Flare Die Set

**71097-05** 5/16" Double Flare Adapter

**71098-15** 5/16" Double Flare Die Set

**71097-06** 3/8" Double Flare Adapter

**71098-16** 3/8" Double Flare Die Set

**71097-08** 1/2" Double Flare Adapter

**71098-18** 1/2" Double Flare Die Set

**71450 DOUBLE FLARE & METRIC BUBBLE FLARING TOOL SET**



This kit fabricates flare/double flare 3/16, 1/4, 5/16, 3/8 and 1/2"; and metric bubble flare 4.75, 6, 8 and 10mm. Comes in a custom molded carrying case and includes:

**71201** Hydra-flare Yoke & Pump Assembly

**71097-01** 45° Flaring Cone

**71450-PB** Custom Molded Plastic Box

**45° & Double Flaring Adapters**

**45° & Double Flaring Die Sets**

**71097-03** 3/16" Adapter

**71097-13** 3/16" Die Set

**71097-04** 1/4" Adapter

**71097-14** 1/4" Die Set

**71097-05** 5/16" Adapter

**71097-15** 5/16" Die Set

**71097-06** 3/8" Adapter

**71097-16** 3/8" Die Set

**71097-08** 1/2" Adapter

**71097-18** 1/2" Die Set

**Metric Bubble Flaring Adapters**

**Metric Bubble Flaring Die Sets**

**71475-4M** 4.75mm Adapter

**71475-14M** 4.75mm Die Set

**71475-6M** 6mm Adapter

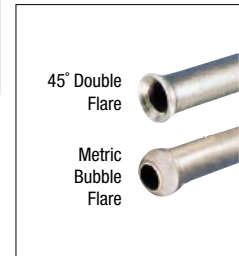
**71475-16M** 6mm Die Set

**71475-8M** 8mm Adapter

**71475-18M** 8mm Die Set

**71475-10M** 10mm Adapter

**71475-110M** 10mm Die Set



**71400 GM FUEL LINE FLARING KIT**



This kit fabricates the special flares found on most GM fuel lines and some GM truck power steering pump return lines (5/16"). Kit comes in a custom molded carrying case and includes:

**71201** Hydra-flare Yoke & Pump Assembly

**71200-PB** Custom Molded Plastic Box

**GM Fuel Line Adapters**

**GM Fuel Line Die Sets**

**71405** 5/16" Adapter

**71415** 5/16" Die Set

**71406** 3/8" Adapter

**71416** 3/8" Die Set

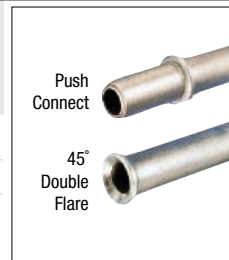


**71300 PUSH-CONNECT, 45° & DOUBLE FLARING SET WITH “HYDRA-FLARE”**



Fabricates “production quality” flares quickly and easily with hand held convenience. Flaring die sets for five sizes: 3/16, 1/4, 5/16, 3/8 and 1/2” O.D. tubing; five double flaring adapters cover 3/16, 1/4, 5/16, 3/8 and 1/2” O.D. tubing. Set includes:

<b>71201</b>	Hydra-flare Yoke & Pump Assembly
<b>71097-01</b>	45° Flaring Cone
<b>Push Connect Adapters</b>	
<b>71204</b>	1/4” Adapter
<b>71205</b>	5/16” Adapter
<b>71206</b>	3/8” Adapter
<b>45° &amp; Double Flaring Adapters</b>	
<b>71097-03</b>	3/16” Adapter
<b>71097-04</b>	1/4” Adapter
<b>71097-05</b>	5/16” Adapter
<b>71097-06</b>	3/8” Adapter
<b>71097-08</b>	1/2” Adapter
<b>Push Connect Die Sets</b>	
<b>71214</b>	1/4” Die Set
<b>71215</b>	5/16” Die Set
<b>71216</b>	3/8” Die Set
<b>45° &amp; Double Flaring Die Sets</b>	
<b>71097-13</b>	3/16” Die Set
<b>71097-14</b>	1/4” Die Set
<b>71097-15</b>	5/16” Die Set
<b>71097-16</b>	3/8” Die Set
<b>71097-18</b>	1/2” Die Set



**71100 METRIC BUBBLE FLARING TOOL SET**



Fashions International Standards Organization (I.S.O.) bubble flare found on European, Japanese and some domestic model brake lines. Flares without removing brake lines from a vehicle. Includes hardened steel bar and carrying case. Set includes: Adapters for 4.75, 6, 8 and 10mm O.D. tubing.

Also available:  
**71101** Set of four bubble flaring adapters for 4.75, 6, 8 and 10mm O.D. tubing.

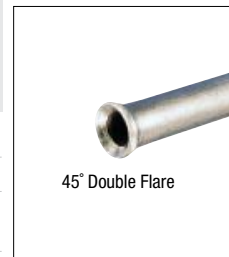


**70092 45° FLARING, DOUBLE FLARING & CUTTING TOOL SET**



Includes heavy duty tube cutter 70033 for 1/8 to 1 1/8” O.D. tubing; standard 45° flaring tool 70051 flares 7 sizes: 3/16, 1/4, 5/16, 3/8, 7/16, 1/2 and 5/8” O.D. tubing; five double flaring adapters 70192 cover 3/16, 1/4, 5/16, 3/8 and 1/2” O.D. tubing.

Also available:  
**70097** Same as 70092, less 70033 tube cutter  
**70192** Set of 5 double flaring adapters for 3/16, 1/4, 5/16, 3/8 and 1/2” O.D. tubing.  
**70092-M** Metric Flaring, Double Flaring & Cutting Tool Set Flares 7 metric sizes: 4, 6, 8, 10, 12, 15 and 16mm O.D. tubing.  
**70192-M** Metric Double Flaring Adapter Set Covers 4.75, 5, 6, 8 and 10mm O.D. tubing.  
**70097-M** Same as 70092-M, less 70033 tube cutter.





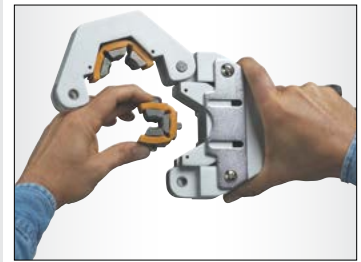
**71500-A HYDRA-KRIMP**



**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**



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

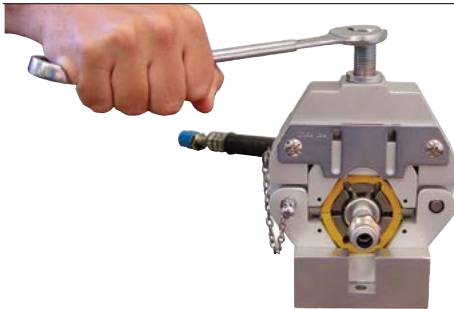


Kit comes in a custom molded case and includes:

- 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
- 71500-REPAIRKT** Repair Kit for 71500

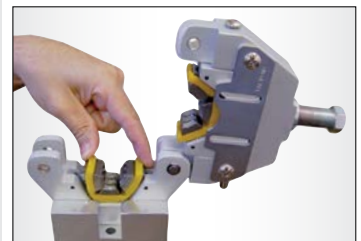


**71550 A/C HOSE CRIMPER**



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.



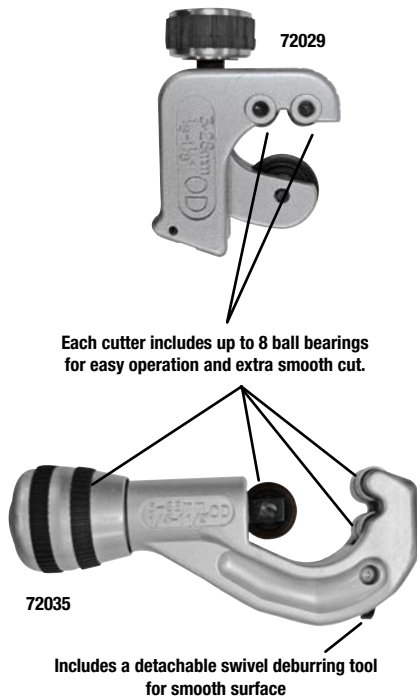
Kit comes in a custom molded case and includes:

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



**Mastercool®**  
"World Class Quality"

**BALL BEARING CUTTERS**



Mastercool's EZ 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!



- 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**



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) (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 cutting all the way around the tubing easy.

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

**80021 PLUMBERS TYPE MINI CUTTER**

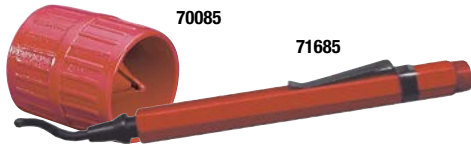


Designed for applications with limited working space. Cuts soft copper, aluminum and thin wall steel tubing. Tube Cutter for 1/8 to 7/8" (4-22 mm) O.D. Tubing. (1/8 to 3/4" nom.)

- 80121** Spare Cutting Wheel for 80021



**INNER-OUTER REAMERS**



- 70085** Inner/Outer Reamer for 3/16 to 1 1/2" O.D. Tubing.
- 71685** 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).

**REPLACEMENT CUTTER WHEELS**



- 70028** Replacement Cutting Wheels for 70027 (10 pcs).
- 70034** Replacement Cutting Wheels for 70029, 70030, 70031, 70033, 70035 (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.

**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.

**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
<b>70071</b>	1/4"	10"
<b>70072</b>	5/16"	10"
<b>70073</b>	3/8"	10"
<b>70074</b>	1/2"	12"
<b>70075</b>	5/8"	14"
<b>70077</b>	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.

**RATCHET WRENCHES**



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

## 91000-A 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 compressor identification chart 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.

## 92329 TOYOTA A/C DISCONNECT TOOL



The new 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.

## 91002 GM & FORD ORIFICE TUBE REMOVER/INSTALLER



Used on all GM (CCOT) and Ford (FOTCC) systems with evaporator inlet orifice tube.

## 91008 FORD (FOTCC) REMOVER/INSTALLER



Used for Ford systems produced after 1980.

## 91009 GM (CCOT) & FORD (FOTCC) SCREEN EXTRACTOR



Used with 91002 and 91008

## 91010 FORD AEROSTAR EXPANSION TUBE REMOVER/INSTALLER



Special design for condenser mounted tube.

## 90499 UNIVERSAL CLUTCH HOLDING TOOL



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