

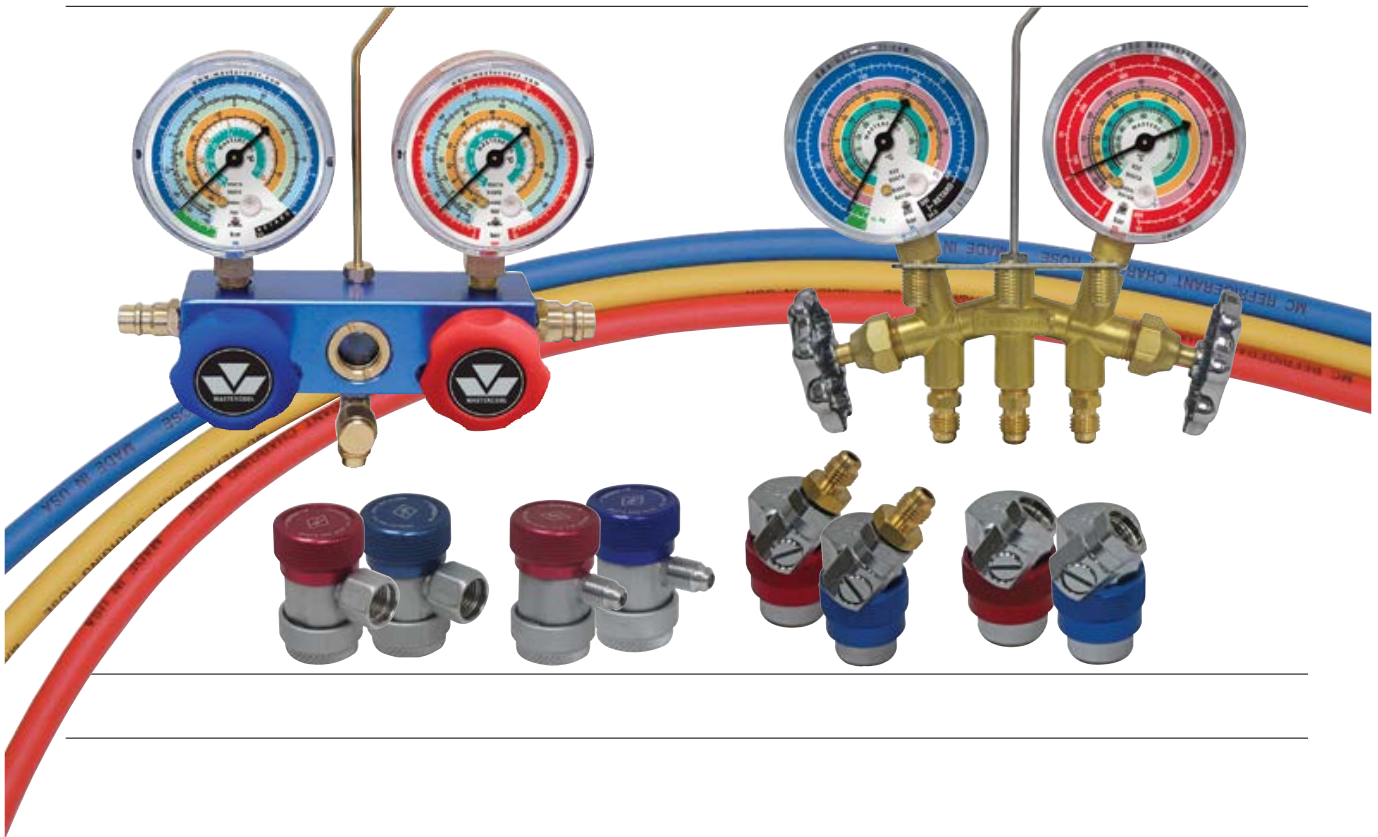


**Mastercool®**  
"World Class Quality"

English

## OPERATING INSTRUCTIONS

### CHARGING AND TESTING DUAL MANIFOLD FOR R134A



**The 1990 amendments to the United States Clean Air Act mandate that all personnel who service refrigerant systems must be trained and certified. Fines are in place for violations and compliance is not being monitored by the U.S. EPA.**

### PRE-SERVICE INSTRUCTIONS

1. Close both valves on the manifold gauge set by turning the High and Low knobs clockwise.
2. The gauges are correctly calibrated at the factory before shipment. If calibration is required, insert a straight blade screwdriver into the adjusting screw on the gauge face.
3. Attach the High and Low couplers to the male end of the Red and Blue hoses. If using manual couplers, open the plunger by turning the knob counter-clockwise prior to connection to the system. If E-Z Snap™ couplers are used, pull the sleeves up to unlock position before attaching to an A/C system (figs. A & B).
4. Connect the Red hose to the High port and the Blue hose to the Low port on the manifold gauge.

### TESTING AND CHARGING

To properly diagnose the problem in the A/C system, first check the system's overall performance. This includes testing the system's pressure and refrigerant flow. These conditions can be checked with the manifold gauge set.

**NOTE: Be sure that the hand valves on the manifold gauge set are in the closed position. Always wear gloves and safety goggles when working with refrigerant.**

1. Remove the protective caps from the system ports. Check for leaks at the ports.
2. Connect the Low Side service hose (Blue) to the suction side of the compressor. Connect the High side service hose (Red) to the discharge side of the compressor. Make sure the couplers are securely snapped (fig. D).
3. If using manual couplers, move the plunger down within the coupler by turning the knob clockwise in order to open the port valves and start refrigerant flow.

### IMPORTANT NOTES

- A system that has been opened or one that is found to be excessively low on refrigerant pressure as a result of a leak, must be fully evacuated by means of recycling and deep vacuum. (fig. C)
- A system that has been evacuated must be repaired, leak tested and evacuated again to 29" Hg. before charging.
- If charging on the liquid or High Side, use only the High Side valve on the manifold gauge set. Make sure the Low Side valve is closed.
- After charging, test the system by turning on the engine and running the A/C with both valves closed on the manifold.
- After testing, disconnect the couplers from the system and make sure to use a recovery/recycling machine to evacuate any refrigerant remaining in the hoses.

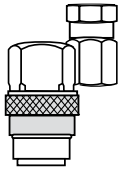


### WARNING

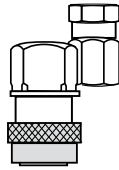
- **WEAR GOGGLES!!**
- **DO NOT VENT REFRIGERANT INTO ATMOSPHERE**

### E-Z SNAP™ COUPLER (Fig. A)

UNLOCKED  
POSITION



LOCKED  
POSITION

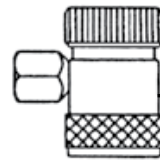


SERVICE  
PORT

PULL  
SLEEVE  
to  
UNLOCK

To attach to the system, make sure that the coupler is in its unlocked position. Press the coupler against the service port until it snaps (locked position).

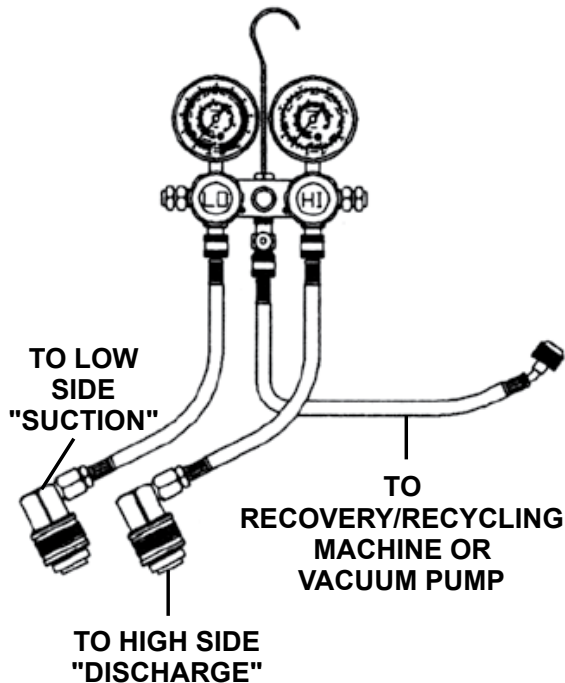
### MANUAL COUPLER (Fig. B)



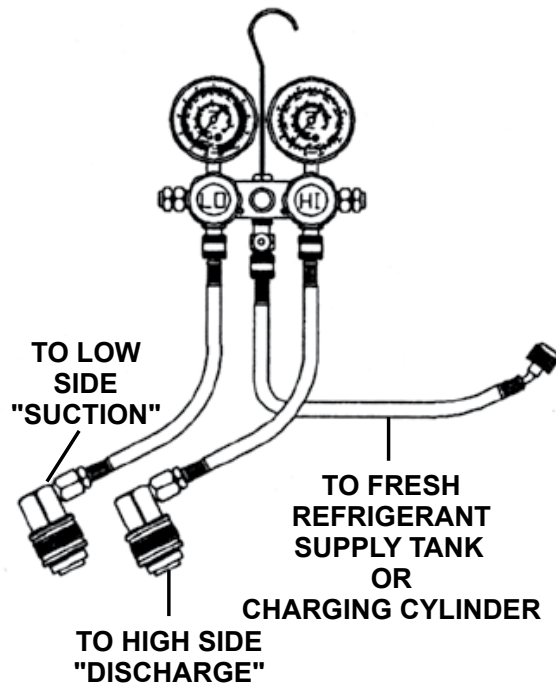
SLEEVE

To attach to the system, backdown the plunger by turning the knob fully counter-clockwise. Connect to the system by lifting up the sleeve, placing the service port inside the coupler and releasing to lock. To start the flow, turn the knob fully clockwise (opening the service port).

### EVACUATION OF REFRIGERANT AND DEEP VACUUM (Fig. C)



### CHARGING (Fig. D)



WARNING: This product contains one or more chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

| BRASS & ALUMINUM GAUGE SET PARTS |                                           |       |      |                                        |                    |
|----------------------------------|-------------------------------------------|-------|------|----------------------------------------|--------------------|
| Fig.                             | Description                               | Part# | Fig. | Description                            | Part#              |
| A.                               | Piston Seal Assembly with O-rings (2 pcs) | 34216 | M.   | Stem, Nut and Stem O-ring              | 85218              |
| B.                               | Piston Seal O-ring (2 pcs.)               | 34215 | N.   | Stem O-ring (2 pcs)                    | 85217              |
| C.                               | Stem and Nut                              | 34218 | O.   | Piston Seal O-rings (4 pcs)            | 85215              |
| D.                               | Handwheel                                 | 34212 | P.   | Piston Seal Assembly W/O-rings (2 pcs) | 85216              |
| E.                               | Complete Stem Assembly with Knob (2 pcs)  | 34219 | Q.   | E-Z Snap™ High Side Coupler complete   | 82214              |
| F.                               | High Side Gauge (Red) complete 63mm       | 85500 | R.   | E-Z Snap™ Low Side Coupler complete    | 82224              |
| G.                               | Low Side Gauge (Blue) complete 63mm       | 85350 | S.   | High Side O-ring                       | 80034-2            |
| H.                               | O-ring for Male Hose Fitting              | 83341 | T.   | Low Side O-ring                        | 80134-2            |
| I.                               | Gasket for Hose Assembly                  | 82010 | U.   | Manual High Side Coupler complete      | 82834              |
| J.                               | Complete Stem Assembly w/Knob (2 pcs)     | 85210 | V.   | Manual Low Side Coupler complete       | 82934              |
| K.                               | Knob only, Low Side, (Blue)               | 85211 | AA.  | Shut-Off Valve O-ring                  | 82336              |
| L.                               | Knob only, High Side (Red)                | 85212 | BB.  | Lens (63mm)<br>Lens (80mm)             | 85253-E<br>98251-E |

