

A/C MANIFOLD GAUGE SET

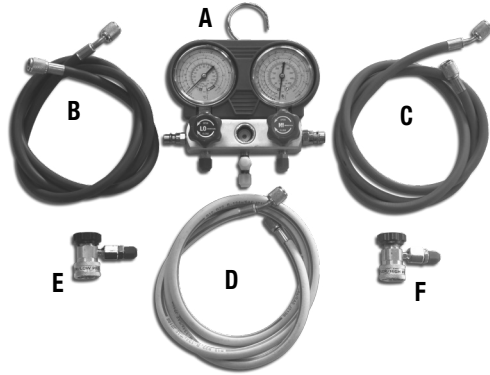
INSTRUCTIONS



The **Fairmount Air Conditioning Manifold Gauge Set** is excellent for DIY and professional automotive air conditioning system pressure checks and recharging. Features Quick-Disconnect fittings for refrigerant conservation and safety, with a convenient built-in sight glass to observe refrigerant condition and flow. Compatible with most motor vehicle R-134 A/C systems and refrigerant supply equipment.

CONTENTS

- (1) Integral Gauge/Manifold/Valve Assembly - **A**
- (1) 5' (1.5m) Low Pressure Hose (**BLUE**) - **B**
- (1) 5' (1.5m) High Pressure Hose (**RED**) - **C**
- (1) 5' (1.5m) Refrigerant Charge Hose (**YELLOW**) - **D**
- (1) Low Pressure Quick-Coupler Valve - **E**
- (1) High Pressure Quick-Coupler Valve - **F**
- (1) Plastic Blow Molded Case



SAFETY INFORMATION

The following explanations are displayed in this manual, on the labeling, and on all other information provided with this product:

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

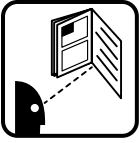
⚠ CAUTION

CAUTION used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

⚠ NOTICE

NOTICE is used to address practices not related to personal injury.

SAFETY INFORMATION



⚠ READ INSTRUCTIONS

- Thoroughly read and understand these product instructions before using the Fairmount A/C Manifold Gauge Set.
- Keep these product instructions for future reference.



⚠ DANGER BURSTING HAZARD!

- Motor Vehicle Air Conditioning systems incorporate high refrigerant pressures. Feedback of high pressure refrigerant into refrigerant supply vessel can cause severe injury or death.



⚠ WARNING IMPROPER MOTOR VEHICLE AIR CONDITIONING WORK CAN RESULT IN INJURY OR DEATH!

- A/C work without adequate training in motor vehicle air conditioning systems can cause injury, death and vehicle damage. **DO NOT** attempt to use this tool or begin motor vehicle service work without proper training in, and a thorough understanding of, motor vehicle air conditioning systems.
- Always consult an authorized service manual or instructional material on the particular vehicle for the proper air conditioning system service and repair procedures before using this tool



⚠ CAUTION EXPOSURE TO AUTOMOTIVE AIR CONDITIONING REFRIGERANT CAN BE A HEALTH HAZARD!

- Contents under high pressure, can spray into eyes. Be sure to follow all precautions listed on the refrigerant container before using.
- Wear ANSI approved eye protection while handling refrigerant.
- Wear appropriate refrigerant resistant gloves while handling refrigerant.



⚠ CAUTION INJURY HAZARD!

- To avoid possible personal injury and property damage, keep all hoses free of rotating/moving underhood components such as fans, belts etc.
- Do not allow hoses to come into contact with hot underhood components.

⚠ NOTICE

- DO NOT allow the release of refrigerant into the atmosphere.
- For Use with R-134 equipped motor vehicle air conditioning systems only. Do not attempt to use on an R-12 equipped system.
- Not for use on non-automotive applications.

AC GAUGE SET COMPONENTS AND THEIR FUNCTIONS

The AC Gauge set is arranged in 3 separate segments which are grouped and indicated by their respective colors. (Fig. 1).

They are as follows:

BLUE = Left, Low Pressure Side

RED = Right, High Pressure Side

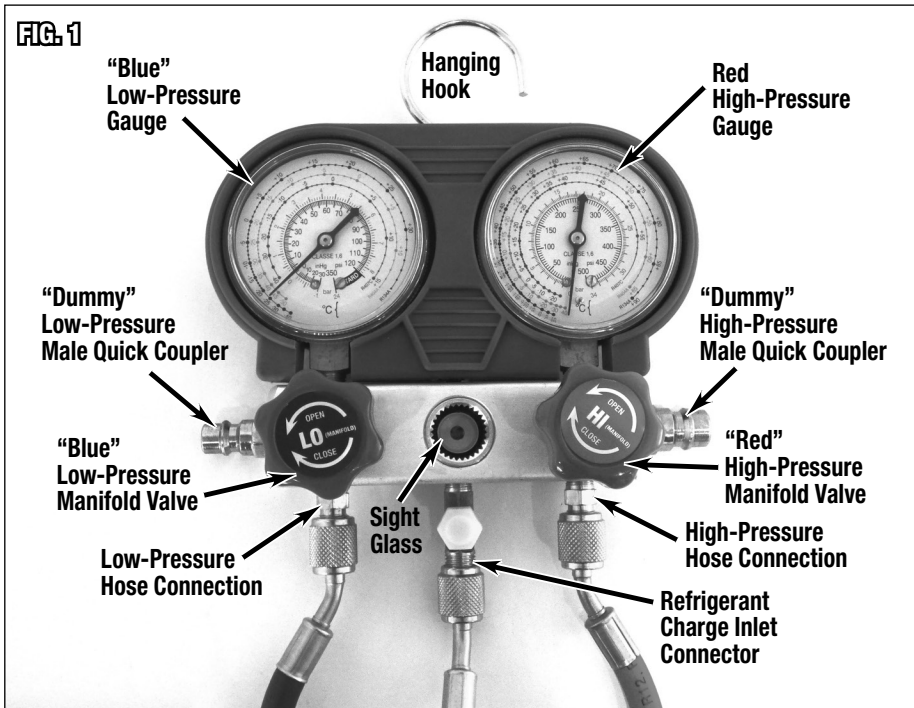
YELLOW = Center/Bottom, Charge Hose

“BLUE SIDE” MANIFOLD FEATURES (Fig. 1)

- Low Pressure Gauge – Used to read vehicle low-side line pressure.
- Low Pressure Manifold Valve – Opens and Closes Low Pressure Manifold port and regulates refrigerant flow to the refrigerant charge Yellow Hose.
- Low Pressure Hose Connection – Threaded Low Pressure Hose Fitting.
- “Dummy” Low Pressure Male Quick-Coupler – Allows convenient storage of Low Pressure Quick-Coupler Valve and Hose.

“BLUE SIDE” ATTACHMENTS (Fig. 2)

- Low Pressure Hose – Attaches to the Threaded Low Pressure Hose Fitting.
- Low Pressure Quick-Coupler Valve – Attaches to Low Pressure Hose and to the vehicle Low Pressure port.



“RED SIDE” MANIFOLD FEATURES (Fig. 1)

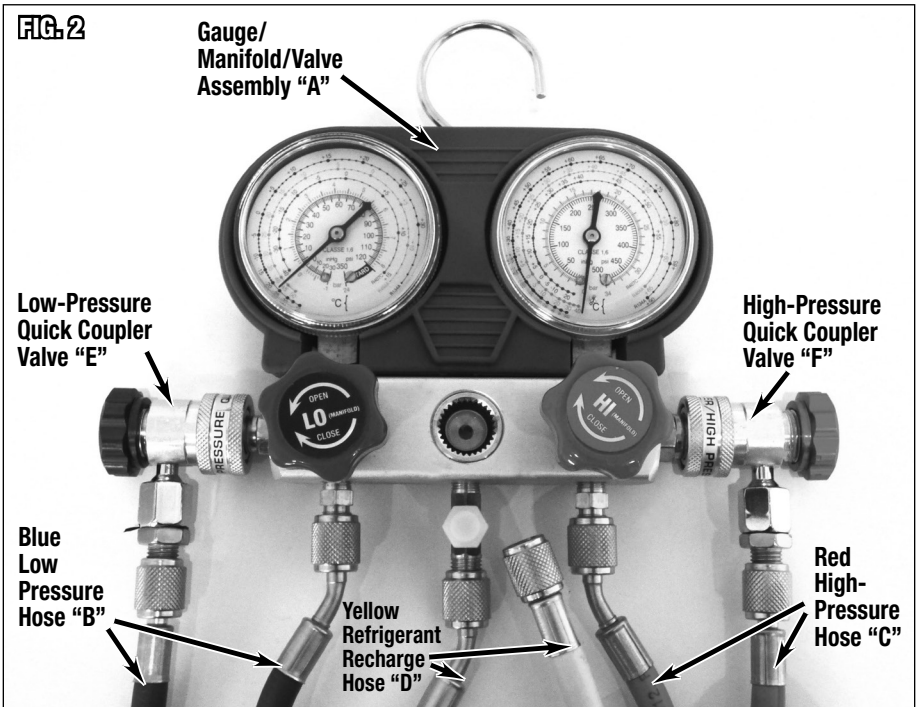
- High Pressure Gauge – Reads high-side pressure from vehicle compressor discharge line.
- High Pressure Manifold Valve – Opens and Closes High Pressure Manifold port.
- High Pressure Hose Connection – Threaded High Pressure Hose Fitting.
- “Dummy” High Pressure Male Quick-Coupler – Allows convenient storage of High Pressure Quick-Coupler Valve and Hose.

“RED SIDE” ATTACHMENTS (Fig. 2)

- High Pressure Hose – Attaches to the Threaded High Pressure Hose Fitting.
- High Pressure Quick-Coupler Valve – Attaches to High Pressure Hose and to the vehicle High Pressure port.

“YELLOW” MANIFOLD FEATURES (Fig. 1)

- Refrigerant Charge Inlet Connector – Threaded fitting for connecting the Yellow Refrigerant Charge Hose from refrigerant supply vessel to the Manifold.
- Refrigerant Charge Secondary Inlet Connector – Threaded Schrader Valve fitting for connecting the refrigerant supply vessel outlet to the Manifold.



ASSEMBLE GAUGE SET

1. Remove the Blue Protective Cap from Threaded Fitting on the left, underside of the Manifold **(A)** and set it aside for future replacement.
2. Thread the angled end of the Blue Low Pressure Hose **(B)** onto the Threaded Fitting on the left, underside of the Manifold **(A)** and securely finger-tighten.
NOTE: Attach Hose with the angle canted outward to the left side.
3. Remove the Blue Protective Cap from Threaded Fitting on the Low Pressure Coupler Valve **(E)** and set it aside for future replacement.
4. Thread the opposite end of the Blue, Low Pressure Hose **(B)** onto the Low Pressure Quick-Coupler Valve **(E)** and securely finger-tighten.
5. Remove the Red Protective Cap from Threaded Fitting on the right, underside of the Manifold **(A)** and set it aside for future replacement.
6. Thread the angled end of the Red, High Pressure Hose **(C)** onto the Threaded Fitting on the right, underside of the Manifold **(A)** and securely finger-tighten.
NOTE: Attach Hose with the angle canted outward to the right side.
7. Remove the Red Protective Cap from Threaded Fitting on the High Pressure Quick-Coupler Valve **(F)** and set it aside for future replacement.
8. Thread the opposite end of the Red, High Pressure Hose **(C)** onto the High Pressure Quick-Coupler Valve **(F)** and securely finger-tighten.
9. Remove the Yellow Protective Cap from the Threaded Fitting at the center, underside of the Manifold **(A)** and set it aside for future replacement.
10. Thread the angled end of the Yellow, Refrigerant Charge Hose **(D)** onto the Threaded Fitting at the center, underside of the Manifold **(A)** and securely finger-tighten.
NOTE: Attach Hose with the angle canted outward to the front.
11. Before use, the Swivel Hook attached to the top/center of the Manifold **(A)** should be hooked to a secure location at the underside of the vehicle hood for safety.

⚠ CAUTION

To avoid possible personal injury and property damage, keep all hoses free of rotating underhood components such as fans, belts etc. Do not allow hoses to come into contact with hot Underhood components.

CHECKING AND CHARGING AC SYSTEM

1. Close both Low Pressure (**BLUE**) and High Pressure (**RED**) Manifold Valves by rotating the knobs in a ***Clockwise*** direction.
2. Close both Low Pressure (**BLUE**) and High Pressure (**RED**) Quick-Coupler Valves by rotating the knobs in a ***Counter-Clockwise*** direction.

⚠ CAUTION

EXPOSURE TO AUTOMOTIVE AIR CONDITIONING REFRIGERANT CAN BE A HEALTH HAZARD

- Contents under high pressure, can spray into eyes. Be sure to follow all precautions listed on the refrigerant container before using.
 - Wear ANSI approved eye protection while handling refrigerant.
 - Wear appropriate refrigerant resistant gloves while handling refrigerant.
3. Attach the Low Pressure (**BLUE**) Quick-Coupler Valve to the Low Pressure port of the vehicle's AC System.
 4. Attach the High Pressure (**RED**) Quick-Coupler Valve to the High Pressure, compressor output port of the vehicle's AC System.
 5. Start vehicle and allow it to reach full operating temperature.
 6. Turn on vehicle's AC system.
 7. Open both Low Pressure (**BLUE**) and High Pressure (**RED**) Quick-Coupler Valves by ***very slowly*** rotating the knobs in a Clockwise direction. **DO NOT open Manifold Valves.**
 8. Observe the pressures displayed on both the Low Pressure (**BLUE**) and High Pressure (**RED**) Gauges and compare with the values as recommended by the vehicle manufacturer.
NOTE: At this point, diagnostic work has been done and pressures have been recorded. To complete the procedure, follow the next three steps. If refrigerant is to be added, skip to step 12 and continue:
 9. If pressures displayed are within limits as determined by the vehicle manufacturer, close both Quick-Coupler Valves by rotating the knobs in a ***Counter-Clockwise*** direction.
 10. Shut-off the vehicle.
 11. Very carefully remove both the Low Pressure (**BLUE**) and High Pressure (**RED**) Quick-Coupler Valves from the vehicle's AC system ports.

⚠ CAUTION

Hoses being removed may contain residual refrigerant under pressure which could discharge into face or eyes. Wear NIOSH approved eye protection.

NOTE: Additional steps required to continue on with refrigerant recharging procedure:

12. Connect the open end of the Yellow Refrigerant Charge Hose onto the 134-A Refrigerant Supply vessel. **NOTICE:** Be sure to follow the particular 134-A Refrigerant Supply Vessel manufacturer's instructions!

CHECKING AND CHARGING AC SYSTEM (CONTINUED)

13. Open Low Pressure (**BLUE**) Manifold Valve. **DO NOT open High Pressure (RED) Manifold Valve.**
14. Allow the proper amount of refrigerant into the AC system as directed by the authorized vehicle manufacturer's service manual or reference materials. Once the refrigerant has been added and pressure gauge values are determined, immediately close the Low Pressure (**BLUE**) Manifold Valve by rotating in a ***Clockwise*** direction.
15. Shut-off the vehicle.
16. Very carefully remove both the Low Pressure (**BLUE**) and High Pressure (**RED**) Quick-Coupler Valves from the vehicle's AC system ports.

⚠ CAUTION

Hoses being removed may contain residual refrigerant under pressure which could discharge into face or eyes.

17. Close and disconnect the open end of the Yellow Refrigerant Charge Hose from the 134-A Refrigerant Supply vessel. **NOTICE:** Be sure to follow the particular 134-A Refrigerant Supply Vessel manufacturer's instructions!
18. 18. Remove the Yellow Protective Cap from the Threaded Fitting at the center, underside of the Manifold and set it aside for future replacement.
19. 19. The Gauge Set may be disassembled, all Red, Blue and Yellow Protective Caps reinstalled and all components returned to the storage case or the Red and Blue Quick-Couplers may be attached to the Storage Fittings located on the sides of the Manifold and Gauge Assembly.

If you have any questions about the use of this product, please contact

The Eastwood Technical Assistance Service Department: 800.544.5118 >> email: techelp@eastwood.com

PDF version of this manual is available online >> eastwood.com/31533manual

The Eastwood Company 263 Shoemaker Road, Pottstown, PA 19464, USA

US and Canada: 800.345.1178 Outside US: 610.718.8335

Fax: 610.323.6268 eastwood.com