

# 49134A and 48134A 2-Valve Automotive Manifold

## ⚠ WARNING ⚠



• **Wear safety goggles when working with refrigerants. Refrigerants can cause eye injury.**



• **Disconnect hoses using extreme caution! Pressurized refrigerant may be present in hoses. Point hoses away from you and anyone nearby.**

## Instructions

The manifold is designed so all three lower fittings are connected to each other by internal passages. Separate passages from the low- and high-side fittings to their respective gauges give pressure and vacuum readings, whether the handwheels are open or closed. Handwheels and gauges are color-coded, with the blue compound gauge on the low (or left) side, and the red pressure gauge on the high (or right) side.

## Connecting Field Service Couplers

Field service couplers are provided to access the vehicle's service ports. **The service coupler must be in the closed position when it is connected to the external fitting on the vehicle.**

1. To close the service coupler, turn the handle counterclockwise until finger-tight.
2. Place the service coupler on the external fitting.
3. Push in on the handle of the service coupler with your thumb, while pulling up on the sleeve until it bottoms on the external fitting; then release. Verify it is correctly seated by pulling up on the service coupler.
4. For maximum flow, turn the handle clockwise until it stops.

## Diagnosing System Operation

1. Connect the blue low-side hose to the A/C system's low-side service port. Connect the red high-side hose to the A/C system's high-side service port.
2. With the manifold handwheels closed, read the pressures indicated on the gauges. Compare these pressures and temperatures to the A/C system manufacturer's specifications for operation.
3. If the system is within correct operating guidelines, disconnect the manifold hoses from the system. If repairs are necessary, follow the steps for recovering, evacuating, and recharging the system.

## Recovering Refrigerant

**According to federal law, refrigerant must not be exhausted to the atmosphere.**

1. Verify the blue low-side hose is connected to the A/C system's low-side service port, and the red high-side hose is connected to the A/C system's high-side service port. *Note: Typically, the yellow center hose is connected to the inlet of the recovery unit.*
2. Follow the instructions provided with the recovery unit for correct recovery of refrigerant from the A/C system.

## Evacuating and Charging a Refrigerant System

1. Connect the blue low-side hose to the A/C system's low-side service port. Connect the red high-side hose to the A/C system's high-side service port.
2. Check the manifold gauge pressure reading to verify the A/C system has been recovered correctly. If not, follow steps under *Recovering Refrigerant*. If it has, connect the center yellow charging hose to a vacuum pump.
3. Open the high- and low-side handwheels. Start the vacuum pump.
4. After evacuating the system according to the manufacturer's specifications, close both the high- and low-side handwheels, and turn off the vacuum pump.
5. Disconnect the yellow hose from the vacuum pump, and connect it to the refrigerant supply tank.
6. Slightly open the refrigerant supply valve. Purge air from the yellow charging hose at the manifold. Close the supply valve.
7. You may now charge the A/C system according to the manufacturer's specifications.
  - **If system specifications call for charging on the high side**, close the manifold's blue low-side handwheel, open the refrigerant supply valve, and open the manifold's red high-side handwheel. After dispensing the correct amount of refrigerant, close the red high-side handwheel, and close the refrigerant supply valve.
  - **If system specifications call for charging on the low side**, close the manifold's red high-side handwheel, open the refrigerant supply valve, and open the manifold's blue low-side handwheel. After dispensing the correct amount of refrigerant, close the blue low-side handwheel, and close the refrigerant supply valve.
8. After the system is charged, close both manifold handwheels. Let the compressor run, and check the manifold's gauge pressure readings to verify the system is operating correctly. If not, adjust the system as necessary. To disconnect the manifold when the system is operating correctly, close both handwheels on the manifold. *Carefully* remove the charging hoses from the system. Charging is now complete.

## Maintenance

To keep the manifold in good operating condition:

- Periodically replace o-rings and valve seats.
- Periodically lubricate o-rings with Robinair No. 13067 High Vacuum Grease.

## Replacement Parts List

559393	Low-side Coupler
559392	High-side Coupler
559391	Blue Hose (134a)
559390	Yellow Hose (134a)
559389	Red Hose (134a)

## Warranty

This manifold is covered by a One-Year Limited Warranty. We guarantee the manifold to be free from defects in material and workmanship under normal use and service for one year from date of sale. See a distributor for details.

# ROBINAIR®