

**WARNING**

This manifold should only be used by experienced professional service technicians in the refrigeration & air-conditioning field who are familiar with equipment being serviced. Safety goggles should be worn at all times. Refrigerant and lubricant vapor or mist may cause injury, frostbite, irritate eyes, nose and throat. Avoid breathing or contact with skin. Always point hose away from you and anybody near or around you. Remove hoses with care as they may be under high refrigerant pressure. Improper procedures can cause refrigerant gas under pressure to explode violently. Read all instructions before starting.

PROP 65 WARNING: This product contains chemicals, including lead, known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after use.

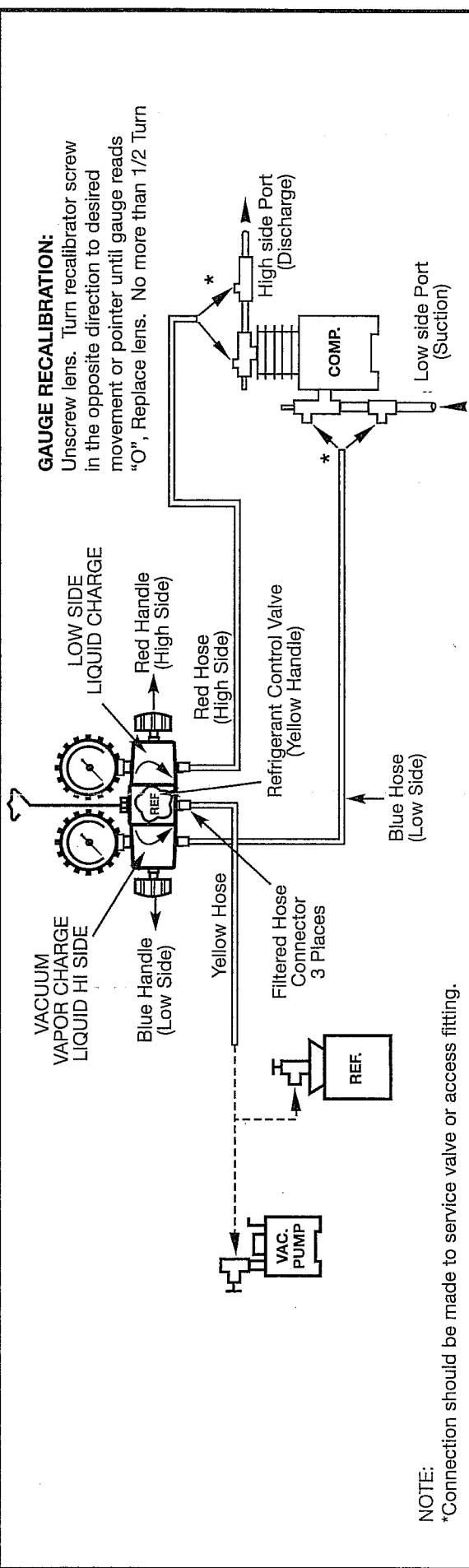
**CAUTION**

Charging liquid into the low side of the system without engaging the internal metering element may slug the compressor and damage the system. Always turn the "REF" valve clockwise, finger tight, to the "LOW SIDE LIQUID CHARGE" position for liquid low side charging. The compressor must be running during this process.

**Imperial**<sup>®</sup>*The international standard of excellence.*<sup>™</sup>**Kwik-Charger<sup>®</sup> Service Manifold Operating Instructions****2-VALVE SYSTEM ANALYZER WITH REFRIGERANT CONTROL VALVE**

The Imperial Kwik-Charger manifold provides a safer, faster method of charging CFC, HCFC, HFC, azeotropic and zeotropic blended refrigerants into the low-pressure or suction side of a refrigerated system. Zeotropic blended refrigerants (R-410A, R-404A, etc.) must be charged as a liquid from the refrigerant cylinder. Great care must be taken to avoid liquid slugging the compressor when charging into the low side of a running system. The Kwik-Charger manifold handles the process of charging liquid refrigerant into the system low-pressure side with ease. Charge all refrigeration & air-conditioning systems according to manufacturers specifications.

To use the Kwik-Charger for liquid low side charging, turn the "REF" valve clockwise, until finger tight, to the "LOW SIDE LIQUID CHARGE" position. This engages an internal metering element that reduces liquid flow to a level below capacity of the compressor assuring a safe fast charge. The compressor must be running. For vapor charging from tank, liquid high side charging or evacuating, turn the "REF" valve counter clockwise, until finger tight, to the "VACUUM, VAPOR, LIQUID HI SIDE" position. In this position, the internal metering device is disengaged, and the Kwik-Charger manifold performs as a conventional manifold.



**GAUGE RECALIBRATION:**

Unscrew lens. Turn recalibrator screw in the opposite direction to desired movement or pointer until gauge reads "0". Replace lens. No more than 1/2 Turn

**OBSERVE OPERATING PRESSURE:**

1. Close red "HI" and blue "LO" side valves, finger tight.
2. Connect blue low side hose to system's low side service port and the red high side hose to the system's high side service port.
3. Once the hoses have been connected, the system pressure will be displayed on the gauge face.

**NOTE: A system that has service valves; the valves should be cracked open after connection. Hoses must be purged.**

**RECOVERING REFRIGERANT:**

1. Turn yellow "REF" valve fully counter clockwise, finger tight, to the "VACUUM, VAPOR, LIQUID, HI SIDE" position.
2. Close the blue "LO" side valve and red "HI" side valves, finger tight.
3. Connect blue low side hose to system's low side service port. Connect red high side hose to the system's high side service port.
4. Follow the instructions provided with the recovery unit for proper recovery of refrigerant from the system.

**NOTE: Typically, the yellow hose is connected to the inlet of the recovery unit.**

**EVACUATE (VACUUM):**

1. Remove all refrigerant from system using a refrigerant recovery system.
2. Turn yellow "REF" valve fully counter clockwise, finger tight, to the "VACUUM, VAPOR, LIQUID HI SIDE" position.
3. Connect blue low side hose to system's low side service port. Connect red high side hose to the system's high side service port.
4. Connect the center hose (yellow) to the vacuum pump.
5. Open red "HI" and blue "LO" side valves.
6. Start vacuum pump.
7. Evacuate system according to manufacturers specifications then close red "HI" side and blue "LO" side valves and turn off vacuum pump.

**CHARGING:**

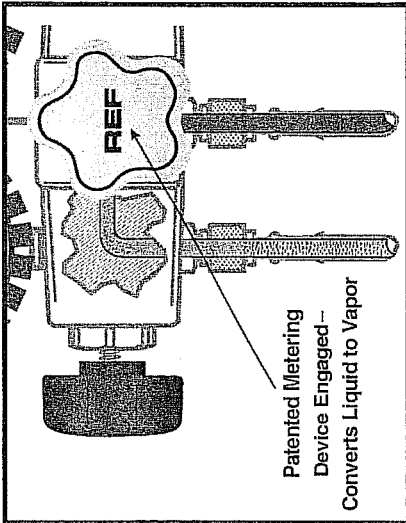
1. Disconnect the yellow hose from vacuum pump and connect to refrigerant tank.

2. Slightly open the refrigerant supply valve on the tank. Purge air from the yellow hose at the manifold by loosening the yellow hose fitting connection. When complete, tighten hose connection and turn off refrigerant supply valve.
3. System can now be charged according to the manufactures specification.

**CHARGING OPTIONS:**

**Liquid High Side Charging:** To draw liquid from tank and charge into system high side. Turn the yellow "REF" valve fully counter clockwise to the "VACUUM, VAPOR, LIQUID HI SIDE" position - finger tight. Close the blue "LO" side valve - finger tight.

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## CHARGING OPTIONS: (continued)

Invert refrigerant tank (some tanks need not be inverted to dispense liquid refrigerant). Open refrigerant tank supply valve and open the manifold red "HI" side valve. After dispensing the proper amount of refrigerant, close the manifold's red "HI" side valve and close refrigerant tank supply valve.

**Liquid Low Side Charging:** To draw liquid from tank and charge into low side. Turn the yellow "REF" valve fully clockwise to the "LOW SIDE LIQUID CHARGE" position finger tight. Close the red "HI" side valve. Invert refrigerant tank (some tanks need not be inverted to dispense liquid refrigerant). The compressor must be running. Open refrigerant tank supply valve and open the manifold's blue "LO" side valve. After dispensing the proper amount of refrigerant, close the manifold's blue "LO" side valve and close refrigerant tank supply valve.

**Vapor Low Side Charging:** When drawing vapor from tank and charging into system low side, turn the yellow "REF" valve fully counter clockwise to the "VACUUM, VAPOR, LIQUID HI SIDE" position, finger tight. Close the red "HI" side valve. Compressor must be running. Open refrigerant tank supply valve and open the manifold blue "LO" side valve. After dispensing the proper amount of refrigerant close the manifolds blue "LO" side valve and close refrigerant tank supply valve.

4. When the system is operating properly, disconnect manifold by closing both "HI & LO" valves - finger tight. Carefully remove the charging hoses from the system.

## REPLACEMENT PARTS LIST

<b>Description:</b>	<b>For</b>	<b>P/N</b>
<b>Seal Kits (2)</b> Spring Mylar Disc Diaphragm Actuator Washer	High & Low Valve	600R
<b>Handles &amp; Stem Kits</b> Handle (LO) Handle (HI) Stem (2) PIN 1000936	High & Low Valve	602R
<b>Control Valve Kit</b> Handle (REF) Stem Assy (Stem/Tip/o-ring) Bonnet Bonnet o-ring	Ref. Control Valve	700CV
<b>*Filter Connector</b>	1/4 SAE 5/16 SAE	S10000800 S16003754
<b>Boot Set</b> Red Blue		400RB

\*All port fittings equipped with 120 mesh filters. Filter connection may be cleaned and rinsed in 91% alcohol with o-ring removed.