

For Repair Parts, call 1-800-323-0620
24 hours a day - 365 days a year

Please provide following information:
 -Model number
 -Serial number (if any)
 -Part description and number as shown in parts list

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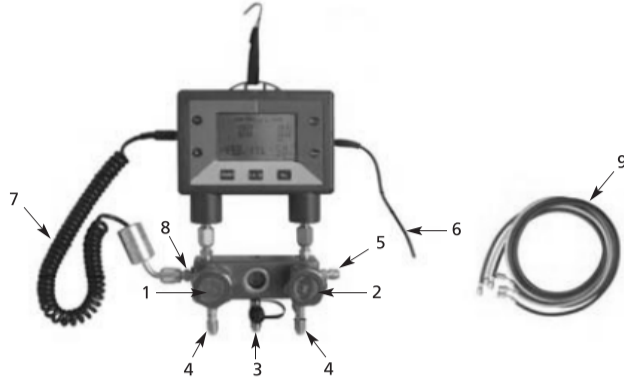


Figure 4 - Repair Parts Illustration for Multi-function Digital Manifold Gauge Set

Repair Parts List for Multi-function Digital Manifold Gauge Set

Ref. No.	Description	Ref. No.	Qty.	Ref. No.	Description	Ref. No.	Qty.
1	Low Pressure Side Knob	HV521905G	1	6	Temp Sensor System	HV521917G	1
2	High Pressure Side Knob	HV521904G	1	7	Vacuum Testing System	HV521921G	1
3	Tee Port w/Core Valve	HV521906G	1	8	Vacuum Port	HV521922G	1
4	Port w/o Core Valve	HVTPORTG	2	9	Charging Hose Set	4PDG4	1
5	Blind Union	HV521907G	1	△	O-Ring Set	HV821810DG	1

(△) Not Shown.

Manufactured for Dayton Electric Mfg. Co., 100 Grainger Parkway, Lake Forest, Illinois, 60045 U.S.A



Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Dayton® Multi-function Digital Manifold Gauge Set

Description

Dayton Multi-function Digital Manifold Gauge Set features an easy to read digital display for 56 different refrigerant types and a variety of temperature and pressure units. The gauges are pulsation proof and automatically calibrate to zero at start up at any elevation up to 16,000 feet. It can accurately measure the refrigerant temperature and pressure near the outlet of the evaporator and condenser as well as the corresponding pressure conversion and temperature index of the refrigerant saturation. The unit includes 3 high pressure, color coded 72" hoses and has 2 valves.

Unpacking

Handle with care. Inspect for shipping damage. If found, file a claim with the carrier.

Specifications

Applied Refrigerants ...All CFC, HCFC, HFC refrigerants total more than 68 types

Unit Measurements:

Pressure.....kg/cm², in.Hg, mmHg, bar, psi, kPa

Vacuumkg/cm², in.Hg, mmHg, bar, psi, kPa, Micron

Temperature°C, °F

Display Range:

High Side..... 0 psi to 725 psi (0 kPa to 5000 kPa)

Low Side.....0 psi to 435 psi (0 kPa to 3000 kPa)

Vacuum 29.92 in.Hg to 0 in.Hg (-40°F to 203°F (-40°C to 95°C))

Maximum Overpressure:

High Side.....1087.5 psi (7500 kPa)

Low Side 625.5 psi (4500 kPa)

Vacuum59.84 in.Hg

Tolerance:

Pressure High Side...±2.175 psi (±15kPa)

Pressure Low Side ... ±1.45 psi (±10kPa)

Vacuum..... ±0.08859 in.Hg (±0.3kPa)

Temperature.....±0.5°C

Power Supply.....9 V Battery for 30 hrs. LCD flashes to indicate low battery

Auto Shut-off Time.....30 min. Under no operation (Extended 30 min. by any button touch except On/Off Button)

Background Lamp Auto Shut-off Time.....10 min.

Operating Temperature.....10.4°F to 120.2°F (-12°F to 49°F)

NOTE: Pressure or temperatures below or above the rated ranges will cause a "FULL" to be displayed.

General Safety Information

CAUTION Wear goggles and gloves when working with refrigerants. Contact with refrigerants may cause injury.

WARNING Incorrect use or connections may cause leaks or explosions. Read and follow the instructions carefully and take precautions to avoid leaks or explosions. Confirm that all associated devices are grounded correctly before use.

WARNING Do not exceed 80% of claimed range when using manifold.

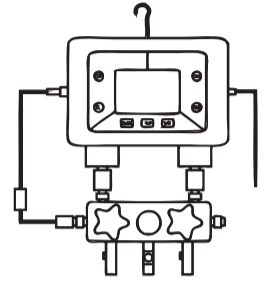


Figure 1

WARNING This manifold gauge set is designed for use by technically trained refrigeration and air conditioning service technicians. Due to the unusually HIGH PRESSURE AND HAZARDOUS GASES IN ALL SYSTEMS, misapplication could result in injury or death. Dayton® Mfg. warns against the sale to or use of this product by any other than professionally trained personnel.

IMPORTANT: Please read the operating instructions before putting new equipment into operation.

NOTE: Check equipment manufacturer's catalog or instruction sheet for specific recommendations on refrigerant charge, oil change and service procedures for any particular piece of equipment.

DATA DISPLAY CHOICES:

1. To choose pressure and the pressure units (Bar, Psi, kg/cm²) use the PRESS button. The unit displays the pressure of both the High and Low sides.

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Form 5S6433

Printed in China
 09663
 Version 1

YLB100
 02/13



Dayton® Multi-function Digital Manifold Gauge Set

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General Safety Information (Continued)

- To choose refrigerant type use the R+, R- buttons.
- To choose the temperature reading (°C/°F) press the TEMP button. The unit provides the ambient temperature as well as the air conditioning outlet temperature.
- The unit allows you to pre-set 63 types of refrigerant. The display shows the last five types of refrigerant used.

Operation

The schematic (Figure 2) shows the gauge and manifold installation on an external drive compressor with service valves.

- A - Manifold Suction Valve
- B - Manifold Discharge Valve
- C - Compressor Discharge Service Valve (DSV)
- D - Compressor Suction Service Valve (SSV)
- E - Service Opening

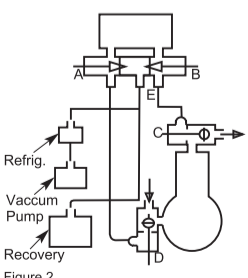
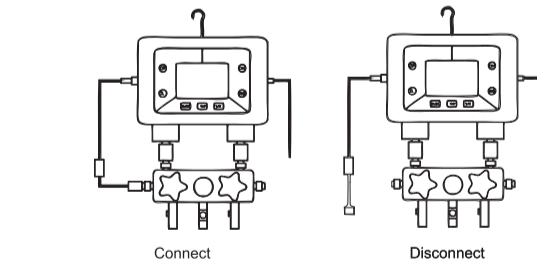


Figure 2

VARIOUS SERVICE AND TESTING OPERATIONS

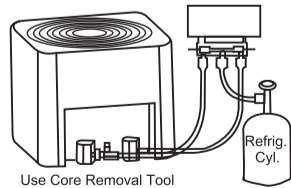
- (See Figures 3a and 3b)
 - Vacuum and Leakage Test:
 - Connect vacuum testing system
 - Attach the seal interface to the left side of the valve body, make sure that there is no pressure in the system (see Figure 3a below).



Figures 3a and 3b

- Push the VAC button
- Choose vacuum pressure units by pushing PRESS button
- System will start vacuum testing, then leakage testing
- When vacuum testing is complete, disconnect the system to prevent damage to the vacuum sensor (see Figure 3b below).

- Observe Operating Pressures:
 - Close valve A (turn all the way in)
 - Close valve B (turn all the way in)
 - Crack open back seat of valve C
 - Crack open back seat of valve D
- Charge Refrigerant in System:
 - Connect refrigerant cylinder to E (vapor only)
 - Open valve A
 - Close valve B
 - Close front seat of valve D (slowly)
- Purge Condenser:
 - Close valve A
 - Open valve B
 - Crack open valve C



Use Core Removal Tool

Model 4PDF6A

Operation(Continued)

- Charge Liquid Refrigerant into High side:
 - Connect refrigerant cylinder to E (liquid side)
 - Close valve A
 - Open valve B
 - Mid-position valve C
 - Mid-position valve D

8. Build Pressure in Low Side for Control Setting or Leak Testing:

- Connect oil supply to hose on center port E
 - Open valve A
 - Close valve B
 - Turn valve D all the way in
- 7. Pull Vacuum:**
- Connect vacuum pump to hose on center port E
 - Use Schrader core tools to remove cores for faster vacuum
 - Open valve A
 - Open valve B
 - Mid-position valve C
 - Mid-position valve D

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DAYTON ONE-YEAR LIMITED WARRANTY: DAYTON® MULTI-FUNCTION DIGITAL MANIFOLD GAUGE SET, MODELS COVERED IN THIS MANUAL ARE WARRANTED BY DAYTON ELECTRIC MFG. CO. (DAYTON) TO THE ORIGINAL USER AGAINST DEFECTS IN WORKMANSHIP OR MATERIALS UNDER NORMAL USE FOR ONE YEAR AFTER DATE OF PURCHASE. ANY PART WHICH IS DETERMINED TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP AND RETURNED TO AN AUTHORIZED SERVICE LOCATION, AS DAYTON DESIGNATES, SHIPPING COSTS PREPAID, WILL BE, AS THE EXCLUSIVE REMEDY, REPAIRED OR REPLACED AT DAYTON'S OPTION, FOR LIMITED WARRANTY CLAIM PROCEDURES, SEE "PROMPT DISPOSITION" BELOW. THIS LIMITED WARRANTY GIVES PURCHASERS SPECIFIC LEGAL RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION.

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