

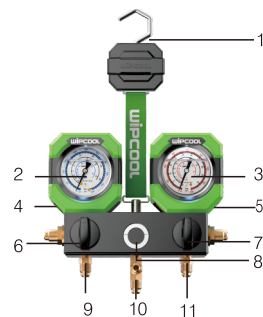


1. Notice for Use

- Thank you for buying WIPCOOL MASTER Series Manifold gauges, we are dedicated to providing you with high quality products.
- Please check if your ordered product is in good shipment condition, with the correct accessories, any damage during transportation, please contact us or the local distributors in time if you find any problems.
- This manual gives instructions on the correct operation, it's important that you follow this instructions carefully.
- If there is any change of the product (including the specification), we won't inform any more.

2. Product Introduction

MG-2K

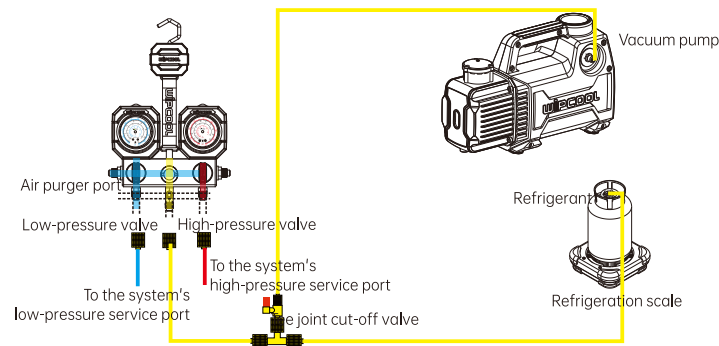


NO.	Part	NO.	Part
1	Hook	7	High-pressure handle
2	Low-pressure compound gauge	8	Sight glass
3	High-pressure compound gauge	9	Low-pressure hose fitting
4	Solar pannel	10	Connecting port
5	LED button	11	High-pressure hose fitting
6	Low-pressure handle		

Technic Data

Model	MG-2K
Refrigerants	R22,R410A,R32
Gauge diameter	Ø50
Working pressure	-30inHg-500PSI -30inHg-800PSI
Accessories	3x1.5m hoses, 1/4"-1/4" (Y) 1/4"-5/16"(R) 1/4"-5/16"(B) 2xAdapter(5/16"-1/4")

3. Instructions for use



Before connection, it should check if the pressure gauges indicate zero. If not, please use the calibration needle to make the gauge release the air.

1. Pressure testing
 - 1.1 Close both valves.
 - 1.2 Connect blue hose to the system's low-pressure service port, connect red hose to the system's high-pressure service port
 - 1.3 Running the system, read the testing pressure indicated on manifold gauges.
 - 1.4 After testing, turn off the system. Then disconnect the hoses from the system and open all valves, make sure not vent refrigerant into the atmosphere.
 - 1.5 In order to prevent venting the refrigerant into the atmosphere, you can use a recovery machine to recover any refrigerant remained in the hoses or manifold gauges.

2. Evacuation of a system

- 2.1 Connect blue hose to the system's low-pressure service port, connect red hose to the system's high-pressure service port, and connect yellow hose to vacuum pump.
- 2.2 Open both valves.
- 2.3 Turn on the vacuum pump.
- 2.4 Check pressure on low pressure gauge for 3 to 5 minutes, if desired vacuum reached, close valves, then turn off the vacuum pump.
- 2.5 Observe the pressure on the low-pressure gauge, if the pointer sticks to -30 inHG for 3 to 5 minutes, it means the system evacuation is completed. If not, repeat the steps from 2.2 to 2.4.

3. Charging of a system after evacuation
 - 3.1 Keep valve closed, disconnect the yellow hose from the vacuum pump and connect this hose to a refrigerant cylinder
 - 3.2 Open valve on the refrigerant cylinder.
 - 3.3 Open the manifold valves. The system is now being charged with refrigerant.

Check the correct quantity of refrigerant with a charging scale, and observe the pressure on the gauge the refrigerant flow is too slow or insufficient, the system compressor can be turned on to speed up the process.

 - 3.4 If the correct charging quantity has been reached, close valves.

4. Confirm Charging Effect

- Start the system operation first.
- After a certain time (about 5-10 minutes), check system if both low pressure and high pressure are in normal condition.
- If the system pressure is insufficient, it should slowly open the low pressure valve (must not open the high pressure valve at the moment). After a proper quantity of refrigerant (refrigerant cylinder in its normal upright position) is supplemented, close the low pressure valve and check the system again.
- If the system pressure is too high, it should close the refrigerant cylinder. Slowly open the high pressure valve. After a proper quantity of refrigerant is purged from the valve inside of the gauge set (Caution! Protect persons from the ejective refrigerant.), close the high pressure valve and check the system again.
- Repeat above mentioned operation till the system is in normal condition.

4. Maintenance and Safety Instructions

5.1. Wear protective clothing, a helmet, protective glasses, gloves, safety shoes when handling refrigerants to avoid contact with refrigerants, which could possibly blind and injure the operator.

5.2. Do not forget to check if the charging hose is equipped with a hose gasket. Be very careful not to get frozen by refrigerants.

5.3. Never overexert your force to open or close the valves, otherwise the sealing element might be damaged.

5.4. Never misuse the high pressure and low pressure. Never open both high pressure valve and low pressure valve together during the refill operation.

5.5. Never use the refrigerants not in compliance with the indication on the gauge set.

5.6. Never let the sight glass aim at any person to avoid any accident.

5.7. The pressure gauges are wear parts and they need periodical calibration. For a good accuracy, normally it should delivery the gauges to the authority for calibration every 3-6 months.

5.8. Always use them carefully and protect them from vibration or careless falling. The valves should be released and keep the instrument well in storage after using.

Warranty

1. This product is to be repaired free of charge if a failure occurs despite proper use during the period of warranty.

2. This warranty is valid for 1 year starting from the date of purchase.

3. In any of the following cases, this product is to be excluded from free free-of-charge repair.

- 1) Failures incurred by improper use.
- 2) Failures due to handling and storage beyond its specific actions.
- 3) Failures due to modifications or repairs not done by the manufacturer or its entrusted technicians.
- 4) Failures due to consumable components.
- 5) Other failures not deemed to be the manufacturer's responsibilities.

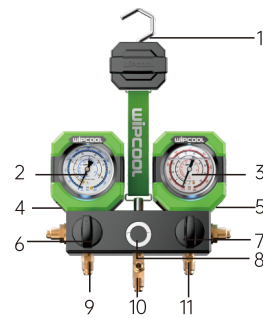
一、使用须知

■ 尊敬的用户,感谢您对本公司的信赖与支持,欢迎您使用维朋公司匠心系列冷媒表,我们将竭诚为您提供优质的产品。

■ 请您仔细检查收到的产品是否与订购产品一致,备附件、使用说明等是否齐全,运输过程中是否有损坏,如果发现上述情形请及时本公司或当地经销商联系。

■ 在使用本产品前,请您务必仔细阅读此说明书,按产品操作规程进行操作。产品(包括说明书)以后若有任何改动,请恕不另行通知。

二、产品简介

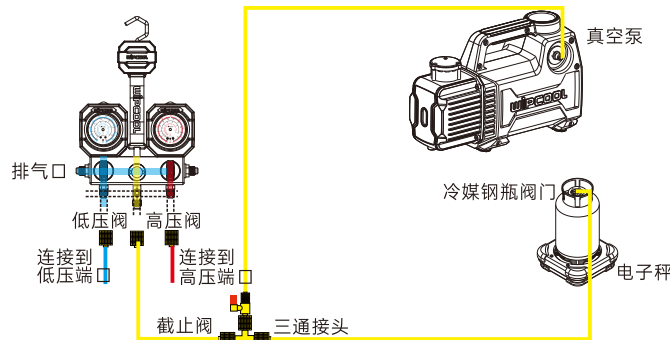


序号	部件	序号	部件
1	挂钩	7	高压阀门
2	低压表	8	视液镜
3	高压表	9	低压接口
4	太阳能面板	10	真空或制冷剂接口
5	LED按钮	11	高压接口
6	低压阀门		

技术参数表

型号	MG-2K
使用冷媒	R22,R410A,R32
表外型尺寸	Ø50
压力范围	-30inHg-500PSI -30inHg-800PSI
附件	3×1.5m冷媒管, 1/4"-1/4"(黄) 1/4"-5/16"(红) 1/4"-5/16"(蓝) 2x转接头(5/16"-1/4")

三、使用说明



在与系统连接之前,请查看压力表的指针是否在零位,如若没有,请使用校准针,通过顶部进行放气,校准至零位即可。

压力测试

在冷媒系统诊断过程中,经常需要将表组与系统连接以测试系统压力。在使用表组前,先用冷媒气体将表组和软管中的空气排出,再将表组与系统连接。

- 1、关闭高、低压阀;
- 2、连接蓝色管到低压测试端口,红色管到高压测试端口,黄管不用;
- 3、运转系统,读取测试压力数据;
- 4、比较测试数据与产品制造商技术参数;
- 5、测试完毕停止系统运转;
- 6、拆除软管连接,确信软管及表组中的残余冷媒不会释放到大气中;
- 7、为了防止残余冷媒释放到大气中,可用回收机回收软管及表组中的冷媒;
- 8、使用完毕后,将表组及软管放入工具箱内,以防止异物进入表组及软管。

抽真空

- 1、连接蓝色管到系统低压端口,红色管到系统高压端口,黄色管到真空泵吸气口;
- 2、打开高、低压阀门;
- 3、启动真空泵对系统抽真空;
- 4、抽真空完毕先关闭高、低压阀门再关闭真空泵;
- 5、观察低压表真空段5到10分钟,如表针始终指向"-30 inHg"不动,则系统维持真空成功无泄漏,否则重复第2到5步重新抽真空;

冷媒加注

- 1、抽真空结束后,将黄色管从真空泵拆下,连接到开瓶阀(开瓶阀与听装冷媒连接)或冷媒钢瓶;
 - 2、慢慢开启冷媒钢瓶阀门,打开表组T型接头上的气门芯(注意安全,用冷媒气体排出黄色软管及表组中的空气后,完全打开冷媒阀门);
 - 3、开启表组低/高压阀,加注到规定数量后,关闭低/高压阀;
 - 4、若冷媒加注不足,则开动压缩机或发动机(对于汽车用R134a冷媒),随着机器运转,打开低侧阀门,让制冷剂从低侧吸入压缩机内。
- 如果加注速度慢,可以启动电热毯,以持钢瓶中的压力稍高于系统内的压力;
- 5、加注完成后,检查每个压力表是否正正确指向系统制造商手册建议的压力值,如果是,则停止系统运转。
 - 6、拆除软管连接,确保软管及表组中残余冷媒不会释放到大气中;

四、注意事项

请按操作指南的要求或专业人员的指导下操作;
本产品内置太阳能电池,请经常将表组置于光源之下;
开关阀门时不可用力过猛,以防损坏密封件;
严禁高低压错用或在加注时开动压缩机将高低压阀门同时打开;
严禁使用与表组标示不相符的冷媒;
使用时表组的视液镜不要对准人群,以防发生意外;
压力表属易损件,应定期校验,一般(3~6个月)送计量部门校验,以确保其精度;
使用时应轻拿轻放、防震防摔;
使用完后应松开阀门,妥善保管。

五、质保说明

由于厂家制造疏忽引起产品本身的质量问题,自购买之日(凭发票)或出厂之日(无发票)起1个月内免费调换、3个月内免费保修、终身有偿检修。

下列情况除外:

- 擅自拆卸或修理引起损坏的;
- 使用不当(如:高低压错用;误用不同冷媒;任意丢弃跌落等)
- 不可抗力因素引起损坏的。

操作双表阀,请配戴防护目镜和防护手套!

制冷剂不可直接接触,否则会导致眼睛、皮肤等器官的严重伤害!

使用三色管,需谨慎操作;管内可能存在残留制冷介质,管口严禁正对人体!
双表阀均有维朋WIPCOOL标识,请予识别,谨防假冒!



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