

Air Conditioner

Important Points for Air Conditioner Installation

1. Correct Gas

1. Refrigerant Top-Up

- Make sure to add refrigerant according to the actual installation conditions, taking into account the number of indoor units and the length of the liquid line. There are three scenarios:
 1. If you have **up to two** indoor units, calculate based on liquid line length only.
 2. If you have **exactly three** indoor units, calculate based on liquid line length **plus** an extra 0.3 kg.
 3. If you have **four or more** indoor units, calculate based on liquid line length **plus** an extra 0.6 kg.
- For exact formulas, please refer to the manual.

1. 关于冷媒增加：务必根据实际安装场景，适量增添加注冷媒。
冷媒增添加的计算影响因素为：安装内机的数量和安装使用的液管长度。有三种计算场景：
 1. 安装内机数量小于或等于两台，只要计算液管长度，来增加冷媒；
 2. 安装内机数量等于3台，需要计算液管长度，再另外多加0.3kg，来增加冷媒；
 3. 安装内机数量大于或等于4台，需要计算液管长度，再另外多加0.6kg，来增加冷媒。具体计算方式要求请参考说明书要求。

Gas Calculation Example

Calculation example

Take 16kW model as example:

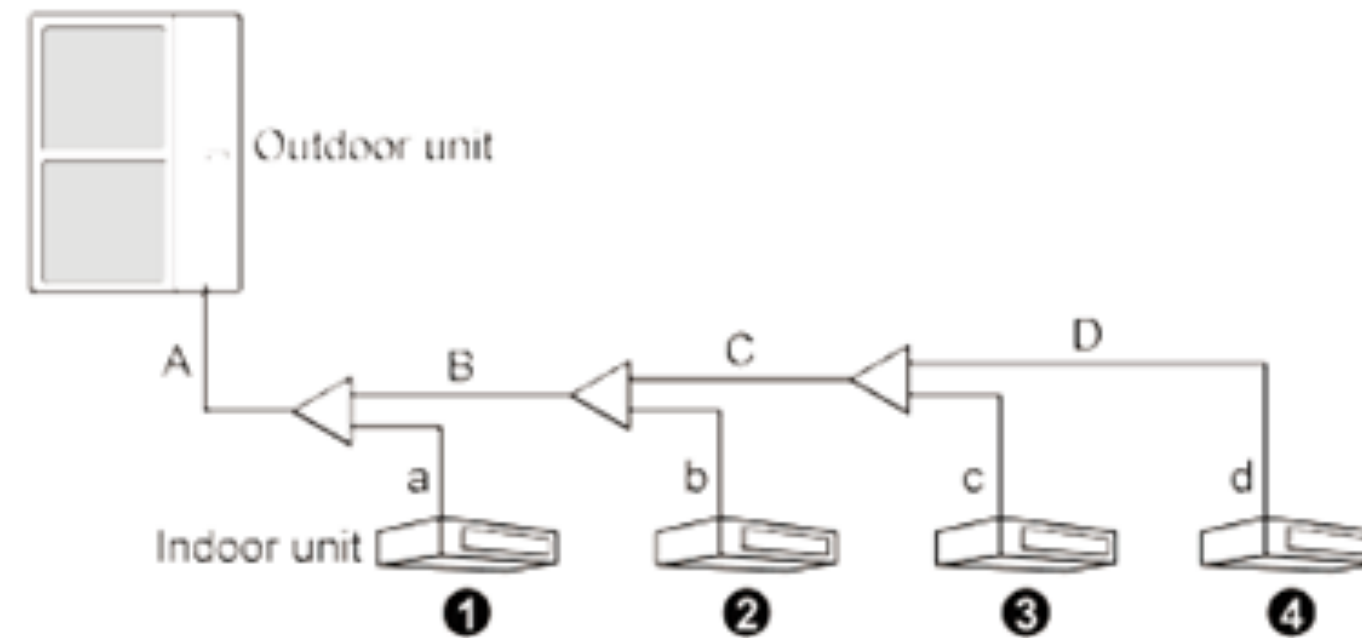


Fig. 19

IDU:

No.	IDU①	IDU②	IDU③	IDU④
Capacity	7.1kW	5.0kW	3.6kW	2.5kW

Liquid pipe:

No.	A	B	C	D
Pipe diameter (mm)	Φ9.52	Φ9.52	Φ9.52	Φ6.35
Length (m)	15	8	7	5
No.	a	b	c	d
Pipe diameter (mm)	Φ9.52	Φ6.35	Φ6.35	Φ6.35
Length (m)	3	3	2	1

Total length of liquid pipes:

Φ9.52: $A+B+C+a=15+8+7+3=33\text{m}$

Φ6.35: $D+b+c+d=5+3+2+1=11\text{m}$

Therefore, additional refrigerant charge $=33 \times 0.054 + 11 \times 0.022 + 0.6 = 2.624\text{kg}$


≤ 2 indoor units.

Additional Refrigerant Charging				
pipeline additional refrigerant charge (A)	liquid Pipe diameter (mm)	additional refrigerant charge per meter of the liquid pipe(kg/m)	liquid pipe length	add up the total
	Φ6.35(1/4)	0.022	x	=0.022*x
	Φ9.52(3/8)	0.054	y	=0.054*y
outdoor unit additional refrigerant charge (B)	/			
Additional refrigerant charge(A+B) Kg				↑ Add All

≤ 3 indoor units.

Additional Refrigerant Charging				
pipeline additional refrigerant charge (A)	liquid Pipe diameter (mm)	additional refrigerant charge per meter of the liquid pipe(kg/m)	liquid pipe length	add up the total
	Φ6.35(1/4)	0.022	x	=0.022*x
	Φ9.52(3/8)	0.054	y	=0.054*y
outdoor unit additional refrigerant charge (B)	/			0.3 ↑
Additional refrigerant charge(A+B) Kg				Add all 0.3

>= 4 indoor units.

Additional Refrigerant Charging				
pipeline additional refrigerant charge (A)	liquid Pipe diameter (mm)	additional refrigerant charge per meter of the liquid pipe(kg/m)	liquid pipe length	add up the total
	Φ6.35(1/4)	0.022	x	=0.022*x
	Φ9.52(3/8)	0.054	y	=0.054*y
outdoor unit additional refrigerant charge (B)	/			0.6 
Additional refrigerant charge(A+B) Kg				Add All 0.6

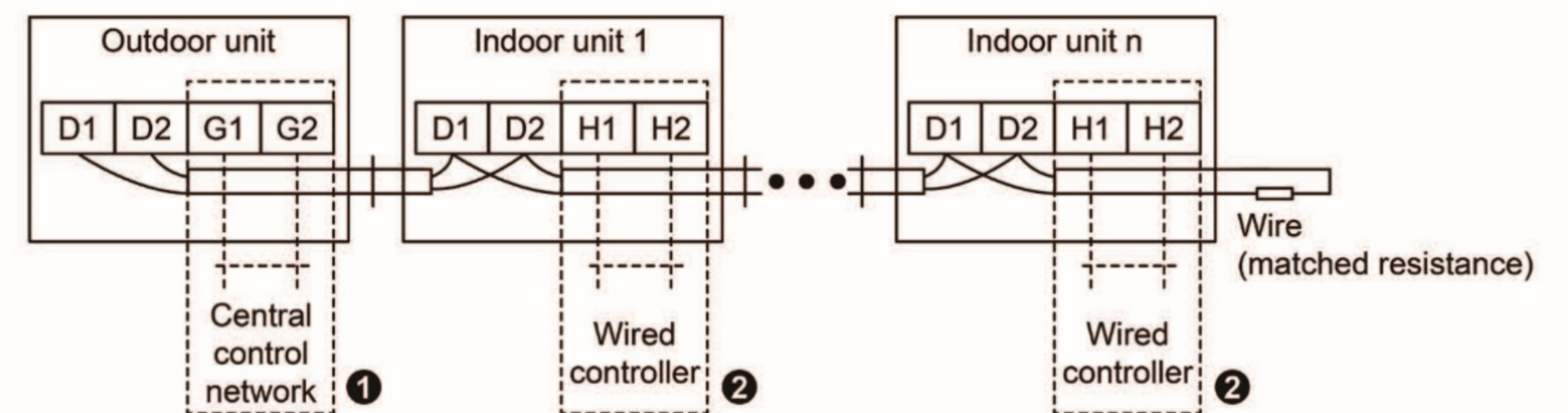
2. Correct Communication Cable Connection

2. Indoor-Outdoor Unit Communication Lines

1. In areas with heavy electromagnetic interference, use **shielded cables** for communication lines between indoor units and indoor units, also between indoor and outdoor units.
2. The last indoor unit in the chain **must** be connected with the matching resistor provided, as specified.
3. Communication wiring between indoor units (and to the outdoor unit) **must be in series**, not in parallel. Refer to the diagram for details.

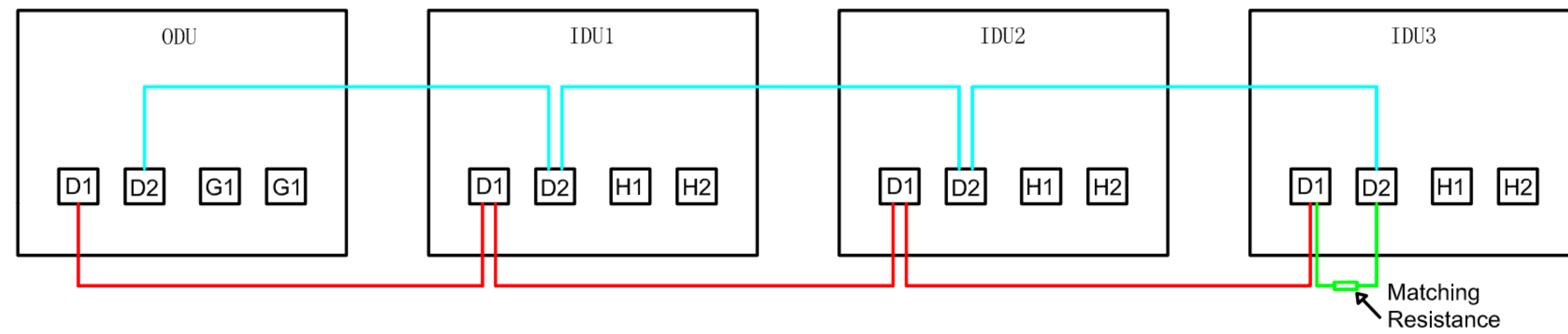
二. 关于空调内外机通讯线要求

1. 若空调机组安装在强电磁干扰的地方，内机与内机（外机）通讯线必须使用带屏蔽线材。
2. 最后一台内机必须要按要求连接配套的匹配电阻。
3. 内机与内机（外机）之间，必须采用串接的方式，不可并接，见下图。

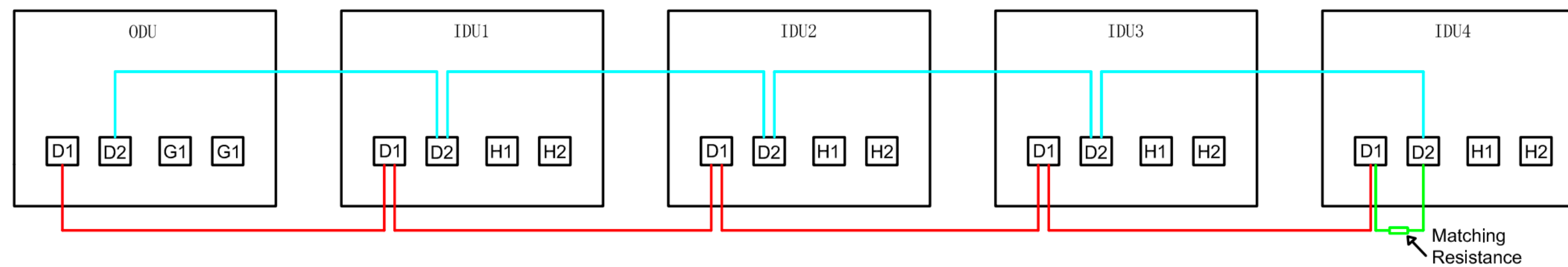


- Note: (1) For outdoor units equipped with the function of central control, connect wires according to drawing ①. For indoor units with the function of wired control, connect wires according to drawing ②.
- (2) n represents the maximum number of connectable indoor units, which is determined by the capacity of the outdoor unit. For details, please refer to the capacity configuration instructions of the unit.

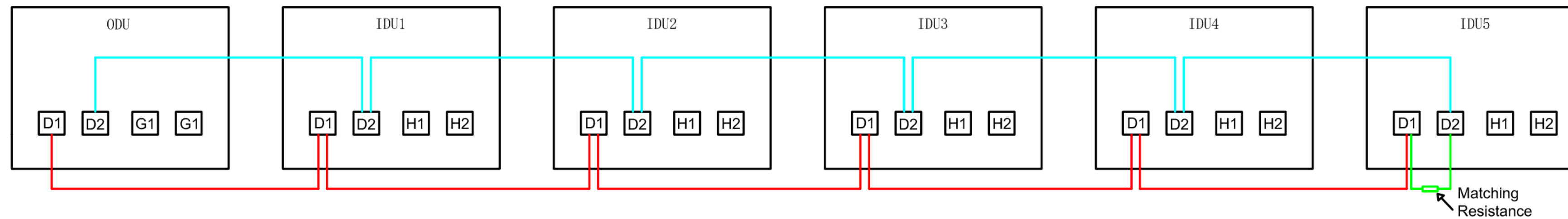
Air Conditioner Signal Line Connection (Serial Wiring)



1 outdoor unit connected to 3 indoor units



1 outdoor unit connected to 4 indoor units



1 outdoor unit connected to 5 indoor units

3. Correction Debugging Test

3. Adjustment

- If the system runs for **50 minutes** without showing any error, it's considered normal.
- To skip Adjustment mode, press and hold **SW2 + SW3** together for at least 5 seconds.

三. 关于调试状态。

在调试过程中，如果系统运行了50分钟而未出现错误，则判定系统正常。如需跳过调试模式，请同时按SW2+SW3键5秒以上。

Error Codes of Multi-Split Air Conditioner **Indoor Units (IDU)**: Issues and Solutions

Error Codes of Multi-Split Air Conditioner **Indoor Units (IDU)**: Issues and Solutions

Fault Codes of Multi-Split Air Conditioner Outdoor Units (ODU): Issues and Solutions			
序号 No.	错误代码 Error Code	代码对应的问题 Issues Corresponding to Error Codes	解决方式 Solution
1	L0	Malfunction of IDU (uniform)	<p>1.检查电源插座：首先确认室内机的电源插座是否有电，以及插座和插头是否存在接触不良的现象；2.检查电压稳定性：如果电源没有问题，可能是电源电压过低或不稳定导致的低压保护。此时需要向电力公司报修电网稳定性问题；3.联系售后服务：如果电源电压正常，可能是空调内部电路出现了问题，建议联系空调的售后服务进行检修。</p>
2	L1	Protection of indoor fan	<p>检查室内机转速是否过低或停转，必要时更换电机或主板。</p>
3	L2	Auxiliary heating protection	<p>1.检查温度传感器是否损坏或连接不良，必要时更换传感器。2.系统电路异常：检查电路连接是否正常，确保所有连接牢固无误。3.检查控制器是否正常工作，必要时更换控制器。4.联系售后服务。</p>
4	L3	Water-full protection	<p>检测室内机浮子开关状态，当水位过高，浮子开关触发，发生水满保护。</p>
5	L4	Abnormal power supply for wired controller	<p>1.检查室内机给线控器供电电源异常；2.检查线控器两根供电电源线H1和H2是否接触不良；3.线控器两根供电电源线H1和H2短路</p>
6	L5	Freeze prevention protection	<p>1.检查过滤网和蒸发器：清理或更换过滤网和蒸发器，确保空气流通畅通；2.检查电机：检查电机是否堵塞或故障，必要时进行维修或更换；3.检查冷媒系统：检查冷媒系统是否有泄露，及时修复并补充冷媒；4.调整环境温度：在极端低温环境下，可以采取保温措施，避免系统触发防冻结保护。</p>
7	L6	Mode shock	<p>1.检查温度传感器和压力传感器：使用工具检查传感器是否正常工作，必要时进行更换；2.检查系统电路：使用万用表检测电路是否有异常，及时维修或更换有问题的部件；3.检查控制器：如果控制器出现故障，需要更换控制器；4.检查压缩机：如果压缩机出现故障，需要及时更换。</p>
8	L7	No main IDU	<p>1.检查电源和连接：确保所有内机和外机的电源都已正确连接，并且没有断电或接触不良的情况；2.重新调试：按照说明书中的步骤重新进行系统调试，确保主内机被正确识别和设置；3.检查控制器：如果控制器出现故障，可能需要更换或修复控制器；4.联系专业维修人员：如果以上步骤无法解决问题，建议联系专业的空调维修人员进行检修</p>
9	L8	Power supply is insufficient	<p>检查电源电压是否稳定，确保电源线连接牢固，必要时更换电源线或电源插头</p>

Fault Codes of Multi-Split Air Conditioner Outdoor Units (ODU): Issues and Solutions

序号No.	错误代码 Error Code	代码对应的问题 Issues Corresponding to Error Codes	解决方式	Solution
10	L9	1-to-more: number of IDU is inconsistent	1.检查控制器与室内机的对应关系：确保每个控制器控制的室内机数量不超过其最大承载能力；2.重新设置系统：在多联机系统的设置菜单中，检查并更新控制器与室内机的对应关系，确保一致； 联系专业维修人员：如果自己无法解决问题，建议联系专业的空调维修人员进行检查和维修。	1. Check the correspondence between the controller and the indoor unit：Make sure that the number of indoor units controlled by each controller does not exceed its maximum carrying capacity; 2. Reset the system: In the setting menu of the multi-split system, check and update the correspondence between the controller and the indoor unit to ensure consistency; Contact professional maintenance personnel: If you cannot solve the problem yourself, it is recommended to contact professional air conditioning maintenance personnel for inspection and repair.
11	LA	t1-to-more: IDU series is inconsistent	表明在多联机系统中，被控制的多个室内机之间存在系列不一致的问题，针对此故障，建议联系格力空调的专业服务人员，他们可以上门检测并处理具体问题。	This indicates that in the multi-split system, there is a series inconsistency problem between the multiple indoor units being controlled. For this fault, it is recommended to contact Gree Air Conditioning's professional service personnel, who can come to your home to detect and handle specific problems.
12	LH	Alarm due to bad air quality (Fresh air unit)	1.清洁或更换空气过滤器：定期清洁或更换空气过滤器，确保空气流通畅通；2. 检查和维护空气质量传感器：检查空气质量传感器是否损坏或失效，必要时进行更换；3. 改善室内环境：保持室内清洁，减少烟雾和尘埃的积累，确保良好的通风。	1. Clean or replace the air filter：Clean or replace the air filter regularly to ensure smooth air circulation; 2. Checking and maintaining air quality sensors：Check if the air quality sensor is damaged or failed, and replace it if necessary; 3. Improve the indoor environment：Keep the room clean, reduce the accumulation of smoke and dust, and ensure good ventilation.
13	LC	IDU is not matching with outdoor unit	1.更换内外机：如果已经购买了不匹配的空调内外机，最好的解决方法就是将其更换为匹配的内外机；2.更换控制板：某些情况下，内外机不匹配可能是由于控制板的问题。如果这是原因，可以尝试更换控制板。	1. Replace the indoor and outdoor units: If you have purchased mismatched indoor and outdoor units of the air conditioner, the best solution is to replace them with matching indoor and outdoor units; 2. Replace the control board: In some cases, the mismatch between the indoor and outdoor units may be due to a problem with the control board. If this is the reason, you can try replacing the control board.
14	d1	Indoor PCB is poor	检查电路或者更换主控板	Check the circuit or replace the main control board
15	d3	Malfunction of ambient temperature sensor	1. 检查传感器连接：确保传感器连接良好，没有松动或脱落；2. 更换传感器：如果连接正常，可能是传感器本身损坏，需要更换新的环境温度传感器；3.重启系统：在更换或修复传感器后，重启空调系统，检查是否还会出现D3故障代码。	1. Check sensor connections：Make sure the sensor is well connected and not loose or falling off; 2. Replace the sensor：If the connection is normal, the sensor itself may be damaged and a new ambient temperature sensor needs to be replaced; 3. Restart the system：After replacing or repairing the sensor, restart the air conditioning system and check whether the D3 fault code will
16	d4	Malfunction of entry-tube temperature sensor	1. 检查冷媒量：确保冷媒充足，无泄露情况；2.检查电压：确保电压稳定，必要时进行电压调整；3.检查主板和显示板：如有损坏或故障，需进行维修或更换；4.检查连接线：确保连接线无松动或损坏，必要时进行更换；5.检查电源插头：确保电源插头接触良好，必要时进行维修或更换；6.检查低压保护开关：确保低压保护开关正常工作，必要时进行维修或更换；7.重新设定制冷状态：确保控制器设定正确，温度设置合理；8.重新设定制冷状态：确保控制器设定正确，温度设置合理。	1. Check the refrigerant quantity 1. Make sure there is enough refrigerant and no leakage; 2. Check the voltage：Ensure the voltage is stable and adjust the voltage if necessary; 3. Check the main board and display board：If there is any damage or failure, repair or replacement is required; 4. Check the connection line：Make sure the connecting wire is not loose or damaged, and replace it if necessary; 5. Check the power plug：Make sure the power plug is in good contact and repair or replace it if necessary; 6. Check the low voltage protection switch：Ensure that the low-pressure protection switch is working properly, and repair or replace it if necessary; 7. Reset the cooling state：Make sure the controller is set correctly and the temperature is set reasonably; 8. Reset the cooling state Make sure the controller is set correctly and the temperature is set reasonably.
17	d5	Malfunction of middle temperature sensor	1. 更换或修复传感器：检查传感器是否损坏或老化，如果是，需要及时更换或修复。确保选择与原设备相匹配的传感器型号和规格；2. 调整安装位置：检查传感器的安装位置是否正确，确保其能够准确感知室内温度。同时检查与室内机的连接是否良好，如有需要可以重新接线或更换连接器；3.检查通信线路：确保传感器与控制面板之间的通信线路畅通，如有需要可以更换或修复线路。同时检查控制面板是否故障，如有需要可以更换控制面板	1. Replace or repair the sensor：Check whether the sensor is damaged or aged. If so, it needs to be replaced or repaired in time. Make sure to choose a sensor model and specification that matches the original equipment; 2. Adjust the installation position：Check whether the sensor is installed in the correct position to ensure that it can accurately sense the indoor temperature. Also check whether the connection with the indoor unit is good. If necessary, rewire or replace the connector; 3. Check the communication line：Make sure the communication line between the sensor and the control panel is open. If necessary, replace or repair the line. Also check if the control panel is faulty. If necessary, replace the control panel.

Fault Codes of Multi-Split Air Conditioner Outdoor Units (ODU): Issues and Solutions

序号No.	错误代码 Error Code	代码对应的问题 Issues Corresponding to Error Codes	解决方式	Solution
18	d6	Malfunction of exit-tube temperature sensor	1 检查传感器连接 : 首先检查传感器与主板的连接是否牢固, 确保没有松动或脱落; 2 检查传感器状态 : 使用万用表检测传感器的电阻值, 确保其在正常范围内。如果电阻值异常, 可能需要更换传感器; 3 检查电路板 : 如果传感器本身没有问题, 可能是电路板出现问题。检查电路板是否有损坏或腐蚀, 必要时更换电路板	1. Check sensor connections : First check whether the connection between the sensor and the main board is firm and make sure it is not loose or falling off; 2. Check sensor status : Use a multi-meter to check the resistance value of the sensor and make sure it is within the normal range. If the resistance value is abnormal, the sensor may need to be replaced; 3. Check the circuit board : If there is no problem with the sensor itself, there may be a problem with the circuit board. Check the circuit board for damage or corrosion and replace it if necessary.
19	d7	Malfunction of humidity sensor	1 传感器损坏 : 检查湿度传感器是否损坏, 必要时更换新的传感器; 2 连接不良 : 检查传感器的连接线是否松动或损坏, 确保连接牢固; 3.系统复位 : 尝试对系统进行复位操作, 看是否能恢复正常。	1. Sensor damage : Check whether the humidity sensor is damaged and replace it with a new one if necessary; 2. Poor connection : Check whether the sensor connection line is loose or damaged, and ensure that the connection is firm; 3. System reset : Try resetting the system to see if it can return to normal.
20	d9	Malfunction of jumper cap	1.跳线帽接触不良 : 检查跳线帽是否松动或未正确安装。重新接插或更换跳线帽可以解决这个问题; 2 跳线帽损坏 : 如果跳线帽损坏, 需要更换新的跳线帽。	1.Poor contact of jumper cap : Check if the jumper cap is loose or not installed correctly. Re-seating or replacing the jumper cap may solve this problem. ; 2. Jumper cap damaged : If the jumper cap is damaged, you need to replace it with a new one. .
21	dA	Web address of IDU is abnormal	1 检查内机网络地址设置 : 确保每个内机的网络地址设置正确, 并且没有重复; 2 检查线控器电路板 : 检查线控器电路板是否正常工作, 必要时更换损坏的电路板; 3.检查拨码开关设置 : 确保拨码开关设置正确, 没有误操作; 4 检查感温包和传感器 : 检查出风感温包和CO2传感器是否正常工作, 必要时进行更换;	1. Check the internal machine network address setting : Make sure the network address of each internal machine is set correctly and there is no duplication; 2. Check the remote controller circuit board : Check whether the wire controller circuit board is working properly, and replace the damaged circuit board if necessary; 3. Check the DIP switch settings : Make sure the DIP switch is set correctly and there is no wrong operation; 4. Check the temperature sensor and the : Check whether the air outlet temperature sensor and CO2 sensor are working properly and replace them if necessary;
22	dH	PCB of wired controller is abnormal	1 检测地址芯片和记忆芯片 : 通过检测室内机主板的地址芯片和记忆芯片是否正常工作, 如果无法读取这些芯片的数据, 则判断为异常; 2 更换主控板 : 如果检测到地址芯片或记忆芯片异常, 建议直接更换主控板。	1. Detect address chip and memory chip : By checking whether the address chip and memory chip of the indoor unit main board are working normally, if the data of these chips cannot be read, it is judged as abnormal; 2. Replace the main control board : If the address chip or memory chip is detected to be abnormal, it is recommended to directly replace the main control board .
23	dC	Setting capacity of DIP switch code is abnormal	1.检查拨码开关 : 首先, 需要检查模块机的容量拨码开关是否正确设置。确保拨码开关的位置与模块的实际容量相匹配; 2.重新设置拨码 : 如果发现拨码开关位置不正确, 需要重新设置拨码开关。将拨码开关置于正确的位置, 确保每个模块的容量拨码与出厂设置一致; 3.检查模块连接 : 确认所有模块的连接是否正确, 确保没有松动或损坏的连接; 4.重启系统 : 完成拨码设置后, 重启系统以检查是否解决了故障代码dC的问题;	1. Check the DIP switch : First, you need to check whether the module capacity dip switch is set correctly. Make sure the position of the dip switch matches the actual capacity of the module; 2. Reset the dip switch : If you find that the dip switch position is incorrect, you need to reset the dip switch. Put the dip switch in the correct position and ensure that the capacity dip code of each module is consistent with the factory setting; 3. Check the module connection : Confirm that all modules are connected correctly and make sure there are no loose or damaged connections; 4. Restart the system : After completing the DIP setting, restart the system to check whether the fault code dC is solved;
24	dL	Malfunction of air outlet temperature sensor	1 传感器损坏 : 如果传感器损坏, 需要更换新的传感器。可以联系专业的维修人员进行更换; 2 连接不良 : 检查传感器的连接线是否松动或接触不良, 确保连接牢固。	1. Sensor damage : If the sensor is damaged, you need to replace it with a new one. You can contact professional maintenance personnel for replacement; 2. Poor connection : Check if the sensor cable is loose or in poor contact, and make sure it is firmly connected.

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序号 No.	错误代码 Error Code	代码对应的问题 Issues Corresponding to Error Codes	解决方式	Solution
25	dE	Malfunction of indoor CO2 sensor	<p>1 传感器故障：检查传感器是否损坏或连接不良，必要时更换传感器；2. 气体浓度过高：确保室内通风良好，减少二氧化碳浓度；3 系统故障：检查空调系统的其他部分是否正常工作，必要时联系专业维修人员进行检查和维修</p>	<p>1. Sensor failure Check if the sensor is damaged or poorly connected, and replace the sensor if necessary; 2. The gas concentration is too high : Ensure good indoor ventilation to reduce carbon dioxide concentration; 3. System failure : Check whether other parts of the air conditioning system are working properly. If necessary, contact professional maintenance personnel for inspection and repair.</p>
26	db	Debugging status	<p>1 检查感温包连接：首先检查室内环境感温包的连接是否松动或损坏，确保其连接牢固且没有损坏；2 重启空调：尝试断开电源，等待几分钟后重新启动空调，看是否能够恢复正常；3 联系专业维修：如果以上方法无效，建议联系专业的空调维修人员进行检查和维修</p>	<p>1. Check the temperature sensor connection : First check whether the connection of the indoor environment temperature sensor is loose or damaged, and ensure that it is firmly connected and not damaged; 2. Restart the air conditioner : Try disconnecting the power supply, wait a few minutes and then restart the air conditioner to see if it can return to normal; 3. Contact professional maintenance : If the above methods are ineffective, it is recommended to contact a professional air conditioning maintenance personnel for inspection and repair</p>

Fault Codes of Multi-Split Air Conditioner **Outdoor Units (ODU)**: Issues and Solutions

Error Codes of Multi-Split Air Conditioner **Indoor Units (IDU)**: Issues and Solutions

Fault Codes of Multi-Split Air Conditioner Outdoor Units (ODU): Issues and Solutions

序号No.	代码 Error Code	问题 Issues Corresponding to Error Code	解决方式 Solution
1	E0	Malfunction of ODU (uniform)	<p>1.重新连接电线：检查空调室内机和室外机之间的电线连接，并确保电缆连接牢固；2.检查传感器：检查空调室内机上的温度传感器是否完好，并重新连接或更换传感器；3.检查风机：检查空调室外机上的风机是否正常工作，如果风机无法正常工作，可能需要更换电机或清洁风扇叶片；4.清洗电路板：断开电路板的连接，用棉签沾上酒精来回清洗线路板上的灰尘，然后重新开机测试；5.重启空调系统：有时候重启空调系统可以解决临时性的通信问题；6.检查连接线：确保内外机之间的线路没有松动或损坏。</p>
2	E1	High-pressure protection	<p>1.清理冷凝器：定期清理冷凝器上的污垢，确保其散热效果良好；2.检查外风机：检查外风机的运行状态，必要时进行维修或更换；3.调整冷媒充注量：确保冷媒的量在合理范围内，避免过多或过少；4.检查阀门状态：确保外机阀门完全开启，保证系统正常运行；5.疏通毛细管：清理毛细管中的污物，确保制冷剂的顺畅流动；6.重新进行真空处理：如果安装时未进行真空处理或真空度不足，需要重新进行真空处理。</p>
3	E2	Discharge low-temperature protection	<p>1.检查感温包：确保压缩机的排气管和壳顶感温包安装牢固，保温棉扎好。测试感温包在不同温度下的阻值是否正常，如不正常则需要更换；2.检查电子膨胀阀：在制冷模式下，检查室内机电子膨胀阀的动作是否正常。如果电子膨胀阀动作异常，需要检查线圈连接是否正常，必要时更换线圈或主板。在制热模式下，检查室外机电子膨胀阀的动作是否正常；3.检查冷媒量：确认冷媒灌注量是否按设计要求追加，冷媒过多会导致系统保护。如果冷媒量过多，需要重新按设计要求灌注冷媒量。</p>

Fault Codes of Multi-Split Air Conditioner Outdoor Units (ODU): Issues and Solutions

序号No.	代码 Error Code	的问题 Issues Corresponding to E	解决方式	Solution
4	E3	Low-pressure protection	1.检查制冷管路：检查制冷管路是否有泄漏，及时修复泄漏点并补充冷媒；2.检查风机：确保室内机和室外机的风机正常运转，如有故障需进行维修或更换；3.检查阀门状态：确保室外机的截止阀完全打开，并检查阀门是否损坏；4.检查换气情况：确保室内机和室外机之间的换气畅通；5.检查系统冷媒灌量：确保系统冷媒灌量充足；6.检查系统管路：清理或修复堵塞的管路；7.调整运行环境温度：确保运行环境温度适宜，避免过低温度导致低压保护。	1. Check the refrigeration pipeline: Check whether there is any leakage in the refrigeration pipeline, repair the leakage point in time and add refrigerant; 2. Check the fan: Make sure the fans of the indoor and outdoor units are operating normally. If there is any fault, repair or replace it; 3. Check the valve status: Make sure the stop valve of the outdoor unit is fully open, and check whether the valve is damaged; 4. Check the ventilation: Make sure the ventilation between the indoor and outdoor units is unobstructed; 5. Check the system refrigerant filling amount: Make sure the system refrigerant filling amount is sufficient; 6. Check the system pipeline: Clean or repair the blocked pipeline; 7. Adjust the operating environment temperature: Make sure the operating environment temperature is appropriate to avoid low pressure protection caused by too low temperature.
5	E4	High discharge temperature protection of compressor	1.更换冷冻油或更换压缩机：如果压缩机出现故障，可以更换冷冻油或直接更换压缩机；2.清洗制冷系统：清洗制冷系统，更换冷冻油和滤芯，确保系统畅通；3.清洗散热翅片：使用专用的翅片清洗剂清洗散热翅片；4.更换风机或电容器：更换损坏的风机或启动电容器；5.更换高压保护装置或排气温度开关：如果高压保护装置或排气温度开关损坏，需要更换或短接	1. Replace the refrigerant oil or replace the compressor: If the compressor fails, you can replace the refrigerant oil or directly replace the compressor; 2. Clean the refrigeration system: Clean the refrigeration system, replace the refrigerant oil and filter element, and ensure that the system is unobstructed; 3. Clean the radiator fins: Use a special fin cleaning agent to clean the radiator fins; 4. Replace the fan or capacitor: Replace the damaged fan or starting capacitor; 5. Replace the high-voltage protection device or exhaust temperature switch: If the high-voltage protection device or exhaust temperature switch is damaged, it needs to be replaced or short-circuited.
6	E5	High discharge temperature protection of compressor 1	1.更换冷冻油或更换压缩机：如果压缩机出现故障，可以更换冷冻油或直接更换压缩机；2.清洗制冷系统：清洗制冷系统，更换冷冻油和滤芯，确保系统畅通；3.清洗散热翅片：使用专用的翅片清洗剂清洗散热翅片；4.更换风机或电容器：更换损坏的风机或启动电容器；5.更换高压保护装置或排气温度开关：如果高压保护装置或排气温度开关损坏，需要更换或短接	1. Replace the refrigerant oil or replace the compressor: If the compressor fails, you can replace the refrigerant oil or directly replace the compressor; 2. Clean the refrigeration system: Clean the refrigeration system, replace the refrigerant oil and filter element, and ensure that the system is unobstructed; 3. Clean the radiator fins: Use a special fin cleaning agent to clean the radiator fins; 4. Replace the fan or capacitor: Replace the damaged fan or starting capacitor; 5. Replace the high-voltage protection device or exhaust temperature switch: If the high-voltage protection device or exhaust temperature switch is damaged, it needs to be replaced or short-circuited.
7	EC	Drop protection of discharge temperature sensor of compressor 1	1.检查压缩机排气感温包：确保感温包没有损坏或移位，确保其能够准确反映排气温度；2.检查电子膨胀阀：在制冷模式下，检查室内机电子膨胀阀是否正常工作；在制热模式下，检查室外电子膨胀阀是否正常工作；3.检查系统冷媒量：确保系统冷媒量适中，既不过多也 不过少；4.检查系统管路：确保系统管路没有堵塞，保证冷媒流通顺畅。	1. Check the compressor exhaust temperature sensor: Make sure the temperature sensor is not damaged or displaced, and ensure that it can accurately reflect the exhaust temperature; 2. Check the electronic expansion valve: In cooling mode, check whether the indoor unit electronic expansion valve is working properly; in heating mode, check whether the outdoor electronic expansion valve is working properly; 3. Check the system refrigerant quantity: Make sure the system refrigerant quantity is appropriate, neither too much nor too little; 4. Check the system pipeline: Make sure the system pipeline is not blocked to ensure smooth circulation of refrigerant.
8	J1	Over-current protection of compressor 1	1.检查系统参数：确保系统参数设置正确，没有异常；2.检查驱动模块：检查驱动模块是否正常工作，必要时进行维修或更换；3.检查压缩机：检查压缩机的UVW线路是否接触良好，接线顺序是否正确，必要时更换损坏的压缩机或驱动板IPM模块	1. Check system parameters: Make sure that the system parameters are set correctly and there are no abnormalities; 2. Check the drive module: Check whether the drive module is working properly, and repair or replace it if necessary; 3. Check the compressor: Check whether the UVW line of the compressor is in good contact and the wiring sequence is correct. If necessary, replace the damaged compressor or drive board IPM module.

Fault Codes of Multi-Split Air Conditioner Outdoor Units (ODU): Issues and Solutions

序号No.	代码 Error Code	的问题 Issues Corresponding to Error	解决方式 Solution	Solution
9	J7	Gas-mixing protection of 4-way valve	1.检查四通阀：首先需要检查四通阀是否损坏或老化，必要时更换四通阀；2.清洗过滤器：检查压缩机回气口的过滤器是否堵塞，如果堵塞需要清洗或更换过滤器；3.检查传感器：有时候传感器顶针接触不良也会导致J7故障，需要检查并修复传感器问题。	1. Check the four-way valve: First, check whether the four-way valve is damaged or aged, and replace it if necessary; 2. Clean the filter: Check whether the filter at the compressor return air port is blocked. If blocked, clean or replace the filter; 3. Check the sensor: Sometimes poor contact of the sensor pin can also cause J7 failure, and the sensor problem needs to be checked and repaired.
10	J8	High pressure ratio protection of system	1.检查高压传感器和高压开关：确保它们工作正常，没有故障；2.检查风机：确保室外和室内风机正常工作，没有堵塞或故障；3. 清理过滤网和风道：特别是制热模式下，清理过滤网和风道，确保空气流通顺畅；4.检查冷媒量：确保冷媒量在合理范围内，不多也不少；5.检查管路：确保管路没有堵塞，保持系统循环畅通。	1. Check the high-pressure sensor and high-pressure switch: make sure they are working properly and without any faults; 2. Check the fan: make sure the outdoor and indoor fans are working properly without any blockage or faults; 3. Clean the filter and air duct: especially in heating mode, clean the filter and air duct to ensure smooth air circulation; 4. Check the refrigerant quantity: make sure the refrigerant quantity is within a reasonable range, neither too much nor too little; 5. Check the pipeline: make sure the pipeline is not blocked and keep the system circulation unobstructed.
11	J9	Low pressure ratio protection of system	1.系统压力比过低：这通常是由于制冷剂不足或系统泄漏导致的。需要检查制冷剂是否泄漏，并进行补充；2.过滤器堵塞：过滤器堵塞会影响制冷剂的流动，导致压力下降。需要清理或更换过滤器；3.膨胀阀故障：膨胀阀故障会导致制冷剂流量不足，从而引起系统压力比过低。需要检查膨胀阀是否正常工作，必要时进行更换；4.冷凝器故障：冷凝器故障会影响制冷剂的冷却效果，导致压力下降。需要检查冷凝器是否有堵塞或损坏，并进行清理或维修。	1. System pressure ratio is too low: This is usually caused by insufficient refrigerant or system leakage. Check if the refrigerant is leaking and replenish it; 2. Filter blockage: Filter blockage will affect the flow of refrigerant and cause pressure drop. Clean or replace the filter; 3. Expansion valve failure: Expansion valve failure will cause insufficient refrigerant flow, causing the system pressure ratio to be too low. Check if the expansion valve is working properly and replace it if necessary; 4. Condenser failure: Condenser failure will affect the cooling effect of the refrigerant and cause pressure drop. Check if the condenser is blocked or damaged and clean or repair it.
12	JA	Protection because of abnormal pressure	1.关闭空调电源，等待几分钟后再重新启动；2.检查空调系统的压力，确保压力在正常范围内；3.检查空调系统的制冷剂是否充足，如果不足，需要添加制冷剂；4.检查空调系统的冷凝器和蒸发器是否清洁，如果有污垢，需要清洗；5.检查空调系统的过滤器是否堵塞，如果堵塞，需要更换过滤器；6.如果以上措施都无法解决问题，建议联系专业的空调维修人员进行维修。	1. Turn off the air conditioner power, wait a few minutes and then restart it; 2. Check the pressure of the air conditioning system to make sure it is within the normal range; 3. Check whether the refrigerant in the air conditioning system is sufficient. If not, add refrigerant; 4. Check whether the condenser and evaporator of the air conditioning system are clean. If there is dirt, clean it; 5. Check whether the filter of the air conditioning system is clogged. If it is clogged, replace the filter; 6. If the above measures cannot solve the problem, it is recommended to contact a professional air conditioning maintenance personnel for repair.
13	JL	Protection because high pressure is too low	1.检查冷媒量：确保系统冷媒量充足，必要时进行补充；2.检查管路：清理或修复管路堵塞，确保冷媒流通顺畅；3.检查风机：检查室外和室内风机的工作状态，必要时进行维修或更换；4.调整运行环境：在极端低温环境下，可以采取提高环境温度，避免系统压力过低。	1. Check the amount of refrigerant: ensure that the system has sufficient refrigerant and replenish it if necessary; 2. Check the pipeline: clean or repair pipeline blockages to ensure smooth circulation of refrigerant; 3. Check the fan: check the working status of outdoor and indoor fans and repair or replace them if necessary; 4. Adjust the operating environment: in extremely low temperature environments, measures can be taken to increase the ambient temperature to avoid low system pressure.

Fault Codes of Multi-Split Air Conditioner Outdoor Units (ODU): Issues and Solutions

序号No.	代码 Error Code	的问题 Issues Corresponding to Error	解决方式 Solution
14	P0	malfunction of driving board of compressor(uniform)	<p>1.压缩机驱动模块复位保护：这可能是由于压缩机驱动板过热或过载引起的。解决方法是检查并清理压缩机驱动板，确保其散热良好，必要时更换驱动板；2.温度传感器故障：如果温度传感器损坏或连接不良，可能会导致P0故障。解决方法是检查传感器连接，必要时更换损坏的传感器；3.过温保护：如果压缩机驱动板或相关部件过热，系统会自动进入保护状态。解决方法是检查散热系统，确保通风良好，必要时清理灰尘或更换散热部件；4.电流检测电路故障：如果电流检测电路出现问题，可能会导致P0故障。解决方法是检查电路连接，确保电流检测元件正常工作；5.充电回路故障：如果充电回路出现问题，可能会导致压缩机驱动板无法正常工作。解决方法是检查充电回路，确保其连接正确且无损坏。</p>
15	P1	Driving board of compressor operates abnormally (uniform)	<p>1.检查电压：确保供电电压在正常范围内，必要时使用稳压设备；2.更换或修复温度传感器：检查传感器的连接线路是否正常，必要时进行更换；3.清洁过滤网和室内换热器：定期清洁过滤网和室内换热器，确保风量正常；4.等待压缩机冷却：在压缩机过热的情况下，关掉空调电源，等待一段时间让压缩机冷却；5.清洁管路：清洁过滤器，修复冷媒泄漏，确保管路畅通。</p>
16	P2	Voltage protection of driving board power of compressor (uniform)	<p>1.检查电源电压：确保电源电压稳定，必要时安装稳压装置或避免在用电高峰期使用空调；2.检查系统压力传感器：如果怀疑传感器故障，应进行检测和更换；3.检查通讯线缆：确保通讯线缆连接正确，没有松脱，必要时重新启动设备以重置通讯。</p>
17	P3	Reset protection of driving module of compressor	<p>1.检查压缩机运行时间：确保压缩机有足够的休息时间，避免长时间连续运行；2.降低环境温度：确保空调室外机的散热环境良好，避免阳光直射或周围有热源；3.检查系统压力：使用专业工具检查系统压力是否正常，必要时进行调试；4.清理过滤器：定期清理空调系统的过滤器，确保空气流通顺畅。</p>

1. Compressor drive module reset protection: This may be caused by overheating or overloading of the compressor drive board. The solution is to check and clean the compressor drive board to ensure that it is well cooled, and replace the drive board if necessary; 2. Temperature sensor failure: If the temperature sensor is damaged or poorly connected, it may cause P0 failure. The solution is to check the sensor connection and replace the damaged sensor if necessary; 3. Over-temperature protection: If the compressor drive board or related components overheat, the system will automatically enter the protection state. The solution is to check the cooling system to ensure good ventilation, clean the dust or replace the heat dissipation components if necessary; 4. Current detection circuit failure: If there is a problem with the current detection circuit, it may cause P0 failure. The solution is to check the circuit connection and ensure that the current detection element is working properly; 5. Charging circuit failure: If there is a problem with the charging circuit, it may cause the compressor driver board to not work properly. The solution is to check the charging circuit to ensure that it is connected correctly and not damaged.

1. Check the voltage: Make sure the power supply voltage is within the normal range, and use voltage stabilization equipment if necessary; 2. Replace or repair the temperature sensor: Check whether the connection line of the sensor is normal, and replace it if necessary; 3. Clean the filter and indoor heat exchange: Clean the filter and indoor heat exchange regularly to ensure normal air volume; 4. Wait for the compressor to cool down: In the case of overheating of the compressor, turn off the air conditioner power supply and wait for a while for the compressor to cool down; 5. Clean the pipeline: Clean the filter, repair the refrigerant leak, and ensure that the pipeline is unobstructed.

1. Check the power supply voltage: Make sure the power supply voltage is stable. If necessary, install a voltage stabilizer or avoid using the air conditioner during peak hours. 2. Check the system pressure sensor: If the sensor is suspected to be faulty, it should be tested and replaced. 3. Check the communication cable: Make sure the communication cable is connected correctly and not loose. If necessary, restart the device to reset the communication.

1. Check the compressor running time: ensure that the compressor has enough rest time to avoid long-term continuous operation; 2. Reduce the ambient temperature: ensure that the heat dissipation environment of the air conditioner outdoor unit is good, avoid direct sunlight or surrounding heat sources; 3. Check the system pressure: use professional tools to check whether the system pressure is normal, and debug if necessary; 4. Clean the filter: regularly clean the filter of the air conditioning system to ensure smooth air circulation.

Fault Codes of Multi-Split Air Conditioner Outdoor Units (ODU): Issues and Solutions

序号No.	代码 Error Code	的问题 Issues Corresponding to E	解决方式 Solution
18	P4	Drive PFC protection of compressor	1.检查电压：确保电网电压在正常范围内，避免电压过高或过低;2.检查压缩机：确保压缩机运行正常，散热良好，没有过热现象;3.检查电路：检查电路中的所有连接是否牢固，组件是否损坏，必要时更换损坏的部件。
19	P5	Over-current protection of inverter compressor	1.检查压缩机UVW线路：确保线路连接牢固，接线顺序正确;2.检查压缩机本体：如果发现压缩机损坏或性能下降，需要更换或维修压缩机;3.清理系统堵塞：检查系统内部是否有堵塞，并进行清理;4.检查和更换压缩机驱动板IPM模块：如果IPM模块失效或损坏，需要更换新的模块。
20	P6	Drive IPM module protection of compressor	1.检查压缩机UVW线的连接情况：确保连接牢固，接线顺序正确;2.检查压缩机状态：确认压缩机是否损坏或运行异常;3.检查系统是否堵塞：清理系统内的堵塞物;4.检测IPM模块：使用万用表检测IPM模块是否正常工作;5.检查驱动板：确认驱动板是否正常，必要时更换损坏的部件。
21	P7	Malfunction of drive temperature sensor of compressor	1.检查传感器：首先检查传感器是否损坏或连接不良，必要时更换传感器;2.检查电路：检查电路板和连接线路是否正常，修复或更换故障部件;3.清洁散热系统：确保散热系统畅通，避免因散热不良导致温度过高;4.调整环境温度：确保空调外机周围的环境温度适宜，避免过高或过低的温度影响传感器工作。
22	P8	Drive IPM high temperature protection of compressor	1.检查并紧固IPM模块螺钉：确保所有螺钉都紧固到位;2.检查散热膏：重新涂抹散热膏，确保涂抹均匀且足够;3.更换压缩机驱动板：如果驱动板异常，需要更换新的驱动板;4.清洗室外机翅片：确保室外机的翅片干净，无积灰或脏堵;5.移至通风良好的地方：如果可能，将空调移至通风更好的地方;6.购买合适的稳压器：确保室外机获得合适的电压，避免电流过大。
23	P9	Desynchronizing protection of inverter compressor	1.检查压缩机驱动板：查看驱动板是否有异常，如有异常则需要维修或更换;2.检查压缩机：确认压缩机是否损坏，如有损坏则需要更换压缩机。
24	PH	High-voltage protection of compressor's drive DC bus bar	1.检查制冷剂是否过多，如果是，需要放出多余的制冷剂;2.清理冷凝器，确保其通风良好;3.检查制冷剂：定期检查制冷剂量，确保其在合理范围内。

Fault Codes of Multi-Split Air Conditioner Outdoor Units (ODU): Issues and Solutions

序号No.	代码 Error Code	的问题 Issues Corresponding to E	解决方式	Solution
25	PC	Malfunction of current detection circuit drive of compressor	1.检查电流检测元件：确认电流检测元件是否损坏或连接不良，必要时更换损坏的元件;2.检查驱动电路：检查驱动电路是否正常工作，如有需要，更换故障的驱动电路部分;3.重启系统：尝试断开空气开关重启系统，看是否能恢复正常。	1. Check the current detection element: confirm whether the current detection element is damaged or poorly connected, and replace the damaged element if necessary; 2. Check the drive circuit: check whether the drive circuit is working properly. If necessary, replace the faulty drive circuit part; 3. Restart the system: try to disconnect the air switch and restart the system to see if it can return to normal.
26	PL	Low voltage protection for DC bus bar of drive of compressor	1.检查电源电压：确保电源电压稳定，没有波动或过低的情况。如果电压不稳定，需要采取措施稳定电压;2.检查驱动模块：检查驱动模块是否正常工作，必要时更换损坏的驱动模块;3.检查电源线路：确保电源线路连接良好，没有短路或接触不良的情况	1. Check the power supply voltage: Make sure the power supply voltage is stable, without fluctuations or too low. If the voltage is unstable, take measures to stabilize the voltage; 2. Check the drive module: Check whether the drive module is working properly, and replace the damaged drive module if necessary; 3. Check the power line: Make sure the power line is well connected, without short circuit or poor contact
27	PE	Phase-lacking of inverter compressor	1.检查电源：确保三相电源正常，电压稳定，没有断电现象;2.检查压缩机：检查变频压缩机的绕组和接线，确保没有断路或接线不良的情况;3.联系专业维修人员：如果自己无法解决问题，建议联系专业的空调维修人员进行检查和维修。	1. Check the power supply: make sure the three-phase power supply is normal, the voltage is stable, and there is no power outage; 2. Check the compressor: check the winding and wiring of the variable frequency compressor to ensure that there is no short circuit or poor wiring; 3. Contact professional maintenance personnel: If you cannot solve the problem yourself, it is recommended to contact professional air conditioning maintenance personnel for inspection and repair.
28	PF	Malfunction of charging loop of driven of compressor	1.充电环路驱动故障：这可能是由于充电环路中的某个组件损坏或连接不良导致的。需要检查充电环路中的所有连接和组件，确保它们都正常工作;2.驱动器故障：如果驱动器本身出现问题，也会导致此故障代码。检查驱动器是否有损坏或过热的情况，必要时更换驱动器;3.电源问题：确保电源供应稳定，电压和电流符合设备要求。电源问题可能导致充电环路无法正常工作。	1. Charging loop driver failure: This may be caused by a damaged component or poor connection in the charging loop. You need to check all connections and components in the charging loop to make sure they are working properly; 2. Driver failure: If there is a problem with the driver itself, this fault code will also be caused. Check whether the driver is damaged or overheated, and replace the driver if necessary; 3. Power supply problem: Make sure the power supply is stable and the voltage and current meet the device requirements. Power supply problems may cause the charging loop to not work properly.
29	PJ	Failure startup of inverter compressor	1.检查电源电压：确保电源电压稳定且在正常范围内；2.检查压缩机驱动板：检查压缩机驱动板是否正常工作，必要时更换驱动板；3.检查压缩机：如果怀疑压缩机损坏，需要专业人员进行检修或更换	1. Check the power supply voltage: Make sure the power supply voltage is stable and within the normal range; 2. Check the compressor drive board: Check whether the compressor drive board is working properly and replace the drive board if necessary; 3. Check the compressor: If the compressor is suspected to be damaged, it needs to be repaired or replaced by a professional
30	PP	AC current protection of inverter compressor	1.电流过大：检查电源电压是否稳定，电压波动或过高可能导致电流过大。如果电压不稳定，建议联系电力公司解决;2.逆变器故障：逆变器本身可能存在故障，需要专业人员进行检测和维修;3.负载过大：检查系统负载是否过大，例如过多的设备同时启动或运行，可能会导致电流超过逆变器的承受能力;4.线路问题：检查线路连接是否良好，是否有短路或接触不良的情况。	1. Excessive current: Check whether the power supply voltage is stable. Voltage fluctuations or high voltage may cause excessive current. If the voltage is unstable, it is recommended to contact the power company to resolve the problem; 2. Inverter failure: The inverter itself may have a fault and requires professional inspection and repair; 3. Excessive load: Check whether the system load is too large. For example, too many devices are started or running at the same time, which may cause the current to exceed the inverter's capacity; 4. Line problem: Check whether the line connection is good and whether there is a short circuit or poor contact.

Fault Codes of Multi-Split Air Conditioner Outdoor Units (ODU): Issues and Solutions

序号No.	代码 Error	的问题 Issues Corresponding to E	解决方式	Solution
31	Py	Dip switch of drive compressor or jumper is abnormal	<p>1. 检查DIP开关设置：确保DIP开关的设置正确，符合空调系统的要求。不正确的设置可能导致系统无法正常识别压缩机，从而引发故障代码Py；2.检查跳线连接：检查跳线的连接是否牢固，没有松动或接触不良的情况。跳线连接不良也会导致系统无法正常识别压缩机，进而报出Py故障代码；3.复位操作：尝试对系统进行复位操作，看是否能清除故障代码。有时候，简单的复位操作可以解决一些临时的硬件问题。</p>	<p>1. Check the DIP switch settings: Make sure the DIP switch settings are correct and meet the requirements of the air conditioning system. Incorrect settings may cause the system to fail to identify the compressor properly, resulting in a Py fault code; 2. Check the jumper connection: Check whether the jumper connection is firm and not loose or in poor contact. A poor jumper connection can also cause the system to fail to correctly identify the compressor, resulting in a Py fault code; 3. Reset: Try to reset the system to see if the fault code can be cleared. Sometimes, a simple reset can solve some temporary hardware problems.</p>
32	Pn	Compressor cylinder change failure protection	<p>1. 查看故障代码：通过内机线控器查看具体的故障代码，并同步查看室外机主控板上的故障代码显示情况;2.判断具体故障：根据主控板上的故障代码判断出压机驱动板的具体故障;3.参考具体故障排查方法进行故障排查：根据外机主板显示的故障寻找对应的解决办法</p>	<p>1. Check the fault code: Check the specific fault code through the indoor unit wired controller, and check the fault code display on the outdoor unit main control board at the same time; 2. Determine the specific fault: Determine the specific fault of the compressor drive board according to the fault code on the main control board; 3. Refer to the specific troubleshooting method for troubleshooting: Find the corresponding solution according to the fault displayed on the outdoor unit main board</p>
33	F0	Main board of ODU is poor	<p>1.更换外机主板：如果确定是外机主板不良引起的F0故障，需要更换新的主板。更换后需要进行重新调试，确保内外机能够相互识别和正常工作；2.检查和更换温度传感器：如果温度传感器损坏或失效，需要检查和更换损坏的传感器；3.清理和维护冷凝器：清洗冷凝器，确保其表面干净，散热效果良好；4.检查电源和制冷剂：检查电源插头和插座是否正常，补充或清理制冷剂系统；5.检查电子膨胀阀和线路：确保电子膨胀阀的线路连接良好，没有松动或接触不良的情况，必要时更换损坏的电子膨胀阀。</p>	<p>1. Replace the external unit main board: If it is determined that the F0 fault is caused by a defective external unit main-board, a new main-board needs to be replaced. After replacement, re-debugging is required to ensure that the internal and external units can recognize each other and work normally; 2. Check and replace the temperature sensor: If the temperature sensor is damaged or ineffective, the damaged sensor needs to be checked and replaced; 3. Clean and maintain the condenser: Clean the condenser to ensure that its surface is clean and the heat dissipation effect is good; 4. Check the power supply and refrigerant: Check whether the power plug and socket are normal, and replenish or clean the refrigerant system; 5. Check the electronic expansion valve and circuit: Ensure that the circuit of the electronic expansion valve is well connected, without looseness or poor contact, and replace the damaged electronic expansion valve if necessary.</p>
34	F1	Malfunction of high-pressure sensor	<p>1. 更换高压传感器：如果确定是高压传感器故障，需要更换新的传感器；2.清洗冷凝器：清理冷凝器表面的灰尘和污垢，确保良好的散热效果；3.检查电源线：检查电源线是否有损坏或接触不良，必要时进行更换或修复；4.检查通讯线路：确保通讯线缆连接正确，没有松脱，并重新启动设备以重置通讯</p>	<p>1. Replace the high-pressure sensor: If it is determined that the high-pressure sensor is faulty, you need to replace it with a new sensor; 2. Clean the condenser: Clean the dust and dirt on the surface of the condenser to ensure good heat dissipation; 3. Check the power cord: Check whether the power cord is damaged or has poor contact, and replace or repair it if necessary; 4. Check the communication line: Make sure the communication cable is connected correctly and not loose, and restart the device to reset the communication</p>

Fault Codes of Multi-Split Air Conditioner Outdoor Units (ODU): Issues and Solutions

序号No.	代码 Error Code	的问题 Issues Corresponding to Error	解决方式 Solution	Solution
35	F3	Malfunction of low-pressure sensor	<p>1.检查传感器连接：确保传感器插头牢固连接到主板上，检查是否有松动或损坏；2. 清洁传感器：使用干净的软布轻轻擦拭传感器，清除灰尘和污垢；3. 更换传感器：如果清洁后问题仍然存在，可能需要更换低压传感器；4.检查线路：检查传感器的线路是否正常，修复或更换有问题的线路；5. 清洁过滤网：定期清洁空调内机的过滤网和静电除尘器，确保空气流通顺畅；6.重启空调：尝试关闭空调电源，等待几分钟后重新开启，有时可以解决临时的故障</p>	<p>1. Check the sensor connection: Make sure the sensor plug is firmly connected to the motherboard and check for looseness or damage; 2. Clean the sensor: Use a clean soft cloth to gently wipe the sensor to remove dust and dirt; 3. Replace the sensor: If the problem persists after cleaning, you may need to replace the low-pressure sensor; 4. Check the circuit: Check whether the sensor circuit is normal, repair or replace the problematic circuit; 5. Clean the filter: Regularly clean the filter and electrostatic precipitation of the air conditioner to ensure smooth air circulation; 6. Restart the air conditioner: Try turning off the air conditioner power, wait a few minutes and then turn it back on, which sometimes solves temporary faults.</p>
36	F5	Malfunction of discharge temperature sensor of compressor 1	<p>1.检查传感器：首先确保空调电源已关闭，然后打开室内机面板，找到温度传感器。传感器通常位于室内机散热器上或内置在室内风扇里。使用正确的工具拆卸传感器，并检查其导线或连接器是否断裂、断开或损坏。如果发现任何问题，应更换新的传感器；2.更换传感器：如果连接器和导线没有问题，且传感器没有明显损坏，可能是传感器本身的问题。安装新的传感器前，确保新传感器的规格与原传感器相符，并牢固连接</p>	<p>1. Check the sensor: First make sure the air conditioner power is turned off, then open the indoor unit panel and find the temperature sensor. The sensor is usually located on the indoor unit radiator or built into the indoor fan. Use the correct tools to remove the sensor and check whether its wires or connectors are broken, disconnected or damaged. If any problems are found, replace the sensor with a new one; 2. Replace the sensor: If there are no problems with the connector and wires, and the sensor is not obviously damaged, it may be a problem with the sensor itself. Before installing a new sensor, make sure the specifications of the new sensor match the original sensor and that it is securely connected.</p>
37	FP	Malfunction of DC motor	<p>1.检查电机：使用电机测试仪单独测试电机，确定是否需要更换；2.检查驱动电路：检查驱动电路中的元件是否损坏，必要时进行更换；3.检查传感器：检查与电机相关的传感器，确保其正常工作；4.检查控制板：检查空调的控制板，必要时进行维修或更换；5.检查电源：确保电源供应稳定，电压正常。</p>	<p>1. Check the motor: Use a motor tester to test the motor separately to determine whether it needs to be replaced; 2. Check the drive circuit: Check whether the components in the drive circuit are damaged and replace them if necessary; 3. Check the sensor: Check the sensors related to the motor to ensure that they are working properly; 4. Check the control board: Check the control board of the air conditioner and repair or replace it if necessary; 5. Check the power supply: Ensure that the power supply is stable and the voltage is normal.</p>
38	b1	Malfunction of outdoor ambient temperature sensor	<p>1.检查感温包与主板接口：确保感温包与主板接口端子连接良好，没有松动或接触不良的情况；2.更换感温包：如果感温包损坏，需要更换新的感温包；3.检查检测电路：检查检测电路是否正常工作，必要时进行维修或更换。</p>	<p>1. Check the temperature sensing package and the main-board interface: Make sure that the temperature sensing package and the main-board interface terminals are well connected and not loose or in poor contact; 2. Replace the temperature sensing package: If the temperature sensing package is damaged, replace it with a new one; 3. Check the detection circuit: Check whether the detection circuit is working properly and repair or replace it if necessary.</p>
39	b2	Malfunction of defrosting temperature sensor 1	<p>1.传感器损坏：传感器可能因长时间使用或环境影响而损坏，需要更换新的传感器；2.连接问题：检查传感器的连接线是否松动或损坏，确保连接牢固；3.系统故障：如果传感器本身没有问题，可能是系统控制电路出现问题，需要进一步检查和维修。</p>	<p>1. Sensor damage: The sensor may be damaged due to long-term use or environmental influences, and a new sensor needs to be replaced; 2. Connection problem: Check whether the sensor's connection line is loose or damaged, and ensure that the connection is firm; 3. System failure: If there is no problem with the sensor itself, there may be a problem with the system control circuit, which requires further inspection and repair.</p>

Fault Codes of Multi-Split Air Conditioner Outdoor Units (ODU): Issues and Solutions

序号No.	代码 Error Code	的问题 Issues Corresponding to E	解决方式	Solution
40	b4	Malfunction of liquid temperature sensor of sub-cooler	1.传感器损坏：传感器可能因长时间使用或环境影响而损坏，需要更换新的传感器；2.连接问题：检查传感器的连接线是否松动或损坏，确保连接牢固；3.系统故障：如果传感器本身没有问题，可能是系统控制电路出现问题，需要进一步检查和维修。	1. Sensor damage: The sensor may be damaged due to long-term use or environmental influences, and a new sensor needs to be replaced; 2. Connection problem: Check whether the sensor's connection line is loose or damaged, and ensure that the connection is firm; 3. System failure: If there is no problem with the sensor itself, there may be a problem with the system control circuit, which requires further inspection and repair.
41	b5	Malfunction of gas temperature sensor of sub-cooler	1.传感器损坏：传感器可能因长时间使用或环境影响而损坏，需要更换新的传感器；2.连接问题：检查传感器的连接线是否松动或损坏，确保连接牢固；3.系统故障：如果传感器本身没有问题，可能是系统控制电路出现问题，需要进一步检查和维修。	1. Sensor damage: The sensor may be damaged due to long-term use or environmental influences, and a new sensor needs to be replaced; 2. Connection problem: Check whether the sensor's connection line is loose or damaged, and ensure that the connection is firm; 3. System failure: If there is no problem with the sensor itself, there may be a problem with the system control circuit, which requires further inspection and repair.
42	b6	Malfunction of inlet tube temperature sensor of vapor liquid separator	1.传感器损坏：传感器可能因长时间使用或环境影响而损坏，需要更换新的传感器；2.连接问题：检查传感器的连接线是否松动或损坏，确保连接牢固；3.系统故障：如果传感器本身没有问题，可能是系统控制电路出现问题，需要进一步检查和维修。	1. Sensor damage: The sensor may be damaged due to long-term use or environmental influences, and a new sensor needs to be replaced; 2. Connection problem: Check whether the sensor's connection line is loose or damaged, and ensure that the connection is firm; 3. System failure: If there is no problem with the sensor itself, there may be a problem with the system control circuit, which requires further inspection and repair.
43	b7	Malfunction of exit tube temperature sensor of vapor liquid separator	1.传感器损坏：传感器可能因长时间使用或环境影响而损坏，需要更换新的传感器；2.连接问题：检查传感器的连接线是否松动或损坏，确保连接牢固；3.系统故障：如果传感器本身没有问题，可能是系统控制电路出现问题，需要进一步检查和维修。	1. Sensor damage: The sensor may be damaged due to long-term use or environmental influences, and a new sensor needs to be replaced; 2. Connection problem: Check whether the sensor's connection line is loose or damaged, and ensure that the connection is firm; 3. System failure: If there is no problem with the sensor itself, there may be a problem with the system control circuit, which requires further inspection and repair.
44	b9	Malfunction of gas temperature sensor of heat exchanger	1.传感器损坏：传感器可能因长时间使用或环境影响而损坏，需要更换新的传感器；2.连接问题：检查传感器的连接线是否松动或损坏，确保连接牢固；3.系统故障：如果传感器本身没有问题，可能是系统控制电路出现问题，需要进一步检查和维修。	1. Sensor damage: The sensor may be damaged due to long-term use or environmental influences, and a new sensor needs to be replaced; 2. Connection problem: Check whether the sensor's connection line is loose or damaged, and ensure that the connection is firm; 3. System failure: If there is no problem with the sensor itself, there may be a problem with the system control circuit, which requires further inspection and repair.
45	bH	Clock of system is abnormal	1.时检查并重置时钟：按照空调的使用说明书，检查并重置时钟设置。确保时钟准确无误；2.更换时钟电池：如果怀疑是时钟电池电量不足，可以尝试更换新的时钟电池。通常，空调的时钟电池位于主板上，需要拆开空调外壳进行更换；3.联系专业维修人员：如果以上方法无法解决问题，建议联系专业的空调维修人员进行检查和维修。	1. Check and reset the clock: Check and reset the clock settings according to the air conditioner's instruction manual. Make sure the clock is accurate; 2. Replace the clock battery: If you suspect that the clock battery is low, you can try replacing it with a new one. Usually, the air conditioner's clock battery is located on the motherboard and needs to be replaced by disassembling the air conditioner casing; 3. Contact a professional maintenance person: If the above methods cannot solve the problem, it is recommended to contact a professional air conditioner maintenance person for inspection and repair.

Fault Codes of Multi-Split Air Conditioner Outdoor Units (ODU): Issues and Solutions

序号No.	代码 Error	的问题 Issues Corresponding to E	解决方式	Solution
46	H0	Malfunction of driving board of fan (uniform)	<p>1.更换压缩机驱动板：如果内机报P0和H2，外机主板报P3和HL故障代码，可能需要更换压缩机驱动板，但与风机驱动板无关；2.检查通讯线路：如果故障代码显示通讯故障（C3），需要检查风扇驱动板与主控板之间的通讯线路是否正常；检查保护机制：对于温度传感器故障（H7）、IPM过温保护（H8）、电流检测电路故障（HC）、充电回路故障（HF）、变频风机失步保护（H9）等问题，需要检查相应的保护机制是否正常工作</p>	<p>1. Replace the compressor drive board: If the indoor unit reports P0 and H2, and the outdoor unit main board reports P3 and HL fault codes, the compressor drive board may need to be replaced, but it has nothing to do with the fan drive board; 2. Check the communication line: If the fault code shows a communication fault (C3), it is necessary to check whether the communication line between the fan drive board and the main control board is normal; Check the protection mechanism: For problems such as temperature sensor failure (H7), IPM over-temperature protection (H8), current detection circuit failure (HC), charging circuit failure (HF), and variable frequency fan out-of-step protection (H9), it is necessary to check whether the corresponding protection mechanism is working properly.</p>
47	H1	Driving board of fan operates abnormally (uniform)	<p>1.检查电源：确保电源电压稳定，检查电源线是否接触良好，必要时更换电源线或电源；2.检查传感器：检查温度传感器是否损坏，线路是否正常，必要时更换传感器；3.检查通信线路：确保室内外机之间的通信线路连接良好，没有断路或短路现象；4.更换风扇驱动板：如果驱动板本身存在故障，需要更换新的风扇驱动板；5.联系专业维修人员：如果以上方法无法解决问题，建议联系专业维修人员进行检修。</p>	<p>1. Check the power supply: make sure the power supply voltage is stable, check whether the power cord is in good contact, and replace the power cord or power supply if necessary; 2. Check the sensor: check whether the temperature sensor is damaged and whether the circuit is normal, and replace the sensor if necessary; 3. Check Communication line: Make sure the communication line between the indoor and outdoor units is well connected and there is no open circuit or short circuit; 4. Replace the fan driver board: If the driver board itself is faulty, you need to replace it with a new fan driver board; 5. Contact professional repair Personnel: If the above methods cannot solve the problem, it is recommended to contact professional maintenance personnel for inspection.</p>
48	H2	Voltage protection of driving board power of fan (uniform)	<p>1.检查电源电压：使用电流表测量室外风机的电流值，确保电压在正常范围内，避免电压波动过大。如果电流超过额定值，可能是风机受阻或电机运转不正常，需要进一步检查和维修；2.清洁室外风机和过滤网：定期清洁室外风机和室内机的过滤网，避免灰尘和杂物堵塞影响空调运行。如果发现风机叶片有杂物堵塞，可以用软刷子或吹风机清除；3.检查环境温度：确保室内环境温度在正常范围内，避免过高或过低的温度影响传感器正常工作。如果环境温度过高，可以尝试将空调置于阴凉通风的地方；4.检查制冷系统：检查制冷剂是否泄漏，压缩机是否正常工作。如果发现制冷系统故障，建议联系专业的空调维修人员进行检修和维护；5.检查室内外机通信：确保室内外机之间的通信线路正常，避免通信故障导致的问题。</p>	<p>1. Check the power supply voltage: Use an ammeter to measure the current value of the outdoor fan to ensure that the voltage is within the normal range and avoid excessive voltage fluctuations. If the current exceeds the rated value, it may be that the fan is blocked or the motor is not running normally, and further inspection and maintenance are required; 2. Clean the outdoor fan and filter: Regularly clean the filter of the outdoor fan and indoor unit to avoid dust and debris blocking the air conditioner operation. If the fan blades are found to be blocked by debris, they can be cleared with a soft brush or a hair dryer; 3. Check the ambient temperature: Ensure that the indoor ambient temperature is within the normal range to avoid excessively high or low temperatures affecting the normal operation of the sensor. If the ambient temperature is too high, try to place the air conditioner in a cool and ventilated place; 4. Check the refrigeration system: Check whether the refrigerant is leaking and whether the compressor is working properly. If a refrigeration system failure is found, it is recommended to contact a professional air conditioner maintenance personnel for inspection and maintenance; 5. Check the indoor and outdoor unit communication: Ensure that the communication line between the indoor and outdoor units is normal to avoid problems caused by communication failures.</p>

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49	H3	Reset protection of driving module of fan	1.清洗室内机和室外机的滤网，确保空气流通畅通;2.检查电源电压是否正常，必要时进行电压调整;3.检查并清理室外机的冷凝器，确保散热良好;4.检查传感器连接线，确保线路连接良好;5.更换或修复蒸发器温度传感器，确保其正常工作;6.检查主控板，必要时进行维修或更换;7.检查并修复室内机的脏污问题，确保蒸发器清洁;8.检查压缩机和风扇的工作状态，必要时进行维修或更换。
50	H4	Drive PFC protection of fan	1.清理过滤器：定期检查和清理过滤器，确保其干净无堵塞；2.检查电压：确保电源电压在正常范围内（180V-240V），如果电压异常，请检查电源环境；3.关闭并重启空调：尝试关闭空调一段时间后重新启动，有时系统可能会因为短暂的异常而恢复正常。
51	H5	Over-current protection of inverter fan	1.清理外机：关掉空调电源，用刷子和清水仔细清理外机散热片上的污垢。对于顽固污渍，可以使用专门的清洁剂。如果外机位置不好，应改善通风条件；2.检查电压：使用专业的电压表测量电源电压，如果发现电压过低，应及时联系电力部门进行维修或调整；3.更换模块：如果确定是模块损坏，需要更换新的模块。这需要找格力空调的售后或专业维修师傅进行操作；4.检查散热膏：检查模块与散热片之间的散热膏是否涂抹均匀，必要时重新涂抹。
52	H6	Drive IPM module protection of fan	1.检查风机UVW线：确保风机的UVW线连接良好，没有接触不良的情况;2.检查风机：如果风机损坏，需要更换新的风机;3.检查风叶：确保风叶没有被阻挡，电机轴没有生锈，风叶可以自由转动;4.检查风机驱动板：如果风机驱动板异常，需要修复或更换驱动板。
53	H7	Malfunction of drive temperature sensor of fan	1.检查系统压力：适当减少制冷剂量，清洗热交换器；2.检查电机和驱动器：修复或更换电机，检查电机驱动器的输出电压和过载保护功能；3.检查电机连接：确保电机与驱动器之间的连接牢固，无松动或接触不良；4.修复或更换控制电路板：如果控制电路板存在故障，需要进行修复或更换；5.检查通讯线路：更换化霜传感器，并重新连好线缆，确保空调内外机之间的通讯正常；

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54	H8	Drive IPM high temperature protection of fan	1.检查并更换电机：如果电机损坏，需要更换电机；2.检查并更换启动电容：如果启动电容故障，需要更换电容；3.给风机加注润滑油：确保电机轴承有足够的润滑油；4.清除异物：如果电机风叶被异物卡住，需要清除异物；5.检查并修复电路板：如果电路板故障，需要修复或更换电路板。	1. Check and replace the motor: If the motor is damaged, you need to replace the motor; 2. Check and replace the starting capacitor: If the starting capacitor is faulty, you need to replace the capacitor; 3. Lubricate the fan: Make sure there is enough lubricating oil in the motor bearings; 4. Remove foreign matter: If the motor blades are stuck by foreign matter, you need to remove the foreign matter; 5. Check and repair the circuit board: If the circuit board is faulty, you need to repair or replace the circuit board.
55	H9	Desynchronizing protection of inverter fan	1.检查电源插座：确保电源插头和插座正常，重新插接或更换线路以解决电源问题；2.检查电路板和电机：检查电路板和电机是否有问题，必要时进行更换或修理；3.检查环境传感器：确保环境传感器正常工作，必要时进行更换；4.清理外机冷凝器：清除外机冷凝器上的灰尘，确保散热效果良好；5.检查通讯线路：确保通讯线路完好，连接器插头牢固连接在对应的插座上。	1. Check the power socket: make sure the power plug and socket are normal, reconnect or replace the line to solve the power problem; 2. Check the circuit board and motor: check whether there are any problems with the circuit board and motor, and replace or repair them if necessary; 3. Check the environmental sensor: make sure the environmental sensor is working properly and replace it if necessary; 4. Clean the outdoor unit condenser: remove dust on the outdoor unit condenser to ensure good heat dissipation; 5. Check the communication line: make sure the communication line is intact and the connector plug is firmly connected to the corresponding socket.
56	HH	High-voltage protection of fan's drive DC bus bar	1.检查电源电压：确保电源电压在正常范围内，必要时使用稳压器;2.检查驱动电路：检查驱动电路中的元件，如有损坏及时更换;3.改善散热：确保设备有足够的散热空间，清理灰尘，必要时增加散热设备。	1. Check the power supply voltage: Make sure the power supply voltage is within the normal range and use a voltage stabilizer if necessary; 2. Check the drive circuit: Check the components in the drive circuit and replace them in time if they are damaged; 3. Improve heat dissipation: Make sure the equipment has enough heat dissipation space, clean the dust, and add heat dissipation equipment if necessary.
57	HC	Malfunction of current detection circuit of fan drive	1.检查风机驱动电流检测电路：使用专业设备测试电路，及时检修;2.等待一段时间后重新启动：如果空调因保护停机，可以等待半小时后再尝试启动;3.检查电网电压：确保电网电压稳定，避免电压突然变化;4.检查电抗器、PFC电感：如果发现短路，需要更换这些部件。	1. Check the fan drive current detection circuit: Use professional equipment to test the circuit and repair it in time; 2. Wait for a while and restart: If the air conditioner stops due to protection, you can wait for half an hour before trying to start it again; 3. Check the grid voltage: Make sure the grid voltage is stable and avoid sudden voltage changes; 4. Check the reactor and PFC induction: If a short circuit is found, these components need to be replaced.
58	HL	Low voltage protection of bus bar of fan drive	1.检查风机驱动板：首先检查风机驱动板是否正常工作，必要时更换损坏的部件;2.检查电流检测电路：确保电流检测电路连接正确，没有短路或断路现象;3.复位保护：如果风机驱动模块复位保护（H3）触发，可以尝试复位操作，看是否能够恢复正常。	1. Check the fan driver board: First check whether the fan driver board is working properly, and replace damaged parts if necessary; 2. Check the current detection circuit: Make sure that the current detection circuit is connected correctly and there is no short circuit or open circuit; 3. Reset protection: If the fan driver module reset protection (H3) is triggered, you can try the reset operation to see if it can return to normal.
59	HE	Phase-lacking of inverter fan	1.电源缺相：检查电源线路，确保三相电源都连接良好且电压稳定。如果发现某相线路断开或接触不良，应进行修复或更换损坏的线路；2.变频风扇缺相：检查变频风扇的供电线路，确保三相电源都连接到风扇电机。如果发现某相线路缺失，应进行修复或更换损坏的线路。	1. Power phase missing: Check the power supply circuit to ensure that all three phases are well connected and the voltage is stable. If a phase is found to be disconnected or in poor contact, the damaged circuit should be repaired or replaced; 2. Variable frequency fan phase missing: Check the power supply circuit of the variable frequency fan to ensure that all three phases are connected to the fan motor. If a phase is found to be missing, the damaged circuit should be repaired or replaced.

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60	HF	Malfunction of charging loop of fan drive	<p>1. 检查电源电压：确保电源电压稳定，避免电压过高或过低;2.检查电路连接：检查风扇驱动电路的连接是否正确，确保没有松动或短路的情况。3.检查充电回路：检查充电回路的元件是否正常工作，如电容、电阻等;4.检查风扇驱动板：如果风扇驱动板损坏，需要更换新的驱动板。</p> <p>1. Check the power supply voltage: Make sure the power supply voltage is stable and avoid over-high or under-voltage; 2. Check the circuit connection: Check whether the fan drive circuit is connected correctly and make sure there is no looseness or short circuit. 3. Check the charging circuit: Check whether the components of the charging circuit are working properly, such as capacitors, resistors, etc.; 4. Check the fan drive board: If the fan drive board is damaged, you need to replace it with a new one.</p>
61	HJ	Failure startup of inverter fan	<p>1. 检查变频风机的启动电路和启动电容：确保启动电路正常，启动电容没有损坏;2. 清理冰冻的扇叶：在低温环境下，需要定期检查扇叶是否被冰冻，及时清理冰霜，确保风机能够正常启动。</p> <p>1. Check the starting circuit and starting capacitor of the variable frequency fan: make sure the starting circuit is normal and the starting capacitor is not damaged; 2. Clean the frozen fan blades: in a low temperature environment, it is necessary to regularly check whether the fan blades are frozen and clean the frost in time to ensure that the fan can start normally.</p>
62	HP	AC current protection of inverter fan	<p>1.检查逆变器风扇：首先检查逆变器风扇是否正常工作，如果风扇损坏或转速不足，需要更换或维修;2.检查电流传感器：确认电流传感器是否工作正常，必要时进行校准或更换;3.检查电源：确保电源电压稳定，检查电源线路是否有短路或接触不良的情况;4.复位系统：在确认所有硬件正常后，尝试复位系统，看是否能够恢复正常运行。</p> <p>1. Check the inverter fan: First check whether the inverter fan is working properly. If the fan is damaged or the speed is insufficient, it needs to be replaced or repaired; 2. Check the current sensor: Confirm whether the current sensor is working properly and calibrate or replace it if necessary; 3. Check the power supply: Make sure the power supply voltage is stable and check whether the power supply line is short-circuited or has poor contact; 4. Reset the system: After confirming that all hardware is normal, try to reset the system to see if it can resume normal operation.</p>
63	Ed	Low temperature protection for drive module	<p>1.环境温度过低：当室外环境温度过低时，驱动器温度可能会下降到危险水平，触发低温保护; 2. 驱动器故障：驱动器本身可能存在故障，导致无法正常工作在低温环境下; 3. 传感器故障：温度传感器可能不准确或损坏，导致系统误判温度过低。</p> <p>1. Ambient temperature is too low: When the outdoor ambient temperature is too low, the drive temperature may drop to a dangerous level, triggering low temperature protection. 2. Drive failure: The drive itself may have a fault, causing it to fail to work normally in a low temperature environment. 3. Sensor failure: The temperature sensor may be inaccurate or damaged, causing the system to misjudge that the temperature is too low.</p>

Adjustment

Adjustment				
No.	Error Code	Issues Corresponding to Error Codes	解决方式	Solution
1	U0	Preheat time of compressor is insufficient	<p>1.确保压缩机预热时间足够：在调试前，确保压缩机连续预热至少8小时。如果外机连续掉电超过24小时，再次开启时需要提前预热8小时以上；2.检查制冷剂充注量：确保制冷剂充注量适当，避免过量或不足；3.检查制冷剂管路：确保制冷剂管路畅通，避免堵塞。</p>	<p>1. Ensure that the compressor preheats for a sufficient time: Before commissioning, ensure that the compressor is preheated continuously for at least 8 hours. If the external unit is powered off for more than 24 hours, it needs to be preheated for more than 8 hours before it is turned on again; 2. Check the refrigerant charge: Ensure that the refrigerant charge is appropriate to avoid over- or under-charging; 3. Check the refrigerant pipeline: Ensure that the refrigerant pipeline is unobstructed to avoid blockage.</p>
2	U2	Wrong setting of ODU's capacity code/jumper cap	<p>1.检查电源电压：首先检查电源电压是否稳定，确保电压在正常范围内（通常为220V±10%）。如果电压过高或过低，需要调整电压至正常范围；2.检查电路板和跳线帽：确认电路板是否正常工作，检查ODU的容量码设置是否正确，确保跳线帽连接牢固且位置正确。</p>	<p>1. Check the power supply voltage: First check whether the power supply voltage is stable and make sure the voltage is within the normal range (usually 220V±10%). If the voltage is too high or too low, adjust the voltage to the normal range; 2. Check the circuit board and jumper cap: Confirm whether the circuit board is working properly, check whether the capacity code of the ODU is set correctly, and make sure the jumper cap is firmly connected and in the correct position.</p>
3	U4	Refrigerant-lacking protection	<p>1.使用微机检查室内机与室外机之间是否进行正常传送，以确定是否存在通信故障；2.检查室内机与室外机、室外机与室外机之间的连接配线，确保没有短路或接反的情况；3.检查室外机电源是否关闭，以及系统地址是否一致；4.检查室外机控制P板和室内机P板，确保它们没有故障。</p>	<p>1. Use a microcomputer to check whether the transmission between the indoor unit and the outdoor unit is normal to determine whether there is a communication failure; 2. Check the connection wiring between the indoor unit and the outdoor unit, and between the outdoor unit and the outdoor unit to ensure that there is no short circuit or reverse connection; 3. Check whether the power of the outdoor unit is turned off and whether the system address is consistent; 4. Check the outdoor unit control P board and the indoor unit P board to ensure that they are not faulty.</p>
4	U5	Wrong address for driving board of compressor	<p>1.检查电子膨胀阀：关闭电源后，检查电子膨胀阀是否卡死或损坏。如果发现卡死或损坏，需要更换电子膨胀阀；2.检查压缩机驱动板地址：确认压缩机驱动板的地址设置是否正确。如果地址设置错误，需要进行重新设置。</p>	<p>1. Check the electronic expansion valve: After turning off the power, check whether the electronic expansion valve is stuck or damaged. If it is found to be stuck or damaged, the electronic expansion valve needs to be replaced; 2. Check the compressor driver board address: Confirm whether the compressor driver board address setting is correct. If the address setting is wrong, it needs to be reset.</p>

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5	U6	Alarm because valve is abnormal	1. 电子膨胀阀堵塞：电子膨胀阀堵塞会导致制冷剂流量不畅，影响空调的正常运行;2.电子膨胀阀驱动板故障：驱动板损坏或故障会导致电子膨胀阀无法正常工作;3.相关线路问题：线路连接不良或短路也可能导致阀门异常报警.	1. Electronic expansion valve blockage: Blockage of the electronic expansion valve will cause poor refrigerant flow and affect the normal operation of the air conditioner; 2. Failure of the electronic expansion valve driver board: Damage or failure of the driver board will cause the electronic expansion valve to not work properly; 3. Related line problems: Poor line connection or short circuit may also cause abnormal valve alarm.
6	U8	Malfunction of pipeline for IDU	1.查管道：首先检查IDU的管道是否有堵塞、泄漏或连接不良的情况。清理或修复管道问题，确保管道畅通无阻；2.检查主板和遥控器：如果怀疑是主板问题，可以尝试更换霍尔组件版或马达。如果是遥控器之间的通信故障，检查主遥控与辅遥控之间的连接是否正常，必要时更换P板；3.电压检查：使用万用表测量空调电源电压，确保电压在正常工作范围内（交流165V到260V之间）；4.检查管路焊接出是否焊堵，过滤器是否脏堵等。	1. Check the pipeline: First check whether the IDU pipeline is blocked, leaking or poorly connected. Clean or repair the pipeline problem to ensure that the pipeline is unobstructed; 2. Check the motherboard and remote control: If you suspect that it is a motherboard problem, you can try to replace the Hall component board or motor. If it is a communication failure between remote controllers, check whether the connection between the main remote control and the auxiliary remote control is normal, and replace the P board if necessary; 3. Voltage check: Use a multi-meter to measure the air conditioner power supply voltage to ensure that the voltage is within the normal working range (between AC 165V and 260V). 4. Check whether the pipeline welding is blocked, whether the filter is dirty and blocked, etc.
7	U9	Malfunction of pipeline for ODU	1.检查通讯线路：确保通讯线路连接牢固，没有松动或损坏;2.检查电子膨胀阀：确认内机电子膨胀阀连接正常后，重新断电上电复位，检查复位动作，必要时更换；3.检查管路焊接出是否焊堵，过滤器是否脏堵等。	1. Check the communication line: make sure that the communication line is firmly connected and not loose or damaged; 2. Check the electronic expansion valve: after confirming that the indoor electronic expansion valve is connected normally, power off and then power on again to reset it, check the reset action, and replace it if necessary; 3. Check whether the pipeline welding is blocked, whether the filter is dirty and blocked, etc.
8	UC	Setting of main IDU is successful	/	/
9	UL	Wrong button-dial	1. 检查拨码开关：断电后反复拨动几次拨码开关，看是否能恢复正常；2.检查电路连接：确保拨码开关与CPU接口的连接牢固，没有松动或损坏。	1. Check the DIP switch: After power failure, repeatedly turn the DIP switch several times to see if it can return to normal; 2. Check the circuit connection: Make sure that the connection between the DIP switch and the CPU interface is firm and not loose or damaged.

Adjustment				
No.	Error Code	Issues Corresponding to Error Codes	解决方式	Solution
10	UE	Charging of refrigerant is invalid	1.检查系统运行状态 ：确保压缩机在制冷状态下工作，检查系统是否存在串气或压缩机问题;2. 检查环境和工具 ：确保空调处于制冷模式，使用合适的加氟管和工具，必要时加热水以提高氟气的流动性;3.操作检查 ：确保加液口单向阀门正确打开，使用合适的加液工具，避免气体进入;4.压力检查 ：确认空调的低压压力是否正常，避免在压力过高时继续加注.	1. Check the system operation status: make sure the compressor is working in the cooling state, and check whether there is cross-flow or compressor problems in the system; 2. Check the environment and tools: make sure the air conditioner is in cooling mode, use appropriate fluorine filling pipes and tools, and add hot water to improve the fluidity of fluorine gas when necessary; 3. Operation check: make sure the one-way valve of the filling port is opened correctly, use appropriate filling tools to avoid gas entering; 4. Pressure check: confirm whether the low pressure of the air conditioner is normal, and avoid continuing to fill when the pressure is too high.
11	C0	Communication malfunction between IDU, ODU and IDU's wired controller	1. 检查网络连接 ：首先检查室内外机之间的网络连接是否牢固，确保网络线和地址设置正确，避免松动或损坏;2. 检查电源线和通讯线 ：确认电源线和通讯线是否连接牢固，没有松动或损坏 ;3.检查地址设置 ：确认室内外机的地址设置是否正确，避免冲突或错误设置 ;4. 检查通讯板 ：如果以上检查均无误，可能是通讯板故障，需要更换通讯板 ;5.重启空调系统 ：尝试重启空调系统，有时候简单的重启可以解决问题 ;6.使用遥控器操作 ：通过遥控器操作，看看是否能恢复到正常的制冷模式 .	1. Check the network connection: First check whether the network connection between the indoor and outdoor units is firm, and make sure that the network cable and address are set correctly to avoid looseness or damage; 2. Check the power cable and communication cable: Confirm whether the power cable and communication cable are firmly connected, not loose or damaged; 3. Check the address setting: Confirm whether the address setting of the indoor and outdoor units is correct to avoid conflicts or wrong settings; 4. Check the communication board: If the above checks are correct, it may be a communication board failure and needs to be replaced; 5. Restart the air conditioning system: Try to restart the air conditioning system. Sometimes a simple restart can solve the problem; 6. Use the remote control to operate: Use the remote control to see if it can be restored to normal cooling mode.
12	C2	Communication malfunction between main control and inverter compressor driver	1. 检查通讯线路 ：确保外机主板与变频压缩机驱动板之间的通讯线连接正确，没有松动或损坏; 2.检查驱动板和主板 ：检查变频压缩机驱动板和主板是否正常工作，必要时进行维修或更换.	1. Check the communication line: Make sure the communication line between the external main board and the inverter compressor drive board is connected correctly and is not loose or damaged; 2. Check the drive board and main board: Check whether the inverter compressor drive board and main board are working properly, and repair or replace them if necessary.
13	C3	Communication malfunction between main control and inverter fan driver	1.检查通信线连接 ：确保外部主板与变频风扇驱动板之间的通信线正确连接，没有插错或泄漏 ;2. 更换变频风扇驱动板 ：如果驱动板异常，需要更换新的同型号风扇驱动板 ;3.更换主板 ：如果驱动板正常，可能是主控制板异常，需要更换主板 ;4. 检查电源滤板 ：检查电源滤板的输出电压是否异常，必要时更换室外滤板 .	1. Check the communication line connection: Make sure the communication line between the external main board and the variable frequency fan driver board is correctly connected, without insertion or leakage; 2. Replace the variable frequency fan driver board: If the driver board is abnormal, you need to replace it with a new fan driver board of the same model; 3. Replace the main board: If the driver board is normal, it may be that the main control board is abnormal, and you need to replace the main board; 4. Check the power filter board: Check whether the output voltage of the power filter board is abnormal, and replace the outdoor filter board if necessary.

Adjustment				
No.	Error Code	Issues Corresponding to Error Codes	解决方式	Solution
14	C4	Malfunction of lack of IDU	1.检查通讯线：如果通讯线出现故障，进行更换;2.检查室内外机控制盒：如果控制盒出现故障，进行更换;3.检查室内传感器：如果传感器出现故障，进行更换;4.检查电源：确保电源正常，检查电源线路和插头接触情况;5.清理电源模块和散热器：清理电源模块和散热器，确保散热正常;6.检查电压和电阻值：确保电压和电阻值正常;7.检查电源模块内部布线：清理并检查布线，确保没有断线或短路;8.更换压敏电阻：如果压敏电阻开路或损坏，进行更换;9.检查室外机变频模块与变频主板之间的连线：确保连线正常，更换损坏的部件	1. Check the communication line: If the communication line fails, replace it; 2. Check the control box of the indoor and outdoor units: If the control box fails, replace it; 3. Check the indoor sensor: If the sensor fails, replace it; 4. Check the power supply: Make sure the power supply is normal and check the contact between the power line and the plug; 5. Clean the power module and radiator: Clean the power module and radiator to ensure normal heat dissipation; 6. Check the voltage and resistance value: Make sure the voltage and resistance value are normal; 7. Check the internal wiring of the power module: Clean and check the wiring to ensure that there is no disconnection or short circuit; 8 Replace the aristocrat: If the aristocrat is open or damaged, replace it; 9. Check the connection between the outdoor unit inverter module and the inverter main board: Make sure the connection is normal and replace the damaged parts
15	C5	Alarm because project code of IDU is inconsistent	1.通过调试软件重新设置编号；2.通过线控器重新设置编号；3.通过调试遥控器重新设置编号；4.通过内机主板上的复位按键复位该主板，让系统重新分配编号。	1. Reset the number through the debugging software; 2. Reset the number through the wired controller; 3. Reset the number through the debugging remote control; 4. Reset the main board through the reset button on the internal main board to let the system reallocate the number.
16	C8	Emergency status of compressor	1.断电重启：每24小时断一下电，可以暂时解决应急运转状态的问题，但这只是临时措施；2.检查外机主板：故障代码C8通常与外机主板有关，需要检查主板是否正常工作，必要时进行维修或更换。	1. Power off and restart: Cutting off the power every 24 hours can temporarily solve the problem of emergency operation status, but this is only a temporary measure; 2. Check the external unit main board: Fault code C8 is usually related to the external unit main board. It is necessary to check whether the main board is working properly and repair or replace it if necessary.
17	C9	Emergency status of fan	1. 风扇不转：检查风扇电机是否损坏，电源是否正常供电，以及风扇叶片是否被异物卡住；2. 转速异常：检查风扇控制电路是否正常，传感器是否损坏，以及风扇驱动模块是否工作正常。	1. The fan does not rotate: check whether the fan motor is damaged, whether the power supply is normal, and whether the fan blades are stuck by foreign objects; 2. Abnormal speed: check whether the fan control circuit is normal, whether the sensor is damaged, and whether the fan drive module is working properly.
18	CH	Rated capacity is too high	室内机的总额定容量超过了室外机总额定容量的1.35倍，重新进行工程设计，减小室内机容量或增加室外机容量，更换内机或者外机，还有就是修改容量码	The total rated capacity of the indoor unit exceeds 1.35 times the total rated capacity of the outdoor unit. Redesign the project, reduce the capacity of the indoor unit or increase the capacity of the outdoor unit, replace the indoor unit or the outdoor unit, or modify the capacity code.

Adjustment				
No.	Error Code	Issues Corresponding to Error Codes	解决方式	Solution
19	CC	Malfunction of lack of main control unit	1.控制单元故障：检查控制单元是否有损坏或过热现象，必要时更换控制单元;2.电源问题：检查电源供应是否正常，确保电压稳定，必要时进行维修或更换电源; 通信故障：检查控制单元与其他部件的连接线是否松动或损坏，确保通信线路正常	1. Control unit failure: Check whether the control unit is damaged or overheated, and replace the control unit if necessary; 2. Power supply problem: Check whether the power supply is normal and ensure that the voltage is stable. Repair or replace the power supply if necessary; Communication failure: Check whether the connection line between the control unit and other components is loose or damaged, and ensure that the communication line is normal
20	CL	Rated capacity is too low	1.部分室内机掉电或未通讯上 ：如果部分室内机掉电或者未与室外机通讯，会导致额定容量计算不准确； 室内机的额定容量小于室外机的0.5倍：如果室内机的总容量小于室外机容量的0.5倍，系统会限制开机并提示CL故障。	1. Some indoor units lose power or fail to communicate: If some indoor units lose power or fail to communicate with the outdoor units, the rated capacity calculation will be inaccurate; The rated capacity of the indoor units is less than 0.5 times that of the outdoor units: If the total capacity of the indoor units is less than 0.5 times that of the outdoor units, the system will restrict startup and prompt a CL fault.
21	CF	Malfunction of multiple main control units	1.检查通信线路：检查所有控制单元之间的通信线路，确保连接牢固，线路没有损坏;2. 重启控制单元：尝试断开电源，等待几分钟后重新启动，看是否能够恢复正常;3.检查电源供应：确保电源稳定，电压正常，必要时联系专业电工进行检查和维修.	1. Check the communication lines: Check the communication lines between all control units to ensure that the connection is firm and the lines are not damaged; 2. Restart the control unit: Try to disconnect the power supply, wait a few minutes and then restart to see if it can be restored to normal; 3. Check the power supply: Ensure that the power supply is stable and the voltage is normal. If necessary, contact a professional electrician for inspection and repair.
22	CJ	Address DIP switch code of system is shocking	1. 检查地址码设置 ：首先确认每台内机的地址码是否正确，确保没有重复或冲突的地址码;2. 修改内机地址 ：如果发现地址码冲突，可以按照视频操作修改内机的地址。	1. Check the address code setting: First confirm whether the address code of each indoor unit is set correctly to ensure that there are no repeated or conflicting address codes; 2. Modify the indoor unit address: If an address code conflict is found, you can modify the address of the indoor unit according to the video operation.
23	CP	Malfunction of multiple wired controller	1.检查通信线路：确保控制器与多线控制器之间的通信线路连接正常，没有松动或损坏;2.重启系统 ：尝试重启空调系统，看是否能够恢复正常;3. 检查控制器设置 ：确认控制器的设置是否正确，包括温度、模式等参数.	1. Check the communication line: Make sure the communication line between the controller and the multi-line controller is connected properly and is not loose or damaged; 2. Restart the system: Try to restart the air conditioning system to see if it can return to normal; 3. Check the controller settings: Confirm whether the controller settings are correct, including temperature, mode and other parameters.

Adjustment				
No.	Error Code	Issues Corresponding to Error Codes	解决方式	Solution
24	CU	Communication malfunction between IDU and the receiving lamp plate	1.检查内外机之间的网络：如果外机主控板没有显示C0，则检查内机与手操器之间的网络;2.检查内外机之间的网络：如果外机主控板、内机灯板和线控器全部报C0，则需要检查内外机之间、内机与手操器之间的网络;3.检查内机与手操器之间的网络：如果只有线控器报C0，则检查内机与手操器之间的网络以及线控器数量和地址设置.	1. Check the network between the indoor and outdoor units: If the outdoor unit main control board does not display C0, check the network between the indoor unit and the handheld operator; 2. Check the network between the indoor and outdoor units: If the outdoor unit main control board, the indoor unit light board and the wired controller all report C0, you need to check the network between the indoor and outdoor units and between the indoor unit and the handheld operator; 3. Check the network between the indoor unit and the handheld operator: If only the wired controller reports C0, check the network between the indoor unit and the handheld operator and the number and address settings of the wired controllers.
25	Cb	Overflow distribution of IP address	1. "IP地址溢出"可能意味着空调的控制系统在尝试分配或识别IP地址时遇到了问题。这可能是由于IP地址冲突、地址池耗尽或其他网络配置错误导致的; 2.检查空调系统的网络设置，确保所有设备的IP地址都是唯一的，并且没有超出网络地址范围; 3.重启设备。	1. "IP address overflow" may mean that the air conditioner's control system encountered a problem when trying to assign or identify an IP address. This may be caused by an IP address conflict, address pool exhaustion, or other network configuration errors; 2. Check the network settings of the air conditioner system to ensure that the IP addresses of all devices are unique and do not exceed the network address range; 3. Restart the device.