

# 格力多功能变频空调测试仪使用指导

## GREE Tester for Inverter Air Conditioner Usage Guide

### 一、背景原因： Background reasons:

因旧款调试仪芯片停产，出口技术部开发了新款的空调售后检测仪，可用于主流的家用户外空调。

Due to the discontinuation of the old debugger chip, the R&D Department has developed a new after-sales debugger, which can be used in mainstream household AC.

成品码 Product code	售后检测仪型号 model	备注 remark
TL13900020	GZJ11D004 (旧 old model)	芯片停产，且不可用于外机供电低功耗待机机型（带待机唤醒功能） The chip is discontinued and can not be used for ODU power supply low-power standby models (with standby wake-up function).
TL118002700	GT2A3Ac (新 new model)	新开发，可用于出口主流机型 Newly developed, can be used to mainstream models.

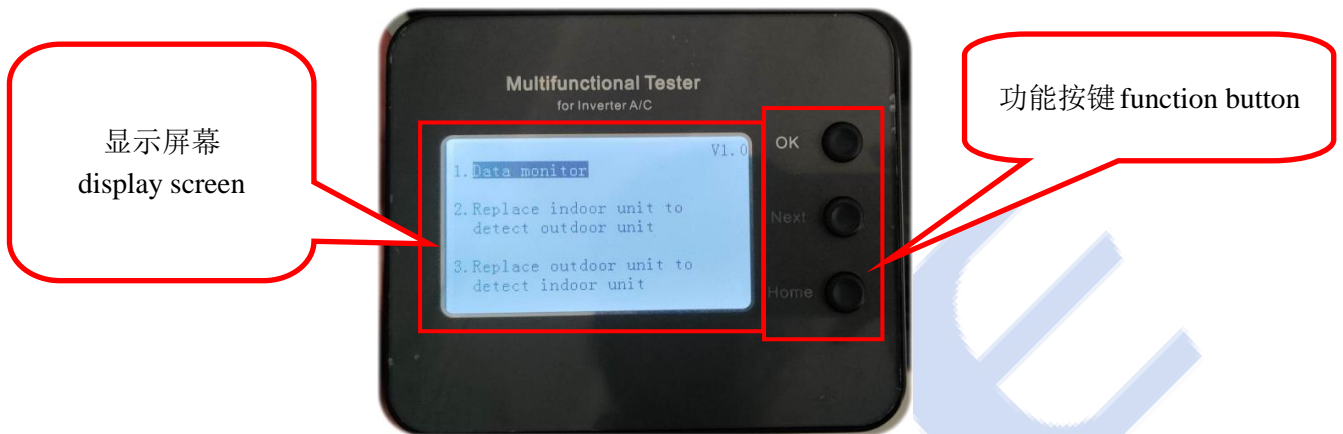
## 二、适用机型： Applicable models:

机型 model	细类 Specific types	GT2A3Ac 调试仪适用机型 GT2A3Ac debugger applicable models	备注 remark
分体机 Split unit	定频分体机 Fixed split unit	仅适用于带通讯的定频机型 Only applicable to fixed models with communication	GT2A3Ac 调试仪仅适用于 220V 机型，110V 机型不适用。 GT2A3Ac debugger is only suitable for 220V models, not for 110V models.
	变频分体(内机供电) Inverter split unit(IDU power supply)	可用 OK	
	变频分体(外机供电) Inverter split unit(ODU power supply)	可用 OK	
柜机 Floor standing unit	定频 Fixed	仅适用于带通讯的定频机型，适用于 T 爽柜机及后续新机型 Only applicable to fixed models with communication(applicable to T-fresh model and new models)	
	变频 Inverter	适用于 T 爽柜机及后续新机型 applicable to T-fresh model and new models	
自由配 Free match	变频 Inverter	可用 OK	

## 三、功能介绍： function introduction:

### 1、GT2A3Ac 调试仪外观

Appearance of GT2A3Ac debugger



显示屏幕  
display screen

功能按键 function button

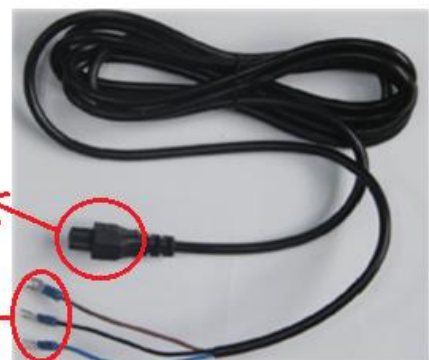
**按键功能说明: Button function description:**

1. 确认按键 (OK button) : 进入所选的功能  
enter the selected function
2. 选择按键 (Next button) : 功能选择或翻页 select a function or turn to another page
3. 主页面按键 (Home button) : 返回首页  
return or back to the home page

电源线接口  
Power cord interface of debugger



Power cord plug  
检测仪电源接口



接空调内/外机接线板端子; 注意火线 (棕色), 通讯线 (黑色), 零线 (蓝色)

This is to connect the terminal board of IDU/ODU. Please note: live wire(brown), communication wire(black) and neutral wire (blue).

## 注意事项

## Precautions

- 1、所有接线操作要在断电的情况下完成，不可在空调带电时接入检测仪，以免触电；  
1.All wiring connection should be completed under power off status. Do not connect the debugger when the air conditioner is energized to avoid electric shock.
- 2、在调试仪接入空调使用前，应确保空调的残余电压放电完成。可用万用表的电压档测试空调接线板的火线与零线的电压、通讯线与零线的电压，应达到 0V。确认安全后接入调试仪，接好线再通电；  
2.Before connecting the debugger to the air conditioner, make sure that the residual voltage of the air conditioner is discharged. Use multimeter to test the voltage between live wire and neutral wire, and the voltage between communication wire and neutral wire, the voltage should be 0V. After confirming the safety, connect the debugger and the wire, then power on.
- 3、检测仪使用完成后，不可直接从接线板拆下，请先将空调断电，用万用表的电压档测试空调接线板中的火线对零线电压为 0V、通讯线对零线电压为 0V，确保空调完全断电后再拆下调试仪的连接线；  
3.Before removing the debugger from the terminal board, please power off the air conditioner first. Use the multimeter to test whether the voltage between the live line and the neutral line, and the voltage between the communication line and the neutral line are 0V. After the air conditioner is completely powered off, remove the connecting wire of the debugger.
- 4、需保证检测仪的接线牢固，并且零、火线不可接反，否则会检测不到数据并提示“E6”；  
4. It is necessary to ensure that the wire connection of the debugger is firm, live wire and the neutral wire cannot be reversed, otherwise the data will not be detected and "E6" will be displayed.
- 5、请勿在雷雨等恶劣天气下使用调试仪，注意防潮、防水，在凝水状态下不要使用调试仪。  
5.Do not use the debugger under severe weather such as thunderstorms, pay attention to moisture proof and water proof, and do not use the debugger under condensed water.

### 1、数据检测功能【Data monitor】

此功能主要用于检测空调整机的运行参数，显示界面如下：

This function is mainly used to detect the operating parameters of the whole unit. The display interface is as follows:

```

• Run mode: Cool
• Compressor frequency: 0Hz
• Expansion valve: 150Step
• Module temp.: 45°C
• Outdoor ambient temp.: 25°C
• Discharge temp.: 89°C
• External tube temp.: 25°C
• DC bus voltage: 308V
End
    
```

### 2、替代内机检测外机功能【Replace indoor unit...】

此功能用于检测外机运行状态，显示外机的运行参数，如存在故障则显示外机的故障代码。

This function is used to detect the operating status of the ODU, and display the operating parameters of the ODU. If there is a fault , it will display the error code of the ODU.

### 3、替代外机检测内机功能【Replace outdoor unit...】

该功能用于检测内机运行状态，显示内机的运行参数，如存在故障则显示内机的故障代码。

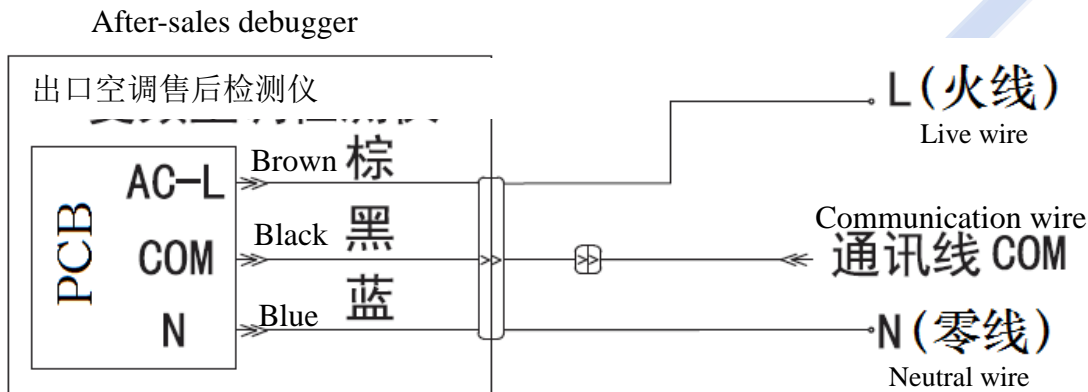
This function is used to detect the operating status of the IDU, and display the operating parameters of the IDU. If there is a fault , it will display the error code of the IDU.

```

• Run mode: Cool
• Indoor fan speed: High
• Set temp.: 19°C
• Indoor ambient temp.: 26°C
• Inner tube temp.: 24°C
Next
    
```

#### 四、接线介绍： Wiring instruction:

##### 1、调试仪电源接线说明 power cord connection instruction of debugger



**注意**

**Notice**

a、通讯线 COM 接空调内机或外机通讯端之一即可。少量机型内机无接线板，可将通讯线 COM 端接在外机的接线板处。

The communication line (COM) should be connected to the communication terminal of the indoor unit or the outdoor unit. Some models do not have terminal board on IDU, and the communication wire COM can be connected to the terminal board of ODU.

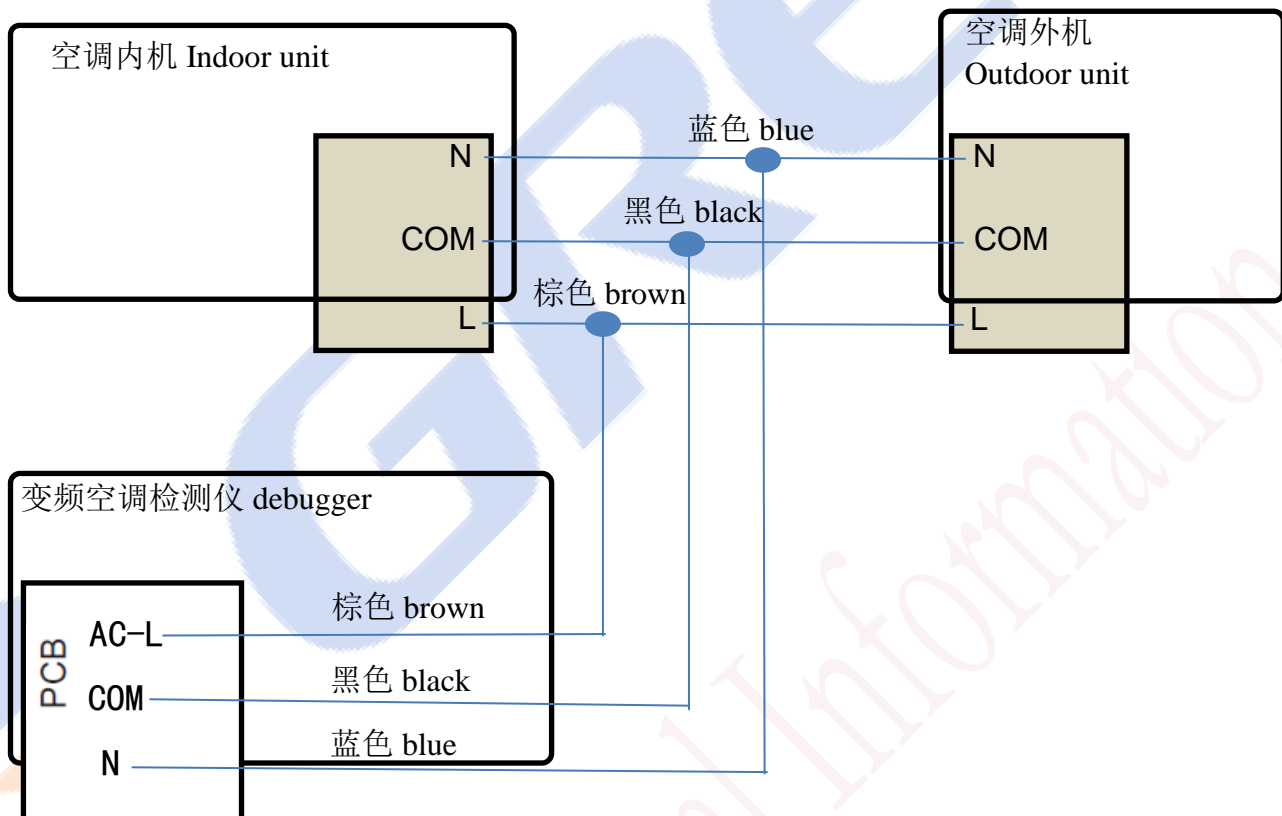
b、所有接线操作在断电情况下完成，请先接好线再通电；需保证检测仪的接线牢固，并且零、火线不可接反，否则会检测不到数据并提示“E6”。

Please connect power only after the wires are properly connected. The neutral wire and live wire must not be reversed. Wires of the debugger must be securely connected to the AC; otherwise, data cannot be detected and E6 will be displayed.

## 2、数据检测功能【Data monitor】接线说明 Wiring instruction of Data monitor function

整机断电并且确认没有残余电压后，将调试仪的连接线并接在空调的内机或者外机接线板上，连接线需一一对应，不可接反。整机重新上电，从调试界面仪进入【数据检测功能】功能使用即可。接线示意图如下：

Cut off the power of the air conditioner and make sure that the residual voltage of the air conditioner is discharged. Connect the connection wires of the debugger to the IDU or ODU terminal board in parallel. The connection wires must correspond to each other and cannot be reversed. Power on the whole unit again and enter the [Data Detection Function] from the debugging interface. The wiring diagram is as follows:



**注意**

**Notice**

a、整机断电并且确认没有残余电压后才可接线和拆线；

Before connecting or disconnecting the wires to the air conditioner, please cut off the power of the air conditioner and make sure that the residual voltage of the air conditioner is discharged.

b、AC-L 为棕色线，COM 为黑色线，N 为蓝色线，不可接反；

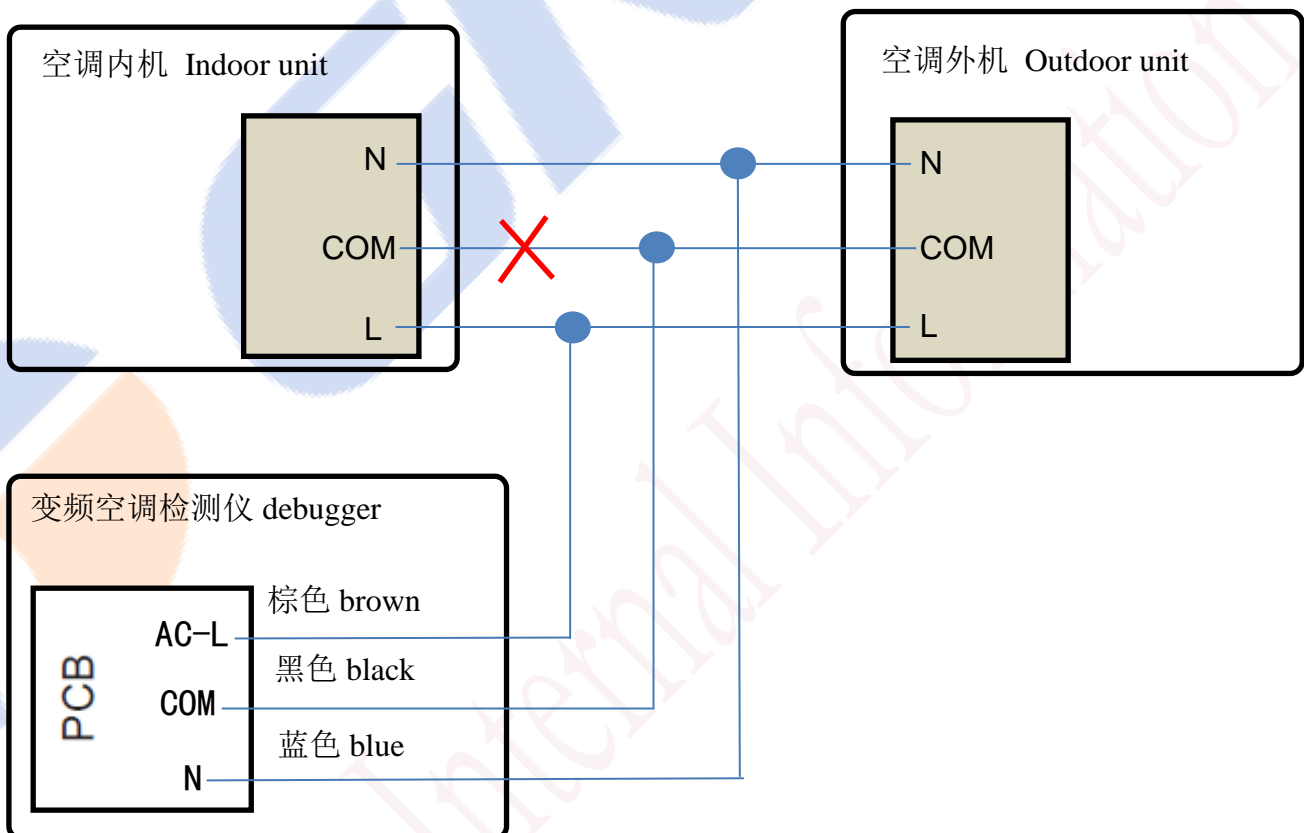
AC-L connect brown wire, COM connect black wire, N connect blue wire, the wires can not be connected reversely.

### 3、替代内机检测外机功能【Replace indoor unit...】接线说明

#### Wiring instruction of Replacing the IDU to detect the ODU

开启【替代内机检测外机】功能，调试仪相当于一台内机，可检测外机是否存在异常。使用此功能需将内机端的通讯线断开，将调试仪的通讯线与外机通讯线连接。

If selecting the function of [Replace the IDU to detect ODU], the debugger is equivalent to an IDU and will detect whether the ODU is abnormal. when using this function, **disconnect the communication wire of the IDU** and connect the communication wire of the debugger with the communication wire of ODU.



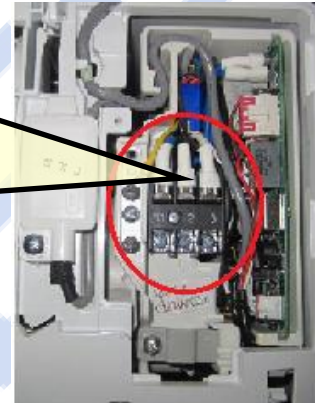


调试仪电源线可以接到内机或者外机的接线板，注意需断开内机主板端通讯线(黑色线)与接线板的连接。如下图所示：

The power cord of the debugger can be connected to the terminal board of the IDU or the ODU. Note that the communication wire(black wire) of the IDU main board must be disconnected from the terminal board. As shown below:

调试仪接内机接线板时，需断开内机的 COM 通讯线(黑色)。

When the debugger is connected to the IDU terminal board, the COM communication wire (black) of IDU must be disconnected.



如果调试仪接外机接线板，也需断开内机的通讯线

If the debugger is connected to the ODU terminal board, the communication wire of the IDU must also be disconnected.

**注意**

**Notice**

a、整机断电并且确认没有残余电压后才可接线和拆线； Before connecting or disconnecting the wires to the air conditioner, please cut off the power of the air conditioner and make sure that the residual voltage of the air conditioner is discharged.

b、AC-L 为棕色线，COM 为黑色线，N 为蓝色线，不可接反； AC-L connect brown wire, COM connect black wire , N connect blue wire , the wires can not be connected reversely.

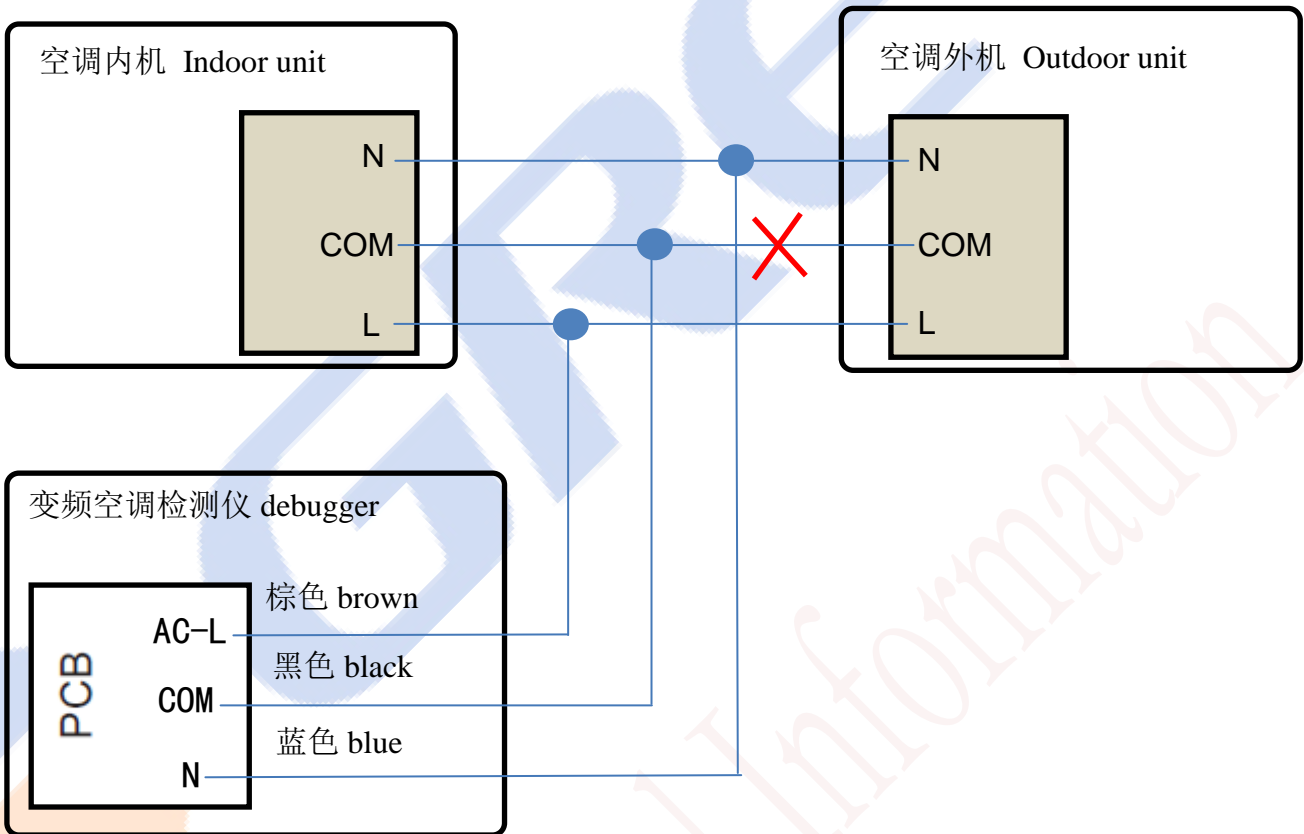
c、仅用于短时间使外机运转以便排查故障，不得运转超过 10 分钟； It is only used to let the ODU run for a short time for troubleshooting, and it should not run for more than 10 minutes.

#### 4、替代外机检测内机功能【Replace outdoor unit...】

##### Wiring instruction of Replacing the ODU to detect the IDU

开启【替代外机检测内机】功能，调试仪相当于一台外机，可检测内机是否存在异常。使用此功能时需将外机端的通讯线断开，将调试仪的通讯线与内机通讯线连接。

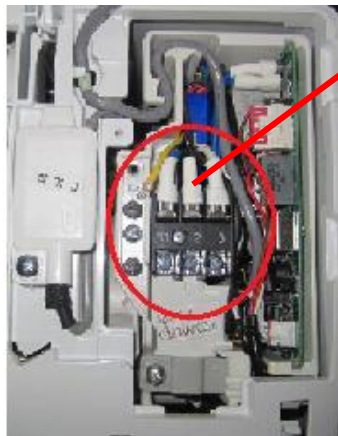
If selecting the function of [Replace the ODU to detect IDU], the debugger is equivalent to an ODU and will detect whether the IDU is abnormal. when using this function, **disconnect the communication wire of the ODU** and connect the communication wire of the debugger with the communication wire of IDU.



调试仪可以接到内机或者外机的接线板中，将外机通讯线（黑色线）断开即可。

The power cord of the debugger can be connected to the terminal board of the IDU or the ODU. Note that the communication wire (black wire) of the ODU must be disconnected from the terminal board. As shown below:

**需断开外机的 COM 通讯线 The COM communication wire of ODU needs to be disconnected**



**注意**

**Notice**

a、整机断电并且确认没有残余电压后才可接线和拆线；

Before connecting or disconnecting the wires to the air conditioner, please cut off the power of the air conditioner and make sure that the residual voltage of the air conditioner is discharged.

b、AC-L 为棕色线，COM 为黑色线，N 为蓝色线，不可接反；

AC-L connect brown wire, COM connect black wire, N connect blue wire, the wires can not be connected reversely.

c、对于一拖多自由配机型，需逐台内机进行替代连接排查故障；

For free match models, it need to replace and connect the IDU one by one for troubleshooting.