



Installation, Operation, and Maintenance Instruction Manual of Multifunctional Tester Pro for Inverter Air Conditioner

SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

AVERTISSEMENT DE SÉCURITÉ

Seul le personnel qualifié doit installer et procéder à l'entretien des équipements. L'installation, le démarrage et la réparation des équipements de chauffage, de ventilation et de climatisation peuvent être dangereux et nécessitent une formation et des connaissances spécifiques. Un équipement mal installé, réglé ou modifié par un individu non qualifié peut entraîner des blessures graves, voire mortelles. Lors de toute intervention sur l'équipement, respectez toutes les précautions figurant dans la documentation et sur les étiquettes et autocollants fixés à l'équipement.



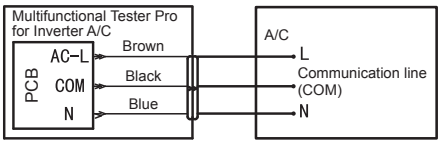
Specification	
Product name	Tester Pro for Inverter Air Conditioner
Product code	TL118004500
Product model	GT2A3Ad
Rated voltage	220-240V~

Buttons

- 1.OK button: enter the selected function;
- 2.Next button: select a function or turn to another page;
- 3.Home button: return or back to the home page;

Functions

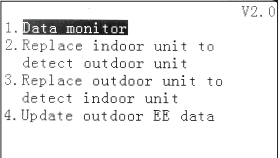
(I). Wiring with air conditioner



- Note:
- a. When the tester is connected to the air conditioner, it cannot be connected to the USB port of the computer.
 - b. The communication line (COM) should be connected to the communication terminal of either the indoor unit or the outdoor unit.
 - c. Please connect power only after the wires are properly connected. The neutral wire and live wire must not be reversed.

sed. Terminal COM of the tester must be securely connected to the AC; otherwise, data cannot be detected and E6 will be displayed. (E6: indoor and outdoor units communication failure) (II).Operation instruction

1. When the tester is powered on, it will display as follows:



- Note:
- Pressing the next button can switch to a different function.
 - The function of data monitoring:
After the function of data monitoring is selected, if the indoor or outdoor unit is not faulted or under protection, only operational data will be displayed; otherwise, a fault or protection code or maintenance guide will be shown.The last page will display the operational data. Press the next button to view the fault, protection condition and operational data.

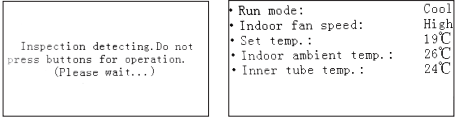
If the air conditioner is not faulted, the tester will display the air conditioner's operational data, as shown below:

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

Note: If the data page shows "--", it means the tester cannot collect data from this model.

3. Replace the indoor unit to test the functions of outdoor unit:
If the outdoor unit is not faulted or under protection, only operational data will be displayed; otherwise, a fault or protection code or maintenance guide will be shown. The last page will display the operational data. If the outdoor unit can start up normally, then its compressor will stop after running for a maximum of 3min. Press the next button to view the fault, protection condition and operational data of the outdoor unit.
Note: When the tester replaces the function of the indoor unit, the communication wire of the indoor unit must be disconnected from the wiring board.
Note:
(1)When the tester replaces the function of the indoor unit,the communication wire of the indoor unit must be disconnected from the wiring board.
(2)If the tester replaces the indoor unit to test the outdoor unit, it will sense the outdoor ambient temperature after it is energized. If the outdoor temperature is above 20℃, the unit will enter cooling mode. If the outdoor temperature is below 20℃,the unit will run in heating mode.
4. Replace the outdoor unit to test the functions of indoor unit:
Note:
When the tester replaces the function of the outdoor unit, the communication wire of the outdoor unit must be disconnected from the wiring board.

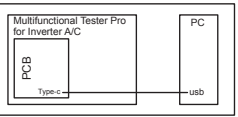
- a. It takes 90s for the tester to connect to the indoor unit and completing the testing. If the indoor unit reports E6 in 90s, it is normal. The tester will report a fault after 90s, as shown below:



- b. If the indoor unit is faulted or under protection, a fault or protection code or maintenance guide will be shown. The last page will display the operational data. Press the next button to view the fault, protection condition and operational data of the indoor unit.

- 5.Upgrade and outdoor unit EE information query function:
(1) When using this function, you need to copy the outdoor unit program to the tester first. The wiring method between the tester and the computer is shown in the figure:

Note:
Before connecting the tester to the computer, the power cord connecting the tester and the air conditioner must be disconnected.

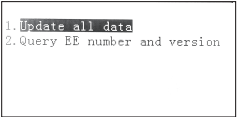


- (2) After the tester has copied the outdoor unit EE program file from the computer, disconnect the tester from the computer, and then connect the tester to the wiring board of air conditioner. For the wiring method, see “(I) Wiring with air conditioner”

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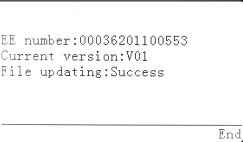
When using the tester upgrade and outdoor unit EE information query function, the communication wire of the indoor unit must be disconnected from the wiring board.

(3) When you select the upgrade and outdoor unit EE information query function, click the OK button and the display will be as follows:



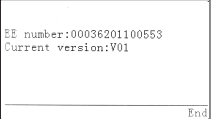
a: Outdoor unit EE data upgrade function:

When using this function, it is necessary to copy the upgraded outdoor unit EE program file to the tester through the computer, and select the program file to be upgraded and confirm. Then wait for the upgrade to be done. As shown in the figure, it is successful.



b: Outdoor unit EE information query function:

You can check the existing outdoor unit EE data information through the tester, as shown in the figure:



Note:

(1) Upgrade and outdoor unit EE information query function is to upgrade the outdoor unit. When using this function, the neutr-

al wire, live wire and communication wire of the indoor unit must be disconnected from the wiring board of the outdoor unit.

(2) When using the outdoor unit EE data upgrade function, you need to copy the program file to be upgraded first, otherwise it will prompt that there is no file, as shown in the figure:



(3) When using the tester to store EE program file, no other folders can be created, and the EE program file can only be stored in the root directory of the mobile disk.

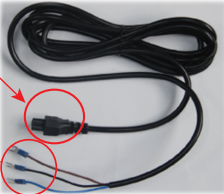
(III).Judgement of temperature sensors

Model	Temperature	Reference resistance(KΩ)	Take 5V as reference voltage(V)
15K(Ambient temperature)	22℃	17. 14	2. 33
	23℃	16. 39	2. 39
	24℃	15. 68	2. 44
	25℃	15. 00	2. 50
	26℃	14. 36	2. 55
	27℃	13. 74	2. 61
20K(Tube temperature)	28℃	13. 16	2. 66
	22℃	22. 85	2. 33
	23℃	21. 85	2. 39
	24℃	20. 90	2. 44
	25℃	20. 00	2. 50
	26℃	19. 14	2. 55
	27℃	18. 32	2. 61
	28℃	17. 55	2. 66

Connect to the Air Conditioner

1.Power supply instruction:

Tester power supply interface

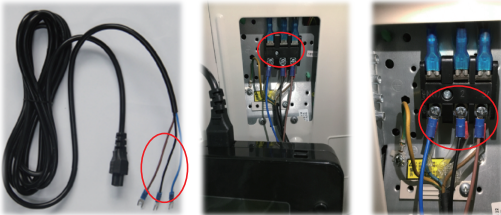


This is to connect the air conditioner. Mind the live wire (brown), communication wire (black) and neutral wire (blue).

2. Wiring procedure:

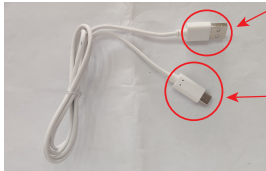
Connect the wiring terminal of power cord to wiring terminal of air conditioner, see the figure as below. Please note that the neutral wire (blue), live wire (brown) and communication wire (black) cannot be connected reversely.

The wiring diagram as below is only for reference.



Instructions of connecting data cable and computer

Instructions of data cable:



Connect to the USB port of the computer

Connect to the Type-C port of the tester

Note: Before connecting the tester to the computer, the power cord connecting the tester and the air conditioner must be disconnected.

⚠ WARNING ⚠

1. Do not use in severe weather such as thunderstorm. Guard against damp and keep dry.
2. Please connect power only after the wires are properly connected. The neutral wire and live wire must not be reversed.

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