Portable Commissioning Tool

VECT2E

Thank you for selecting LENNOX air conditioners. Please read this manual carefully before operation and keep it for further reference.

To Users

Thank you for selecting LENNOX's product. Please read this instruction manual carefully before installing and using the product, so as to master and correctly use the product. In order to guide you to correctly install and use our product and achieve expected operating effect, we hereby instruct as below:

(1) This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsibility for their safety. Children should be supervised to ensure that they do not play with the appliance.

(2) This instruction manual is a universal manual, some functions are only applicable to particular product. All the illustrations and information in the instruction manual are only for reference, and control interface should be subject to actual operation.

(3) In order to make the product better, we will continuously conduct improvement and innovation. We have the right to make necessary revision to the product from time to time due to the reason of sales or production, and reserve the right to revise the contents without further notice.

(4) For personal injury or property loss and damage caused by improper operation such as improper installation and debugging, unnecessary maintenance, violation of related national laws and rules and industrial standard, and violation of this instruction manual, etc., we will bear no liability.

(5) The final right to interpret for this instruction manual belongs to LENNOX.

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1 Safety Notices



Warning: If not abide strictly, it may cause severe damage to the unit or the people.



Note: If not abide strictly, it may cause slight or medium damage to the unit or the people.



This sign indicates that the operation must be prohibited. Improper operation may cause severe damage or death to people.



This sign indicates that the items must be observed. Improper operation may cause damage to people or property.



WARNING!

This product can't be installed at corrosive, inflammable or explosive environment or the place with special requirements, such as kitchen. Otherwise, it will affect the normal operation or shorten the service life of the unit, or even cause fire hazard or serious injury. As for above special places, please adopt special air conditioner with anti-corrosive or anti-explosion function.

2 Wiring Instructions

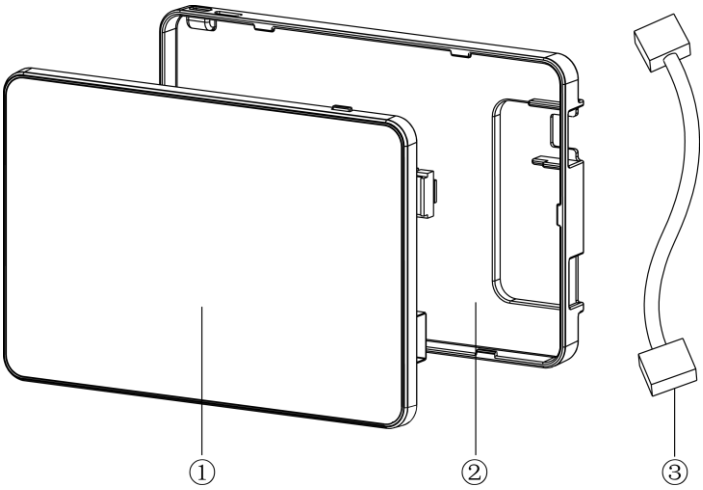


Fig.2.1 Parts of Controller

No.	①	②	③
Name	Touch screen of controller	Rear cover of controller	Long connection wire
Quantity	1	1	1

Unit: mm

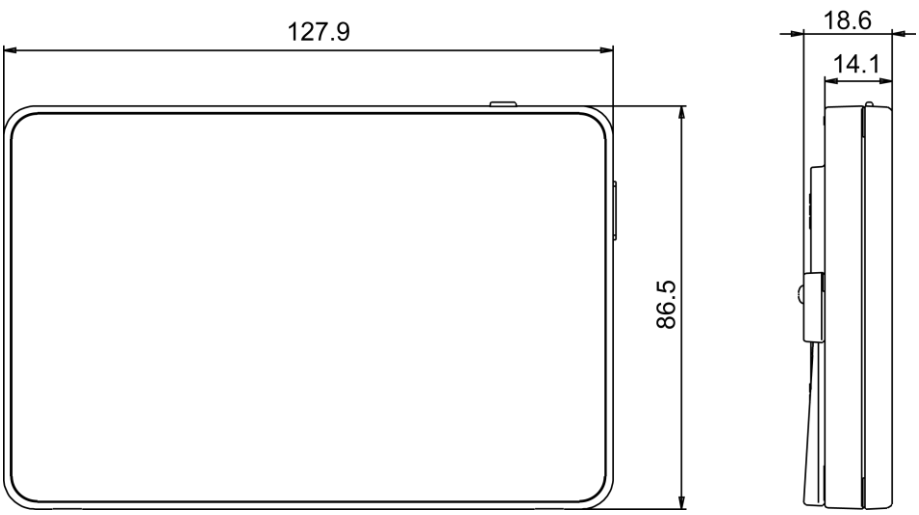


Fig.2.2 Outline Dimension

2.1 Requirements of Operation Environment

Never operate this product in the following surroundings:

(1) Places with corrosive gas or serious dust, salt mist or oil smoke;

(2) Wet and damp places or places with direct sunlight;

(3) Places near high temperature objects or places where units might be splashed by water.

2.2 Requirements of U Flash Disk

When upgrading program or exporting data document, use a flash disk complying with the following requirements:

(1) USB2.0 interface

(2) FAT32 file system

2.3 Wiring Instructions

2.3.1 Wiring Interfaces

Interface symbol	COM	USB	POWER
Meaning	Interface of power supply and communication	Flash disk can be inserted	Interface of power supply

2.3.2 Power Supply Ways

(1) Power supply way 1: Power is supplied through USB Micro interface (POWER symbol).

(2) Power supply way 2: Connection IDU or ODU through 4-core communication wire. Power is supplied by IDU or ODU. This power supply way will be adopted for site enviroment.

2.3.3 Wiring Methods

There are two methods to connect this product with the air conditioning system:

Method 1: Connect with IDU network

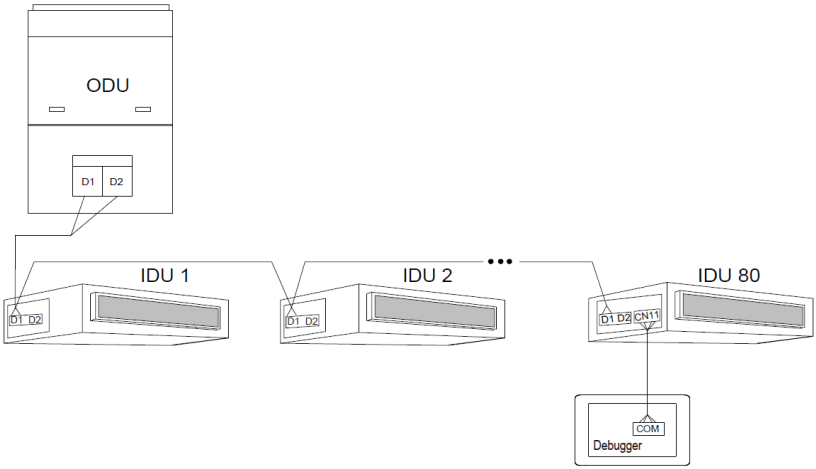


Fig.2.3 Connected with IDU Network

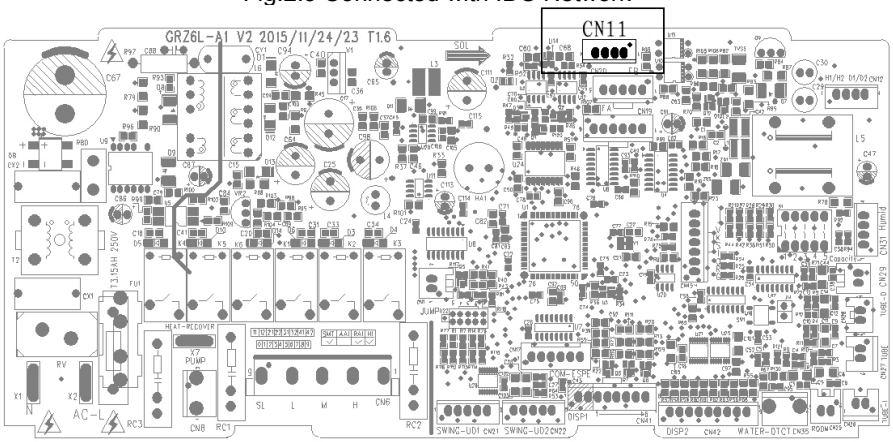


Fig.2.4 Debugger Interface in IDU Mainboard

Method 2: Connect with ODU network

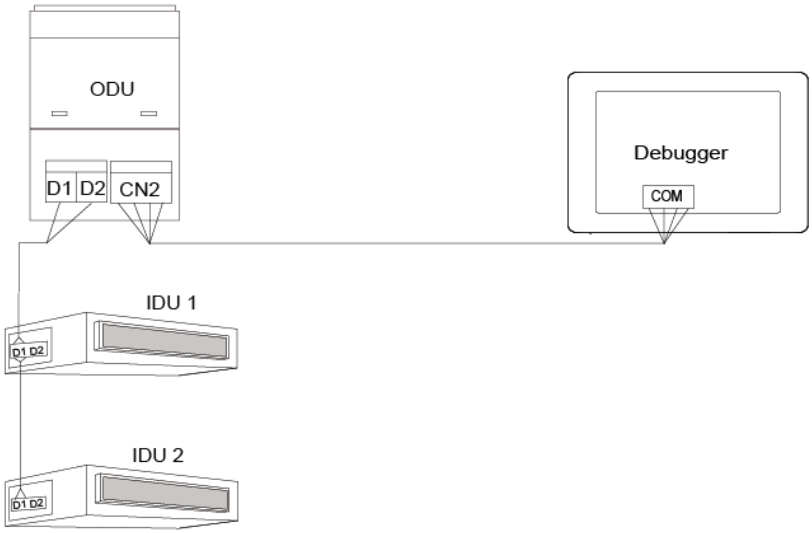


Fig.2.5 Connected with ODU Network

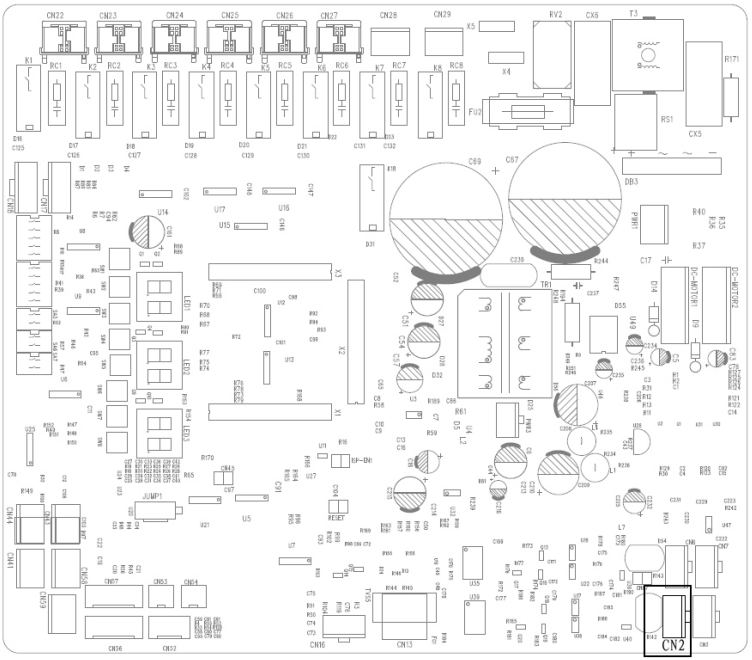


Fig.2.6 Debugger Interface in ODU Mainboard

Wiring instructions:

(1) This product is applicable to VRF units connectable with IDU network or ODU network.

(2) If this product is to be connected with IDU network, connect according to Fig.2.3. This product can connect with any one indoor unit in series. During connection, one end of 4-core long connection wire is connected with COM interface of this product; the other end is connected with IDU CN11 interface (CAN-DEBUG).

(3) If this product is to be connected with ODU network, connect according to Fig.1.5. During connection, one end of 4-core long connection wire is connected with COM interface of this product; the other end is connected with CN2 interface of ODU mainboard (Fig. 2.5).

(4) DIP of ODU address shall be set. You must set this DIP in main control ODU. The setting code (SA8) of main control unit shall be set to “00”. Otherwise, it is invalid.

Note:

The debugging interfaces in IDU and ODU mainboards as shown in Fig. 1.4, Fig. 1.6 are only for reference. Detailed interface position please refer to the actual IDU mainboard and ODU mainboard.

Warning: After finishing operating this product, the wiring of air conditioner must be resumed. Otherwise, it may affect the actual operation of user!

3 Display and Operation Instructions

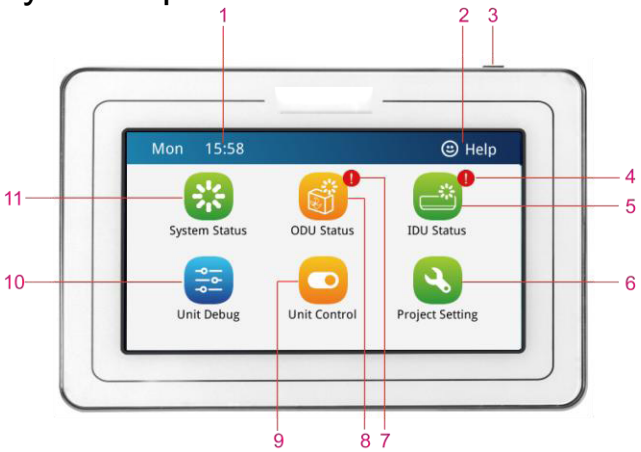


Fig.3.1 Main Page

3.1 Main Page Display and Buttons

No.	Name	Instructions
1	System time	When the controller is connected with communication network, current day, hour, minute, a.m./ p.m.(12-hour clock) will be display;
2	Entrance of help	Press this button to enter help page and view help information;
3	Touch button	● Press Touch Button once to turn on/off the screen of this product; ● Press and hold Touch Button for 5sec to reset the touch screen;
4	IDU error reminder	When this icon appears, it indicates the indoor unit has error currently;
5	IDU status	Entrance of viewing IDU status parameters;
6	Engineering setting	Entrance of engineering setting options;
7	ODU error indication	When this icon appears, it indicates ODU module has error currently;
8	ODU status	Entrance of viewing ODU status parameters;
9	Unit control	Entrance of unit control operation;
10	Unit debugging	Entrance of unit debugging operation;
11	System status	Entrance of viewing system status parameters.

3.2 General Buttons

Display	Name	Meaning		Display	Name	Meaning
	Return	Press this button to return to the previous page			Option	Option is selected/not selected
	Page up	One page up			Page down	One page down
	Reduce	Press this button to decrease value			Increase	Press this button to increase value
	Left	Press this button to decrease value			Right	Press this button to increase value
	Down	Press this button to decrease value			Up	Press this button to increase value

3.3 Buttons Operation Instructions

This product uses a capacitive touch screen so that user can operate the units by just touching the screen.

Buttons on the screen are presented in the following ways:

(1) Icon

Icon button can be operated directly. See section 2.2 for more details.

(2) Text

Press Text button to enter corresponding page; (take IDU parameter setting page as an example);

IDU Setting Press it to enter parameter setting of this item.

(3) Icon + Text

According to the meaning of Text, select a certain function or enter a certain page. (Take sound setting as an example);

Sound Press it to enter sound setting page.

4 Function Instructions

4.1 System Status

On the home page, press to enter into viewing system setting.

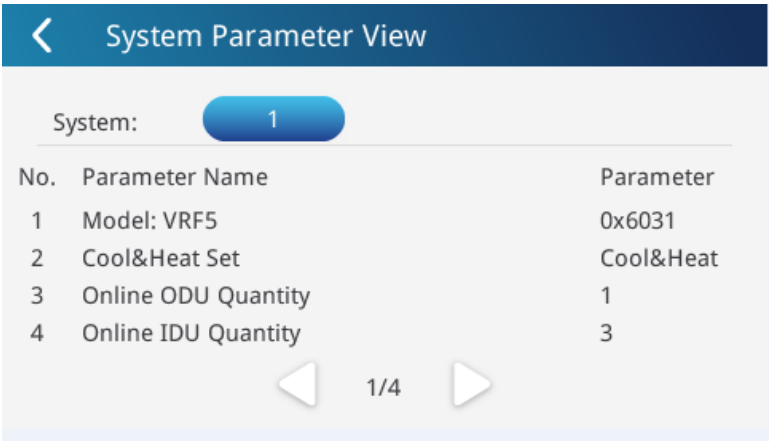


Fig. 4.1 Viewing System Parameters

Note: Current version of the product only views single system and you do not need to select system.

4.2 ODU Status

On the home page, press  to enter into viewing ODU status.

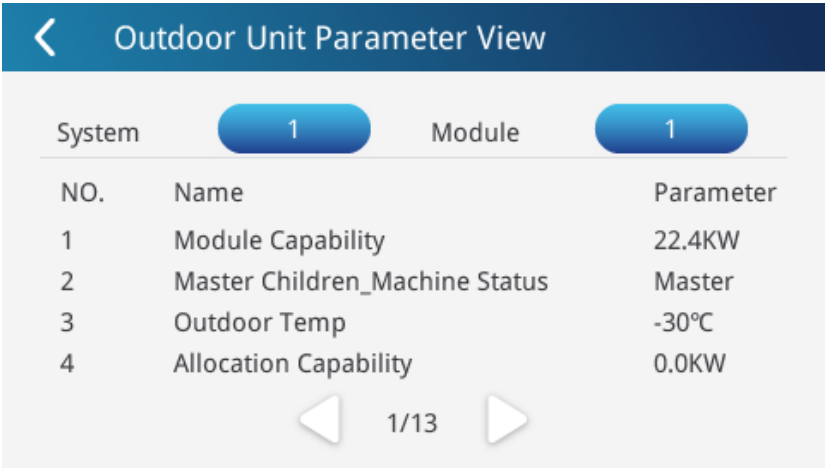


Fig. 4.2 Viewing ODU Parameters

Note: When the module has error, click  at the right lower corner to enter into viewing module error.

4.3 IDU Status

On the home page, press  to enter into viewing IDU status.

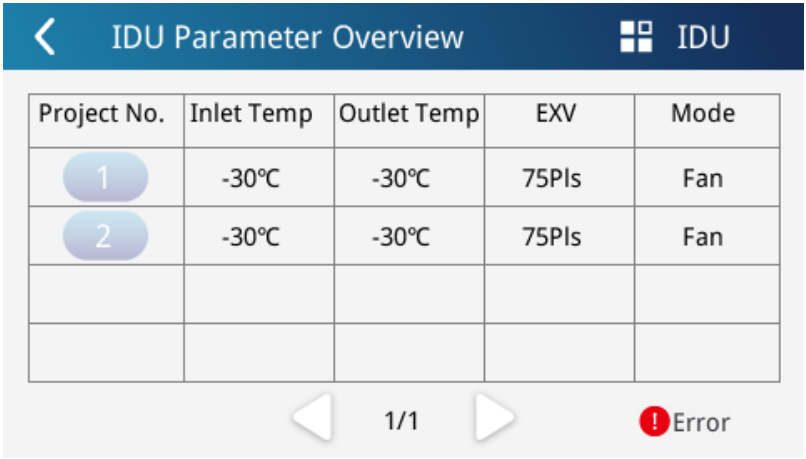


Fig. 4.3 Viewing IDU Parameters

Note:

① **Note:** When the indoor unit of current system has error, click 

at the right lower corner to enter into viewing IDU error;

② Select the indoor unit for viewing through clicking IDU at the right upper corner on this page;

③ Click IDU project code button 1 in the list to enter into viewing detailed IDU parameters.

4.4 Engineering Commissioning

On the home page, press to enter into the page of engineering debugging.

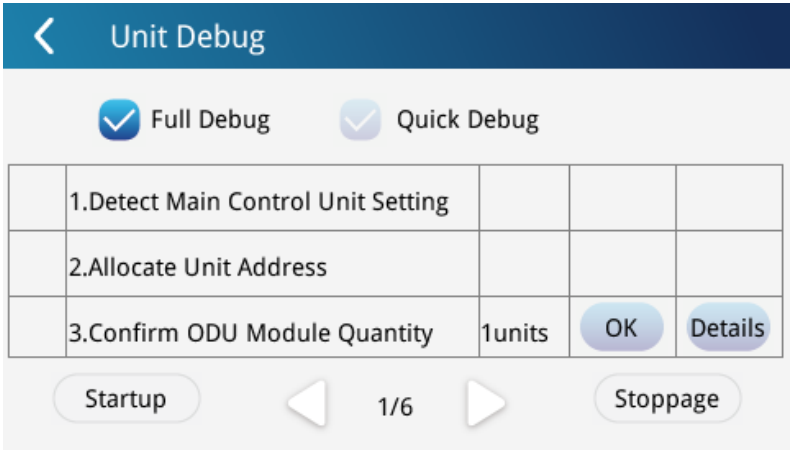


Fig.4.4 Engineering Commissioning

Note:

① Current version of this product only supports complete Commissioning

② During Commissioning, you need to click OK to enter into the next commissioning in certain steps.

4.5 Unit Control

On the home page, press  to enter into the page of unit control.



Fig. 4.5 Unit Control

Select the indoor unit for controlling through clicking  at the right upper corner on this page.

When you need to control indoor unit, after finishing operating mode, temperature and other parameters, click control button  to release control data.

(1) On/Off

Press the On/Off button to turn unit on or off.

When unit is turned off, mode, temperature, fan speed and swing can't be set.

(2) Mode setting

Press the Mode button to set unit's operation mode.

Modes for indoor units of different series are not all the same. If a certain mode is not available for the indoor unit, the icon of the corresponding mode cannot be selected.

(3) Temperature setting

Press the up or down buttons to adjust temperature. Each time pressing the button will increase/decrease the temperature by 1℃/1℉.

(4) Fan speed setting

Press fan speed button to set unit's fan speed.

Note: Unit defaults to low fan speed in dry mode. Fan speed cannot be set in dry mode or floor heating mode.

(5) Swing setting

Pressing the button “Left-Right Swing” or Up-Down Swing” or can turn on or off the swing function.

Note: Swing types for indoor units of different series are not all the same.

(6) E-Heater enable

(7) Pressing the button “E-Heater”， enter into the page of E-Heater enable setting.

4.6 Engineering Setting

On the home page, press to enter into engineering setting interface.

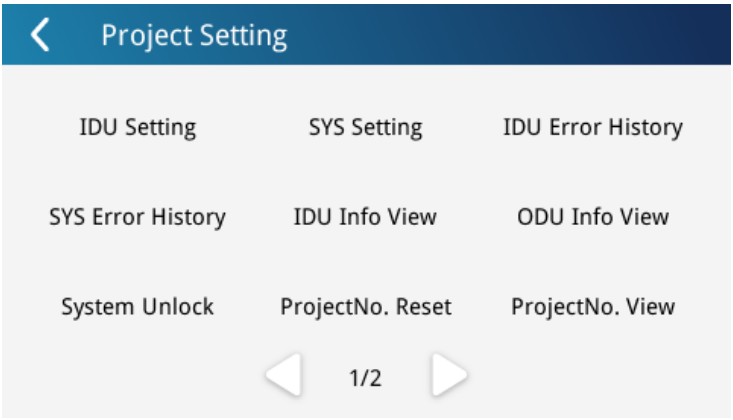


Fig. 4.6 Page 1 of Engineering Setting

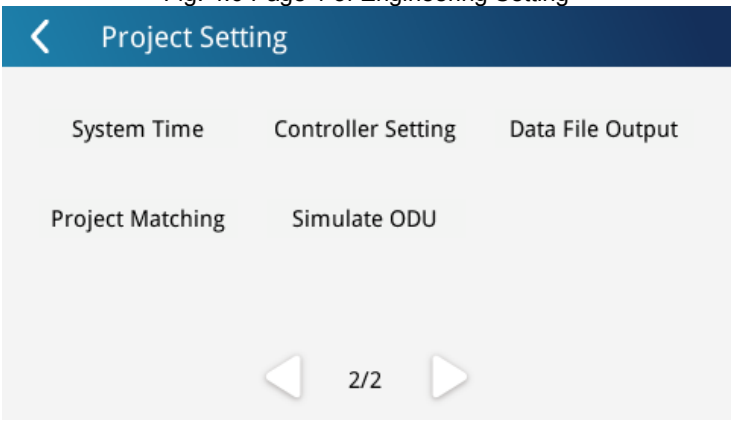


Fig. 4.7 Page 2 of Engineering Setting

4.6.1Controller Setting

On the second page of engineering setting, click Controller Setting to enter into controller setting page.

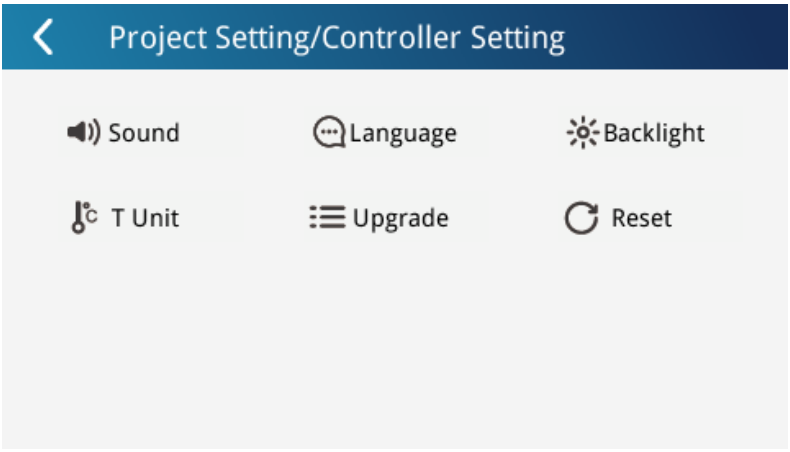


Fig. 4.8 Controller Setting

Controller setting includes:

(1) Sound, language, temperature unit

Press the button to select one kind of setting.

(2) Backlight setting

Pressing this button can set the timeout period of screen backlight. Screen will be shut off and this product will enter sleep mode when the timeout period is over.

Pressing backlight degree − or + can adjust the backlight degree.

Note: When the product is in sleep mode, user can wake it up by touching any part of the touch screen or the touch button at the right upper button of the screen.

(3) Program update

Enter local setting page, click Upgrade to enter into program update page:

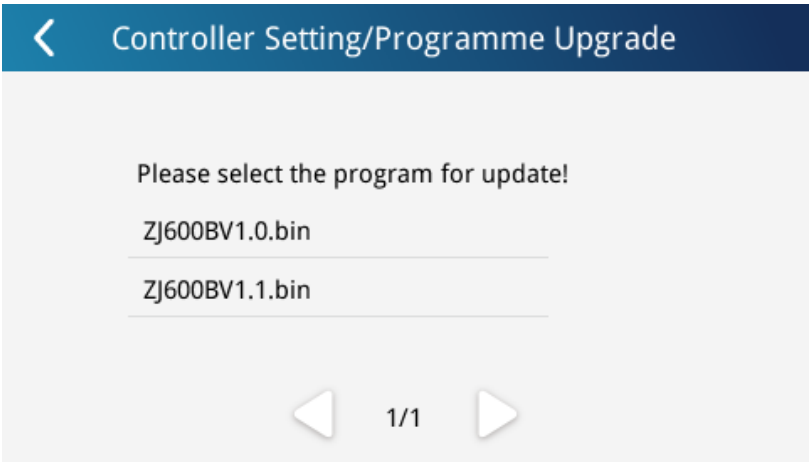


Fig. 4.9 Program Document List

Note: You need to create Update file in root directory of the flash disk before updating program. Then place the update program in Update directory.

Select the program file for updating. Click program file and enter program information page:

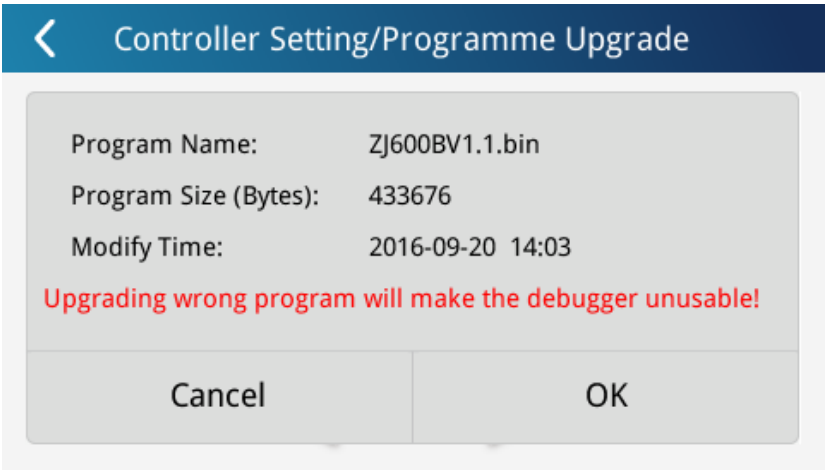


Fig. 4.10 Information of Program File

Click OK button to enter into program updating; otherwise, program updating will not proceed.

Warning:

1）Please ensure the correctness of program file; otherwise, the product cannot be operated;

2）During program updating, please keep the product in energization status;

3）After copying program, please de-energize and then energize the product according to prompts. Then program updating is completed.

(4) Resume setting

Click Reset to enter into ex-factory setting resume page. After confirming, local setting will resume ex-factory setting.

4.6.2 Export Data File

On the second page of engineering setting, click Data File Output to enter into data exporting page:

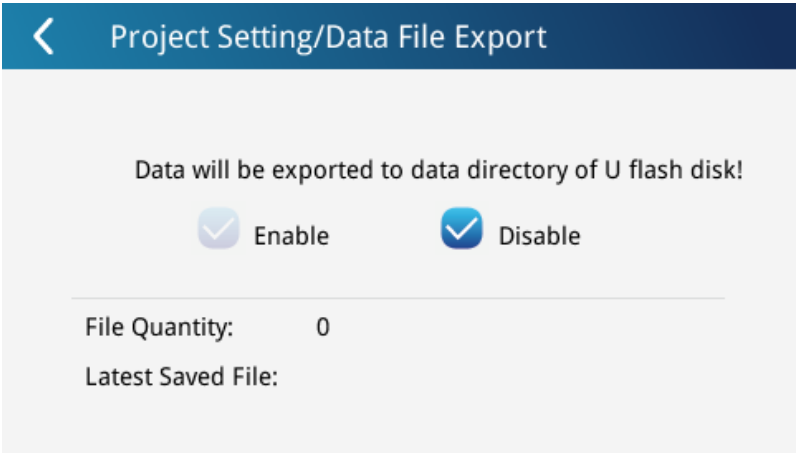


Fig. 4.11 Data File Output

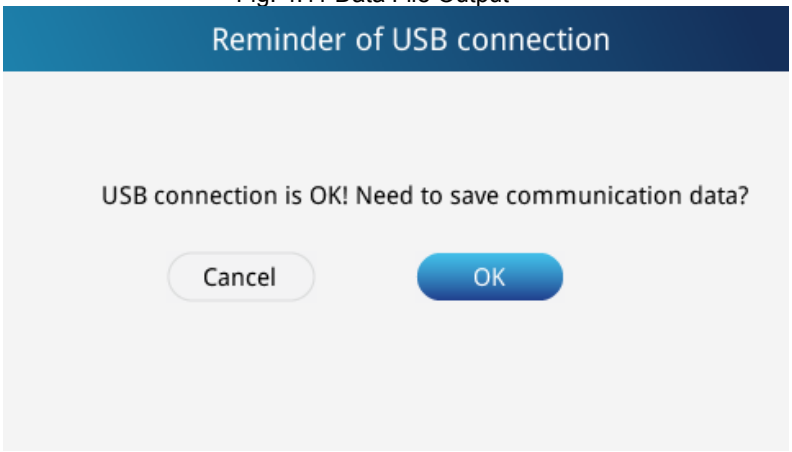


Fig. 4.12 Reminder Page of Inserting Flash Disk

Note: If you need to export data, insert flash disk and make sure identification is done. Data file backup cycle starts from selecting saving communication data.

4.7 Help Information

On the home page, click Help at the right upper corner to enter help page.

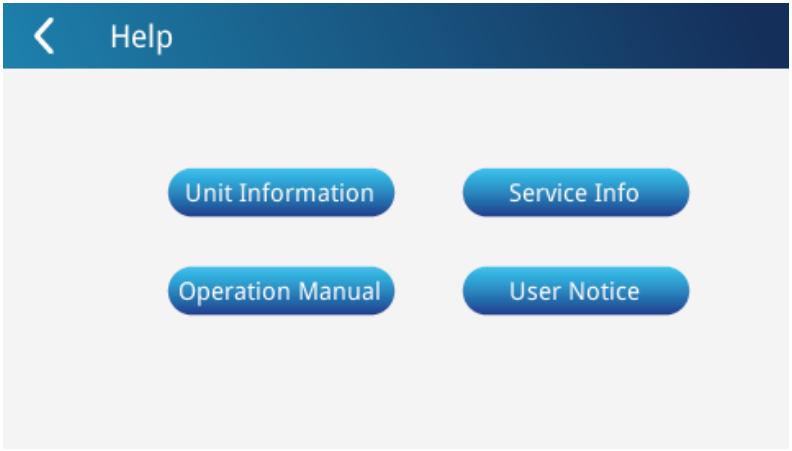


Fig. 4.13 List of Help



Contact us at +1-305-718-2901
LennoxGlobalHVAC@Lennoxintl.com

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