



Commercial Air Conditioners

Controller for the Inverter Modular type Chiller

Thank you for choosing commercial air conditioners. Please read this Owner's Manual carefully before operation and retain it for future reference.

To Users

Thank you for selecting C&H'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 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.
- (2) 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.
- (3) 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.
- (4) The final right to interpret for this instruction manual belongs to C&H.

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1 General Introduction



It uses the capacitor type touch screen for information input. The effective area for touching indicates the rectangular black area when the backlight of the control panel lights off.

As the flexibility of the control panel is quite high, it would make an accidental response when there is foreign matter on the surface of the control panel.

Therefore, please keep the both the touch screen and the finger clean during operation. Also, please keep the control panel far away from the source of highintensity electromagnetic interference.

Note: the function for the press button at the upper right corner is reserved and there will no response to this operation. This picture as shown above is just for reference.

1.1 Homepage



No.	Functional description
1	Unit name, error icon and name, BMS alert
2	Year, month, day, hour, and minute
3	Quantity of the on-line units
4	ON/OFF mode
5	Temperature set point under the corresponding control mode
6	Menu icon
7	It is intended to move the cursor right.
8	On/Off key. When "Contact ON/OFF" or ON/OFF timer has been activated, ON/OFF status will change with the actual status of the unit.

- (1) It is defaulted to keep at the homepage.
- (2) Touching the menu icon is able to access to the menu page.
- (3) Generally the unit name is displayed at the left upper corner of the control panel. If there is BMS communication, the BMS alert "Remote Control: On" and the unit name will be displayed circularly in five minutes.
- (4) Generally the unit name is displayed at the left upper corner of the control panel. If there are errors, their icons and names will be displayed circularly (one time every second) instead.



[Notes]

When there is no any operation in ten minutes at any page, except the warming pages as shown in the figure below, it will automatically back to the homepage.



1.2 Menu Page



Menu Page

No.	Item	Functional description
1	FUNCTION	It is used to access to the function setting pages.
2	PARA.	It is used to access to the parameter setting pages.
3	INFO	It is used to access to the information viewing pages.
4	E-CLEAR	It is used to access to the error clearing and "Unlock discharge failure" page.
5	GENERAL	It is used to access to the general setting pages.
6	Homepage icon	It is used to go back to the homepage.
7	ON/OFF key	On/Off key. When "Contact ON/OFF" or ON/OFF timer has been activated, ON/OFF status will change with the actual status of the unit.

[Notes]

- (a) The unit status will be displayed at the left upper corner of the control panel.
- (b) Generally the unit name is displayed at the left upper corner of the control panel. If there is BMS communication, the BMS alert "Remote Control: On" and the unit name will be displayed circularly in five minutes.
- (c) Generally the unit name is displayed at the left upper corner of the control panel. If there are errors, their icons and names will be displayed circularly (one time every second) instead.



1.3 Introduction to the Pop-up Windows

When any operation fails or is incorrect, a window will pop up.

- (1) When this is any pop-up window, except touching "OK", any other touching is ineffective. Then, the pop-up window would disappear and normal operation to the control panel resumes.
- (2) When it is detected that there is no any operation in ten seconds after a window pops up, it will disappear and normal operation to the control panel resumes.



1.4 Backlight

When it is deactivated, the control panel will automatically light off 5 minutes later after there is no any operation to the control panel. Any touching to the effective area will again light on the control panel.

When this function is activated, the control panel will be lighted on always.

It is suggested to deactivate it to extend the service life.

2 Operation Instructions

For functions unavailable for this unit, "N/A" will be displayed or they cannot be set during operation.

2.1 On/Off

At the homepage and menu page when the unit is "OFF", by touching "ON/OFF", the control panel will access to the following page.

INV-MODULAR CHILLER		2018-05-0	04 18:59
	NOTE: Are start tł	you sure to ne unit?	
	Ok	Cancel	

Press "OK" and then the control panel will access to the following "ON" page.



At the homepage and menu page when the unit is "ON", by touching "ON/OFF", the control panel will access to the following page.

INV-MO	DULAR CHILLER	2018-05-0	04 19:00
	NOTE: Are y stop th	you sure to e unit?	
	Ok	Cancel	

Press "OK" and then see the page below.



[Notes]

Upon first power-on, the On/Off status will not be memorized. However, once "ON/OFF memory" is set to "ON" at the function setting page the On/Off status will be memorized upon next power-on. When "ON/ OFF memory" is set to "No", the control panel will keep OFF status upon next each power-on, as shown in the figure above.

2.2 Functions

At the menu page, it will go to the parameter setting page by touching "FUNCION", as shown in the figure below.



Function Page 3

At the function setting page, the last page or next page icon allows the control panel accessing to the last or next function page; the homepage icon allows going back to the homepage; and the back icon allows to the super-menu page.

At the function setting page, touching the desired function option will access to the corresponding function setting page.

At the desired function setting page, touching **"OK**" will save the setting and ouching **"Cancel**" will exit this setting. Meanwhile the control panel will back to the function setting page under both conditions.

[Notes]

- (a) When there is submenu for the desired function option, by touching it, the control panel will access to the sub-menu setting page.
- (b) At the setting page, press "OK" finish and save this setting. However, in this case, there will be no alert message.
- (c) At the function setting page, when any function status is changed and memorized, it will resume the changed status upon next power-on.

See the table below for more details about each function.

No.	Name	Range	Interpretaion
1	Modo	Manual-defrost;	It can be set under the OFF
	Mode	Heat; Cool	status.
2	Electric heating	Off [.] On	It is unavailable for the cooling
	Liooti to fiodaling		only unit.
3	Auto anti-freezing	Off; On	1
4	Contact-control ON/OFF	Disabled; Enabled	1
5	Timer ON/OFF	Disabled; Enabled	It allows the unit to be timed on or off.
6	Timer setting	Enter	It is used to set the timer.
7	Manual defrosting	Enter	It can be set when the unit is off and "Mode" is set to "Manual-defrost".
8	ON/OFF memory	Off; On	1
9	Energy-saving mode	Off; On	1
10	Quiet mode	Off; On	1
11	Remote monitoring address	1~255	1
12	Resetting	Enter	Except the language setting
13	Field commissioning	Enter	1
14	Factory commissioning	Enter	1

(1) Mode

At the function setting page, when the unit is OFF, by touching "**Mode**", the control panel will go to the corresponding setting page. Then, select the desired option. After that, by touching "**OK**", this setting will be saved and the control panel will go back to the function setting page; or by touching "**Cancel**" this setting will not be saved and directly go back to the function setting page.

[Notes]

- (a) For the cooling only unit, only "Cool" is available.
- (b) When it is set to "Manual-defrost", it will access to the corresponding setting page. Then, see Section for more details.
- (c) It can be memorized upon power failure.
- (2) Electric heating

At the function setting page, by touching "Electric heating", the control panel will go to the corresponding setting page. Then, select the desired option.

After that, by touching "**OK**", this setting will be saved and the control panel will go back to the function setting page; or by touching "**Cancel**" this setting will not be saved and directly go back to the function setting page.

[Notes]

- (a) It is defaulted to be "Off" upon first power-on.
- (b) This function is unavailable for the cooling only unit.
- (c) It can be memorized upon power failure.
- (3) Auto anti-freezing

At the function setting page, by touching "Auto anti-freezing", the control panel will go to the corresponding setting page. Then, select the desired option. After that, by touching "OK", this setting will be saved and the control panel will go back to the function setting page; or by touching "Cancel" this setting will not be saved and directly go back to the function setting page.

[Notes]

- (a) It is defaulted to be "On" upon first power-on
- (b) It can be memorized upon power failure.
- (4) Contact-control ON/OFF

At the function setting page, by touching "Contact-control ON/OFF", the control panel will go to the corresponding setting page. Then, select the desired option. After that, by touching "OK", this setting will be saved and the control panel will go back to the function setting page; or by touching "Cancel" this setting will not be saved and directly go back to the function setting page.

[Notes]

- (a) It is defaulted to be "Off" upon first power-on.
- (b) It can be memorized upon power failure.
- (5) Timer ON/OFF

At the function setting page, by touching "Timer ON/OFF", the control panel will go to the corresponding setting page. Then, select the desired option. After that, by touching "OK", this setting will be saved and the control panel will go back to the function setting page; or by touching "Cancel" this setting will not be saved and directly go back to the function setting page.

[Notes]

- (a) It is defaulted to be "Off" upon first power-on.
- (b) When "Contact-control ON/OFF" has been activated, "Timer ON/OFF" will be automatically be deactivated.
- (c) When it has been activated, it will access to the "Timer setting" page. Please see Section 2.2.6 for more details.
- (d) It can be memorized upon power failure.
- (6) Timer setting

At the function setting page, by touching "Timer setting", the control panel will go to the corresponding setting page, as shown in the figure below.

5	Timer setting			
	Timer ON	Select	Timer OFF	Select
\uparrow	00:00		00:00	
Fri.	00 : 00		00:00	
4	00 : 00		00:00	
	00 : 00		00:00	

Select the week day from Monday to Sunday by the " \uparrow " and " \downarrow " keys.

There are four time periods for each week day. Each time period can be set to ON or OFF.

Touch the desired time point and input the hour and minute (as shown in the figure below).



Then, touch " \square " under "Select" to make it turn to " $\sqrt{}$ ", which then indicates the corresponding period has been invalidated.

Ð	Timer setting			
	Timer ON	Select	Timer OFF	Select
\uparrow	08:30	٧	18:30	٧
Fri.	00:00		00:00	
	00 : 00		00 : 00	
	00 : 00		00 : 00	

After that, press the saving icon at the upper right corner to save this setting, or press the back icon at the upper left corner to give up this setting.

(7) Manual defrosting

At the function setting page, by touching "Manual-defrost", the control panel will access to the page as shown below.

Manual defrosting			ធ	
On-line units: 14				
DUNIT01			DUNIT04	
UNIT05			UNIT08	
UNIT09	UNIT10		UNIT12	
UNIT13	UNIT14	UNIT15	UNIT16	
On		(Off	

Select the unit in need of defrosting. Once "□" turns green, it indicates this unit has been selected. Two or more units cannot be selected at the same time.



Enable the defrosting function of the selected unit. When " \Box "turns to $\sqrt{}$ ", it indicates manual defrosting function for this unit has started as shown in the figure below.

Ð	Manual d	۵	
Sys-defrosting:Stop		Anti-over-	heat-T:0.0°C
UNIT01	VUNIT02		UNIT04
UNIT05			
			DUNIT12
DUNIT13	UNIT14	UNIT15	DUNIT16
On		C	Off

When disable the defrosting function for this unit, there will be a pop-up window, saying, "Unit XX defrosting has not finished, are you sure to stop it manually?" as shown in the figure below.

Ð	Manual d	ធ		
Unit1 defrosting not finish.Stop it manually?				
VUNIT01	UNIT02	UNIT03	UNIT04	
UNIT05		UNIT07	DUNIT08	
	DUNIT10		UNIT12	
UNIT13	UNIT14	UNIT15	DUNIT16	
Ok		Ca	ncel	

By pressing "**OK**", manual defrosting will be deactivated, with " $\sqrt{}$ " changed to " \Box ".

[Notes]

- (a) Before activating this function, "Mode" should be firstly set to "Manualdefrost".
- (b) At the unit selection page, the on-line units are in white color and those off-line are in grey.
- (c) This function setting is unavailable to the off-line units.

5	Manual o	ធ		
This unit does not exist!				
DUNIT01	UNIT02		UNIT04	
DUNIT05	DUNIT06		UNIT08	
DUNIT09	DUNIT10	UNIT11	UNIT12	
UNIT13	UNIT14	UNIT15	UNIT16	
On		C	Off	

(d) Do not activate this function for two or more units.

5	Manual defrosting		
Unit1 has been activated, forbid!			rbid!
VUNIT01	UNIT02	UNIT03	UNIT04
UNIT05	DUNIT06	UNIT07	UNIT08
	UNIT10	UNIT11	UNIT12
UNIT13	UNIT14	UNIT15	UNIT16
Ok		Ca	ncel

- (e) When this function has been enabled for five minutes, however the unit fails to perform defrosting. Then, this function will be disabled, also warning "Manual defrosting stops automatically!"
- (f) When this function has been enabled, however actual defrosting will be delayed for some time.
- (8) ON/OFF memory

At the function setting page, by touching "ON/OFF memory", the control panel will go to the corresponding setting page. Then, by touching "OK", default parameters will be put into use; or by touching "Cancel" the control panel will go back to the function setting page; or by touching "Cancel" this setting will not be saved and directly go back to the function setting page.

(9) Energy-saving mode

At the function setting page, by touching "Energy-saving mode", the control panel will go to the corresponding setting page, where it can be set to be "On" or "Off". Then, by touching "OK", default parameters will be put into use; or by touching "Cancel" the control panel will go back to the function setting page; or by touching "Cancel" this setting will not be saved and directly go back to the function setting page.

(10) Quiet mode

At the function setting page, by touching "Quiet mode", the control panel will go to the corresponding setting page, where it can be set to be "On" or "Off". Then, by touching "OK", default parameters will be put into use; or by touching "Cancel" the control panel will go back to the function setting page; or by touching "Cancel" this setting will not be saved and directly go back to the function setting page.

(11) Remote monitoring address

At the function setting page, by touching "**Resetting**", the control panel will go to the corresponding setting page, as shown below. Then, by touching "**Yes**", default parameters will be put into use; or by touching "**No**" / "**Cancel**", the control panel will go back to the function setting page.



(12) Resetting

At the function setting page, by touching "**Resetting**", the control panel will go to the corresponding setting page, as shown below. Then, by touching "**Yes**", default parameters will be put into use; or by touching "**No**" / "**Cancel**", the control panel will go back to the function setting page.

Resetting		
● No		
Yes		
Ok	Cancel	

[Notes]

- (a) After this setting, all parameters at the user parameter setting page will go back to the default setting.
- (b) After this setting, except clock timer and language at the "General" setting page, all will go back to the default setting.
- (c) After this setting, all parameters at the parameter setting page except "Timer setting" and "Manual defrost" will go back to the default setting.
- (d) It will not function on "Field commissioning" and "Factory commissioning".
- (13) Field commissioning

At the function setting page, by touching "Field commissioning", the control panel will go to the password input page. Then, by entering correct passwords, it will access to the "Field commissioning" page, which is used mainly for system parameter setting for repair and maintenance.

[Notes]

Arbitrary change to "Field commissioning" will bring series adverse effect to the unit. Therefore, no one is allowed to do this except the approved qualified servicemen.

(14) Factory commissioning

At the function setting page, by touching "Factory commissioning", the control panel will go to the password input page. Then, by entering correct passwords, it will access to the "Factory commissioning" page, which is used mainly for repair and maintenance by after-sales servicemen.

[Notes]

Arbitrary change to "Factory commissioning" will bring series adverse effect to the unit. Therefore, no one is allowed to do this except the approved qualified servicemen.

2.3 Parameter

At the menu page, by touching "**PARA.**", the controller will access to the parameter setting page, as shown in the figure below.



At the parameter setting page, by touching the last page and next page icons, the desired setting page can be selected.



Parameter Setting Page 2

By touching the desired parameter, the controller will access to the corresponding setting pages as shown in the figure below. After that, by touching "**OK**", this setting will be saved and the controller will back to the parameter setting page; while by touching "**Cancel**", this setting will not be saved but the controller will back to the parameter setting page.



[Notes]

- (a) For the parameters with different defaults under different conditions, when the constraint (like, unit type) changes, the parameter will back to the default value under the corresponding condition.
- (b) When setting for the current parameter is unavailable, "N/A" will be displayed.
- (c) The numerical keypad includes digits from "0~9", "-", ".", "OK" and the backspace key.
- (d) When the input value is out of the setting range or accuracy of the input value is inconsistent with that of the rated, continuous input will fail or there will be corresponding alert, and also the input value will be automatically deleted.

See the table below for the user parameters.

No.	Full name	Displayed name
1	Entering water temperature for cooling	Entering water-T for cooling
2	Entering water temperature for heating	Entering water-T for heating
3	Leaving water temperature for cooling	Leaving water-T for cooling
4	Leaving water temperature for heating	Leaving water-T for heating
5	Start temperature for E-heating	Start-T for E-heating
6	End temperature for E-heating	End-T for E-heating

2.4 Information

At the menu page, by touching "INFO", the control panel will go to the following page.

5)	INFO(í	ጔ	
On-line units:15					
	UNIT01	UNIT02	UNIT03	UNIT04	
<	UNIT05	UNIT06	UNIT07	UNIT08	>
	UNIT09	UNIT10	UNIT11	UNIT12	U
	UNIT13	UNIT14	UNIT15	UNIT16	

At the above page, by selecting the desired unit, the control panel will go to the following page.

5	INFO-UNIT1 (1/1)	ធ
	Status	
	Parameter	
<	Error	>
	Error record	
	Bar codes	

[Notes]

- (a) It is only available for the on-line units, namely those in white.
- (b) When there is some error, the corresponding unit will be in red and there will a red point at its upper right corner.

5)	INFO(1/1)			3
	On-line units:15				
	UNIT01*	UNIT02	UNIT03	UNIT04	
<	UNIT05	UNIT06	UNIT07	UNIT08	>
	UNIT09	UNIT10	UNIT11	UNIT12	
	UNIT13	UNIT14	UNIT15	UNIT16	
	Red indicator				
Э	INFO-UNIT1 (1/1)				ጔ
-	Status				
	Paramete	r			
<	Error*			>	
	Error record				
Bar codes					

Unit with a Red Point

(1) Status

By touching "Status", the control panel will go to the stats pages, where it is able to check the running status of the unit.



Status Page 3



Status Page 4

No.	Nmae	Status	No.	Nmae	Status
1	System status	Off; Cooling; Heating; Defrosting; Automatic antifreeze	10	Four-way valve 2	On; Off
2	Compressor 1	On; Off	11	Electric heater 1	On; Off
3	Compressor 2	On; Off	12	Electric heater 2	On; Off
4	Fan 1	On; Off	13	Contact-control	Open/Break
5	Fan 2	On; Off	14	Discharge T-sensor 1	Unlock/Lock
6	Water pump 1	On; Off	15	Discharge T-sensor 2	Unlock/Lock
7	Water pump 2	On; Off; Without	16	Electromagnetic valve 1	On; Off
8	Water flow switch	Open/Break	17	Electromagnetic valve 2	On; Off
9	Four-way valve 1	On; Off			

[Notes]

(a) "N/A" will be displayed for the status which is unavailable for the correspoding unit.

(b) When "Alternation function" is set to "Off", "Water pump 2" will be defaulted to be "Without".

(2) Parameter

By touching "Parameter", the controller will access to the parameter checking page.





Parameter Page 4

No.	Name	No.	Name
1	Entering water-T	10	Suction temperature 1
2	Leaving water-T	11	Suction temperature 2
3	Defrosting temperature 1	12	Shell-and-tube inlet-T 1
4	Defrosting temperature 2	13	Shell-and-tube inlet-T 2
5	Discharge temperature 1	14	Shell-and-tube outlet-T 1
6	Discharge temperature 2	15	Shell-and-tube outlet-T 2
7	Anti-freezing-T	16	Water-T for energy saving
8	Anti-over-heating-T	17	High pressure sensor 1

No.	Name	No.	Name
9	Ambient temperature	18	High pressure sensor 2

[Notes]

(a) "N/A" will be displayed when the temperature value for the corresponding mode or unit doesn not exist or is invliad.

(b) For no. 7 and 8 in the table above, when "Mode" is set to "Cool", only "Antifreezing-T" will be displayed; when "Mode" is set to others, only "Anti-overheating-T" will be displayed.

(3) Error

By touching "Error", the control will access to the error check page. When there is no any error, the control panel will show as below.



[Notes]

The controller can display real-time errors and all real-time errors can be displayed there.



When the quantity of error exceeds 5, by touching the last or next page icon, the desired error can be checked.

No.	Displayed name	Full name
1	Jumper error	Jumper error
2	Air-Con Water-FS	Air conditioning water flow switch error
3	Sys1 H-discharge-T	Protection against high discharge temperature of system 1
4	Sys2 H-discharge-T	Protection against high discharge temperature of system 2
5	Dis-TS1 malfunction	Discharge temperature sensor error of system 1
6	Dis-TS2 malfunction	Discharge temperature sensor error of system 2

See the table below for the error list.

No.	Displayed name	Full name
7	Sys1 high pressure	Protection against high pressure of system 1
8	Sys2 high pressure	Protection against high pressure of system 2
9	Sys1 low pressure	Protection against low pressure of system 1
10	Sys2 low pressure	Protection against low pressure of system 2
11	Entering water TSE	Entering water temperature sensor error
12	Leaving water TSE	Leaving water temperature sensor error
13	Anti-F/anti-H TSE	Anti-freeze/anti-over-heating temperature sensor error
14	Ambient TSE	Ambient temperature sensor error
15	Defrosting TSE1	Defrosting temperature sensor of system 1
16	Defrosting TSE2	Defrosting temperature sensor of system 2
17	Discharge TSE1	Discharge temperature sensor error of system 1
18	Discharge TSE2	Discharge temperature sensor error of system 2
19	Shell&tube inlet TSE1	Shell-and-tube inlet temperature sensor error of system 1
20	Shell&tube inlet TSE2	Shell-and-tube inlet temperature sensor error of system 2
21	Suction TSE1	Suction temperature sensor error of system 1
22	Suction TSE2	Suction temperature sensor error of system 2
23	Pressure TSE1	Pressure sensor error of system 1
24	Pressure TSE2	Pressure sensor error of system 2
25	Commu-E comp1	Communication error of the drive board of compressor
26	Commu-E comp2	Communication error of the drive board of compressor 2
27	Commu-E fan1	Communication error of the drive board of fan 1
28	Commu-E fan2	Communication error of the drive board of fan 2
29	Shell&tube outlet TSE1	Shell-and-tube outlet temperature sensor error of system 1
30	Shell&tube outlet TSE2	Shell-and-tube outlet temperature sensor error of system 2
31	Failure of pump1	Protection against failure of pump 1
32	Failure of pump2	Protection against failure of pump 2
33	Fan1 error	Fan 1 error
34	Fan2 error	Fan 2 error
35	DC under-voltageC1	DC busbar under-voltage or voltage drop error of compressor 1
36	DC over-voltageC1	DC busbar over-voltage or voltage drop error of compressor 1
37	IPM errorC1	IPM failure of compressor 1

No.	Displayed name	Full name
38	Startup failureC1	Startup failure of compressor 1
39	Dri-Mod resettingC1	Drive module resetting of compressor 1
40	Comp-Over-currentC1	Over-current of compressor 1
41	Current circuit SEC1	Current sensing circuit error or current sensor error of compressor 1
42	DesynchronizingC1	Desynchronizing of compressor 1
43	Comp-Dri-Comm-EC1	Communication error to the drive of compressor 1
44	HS-IPM-PFC over-TC1	Heat sink or IPM or PFC overtemperature of compressor 1
45	HS-IPM-PFC SEC1	Heat sink or IPM or PFC temperature sensor error of compressor 1
46	Charging circuit-EC1	Charging circuit error of compressor 1
47	DC under-voltageC2	DC busbar under-voltage or voltage drop error of compressor 2
48	DC over-voltageC2	DC busbar over-voltage or voltage drop error of compressor 2
49	IPM errorC2	IPM failure of compressor 2
50	Startup failureC2	Startup failure of compressor 2
51	Dri-Mod resettingC2	Drive module resetting of compressor 2
52	Comp-Over-currentC2	Over-current of compressor 2
53	Current circuit SEC2	Current sensing circuit error or current sensor error of compressor 2
54	DesynchronizingC2	Desynchronizing of compressor 2
55	Comp-Dri-Comm-EC2	Communication error to the drive of compressor 2
56	HS-IPM-PFC over-TC2	Heat sink or IPM or PFC overtemperature of compressor 2
57	HS-IPM-PFC SEC2	Heat sink or IPM or PFC temperature sensor error of compressor 2
58	Charging circuit-EC2	Charging circuit error of compressor 2
59	DC under-voltageF1	DC busbar under-voltage or voltage drop error of fan 1
60	DC over-voltageF1	DC busbar over-voltage or voltage drop error of fan 1
61	IPM errorF1	IPM failure of fan 1
62	Startup failureF1	Startup failure of fan 1
63	Dri-Mod resettingF1	Drive module resetting of fan 1
64	Fan-Over-currentF1	Over-current of fan 1
65	Current circuit SEF1	Current sensing circuit error or current sensor error of fan 1
66	DesynchronizingF1	Desynchronizing of fan 1
67	Fan-Dri-Comm-EF1	Communication error to the drive of fan 1

No.	Displayed name	Full name
68	HS-IPM-PFC over-TF1	Heat sink or IPM or PFC overtemperature of fan 1
69	HS-IPM-PFC SEF1	Heat sink or IPM or PFC temperature sensor error of fan 1
70	Charging circuit-EF1	Charging circuit error of fan 1
71	DC under-voltageF2	DC busbar under-voltage or voltage drop error of fan 2
72	DC over-voltageF2	DC busbar over-voltage or voltage drop error of fan 2
73	IPM errorF2	IPM failure of fan 2
74	Startup failureF2	Startup failure of fan 2
75	Dri-Mod resettingF2	Drive module resetting of fan 2
76	Fan-Over-currentF2	Over-current of fan 2
77	Current circuit SEF2	Current sensing circuit error or current sensor error of fan 2
78	DesynchronizingF2	Desynchronizing of fan 1
79	Fan-Dri-Comm-EF2	Communication error to the drive of fan 2
80	HS-IPM-PFC over-TF2	Heat sink or IPM or PFC overtemperature of fan 2
81	HS-IPM-PFC SEF2	Heat sink or IPM or PFC temperature sensor error of fan 2
82	Charging circuit-EF2	Charging circuit error of fan 2

(4) Error records

By touching "Error record", the controller will access to the current error record page.



[Notes]

Each error record includes the error number, error name, month, day, hour, and minute. The latest error lists in the top.

+ 1	ERROR RECORD-UNI	1 (1/2)	1
	No.: Error type	M-D HH:MM	1
	(1):Commu-E fan2	05-04 19:48	
	(2):Commu-E fan1	05-04 19:48	5
	(3):Commu-E comp2	05-04 19:48	
U	(4):Commu-E comp1	05-04 19:48	U
	(5):Shell&tube outlet TSE2	05-04 19:48	

At most 10 pieces of error records can be saved for each unit. When it exceeds 10, the earliers will be deleted, which will not affect the error records of any other units.

(5) Bar codes

By touching "Bar code", it will go to the bar codes page, as shown in the figure below.

5	BAR CODES-UNIT1 (1/1)	۵
K	 Status:Deciphered	Ŷ

2.5 E-Clear

At the menu page, touching "E-clear", it will access to the error clear page. At this page, it is able to operate error clearing and discharge failure unlocking.



Clear unit errors

At the ERROR CLEAR page, by touching "Clear unit errors", the control panel will access to the page as shown below. Then, by selecting "Yes" and "OK", this operation will succeed and go back to the ERROR CLEAR page.

Clear un	it errors
● No	
• Yes	
Ok	Cancel

[Notes]

- (a) When touching "Yes" and then "OK", this operation will succeed.
- (b) When touching "No" or "Cancel", this operation will quit and the unit will do not do any operation.
- (c) After this operation, all recovered errors for all on-line units will be cleared; for those unrecovered, there will still be alerts.
- (6) Unlock discharge failure

At the ERROR CLEAR page, by touching "**Unlock discharge failure**", the control panel will access to the page as shown below. Then, by selecting "**Yes**" and "**OK**", the discharge failure will be unlocked; or by selecting "**Cancel**", this operation will quit and go back to the ERROR CLEAR page.

[Notes]

When the error of discharge failure has been eliminated, this setting can unlock the discharge failure and the corresponding locked unit can be restarted.

2.6 General

At the function setting page, by touching "GENERAL", the control panel will go to the corresponding setting page, where system clock, key tone and backlight and other general functions can be set, as shown in the figure below.

Э	GENERAL(1/1)	ជ
	Key tone:On	
	Back light:Off	
<	System clock:Enter	>
	Language:English	
	Program information:Enter	

General Page 1

No.	Function	Range	Dafault	Remarks
1	Key tone	On/Off	On	1
2	Back light	On/Off	Off	"On" indicates the controller will always light on. "Off" indicates that when it is detected that there is no any operation in five minutes the controller will light off.

No.	Function	Range	Dafault	Remarks
3	System clock	System clock	1	/
4	Language	Chinese (中文)/ English (English)	English (English)	1
5	Program information	Enter	1	I

(1) Key tone

At the function setting page, by touching "GENERAL", the control panel will go to the corresponding setting page. Then, by touching "Key tone", it can be set to "On" or "Off', as shown in the figure below.



General Page with Deactivated Key Tone

(2) Backlight Refer to Section 1.4

(3) System lock

At the function setting page, by touching "GENERAL", the control panel will go to the corresponding setting page. Then, by touching "System clock", the controller will access to the system clock setting page, as shown in the figure below.



The setting value for the system clock can be changed by the sliding the blue digits. Then, by touching the saving icon, this setting will be saved and rightly take effective. While, by touching the back icon, this setting will not be saved and the controller will back to the general setting page.

Ð	SYSTEM CLOCK						
2018-05-04 19:12:16 Fri.							
2016 2017 2019 2020	03 04 05 06 07	02 03 04 05 06		17 18 19 20 21	10 11 12 13 14	05 06 07 08 09	

(4) Language setting

At the function setting page, by touching "GENERAL", the control panel will go to the corresponding setting page. Then, by touching "Language", the controller will access to the language setting page, as shown in the figure below.



Select the desired language. Then, by touching "**OK**", this setting will be saved and take effective; while by touching "**Cancel**", this setting will not be saved and the controller will back to the general setting page.

(5) Program information

At the function setting page, by touching "GENERAL", the control panel will go to the corresponding setting page. Then, by touching "Program information", the controller will access to the program checking page, as shown in the figure below.



[Notes]

"Version" indicates the program version for the control panel.



