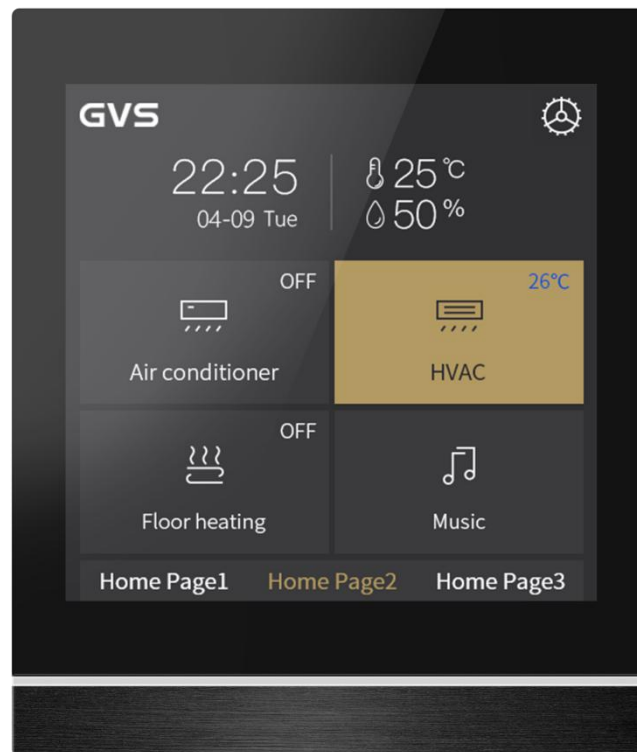


Appendix:

UI Description for KNX Smart Touch V40s_V1.1



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Chapter 1 Introduction

This document is for the UI description of the KNX Smart Touch V40s. As an appendix of this product, it is necessary to understand the UI function by the relevant description in the manual of this product. For example, users need to configure specific parameters for the UI interface to be presented. Therefore, please refer carefully to the relevant documents and function description before using the product.

Chapter 2 UI Description

This chapter mainly introduces the interactive application of each function interface of this product in detail.

The main functions of UI are summarized as follows:

- ◆ Support multiple languages;
- ◆ Album and background can be replaced with customized pictures;
- ◆ Icons for home page and function page can be replaced with customized icons;
- ◆ Home page can display date and time, which can be modified manually on the screen;
- ◆ Home page can display temperature and humidity;
- ◆ Home page support 3/4/6 layout display, up to 3 home pages can be created;
- ◆ Multifunction page support 3/4/6 layout display, and support 2 UI styles with grid or list;
- ◆ Icon status of Multifunction page can be indicated by icons or block;
- ◆ Dimming and blind function pages are able to display status information in real time;
- ◆ Support to manually enable/disable weekly timer, and Weekly timer can be temporarily

inactive

through holiday setting;

- ◆ Support screen locking and function page locking, and display the locking status;
- ◆ Support screen-saver and password function;
- ◆ Proximity sense can be manually adjusted or off;
- ◆ Enable/disable screen sliding and vibration;
- ◆ Support manually adjusting screen brightness and touch volume;
- ◆ Support cleaning mode;
- ◆ System information of the device can be checked.

2.1. Home Page Navigation Interface

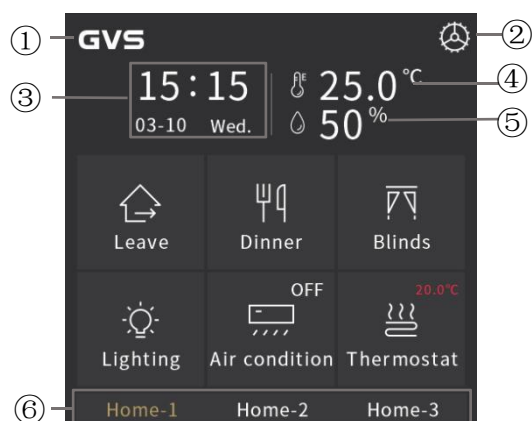


Fig.2.1

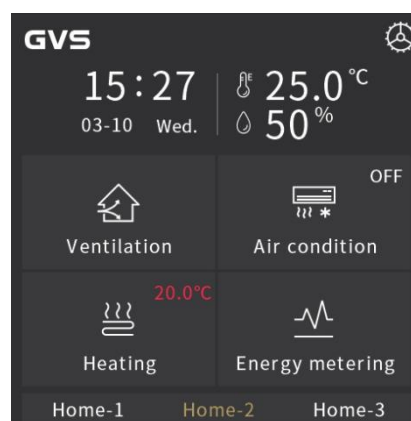


Fig.2.2



Fig.2.3

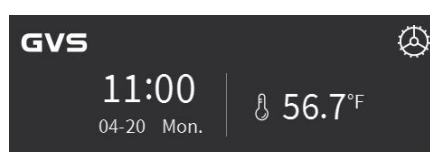


Fig.2.6

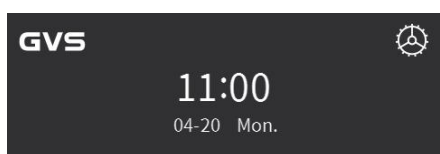


Fig.2.4

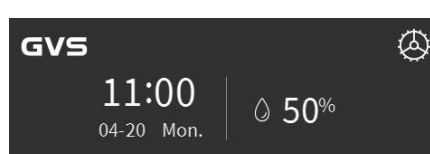


Fig.2.7

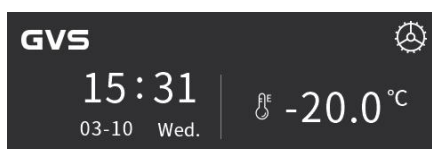


Fig.2.5

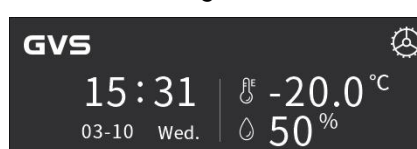


Fig.2.8

① This area displays the logo of GVS brand;

② This icon is the setting icon, enter the setting page, see section 2.11 for details by touching this icon;

③ This area displays the current date and time;

The date and time can be modified on the setting page, or through the bus, see details in section 2.11.

- ④ When external temperature is configured, there is an "E" at the upper right corner of the icon;

When internal temperature is configured, there is no "E" at the upper right corner of the icon, as shown in Fig.2.3;

When temperature sensor is enabled in ETS:

When device is power on, external sensor occurs fault and the internal sensor display is not enabled, if there is no receiving the temperature feedback at this time, no temperature value to display; while if normal usage after a period time before the external sensor occurs fault, display the last time receiving detection value.

But external sensor occurs fault and the internal sensor display is enabled, display the detection value of internal sensor. **Note: if internal sensor also occurs fault, display "20°C" or "-68°F", as shown as Fig.2.5, Fig.2.8.**

When temperature sensor is not enabled in ETS, no temperature value to display.

When temperature unit is set to degrees Celsius (°C) through ETS, temperature display as shown in Fig.2.1. When temperature unit is set to Fahrenheit(°F), temperature display as shown in Fig.2.6.

- ⑤ This area displays humidity, and the data is obtained from the external sensor;

When humidity from the external sensor feedback is received, interface as shown in Fig.2.7. When no humidity from the external sensor feedback is received, there is no humidity shown in the interface .

- ⑥ This area displays home page name, user can define the name by configuring the description in the ETS.

Home page navigation as shown in Fig.2.1, the number of home page navigation can be configured up to 3, to quickly jump to a function page or directly manipulate a function icon (switch, switch/dimming, blind, value send, scene).

If the association function of the shortcut, shown on the home page interface, link to a function page, its page icon can be configured in the ETS, and its description is the page description of the linked function page, as shown in Fig.2.1, Fig.2.2;

If the association function link to an icon function on a function page (such as leave mode), the display effect is consistent with the icon configuration when the UI style of multifunction is selected grid view, as shown as Fig.2.1, Fig.2.2.5. If it is selected list view, home page is grid view, while the function page is shown as list view, as shown as Fig.2.1, Fig.2.2.8.

If the linked page or icon does not exist, the corresponding location will be empty.

2.2. Multifunction Page

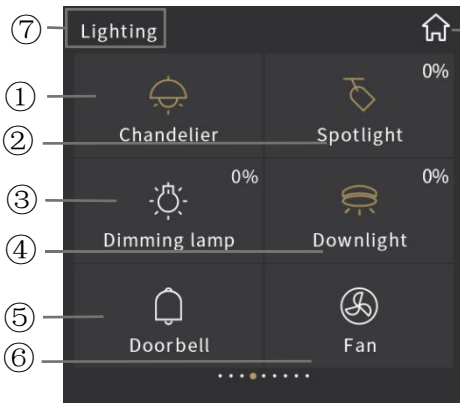


Fig.2.2.1

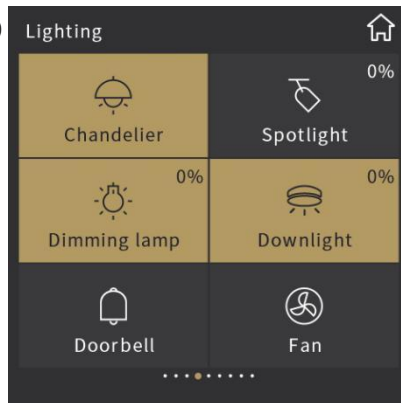


Fig.2.2.2

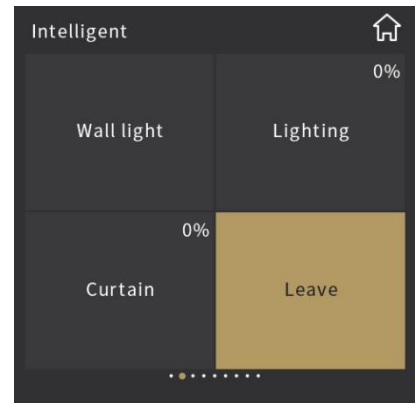


Fig.2.2.3

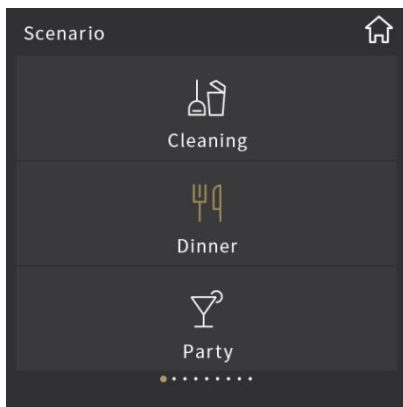


Fig.2.2.4

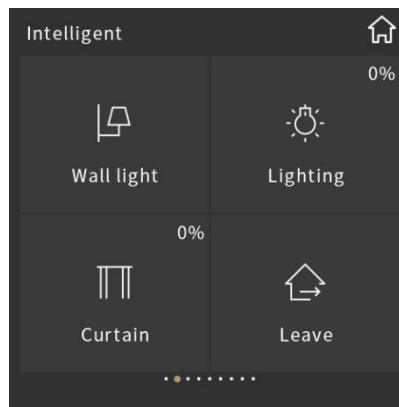


Fig.2.2.5

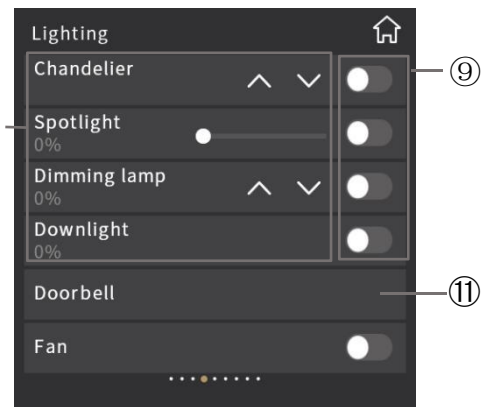


Fig.2.2.6

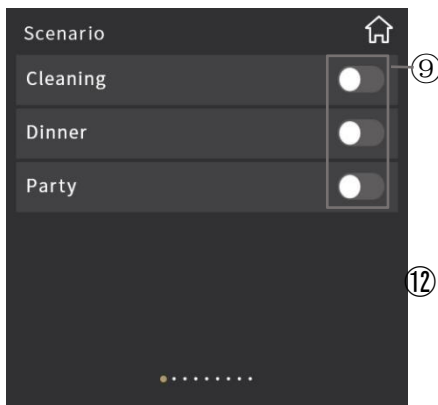


Fig.2.2.7

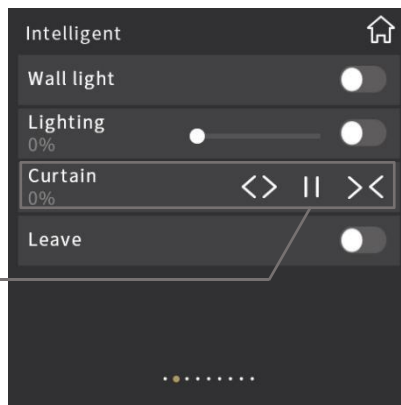


Fig.2.2.8

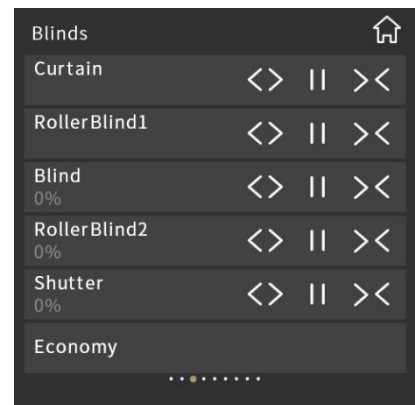


Fig.2.2.9

The interactive interface style of multifunction page is shown in Fig.2.2.1-Fig.2.2.9 above. The interface style, and the number of icons displayed, with a maximum of 6, can be set through parameters setting. The effects shown as Fig.2.2.4-Fig.2.2.5, the number of icons set to 3, 4 respectively.

①~⑥: The number marked in Fig.2.2.1 above is consistent with the sequence number of the function icon in the ETS, that is, the placement principle of the function icon is from left to right and from top to bottom;

When multifunction icon is grid view, the function status is indicated by the icon in the block. For example, in Fig.2.2.1, the icon on indicates the lamp turn on and the icon off indicates the lamp turn off; in Fig.2.2.2, the icon block and icon on indicates the lamp turn on, and the icon block and icon off indicates the lamp turn off; in Fig.2.2.2, if the function is dimming, the upper right corner of the block displays the current brightness, which is from the output brightness feedback of the dimmer actuator. Except the light/off status display, the icon of value sending will shake when being manipulate and the icon of blind will show the position status; in Fig.2.2.3, the interface can set to display no icon but only text by parameter configuration, block on indicates the lamp turn on and block off indicates the lamp turn off.


⑦ This area is the page description identification of the multifunction page, user can define the description through ETS;

⑧ This icon is the main page icon, return to the home page by touching this icon;

When the multifunction icons are configured as list view and display in the list, as shown as Fig.2.2.6~2.2.9: up to display 6 items.

⑨ The status of button icon indicate the corresponding function, is suitable for switch, dimming and scene function;

⑩ Enter the control interface of the sub-function of dimming function by touching this area, detail please refer to chapter 2.2.2.

When dimming relative dimming or relative+brightness dimming, 2 icons  are displayed on the right to increase/decrease the brightness via relative adjustment;

When only brightness dimming, a slider is displayed on the right to adjust the brightness in the way of percentage by sliding this slider;

When support to brightness adjustment, the brightness feedback will be shown below the function description.

⑪ The function of this area is value sending, the icon wobbles according to when short pressing, and shakes horizontally when long pressing;

⑫ Enter the control interface of the sub-function of curtain function by touching this left area, detail please refer to chapter 2.2.2.

3 icons  are displayed on the right to adjust curtain open/stop/close

When support to position adjustment, the position feedback will be shown below the function description.

2.2.1. Switch Function

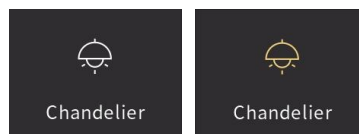


Fig.2.2.1.1



Fig.2.2.1.2



Fig.2.2.1.3

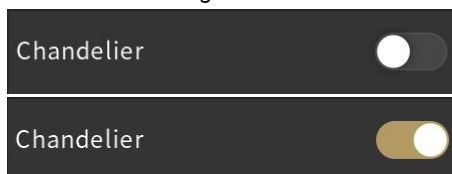


Fig.2.2.1.4

The status of the switch function in different UI styles is shown in the figure above.

(1) In Fig.2.2.1.1, the icon on (shown in the right figure) indicates the lamp to turn on and the icon

off (shown in the left figure) indicates the lamp to turn off;

(2) In Fig.2.2.1.2, the block and icon on (shown in the right figure) indicates the lamp to turn on, the block and icon off (shown in the left figure) indicates the lamp to turn off;

(3) In Fig.2.2.1.3, the block on (shown in the right figure) indicates the lamp to turn on, and the block off (shown in the left figure) indicates the lamp to turn off;

(4) In Fig.2.2.1.4, the switch button icon on (shown in the right figure) indicates the lamp to turn on, and the switch button icon off (shown in the left figure) indicates the lamp to turn off. At the same time, it can be updated and displayed according to the switch status of the bus feedback.

2.2.2. Dimming Function

Dimming function including: relative dimming, brightness dimming, relative+brightness dimming, brightness+colour temperature dimming function. Their UI styles are similar to the switch function, as Fig.2.2.1.1, Fig.2.2.1.2, Fig.2.2.1.3 and Fig.2.2.1.4 shown above, the difference is that the current brightness status is displayed at the same time on the icon, which needs to receive brightness feedback from the dimming actuator from the bus to be display accurately.

Relative dimming has no individual control interface, dimming via operate the icon. Short press to switch on/off, icon on indicates the lamp to turn on, icon off indicates the lamp to turn off. Long press to send the command to increase or decrease 100% brightness, long press then release to send the command to stop dimming.

Brightness dimming as shown as Fig.2.2.2.1. Relative+brightness dimming as shown as Fig.2.2.2.2.

Brightness+colour temperature dimming as shown as Fig.2.2.2.3.

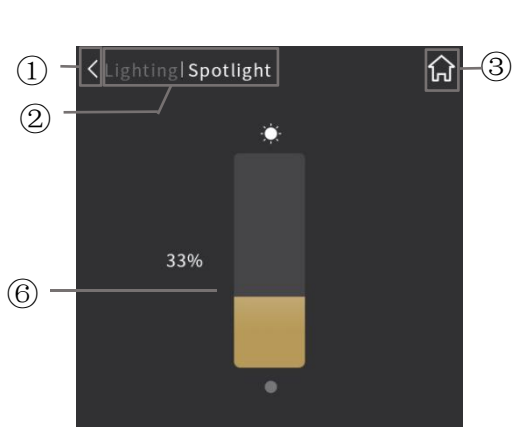


Fig.2.2.2.1

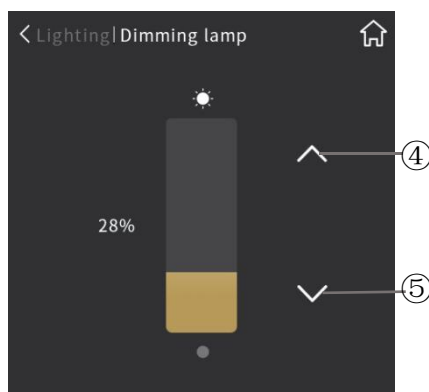


Fig.2.2.2.2

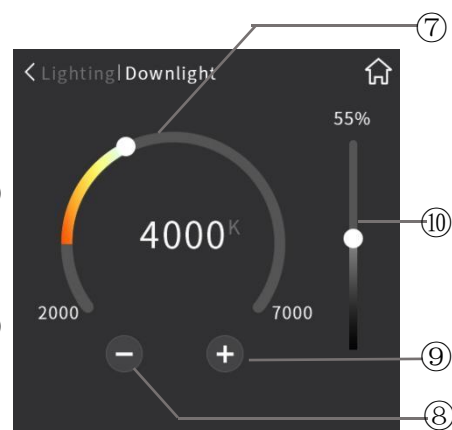


Fig.2.2.2.3

① Return to the previous level interface by touching this icon;

② This area displays the identification of page description, format as: page description of previous level page | description of functional icon currently manipulated;

③ Return to the home page by touching this icon;

④ Adjust the brightness in the way of relative dimming by touching this icon, long press to send 100%, long release to send stop dimming command; Short press only to dim 100%;

⑤ Adjust the brightness in the way of relative dimming by touching this icon, long press to send 0%, long release to send stop dimming command; Short press only to dim 0%;

⑥ Adjust the brightness in the way of percentage by sliding this slider;

At the same time, the slider status can also be updated according to the brightness feedback received from the bus.

⑦ This ring slider is to adjust the colour temperature of lamp;

⑧ Decrease the colour temperature value by touching this icon;

⑨ Increase the colour temperature value by touching this icon;

Colour temperature control interface shown as Fig.2.2.2.3, by sliding the ring slider⑦ or touching the icon⑧ and icon⑨ to control the colour temperature of lamp, the adjustment range for each touch of icon⑧ or icon⑨ is 100K. The maximum range for colour temperature adjustment is 2000~7000K, the range can be modified by the ETS parameters. The ring slider⑦ status can also be updated according to the colour temperature feedback received from the bus.

⑩ Adjust the brightness of the lamp by sliding this slider.

At the same time, the slider status can also be updated according to the brightness feedback received from the bus.

2.2.3. Value Sender Function

By touching the icon, the device will send the corresponding telegram to the bus, and the icon will shake. If long operation is set, the long/ short operation of the icon will send the corresponding setting value. When in short press operation, the control telegram will be triggered when touch the icon, and if the long operation is enabled, only after the fixed time of the long operation (the default is 500ms) will the control telegram be triggered.

2.2.4. Curtain function

Blind function including 5 types: Curtain position, Roller Blind position, Venetian Blinds position and slat, Curtain step/move, Roller blind step/move. Besides, in the UI interface, the current position status of the curtain is displayed on the icons of all types of blinds, which needs to be accurately displayed based on the position of the blinds that is fed back from the curtain actuator received on the bus.

Curtain position

This type is for Curtain position controlling, supporting to adjust the position of curtain by sliding the slider in the form of percentage as well as opening, closing and stop moving by manipulating three controlling buttons. The control interface of Curtain position function is shown in Fig.2.2.4.1 below.

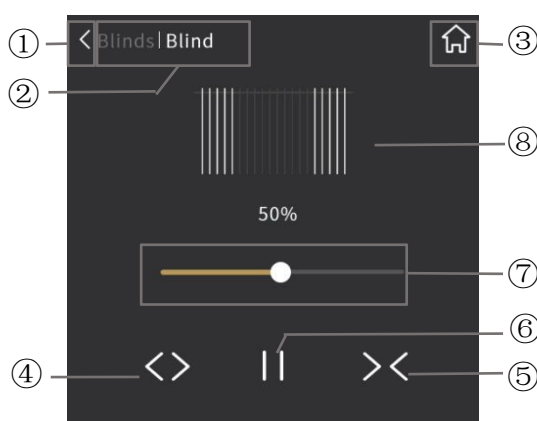


Fig.2.2.4.1

① Return to the previous level interface by touching this icon;

② This area displays the identification of the page description, format as: page description of previous level page | description of functional icon currently manipulated;

③ Return to the home page by touching this icon;

④ Short press the icon to open curtain, long press to stop moving;

⑤ Short press the icon to close curtain, long press to stop moving;

⑥ Touch the icon to stop moving;

⑦ This icon is the slider icon, adjust the position of curtain in the form of percentage by sliding this slider;

⑧ This icon displays the simulation of curtain position, display the current curtain position in the form of percentage below the icon block.

By sliding the slider⑦ to adjust the position of blind in the form of percentage, during the sliding, icon⑧ will dynamically simulate the opening and closing behavior of curtains.

At the same time, the status of slider⑦ and icon⑧ will also update according to the curtain position status feedback received from the bus.

Roller Blind position

This type is for Roller Blind position controlling, supporting to adjust the position of blinds by sliding the slider in the form of percentage as well as moving up, moving down and stop moving by manipulating three controlling buttons. The control interface of Roller Blind position function is shown in Fig. 2.2.4.2 below.

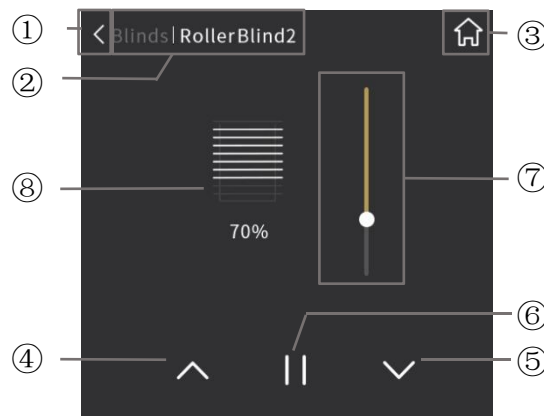


Fig.2.2.4.2

① Return to the previous level interface by touching this icon;

② This area displays the identification of the page description, format as: page description of previous level page | description of functional icon currently manipulated;

③ Return to the home page by touching this icon;

④ Short press the icon to run up blind, long press to stop moving;

⑤ Short press the icon to run down blind, long press to stop moving;

⑥ Touch the icon to stop moving;

⑦ This icon is the slider icon, adjust the position of blind in the form of percentage by sliding this slider;

⑧ This icon displays the simulation of blind position, display the current blind position in the form of percentage below the icon block.

By sliding the slider⑦ to adjust the position of blind in the form of percentage, during the sliding, icon⑧ will dynamically simulate the opening and closing behavior of blinds.

At the same time, the status of slider⑦ and icon⑧ will also be updated according to the blind position status feedback received from the bus.

Venetian Blinds position and slat

This type is for Venetian Blinds position and slat controlling, supporting to adjust the position of blind and angle of louver by sliding the slider in the form of percentage as well as to run up the blind, run down down the blind and stop the blind from moving by manipulating three controlling buttons. The control interface of Venetian Blinds position and slat function is shown in Fig.2.2.4.3 below.

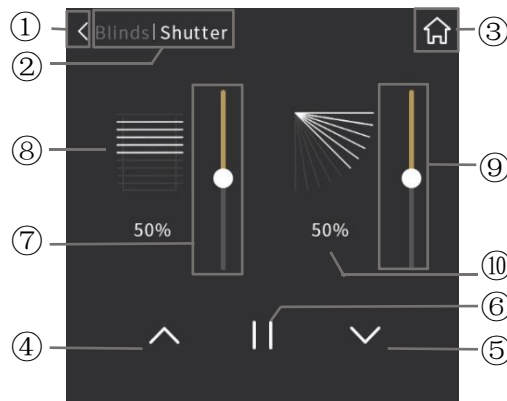


Fig.2.2.4.3

① Return to the previous level interface by touching this icon;

② This area displays the identification of the page description, format as: page description of previous level page | description of functional icon currently manipulated;

③ Return to the home page by touching this icon;

④ Short press the icon to run up blind, long press to stop moving/adjust the blind angle up;

⑤ Short press the icon to run down blind, long press to stop moving/adjust the blind angle down;

⑥ Touch the icon to stop moving;

⑦ This icon is the slider icon, adjust the position of blind in the form of percentage by sliding this slider;

⑧ This icon displays the simulation of blind position, display the current blind position in the form of percentage below the icon block.

By sliding the slider⑦ to adjust the position of blind in the form of percentage, during the sliding, icon⑧ will dynamically simulate the opening and closing behavior of curtains.

⑨ This icon is the slider icon of louver angle, adjust the position of blind in the form of percentage by sliding this slider;

⑩ This icon displays the simulation of louver angle, display the current blind slat in the form of percentage below the icon block.

By sliding the slider⑨ to adjust the position of blind in the form of percentage, during the sliding, icon⑩ will dynamically simulate the changing behavior of louver angle.

At the same time, the status of slider⑦, slider⑨, icon⑧ and icon⑩ will also be updated according to the curtain position status feedback received from the bus.

Curtain step/move

This type is for Curtain step/move controlling, supports opening, closing and stop moving by manipulating three controlling buttons. The control interface of Curtain step/move function is shown in Fig.2.2.4.4 below.

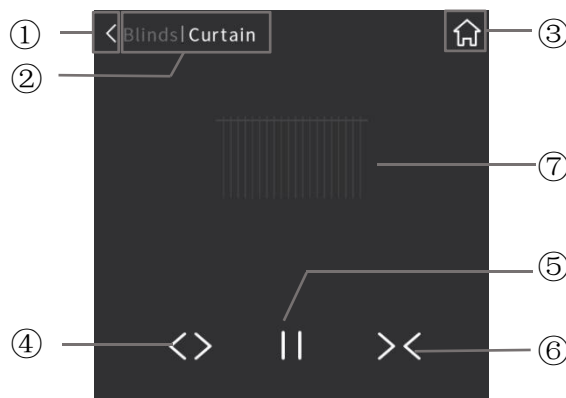


Fig.2.2.4.4

- ① Return to the previous level interface by touching this icon;
- ② This area displays the identification of the page description, format as: page description of previous level page | description of functional icon currently manipulated;
- ③ Return to the home page by touching this icon;
- ④ Short press the icon to open curtain, long press to stop moving;
- ⑤ Short press the icon to close curtain, long press to stop moving;

⑥ Touch the icon to stop moving;

⑦ This icon displays the simulation of curtain position.

Control the blind by touching icon④, icon⑤ and icon⑥, during operation, icon⑦ will dynamically simulate the opening and closing behavior of curtains.

At the same time, the status of icon⑦ will also update according to the curtain status feedback received from the bus.

Roller blind step/move

This type is for Roller blind step/move controlling, supports opening, closing and stop moving by manipulating three controlling buttons. The control interface of Roller blind step/move function is shown in Fig. 2.2.4.5 below.

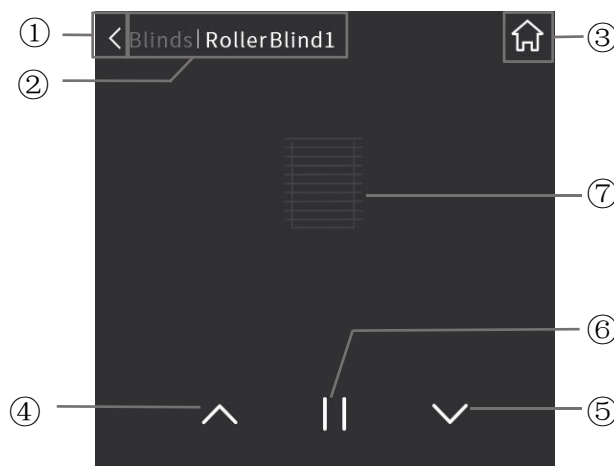


Fig.2.2.4.5

① Return to the previous level interface by touching this icon;

② This area displays the identification of the page description, format as: page description of previous level page | description of functional icon currently manipulated;

③ Return to the home page by touching this icon;

④ Short press the icon to run up blind, long press to stop moving;

⑤ Short press the icon to run down blind, long press to stop moving;

⑥ Touch the icon to stop moving;

⑦ This icon displays the simulation of blind position.

Control the blind by touching icon④, icon⑤ and icon⑥, during operation, icon⑦ will dynamically simulate the opening and closing behavior of blinds.

At the same time, the status of icon⑦ will also update according to the blind status feedback received from the bus.

2.2.5. Scene Function

By touching the icon, the device sends the corresponding scene telegram to the bus. If long operation is set, short pressing the icon for the scene call, long pressing the icon for the scene store. The icon status is updated according to the scene currently called, and if the scene is saved, the icon will shake (horizontally).

2.2.6. Switch indicator

Switch indicator is only used to display the on/off status of device, the device will send corresponding status

Telegram to bus, and the icon status will be updated according to the received telegram, the effect is similar to switch function.

2.3. Room Temperature Control Function Page

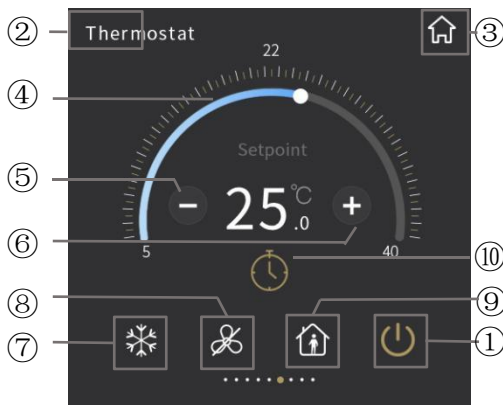


Fig.2.3.1

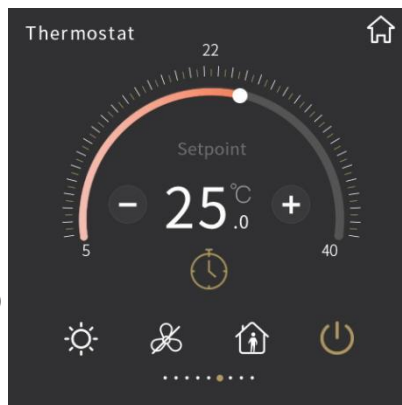


Fig.2.3.2

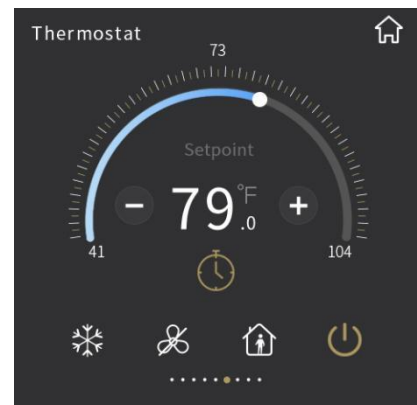


Fig.2.3.3

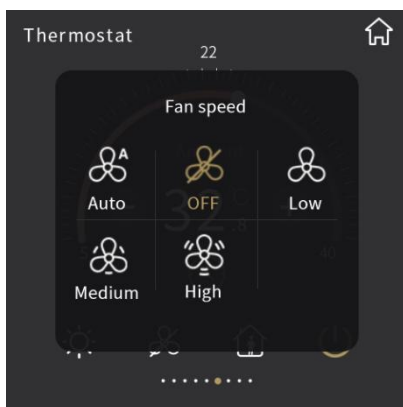


Fig.2.3.4



Fig.2.3.5

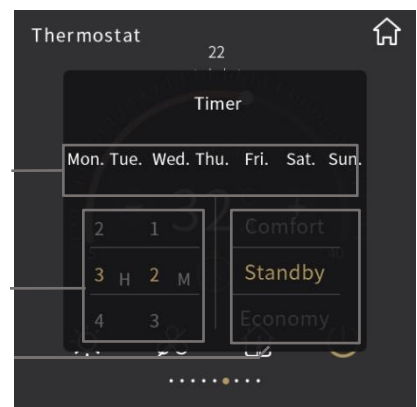


Fig.2.3.6

- ① This icon is ON/OFF button for the on/off of RTC;

The initial state of power is defined according to the parameters, and it may also be in an uncertain state. When ON, the interface can be operated; when OFF, the other icons are not operable except the ON/OFF button.

- ② This area displays the page description identification of RTC function page, user can define the description through ETS;

- ③ Return to the home page by touching this icon;

- ④ Sliding this ring slider to adjust the setting temperature;

The colour of ring slider is to display according to current control mode, display red when heating mode as shown as Fig.2.3.2, display blue when heating mode as shown as Fig.2.3.1.

Temperature unit is °C, the ring slider styles can be optional 5~40°C, 16~32°C or 19~25°C; When unit is °F, it can be optional 41~104°F, 61~90°F or 66~77°F. Choose the style according to threshold value range configured in ETS.

⑤ **The function of this icon is to decrease the temperature;**

⑥ **The function of this icon is to increase the temperature;**

Adjusting the temperature by sliding the ring slider④ or touching the icon⑤ and icon⑥. For each touching of icon⑤ and icon⑥, the adjustment range is 0.5 degrees. When the setting temperature unit is set to degrees Celsius(°C), as shown in 2.3.1, adjustment range of the setting temperature is 5~40°C by default; when the setting temperature unit is set to Fahrenheit(°F), the current temperature value will automatically convert to Fahrenheit value, as shown in Fig.2.3.3, adjustment range of the setting temperature is 41~104°F by default. The temperature adjustment range can be modified through parameter setting.

Ambient temperature is displayed according to the parameter configuration. Temperature detected by internal sensor or external sensor can be displayed through configuration. When internal and external sensor both occur fault, display "--.°".

Display ambient temperature or setpoint temperature on the screen, which is defined via ETS; Auto change to setpoint temperature when operation temperature decrease/increase, no action after 3 seconds, return to ambient temperature.

⑦ **This icon is the Heating/Cooling icon, for heating and cooling switching;**

This icon can be displayed individually as heating or cooling by parameter configuration.

Control mode of RTC is configured by ETS, when it is "Heating and Cooling", you can change mode on the screen, otherwise fix to heating or cooling mode.

⑧ **Enter the fan speed setting by touching this area, and will pop up a sub-window shown as Fig.2.3.4;**

This window shows up to 5 options of fan speed: Auto, OFF, Low, Medium and High. Select one of these options then touch the area outside the sub-window to return the previous level function page. Under the auto fan speed, there would be no specific fan speed shown on the interface; the auto fan

speed can be disable or enable by parameter configuration, when disable, there would be no Auto option on the window.

Fan speed adjustment of RTC set to be disable or enable through parameter configuration. When disable, there would be no fan speed function shown as Fig.2.3.1 on the interface; when enable, fan speed can be adjusted.

⑨ Enter the mode setting by touching this area, and will pop up a sub-window shown as figure 2.3.5.

This window shows up to 4 options of mode: Comfort, Standby, Economy and Protection, select one of these options then touch the area outside the sub-window to return to the previous level function page.

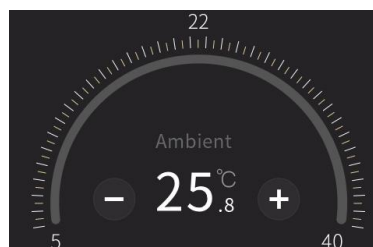
Operation mode of RTC set to be disable or enable through parameter configuration. When disable, there would be no mode option as shown as Fig.2.3.1 on the interface; when enable, operation mode can be selected.

Remarks:

When the setting temperature for operation mode is configured as relative adjustment, the adjustment of setting temperature under the protection mode only acts on the protection mode, for other modes, relative change of temperature adjustment are able to act on all modes (except the setting temperature of protection mode).

When the setting temperature for operation mode is configured as absolute adjustment, the adjustment of setting temperature only acts on the current operating mode.

When change to protection mode, the ring slider displays gray, the ring slider and increase/decrease icon all can not be operated, that is, you can not change setpoint temperature at this time, as shown as below.



⑩ Turn on timer function by touching this icon;

Icon⑩ on indicates timer turn on; icon⑩ off indicates timer turn off. Timer function can be enabled via the parameter configuration. When timer function is disabled, there would be no timer icon as shown as Fig.2.3.1 on the interface; when enabled, timer can be configured.

Only support to one timer. Power on/off or call the scene function that configured by RTC, it can not turn off timer function.

Note: in the off status, if timer function is set to send a setpoint temperature, the temperature is sent along with a power on command to bus when the time arrives.

Long press to enter the timer configuration interface, pop-up the window as shown as Fig.2.3.6. You can select set the week, hour, minute and other RTC operation. Touch the area outside the sub-window to return to the previous level function page after finishing configuration.

⑪ **This area can choose from Monday to Sunday of the week for timing;**

⑫ **Sliding the number to choose the date and time for timing;**

⑬ **Sliding to choose the RTC status for timing, you can choose on, off, operation mode or setpoint temperature;**

If RTC function is linked to home page, display setpoint temperature on the top right corner of corresponding icon in the home page, and the colour is according to control mode: Heating mode-red; cooling mode-blue. When RTC is power off, it displayed "OFF".

2.4. Air Conditioner Function Page

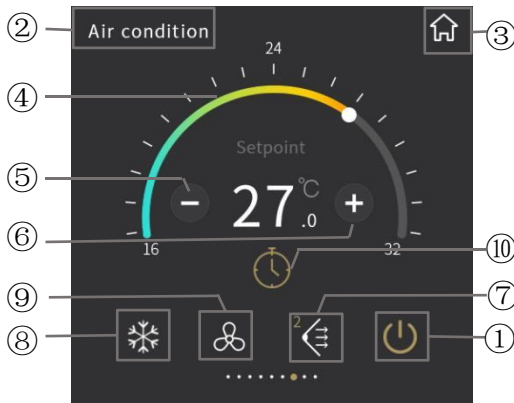


Fig.2.4.1

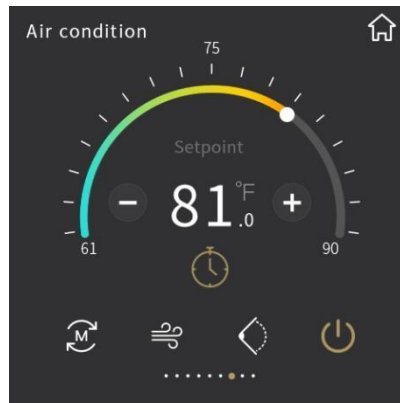


Fig.2.4.2



Fig.2.4.3



Fig.2.4.4



Fig.2.4.5

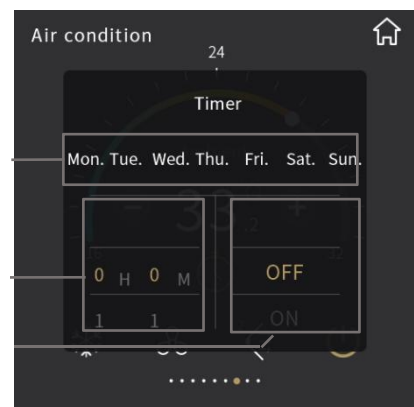


Fig.2.4.6

① This icon is ON/OFF button for the on/off of Air Conditioner control;

When ON, the interface can be operated; when OFF, the other icons are not operable except the ON/OFF button. The status of power ON mode, Fan speed, and setpoint temperature is the status before power OFF. The Air Conditioner control interface will recover to the status before voltage failure.

② This area displays the page description identification of Air-Conditioner control, user can define the description through ETS;

③ Return to Home page by touching this icon;

④ Adjust the setting temperature by sliding this ring slider;

⑤ The function of this icon is to decrease the temperature;

⑥ The function of this icon is to increase the temperature;

Adjusting the temperature by sliding the ring slider④ or touching the icon⑤ and icon⑥. For each touching of icon⑤ and icon⑥, the adjustment range is 1.0 degrees. When the setting temperature unit is set to degrees Celsius(°C), as shown in Fig.2.4.1, adjustment range of the setting temperature is 16~32°C by default; when the setting temperature unit is set to Fahrenheit(°F), the current temperature value will automatically convert to Fahrenheit value, as shown in Fig.2.4.2, adjustment range of the setting temperature is 61~90°F by default. The temperature adjustment range can be modified through parameter setting.

The ambient temperature is displayed according to the parameter configuration. Temperature detected by internal sensor or external sensor can be displayed through configuration. When internal and external sensor both occur fault, display "--.°".

Display ambient temperature or setpoint temperature on the screen, which is defined via ETS; Auto change to setpoint temperature when operation temperature decrease/increase, no action after 3 seconds, return to ambient temperature.

⑦ **Enter to the vanes setting by touching this tile, and will pop up a sub-window shown as Fig.2.4.3;**

Vanes setting is used to switch the working mode of fan direction, and there are two modes: fixed and swing. Select one of these options then touch the area outside the sub-window to return to the previous level function page.

Under fixed vanes position, select one of the 5 options (#1, #2, #3, #4, #5) for vanes position, for instance, select #2, interface as shown in Fig.2.4.3, then touch the area outside the sub-window to return the previous level function page, the position selected will be shown on the function page, as shown in Fig.2.4.1. For vanes swing, because vanes position change all the time, there would be no fixed position, only display character "Swing" on the interface.

Vanes swing function set to be disable or enable by parameter configuration. When disable, there will be no vanes fixed/swing item shown on the interface, as shown in Fig.2.4.1; when enable, vanes position can be adjusted.

When the status of vanes is uncertain, display icon  on the air conditioner interface.

⑧ **Enter the mode setting by touching this area, and will pop up a sub-window shown as Fig. 2.4.4;**

This dialogue window shows up to 5 options of Air Conditioner mode: Auto, Heating, Cooling, Dehumidification and Fan. Select one of these options then touch the area outside the sub-window to return to the previous level function page.

Each mode set to be disabled or enabled independently by the parameters configuration. When a mode is disabled, there will be no corresponding item is shown on the interface; when enabled, support to operate the mode.

When the status of mode is uncertain, display icon  on the air conditioner interface.

⑨ Enter the fan speed setting by touching this icon, and will pop up a sub-window shown as Fig.2.4.5;

This dialogue window shows up to 4 options of fan speed mode: Auto, Low, Medium and High. Select one of these options then touch the area outside the dialogue sub-window to return to the previous level function page.

When the status of fan speed is uncertain, display icon  on the air conditioner interface.

⑩ Turn on timer function by touching this icon;

Icon⑩ on indicates timer turn on; icon⑩ off indicates timer turn off. Timer function can be enabled via the parameter configuration. When timer function is disabled, there would be no timer icon as shown as Fig.2.4.1 on the interface; when enabled, timer can be configured.

Only support to one timer. Power on/off or call the scene function that configured by Air Condition, it can not turn off timer function.

Note: in the off status, if timer function is set to send a setpoint temperature, the temperature is sent along with a power on command to bus when the time arrives.

Long press to enter the timer configuration interface, pup-up the window as shown as Fig.2.4.6. You can select set the week, hour, minute and other Air conditioner operation. Touch the area outside the sub-window to return to the previous level function page after finishing configuration.

⑪ This area can choose from Monday to Sunday of the week for timing;

⑫ Sliding the number to choose the date and time for timing;

⑬ Sliding to choose the air conditioner status for timing, you can choose on, off, mode or setpoint temperature;

If Air Conditioner function is linked to home page, display setpoint temperature on the top right corner of corresponding icon in the home page, and the colour is according to the mode: Heating mode-red; cooling mode-blue, dehumidification-yellow, fan-green. When Air Conditioner is power off, it displayed "OFF".

2.5. Floor Heating Function Page

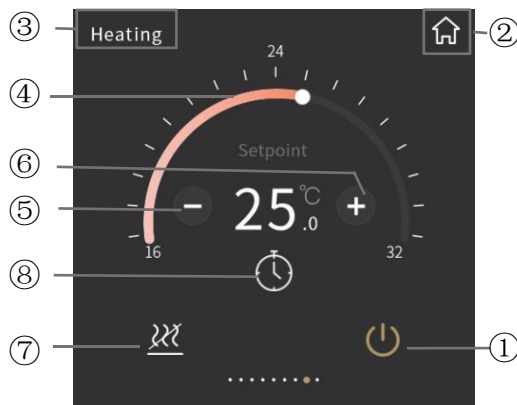


Fig.2.5.1

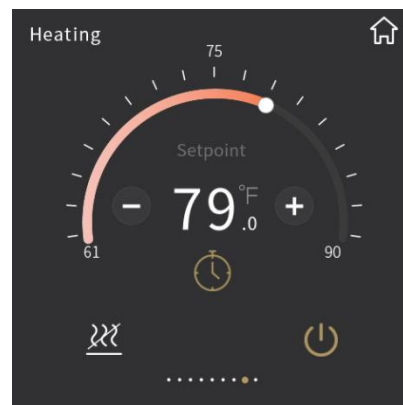


Fig.2.5.2

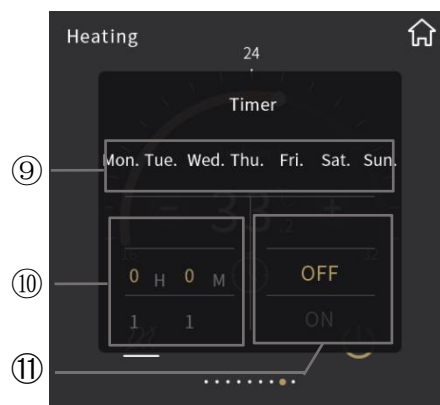


Fig.2.5.3

① This icon is ON/OFF button for the on/off of Floor Heating control;

When ON, the interface can be operated; when OFF, the other icons are not operable except the ON/OFF button and timing indication icon.

② This area displays the page description identification of AC control, user can define the description through ETS;

③ Return to the home page by touching this icon;

④ Adjust the setting temperature by sliding this ring slider;

Temperature unit is °C, the ring slider styles can be optional 16~32°C or 19~25°C; When unit is °F, it can be optional 61~90°F or 66~77°F. Choose the style according to threshold value range configured in ETS.

⑤ The function of this icon is to decrease the temperature;

⑥ The function of this icon is to increase the temperature;

Adjusting the temperature by sliding the ring slider④ or touching the icon⑤ and icon⑥. For each touching of icon⑤ and icon⑥, the adjustment range is 0.5 degrees. When the setting temperature unit is set to degrees Celsius(°C), as shown in Fig.2.5.1, adjustment range of the setting temperature is 16~32°C by default; when the setting temperature unit is set to Fahrenheit(°F), the current temperature value will automatically convert to Fahrenheit value, as shown in Fig.2.5.2, adjustment range of the setting temperature is 61~90°F by default. The temperature adjustment range can be modified through parameter setting.

The ambient temperature is displayed according to the parameter configuration. Temperature detected by internal sensor or external sensor can be displayed through configuration. When internal and external sensor both occur fault, display "--.°".

Display ambient temperature or setpoint temperature on the screen, which is defined via ETS; Auto change to setpoint temperature when operation temperature decrease/increase, no action after 3 seconds, return to ambient temperature.

⑦ This is the heating status indication icon;

Icon⑦ on indicates the heating valve to be open; icon⑦ off indicates the heating valve to stop heating, at this time, floor heating would be in the unheated state.

Floor heating compares the setting temperature with actual temperature of current environment to define control value according to 2-point control or PI control mode, so that realizes the automatic opening or closing of the heating valve.

⑧ Turn on timer function by touching this icon;

Icon⑧ on indicates timer turn on; icon⑧ off indicates timer turn off. Timer function can be enabled via the parameter configuration. When timer function is disabled, there would be no timer icon as shown as Fig.2.5.1 on the interface; when enabled, timer can be configured.

Only support to one timer. Power on/off or call the scene function that configured by Floor heating, it can not turn off timer function.

Note: In the off status, if timer function is set to send a setpoint temperature, the temperature is sent along with a power on command to bus when the time arrives.

Long press to enter the timer configuration interface, pop-up the window as shown as Fig.2.5.3. You can select set the week, hour, minute and other Floor heating operation. Touch the area outside the sub-window to return to the previous level function page after finishing configuration.

⑨ This area can choose from Monday to Sunday of the week for timing;

⑩ Sliding the number to choose the date and time for timing;

⑪ Sliding to choose the floor heating status for timing, you can choose on, off or setpoint temperature;

If Floor heating function is linked to home page, display setpoint temperature on the top right corner of corresponding icon in the home page, and the colour is displayed to red. When Floor heating is power off, it displayed "OFF".

2.6. Ventilation System Function Page

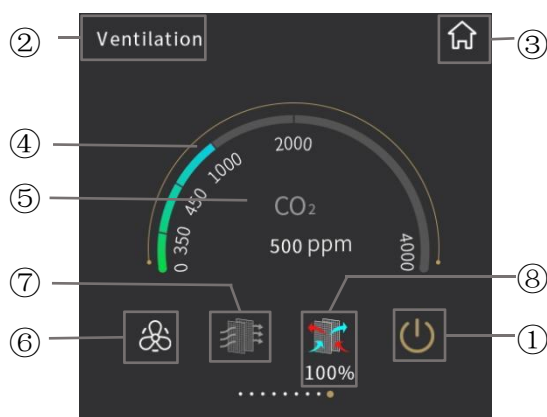


Fig.2.6.1

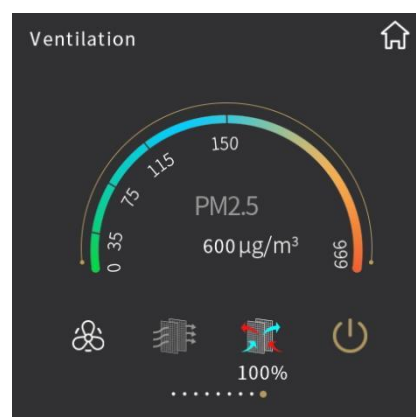


Fig.2.6.2

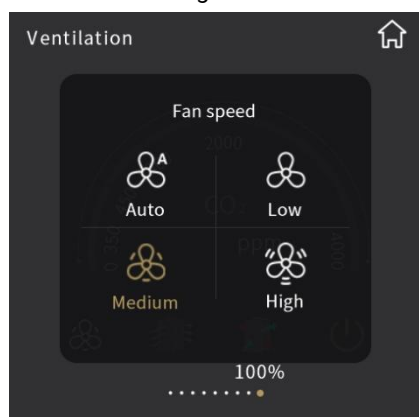


Fig.2.6.3

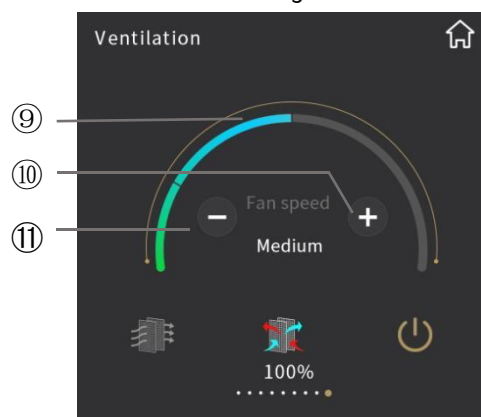


Fig.2.6.4

① This icon is ON/OFF button for the on/off of Ventilation System control;

The initial state of power is defined according to the parameters, and it may also be in an uncertain state. When ON, the interface can be operated; when OFF, the other icons are not operable except the ON/OFF button.

② This area displays the page description identification of Ventilation System, user can define the description through ETS;

③ Return to home page by touching this icon;

④ This ring bar displays the concentration value of CO₂/PM_{2.5} ;

⑤ This icon displays the concentration of CO₂/PM_{2.5};

Only when auto fan speed control of ventilation system is enable would this interface display, as shown in Fig.2.6.1 and Fig.2.6.2.

CO2 concentration as shown in Fig.2.6.1, according to the value received from the bus, range 0~4000ppm; if the data exceed 4000ppm, then the interface will display 4000ppm.

PM2.5 concentration as shown in Fig.2.6.2, according to the value received from the bus, range 0~999ug/m³; if the data exceed 999ug/m³, then the interface will display 999ug/m³.

⑥ This icon is for fan speed setting;

There is up to 4 options for fan speed mode: Auto, Low, Medium and High. When fan speed auto control is enable, auto fan speed adjustment will be displayed on the interface, shown as Fig.2.6.1 and Fig.2.6.2. Whether fan speed auto control is enable or not is configured through parameter configuration.

When fan speed auto control is enable, fan speed level is calculated according to CO2 or PM2.5 concentration. The interface displays only the auto icon, but no specific fan speed level.

⑦ This icon is the filter timer icon;

Whether the filter timer counter function is enable or not is configured through parameter configuration. When disable, there will be no display of filter timer counter function on the interface as shown in Fig.2.6.1; when enable, icon⑦ will be colorful after ventilation system ON, the remaining evaluation value will be displayed next to it. The value will be updated according to the use time, which will be updated through the bus.

The service life of the filter set by the parameter configuration. When the filter time reaches to the parameter setting value, the alarm state can be issued through the bus, and the remaining filter timer value can be displayed to be 0%. When touch icon⑦, the filter time can be reset, as shown in Fig.2.6.4 below. After clicking "Confirm", the filter timer value can be reset to 100%.

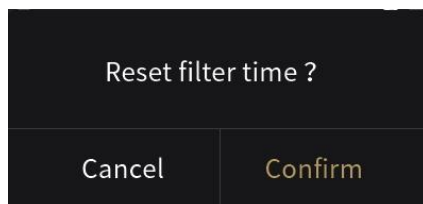


Fig.2.6.4

⑧ This is the heat recovery icon, used to turn on or off heat recovery function;

Whether heat recovery function of ventilation system is enable or not is configured through

parameter configuration. When disable, there will be no display of heat recovery function on the interface as shown in Fig. 2.6.1; when enable, heat recovery function is turned on by default when ventilation system is ON, and the heat recovery function can be turned on or off by touching icon⑧. The icon on indicates that the heat recovery is on; the icon off indicates that the heat recovery is off. In addition, heat recovery function can be turned on or off through the bus. And there would be no responding after enable heat recovery function.

⑨ **This ring bar displays specific fan speed level;**

⑩ **To increase fan speed level by touching this icon;**

⑪ **To decrease fan speed level by touching this icon.**

When fan speed is not configured as auto, as shown in Fig.2.6.3, by touching icon⑩ and icon⑪ to adjust fan speed; for each touch of icon⑩ and icon⑪ to adjust one level, there are 3 modes of fan speed: Low, Medium and High. At this time, the adjustment is manually, not automatically according to the concentration of CO2 or PM2.5.

2.7. RGB Dimming Function Page

There are 3 control types of RGB dimming function: RGB, RGBW, RGBCW, are configured through parameter configuration. Among them, RGB is suitable for adjusting RGB lamp; RGBW is suitable for controlling RGBW strip; RGBCW is suitable for RGB lamp, brightness and colour temperature control.

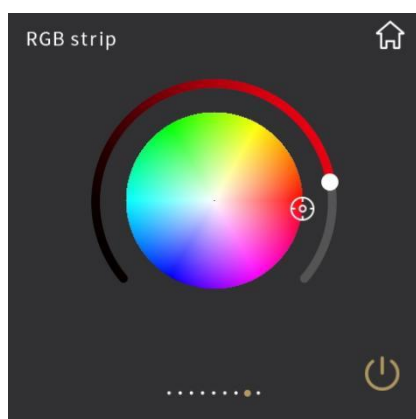


Fig.2.7.1

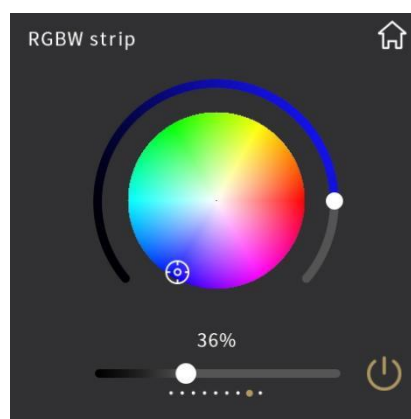


Fig.2.7.2

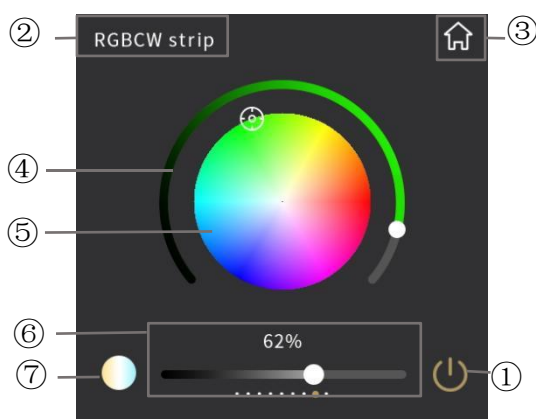


Fig.2.7.3



Fig.2.7.4

① This icon is ON/OFF button for the on/off of lamps;

Touch this icon to switch on/off, the RGB lamp is turned on or turn off;

When touch the icon to switch off, the status of different RGB lamps are as follow:

(1)RGB: Colour brightness value (ring slider④) is updated to 0, and the colour palette⑤ remains the same;

(2)RGBW: Colour brightness value (ring slider④) and white brightness value(slider⑥) are updated to 0, and the colour palette⑤ remains the same;

(3)RGBCW: Colour brightness value (ring slider④) and colour temperature brightness

value(slider⑥) are updated to 0, and the colour palette⑤ and colour temperature value(ring slider⑧) remain the same;

When RGB or W colour value is not 0 (i. e., ring slider④ is not slid to the left bottom or slider⑥ is not slid to the left), icon① will be on.

② This area displays the page description identification of RGB dimming function page, user can define the description through ETS;

③ Return to the home page by touching this icon;

④ This ring slider is used to adjust the colour shade of the RGB lamp;

⑤ This icon is the colour palette;

When RGB dimming function is configured as RGB, function page interface as shown in Fig.2.7.1, sliding ring slider④ to adjust the colour shade of RGB lamp, when ring slider④ is slid to the left bottom, RGB lamp is completely OFF, at this time, the button① become gray, and no reaction when operate the colour palette⑤.

When RGB value of ring slider④ is not 0, the circular colour palette is for selecting colour, when touch the button①, RGB lamp off, and ring slider④ automatically slides to the left bottom, button① become gray.

When RGB dimming function is configured as RGBW, function page interface as shown in Fig.2.7.2, RGBW function page interface is similar to RGB function page interface, which is no longer described herein.

⑥ This slider for adjusting the brightness of white light, sliding the slider to adjust the brightness effect of white light.

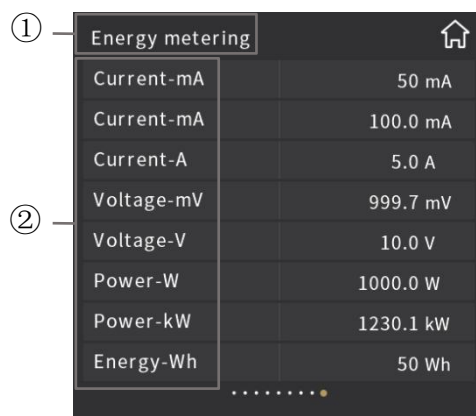
When RGB dimming is configured as RGBW, RGBCW, adjust the white brightness by sliding slider⑥, when it is slid to the left bottom, operation is similar to ring slider④, not explain again here.

When RGB dimming is configured as RGBCW, function page interface is similar to RGB but more a slider⑥ and colour temperature control⑦, as shown in Fig.2.7.3.

- ⑦ Pop up the window as shown as Fig.2.7.4 by touch this area;
- ⑧ This ring slider is to adjust the colour temperature of RGB lamp;
- ⑨ Decrease the colour temperature value by touching this icon;
- ⑩ Increase the colour temperature value by touching this icon;

Colour temperature control interface shown as Fig.2.7.4, by sliding the ring slider⑧ or touching the icon⑨ and icon⑩ to control the colour temperature of RGB lamp, the adjustment range for each touch of icon⑨ or icon⑩ is 100K. After finishing the adjustment, touch the area outside the sub-window to return to the previous level function page, as shown in Fig.2.7.3. The maximum adjustable rang of colour temperature is limited in 2000~7000K, which can be modified by the parameters.

2.8. Energy Metering Display Function Page



Energy metering		⌂
Current-mA		50 mA
Current-mA		100.0 mA
Current-A		5.0 A
Voltage-mV		999.7 mV
Voltage-V		10.0 V
Power-W		1000.0 W
Power-kW		1230.1 kW
Energy-Wh		50 Wh

Fig.2.8.1

- ① This area displays the page description identification of the Energy Metering Display Function Page, user can define the description through ETS;
- ② This area displays the identification of data description, user can define the description through ETS;

Energy Metering Display interface shown as Fig.2.8.1, current, voltage, power and energy consumption can be displayed through parameter configuration. There are up to 8 items displayed in the interface, these data can be updated and displayed through the bus, such as Switch Actuator with Current Detection can provide the present value of current, power or energy consumption.

2.9. Air Quality Display Function Page

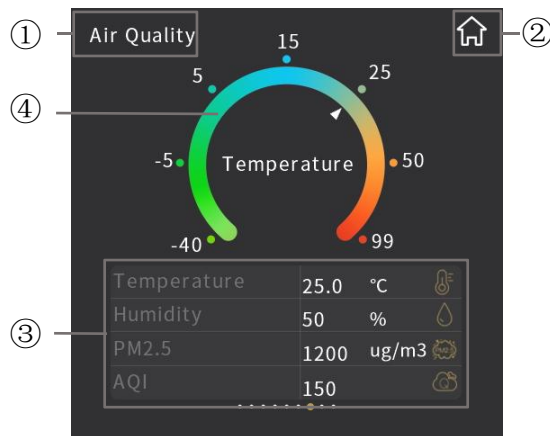


Fig.2.9.1



Fig.2.9.2

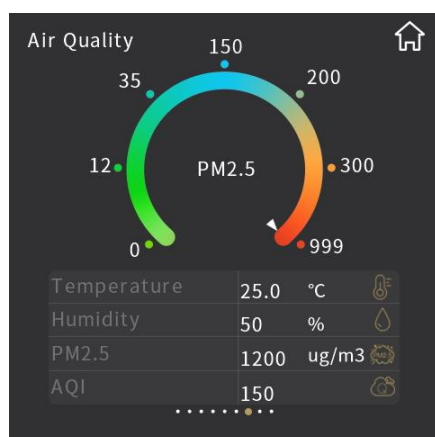


Fig.2.9.3

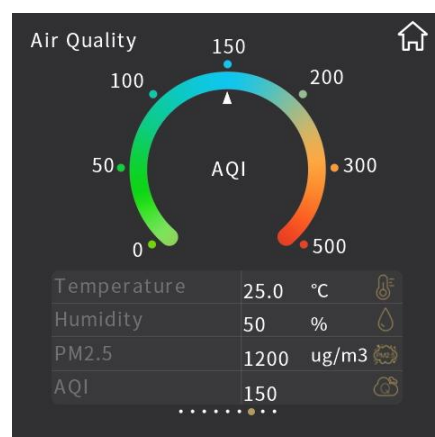


Fig.2.9.4

① This area displays the page description identification of Air Quality Display function page;

② Return to the home page by touching this icon;

③ This display area is the air quality parameter display list, can be configured through parameter configuration;

Temperature, humidity, PM2.5, PM10, CO2, VOC, AQI, brightness, wind speed and rain status can displayed by parameter configuration, an interface can be configured with up to four items to display.

④ This ring strip is used for displaying the air quality parameter value;

Touch one of the items in the display list at the bottom of the interface, the pointer on the ring strip④ will point to the corresponding scale, such as Fig.2.9.1 above is the display effect of temperature, Fig.2.9.2 is the display effect of humidity, Fig.2.9.3 is the display effect of CO2 and Fig.2.9.4 is the display effect of AQI.

You can see the display range of the corresponding item on the interface ring strip④:

Temperature: -40~99 °C

Humidity: 0~100 %

PM2.5: 0~999 ug/m3

PM10: 0~999 ug/m3

CO2: 0~4000 ppm

VOC: 0~999 ug/m3

AQI: 0~500

Brightness: 0~50000 lux

Wind speed: 0~50 m/s or 0~150km/h

Rain status: only display the status of the ring strip and text description (no rain, the ring strip is off; rain, the ring strip on)

The displayed data are usually provided by other external sensors on the system.

2.10. Audio Control Function page

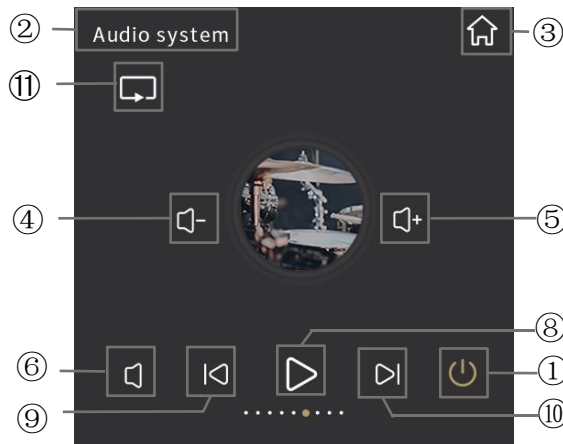


Fig.2.10.1

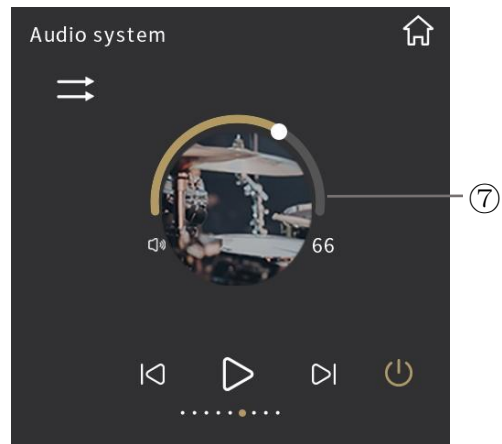


Fig.2.10.2

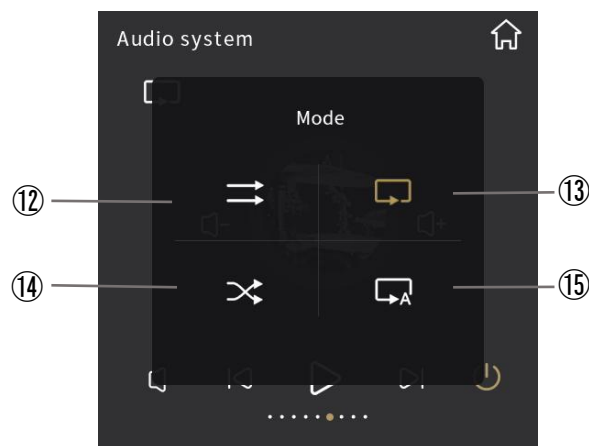


Fig.2.10.3

- ① This icon is ON/OFF button for the power on/off of Audio control;

As shown in Fig.2.10.1, when ON, the interface can be operated; when OFF, the other icons are not operable except the ON/OFF button.

- ② This area displays the page description identification of Background Music function page, user can define the description through ETS;

- ③ Return to the home page by touching this icon;

- ④ This icon is for volume decreasing;

- ⑤ This icon is for volume increasing;

When adjustment volume is configured to be 1bit type, relative control volume by touching icon④ and icon⑤, to decrease or increase.

⑥ Mute or exit mute by touching this icon;

When adjustment volume is configured to be 1bit type, mute function can be enabled via the parameter configuration. When mute function is disabled, there would be no mute icon as shown as Fig.2.10.1 on the interface.

⑦ Adjust the volume in the form of percentage by sliding this ring slider;

When adjustment volume is configured to be 1byte type, absolute control volume by sliding slider⑦. The maximum rang is 0~100%, which is configured via the parameter.

⑧ Play or pause song by touching this icon;

⑨ Select previous song by touching this icon;

⑩ Select next song by touching this icon;

⑪ This icon is for the play mode selection;

⑫ Set the play mode to play in order by touching this icon;

⑬ Set the play mode to play in list cycle by touching this icon;

⑭ Set the play mode to play in random by touching this icon;

⑮ Set the play mode to play in single cycle by touching this icon;

As shown in Fig.2.10.3, select one of these play modes then touch the area outside the sub-window to return the previous level function page.

2.11. Setting Page

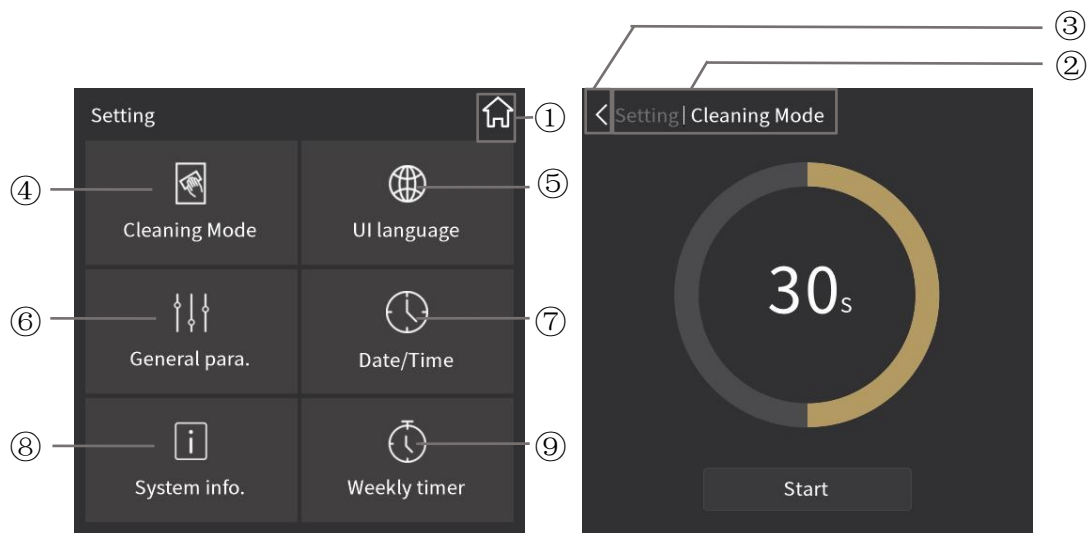


Fig.2.11.1

Fig.2.11.2

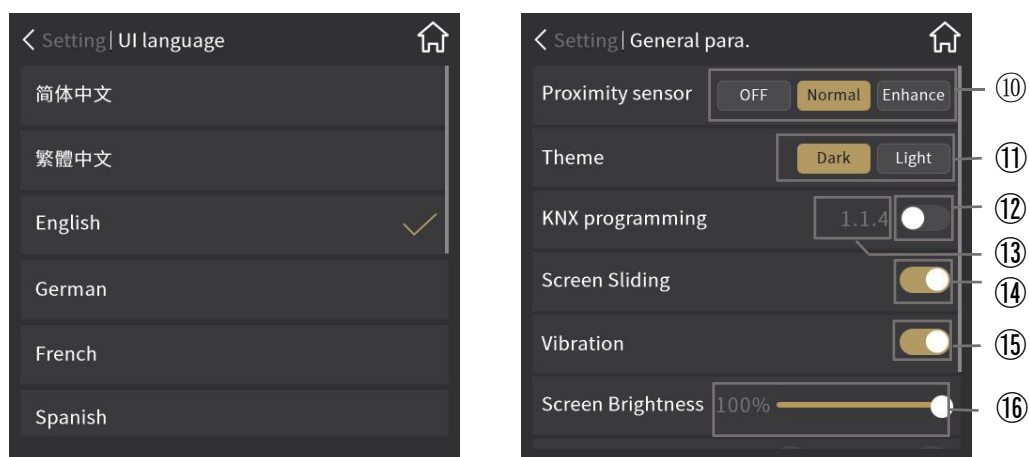


Fig.2.11.3

Fig.2.11.4

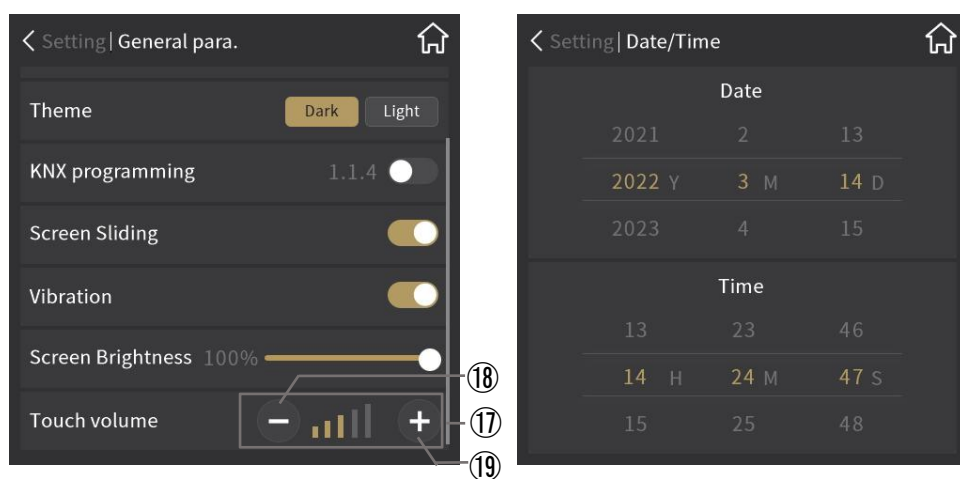


Fig.2.11.5

Fig.2.11.6

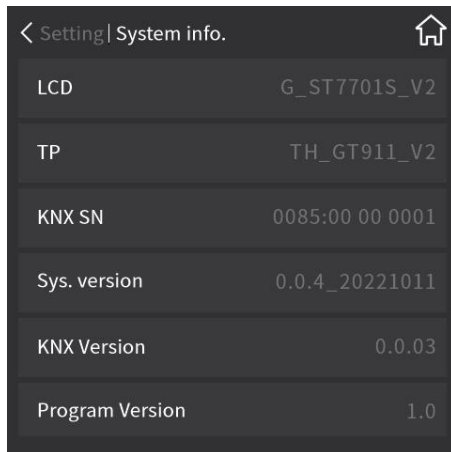


Fig.2.11.7

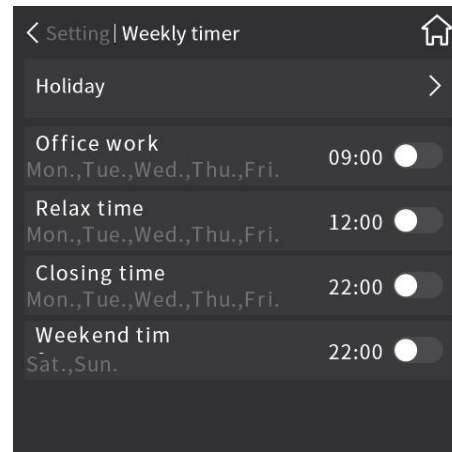


Fig.2.11.8

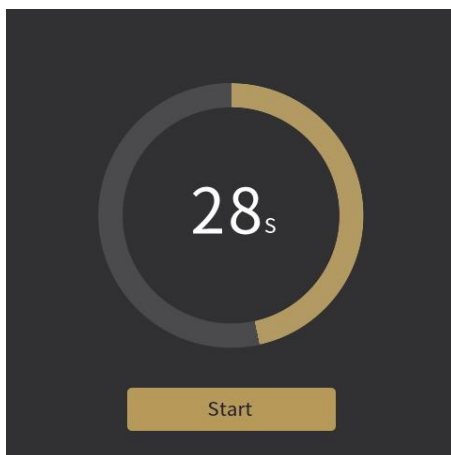


Fig.2.11.9

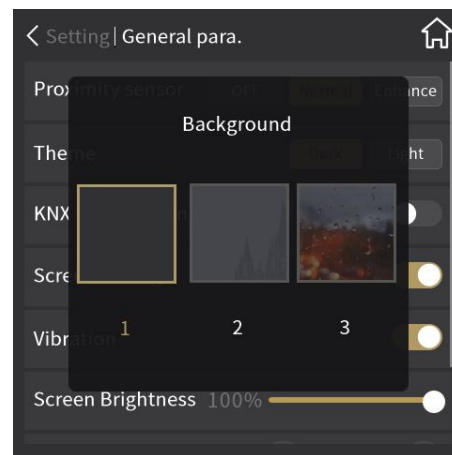


Fig.2.11.10

Click the setting icon in the upper-right corner of the main page to enter the setting page, as shown in Fig.2.11.1.

① Return to the home page by touching this icon;

② This area displays the page description identification of Setting page, format as: setting| description of function page currently manipulated;

The sub-interface with the same area format are the same, no longer do the following description.

③ Return to the setting page by touching this icon;

④ By touching this icon to enter the cleaning mode;

The interface for setting the cleaning mode countdown as shown in Fig.2.11.2. The time

increase/decrease in every 5 seconds when operating, the minimum setting time is 5s and the maximum is 60s, the default setting time is 30s; click “Start” to enter the cleaning mode countdown, as shown in Fig.2.11.8, it will return to the setting page when finish countdown, operation of interface is invalid during countdown.

⑤ By touching this icon to enter the UI language interface;

The interface for setting the UI language as shown in Fig.2.11.3, support 12 languages, and you can it via parameter.

⑥ By touching this icon to enter the General parameter setting interface;

The interface for setting the General parameter as shown in Fig.2.11.4 and Fig.2.11.5, you can set the proximity sensor, UI theme, KNX program, etc. The instructions description is ⑩~⑲.

⑦ By touching this icon to enter the Data/Time setting interface;

The interface for setting the Data/Time as shown in Fig.2.11.6, slide the number to set the current date and time.

⑧ By touching this icon to enter the System information interface;

The interface of system information as shown in Fig.2.11.7, You can view the system information of the LCD screen, touch screen, KNX SN number, system version, KNX version and program version. **(Note: only when program version is the same as database version in the ETS, the device is allowed to be downloaded in the ETS.)**

⑨ By touching this icon to enter the Weekly timer setting interface;

The interface for setting the Weekly timer as shown in 2.11.8, the weekly timer needs to be enabled through parameter configuration. Weekly timer before being configured is not operable. The instructions description is ⑳~㉕.

⑩ This icon is to set the proximity sensor;

There are three settings: OFF, Normal and Enhance, indicating the distance near the sensor, “Normal” distance is approximately 15cm and “Enhance” distance is approximately 30cm. When the

device senses the human body approaching, then wake up the device and enter the operation interface or password interface.

⑪ This icon is used to switch UI theme manually, 2 options: Light, Dark;

Pop up the window as shown in Fig.2.11.10 when click Dark or Light, each theme has 3 background pictures that can be switched manually.

⑫ This icon is KNX programming button;

⑬ This area displays the physical address of the device, the physical address can be set through ETS;

Touch the button icon⑫ on the right to enter or exit the physical address programming mode. In the programming mode, the device programming indicator light turns red, that is, the colour light strip turns red. After exiting the programming mode, the colour light strip returns to the normal instruction.

⑭ This icon is the screen-sliding enable button:

Touch the button icon⑭ on the right to disable or enable the screen-sliding function. If enable, multiple function pages can be switched by sliding screen. When disable, function pages cannot be switched by sliding left or right, but entered from home page (if the function pages have linked to home page).

⑮ This icon is a vibration-enabled button:

Touch the button icon on the right to disable or enable the vibration function. When enable, the device has a sense of vibration when operate the screen. When disable, there is no vibration.

⑯ This slider is used to set the screen brightness as a percentage;

⑰ This area is for the touch volume setting, which is used to increase/decrease volume and display current volume;

⑱ This icon for touch volume decreasing;

⑲ This icon for touch volume increasing;

By touching icon⑱ and icon⑲ to increase/decrease touch volume, the volume is displayed by the proportion on the volume bar of 5 blocks, shown as icon⑰.

Finish general parameter setting (indication ⑩~⑲), touch the icon (top-left corner) to return to the Setting page.

The instructions description of Weekly timer operation as follow:

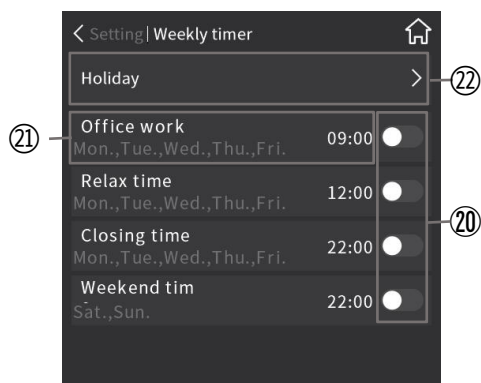


Fig.2.11.11

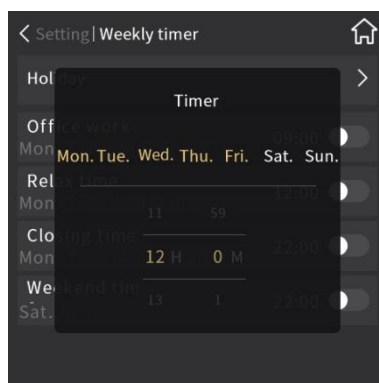


Fig.2.11.12

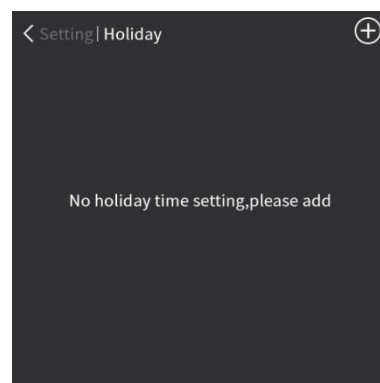


Fig.2.11.13

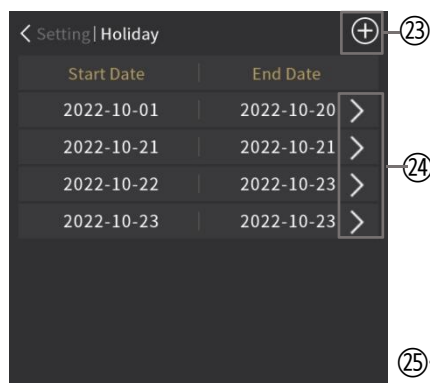


Fig.2.11.14

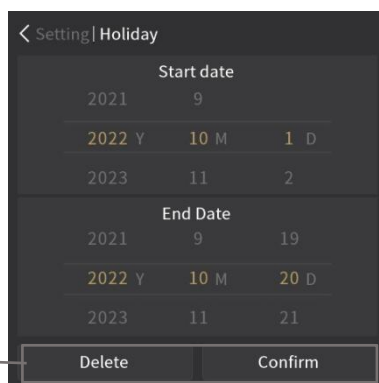


Fig.2.11.15

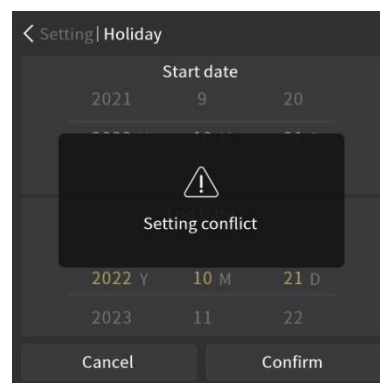


Fig.2.11.16

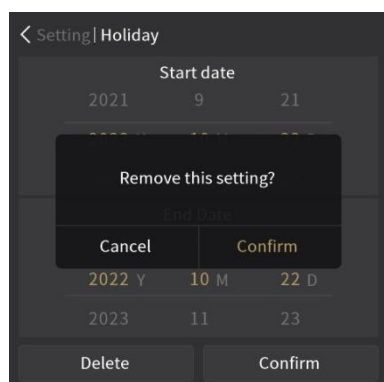


Fig.2.11.17

㉔ Manually enable/disable the time function of every day in a week by touching this icon;

Weekly timer is enabled by default if the parameters are configured. If the timer of the day is turned on, corresponding actions will be performed when the timer is up. Specific timer and actions are configured by parameters. If timer is not required on the day, manually close it. The button on the right side of the interface is used to manually switch the timer of the day.

②① By touching the middle position of this area to pop up window as shown in Fig.2.11.12;

This window is for editing the set weekly timer, touch to select Monday~Sunday in a week, slide the number to select specific timing time. Finish configuration, touch the area of outside the window to return previous interface.

②② Enter the holiday setting interface by touching this area;

As shown in Fig.2.11.12, when there is no holiday added, the interface displays “No holiday timing setting, please add”.

②③ Add holidays by touching the icon;

Timing is off during holidays.

②④ Enter the holiday time setting by touching the icon ;

Touch icon ②④, enter the interface as shown in Fig.2.11.15, set the period of holiday, here set up after the start time and end time of the holiday, click “Confirm” to finish the setting. If the holiday time is repeated when setting, then will pop up a window as shown in Fig.2.11.16; touch the area outside the window to return to the setting page.

②⑤ This icon is to confirm and delete setting.

If it is to be modified or deleted the setting time, touch this time period to the right of the icon ②⑤, then re-enter Fig.2.11.15 interface, in this period of time to modify or delete, click “Delete” as shown in Fig.2.11.17 pop-up window. In the pop-up window, click “Cancel” to return to the setting page, and click “Confirm” to delete it. If no modification or deletion is needed, the icon in the upper left corner of the touch interface returns to the holiday interface.

2.12. Screen saver



Fig.2.12.1

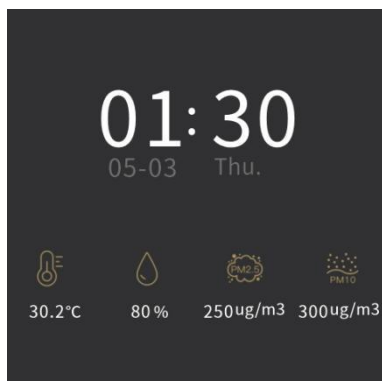


Fig.2.12.2

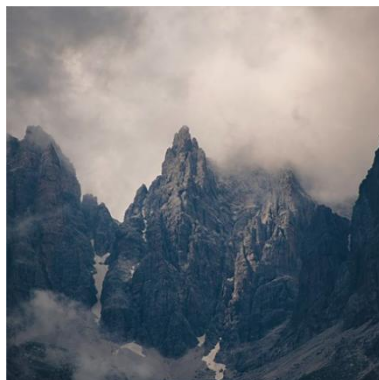


Fig.2.12.3

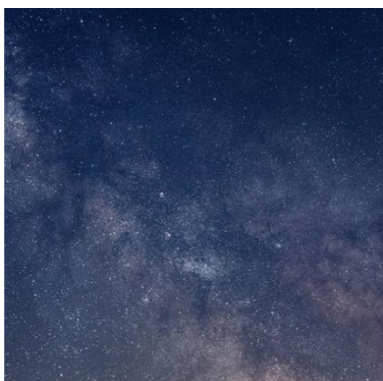


Fig.2.12.4

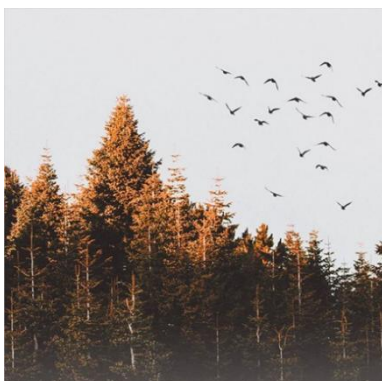


Fig.2.12.5

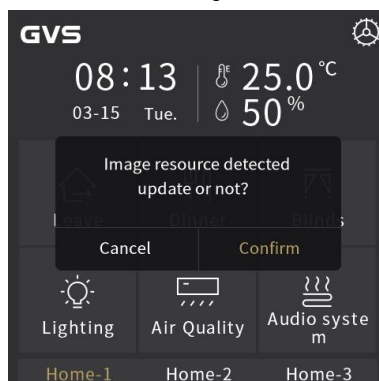


Fig.2.12.6



Fig.2.12.7

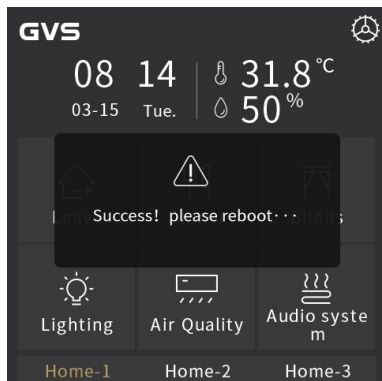


Fig.2.12.8



Fig.2.12.9



Fig.2.12.10

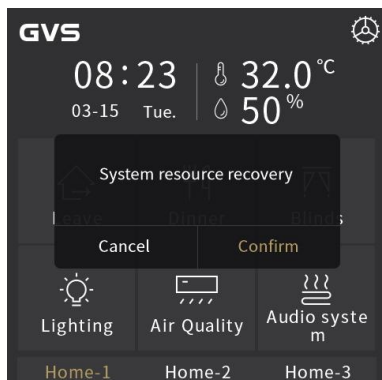


Fig.2.12.11

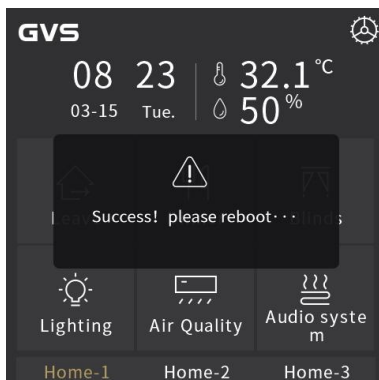


Fig.2.12.12

Screen saver can be set as clock, digital clock with air quality or album that system comes with through ETS parameter configuration, or insert new pictures through the Micro SD card.

(1) Clock screen-saver shown as Fig.2.12.1, displayed after entering the screen saver. Digital clock shown as Fig.2.12.2, the type and numbers of air quality information is configured by ETS, which is up to 4 items. The three default pictures in the program are shown as in Fig.2.12.3, Fig.2.12.4 and Fig.2.12.5. The album can choose 1 or 3 pictures as the screensaver, display the first picture when the number of pictures is 1; It will automatically switch picture in every 5s when the number of pictures is 3.

(2) Inserting new pictures through Micro SD card, specific steps are as follow:

Note: ①Only support SDHC card and the format should be FAT32 (if the format is not FAT32, it need to be formatted as FAT32); ②Only support Micro SD cards with capacity not greater than 32GB.

1. Micro SD card setting: create a new folder named "picture" under the root directory of Micro SD card, place three pictures in the folder, support pictures with the suffix: jpg, png (Among them, the background colour of the "png" picture must be opaque.). Naming rule as follow:

"Album1", "Album2", "Album3", the resolution must be 480*480.

Note: ① Replacing pictures according to the name suffix of the new picture corresponding to the original album number of the system: for example, placing "Album1" in the folder "picture", it will replace the first one of the system album; another example as, place "Album1" and "Album3", it will replace the first one and the third one of the system album.

② Update pictures: when there is a folder named "picture" in the Micro SD card, and there is a picture in accordance with valid name and format, then it will update and store (even if the picture is the same as the last saved).

2. Insert Micro SD card into the device, if Micro SD card meet the above settings, and valid pictures are detected to be there, then will pop up a request window to confirm update, as shown in Fig.2.12.6;

3. Click "Confirm" to update picture; after upgrade, there will pop up a window of the result, if upgrade is successful, then reboot the device manually to apply the new picture to the album; if upgrade is failed, click any area outside the window to return to the page, as shown in Fig.2.12.7, Fig.2.12.8, Fig.2.12.9 and Fig.2.12.10.

(3) Delete the customized picture that has already inserted through Micro SD card, specific steps are as follow:

When there is a folder named “picture” in the Micro SD card but no picture in accordance with valid name and format, there will pop up a window “System resource recovery?”, as shown in Fig.2.12.11, click “Confirm”, then will delete the customized picture that has already inserted and pop up a window “ Success! please reboot...”, as shown in Fig.2.12.12, you need to reboot the device manually to recover the original album of the system.

Note: when upgrading, if the single picture is larger than the remaining storage space of the device (the total size of the device picture storage disc is about 15 MB), the remaining valid pictures shall be stopped updating, upgrade is failed as shown as Fig.2.12.9.

When no operation on the screen and the screen saver set by parameter is over the delay time, screen will enter the screen saver state; once an operation happened, it will exit screen-saver.

2.13. Password

Enable or disable the password function through parameter configuring, if enable, the interface shown as Fig.2.13.1, when access setting page, or wake up from the state of screen-saver or screen-off,, you need to input password to operate. Password only allow 4 digit number, configured by parameter setting.

If set a password for accessing setting page, you can not operate the setting page except for the cleaning mode and UI language, as shown as Fig.2.13.2, click the locking area then enter the password interface.

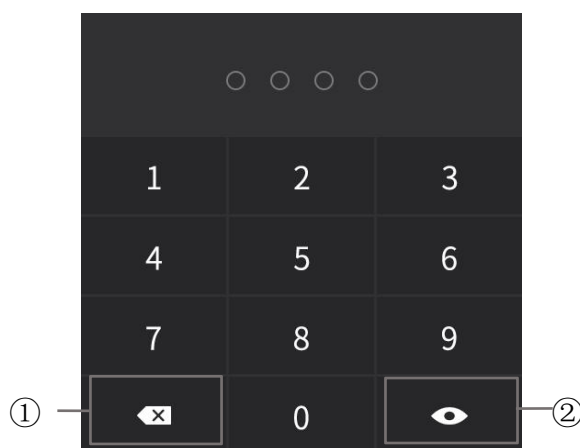


Fig.2.13.1

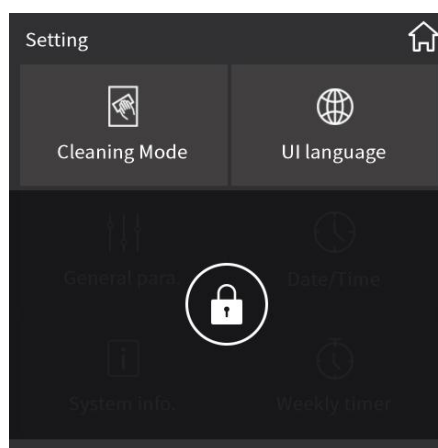


Fig.2.13.2

- ① Delete password by touching this icon;
- ② Display or hide the password by touching this icon.

2.14. Panel Lock

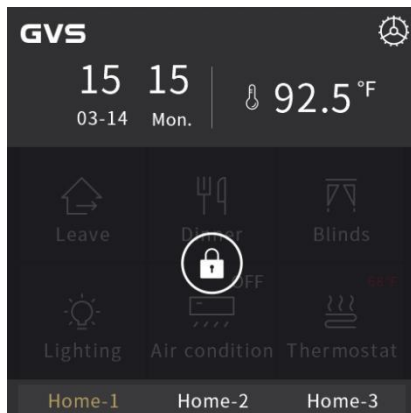


Fig.2.14.1

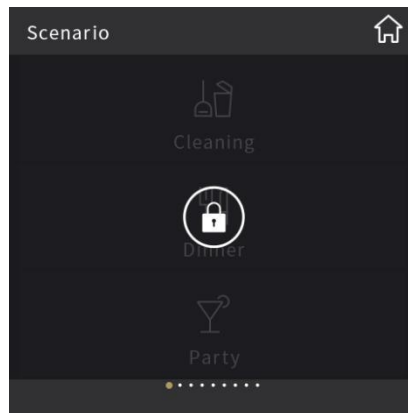


Fig.2.14.2



Fig.2.14.3

Device Locking

User can lock or unlock the operating interface of the device via the bus. After locking, interface shown as Fig.2.14.1, the entire device cannot be operated, except receiving telegram from the bus.

When downloading application, the entire will be in locking status, and it is unlocked after finish download.

Function Page Locking

User can lock or unlock each function page individually through the bus. After locking, interface shown as Fig.2.14.2, this interface cannot be operated except receiving telegram from the bus. If the function page is linked to home page, the top left corner of corresponding icon on home page will be displayed a locking icon, as shown as Fig.2.14.3. Function page locking only locks each function page, and has no effect on switching between home page and each function page.

2.15. Other Functions



Fig.2.15.1



Fig.2.15.2

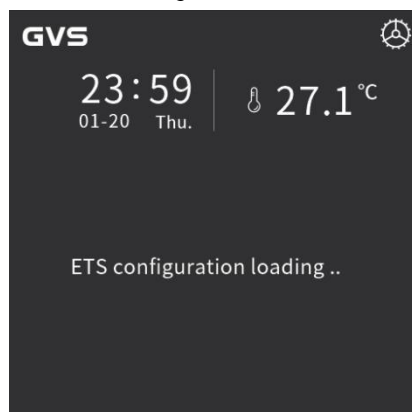


Fig.2.15.3

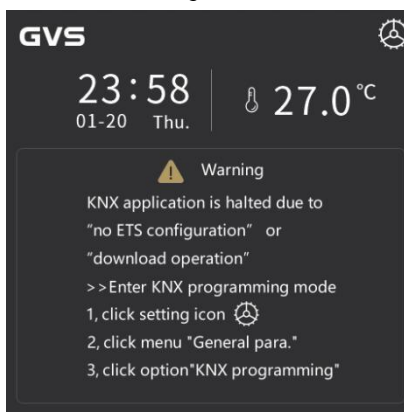


Fig.2.15.4

Alarm function is activated by the receiving telegram from the bus, pup up the window shown as Fig.2.15.1 when activated, and with the alarm sound. Indicate text, the alarm tone time period and the automatically repeat interval time are set by the parameters.

When the KNX bus connection of the device is abnormal, the “KNX Connect Failure” at the top of the interface shown as Fig.2.15.2 above, there is no prompt when the connection is normal.

When the application download of the device is completed or the device power recover, the device will initialize and load the parameter configuration of ETS, the interface as shown in Fig.2.15.3 above.

When the device is not configured with the home page function or when the home page function is configured as an invalid page or as functional icon, the home page interface is shown in Fig.2.15.4 above.

Chapter 3 Screen Background



Fig.3.1



Fig.3.2

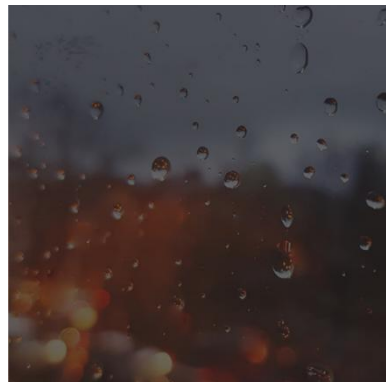


Fig.3.3

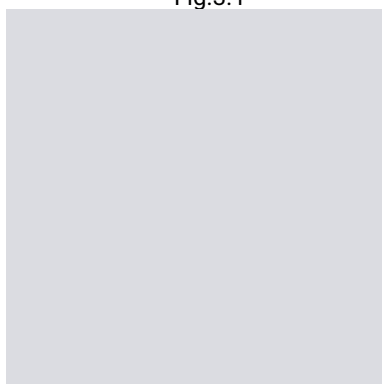


Fig.3.4

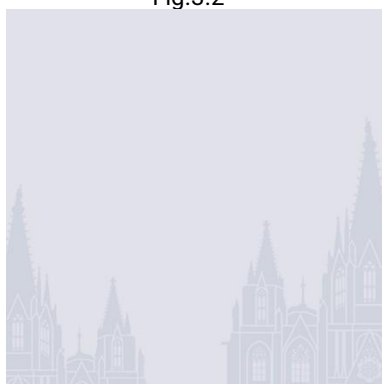


Fig.3.5

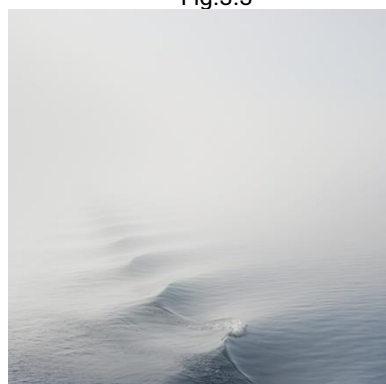


Fig.3.6

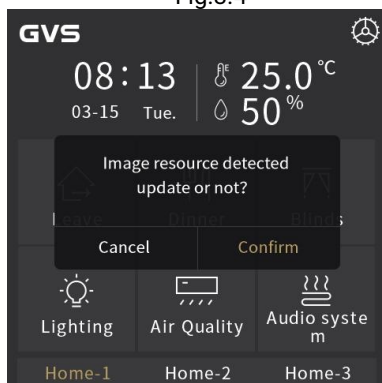


Fig.3.8

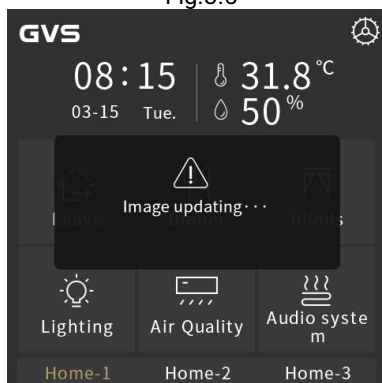


Fig.3.9

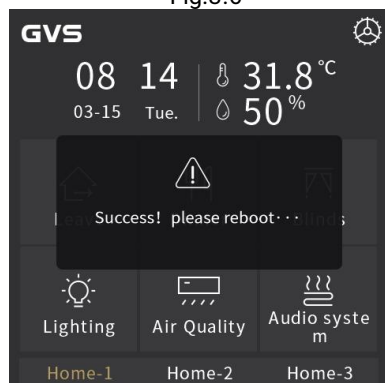


Fig.3.10

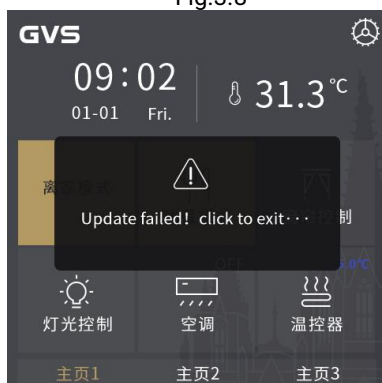


Fig.3.11

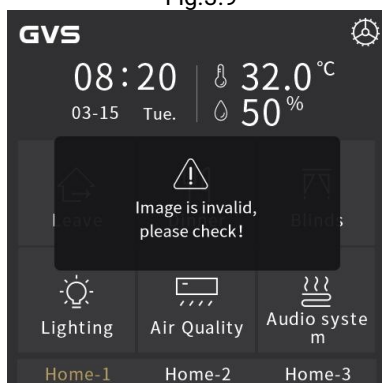


Fig.3.12

Screen background can be configured as the default background of the system through Setting page, or insert new pictures via Micro SD card.

(1) Configuring background through the setting page, there are 6 options according to the different themes: when dark theme is shown in Fig.3.1~Fig.3.3, and light theme is shown in Fig.3.4~3.6. Only select the themes, it is default to display the pure colour background as shown as Fig.3.1 or Fig.3.4.

Note: non-pure colour backgrounds are only applied to home page, and the function page is used pure backgrounds to display.

(2) Inserting new background through Micro SD card, specific steps are as follows:

Note: ①Only support SDHC card and the format should be FAT32 (if the format is not FAT32, it need to be formatted as FAT32); ②Only support Micro SD cards with capacity not greater than 32GB.

1. Micro SD card setting: placing the pictures in the root directory of the Micro SD card, the resolution of vertical screen must be 480 * 854 and the horizontal must be 480*480. Naming rule as follow:

Dark: "main_bg1_D", "main_bg2_D", "main_bg3_D"

Light: "main_bg1_L", "main_bg2_L", "main_bg3_L"

Note: Supporting pictures with the suffix: jpg, png (Among them, the background colour of the "png" picture must be opaque.)























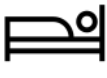
2. Insert Micro SD card into the device, if Micro SD card meet the above settings, and valid pictures are detected, then will pop up a request window to confirm update, as shown in Fig.3.7;




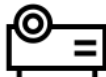
























3. Click "Confirm" to update picture; after upgrade, there will pop up a window of the result, if upgrade is successful, then reboot the device manually to apply the new background to the system; if upgrade is failed, click any area outside the window to return to the page, as shown in Fig.3.8, Fig.3.9, Fig.3.10 and Fig.3.11.










Note: when upgrading, if the single picture is larger than the remaining storage space of the device (the total size of the device picture storage disc is about 15 MB), the remaining valid pictures shall be stopped updating, upgrade is failed as shown as Fig.3.10.

Chapter 4 Icons for Function Page

4.1. Icon List for Function Page

Replacing ID NO.	ETS options	Icon	Replacing ID NO.	ETS options	Icon
0	General light		22	All on	
11	No icon, only text		23	All off	
12	Ceiling light		24	Go home 1	
13	Downlight		25	Leave home 1	
14	Wall light		26	Go home 2	
15	Spotlight		27	Leave home 2	
16	Chandelier		28	Welcome	
17	General scene 1		29	Meeting(guest)	
18	General scene 2		30	Dinner	
19	Blind(open/close)		31	Party	
20	Blind(up/down)		32	Conference	
21	Blind(with slat)		33	Sleeping	

Replacing ID NO.	ETS options	Icon	Replacing ID NO.	ETS options	Icon
34	Reading		48	Timer	
35	Media		49	Projector	
36	Cleaning		50	Multimedia	
37	TV		51	Electronic heating	
38	Audio		52	Air conditioner 1	
39	Socket(CHN)		53	Air conditioner 2	
40	Socket(EU)		54	Air fresh	
41	Fan		55	General	
42	Door lock		56	Presence	
43	Door access		57	I/O signal	
44	Power supply		58	Power	
45	Window 1		59	Lock	
46	Window 2		60	Charge	
47	Alarm		61	Mute	

Replacing ID NO.	ETS options	Icon	Replacing ID NO.	ETS options	Icon
62	Day/Night		67	Romantic	
63	Auto/Manual		68	Doorbell	
64	Floor light		69	DND	
65	Economy		70	MUR	
66	Wake up				

4.2. Icon Replacement for Function Page

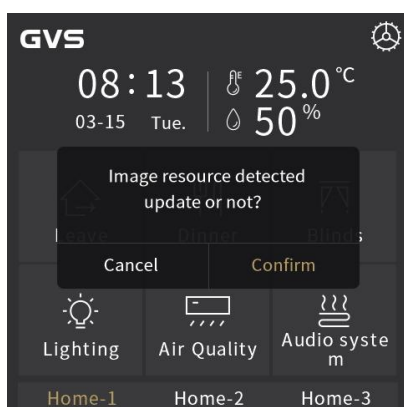


Fig.4.1



Fig.4.2



Fig.4.3



Fig.4.4

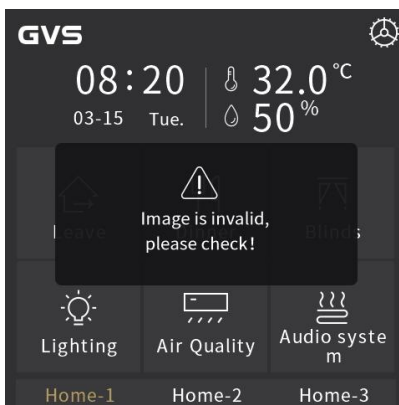


Fig.4.5



Fig.4.6



Fig.4.7

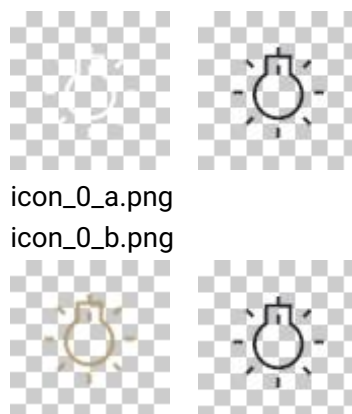


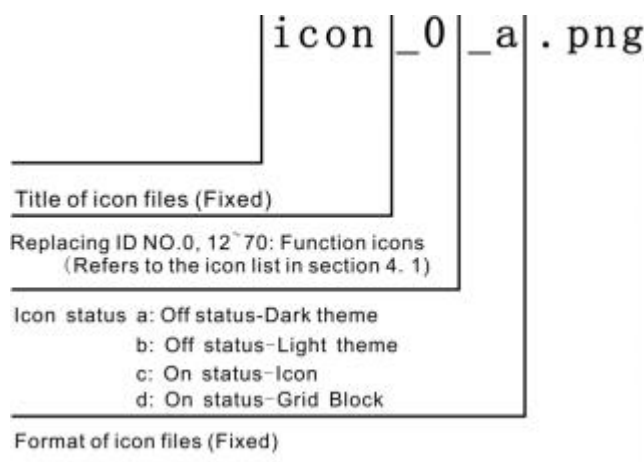
Fig.4.8

Insert customized icons to replace the original icons of the system through Micro SD card, specific steps as follows:

Note: ①Only support SDHC card and the format should be FAT32 (if the format is not FAT32, it need to be formatted as FAT32); ②Only support Micro SD cards with capacity not greater than 32GB.

1. Micro SD card setting: create a new folder named "Functionicon" under the root directory of Micro SD card, place icon files to be replaced and name them, specific naming rule refers to the note; the resolution should be 80*80. Only support "png" picture format.

Note: naming rule of the icon files in the Micro SD card as follows:



According to the naming rule in the figure above, for examples, icon in the Fig.4.8 is the default icon of which replacing ID number is 0, "icon_0_a.png", "icon_0_b.png" are off status icons; "icon_0_c.png" and "icon_0_d.png" are on status icons in different UI style.

2. Insert Micro SD card into the device, if Micro SD card meet the above settings, and there are valid pictures, then pop up a window to request update, as shown in Fig.4.1;

Note: ① Replacing pictures according to the icon number of the new picture corresponding to the replacing ID number: for example, placing "icon_0_a.png", "icon_0_b.png", "icon_0_c.png" and "icon_0_d.png" in the folder named "Functionicon", it will replace the original icon with ID NO.0; "icon_0_a.png" is not necessary, the default icon stay as default or as last replaced. The rest customized icon ID are the same principle.

② Update pictures: when there is a folder named "Functionicon" in the Micro SD card, and there is a picture in accordance with valid name and format, then it will update and store (even if the picture is the same as the last saved).

3. Click "Confirm" to update picture; after upgrade, there will pop up a window of the result, if upgrade is successful, then reboot the device manually to apply the new function icons to the system; if upgrade is failed, click any area outside the window to return to the page, as shown in Fig.4.2, Fig.4.3, Fig.4.4 and Fig.4.5.

4. Delete the customized function page icons that has already inserted through Micro SD card, specific steps are as follow:
















When there is a folder named "Functionicon" in the Micro SD card but no picture in accordance with valid name and format, there will pop up a window "System resource recovery?", as shown in Fig.4.6, click "Confirm", then will delete the customized icons that has already inserted and pop up a window " Success! please reboot...", as shown in Fig.4.7, then you need to reboot the device manually to recover the original function icons of the system.

Note: when upgrading, if the single picture is larger than the remaining storage space of the device (the total size of the device picture storage disc is about 15 MB), the remaining valid pictures shall be stopped updating, upgrade is failed as shown as Fig.4.4.

Chapter 5 Icons for Home Page

5.1. Icon List for Home Page

Replacing ID NO.	ETS options	Icon	Replacing ID NO.	ETS options	Icon
90	Multifunction		104	RGB	
91	Lighting		105	Ventilation system 1	
92	Scenario		106	Ventilation system 2	
94	Shading 1		107	Power meter	
95	Shading 2		108	Energy display	
96	Air conditioner 1		109	Heating	
98	Air conditioner 2		110	Cooling	
99	Floor heating 1		111	Heating/Cooling system	
100	Floor heating 2		112	Temperature	
101	Water heating		113	AV system	
102	Music		114	Security	
103	Air quality		115	Bedroom 1	

Replacing ID NO.	ETS options	Icon	Replacing ID NO.	ETS options	Icon
116	Bedroom 2		125	Conference room	
117	Living room 1		126	Exhibition hall	
118	Living room 2		127	Training room	
119	Dinner room		128	Warehouse	
121	Study room		129	Building	
122	Gym		130	Recreation	
123	Basement		131	Reception	
124	Office				

5.2. Icon Replacement for Home Page

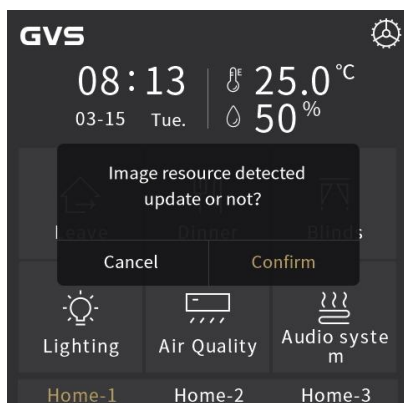


Fig.5.1



Fig.5.2



Fig.5.3



Fig.5.3



Fig.5.4



Fig.5.5

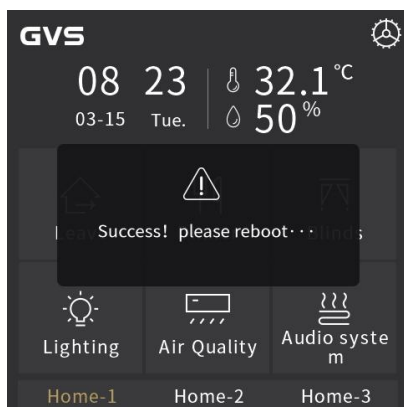


Fig.5.6



icon_70_a.png

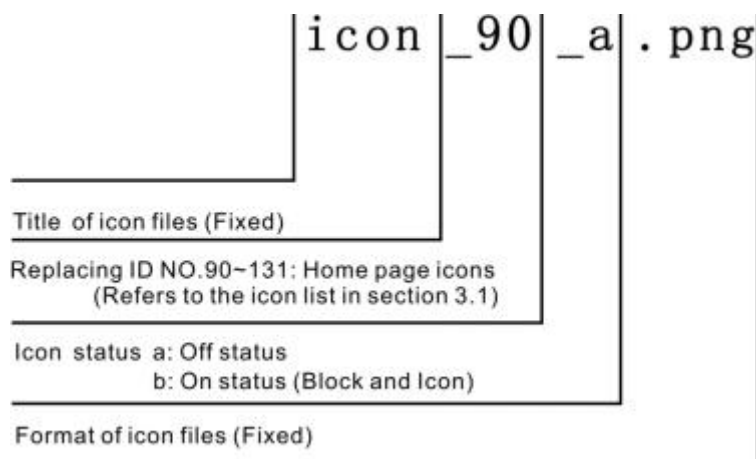
图 5.7

Insert customized icon to replace the original icons of the system through Micro SD card, specific steps as follows:

Note: ①Only support SDHC card and the format should be FAT32 (if the format is not FAT32, it need to be formatted as FAT32); ②Only support Micro SD cards with capacity not greater than 32GB.

1. Micro SD card setting: create a new folder named "Pageicon" under the root directory of Micro SD card , place icon files to be replaced and name them, specific naming rule refers to the note; the resolution should be 80*80. Only support "png" picture format.

Note: naming rule of the icon files in the Micro SD card as follows:



According to the naming rule in the figure above, for examples, icon in the Fig.5.8 is the default icon with replacing ID NO. 70, "icon_70_a.png" is off status icon, "icon_70_b.png" is on status icons.

2. Insert Micro SD card into the device, if Micro SD card meet the above settings, and there are valid pictures, then pop up a window to request update, as shown in Fig.5.1;

Note: ① Replacing icons according to the icon number of the new picture corresponding to the replacing ID number: for example, placing "icon_70_a.png" and "icon_70_b.png" in the folder named "Pageicon", it will replace the original icon with ID NO.70; If there is only "icon_70_a.png" in the folder, the icons for on status and off status are the same. The rest customized icon IDs are the same principle.

② Update pictures: when there is a folder named "Pageicon" in the Micro SD card, and there is a picture in accordance with valid name and format, then it will update and store (even if the picture is the same as the last saved).

3. Click "Confirm" to update picture; after upgrade, there will pop up a window of the result, if upgrade is successful, reboot the device manually to apply the new page icons to the system; if upgrade is failed, click any area outside the window to return to the page, as shown in Fig.5.2, Fig.5.3, Fig.5.4 and Fig.5.5.

4. Delete the customized homepage icons that has already inserted through Micro SD card, specific steps are as follow:

When there is a folder named "Pageicon" in the Micro SD card but no picture in accordance with valid name and format, there will pop up a window "System resource recovery?", as shown in Fig.5.6, click "Confirm", then will delete the customized icons that has already inserted and pop up a window " Success! please reboot...", as shown in Fig.5.7, reboot the device manually, after reboot, it will recover the original icons of the system.

Note: when upgrading, if the single picture is larger than the remaining storage space of the device (the total size of the device picture storage disc is about 15 MB), the remaining valid pictures shall be stopped updating, upgrade is failed as shown as Fig.5.4.

Chapter 6 Firmware upgrade of UI

The chapter is mainly used to explain the attention of KNX Smart Touch V40s update firmware process, in order to use corresponding software correctly and avoid the exception, please be sure to understand the relevant attention details before operating, if you have any question, you can contact our related sales personnel to communicate.

1. The operation process:

Note: inset the SD card when device is voltage failure, then recovery the voltage, it can not enter the upgrade status. So must to ensure that the device is running in normal power, then inset the SD card, you can operate to upgrade.

Put the upgrade package **.fwp** file of corresponding version in the root directory of the MicroSD card, then insert the MicroSD card into the device, a pop-up window will appear as shown as Fig.6.1, click "Confirm" to start upgrading the firmware and enter the upgrade process interface as shown as Fig.6.2, click "Cancel" to exit the window. When the upgrade complete, the device will note the upgrade success as shown as Fig.6.3 and then automatically reboot, please pull out the MicroSD card.

If upgrade failure, device interface as shown as Fig.6.4, please remove the SD card then insert again, click "Reupgrade" to continue upgrading.

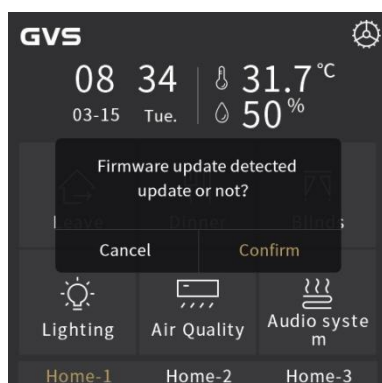


Fig.6.1

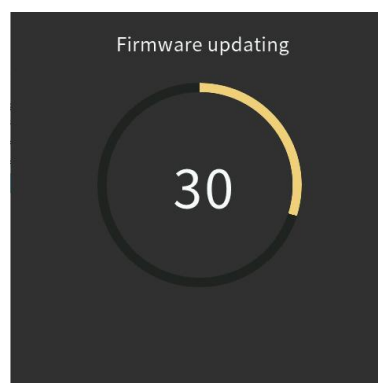


Fig.6.2

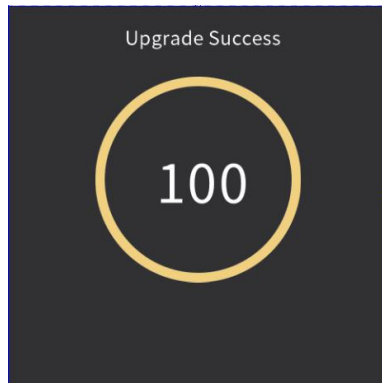


Fig.6.3

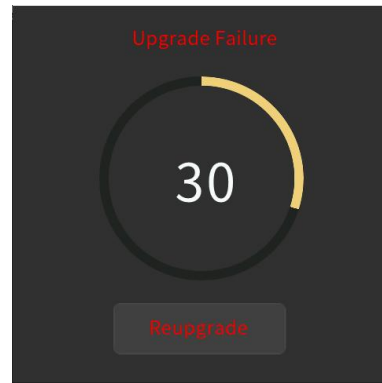


Fig.6.4

2. Note:

①Only support to upgrade via MicroSD card with software package, not support with bus.

②Only support SDHC card and the format should be FAT32 (if the format is not FAT32, it need to be formatted as FAT32), and capacity not greater than 32GB.

③During updating process, the power cannot be cut off, the power failure may cause missing UI source files. If the device is voltage failure, restart the device then the it will note upgrade failure, as shown as Fig.6.4, please remove the SD card then insert again, click "Reupgrade" to continue upgrading.

④After the upgrade finished, it will display the corresponding UI interface, please refer to the above UI document to understand UI interface design better.

⑤After the upgrade finished, you can refer to product manual to understand more use details.