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TURI20-TC-101Q/101QS Smart Display

User Guide

Industrial Automation | New Energy Vehicle | Intelligent Elevator | Intelligent Robot | Digital Energy | Rail Transit

Data code PS00018536A03

Legal Information

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The contents are subject to change without notice due to product upgrade.

Waste Disposal

The storage, use, and disposal of this product (including optional accessories) must comply with local laws and regulations.

Qualified Personnel

The product/system described in this documentation may be operated only by personnel qualified for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel can identify the risks of the product/system and prevent possible dangers.

Proper Use of the Product

Proper transportation, storage, assembly, installation, commissioning, operation, and maintenance are required to ensure the safe operation of the product without any problems. The required ambient conditions must be met. All operations must follow the guidelines provided in this documentation.

Preface

Introduction

This product is a multimedia display for the elevator car, integrating touch-based floor selection, door open/close control, and real-time status display (current floor, direction of travel), among other functions. It supports high-definition screen display and voice announcements for more efficient and safer interactive elevator riding experience.

This guide describes the basic information, installation, commissioning, and troubleshooting of the product.

List of Applicable Models

No.	Applicable model
1	TURI20-TC-101Q-01
2	TURI20-TC-101QS-01

Revision History

Date	Version	Revision
June 2026	A03	Added *"6.4 Automatic Restart" on page 23*.
March 2026	A02	• Updated *"5.1 Port Layout and Description" on page 13*. • Updated *"5.2 Installation Procedure" on page 16*. • Added *"6.3 Emergency Operation" on page 23*. • Updated *"10.3 Battery Replacement" on page 34*.
June 2025	A01	• Updated *"5.2 Installation Procedure" on page 16*. • Updated *"6.2 Function Commissioning" on page 19*.
March 2025	A00	First issue.

Access to the Guide

This guide is not in the scope of delivery. If necessary, you can obtain the PDF file in the following ways:

- Visit *https://www.inovance.com/global*, choose Service&Support > Support > Documentation Download.
- Scan the **QR code** on the product with your smartphone.
- Scan the QR code below to install the application **My Inovance**, where you can search for and download the guide.

Warranty Instructions

If your product becomes defective under normal use conditions, we will offer guaranteed repair services within the warranty period. Charges will be paid beyond the warranty listed in the purchase order.

The warranty does not cover any defect caused by:

- failure to operate the product in accordance with the user guide
- events beyond control, such as fire, flood and abnormal voltage
- function misuse
- out-of-range application
- other events of force majeure, including but not limited to lightning, earthquake and other extreme weather events

The maintenance fee is charged according to the latest Price List of Inovance. If otherwise agreed upon, the agreed terms and conditions shall prevail.

For details, see Product Warranty Card.

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1 General Safety Rules

1.1 Safety Instructions

Safety Disclaimer

- Read and follow the safety precautions before installing, using, and maintaining the product.
- To ensure personal and equipment safety, observe the notes indicated on the product labels and all the safety instructions in the user guide during installation, operation, and maintenance.
- "CAUTION", "WARNING", and "DANGER" items in the guide do not indicate all safety precautions that need to be followed; instead, they just supplement the safety precautions.
- Use this equipment according to the designated environment requirements; otherwise, a fault may occur. Malfunction or damage caused by improper use is not covered by warranty.
- Inovance shall take no responsibility for any personal injuries or property damage caused by improper usage.

Safety Levels and Definition



indicates that failure to comply with the notice will result in severe personal injuries or even death.



indicates that failure to comply with the notice may result in severe personal injuries or even death.



Indicates that failure to comply with the notice may result in minor personal injuries or damage to the equipment. Keep this user guide properly for future use and deliver it to the end user.

Wiring

DANGER

- Before wiring, cut off all power supplies. Failure to comply may result in electric shock or damage to the circuit.
- Connect the DC power supply to the dedicated terminals specified in this guide.
- When drilling screw holes and wiring, ensure no metal shavings or wire clippings fall into the product to avoid malfunction, electronic component damage, or fire.
- After completing the wiring, carefully check to ensure the operating voltage and terminal positions are correct to avoid fire or accidents.

Caution

- To avoid electric shock, cut off the power supply before connecting the equipment to the power supply.
- The input power for this product is 24 VDC. If the supplied power is not within 24 VDC ±20%, it can cause severe damage. Therefore, regularly check whether the DC power from the switched-mode power supply is stable.

Operation and Maintenance

Caution

- During use, take care to protect the panel; perform touch operations with your hand instead of tools to avoid damage. Users are responsible for any damage caused by excessive force exerted.
- Lithium batteries, display screens, capacitors, and other components may contain substances harmful to health and the environment. Treat the product as industrial waste.

Battery Use

WARNING

- Avoid replacing the battery with an incorrect type.
- Do not dispose of the battery in fire or heat sources, do not mechanically crush or cut batteries.
- Do not expose the battery to extreme temperatures.
- Do not swallow the battery as it poses a chemical burn hazard.
- This product contains a button battery. If swallowed accidentally, it can cause severe internal burns within 2 hours and may lead to death.

Caution

- Keep new and used batteries away from children.
- If the battery compartment is not securely closed, stop using the product and keep it away from children.
- Seek immediate medical attention if you suspect battery ingestion occurs.

Disposal
Caution • Dispose of the product according to industrial waste regulations; when disposing of batteries, follow local ordinances separately.

1.2 Industrial Information Security

The product provides interfaces for network connection and data transmission. To protect factories, systems, machines, and networks from cyberattacks, it is essential to implement proper protection mechanism for industrial security.

Customers are responsible for providing and maintaining a secure connection between the product and their network or any other network to protect their factories, systems, machines, and networks from unauthorized access. Such systems or machines can be connected to an enterprise network or the Internet only when a secure connection is established and appropriate security measures (such as using antivirus software or installing firewalls) are in place.

Inovance continuously develops and improves its products and solutions to enhance safety. It is strongly recommended that you update the product promptly and always use the latest version.

CAUTION

Malware (such as viruses, Trojans, and worms) can bring the device into an unsafe operating state, resulting in death, serious injury, and property damage. Observe the following precautions:

- Always use the latest software version. If the product version is no longer supported or the latest version is not used, you will be exposed to increased risk of cyber attacks.
- Develop and maintain appropriate protective measures (including but not limited to antivirus software, firewalls, WAF, IPS/IDS, situational awareness system, identity authentication, and data encryption) to prevent the files in mobile storage devices from being damaged by malware, and to protect the products, networks, systems, and interfaces from unauthorized access, tampering, hacking, data leakage, or information theft.
- Check all safety-related interfaces and settings after commissioning.

2 Product Information

2.1 Technical Specifications

Param.	Description
Screen size	10.1 inches
Resolution	1024 px x 600 px
Power supply voltage	18 VDC to 36 VDC (emergency power supply: 10 VDC to 14.5 VDC)
Rated/Maximum power	9.6 W/22 W
Rated/Maximum current	400 mA/917 mA
Operating environment	• Temperature: -20°C to +70°C • Humidity: 10% RH to 90% RH
Storage environment	• Temperature: -30°C to +80°C • Humidity: 10% RH to 90% RH

2.2 Product Dimensions

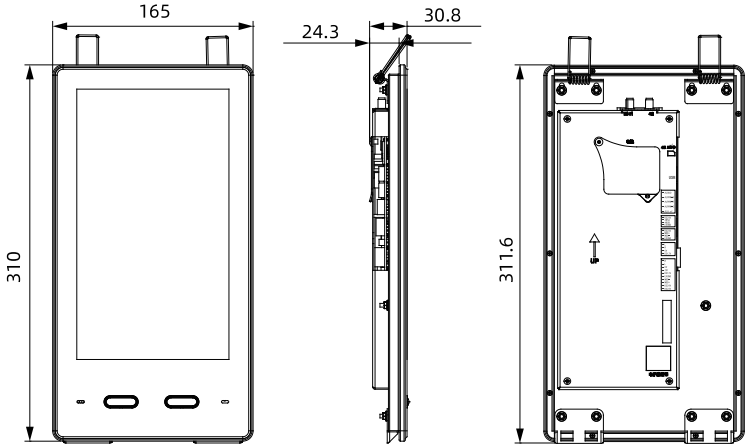


Figure 2-1 Product dimensions (unit: mm)

2.3 System Connection

Note

The figure is only for illustration. See the actual product for specifics.

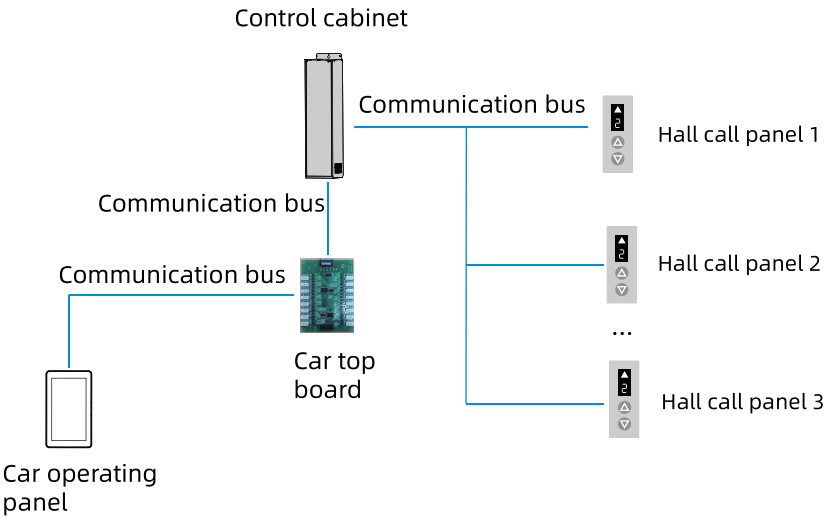


Figure 2-2 System Connection

3 Preparations Before Installation

3.1 Installation Personnel Requirements

- Installation must be performed by only experienced personnel who have been trained with necessary electrical information.
- Read and comply with the safety information provided this manual.

CAUTION

Inovance is not responsible for equipment damage and casualties due to failure to comply with the safety instructions or operation by unqualified personnel.

3.2 Installation environment requirements

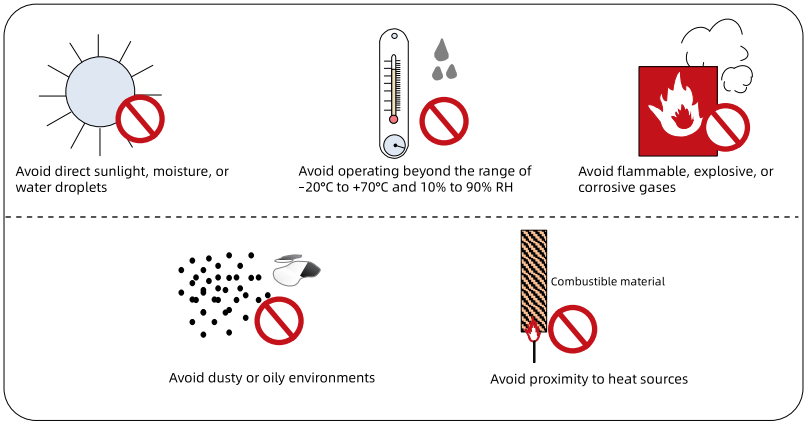


Figure 3-1 Installation environment requirements

4 Unpacking and Handling

Upon unpacking, check:

No.	Item	Description	Tick
1	Whether the delivered product is consistent with your order	Check the model and specifications of the device for consistency with the order.	□
2	Whether the product is damaged	Check whether the product enclosure is damaged during transportation. If there is any part missing or damaged, contact Inovance or your supplier immediately.	□

5 Installation Guidelines

5.1 Port Layout and Description

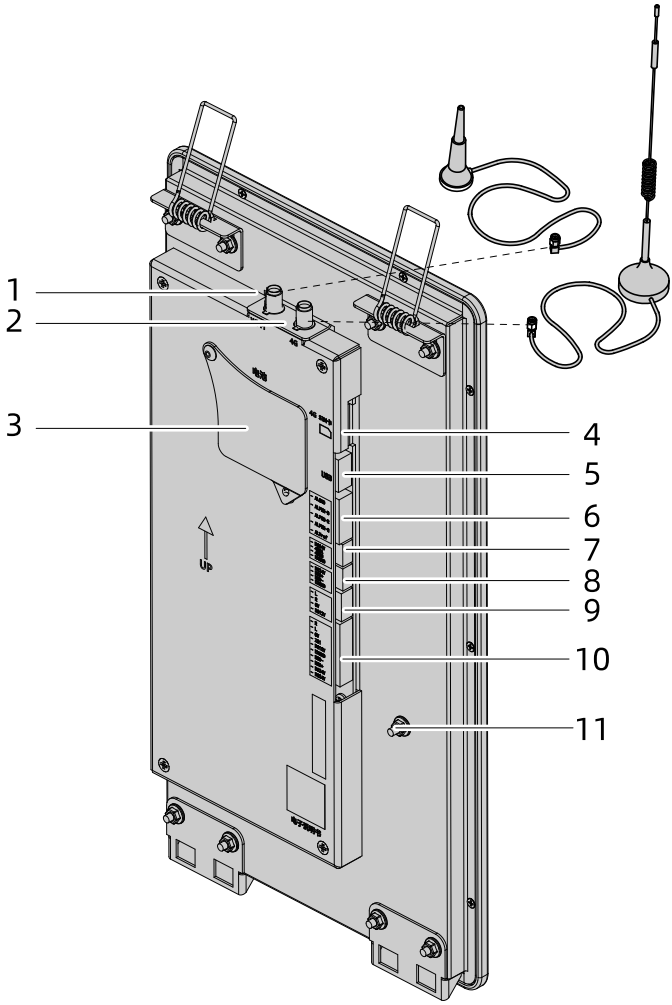


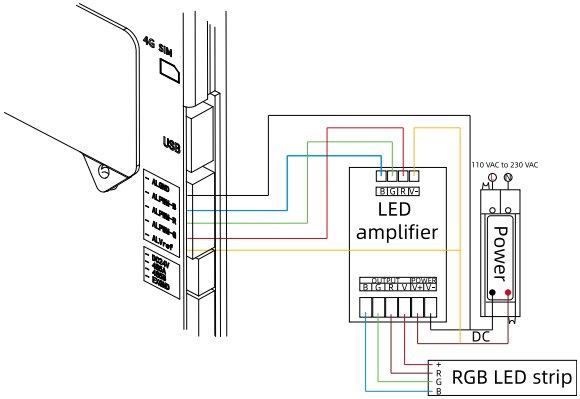
Figure 5-1 Port layout

Table 5–1 Description

No.	Port	Description
1	Wi-Fi	Connects to the external Wi-Fi antenna to ensure Wi-Fi signal strength.
2	4G	Connects to the external 4G antenna to ensure signal strength for 4G calls.
3	Battery	CR1220 button battery, used to maintain time accuracy in electronic devices. See *"10.3 Battery Replacement" on page 34* for battery replacement.
4	4G SIM card	Supports 4G mini SIM cards from China Mobile, China Unicom, or China Telecom, ensuring VoLTE (high-definition voice quality) service is activated.
5	USB	Type-A USB interface for theme update and interface upgrade.

<table>
<tr><th>No.</th><th>Port</th><th>Description</th></tr>
<tr><td>6</td><td>Ambient lighting interface</td><td>
• ALGND: Typically connected to the negative power terminal for external ambient lighting.
• ALPWM-B: Blue PWM control signal for ambient lighting (1 kHz).
• ALPWM-R: Red PWM control signal for ambient lighting (1 kHz).
• ALPWM-G: Blue PWM control signal for ambient lighting (1 kHz).
• ALVref: Typically connected to the positive power terminal for external ambient lighting.

Note
• The external power supply and amplifier for the ambient lighting must meet the voltage, current, and power requirements of the selected ambient lighting.
• Connect the ambient lighting using the provided 5-pin terminal block; a 2 mm straight screwdriver is required for wiring.

See the following wiring diagram:


</td></tr>
<tr><td>7</td><td>RS485 peripheral interface</td><td>
• DC24V: Positive terminal of RS485 peripheral power supply (24 VDC)
• 485A: RS485 peripheral RS485-A
• 485B: RS485 peripheral RS485-B
• EXGND: Negative terminal of RS485 peripheral power supply (ground)
</td></tr>
<tr><td>8</td><td>MOD communication interface</td><td>
• DC24V: Positive terminal of main power supply (24 VDC)
• MOD+: Main communication RS485-A
• MOD-: Main communication RS485-B
• EXGND: Negative terminal of main power supply (ground)
</td></tr>
</table>

No.	Port	Description
9	Five-way intercom Slave unit interface	• L: Intercom slave unit signal L • R: Intercom slave unit signal R • OV: Negative terminal of intercom slave unit power supply • DC12V: Positive terminal of intercom slave unit power supply (12 VDC)
10	Car top board communication interface	• R: Intercom slave unit signal R • L: Intercom slave unit signal L • OV: Negative terminal of intercom slave unit power supply • ZO1: Positive terminal of emergency power supply (12/24 VDC) • DC12V: Positive terminal of intercom slave unit power supply (12 VDC) • EXGND: Negative terminal of main power supply (ground) • MOD-: Main communication RS485-B • MOD+: Main communication RS485-A • DC24V: Positive terminal of main power supply (24 VDC) • DC24V: Positive terminal of main power supply (24 VDC) CAUTION Be sure to use the provided customized cable to connect the emergency power supply and bus.
11	Ground	For grounding cable.

5.2 Installation Procedure

This part takes the vertical version as an example.

1. Cut out an area on the car backplate according to the specified dimensions in the following figure.

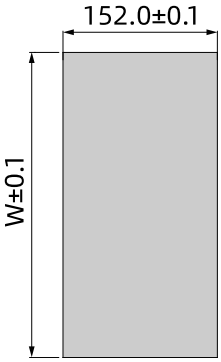


Figure 5-2 Opening dimensions (unit: mm)

Sheet metal thickness for the surface-mounting type (mm)	W (mm)
1.2 to 3.0	300

2. If the thickness of the car backplate exceeds 3 mm, you will need to disassemble the bracket, install plain washers (the number of washers should be determined and purchased based on the actual working conditions), and then tighten the bracket.

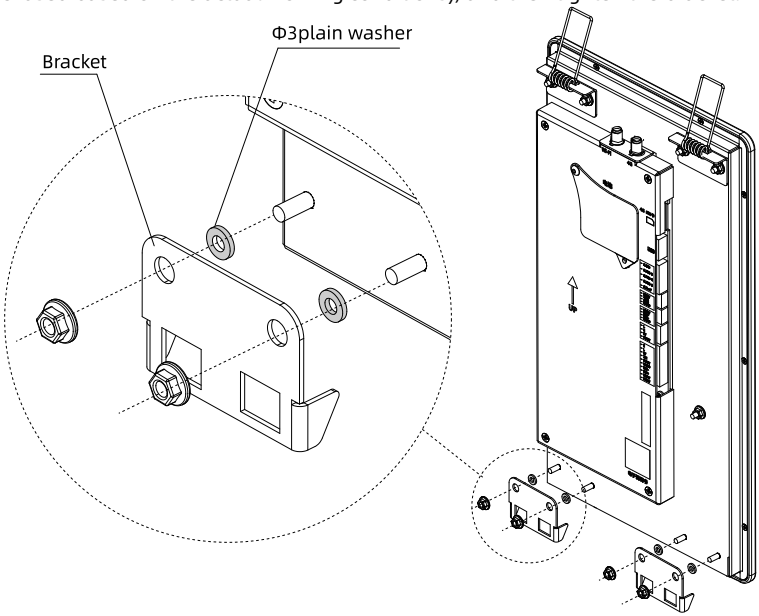


Figure 5-3 Installing the washer

3. Connect the cables.

- Grounding cable: Secure the grounding cable to the grounding terminal of the device with the M3 hexagon nut with flange.
- Antenna: Fix the 4G antenna and Wi-Fi antenna to the 4G antenna port and Wi-Fi antenna port of the device respectively.
- Other cables: Connect the communication cable, power cable, and other necessary cables. For details, see *"5.1 Port Layout and Description" on page 13*.

4. Ffix the bottom mounting bracket of the device to the car wall panel, and then fix the upper snap-fit joint to the panel.

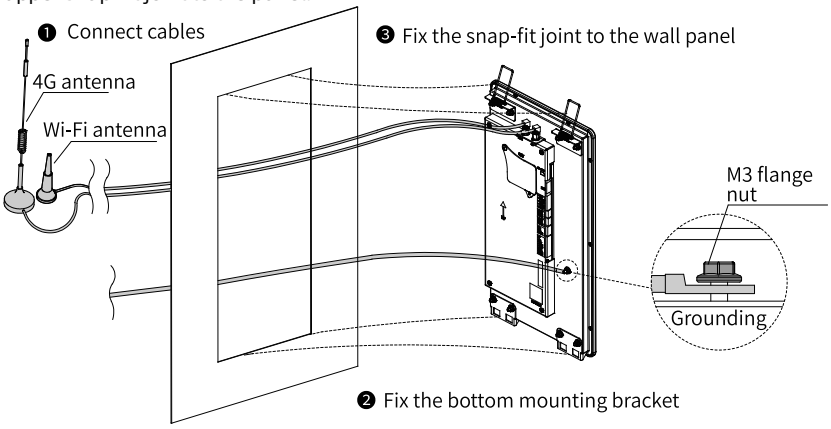


Figure 5-4 Fixing the device

5. Check the installation effect.

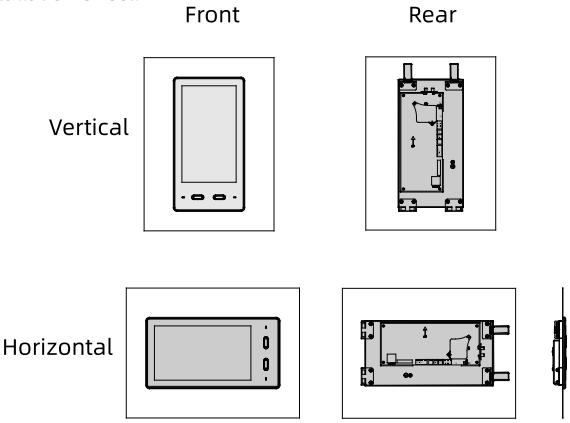


Figure 5-5 Checking the installation effect

6 Commissioning and Operation

This chapter introduces basic commissioning procedure for the device. By following the instructions, you can perform basic commissioning to ensure that its basic functions can be used normally.

6.1 Inspection Before Commissioning

The operator is responsible for performing checks including but not limited to those listed in the following table in accordance with the recognized technical rules in the country of installation and with applicable regional guidelines. Tick after each check of the item.

No.	Item	Tick
1	Ensure that the power input terminals are securely connected with no loose or poor connections.	□
2	Before powering on the device, ensure that the power port wiring sequence is correct and that the voltage meets the standard 24 VDC (allowable range: 18 VDC to 36 VDC). If the measured value exceeds this range, disconnect the power supply immediately	□

6.2 Function Commissioning

On the main interface, tap  and enter the user password (**"22222"** by default) to access the settings menu.

Table 6–1 Settings menu

Menu	Description
Device information	• Network type: Displays the current network status. • MAC address: Used for registering the device with the cloud platform. • System version: Firmware version. • MCU version: MCU software version. • Protocol: Includes both encrypted and non-encrypted protocols. • Manufacturer No.: Manufacturer information. • MAC address: MAC address in QR code format.
Backlight brightness	Sets the brightness during normal operation of the screen, ranging from 10% to 100% (80% by default). Drag the slider to adjust the brightness.
Standby brightness	Within the set standby time, if there are no changes in floor arrows, elevator status, or touchscreen operations, the device automatically enters standby mode. Upon entering standby mode, background music will stop playing. It sets the screen brightness during standby mode, ranging from 10% to 100% (10% by default). Drag the slider to adjust the brightness.
Volume	Controls the volume of the arrival gong, background music, video sound, and voice announcement. The range is 0% to 100%, with a default value of 80%.

Menu	Description
Standby time	The waiting time before entering standby mode when there are no changes in floor arrows, elevator status, or touchscreen operations on the main interface (unit: minutes). If set to "Off," the device will not enter standby mode.
Language	Supports switching between Chinese and English, with Chinese as the default.
Theme	Supports theme switching, includes two built-in themes, with Theme 1 as the default.
Media	Supports switching between videos and images for Theme 1, with video as the default. ***Note*** • Theme 2 does not support video or image playback. • When selecting a video, the main interface plays the video, the background music is automatically turned off and cannot be manually turned on. • When selecting an image, the main interface plays the image, the video voice is automatically turned off and cannot be manually turned on.
Background music	Enables or disables background music, which is disabled by default. It can only be enabled when **"Image"** is selected under **"Media"**, and automatically disabled when **"Video"** is selected.
Video voice	Enables or disables the video voice, which is enabled by default. It can only **"be enabled when Video is selected under Media"**, and automatically disabled when **"Image is selected"**.
Fan	Controls the cooling fan in the car, which is enabled by default.
Lighting	Controls the lighting in the car, which is enabled by default.
Lock	• Enable: It is disabled by default. After enabling, if there is no operation on the main interface for 3 minutes, it will enter a locked state (except for the screen lock button, all other touch buttons are disabled). • Unlocking the screen: Long press the screen lock icon on the main interface for 3s to unlock. After successful unlocking, an unlocking icon will be displayed.
Capacity&Passenger	Enables or disables the capacity and passenger information, which is enabled by default.
Ambient lighting	Supports adjusting RGB light colors to achieve multi-color lighting effects.
Time settings	Time display settings, which are enabled by default. Use **"+"** or **"-"**to set the time and date. After enabling the auto time calibration function, the device will automatically synchronize and calibrate the time when the connected Wi-Fi network is available.

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td rowspan="8">Elevator settings

Note
For maintenance personnel only. The administrator password is required (11111 by default).</td><td>Installation position: Select the "Front door" or "Rear door" based on the device installation position.</td></tr>
<tr><td>Capacity: The maximum allowable load capacity of the elevator. The default is 400 kg, with a range from 10 kg to 9999 kg. Click the value to modify it. It cannot be left empty or set to zero.</td></tr>
<tr><td>Passenger: The maximum allowable number of passengers for the elevator. The default is 5 people, with a range from 1 to 99 people. Click the value to modify it. It cannot be left empty or set to zero.</td></tr>
<tr><td>Arrival clock: Sounds "ding" when arriving upwards, sounds "ding dong" when arriving downwards.</td></tr>
<tr><td>Voice announcement: Announces the arrival of a certain floor within the set announcement time. The announcement supports -1, -2, 1 to 50, B1, B2, G, and A3. For customized voice service, contact the device supplier.</td></tr>
<tr><td>Operation mode: Includes auto demo mode and normal mode.
• Normal mode: The elevator is in the normal working state, meets the daily use requirements, and runs in real time.
• Auto demo: Simulates elevator operation (animations, floor displays, and so on) in non-actual running state, often used for equipment demonstration and functional tests.</td></tr>
<tr><td>Open/close door: The display switch for the touch button on the main interface, which is enabled by default. When the physical door open button is pressed, the touch button on the main interface will also highlight; similarly, when the touch button on the main interface is pressed, the physical button will highlight.</td></tr>
<tr><td>Logo display: Enables or disables the main interface logo display, which is disabled by default.</td></tr>
<tr><td>• Floor mapping: Displays the correspondence between physical floors (default: 8 floors) and the interface display floors (mapped floors). For example, when the physical floor 8 is mapped to "A8", selecting the "A8" button on the main interface will direct the elevator to floor 8. Click to modify the mapped floor, only supporting digits (0 to 9), uppercase letters (A to Z), and symbols (-), up to 3 characters.
• Password: After enabling the password for floors, you need to enter the floor password on the main interface to successfully call the elevator. The default password is 33333, which can be modified in the "Password management" interface.
• Switch: When the "Switch" is selected, the corresponding floor button is displayed on the main interface of the device. At least enable the display switch for two floors.</td></tr>
<tr><td>Maintenance record: Displays historical maintenance records.
Click the maintenance icon on the main interface and enter the administrator password to view maintenance records (up to 5 records). Administrators can also enter the maintenance record page through the menu.
You can also add new records. Maintainer input is up to 5 characters, phone number input is up to 14 characters, and maintenance cycle is 3 months or half a year.

CAUTION
After installation, maintenance personnel must enter the maintenance page to add maintenance records; otherwise, the device will not display maintenance information or reminders during subsequent customer use.</td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>WLAN</td><td>The device automatically searches for the Wi-Fi service that can be used and displays the Wi-Fi list information. Click on the Wi-Fi to connect, then enter the password to connect automatically.

Note
• The Wi-Fi name should not contain Chinese characters or the symbol ¥. Otherwise, the Wi-Fi cannot be displayed.
• The Wi-Fi of this device supports only the 2.4 GHz frequency band and does not support 5 GHz networks. If the Wi-Fi network is not detected, check the frequency band settings on your router or mobile phone.</td></tr>
<tr><td>Password management</td><td>• Floor password: Used for password-based elevator calls. The default password is "33333", which can be modified.
• User password: Allows users to enter the "Settings" menu page from the main interface. Also, it is used for password-based elevator calls. The default password is "22222", which can be modified.
• Administrator password: Allows administrators to enter the "Settings" menu, "Elevator settings", and "Maintenance record" pages from the main interface. Also, it is used for password-based elevator calls. The default password is "11111", which can be modified.

Note
• The password allows only numbers 0 to 9 and can be up to 5 characters long.
• Password privilege hierarchy: Administrator password > User password > Floor password. This means a higher-privilege password can be used to log in and modify lower-privilege passwords.</td></tr>
<tr><td>Emergency contact</td><td>Sets up to five emergency contact numbers. You can set the number of dials for emergency contacts, up to 3 times.
Click "Modify contact" to modify or add a contact phone number. Up to 14 numbers can be input. Click "Save" after modification.
On the main page, long press the emergency call button for 3s, then select the emergency contact to call. If no contact is selected within 10s, it will automatically dial the first contact. If the first contact does not answer after the set number of dials, it will sequentially dial the second contact, third contact, and so on.

Note
On the settings menu interface, if there is no operation for 1 minute, it will automatically return to the main device interface (except for the emergency call interface).</td></tr>
</table>

6.3 Emergency Operation

The device will automatically enter the emergency operation mode upon being triggered by an emergency signal or in the event of an accidental power loss. It will automatically exit this mode once normal conditions are restored.

Trigger conditions:

- External signal: Receiving an emergency operation status signal from the control cabinet.
- Internal detection: The device self-detects an accidental power loss.

Emergency response:

- Comforting voice announcement: Automatically broadcasts a preset comforting voice message to guide passengers to remain calm.
- Brightness adjustment: Screen brightness is automatically reduced to 10%.
- Multimedia control: Videos or background music are automatically turned off.

When the emergency signal is cleared or power is restored, the system will automatically exit this mode, and all functions will return to their normal state.

6.4 Automatic Restart

To prevent issues such as interface lag or program anomalies caused by prolonged device operation, this unit features a built-in scheduled self-inspection and restart mechanism:

- Every day at 3:00 AM, the system initiates a status check. If there is no change in the elevator floor, operation arrow, or device function status for 5 consecutive minutes, and there has been no touch operation on the display screen for 5 minutes, the device will display a system self-inspection prompt for about 5 seconds, and then automatically restart the MPU (Main Processing Unit).
- During the 5-minute detection cycle or the system self-inspection prompt process, if any usage activity occurs—such as an elevator call, button operation, or screen touch—the restart process will be immediately interrupted. The 5-minute idle status detection will then restart, ensuring that normal elevator usage and passenger operations are not affected.

Note

The automatic restart process does not affect the elevator's mechanical operation or normal call logic.

---

7 Theme Change

Replace the logo, background image, audio/video, and so on.

7.1 Replacement Through USB Cable

Prepare the type-A dual-male USB cable and a computer.



Figure 7-1 Type-A dual-male USB cable

1. With the device powered off, use the USB cable to connect the device to a USB port on your computer.
2. After connecting, power on the device. Once the device has started up, it will display **"usb device is connecting…"**.
3. The computer will recognize two drives. Open the drive with the larger memory capacity.
4. Prepare new theme according to the requirements.

Note

- Image format requirement: PNG format, 32-bit color depth. The image naming convention is "No. + Sequence + Height + Width +_ICO.png". Pay attention to the naming, format, and resolution of the new images, ensuring they are consistent with the originals. You can check image information by right-clicking on the image file and selecting "Properties > Details".

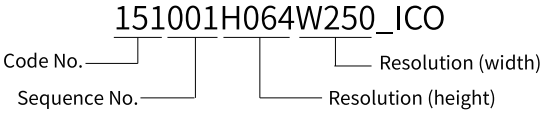
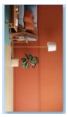


Figure 7-2 Image naming (example)

- Video format requirements: The maximum supported video resolution is 480P, with support for the MP4 format. The maximum bit rate is 1600 kbps, the maximum frame rate is 30 fps, and the video coding format must be MPEG4 or H.264.
- Background music format requirements: The file name and format must be **"60.mp3"**.

Table 7–1 Default theme

Type	Logo	Background image		Ad image	Welcome message	Background music
					Welcome Home!	
Hori-zontal version						60.mp3
	151001H064 W250 _ICO.png	010001H600 W1024_ICO.png	010002H600 W1024_ICO.png	251001H283 W480 _ICO.png	196012H032 W424_ICO.png	
Vertical version						60.mp3
	151001H262 W060_ICO.png	010001H600 W1024_ICO.png	010002H600 W1024_ICO.png	251001H600 W324_ ICO.png	196012H522 W030_ICO.png	

5. Open the **"TGUS_TF"** folder on the drive and replace the theme file with the new one.

Note

The total size of all resource files must not exceed the disk capacity. Otherwise, replacement will fail.

6. After the replacement is complete, eject the drive from the computer. When the device displays **"···finished···"**, the update is complete, and the USB cable can then be disconnected.
7. Manually restart the device and check the display and playback.

Note

- If the image is displayed in the wrong orientation, check whether the image needs to be rotated.
- If the image fails to be displayed, check whether the image filename and format are correct and consistent with the image being replaced.
- If the audio/video file is not played normally, check the file name and format.

7.2 Replacement Through a USB Flash Drive

The USB drive has a maximum capacity of 32GB and is formatted as FAT32.

Note

Some low-cost USB drives use processing chips of unknown brands, which may lead to upgrade failures. It is recommended to use USB drives from well-known brands, such as Kingstone and SanDisk.

---

1. Prepare the USB drive in advance and insert the USB drive into the computer.
2. Create the **"bstupdate>TGUS_TF"** directory path on the USB drive.
3. Prepare new theme according to the requirements.

Note

- Image format requirement: PNG format, 32-bit color depth. The image naming convention is "No. + Sequence + Height + Width +_ICO.png". Pay attention to the naming, format, and resolution of the new images, ensuring they are consistent with the originals. You can check image information by right-clicking on the image file and selecting "Properties > Details".

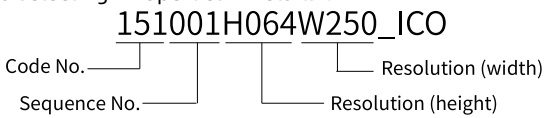
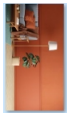


Figure 7-3 Image naming (example)

- Video format requirements: The maximum supported video resolution is 480P, with support for the MP4 format. The maximum bit rate is 1600 kbps, the maximum frame rate is 30 fps, and the video coding format must be MPEG4 or H.264.
- Background music format requirements: The file name and format must be **"60.mp3"**.

Table 7–2 Default theme

Type	Logo	Background image		Ad image	Welcome message	Background music
					Welcome Home!	
Horizontal version						60.mp3
	151001H064 W250 _ICO.png	010001H600 W1024_ICO.png	010002H600 W1024_ICO.png	251001H283 W480 _ICO.png	196012H032 W424_ICO.png	
Vertical version						60.mp3
	151001H262 W060_ICO.png	010001H600 W1024_ICO.png	010002H600 W1024_ICO.png	251001H600 W324_ ICO.png	196012H522 W030_ICO.png	

4. Open the **"TGUS_TF"** folder and place the new theme file inside it.
5. Remove the USB drive from the computer, then insert it into the device's USB port. When the device displays **"...successful..."**, the update is complete, and the USB drive can then be removed.
6. Manually restart the device and check the display and playback.

Note

- If the image is displayed in the wrong orientation, check whether the image needs to be rotated.
- If the image fails to be displayed, check whether the image filename and format are correct and consistent with the image being replaced.
- If the audio/video file is not played normally, check the file name and format.

8 Interface Upgrade

8.1 Upgrading Through USB Cable

Prepare the type-A dual-male USB cable and a computer.



Figure 8-1 Type-A dual-male USB cable

1. With the device powered off, use the USB cable to connect the device to a USB port on your computer.
2. After connecting, power on the device. Once the device has started up, it will display **"usb device is connecting…"**.
3. The computer will recognize two drives. Open the drive with the larger memory capacity.
4. Copy the new **"TGUS_TF"** interface resource file into this drive, replacing the old one.
5. After the replacement is complete, eject the drive from the computer. When the device displays **"*******finished"**, the update is complete, and the USB cable can then be disconnected.
6. Manually restart the device and check the display effect.

Note

If a display error occurs, check whether the name and path of the new interface file is correct, and ensure it is consistent with the old interface file being replaced.

8.2 Upgrading with a USB Flash Drive

The recommended size of the USB drive is smaller than 32 GB and the format is FAT32.

Note

Some low-cost USB drives use processing chips of unknown brands, which may lead to upgrade failures. It is recommended to use USB drives from well-known brands, such as Kingstone and SanDisk.

---

1. Prepare the USB drive in advance and insert the USB drive into the computer.

2. Create a folder named **"bstupdate"** on a USB flash drive. Copy the new **"TGUS_TF"** interface resource files into **"bstupdate"**.
3. Remove the USB drive from the computer, then insert it into the device's USB port. When the device displays **"******finished"**, the upgrade is complete, and the USB drive can then be removed.

Note

If **"errfile= *** FAIL"** is displayed (where * represents a specific file), the upgrade has failed. Please power cycle the device and try upgrading again.

---

4. Manually restart the device and check the display effect.

Note

If a display error occurs, check whether the name and path of the new interface file is correct, and ensure it is consistent with the old interface file being replaced.

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9 Using the Cloud Platform

9.1 Login

Contact the device supplier to apply for an account.

Note

The cloud platform is for maintenance personnel only.

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1. Enter the cloud platform URL in your browser: **https://www.shbstcloud.com**.
2. Enter the user name and password.

9.2 Device Binding

Scan or enter device information to bind the device to the cloud platform.

1. Select **"Device management>Device binding"**.
2. Enter or scan the device information, and then click **"Bind"**.

9.3 Parameter Distribution

Users can set parameters through the cloud platform and distribute them to the local device.

1. Select **"Product management>Device management"**.
2. Click **"Running status"**, set the device parameters, and then click**"Distribute"**.

9.4 Resource management

Upload mixed resources through the cloud platform, including images, audio, and video.

1. Create a folder named **"TGUS_TF"**. After preparing the new theme resources as required, place them into this folder. Compress the folder into a zip format.

Note

- Image format requirement: PNG format, 32-bit color depth. The image naming convention is "No. + Sequence + Height + Width +_ICO.png". Pay attention to the naming, format, and resolution of the new images, ensuring they are consistent with the originals. You can check image information by right-clicking on the image file and selecting "Properties > Details".

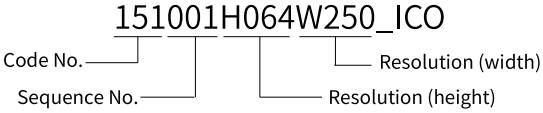


Figure 9-1 Image naming (example)

- Video format requirements: The maximum supported video resolution is 480P, with support for the MP4 format. The maximum bit rate is 1600 kbps, the maximum frame rate is 30 fps, and the video coding format must be MPEG4 or H.264.
- Background music format requirements: The file name and format must be **"60.mp3"**.

Table 9–1 Default theme

Type	Logo	Background image		Ad image	Welcome message	Background music
					Welcome Home!	
Horizontal version						60.mp3
	151001H064 W250 _ICO.png	010001H600 W1024_ICO.png	010002H600 W1024_ICO.png	251001H283 W480 _ICO.png	196012H032 W424_ICO.png	
Vertical version						60.mp3
	151001H262 W060_ICO.png	010001H600 W1024_ICO.png	010002H600 W1024_ICO.png	251001H600 W324_ ICO.png	196012H522 W030_ICO.png	

2. Select **"Resource management >UI resource"** on the cloud platform..

3. Select **"Media resource upload> Upload mixed resources"**, upload the zip package, enter the resource name, and click **"Save"**.

Note

- Currently, only **"Upload mixed resources"** is supported. Supported file types include images, audio, video, which can be packed into a single zip file for upload.
- Only zip file format uploads are supported.

Related operations:

Select **"Resource management >UI resource"** to manage existing resources.

- Delete: Select the resource to be deleted and click **"Delete"**.
- Distribute: Select **"Local"** or **"Device"**.
  - Local: Download the resource to local storage.
  - Device: Distribute the resource to the device.

10 Maintenance

10.1 Daily Maintenance Items

- Do not expose this product to rain or place it near water. If water stains appear on the surface, which can cause touch distortion, wipe it dry with a dry cloth or paper towel before resuming normal use.
- Do not install the product in unstable positions, such as on wobbling mounting brackets or on inclined surfaces.
- Do not drop the product or subject it to shocks.
- The touch surface of this product requires regular cleaning to ensure it remains clean and tidy.
- Do not hit the surface with force.
- Do not pry or force the edges of the frame open.

10.2 Daily Inspection and Cleaning Items

The operator is responsible for performing checks including but not limited to those listed in the following table in accordance with the recognized technical rules in the country of installation and with applicable regional guidelines. Tick after each check of the item.

Table 10–1 Daily inspection items

No.	Item	Tick
1	Ensure that the installation environment does not change.	☐
2	The device has normal operation and display.	☐
3	The wiring does not come loose.	☐
4	The screws on the external frame are secure.	☐

Table 10–2 Daily Cleaning Items

No.	Item	Tick
1	Clean dust and moist off the device surface periodically.	☐

10.3 Battery Replacement

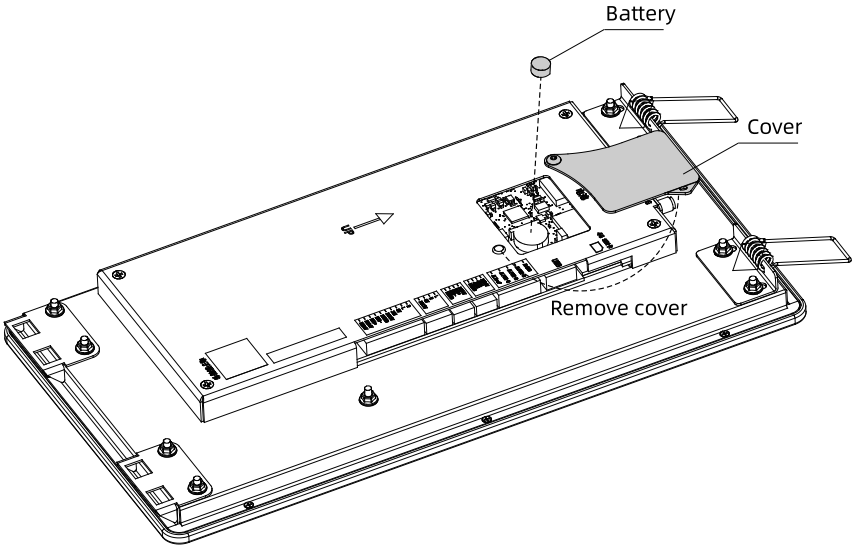


Figure 10-1 Battery Replacement

11 Common Fault Troubleshooting

Table 11–1 Common fault troubleshooting

Name	Cause	Diagnosis	Troubleshooting
Device black screen.	Power supply requirements are not met.	Check whether the power supply voltage and power match the device specifications. • Power supply voltage: 18 VDC to 36 VDC • Rated/Maximum power: 9.6 W/22 W	Replace the power source with one that meets the required specifications.
	Poor power cable connection.	Check whether the power supply polarity connection is correct.	Ensure that the power connections are correct and secure.
	Device damage.	Check whether the indicator light on the left side of the SIM card slot lights up when the device is powered on; if all lights are off, the device might be damaged.	Contact the device supplier.
During installation and commis sioning, floors and arrows are not displayed.	RS485 impedance matching error.	Check the number and distance of connected devices on the bus to determine if termination resistors are needed.	Configure the RS485 termination resistor status through DIP switches.
	The wiring is incorrect or the cable is connected improperly.	• Check whether all connection lines match the defined sequence of the device. • Check whether the CTB wiring is wrong.	Check whether the communication lines are incorrectly wired (reversed or incorrect sequence). If so, reconnect the lines correctly. If problems persist, connect the device to another normally operating elevator control cabinet and check whether the fault is displayed. If the display is normal, check the original control cabinet to ensure that it can operate properly.
	The device and control cabinet customer protocol codes do not match.	Enter the device settings menu to check **"Device information >Manufacturer ID"** for the ID, number or code.	Perform on-site modification using the Monarch App or provide the work orders on the back of the product to the device supplier. Scan and download the Monarch App.

Name	Cause	Diagnosis	Troubleshooting
Time display is inaccurate.	Time has not been calibrated.	Go to the settings menu and check the "Time settings", where you can set the year, month, day, hour, and minute separately.	
	The battery level is low.	Check whether the time differs greatly from the previous setting. If yes, recalibrate the time. If the issue persists after three power cycles, it indicates that the battery level is low and replacement is required.	Purchase the CR1220 button battery for replacement.
The display freezes or there is no display after the multimedia image is updated.	The newly imported multimedia image format or specification do not meet the requirements.	Check the image against the specified requirements.	Modify the image format or specification, delete incorrect image, and re-import.
	The newly imported multimedia image name does not meet the requirements.	Check whether the name of the newly imported image matches the name of the replaced image.	Ensure that the names of the new and replaced images match.
Elevator call failure.	The baud rate is set incorrectly.	Check whether the baud rate is 38400 bps using the Monarch App.	Modify the baud rate to 38400 bps using the Monarch App.
Wi-Fi network not found in the list.	The Wi-Fi antenna is not installed properly.	Check whether the external Wi-Fi antenna is installed properly and placed near a hot spot.	Install the Wi-Fi antenna properly and set a hotspot near the external antenna to ensure stable communication.
	The Wi-Fi signal is poor.	Check whether the device is within the coverage range of the Wi-Fi hotspot.	Move the Wi-Fi hotspot closer to the device to ensure stable communication.
	The Wi-Fi hotspot is not on the 2.4 GHz band.	Check whether the Wi-Fi hotspot is operating on the 2.4 GHz band.	Re-configure the router or other hotspot devices to operate exclusively on the 2.4 GHz band.
	The Wi-Fi channel is abnormal.	Check the channel settings of the 2.4 GHz Wi-Fi hotspot.	Set the 2.4 GHz network to channel 6.
	The Wi-Fi name contains Chinese characters or the symbol ￥.	Check whether the Wi-Fi name contains Chinese characters or the symbol ￥.	Modify the Wi-Fi name so that it does not contain Chinese characters or the symbol ￥.
Incomplete Wi-Fi name display	The Wi-Fi name contains Chinese characters or the symbol ￥.	Check whether the Wi-Fi name contains Chinese characters or the symbol ￥.	Modify the Wi-Fi name so that it does not contain Chinese characters or the symbol ￥.
	The Wi-Fi name contains Chinese characters.	Check whether the Wi-Fi name contains Chinese characters.	Modify the Wi-Fi name so that it does not contain Chinese characters.

Name	Cause	Diagnosis	Troubleshooting
Wi-Fi connection failure	The Wi-Fi password is incorrect.	Check whether the Wi-Fi password is correct.	Enter the correct Wi-Fi password to connect.
	The Wi-Fi signal is poor.	Check whether the device is within a high signal strength area of the Wi-Fi hotspot.	Move the Wi-Fi hotspot closer to the device to ensure stable communication.
Unable to make calls	The SIM card is not inserted.	Check whether the SIM card is inserted correctly into the card slot.	Insert the SIM card correctly into the slot.
	The SIM card is damaged or the metal contacts are oxidized.	Check whether the SIM can be used properly. Clean the metal contacts with an eraser and reinsert.	Replace with a functional SIM card.
	The SIM card does not support 4G calls.	Check with the operator whether the SIM card supports 4G calls.	Replace with a SIM card that supports 4G calls.
	Issues occur such as suspension due to non-payment on the SIM card.	Check with the operator whether the SIM card status is normal.	Replace with a SIM card that supports normal calls.
	The SIM card does not meet the network and call requirements.	Check with the operator the network frequency bands and call standards supported by the SIM card.	A 4G SIM card should meet the following requirements: ● Voice call standard: 4G VoLTE (high-definition voice call) ● Network frequency bands: ■ LTE-FDD: B1/3/5/8 ■ LTE-TDD: B34/38/39/40/41
The ambient lighting cannot be adjusted or the color is incorrect.	The wiring is incorrect or the cable is connected improperly.	Check whether all connection lines match the defined sequence of the device.	Check the line sequence and reconnect if necessary.
Video cannot be played.	The video option is disabled in the **"Settings"** menu.	Go to the **"Settings"** menu and check whether **"Video is selected under Media"**.	Set **"Video"** under **"Media"**.
Video sound cannot be played.	The video sound option is disabled in the **"Settings"** menu.	Go to the **"Settings"** menu and check whether the **"Video sound"** option is disabled.	Enable the **"Video sound"** option.
Back ground music cannot be played.	● In the **"Settings"** menu, **"Image"** is not selected under **"Media"**. ● **"Background music"** is not enabled.	Go to the **"Settings"** menu and check whether **"Image"** is selected under **"Media"** and whether **"Background music"** is enabled.	Select **"Image"** under **"Media"** and enable **"Background music"**.

12 Service and Support

Should you encounter a safety accident during the use or operation of the product, or face challenges in operating and maintaining the equipment, which remain unresolved after the relevant documentation is consulted, we provide multiple channels to ensure prompt resolution:

- Channel #1: Contact service@inovance.com.
- Channel #2: Visit https://www.inovance.com/global to access document downloads, after-sales support, spare parts ordering, repair applications, and authenticity verification services.
- Channel #3: Download My Inovance app (https://zshc-eu.inovance.com/download-pc/) where you can access products info and documentation, and query product parameters.

We are committed to providing you with quick and professional technical support, and we look forward to your satisfaction and trust.

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