

USER MANUAL

**Read the manual carefully and ensure you have fully understood its contents
before operation this device for the first time**



Safety Precautions

Declaration

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Statement

- The pictures and instructions in this user manual are for reference only, and may be different from the actual product. Please subject to the actual product. (This statement is valid throughout the entire user manual.)
- Quality upgrades, product design and specifications are subject to change without notice.
- The software content service applicable to this product depends on the third party provider, and some software may not be used due to network, region, service cycle and other problems, which has nothing to do with the product quality. Please contact the third party provider for relevant details.



This symbol alerts user about the presence of a dangerous voltage not isolated inside the product which can be sufficiently powerful to constitute a risk of electrocution.



This symbol alerts user about the presence of important operating instructions and maintenance in the document enclosed in the package.



ATTENTION
RISK OF SHOCK
ELECTRIC



Do not open the back cover.

In no case the user is allowed to operate inside the device. Only a qualified technician is entitled to operate.



AC voltage: This symbol indicates that the rated voltage marked with the symbol is AC voltage.



DC voltage: This symbol indicates that the rated voltage marked with the symbol is DC voltage.




Class I product: This symbol indicates that it requires a safety connection of protective earthing.

Disposal of Used Electrical & Electronic Equipment



Packaging and electrical goods should be recycled appropriately, and not treated as household waste. Please dispose of this equipment at your applicable collection point for the recycling of electrical & electronic equipment waste. By ensuring the correct disposal of this product, you will help prevent potentially hazardous to the environment and to human health, which could otherwise be caused by unsuitable waste handling of this product. The recycling of materials will help conserve natural resources. Please do not therefore dispose of your old electrical and electronic equipment with your household waste. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Important Notice

Paragraphs beginning with the symbol  indicate important instructions, tips or conditions for the following settings.



For your own safety and the optimal performance of your screen, ensure to read the safety instructions before performing any installation.

Compatibility with 3rd party products, software and services are not guaranteed. We cannot be held liable for any damage or loss suffered whilst operating, using or connecting to incompatible devices or apps.

The recording and playback of content on this or any other device may require permission from the owner of the copyright or other such rights in that content. It is your responsibility to ensure that your use of this or any other device complies with applicable copyright legislation in your country. Please refer to that legislation for more information on the relevant laws and regulations involved or contact the owner of the rights of the content you wish to record or playback.

Read these instructions

Follow all instructions

Heed all warnings

Keep these instructions

All rights reserved.



Safeguards

Please read the following safeguards for your device and retain for future reference. Always follow all warnings and instructions marked on the device.

1. A note about safety and operating instructions

Read and follow all safety and operating instructions, and retain them safely for future reference.

2. Heed Warnings

Adhere to all warnings on the appliance and in the operating instructions.

3. Cleaning

Unplug the device from the wall outlet before cleaning. Do not use liquid, abrasive, or aerosol cleaners. Cleaners can permanently damage the cabinet and screen. Use a lightly dampened cloth for cleaning.

4. Water and Moisture

Avoid dripping or splashing of liquids onto the product. Objects filled with liquids, such as vases, should not be placed on the product.

5. Ventilation

Slots and openings in the cabinet are provided for ventilation, to ensure reliable operation of the device and to protect it from overheating. Do not cover the ventilation openings in the cabinet and never place the set in a confined space such as built-in cabinet unless proper ventilation is provided. Leave a minimum 10cm gap all around the unit.

6. Power Source

This device should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your appliance dealer or local power company.

7. Power-Cord Protection

Power- supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plug, wall outlets, and the point where they exit from the device. Main plug is used as the disconnect device, the disconnect device shall remain readily operable.

8. Lightning

For added protection for this device during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cable system. This will prevent damage to the device due to lightning or power-line surge.

9. Overloading

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

10. Object and Liquid Entry

Never push objects of any kind into this device through openings as they may touch dangerous voltage points or short-out parts that could result in fire or electric shock. Never spill liquid of any kind on or into the device.

11. Servicing

Do not attempt to service this device yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

12. Damage Requiring Service

Unplug the device from the wall outlet and refer servicing to qualified service personnel under the following conditions:

(a) When the power - supply cord or plug is damaged.

(b) If liquid has been spilled, or objects have fallen into the device.

(c) If the device has been exposed to rain or water.

(d) If the device does not operate normally by following the operating instructions. Adjust only that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the device to its normal operation.

(e) If the device has been dropped or the cabinet has been damaged.

(f) When the device exhibits a distinct change in performance - this indicates a need for service.

13. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

14. Safety Check

Upon completion of any service or repair to the device, ask the service technician to perform safety checks to determine that the device is in safe operating condition.

15. Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

16. Fire

The product should be situated away from naked flame sources such as lighted candle.

17. Off-gassing

The device smells of plastic is normal and will dissipate over time.



Incorrect replacement of the battery may lead to the risk, including the replacement of another similar or the same type. Do not expose batteries to heat such as sun or fire or something like that.



The device should not be exposed to dripping and spraying and it cannot be placed under objects filled with liquids.



Main plug is used as the disconnect device, the disconnect device shall remain ready for operating.



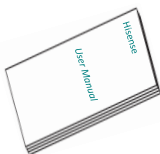
Apparatus with CLASS I construction shall be connected to a MAINS socket outlet with a protective earthing connection.

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1 Accessory Contents

User Manual× 1



Remote Control× 1



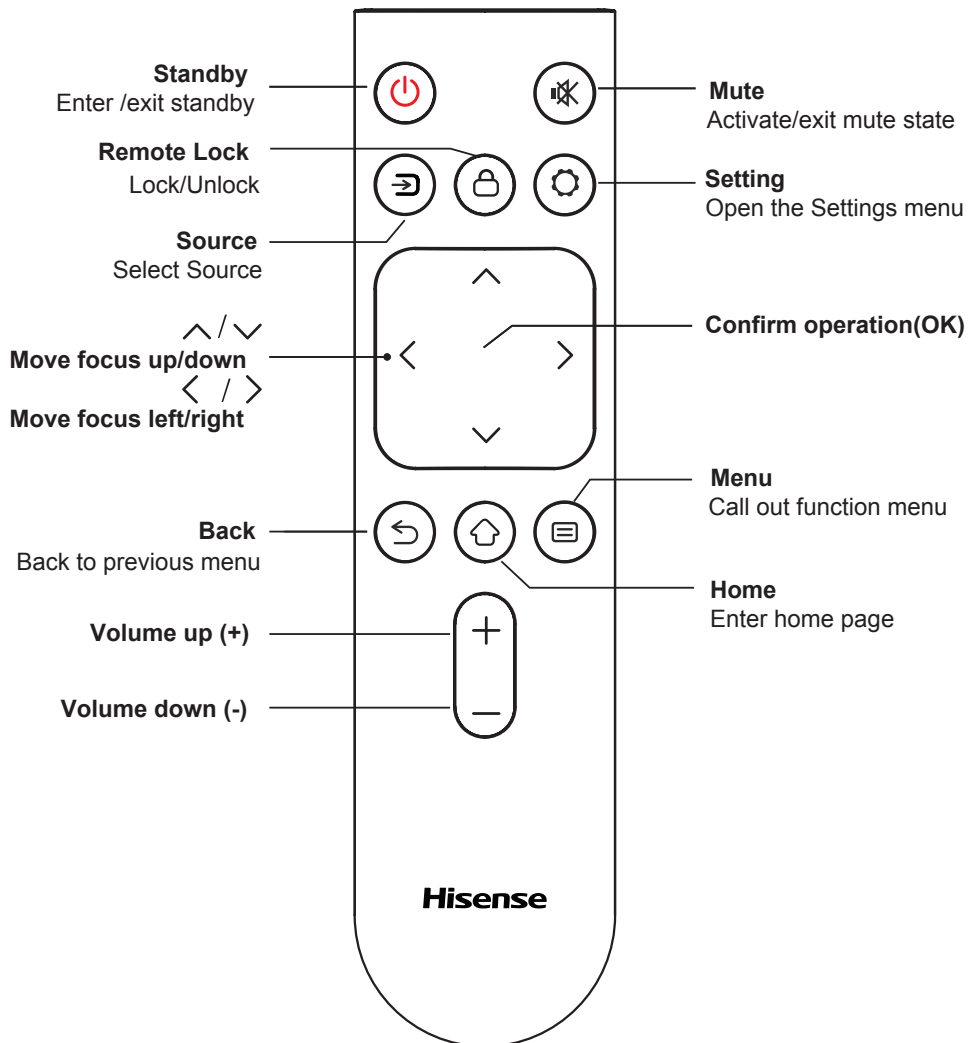
7# Battery× 2



NOTE:

The accessories may be different from the list above due to different models, countries / regions, please refer to the actual accessory bag.

2 Remote Control



Battery replacement method

1. Disconnect the battery cover from the remote control at the battery cover buckle and open the battery cover.
2. Insert two AAA 1.5V alkaline batteries. Note that the positive (+) and negative (-) terminals of the batteries must match the positive (+) and negative (-) terminals in the battery case.
3. Close the battery cover from top to bottom until it is fully aligned with the remote control.

Precautions

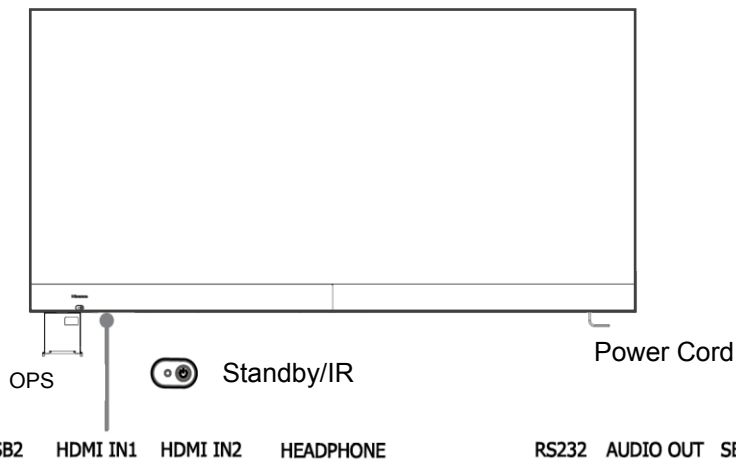
1. If the remote control is not working properly, is unstable, or can't control the device, please replace the batteries.
2. If you do not use the remote control for a long time or the battery is exhausted, remove the battery. (Waste batteries pollute the environment and must be handled properly.)
3. In order to achieve the best remote control effect, please point the black launch window on the back of the remote control at the indicator light of the device.
4. Discard batteries in a designated disposal area. Do not throw them into a fire.
5. Remove old batteries immediately to prevent them from leaking into the battery compartment.
6. Battery chemicals can cause a rash. If the batteries leak, clean the battery compartment with a cloth. If chemicals touch your skin then wash it immediately.
7. Do not mix old and new batteries.
8. Do not mix alkaline, standard (carbon-zinc) or rechargeable (NiCd, NiMH, etc.) batteries.
9. Do not continue using the remote if it gets warm or hot.
10. If any of these issues occur, call our Support Center immediately on the support website.

Effective range

1. Remote control distance: The distance from the front of the remote control is valid within 8m.
2. Remote control angle: With the remote control receiving window of the device as the apex, the angle in horizontal direction at the distance of 6m is at least $\pm 30^\circ$, and the angle in vertical direction is at least $\pm 15^\circ$.

3

Front Panel | Interface



Item	Description
Standby button	<p>When the device is on, short press the button to turn off the screen, long press the button to go into standby mode.</p> <p>When the screen is off, press the button to open the screen, and when the device is on standby, press the button to start.</p> <p>The indicator light displays the state of power on or standby:</p> <ul style="list-style-type: none"> • When the device is on, the light is blue. • When standby, the light is red. • When the device with OPS module is turned on, the light is green.
USB	<p>It is a USB interface, which can be used as the media playback interface of the device and the USB interface of embedded OPS module. It is also the USB used to synchronize the USB-A dongle; Connect USB devices such as hard disks, keyboard, mouse, etc.</p>

HDMI IN	The front HDMI interface allows digital audio and video signals to be transmitted using a single cable without compression. HDMI supports multi-channel digital audio, and can be connected to external devices with HDMI port.
HEADPHONE	Audio out to Headphones
RS232	Serial interface, used for mutual transfer of data between devices
AUDIO OUT	Connect to power amplifier via coaxial port, then connect power amplifier to speaker
SERVICE	For factory commissioning, don't insert any cables
LAN	Standard RJ45 Internet connection interface
OPS PORT	Port for adding OPS module

4 Making Connections

• Connect to a USB interface device

The total current of all the USB output ports of the device when connected to external devices at the same time mustn't exceed 1000mA, or else the device failure caused by overcurrent isn't covered by the warranty.

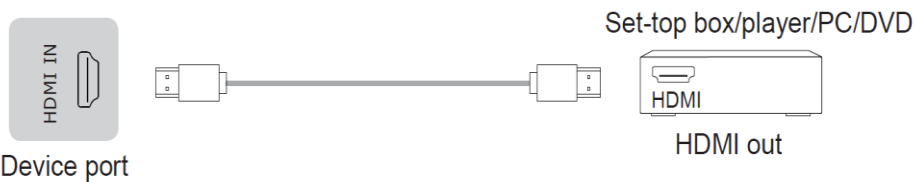


NOTE:

This device is connected to wireless keyboard and mouse devices. If there is any insensitivity phenomenon during use, you can try to change the wireless receiver to another USB port, or use a USB extension cord to connect the wireless receiver in order to enhance the receiving range.

• Connect to HDMI input

Connect the HDMI input connector of the device to the HDMI output port of an external device.

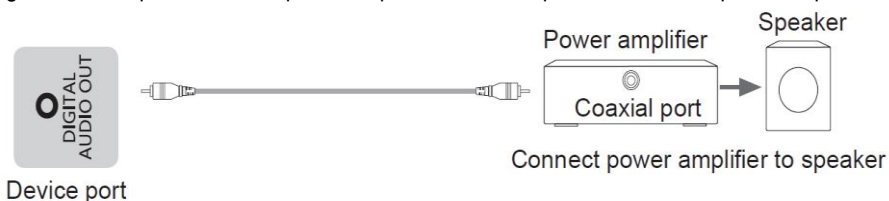


NOTE:

The supported signal formats of the HDMI port refer to Specifications.

• Connect to external audio device

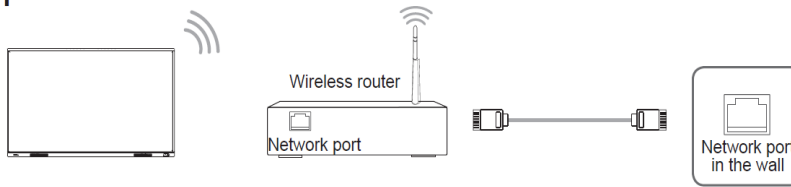
Digital audio output: connect to power amplifier via coaxial port, then connect power amplifier to speaker.



• Connect to a network

Enter the Settings menu and select the Network item.

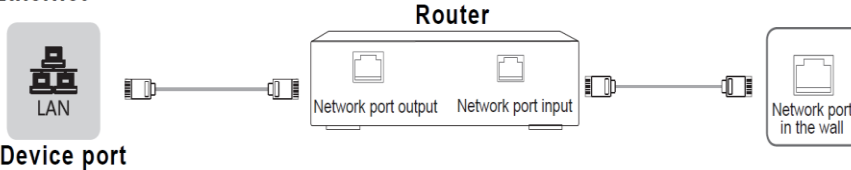
● WIFI



The device can receive network signals directly through a Wireless router

- The available wireless network list is automatically displayed when WIFI is selected.
- Select an available network, enter the password, and tap Connect. If the selected network is not encrypted, you can connect directly.
- If the network you want to connect to is not displayed in the list, tap Refresh to display more networks. If the network you want is still not displayed after this operation, tap Add Network and enter the network name manually, select the corresponding encryption method according to router settings, enter the password, and tap Confirm.

● Ethernet



• Ethernet: auto

The device automatically obtains an IP address and connects to the network. If failure, repeat the operation again or choose Ethernet:manual.

- Ethernet: manual

Manually enter the IP Address, Subnet Mask, DNS Server and Gateway.

• Connect to the OPS interface device

OPS (Open Pluggable Specification) is the interface specification developed by INTEL which is applicable to embedded computer module products. With this interface, the screen can be connected to the device in compliance with OPS interface specification, which is short for OPS module. You can buy the module and conduct secondary development in accordance with your requirements. Recommended adaptable OPS modules is S02BDS5A811E;

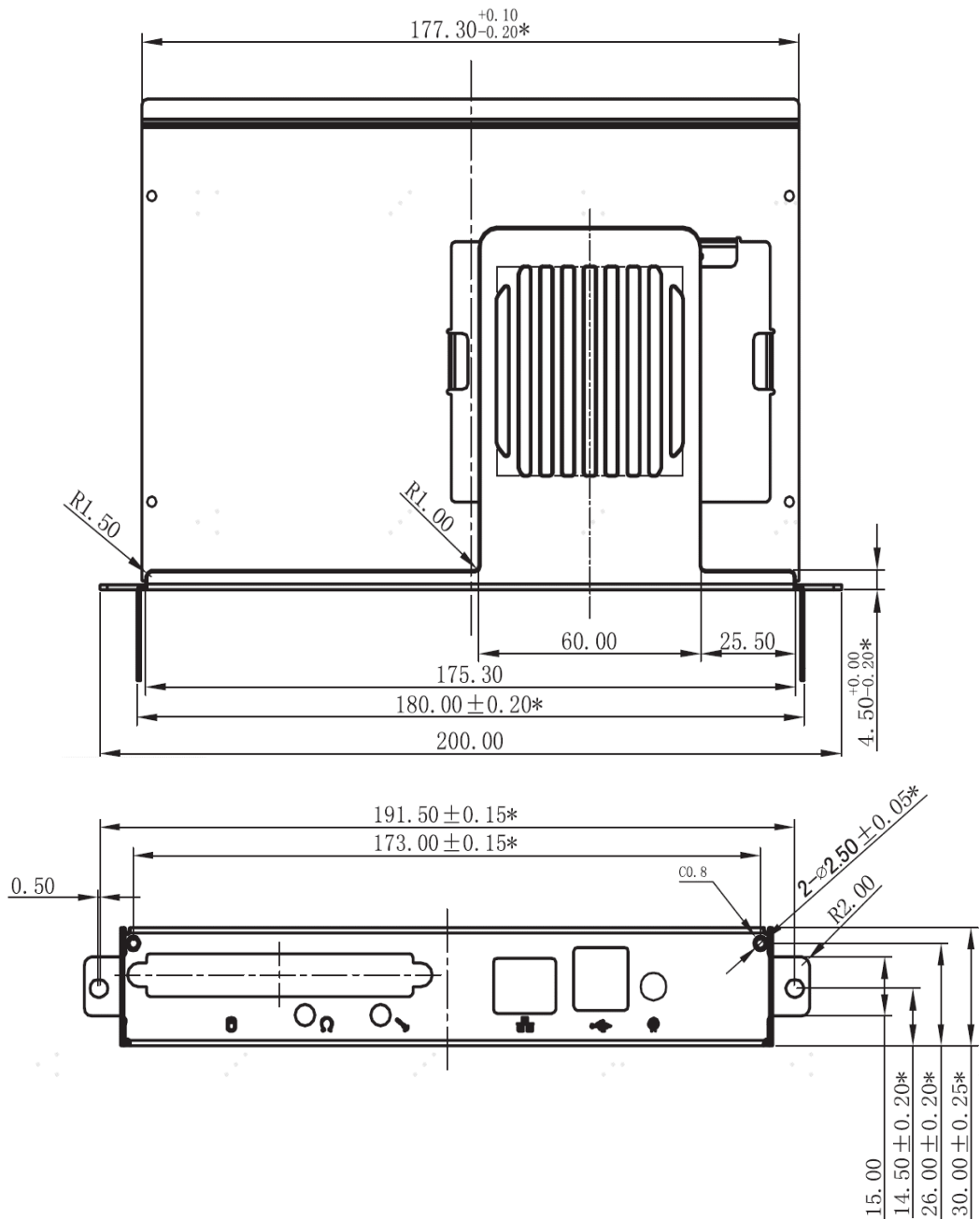
This product can provide the OPS module with 19V±0.5V (3.4A MAX) power supply.

➡ NOTE:

It is recommended to choose and purchase OPS computers with the i3/i5/i7 latest generation processor, 4G memory,

128 GB solid state drive or above.

You should purchase the OPS module which is applicable to the size of the device OPS. The size of OPS refers to the following figure:



• Switching on/off the OPS

After inserting OPS to the device, you turn on the device, change the signal source to enter OPS and stays on the OPS system interface. When you turn off the device, you should use the standby button to go into standby mode, the OPS module is switched off, and then you shut off the device.

[Description]

- Powering off the unit directly may damage the hard disk of the OPS module. It is strongly recommended that you use the following two methods to shut down:
 1. When switching off the unit, please use the remote control to make the unit be in a standby mode. At this time, the OPS module will be shut down normally, followed by the power cutoff.
 2. Switch off OPS manually. Switch off the computer switch in the setup menu, or use the start menu in the computer.
- When OPS is illegally shut down due to the direct power cutoff of this unit, the WINDOWS fix interface will appear. At this time, the USB keyboard or wireless key board should be used to confirm the fix. After the fix is complete, the system will continue to enter the system.

OPS Setup

For a brand new OPS module, there is need to enter the BIOS and set the module. Follow the prompts to enter the BIOS option during the OPS boot process, and do the followings in Advance:

1. Set USB Keyboard/Mouse Wakeup is set as Enabled;
2. Restore AC Power Loss is set as Power Off
3. Enter the power options in the WINDOWS control panel, set the display off time and sleep time to "Never" respectively, and define the function of the power button as "Shutdown".


[Description]


- If the OPS module enters the off state and there is no any operation taken on the computer for a long time, the unit will enter the standby state. If there is need to use the OPS, restart the computer.

5 Initial Start

• Switching on/off

Connect the power cord of the device to a 110V to 240V AC outlet.

- Connect the power cord of the device to a 100V to 240V AC outlet.
- Press the standby button [] on the remote control in the power on state to switch the device to standby;

to resume normal watch, simply press the standby button [] on the remote control again.



- To turn off the device, press the power switch or Unplug the Power cord.



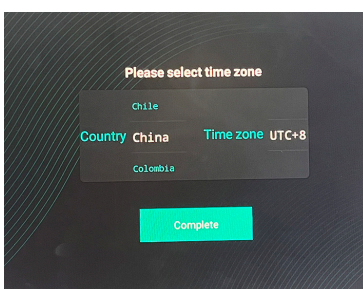
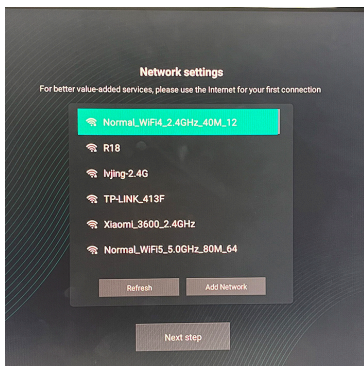
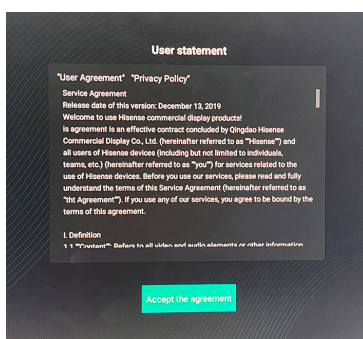
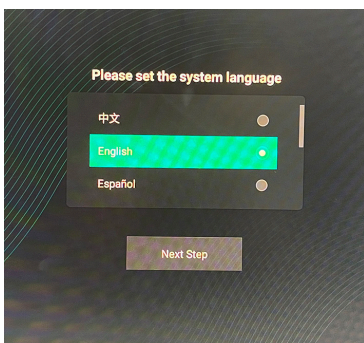
NOTE:

- When the AC power is turned off, wait at least 1 minutes before turning it on again in order to prevent problems of the device.

Turning the TV on for the First Time

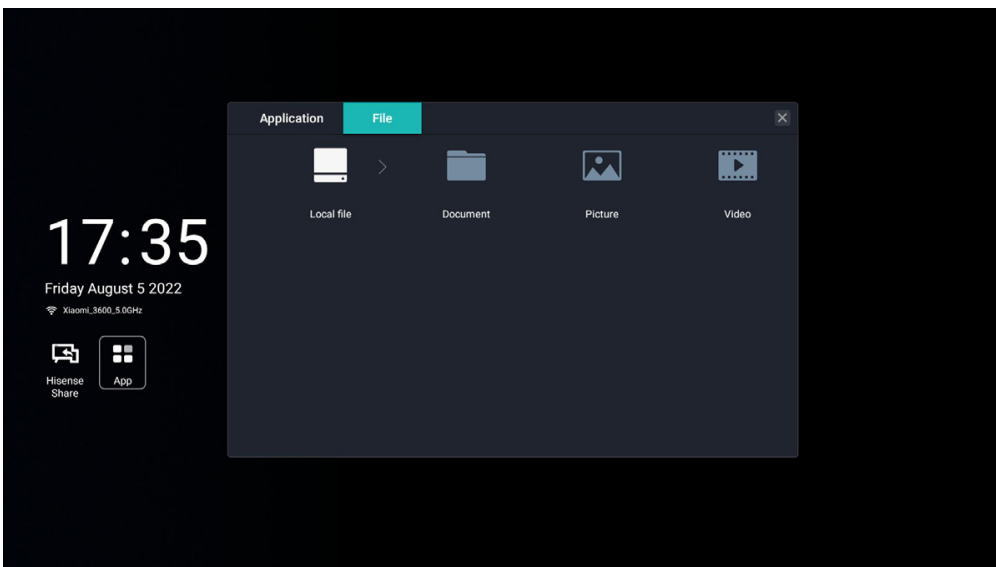
1. The first time you turn the TV on, it will go straight into the Installation Guide.
2. Press the [ /  < / >] buttons to navigate the menu and change the settings. Press the [OK] button to confirm.

Language	Please set the system language
User statement	Accept the agreement
Network settings	For better value-added services, please use the Internet for your first connection
Time Zone	Please select time zone



App

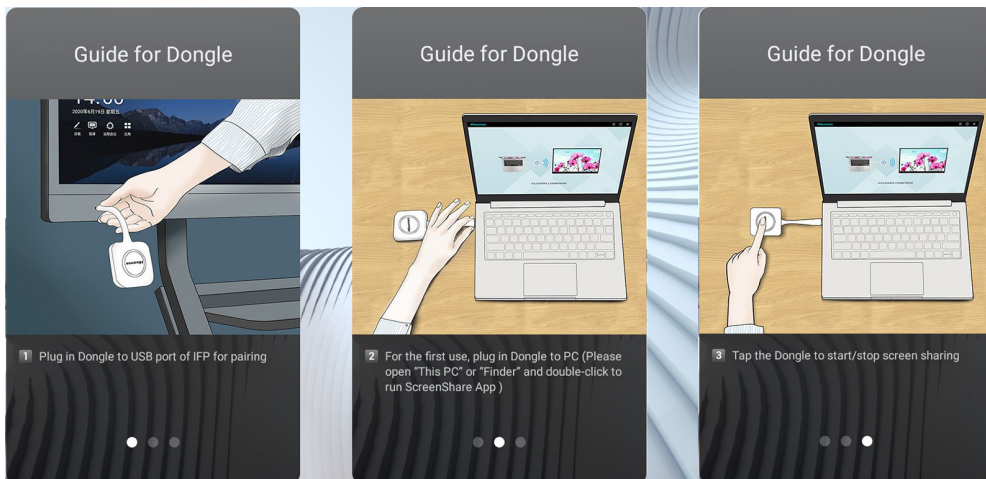
- Choose the App icon to select Application and File.



• Hisense Screen Share



• Guide for Dongle



(1) Pairing

Pairing method:

Insert the Miracast into the USB port of the whole machine, and pair it. After successful, insert it into the USB port of computer, and automatically run Miracast software. Click Miracast button according to the prompts.

Pairing and Miracast can be performed under both Android and Windows, and there is no need to re-pair when switching to another system after pairing.

(2) Startup/termination of Miracast

Tap Miracast to start/terminate the Miracast.

• Guide for PC

Setting name, pairing password, LAN Miracast, whether to activate the connection code, screen group.

• **Guide for Phone**

1. Download method:

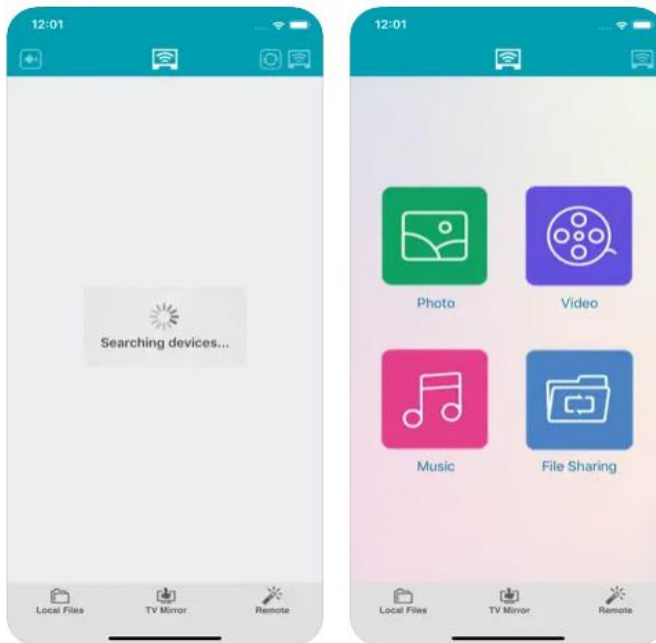
Official website of Hisense Commercial Display or scan QR code at the large-screen terminal.

This app can also be found by searching for “HisenseShare” in the Google App Store and Apple App Store



2. Main functions of the mobile terminal

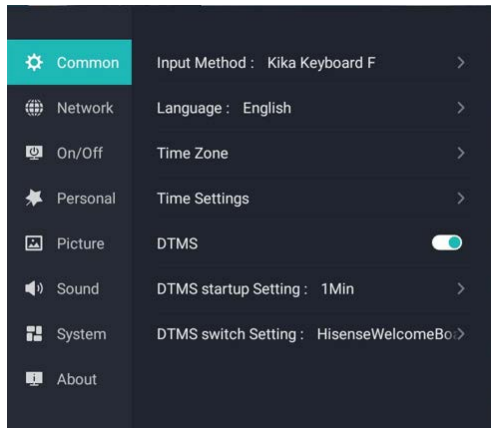
File transfer, remote control, screen mirroring, etc.;



6

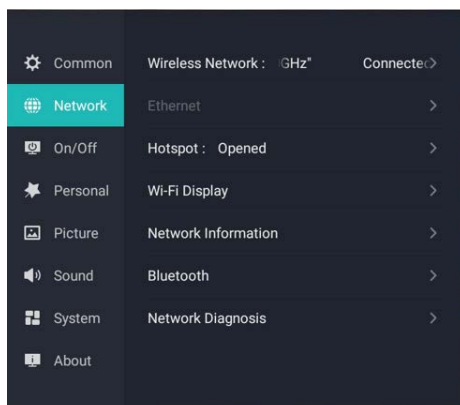
Use of Menu

Common



- Input method: switch the input method. The default input method is Kika.
- Language setting: Select menu language as Chinese/English/French/German/Spanish/Italian / Polish/Arabic.
- Time zone setting: Set the current time zone, the default is China UTC+8, and it is sorted by the first letter of the English name of the region.
- Time and date settings: Set the date and time, you can select Network synchronization on / Network Sync Off /Date / Time.
- DTMS: You can select on, off and off-by-default. When the switch is switched on, the jump time and jump page are supported. When the switch is switched off, the jump time and jump page are set to gray, and standby for 10 minutes. (Under the physical channel, the default is to enter standby if there is no signal for 10 minutes)
- DTMS startup settings: The time is calculated in minutes, and supports 1, 5, 10, 15, 30, 45 and 59.
- DTMS jump settings: The home page is selected by default and applications installed by users are supported. After the setting time, there is no signal jump. The applications installed by users are displayed as a list at the bottom of the home page.

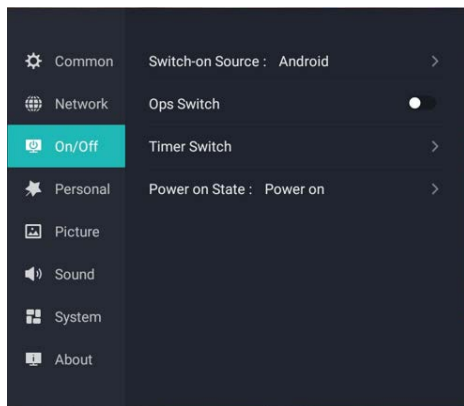
Network



- Wireless network: Switch on the wireless network, display the connection status of the wireless network and the list of available networks. You can choose to refresh or manually add networks that do not appear in the list.
- Wired Network: Display the connection status of the wired network. (When the wireless network is not connected, the TV will automatically connect to the wired network after connecting to the network cable.) You can set to obtain IP automatically and input IP manually.

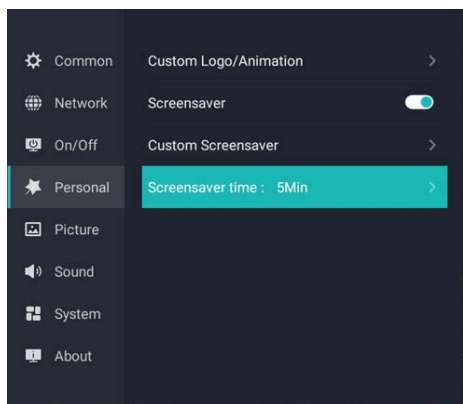
- **Wireless hotspot:** When switched on, the TV turns into a router to share the wireless network. You can choose on, off and on-by-default.
- **Wireless display:** The mobile device can be connected to display contents on the mobile device. Wireless network card/Miracast support is required.
- **Network details:** You can view network details, such as connection status, IP address, subnet mask, default gateway, default DNS, wired MAC address, and wireless MAC, etc.
- **Bluetooth:** Nearby Bluetooth devices can be connected. You can select a Bluetooth switch, available devices, and search for devices.
- **Network diagnosis:** Test and diagnose the connection status of the current network.

On/Off



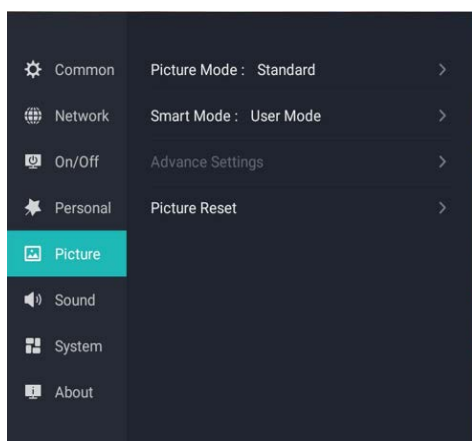
- **Boot channel:** You can choose Android, memory signal source, HDMI1, HDMI2, computer. The default boot channel is Android, and this option is also valid when OPS is inserted.
- **Timed on/off:** Set the fixed on/off time, and it will be commenced automatically when the time is up. The clock can set hours and minutes in a 24-hour mode, and three on/off time periods can be set every day. Display three time periods, each of time period switch is set as off-by-default, and the default value is 00:00-00:00
- **Boot status:** The boot status can be set as on, standby or memory. On-by-default.

Personal



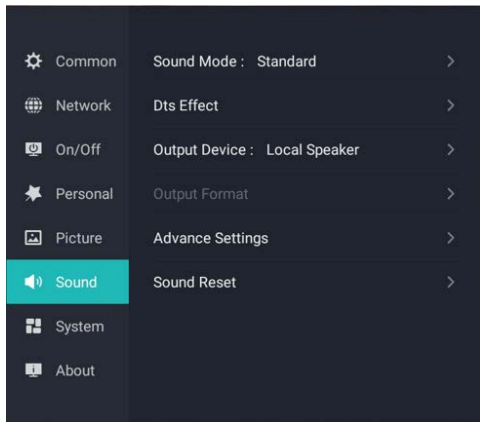
- **Customize startup screen:** Select a power-on picture. Presets, pictures in local USB storage can be selected as the boot screen.
- **Screen-saver switch:** Switch on or off the screen-saver switch.
- **Customize screen-saver:** You can choose the default screen-saver, or customize the screen-saver. When customizing the screen-saver settings, you can select from the U disk or scan the code to upload the screen-saver picture.
- **Timed screen-saver:** Set the time for the screen-saver to appear. 5 minutes, 15 minutes, 30 minutes, 45 minutes, 60 minutes can be selected, the default is 5 minutes.

Picture



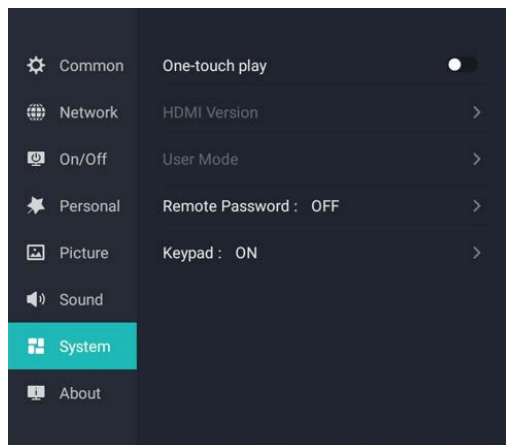
- Picture mode: Select the appropriate picture effect according to the content you are watching. You can select Standard, Conference, Cinema, Exhibition hall, HDR Standard, HDR Exhibition Hall, and Default Standard. (When playing HDR source, you can select HDR Standard and HDR Exhibition Hall)
- Intelligent backlight adjustment: Featured display technology to realize independent control of screen brightness by backlight module. You can select bright light, soft light and energy saving. The default is energy saving.
- Advanced settings: Provide picture noise reduction, gamma and other parameter options to achieve fine adjustments of professional picture quality.
 - 1) Contrast ratio: 0-100, the default is subject to the picture quality specification.
 - 2) Brightness: 0-100, the default is subject to the quality picture specification.
 - 3) Chroma: 0-100, the default is subject to the quality picture specification.
 - 4) Sharpness: 0-20, the default is subject to the quality picture specification.
 - 5) Dynamic contrast: You can select off, on and on-by-default.
 - 6) Luminance dynamic range: Auto, All, Limit can be selected, and the default is Auto.
 - 7) Image denoise: Select Off, Low, Medium, High, and the default is Medium.
 - 8) Gamma: Select Standard, Brighter, Darker, and the default Standard.
 - 9) Color temperature: Selectable
2000K, 3000K, 4000K, 5000K, 6000K, 6500K, 7000K, 7500K, 8000K, 9000K, 9300K, HTS138 can be selected. 9300K is default for HTS138, and 6500 K for HTS163.
 - 10) White balance: Red gain, green gain, blue gain, red deviation, green deviation, blue deviation can be selected, the adjustment range (-30-----+30), the default is 0.
 - 11) Color correction: Red, green, blue, cyan, yellow, purple, hue, saturation and brightness of skin color can be selected. Adjustment range (- 15 ----- + 15), default as 0.
- Reset all image settings: Reset all changes in image settings to default values.

Sound



- Sound Mode: Select the appropriate sound effect according to the content you are watching. You can select Standard, Sports, Movie, Music, Custom Settings, and Default Standard.
- DTS Sound: Switch on or off DTS Bass Boost, DTS Virtual Sky Tone, DTS Clear Dialogue, DTS Loudness Adjustment, or select Reset.
- Output device: Select TV or external speakers as the sound output device. You can choose the local speaker, HDMI ARC, coaxial, USB audio device, the default local speaker.
- Audio output format: Select the audio output format of the external device. (Only when coaxial or HDMI is selected as the output device). When the output device is coaxial, the audio output format supports PCM and Auto. When the output device is HDMI ARC, the audio output format supports PCM, Auto and transparent transmission, and the default is Auto.
- Advanced settings: Further adjust parameters such as equalizer, sound balance, audio & video synchronization, and realize refined adjustment of sound effects.
 - 1)Balance: Selectable (-10--10), default is 0.
 - 2)Equalization: 100Hz, 250Hz, 600Hz, 1KHz, 2.5KHz, 6KHz, 10KHz can be selected, the adjustment range is -10--+10, and the default is 0.
 - 3)Automatic volume control: You can choose On or Off (SOC support is required), the default is Off.
 - 4)Audio and video synchronization: Selectable (-10 to 10), the default is 0.
- Reset all sound settings: Reset all changes in the sound settings to default values.

System



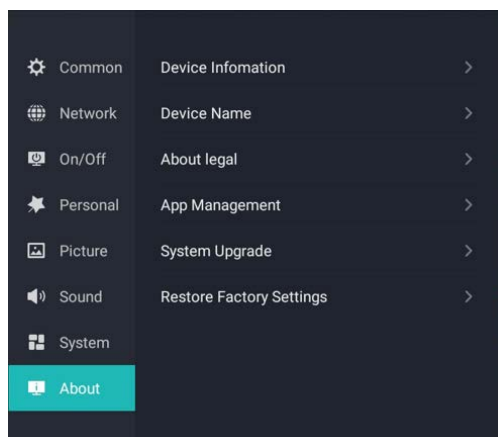
- One-touch play: After switched, connect the set-top box, computer and other external devices, and the TV will automatically play the device screen. You can select On or Off.
- Debug mode: Call native Android settings.
- Local key: When it is switched on, it will not be shielded, and when it is switched off, the local key will be shielded. It is switched on by default.
- Remote control password: Off-by-default. If it is off, it will not be shielded, and it can be used only after password verification is enabled.

【Description】

Remote control password: When "On" is selected, all functions of the remote control do not work;
Unlocking method: Respectively press the remote control keys "Lock screen key + OK + OK + Lock screen key" to unlock.

- HDMI control
HDMI version: Default HDMI standard (HDMI 1.4), HDMI enhancement (HDMI 2.0) can be switched

About



- Local Information: Display local information. Software Version Number, Device ID, Machine Number, and System Capacity can be selected.
- Local name: Select or customize the local name to facilitate the discovery of devices during Bluetooth pairing, screen projection and other operations. The default name of this unit is HTS-XX, and XX is the last two digits of the MAC address.
- Disclaimer: Display the local service agreement and disclaimer.
- Application management: Manage local application software, check the used space and remaining space. You can select Application Name, Version, Size, Used Space, Remaining Space, Application Name, Version, Size, Used Space, and Remaining Space.
- Check for updates: Manually check and upgrade software.
- Restore factory settings: Reset all changes in the system settings to the default values.

7

Serial Protocol

Serial port status

The device can receive the serial port command sent by the external controller or OPS of the device. Refer to the following table for the specific command protocol:

1. Baud rate: 115200 2. Control section: PC → The device 3. Response section: TV → PC

			Protocol header		Length		Command code				DATA	Verify	Protocol tail	
Source	Computer	PC TO TV	DD	FF	00	06	A1	06	00	00	02	XX	BB	CC
		TV TO PC	AB	AB	00	06	A1	06	00	00	01	XX	CD	CD
	HDMI 1	PC TO TV	DD	FF	00	06	A1	06	00	00	00	XX	BB	CC
		TV TO PC	AB	AB	00	06	A1	06	00	00	01	XX	CD	CD
	HDMI 2	PC TO TV	DD	FF	00	06	A1	06	00	00	01	XX	BB	CC
		TV TO PC	AB	AB	00	06	A1	06	00	00	01	XX	CD	CD

			Protocol header		Length		Command code				DATA	Verify	Protocol tail	
Volume Control	PC TO TV		DD	FF	00	06	A1	09	00	00	VV	XX	BB	CC
	TV TO PC		AB	AB	00	06	A1	09	00	00	01	XX	CD	CD
Switch on/off	Screen on	PC TO TV	DD	FF	00	07	C1	31	00	00	00 01	XX	BB	CC
		TV TO PC	AB	AB	00	07	C1	31	00	00	01 00	XX	CD	CD
	Screen off	PC TO TV	DD	FF	00	07	C1	31	00	00	01 01	XX	BB	CC
		TV TO PC	AB	AB	00	07	C1	31	00	00	01 01	XX	CD	CD
Set Time (H/M/S)	YY MM DD	PC TO TV	DD	FF	00	08	C1	1C	00	00	YY MM DD	XX	BB	CC
		TV TO PC	AB	AB	00	09	C1	1C	00	00	01 YY MM	XX	CD	CD
	HH MM SS	PC TO TV	DD	FF	00	08	C1	1D	00	00	HH MM SS	XX	BB	CC
		TV TO PC	AB	AB	00	09	C1	1D	00	00	01 YY MM	XX	CD	CD
Reboot Screen	PC TO TV	DD	FF	00	06	C1	1E	00	00	01	XX	BB	CC	
	TV TO PC	AB	AB	00	06	C1	1B	00	00	01	XX	CD	CD	
Software Version Query	PC TO TV	DD	FF	00	06	C1	1E	00	00	01	XX	BB	CC	
	TV TO PC	AB	AB	00	09	C1	1B	00	00	01 YY MM	XX	CD	CD	

- Verify is the exclusive OR of Length, Command code, ID and Data.
- All data are hexadecimal values.
- For all commands received by the device, the protocol header needs to be changed to AB AB and the protocol tail needs to be changed to CD CD when returning to the PC.

8

Other Information

Recycling/Licenses

WEEE (Waste Electronic Electric Equipment)

European Directive 2012/19/EU



Batteries



This symbol on the product or on its packaging indicates that this product must not be disposed of with your household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment.

The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

In accordance with the Battery Directive, used batteries should not be disposed of in the domestic waste. Dispose your batteries in the collection containers specific for this purpose in retail stores.

ROHS (Restriction of Hazardous Substance)

European Directive 2011/65/EU



This European directive limits the use of dangerous and hazardous substances which are difficult to recycle.

This allows recycling easily the EEE and contributes to the safeguard of the environment. Substances included in this product match to the RoHS directive.

Certification and Compliance

FCC Notice

pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the device and receiver.
- Connect the device into an outlet on a circuit different from that to which the receiver is connected. This device has been tested and found to comply with the limits for a Class B digital device
- Consult the dealer or an experienced radio/Screen technician for help.

NOTE: The manufacturer is not responsible for any radio or Screen interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

The Wi-Fi Module complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body. This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference;
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

9

Trouble Shooting

Before preparing for repair, check according to the table below to see if you can find the cause of the problem. If you strictly follow the instructions but still can't resolve the problem, you can turn to professional servicemen for help.

<i>Problem</i>	<i>Solution</i>
No sound or picture	<ul style="list-style-type: none"> • Check if the power cord is connected to the wall outlet, and if the wall outlet is energized. • Check if you have pressed the Power button or Standby button. • Check the volume.
Sound and picture are disturbed	<ul style="list-style-type: none"> • Try to find the appliance that affects the LCD monitor and keep it away. • Try plugging the LCD monitor's power plug into another outlet.
The screen cannot be powered on or the power indicator light is off.	<ul style="list-style-type: none"> • Check whether the power supply is connected. • Check whether the power supply plug is properly connected. • Check whether the power outlet has electricity. • Check whether the AC switch is enabled. • Press the reset switch and start the system again.
The unit turns off unexpectedly.	<ul style="list-style-type: none"> • Check whether standby mode is enabled. • Check if there is a power outage in your area. • Turn on the display and see if the problem is with the signal and control system.
Remote Control is not working.	<ul style="list-style-type: none"> • Check whether something is obstructing the display's remote control receiver. • Check whether the batteries in the remote control are installed correctly. • Check whether the batteries need to be replaced.
There is no sound when the HDMI in channel is used.	<ul style="list-style-type: none"> • Remove and insert the HDMI cable again.
The internal PC has no signal.	<ul style="list-style-type: none"> • Check whether the internal PC is properly inserted in the slot. • Check whether the internal PC is in shut down mode. • Press the power button on the internal PC, and manually start up the internal PC.

•LED All-IN -ONE Maintenance

The maintenance of LED display system mainly includes the maintenance of LED display system, communication system and power system.

Precautions for LED display screen

Small pitch LED display screens are high-precision, high-density electronic products, which belongs to precision protection products category. It needs special protections in daily use such as protections from static electricity, dust, moisture and physical impact.

1. Static electricity

LED is an electroluminescence device, which is very sensitive to current. Human body carries static electricity which can break down the internal PN junction. Do not touch the LED display screen without wearing gloves.

2. Dust

The LED display screen is designed according to the indoor IP3X standard, but it contains high-density electronic circuit inside the box. So it is very important that the LED display screen is dust proof and clean it regularly.

3. Water vapor and oil fume

LED beads surface can not be treated with water proofing due to its density and sizing, Moisture environment and water vapor can cause short circuit easily which may resulting product failure or even resulting fire that may burnt the LED display screen in the worst case. Therefore, LED display screen needs protection from water vapor and moisture.

4. Physical impact

The LED display screen is a very delicate device. It needs protection from any kind of physical impact, as it may resulting damage to LED beads or circuit board.

Hisense

Maintenance of LED display screen

1. The control PC, video processor and other equipment shall be placed in a dry and clean environment with good ventilation. Avoid direct sunlight to all the equipment. The ambient temperature should be kept between 18 °C and 25 °C.
2. Do not place any container which containing fluid on the screen, to prevent water damage to the product.
3. Turn off the power supply of the corresponding equipment before unplug the cables to prevent damage to the interface components.
4. Avoid the interference of electromagnetic field (such as non magnetic speaker, loudspeaker, etc.).
5. In order to prevent the instantaneous current pulse from affecting the computer, it is advised to turn on the power of the LED display screen first and then the power of the computer. Turn off the power of the computer before the power of the LED display screen when it is shutting down.
6. Always back up important data and files.
7. Do not plug and unplug the communication plugs to prevent damages.
8. External protection measures shall be taken when laying communication cables.
9. Advice on air-conditioner on site: On-site conditioning and other equipment outlet can not be blown against the product. The temperature shall set at 25± 1 °C.
10. Using Frequency of LED: At least twice a week power-on and more (no less than 2 hours each time). It is suggested that the product can also be kept in standby mode at ordinary times.
11. The LED AIO display shall be well ventilated. The temperature and humidity differences between the inside and outside shall not be greater than 5 degrees;

Maintenance of power system

1. Daily inspection on power supply system is advised to detect any problems on time.
2. Clean the interior of the distribution cabinet with leather blower or air pressure gun regularly. Fasten any loose screws in the distribution cabinet, it is advised to clean it once a month.
3. Shut off the power supply of the system during thunderstorm season or when it is not being used for a long time.
4. The maintenance of power system shall be carried out only by certified electricians.

Transportation and storage

1. Transportation

The LED AIO display is required to be transported after packaging. During transportation, it is strictly prohibited to put the packaging upside down ; Avoid rain and snow ; Keep out of long time sun exposure ; Do not contact with corrosive gas and mechanical damage ; Strictly stacking limitation applied (up to two layers). The transportation of PC and power distribution cabinet should be stable, handle with care. Do not put it upside down, keep out of rain and moisture, avoid mechanical damage as well.

2. Storage

The storage temperature of the display module is : - 20 °C -- 40 °C , and the relative humidity is : 10% --70% RH, without condensation. No acid-base and corrosive gas at the storage place, No strong mechanical vibration and do not close to magnetic field. Free of fire and explosion hazards. The storage time shall not exceed 3 months.

10

Other Information

Specification		HAIO138	HAIO163
Physical Parameter	Pixel Pitch	1.59 mm	1.875 mm
	Pixel Configuration	3 in one SMD	3 in one SMD
	Screen Resolution (W × H)	1,920 × 1,080	1,920 × 1,080
	Screen Dimensions (W × H × D) (mm)	3064x1723x34mm(w/o Screen Frame)	3605x2027x40mm(w/o Screen Frame)
	No. of Cabinet Per Screen (W × H)	6 × 3	6 × 6
	No. of Modules Per Cabinet (W × H)	4 × 3	4 × 1
	Panel Dimensions (W × H × D) (mm)	510x573.75x34mm	600x337.5x40mm
	Screen Weight	195Kg(w/o Screen Frame)	230Kg(w/o Frame)
	Aspect Ratio	16:9	16:9
Optical Parameter	Brightness	500Nit	500Nit
	Contrast Ratio	3,000 : 1	3,000 : 1
	Viewing Angle(H/V)	160°/160°	160°/160°
	Processing	16 bits	16 bits
	Color Temperature - Default	9300	6500
	Color Temperature - Adjustable	2,000~9,300K	2,000~9,300K
Electrical Parameter	Input Voltage	AC 110-240V~50/60Hz	AC 110-240V~50/60Hz
	Average Power Consumption (W/m ²)	50	60
	Max Power Consumption (W/m ²)	≤120	≤150
	Max. Power Consumption(W/Screen)	2200	2800
	Avg. Power Consumption(W/Screen)	1000	1200
	Refresh Rate	3,840Hz	3,840Hz
Operation Conditions	Operating Temp/Humidity	0 - 40 °C/ 10% - 90%RH (no frost)	
	Storage Temp/Humidity	-20 - 40 °C/ 10% - 65%RH (no frost)	
	IP Rating	IP50	IP50
	Expected LED Lifetime (Max)	100,000 Hrs	100,000 Hrs
Connectivity	WIFI	2.4G&5G	2.4G&5G
	Bluetooth	BT5.0	BT5.0
	Input	HDMI 2.0*2	HDMI 2.0*2
	USB	USB 2.0*2	USB 2.0*2
	Audio Output	AUDIO*1/SPDIF*1	AUDIO*1/SPDIF*1
	Earphone	Yes	Yes
	SERVICE Port	Yes	Yes

System	OS	Andriod 9.0	Andriod 9.0
	CPU	4 core A73+Mali-G52 CPU	
	DDR	3GB	3GB
	ROM	64GB	64GB
	Language	Chinese/English(Default)/ French, German, Spanish, Italian, Polish, ,Arabic	
Speaker		Built in 60W (15W*4)	Built in 60W (15W*4)
Servicing		Front	Front
Optional Accessory		Mobile Cart/Wall bracket/OPS/Dongle	
Controller		Embedded	Embedded

The supported video formats are as follows:

Encapsulation	Video decoding				Audio Decoding
	Type	Resolution(Max)	Bit Rate (Max)	Frame Rate(Max)	
.avi	Xvid	1920 × 1080	50Mbps	30fps	Dolby Audio, MPEG1(Layer1,2,3)
.avi .mpg .ts	MPEG2	1920 × 1080	80Mbps	30fps	Dolby Audio, MPEG1(Layer1,2,3)
.ts .mkv .avi .mp4 .flv	H.264	3840 × 2160	160Mbps	30fps	Dolby Audio, AAC, MPEG1(Layer1,2,3)
.avi .mpg .mov	MPEG4	1920 × 1080	50Mbps	30fps	Dolby Audio, MPEG1(Layer1,2,3)
.mkv .mp4 .ts	H.264	3840 × 2160	160Mbps	30fps	Dolby Audio, AAC, MPEG1(Layer1,2,3)
.ts .mkv .mp4	H.265	3840 × 2160	160Mbps	60fps	Dolby Audio, AAC, MPEG1(Layer1,2,3)

Dolby Audio: Support Dolby Digital, Dolby Digital Plus,Dolby AC4, and Dolby TrueHD.



NOTE:

Formats listed above may not all supported by the device as video making tools are not unified.

Signal formats supported by HDMI port	
RGB/60Hz	640 × 480, 800 × 600, 1024 × 768
YUV/50Hz	576i, 576p, 720p, 1080i, 1080p
YUV/50Hz	480i, 480p, 720p, 1080i, 1080p
YUV/24Hz 25Hz 30Hz	3840 x 2160, 4096 x 2160
YUV420/50Hz 60Hz	3840 x 2160, 4096 x 2160
RGB444/50Hz 60Hz	3840 x 2160, 4096 x 2160
RGB444/50Hz 60Hz	3840 x 2160, 4096 x 2160



NOTE:

HDMI standard and HDMI enhance are supported by the device. HDMI standard is the default, which only supports part of formats listed above. HDMI enhance supports all formats listed above. If HDMI enhance is needed, you can tab menu under HDMI Version and select HDMI enhance.

11

Installation Guideline (HAIO138)

• Installation environment requirements

1. Before the installation of LED display screen, it is necessary to confirm the site environment. The site need to be decoration and the ground has been cleaned up.
2. Temperature on site: 0-30 degrees;
3. Humidity on site: no condensation, below 60% RH;
4. Installation and maintenance personnel must be trained and qualified before they can go on duty. In the process of installation and maintenance, attention should be paid to personal safety.
5. The installation of products should be carried out according to the requirements, with light handing to avoid damage caused by external force or product collision.
6. When installing the product, please wear electrostatic gloves to avoid dirty hands and sweat sticking to the product causing quality problems.

• Installation

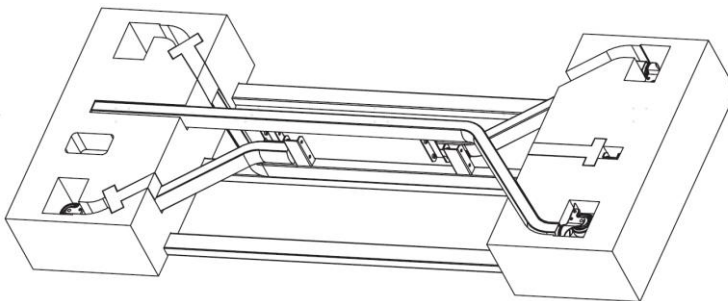
1. Installation of the MOBILE CART

1.1 Overview of the whole structure.



1.2 The MOBILE CART will be separated into 5 parts.

Unpack and check the integrity of the trolley support, including three beams, left and right columns, total of five parts.



Step 1:

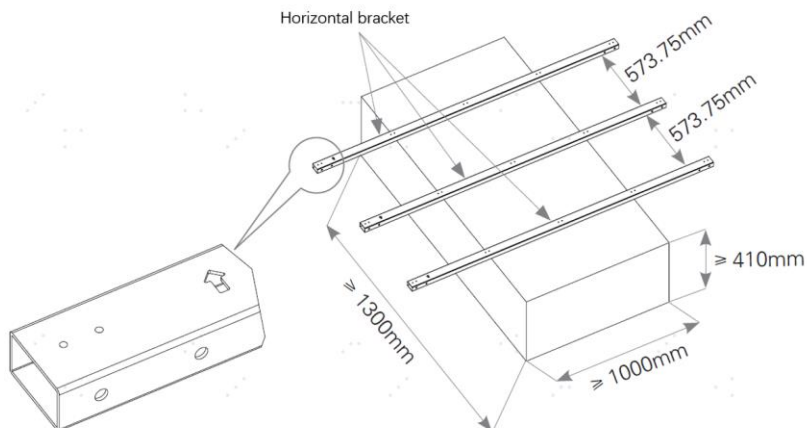
As shown in the figure below, use the existing worktable or the packing box as temporarily worktable, with a length not less than 1300mm, a width not less than 1000mm, a height not less than 410mm, and lay a protective worktable cloth.

• Installation Steps of the MOBILE CART

Step 2:

Place the three Horizontal beams on the installation worktable according to the direction shown in the figure.

Note: the arrow face is upward, the arrow direction of the three beams are the same, and the distance between these three beams is about 573.75mm.



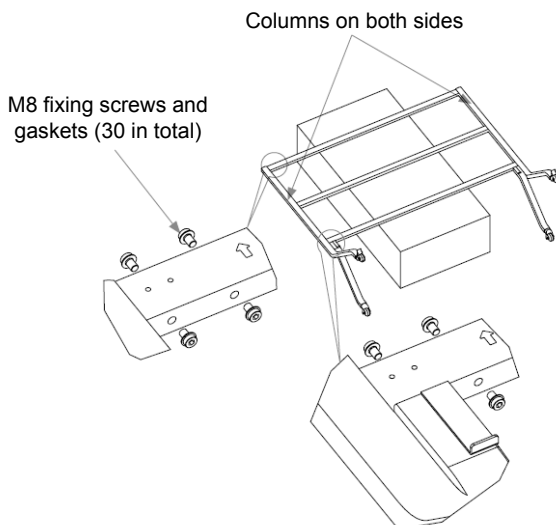
Step 3:

The arrow direction of the crossbeam is the Top side direction of the Mobile Cart. According to the direction shown in the figure, insert the installation screws on the left and right pillars of the Mobile Cart into the crossbeam, and then fix the 22 Pcs M8×25 fixing screws and gaskets connecting these five parts (do not fix them too tightly for the time being).

➡ NOTE:

It is recommended that two people install the left and right sides at the same time to maintain balance. At the same time, the position of aligning the three beams needs to be accurate, and the two people should keep synchronized.

In the up-down direction of the left and right columns, put the two L-shaped auxiliary support hooks upward as shown in the figure. Put the Mobile Cart upright, and tighten 22 fixing screws after checking that there is no abnormality.

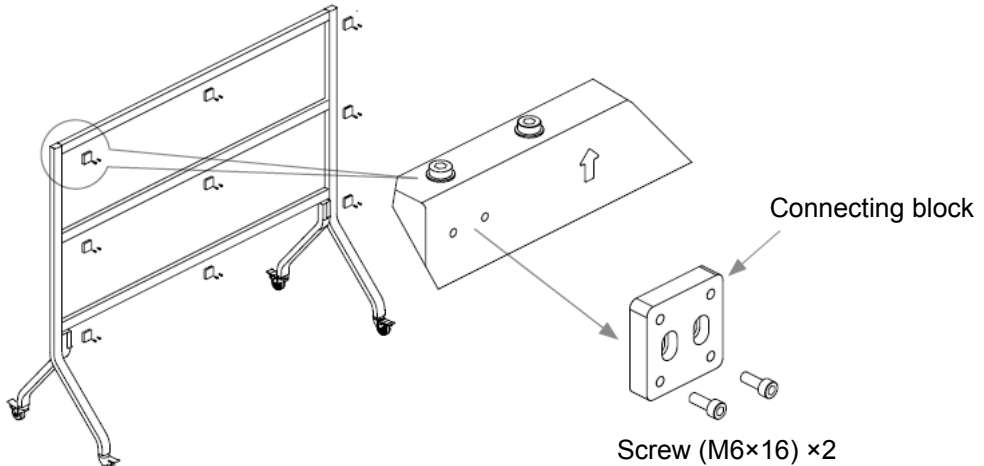


Step 4:

Fix the connecting blocks (in another storage box) on the beam with 2 Pcs **M6×15** screws according to the direction shown in the figure. Total of 9 connecting blocks and 18 screws are fixed at intervals as shown in the figure.

NOTE:

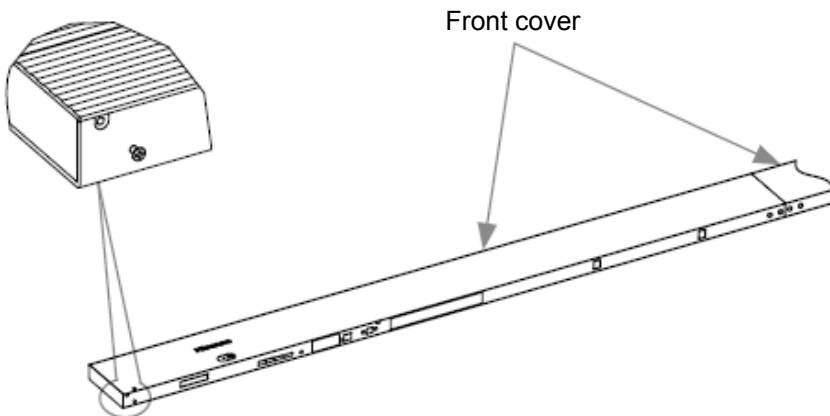
During the fixing process, the connecting blocks is in a natural drooping state. After fixing, the screw head sinks into the groove of the connecting blocks, and the upper and lower planes of the connecting blocks should be basically flush with the upper and lower planes of the beam.



Step 5: Bottom Beam(Media Bar) Assembly

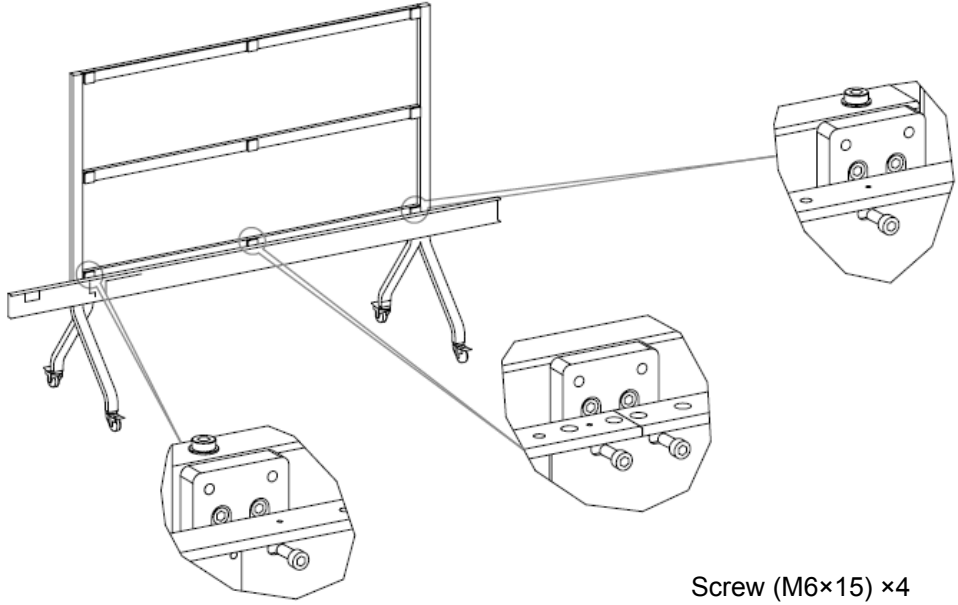
(1)Unpack and check the integrity of components, including two upper front shells, left and right side frame shells, and a total of five components of the bottom beam(Media Bar) (Including front left cover and front right cover) ;

(2)Take out the assembled bottom beam(Media Bar), as shown in the figure, remove the (M3×6)*13 PCS small Philips screw from bottom front edge of control bar. Then remove the two front aluminum covers.



Place rest Bottom Beam(media bar) on cart frame shelf hooks.

Install 4 Pcs **M6×15** hex socket screws with washers through control bar into bottom mounting blocks. Level and tighten bottom row connecting blocks to frame once control bar is attached to blocks.



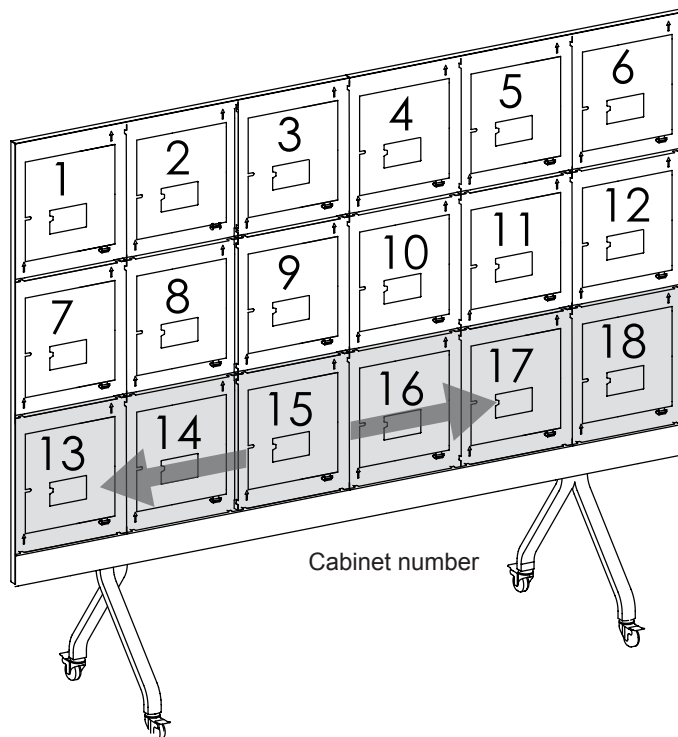
Screw (M6×15) ×4

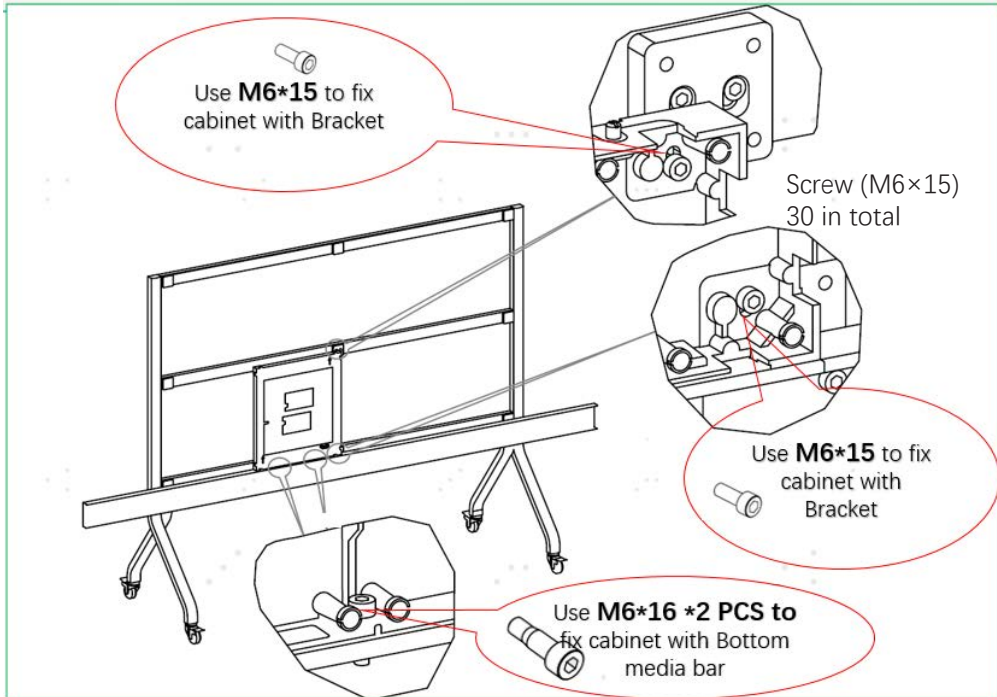
2. Cabinet Assembly

The overall shape after assembly is as follows:

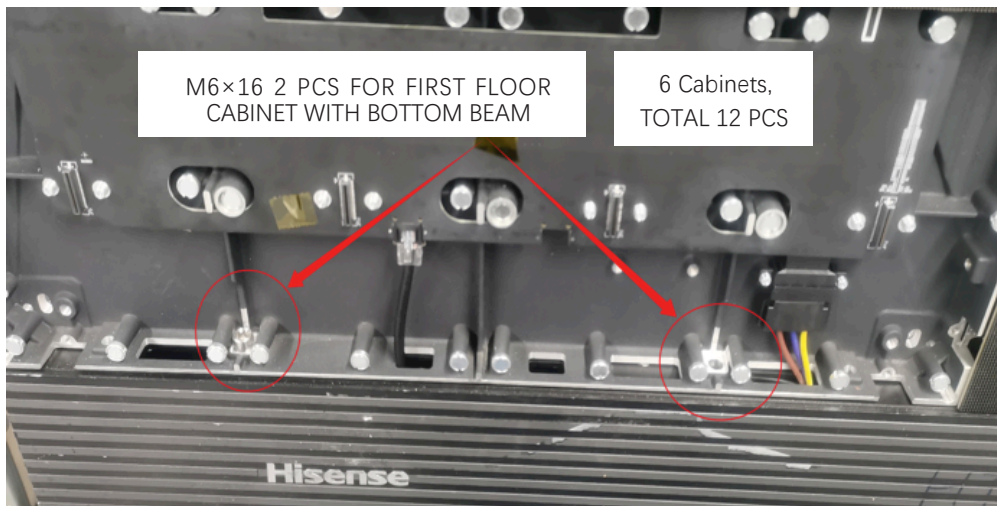


- (1) Take out cabinet No. 13-18 in the bottom row. The serial number of each cabinet is as shown in the Figure.
- (2) Fix bottom row of cabinets on the bottom beam at first, and then fix No. 15 cabinet (or No. 16 cabinet) according to in the order from middle to both sides, and place the cabinets on the bottom beam (Media Bar). Use 2 pcs silver M6 x 16mm hex socket screws as shown in the Figure. Arrows on cabinets facing up. Use 5mm hex wrench (be careful not to lock it).
- (3) Then, use the two black M6 x 15mm hex socket screws as shown in the Figure to respectively mount the back of the cabinet with the connecting blocks of the first cross beam and the connecting block of the second beam. Use 5mm hex wrench

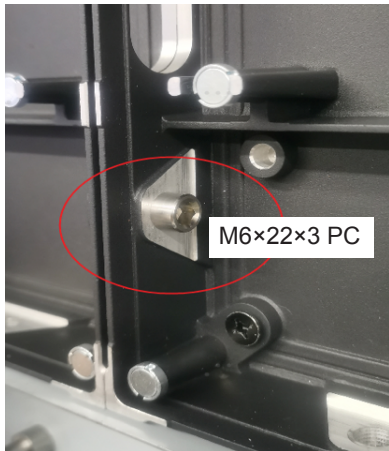
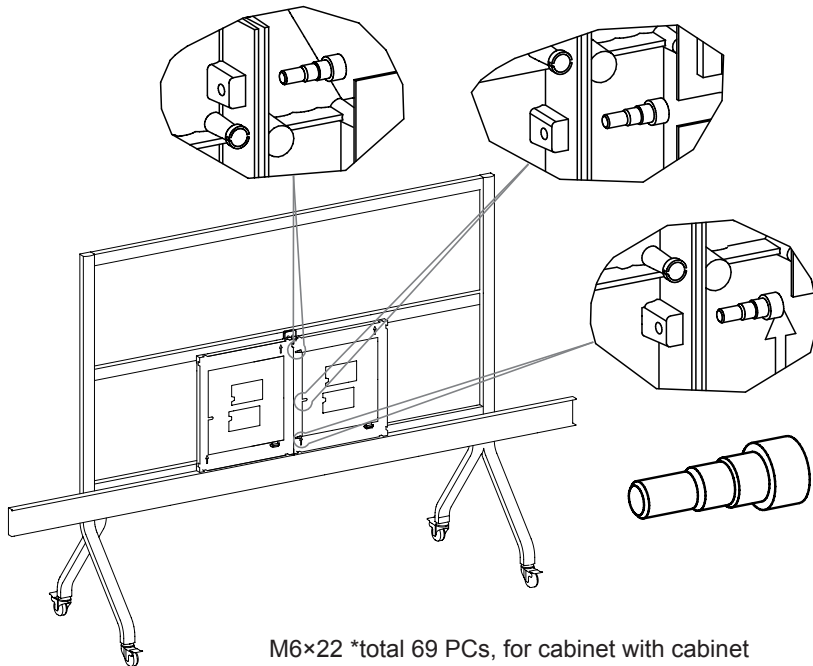




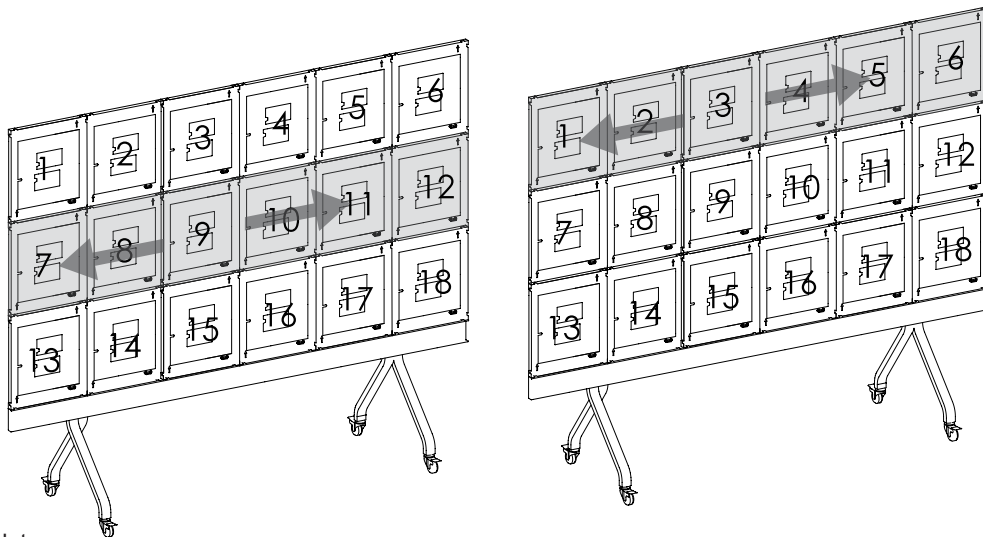
Fixation between cabinet and bottom beam (Media Bar)



- (4) Use the same method to fix No. 16 cabinet (or No. 15 cabinet). Then use three special silver M6 x 22mm set screws shown in the Figure to attach cabinets to cabinets from bottom center outward. Hand tighten. Use 6mm hex wrench to fix the sides of the two cabinets, adjust the front surface of the cabinet and the flatness of the upper side, and then tighten the screws. You can also pre-connect the sides of No. 15 and No. 16 cabinet to form a set of cabinets, and then fix to the bottom beam on the whole.



- (5) Lock the screws between No.15 and No.16 cabinets and the connecting blocks in sequence, and then respectively lock the screws between the two cabinets and the bottom beam;
- (6) Fix No. 14, No. 17, No. 13 and No.18 cabinet in sequence according to the above method.
Note:
 If there is no rear connecting block behind the corresponding position of cabinets, then no need to fix the screws.
- (7) Check the flatness of the cabinet, need to check all the positions (front, rear, left and right) of the cabinet and the bottom beam.
- (8) Fix the cabinets in the second and third rows in the order of middle outward and upward.
Note:
 The lower surface of the second row of cabinets is connected with the upper surface of the first row of cabinets, and the lower surface of the third row of cabinets is connected with the upper surface of the second row of cabinets. Fix with M6×22 screws and check the flatness of cabinet, and the segment difference between the left side and the right side of each row shall be kept uniform.



Note:

In the above installation process, if the deviation between the cabinet and the screw position of the connecting block is too large to be fixed, there is need to loosen the two screws of the connecting block and the mobile cart frame in Page- Step 4, so that the connecting block and the surrounding cabinets can be connected normally, and then tighten the above-mentioned screws.

3. Wiring -- Before wiring operation, check that the power cord is in the unconnected state

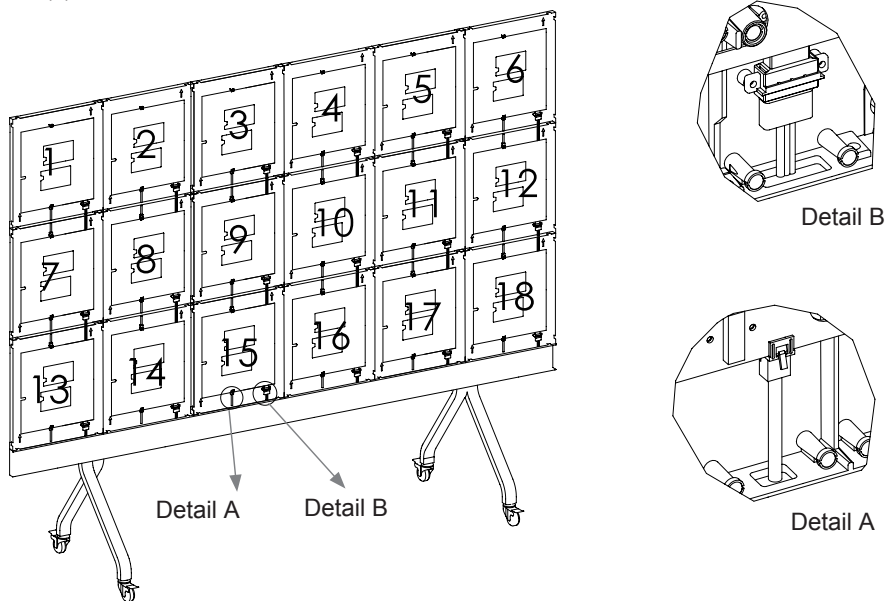
(1)Wiring between cabinets.

In columns, Connect the network cables and power cables of HUB board at the corresponding position, as shown in the Figure.

(2)Wiring between No. 1strow of cabinets and the bottom beam

Pass the network cable and power cable on the bottom beam, and connect to the corresponding socket located at the first row cabinets' HUB board.

(3)Power-on check.

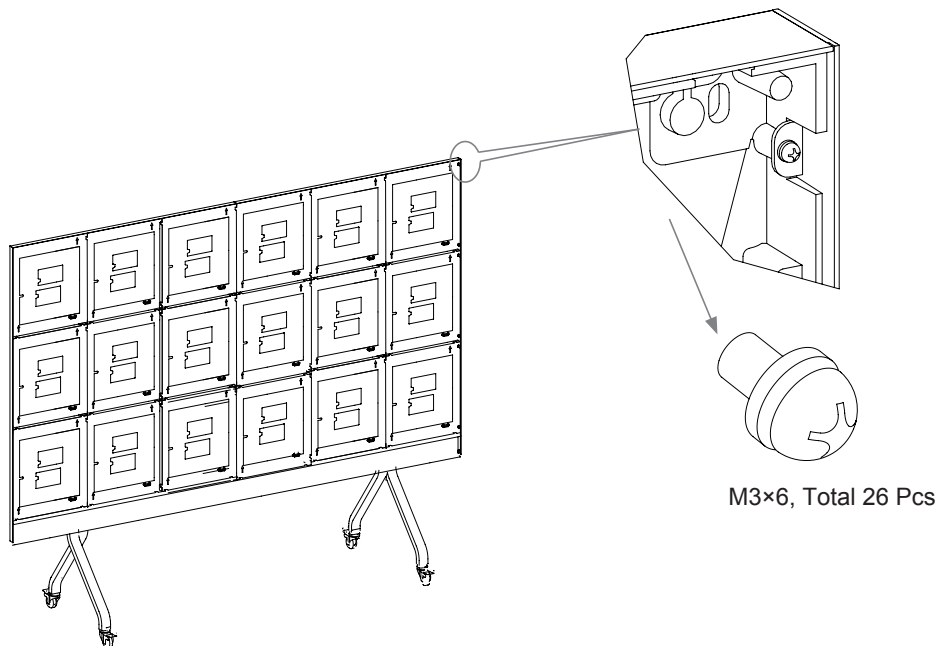


4. Installation of side frame and upper frame

(1)Install front frame 12 pieces of M3 M3x6screws in total.

(2)Install left front frame, 7 pieces of M3 M3x6screws in total.

(3)Install right front frame, 7 pieces of M3 M3x6screws in total.



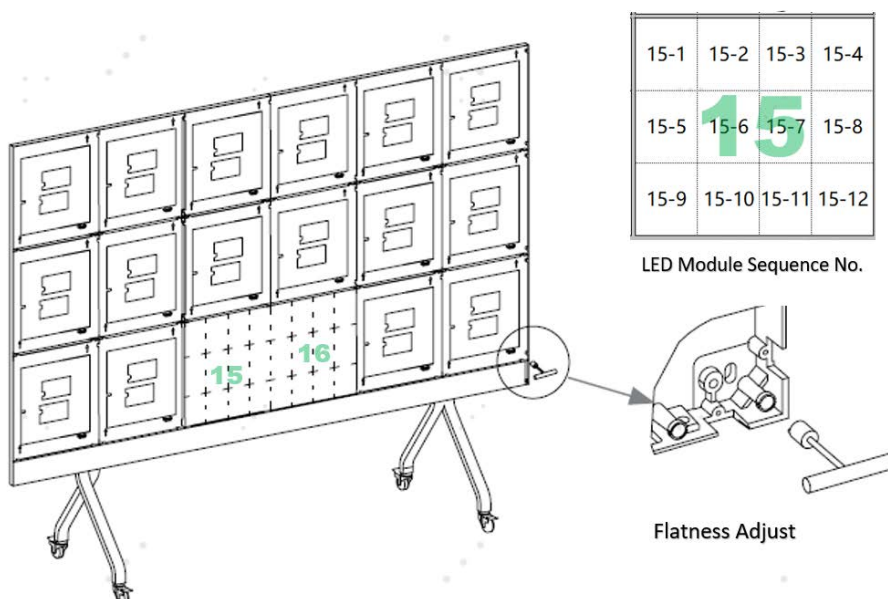
5. LED Module Assembly

- (1) Check the cabinet packaging of LED module.
- (2) The LED module installation should be after finished of all cabinets' installation, power and network cables connection according to the sequence number. LED module sequence is the same as marked cabinet sequence. Bottom middle outward and upward
- (3) Install the LED module from the first row. Start installation at the junction of No. 15 cabinet and No. 16 cabinet in the order from the middle to the sides, and then install the left-most and right-most LED modules.

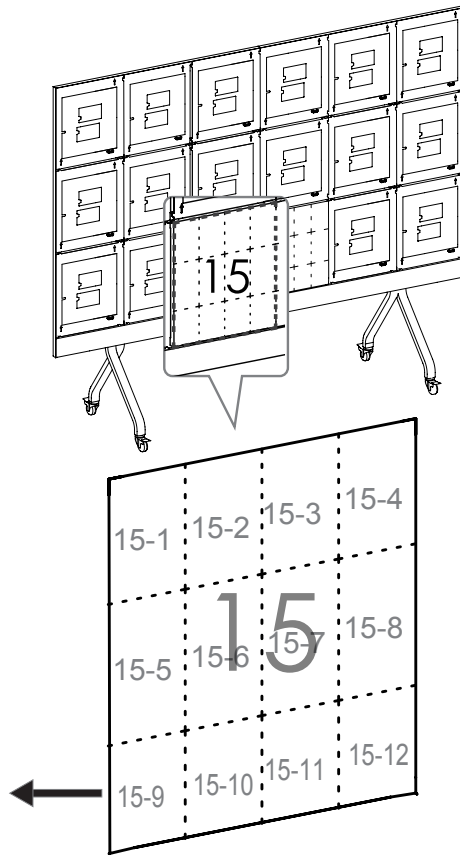
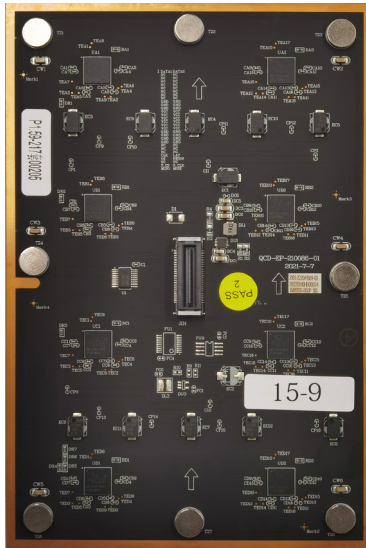
Note:

That the upper surface of the bottom beam (the mediabar where the PCB is installed) as the reference horizontal datum level. The lower surface of the LED module shall be close to the upper surface of the bottom beam.

- (4) Check the flatness of the surface of the splicing LED module. If there exists height difference at the splicing position, there is need to use the tool shown in the Figure to adjust the magnet height on the die-casting cabinet until the LED module is level with other LED modules after installation. Check the alignment of the leftmost and rightmost sides of the die-casting cabinet. After confirming that there is no problem, install the second and third rows.



LEDModule S/N



Top

1-1	1-2	1-3	1-4	2-1	2-2	2-3	2-4	3-1	3-2	3-3	3-4	4-1	4-2	4-3	4-4	5-1	5-2	5-3	5-4	6-1	6-2	6-3	6-4
1-5	1-6	1-7	1-8	2-5	2-6	2-7	2-8	3-5	3-6	3-7	3-8	4-5	4-6	4-7	4-8	5-5	5-6	5-7	5-8	6-5	6-6	6-7	6-8
1-9	1-10	1-11	1-12	2-9	2-10	2-11	2-12	3-9	3-10	3-11	3-12	4-9	4-10	4-11	4-12	5-9	5-10	5-11	5-12	6-9	6-10	6-11	6-12
7-1	7-2	7-3	7-4	8-1	8-2	8-3	8-4	9-1	9-2	9-3	9-4	10-1	10-2	10-3	10-4	11-1	11-2	11-3	11-4	12-1	12-2	12-3	12-4
7-5	7-6	7-7	7-8	8-5	8-6	8-7	8-8	9-5	9-6	9-7	9-8	10-5	10-6	10-7	10-8	11-5	11-6	11-7	11-8	12-5	12-6	12-7	12-8
7-9	7-10	7-11	7-12	8-9	8-10	8-11	8-12	9-9	9-10	9-11	9-12	10-9	10-10	10-11	10-12	11-9	11-10	11-11	11-12	12-9	12-10	12-11	12-12
13-1	13-2	13-3	13-4	14-1	14-2	14-3	14-4	15-1	15-2	15-3	15-4	16-1	16-2	16-3	16-4	17-1	17-2	17-3	17-4	18-1	18-2	18-3	18-4
13-5	13-6	13-7	13-8	14-5	14-6	14-7	14-8	15-5	15-6	15-7	15-8	16-5	16-6	16-7	16-8	17-5	17-6	17-7	17-8	18-5	18-6	18-7	18-8
13-9	13-10	13-11	13-12	14-9	14-10	14-11	14-12	15-9	15-10	15-11	15-12	16-9	16-10	16-11	16-12	17-9	17-10	17-11	17-12	18-9	18-10	18-11	18-12

Bottom

Column 1 Column 2 Column 3 Column 4 Column 5 Column 6

(5) Conduct power-on check during the installation of LED modules as required. Finally, conduct overall power-on check.

REMARK:

1. The No.1, 2, 3...18 , Represent the sequence number of Cabinet;
2. The 1-1, 1-2, 1-3 ...1-12 represent the module sequence number on Cabinet 1.

For Example:

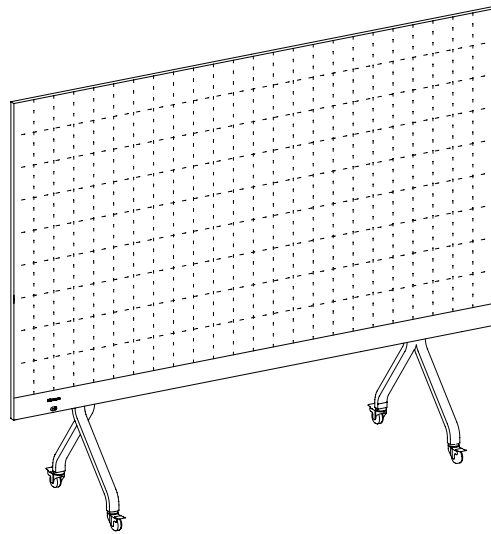
1-1 corresponds to the upper left corner of the Cabinet 1 ;

1-4 corresponds to the upper right corner of the Cabinet 1 ;

1-9 corresponds to the lower left corner of the Cabinet 1, and 1-12 corresponds to the lower right corner of the Cabinet 1.

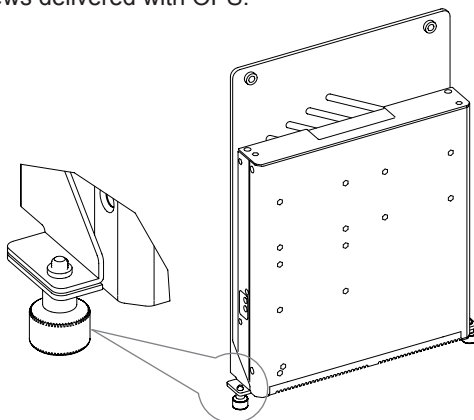
6. Bottom Beam Assembly

Install the left front cover and right front cover back. Use 6 pieces of M3 screws in the left front cover and 7 pieces of M3 screws in the right front cover.

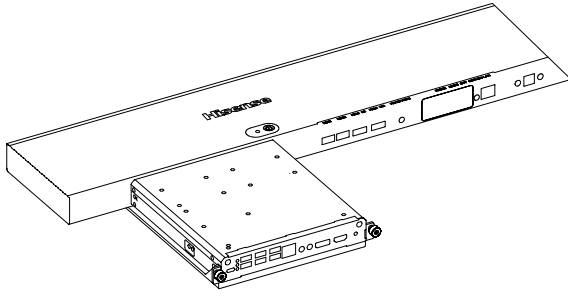


7. OPS Assembly

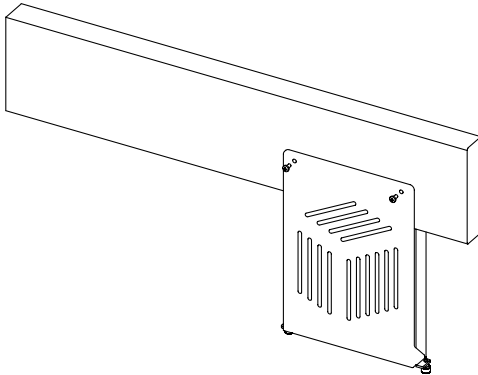
- (1) For users who have customized OPS components, if there is need to assemble OPS, they should firstly properly assemble OPS PC and OPS bracket using the two knobs and screws delivered with OPS.



- (2) Align the OPS computer socket with the reserved socket on the ground side of the bottom beam according to the direction shown in the Figure, and insert it in place upward. Note that there is need to hold the screws with hands before fixing them.



- (3) Use two pieces of M4 screws and fasten the bracket to the rear surface of the bottom beam.



Description:

1. During the above-mentioned installation process, if the deviation between the cabinet and the screw position of the connecting block is too large to be fixed, there is need to loosen the two fixing screws of the connecting block and the mobile bracket in Page 25-Step 4, so that the connecting block and the surrounding cabinets can be connected normally, and then tighten the above-mentioned screws.
2. Due to different packaging forms, the products packaged in the integrated flight case are divided into two parts, i.e. left and right, because the display box is assembled in advance, and the installation method is basically the same.

Wall-mounted Bracket

1. Wall-mounted Structural Accessories

1527mm 30×30 aluminum bracket × 8

1712mm 30 ×30 aluminum bracket× 4

L-shaped 30 bracket iron corner connector × 48

M6 × (14) hexagon socket head cap screw× 72PCS



M6 T-Nut ×72

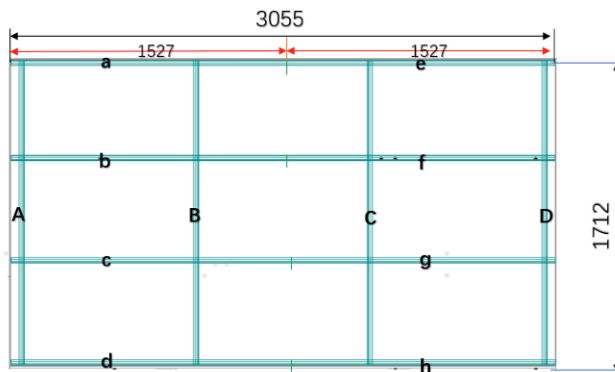
Slotted bracket connector ×8



M4 Slotted profile connector fixing screws ×32



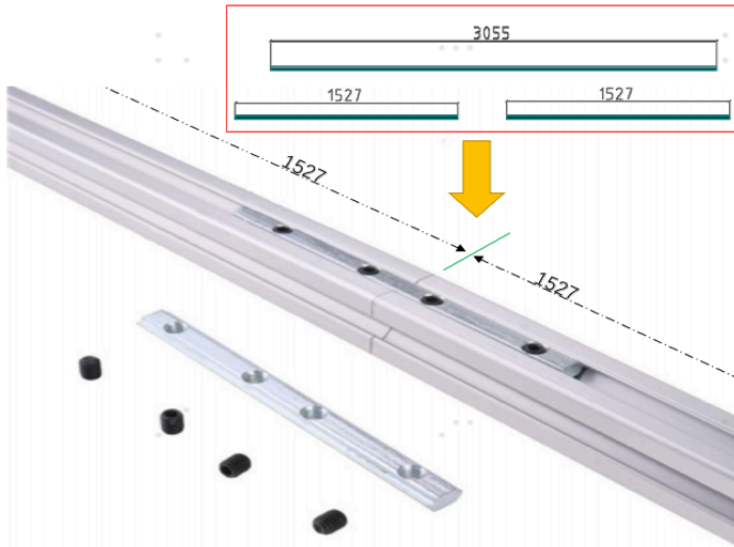
Overall appearance diagram of wall-mounted structure (size: mm):



- 1527mm×8 Pcs: a/b/c/d/e/f/g/h;
- 1712mm×4 Pcs: A/B/C/D

2. BracketStructure Installation

- 1) Use bracket connectors to connect 2 pieces of profiles with the length 1527, with 2 pieces used for each group (connection diagram as shown below)

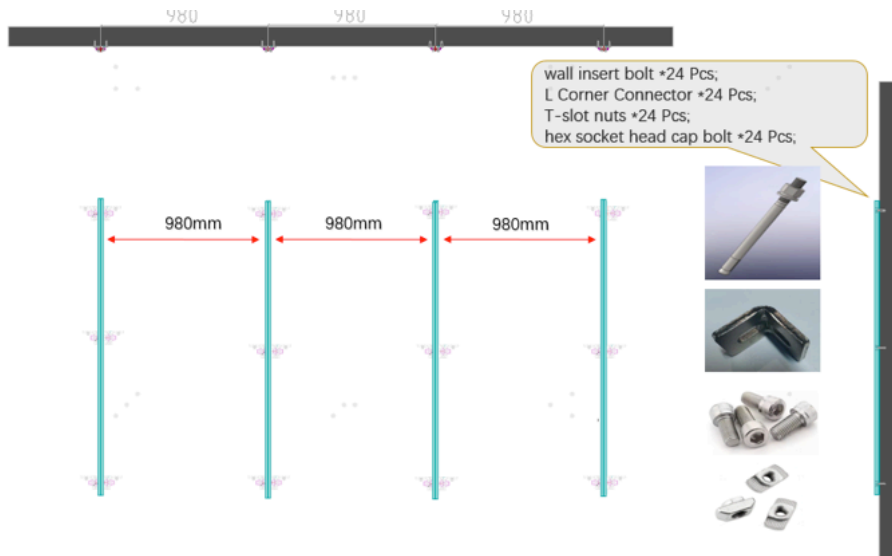


- 2) Install the bottom bracket rod.

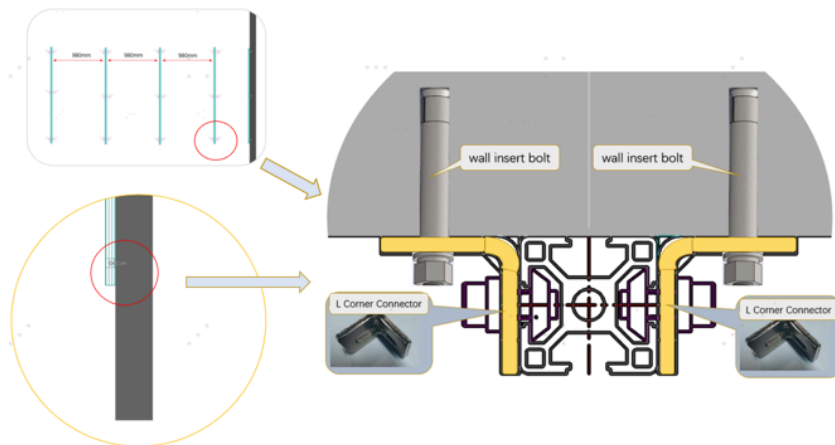
Installation preparation: Please use a spirit level or a laser level meter to ensure that the bottom bracket rod keeps vertical and flat.



Installation /Step1: Fix four vertical bracket rods with the length of 1712 to the wall by use of expansion bolts, profile iron corner connectors, and M6×14 screws according to the interval size shown in the following Figure.

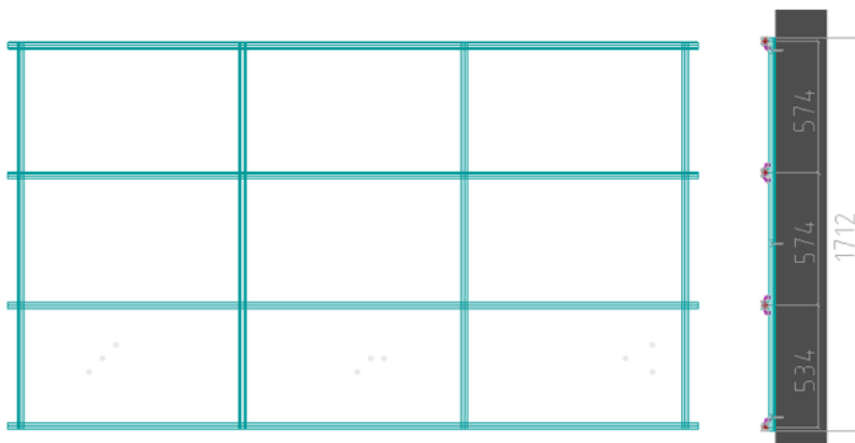


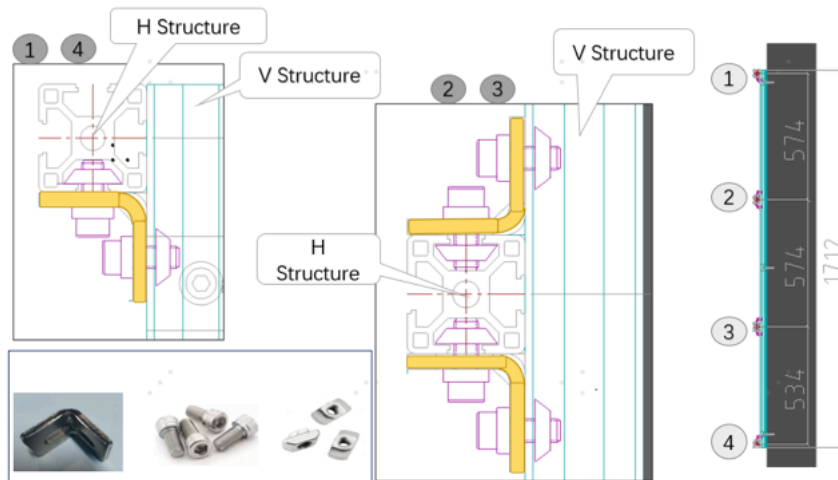
Detailed Drawing:



Installation /Step2: Fix transverse profile rod to the vertical profile rod by use of profile iron corner connectors, and M6×14 screws according to the interval size shown in the following Figure.

Note: The interval size shall be strictly followed.



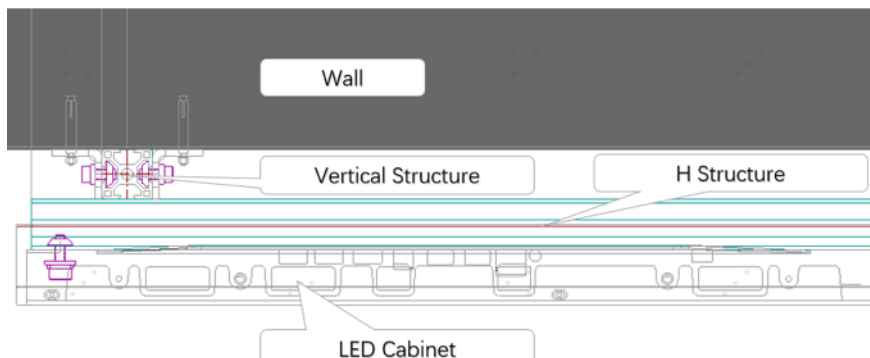


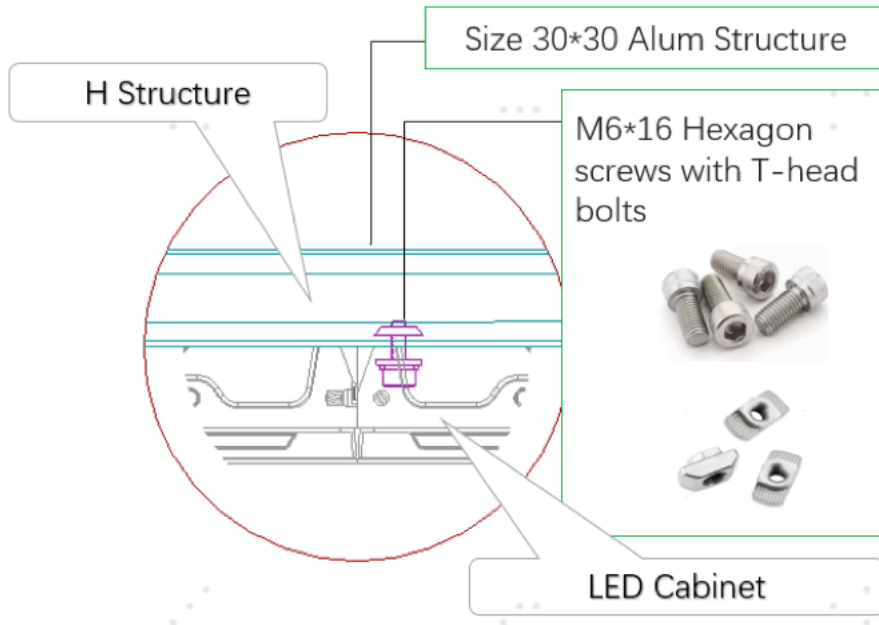
3. Installation of Display Unit Cabinet

After the wall-mounted bracket is installed, follow the steps below to install the cabinet in the bracket:

- (1) For the integrated packaging method of flight case, it is required to take out two sets of 3×3 combinations, totaling 18 units of display cabinets.
- (2) Install the first group (i.e. box 1-2-3 / 7-8-9 / 13-14-15, 9 cabinets in total) from the left of the first row at the bottom, and install and fix cabinets in the bracket.
 - For a row of cabinets at the bottom, there is need to put hexagon screws into the cabinet through 4 holes on the upper left, lower left, upper right and lower right. For the cabinets located in the middle and the top, there is need put socket head cap screws into the box through the upper left and upper right holes, and then install the screws on the T-shaped nut.
 - Note that the T-shaped nut needs to be placed in the transverse profile frame in advance).
 - Place the cabinet on the installed profile frame through the adjusting T-shaped nut.
 - Note that screws shall not be totally locked.
 - Check the flatness of cabinet and the connection status of the front and left sides of cabinet. Adjust the levelness and verticality, and then lock screws to secure the cabinet to the profile bracket.
- (3) Install the cabinets in the second group on the right (i.e. 4-5-6/10-11-12/16-17-18, 9 cabinets in total), and fix the cabinets into the brackets.
 - For a row of cabinets at the bottom, there is need to put hexagon screws into the cabinet through 4 holes on the upper left, lower left, upper right and lower right. For the cabinets located in the middle and the top, there is need put socket head cap screws into the box through the upper left and upper right holes, and then install the screws on the T-shaped nut
 - Place the cabinet on the installed profile frame through the adjusting T-shaped nut.
 - Use 9 cabinet set screws to fix 3/9/15 cabinets and two sides of 4/10/16 cabinets at the splicing point of two sets of cabinets on left and right.
 - Check the flatness of cabinet and the connection status of the front and left sides of cabinet. Adjust the levelness and verticality, and then lock screws to secure the cabinet to the profile bracket.

Schematic diagram of cabinet installation:





4. Bottom Beam Assembly

- (1) Take out the already-assembled bottom beam, remove the 13 fixing screws on the ground side, and remove the front cover (left cover and right cover).
- (2) Place the bottom beam under the already-assembled display unit cabinet, and respectively fix the cabinet at the bottom with the bottom beam by use of 12 pieces of M6X16 positioning screws.
- (3) Install the side front shell and front cover and assemble the LED module according to the instructions on page 31 and subsequent relevant pages of the Manual.

Note:

For the integrated packaging of non-flight cases, please install them in sequence according to the installation sequence specified in Page 27 of the Manual, and adjust the stitching accuracy according to the instructions before locking.

1. Preparatory Process

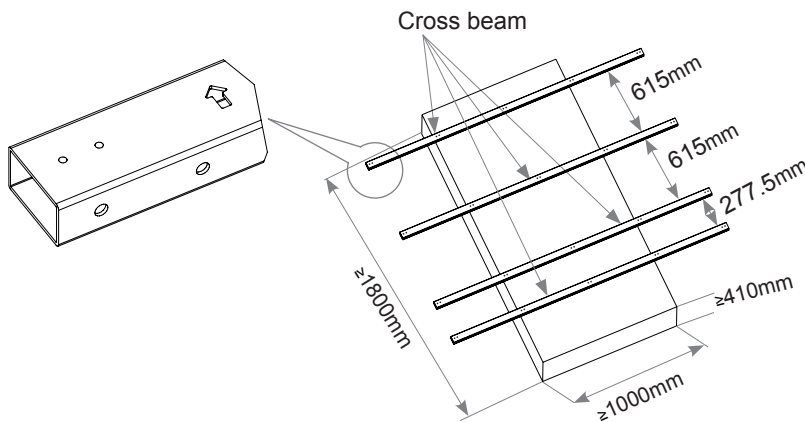
Check the package integrity:

2. Mobile Bracket Assembly

(1) Unpack and check the material integrity of mobile bracket, including four pieces of cross beams, two pieces of columns on the left and right, totaling six components.

(2) Use the existing table top or packing cabinets to temporarily form a table top, with a length of not less than 1800 mm, a width of not less than 1000 mm, a height of not less than 410mm, and pavement of a protective table cloth.

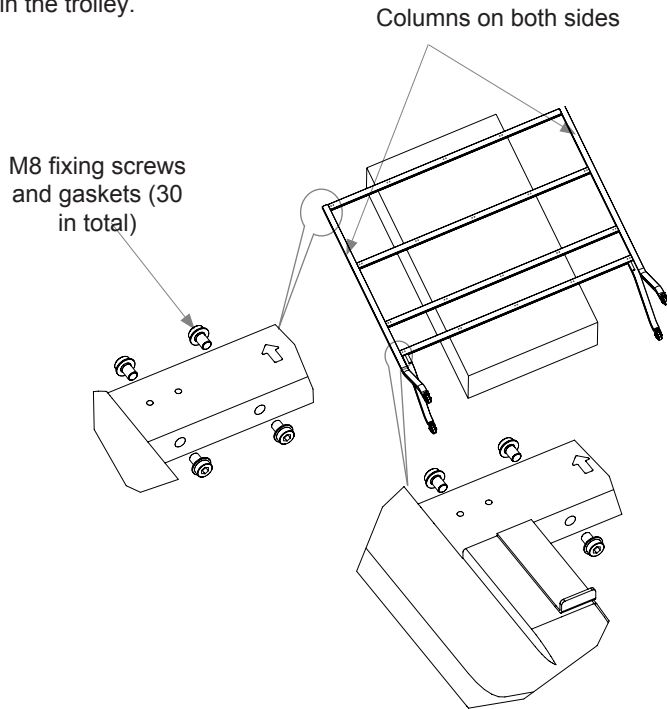
(3) Place four pieces of cross beams on the installation table top according to the direction shown in the Figure. Note: The arrow faces upward, the arrows of the four beams are in the same direction, and the distance between the four beams is about 615mm. The distance between the third piece and the fourth piece is about 277.5mm.



(4) The arrow direction of the cross beam is the upper side direction of the mobile bracket. According to the direction shown in the Figure, insert the mounting tenons on the left and right struts of the mobile bracket into the cross beam, and then fix 30 screws M8×25 fixing screws and washers that connect these six components (avoid fixing them too tightly for the time being).

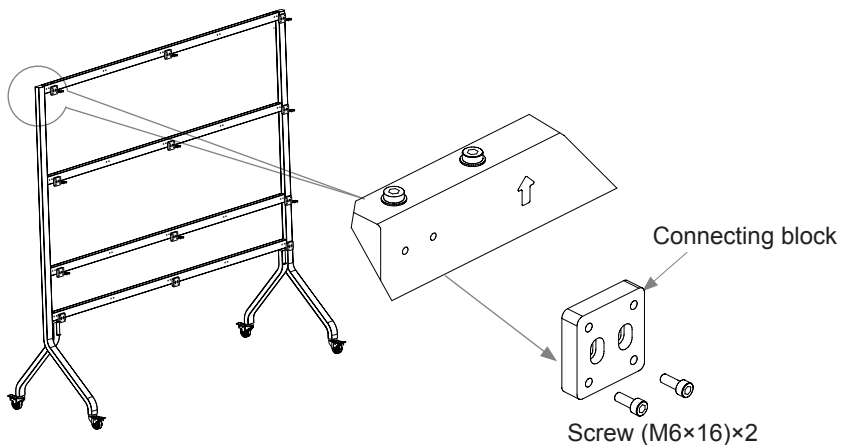
Note: It is recommended that two persons install the left and right sides at the same time in order to maintain balance, and the two persons should keep the same synchronization. In the up and down direction of the left and right columns, as shown in the Figure, allow the two L-shaped auxiliary support hooks to face upward.

(5) Erect the mobile bracket, and fix 30 fixing screws tightly after checking that there are no abnormalities in the trolley.



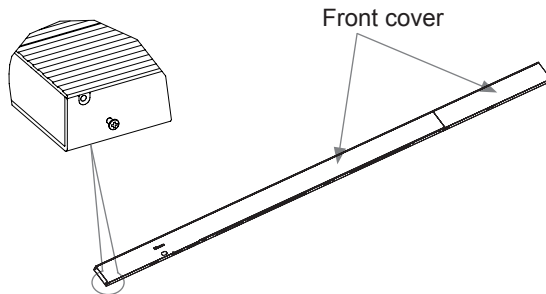
(6) Use 2 pieces of screws M6×16 to fix on the cross beam according to the direction shown in the Figure, and fix the connecting block (in another storage box) with a total of 12 connecting blocks and 24 screws at intervals as shown in the Figure.

Note: During the fixing process, the connecting block is in a natural drooping state. After the fixation is completed, the screw head sinks into the groove of the connecting block, and the upper and lower planes of the connecting block shall be basically flush with the upper and lower planes of the cross beam.

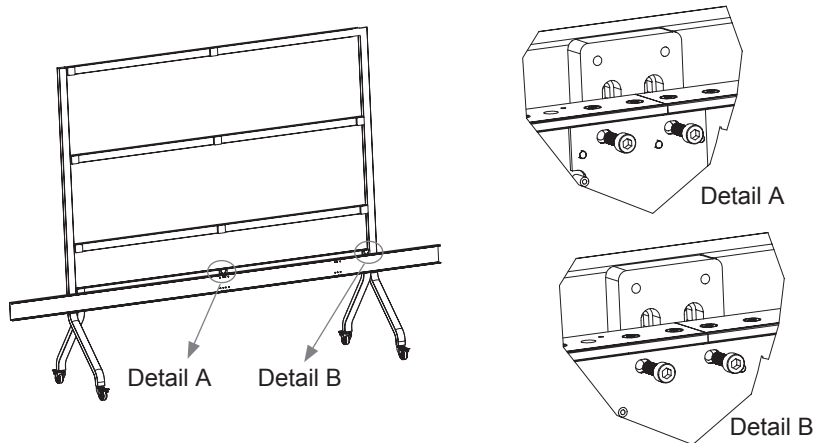


3. Installation of side frame and upper frame

- (1) Unpack and check the integrity of components, including two sections of upper front shells, two side front shells on left and right side, and two sections of bottom beams (including the covers fixed on them), a total of six components.
- (2) Take out the already-assembled two bottom beams, as shown in the Figure, remove 16 fixing screws on the ground side, and remove the front cover (left, middle cover, right cover), while connecting and fixing the two bottom beams with connecting blocks. Put the wires in the left half of the bottom beam that need to be connected to the right half, and pass them through the reserved wire straps according to the wiring positions for fixation and locking.

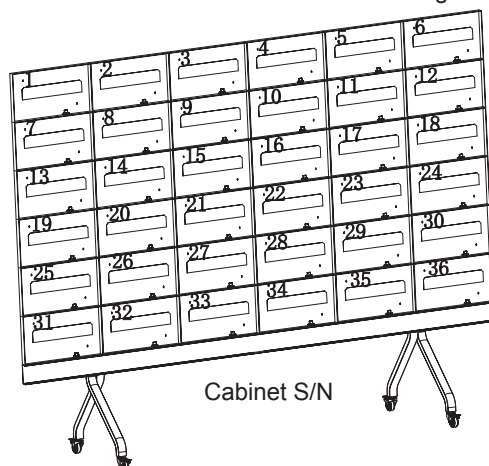


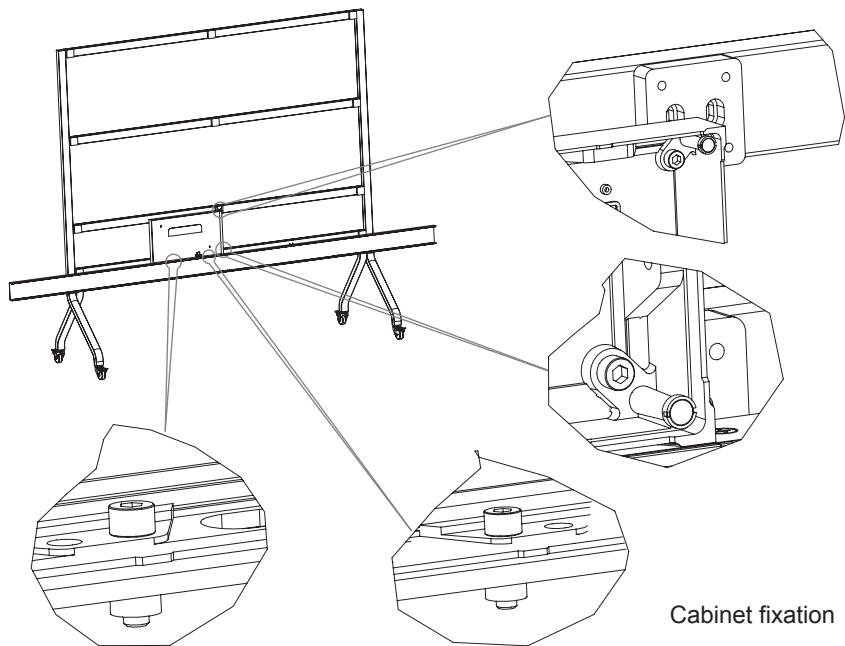
- (3) Place the bottom beam on the auxiliary support hook of the already-assembled mobile bracket, and use 4 pieces of black screws M6×16 to fix it at the three positions shown in the Figure.



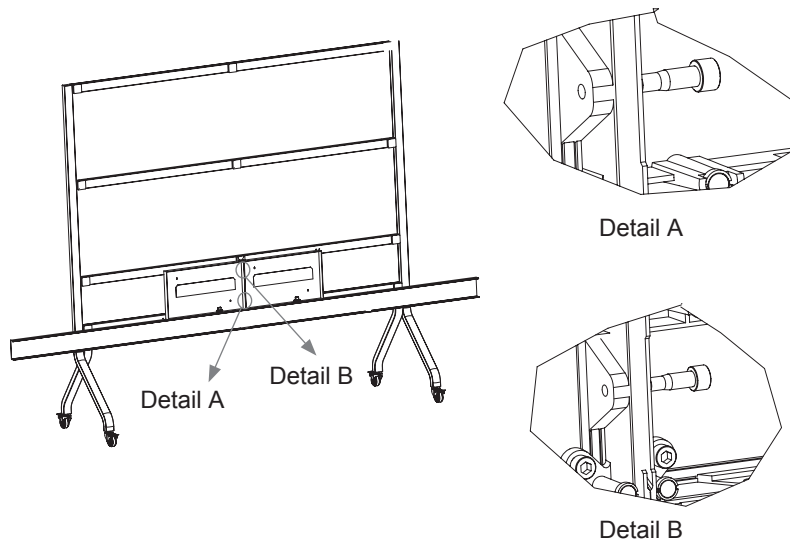
4. Cabinet Assembly

- (1) Take out the six cabinets at the bottom row, 31-36. The number of each cabinet is shown in the Figure.
- (2) Fix the cabinets in the bottom row on the bottom beam at first. Fix No. 33 cabinet (or No. 34 cabinet) in the order of fixing from the middle to both sides. Place the cabinet on the bottom beam and fix the ground side of the cabinet to the upper side of the bottom beam by use of two stainless steel M6 screws as shown in the Figure (be careful not to lock totally).
- (3) Next, use the two black M6 screws shown in the Figure to fix the rear of the cabinet with the connecting block of the first cross beam and the connecting block of the second cross beam.

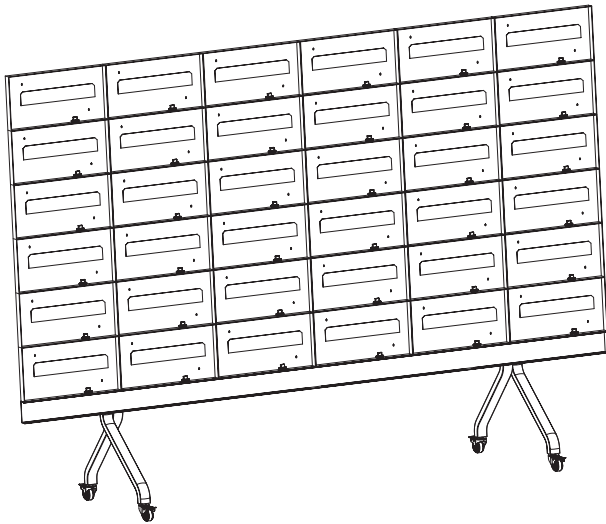




- (4) Use the same method to secure No. 34 cabinet (or No. 33 cabinet). Then use the two stainless steel stepped screws shown in the Figure to fix the sides of the two cabinets, adjust the front surface of the cabinet and the flatness of the upper side, and then tighten the screws. You can also pre-connect the sides of No. 33 and No. 34 cabinet to form a set of cabinets, and then fix to the bottom beam on the whole.
- (5) On the two cabinets of No. 33 and No. 34, it is locked with the screws for fixing the rear connecting block, and with the screws for fixing the bottom beam (Media Bar)



- (6) Fix No. 32, 35, 31, 36 cabinets in sequence in the same way as above. Note that where there is no rear connecting block, there is need to fasten corresponding screws.
- (7) Check the flatness of the cabinet, and check the front, rear, left and right positions of the cabinet and the bottom beam.
- (8) Fix the cabinets in the second row, the cabinets in the third row until the cabinets in the sixth row, in the order of fixing cabinets in the lowest row. At the same time, check the flatness of cabinet, and ensure that the segment difference between the left side and the right side of each row is uniform.



Note: In the above installation process, if the deviation between the cabinet and the screw position of the connecting block is too large to be fixed, there is need to loosen the two fixing screws of the connecting block and the mobile bracket in Page- Step 4, so that the connecting block and the surrounding cabinets can be connected normally, and then tighten the above-mentioned screws.

5. Before wiring operation, check that the power cord is in the unconnected state

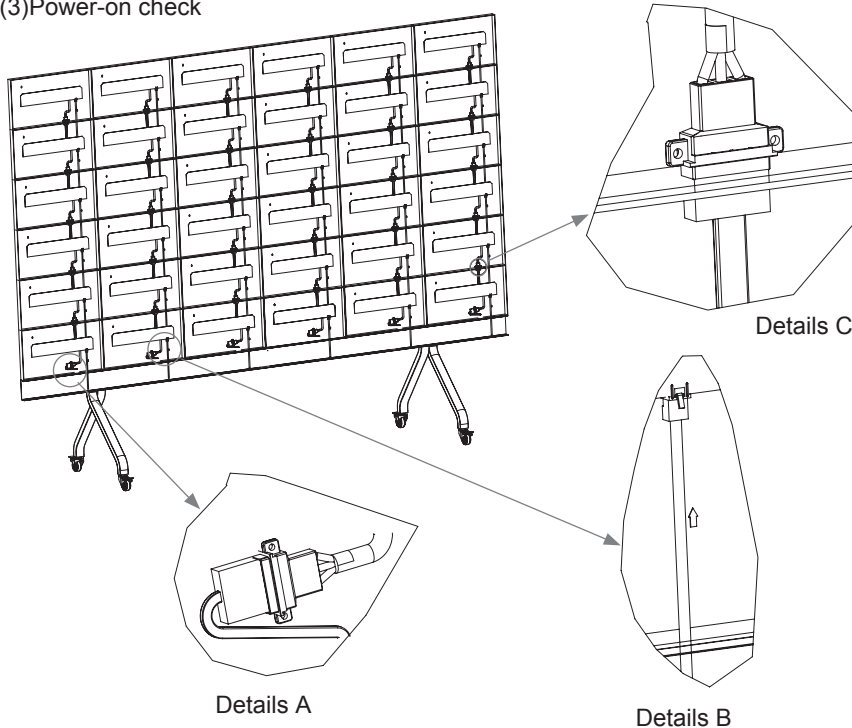
(1)Wiring between cabinets.

Connect, in units of columns, the network cable and power cable at the upper end of HUB board in the lower row of cabinets with the corresponding network cable and power cable socket at the upper and lower ends of HUB board in the upper cabinet, as shown in the Figure.

(2)Wiring between No. 1 row of cabinets and the bottom beam.

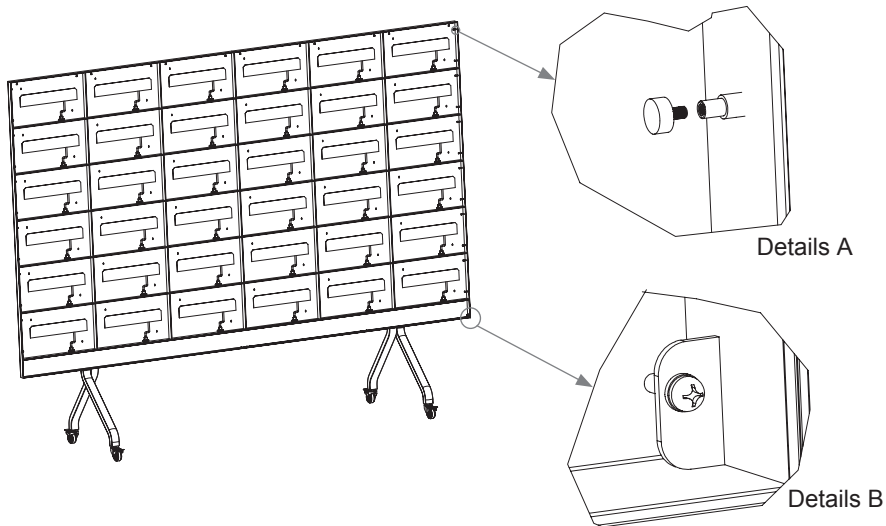
Pass the network cable and power cable of the bottom beam through the top opening of the bottom beam in sequence, and connect to the network cable and power cable socket at the corresponding position at the lower end of the cabinet HUB board in the first row.

(3)Power-on check



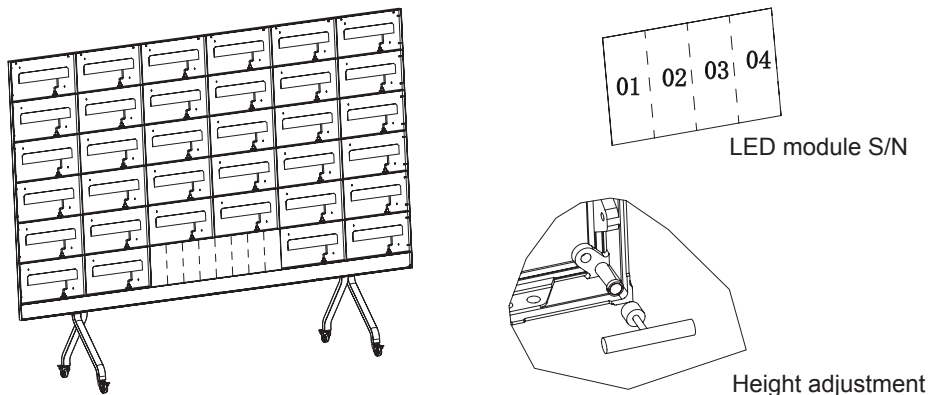
6. Side Front Shell Installation

- (1) For the front cover installation, a total of 12 hand screws are required.
- (2) Left front shell installation, a total of 12 hand screws + 1 pc M3 screw.
- (3) Right front shell installation, a total of 12 hand screws + 1 pc M3 screw.



7. LED Module Assembly

- (1) Check the packaging cabinet of LED module
- (2) The LED module installation should be after finished of all cabinets' installation, power and network cables connection according to the sequence number. LED module sequence is the same as marked cabinet sequence. Bottom middle outward and upward
- (3) Install the LED module from the first row. Start installation at the junction of No. 33 cabinet and No. 34 cabinet in the order from the middle to the sides, and then install the left-most and right-most LED modules. Note:
That the upper surface of the bottom beam (the media bar where the PCB is installed) as the reference horizontal datum level the lower surface of the LED module shall be close to the upper surface of the bottom beam.
- (4) Check the flatness of the surface of the splicing LED module. If there exists height difference at the splicing position, there is need to use the tool shown in the Figure to adjust the magnet height on the die-casting cabinet until the LED module is level with other LED modules after installation.
Check the alignment of the leftmost and rightmost sides of the die-casting cabinet. After confirming that there is no problem, install the second and sixth rows.



Top

1-1	1-2	2-1	2-2	3-1	3-2	4-1	4-2	5-1	5-2	6-1	6-2
1-3	1-4	2-3	2-4	3-3	3-4	4-3	4-4	5-3	5-4	6-3	6-4
7-1	7-2	8-1	8-2	9-1	9-2	10-1	10-2	11-1	11-2	12-1	12-2
7-3	7-4	8-3	8-4	9-3	9-4	10-3	10-4	11-3	11-4	12-3	12-4
13-1	13-2	14-1	14-2	15-1	15-2	16-1	16-2	17-1	17-2	18-1	18-2
13-3	13-4	14-3	14-4	15-3	15-4	16-3	16-4	17-3	17-4	18-3	18-4
19-1	19-2	20-1	20-2	21-1	21-2	22-1	22-2	23-1	23-2	24-1	24-2
19-3	19-4	20-3	20-4	21-3	21-4	22-3	22-4	23-3	23-4	24-3	24-4
25-1	25-2	26-1	26-2	27-1	27-2	28-1	28-2	29-1	29-2	30-1	30-2
25-3	25-4	26-3	26-4	27-3	27-4	28-3	28-4	29-3	29-4	30-3	30-4
31-1	31-2	32-1	32-2	33-1	33-2	34-1	34-2	35-1	35-2	36-1	36-2
31-3	31-4	32-3	32-4	33-3	33-4	34-3	34-4	35-3	35-4	36-3	36-4

Bottom

Column 1 Column 2 Column 3 Column 4 Column 5 Column 6

(5) Conduct power-on check during the installation of LED module as required. Finally, conduct overall power-on check.

REMARK:

1. The No.1, 2, 3...18 , Represent the sequence number of Cabinet;
2. The 1-1, 1-2, 1-3 ...1-12 represent the module sequence number on Cabinet 1.

For Example:

- 1-1 corresponds to the upper left corner of the Cabinet 1 ;
- 1-4 corresponds to the upper right corner of the Cabinet 1 ;
- 1-9 corresponds to the lower left corner of the Cabinet 1, and 1-12 corresponds to the lower right corner of the Cabinet 1.

8. Bottom Beam Assembly

Install the left front cover and right front cover back.

