



F400N Series LED Monitor

User's Manual



Foreword

General

This manual introduces the installation, functions and operations of the F400N series display equipment (hereinafter referred to as "the Device"). Read carefully before using the device, and keep the manual safe for future reference.

Models

This manual applies to Dahua F400N Series monitor models . For example : DHI-LM50-F400N.

Safety Instructions

The following signal words might appear in the manual.

Signal Words	Meaning
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results.
 TIPS	Provides methods to help you solve a problem or save time.
 NOTE	Provides additional information as a supplement to the text.

Revision History

Version	Revision Content	Release Time
V1.0.0	First release.	July 2025

Privacy Protection Notice

As the device user or data controller, you might collect the personal data of others such as their face, fingerprints, and license plate number. You need to be in compliance with your local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures which include but are not limited: Providing clear and visible identification to inform people of the existence of the surveillance area and provide required contact information.

About the Manual

- The manual is for reference only. Slight differences might be found between the manual and the product.
- We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. For detailed information, see the paper user's manual, use our CD-ROM, scan the QR code or visit our official website. The manual is for reference only. Slight differences might be found between the electronic version and the paper version.
- All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. Please contact customer service for the latest program and supplementary documentation.
- There might be errors in the print or deviations in the description of the functions, operations and technical data. If there is any doubt or dispute, we reserve the right of final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and company names in the manual are properties of their respective owners.
- Please visit our website, contact the supplier or customer service if any problems occur while using the device.
- If there is any uncertainty or controversy, we reserve the right of final explanation.

Important Safeguards and Warnings

This section introduces content covering the proper handling of the device, hazard prevention, and prevention of property damage. Read carefully before using the device, and comply with the guidelines when using it.

Operation Requirements



WARNING

- Do not tread on or squeeze the power line, especially the plug or connection point of the power line to the product.
- Please firmly grasp the plug of the connecting line when inserting and removing. Pulling the connecting line might cause damage to it.
- Turn off the power when cleaning the product.
- Do not touch any fixed components inside the product. Failure to do so can result in damage to the product or person.



- Operating temperature: 0 °C to +40 °C (+32 °F to +104 °F).
- Use the device under allowed humidity and temperature conditions.
- Make sure that the power supply of the device works properly before use.
- Do not pull out the power cable of the device while it is powered on.
- Only use the device within the rated power range.
- Transport, use and store the device under allowed humidity and temperature conditions.
- Prevent liquids from splashing or dripping on the device. Make sure that there are no objects filled with liquid on top of the device to avoid liquids flowing into it.
- Do not disassemble the device.
- Notice and observe all the warnings and illustrations.
- Make sure the power is turned off and the connecting lines are removed when moving the product. Do not use uncertified connecting lines, which might cause equipment failure.
- Avoid collisions with the product. This may cause equipment failure.
- Please turn off power for safety if not using the product for a long time.

Installation Requirements



WARNING

- Connect the device to the adapter before power on.
- Strictly abide by local electrical safety standards, and make sure that the voltage in the area is steady and conforms to the power requirements of the device.
- Do not connect the device to more than one power supply. Otherwise, the device might become damaged.
- Do not hang or lean on the product. Doing so can cause the product to fall or become damaged. It may also cause injury to people. Pay special attention when children are nearby.

- If the product is installed on the wall, please make sure the wall's load bearing capacity is sufficient. To avoid falling and injuring people, install according to the included instructions with mounting hardware.
- Do not put the product in flammable or corrosive gaseous environment, which may cause fire or damage the product. Placing the product in proximity to flammable gas can easily result in a dangerous explosion.



- Observe all safety procedures and wear required protective equipment provided for your use while working at heights.
- Do not expose the device to direct sunlight or heat sources.
- Do not install the device in humid, dusty or smoky places.
- Install the device in a well-ventilated place, and do not block the ventilator of the device.
- Use the power adapter or case power supply provided by the device manufacturer.
- The power supply must conform to the requirements of ES1 in IEC 62368-1 standard and be no higher than PS2. Note that the power supply requirements are subject to the device label.
- Connect class I electrical appliances to a power socket with protective earthing.
- Do not block the ventilation opening. Install the product according to this manual.
- Do not place any items on the product. The product may be damaged if foreign objects enter the internal unit.
- Failure to properly secure all screws during installation can result in a fall of the product. Ensure all mounting hardware and other installation accessories are properly secured during installation.
- Mounted height: < 2m.
-  Protective earthing terminal. The apparatus should be connected to a mains socket outlet with a protective earthing connection.
- ~ Alternating Current.

Maintenance Requirements



WARNING

- Cut off power and the connecting line immediately and contact the after-sales service center if the product or the connecting line is damaged for some reason. Continued use without maintenance might cause smoking or off-odor.
- Please turn off power or unplug the power cable immediately if there is smoking, off-odor, or abnormal noise. Contact the after-sales service center for maintenance after confirming there is no more smoke or odor. Further use could result in fire.



- Do not adjust, maintain or modify if you do not have appropriate qualifications.
- Do not open or remove the rear cover, box or cover board of the product. Please contact the dealer or after-sales service center when in need of adjustment or maintenance.

- Only qualified service people can maintain. If the product gets any kind of damage, such as damage to the plug, foreign matter or liquid into the unit, exposure to rain or humidity, loss of function, or dropped, please contact dealer or after-sales service center.
- Be careful during maintenance of product even if the power is off. Some components are equipped with UPS, and can continue to supply power which is dangerous to people.



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1 Packing List

Figure 1-1 Packing list

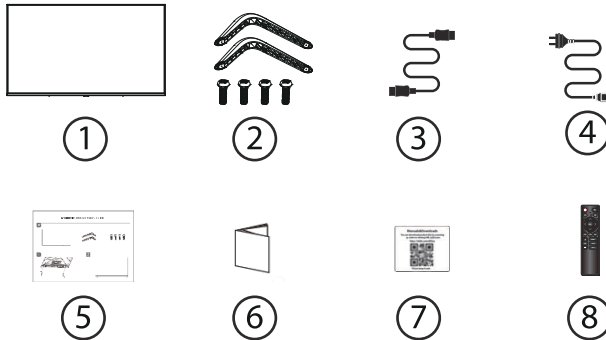


Table 1-1 Packing list

No.	Name
1	Monitor
2	Stand*2(4 screws included)
3	Signal cable
4	AC cable
5	Installation guide
6	Legal and regulatory information
7	User's manual QR code sticker
8	Remote control

Standby Introduction:

Menu Setting No Signal Standby 15-30-60 seconds, when there is no signal from the current port and there is no remote control or button operation, it will enter standby only after setting. If remote control or button operation is performed, the standby time will be recalculated. Standby power is less than 0.5 watts.

**NOTE**

The images above are for reference only. Please refer to actual device for detailed information.

1.1. VESA grid plate

DHI-LM50-F400N	200(H) x 300(V) mm
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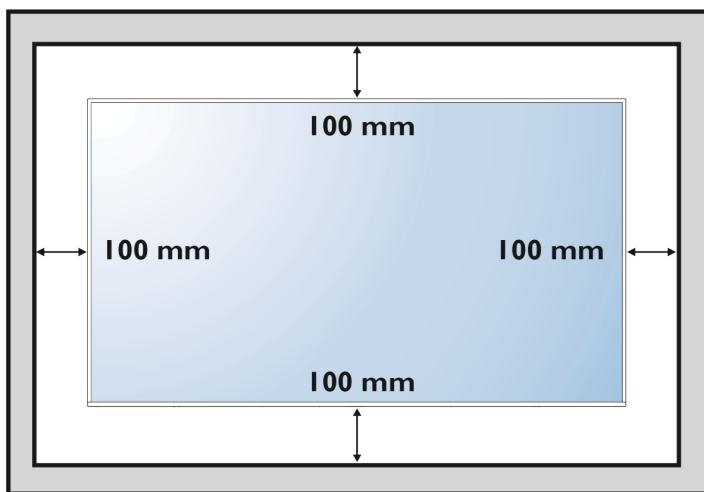
Caution:

Prevent the monitor from falling down:

- In the case of wall installation or suspended installation, it is recommended to use the metal assembling rack available on the market to install the monitor. Refer to the guide attached to the assembling rack for specific installation instructions.
- In order to lower the probability that the monitor falls down and results in personal injuries and property loss under the condition of earthquake or other natural disasters, please do consult the assembling rack manufacturer to confirm the installation position.

Ventilation requirements for enclosed space

In order to ensure normal heat dissipation, sufficient space from items to four sides shall be kept, as shown in the figure below.



2 Installation guide

Figure 2-1 Mounting structural accessories

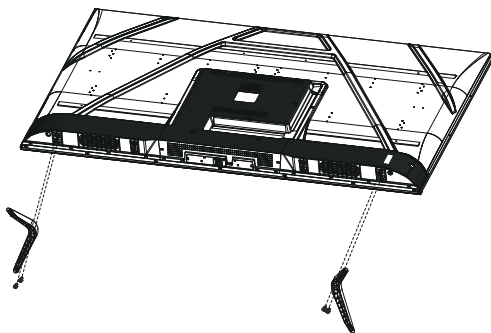


Stand * 2



Screw * 4

Figure 2-2 Support installation diagram



Align the support with the bottom of the machine and then tighten the screws clockwise.



NOTE

- The images above are for reference only. Please refer to actual device for detailed information.

3 Button Description

Figure 3-1 Button description



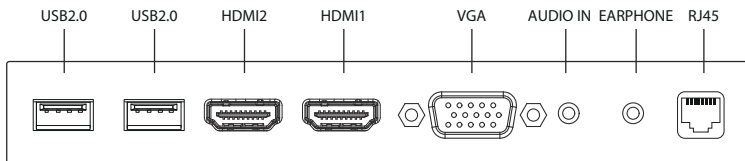
Button	Function
	Power on/Stand by.

Comments: Different models, different appearance, pls subject to the real object.

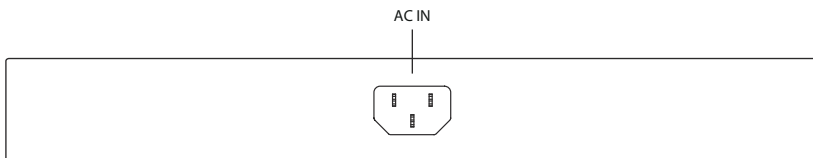
4 Cable Connection

Figure 4-1 Interface introduction

Side terminal specification :



Lower terminal specification :



Introduction of some interfaces:

Interface	Description	Purpose of use
AC IN	AC input	AC power input from the wall socket.
HDMI	HDMI signal	Connect to HDMI signal source.
USB Port	USB signal	Connect to USB signal source.
VGA	VGA signal	Connect to VGA signal source.
AUDIO IN	AUDIO IN signal	Audio input for VGA source.
EARPHONE	EARPHONE signal	Headphone audio output.
RJ45	RS232 signal	Receive command signals from the external RS232 device.

Connecting USB:

Figure 4-2 Use USB device



NOTE

The control button described in this section is mainly on the remote control unless specified otherwise.

The images above is for reference only. Please refer to actual device for detailed information.

Play multimedia files from USB device:

Figure 4-3 Connect your USB device to the USB port on the display

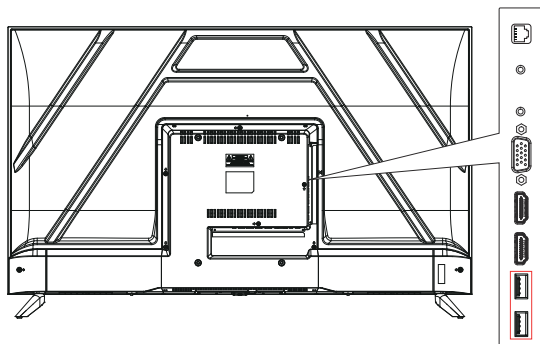


Figure 4-4 Press SOURCE button, choose USB, and press [OK] button

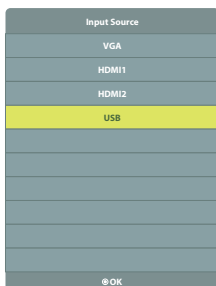
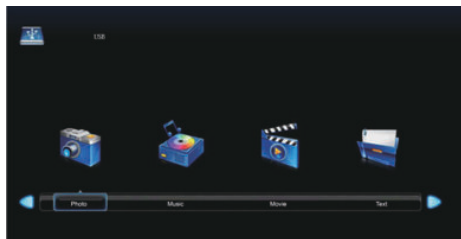


Figure 4-5 Press / to select Photo/Music/Movie/Text icon and to enter the USB memory



5 Menu Description

Figure 5-1 Remote control

Remote controls for different modes may have difference, pls subject to the real object.

Button	Function
	Power on/Stand by
	Open the input source menu
	Mute button
	Menu, menu mode is the return key
	Confirm button
	Move left/right
	Move up/down
	Menu return key
	Adjust the image mode
	VGA auto-calibration
	Volume key
	Switch the HDMI signal
	Turn on the USB
	Switching VGA signals



Step 1 Press MENU to enter the OSD screen.

Figure 5-2 OSD screen



Step 2 Press ↑ or ↓ to browse through the functions.

- Select the desired function, then press the OK button to enter the submenu.
- Press ↑ or ↓ to browse the sub-menus, and then press OK to confirm the selection of the desired function.

Step 3 Press EXIT to exit the menu interface.

6 Operation Menu (OSD) Function Descriptions

Functions of the monitor vary with models, and the functions in this manual are for reference only.

Figure 6-1 Menu description

Menu	Sub Menu	Value Range
Input	HDMI1	
	VGA	
	USB	
	HDMI2	
Picture	Image Mode	Standard,Vivid,User,Soft
	Contrast	0-100
	Brightness	0-100
	Color	0-100
	Sharpness	0-100
	Zoom mode	Auto,PointToPoint,Panorama,Zoom2,Zoom1,16:9,4:3
	Color tempera ture	Medium,Cool,User,Warm
Voice	Volume	0-100
	Silent	Off/On
	Balance	Off/On
OSD Setting	Menu Language	English,中文(简体),中文(繁体),
Reset	Restore Menu Settings	
Setting	No Signal Blue Screen	Off/On
	No Signal standby	Off/On
	HDMI CEC	Off/On
	Software-update(USB)	

*Current Operation Will Increase Energy Consumption.

OK

Cancel

7 Compatibility of the USB device

Format of the USB multi-media coder-decoder

Type	Container	Video Codec	Audio Codec	Resolution/Sample Rate	Bit Rate
MOVIE	MPG/MPEG	MPEG1/2	MPEG1/2 Layer1	1080P@30fps	40Mbps
		MPEG4	MPEG1/2 Layer2		
		VC1	MPEG1/2 Layer3	1080P@60fps	50Mbps
		AVS	AC3/EAC3/AAC-LC/HEAAC		
		AVS+	DTS/LPCM/DTS XLL		
	TS	MPEG1/2	MPEG1/2 Layer1	1080P@30fps	40Mbps
		Sorenson H.263	MPEG1/2 Layer2		
		VC1	MPEG1/2 Layer3		
		MVC	AC3	4096x2160@60fps	80Mbps
		H.264	EAC3		
			AAC-LC	1080P@60fps	135Mbps
		HEVC/H.265	HEAAC	4096x2176@60fps	100Mbps
		AVS	LPCM	1080P@60fps	50Mbps
		AVS+	DTS XLL		
	MP4/MOV/ 3GP/3GPP	MPEG1/2	MPEG1/2 Layer3	1080P@30fps	40Mbps
		MPEG4			
		H.263	AC3	4096x2160@60fps	135Mbps
		H.264	EAC3		
			AAC-LC	1080P@60fps	135Mbps
		HEVC/H.265	HEAAC	4096x2176@60fps	100Mbps
		AVS	VORBIS	1080P@60fps	50Mbps
		AVS+	LPCM		
		MJPEG		1080P@30fps	10Mbps
	AVI	MPEG1/2	MPEG1/2 Layer1	1080P@30fps	40Mbps
		MPEG4			
		Sorenson H.263			
		H.263	MPEG1/2 Layer2	4096x2160@60fps	135Mbps
		WMV3	MPEG1/2 Layer3		
		VC1	AC3		
		H.264	AAC-LC	1080P@60fps	135Mbps
		AVS	HEAAC	1080P@60fps	50Mbps
		AVS+	WMA		
		MJPEG		1080P@30fps	10Mbps
	MKV	MPEG1/2	MPEG1/2 Layer1	1080P@30fps	40Mbps
		MPEG4			
		H.263			
		WMV3	MPEG1/2 Layer2	4096x2160@60fps	135Mbps
		VC1	MPEG1/2 Layer3		
		H.264	AC3		
			WMA	1080P@60fps	135Mbps
		HEVC/H.265	DTS		
		VP9	LPCM	4096x2176@60fps	100Mbps
		VP8	FLAC		
		MJPEG		1080P@60fps	50Mbps
				1080P@30fps	10Mbps

Type	Container	Video Codec	Audio Codec	Resolution/Sample Rate	Bit Rate
	ASF	MPEG1/2	MPEG1/2 Layer1 MPEG1/2 Layer2 WMA	1080P@30fps	40Mbps
		MPEG4			
		Sorenson H.263			
		WMV3		4096x2160@60fps 1080P@60fps	135Mbps
		VC1			
		H.264		1080P@30fps	10Mbps
		MJPEG			
	FLV	Sorenson H.263	MPEG1/2 Layer3 AAC-LC HEAAC	1080P@30fps	40Mbps
		H.264		4096x2160@60fps 1080P@60fps	135Mbps
		HEVC/H.265		4096x2176@60fps	100Mbps
	SWF	Sorenson H.263	IMA/MS-ADPCM	1080P@30fps	40Mbps
	WMV	H.264	MPEG1/2 Layer1 MPEG1/2 Layer2 WMA	4096x2160@60fps 1080P@60fps	135Mbps
		WMV3	WMA	1080P@30fps	40Mbps
		VC1			
	RM/RMVB	RV30/RV40	AAC-LC/HEAAC/LBR	1080P@60fps	40Mbps
	DAT/VOB	MPEG1/2	same as MPG	1080P@30fps	40Mbps
MUSIC	MP3		MPEG1/2 Layer1	16KHz~48KHz	32Kbps~448Kbps
			MPEG1/2 Layer2	16KHz~48KHz	8Kbps~384Kbps
			MPEG1/2 Layer3	8KHz~48KHz	8Kbps~320Kbps
	AC3		AC3	32KHz,44.1KHz,48KHz	32Kbps~640Kbps
	EC3		EAC3	32KHz,44.1KHz,48KHz	32Kbps~6Mbps
	AAC		AAC-LC HEAAC	8KHz~48KHz	12kbps~576kbps
	WMA		WMA	8KHz~48KHz	128bps~320Kbps
	FLAC		FLAC	8KHz~96KHz	<1.6Mbps
	WAV		MPEG1/2 Layer1 MPEG1/2 Layer2 MPEG1/2 Layer3 DTS LPCM IMA/MS-ADPCM G711 A	Refer to the table above.	
	M4A		MPEG1/2 Layer3 AC3 EAC3 AAC-LC HEAAC	Refer to the table above.	
PHOTO	JPEG/MPO	Baseline		15360x8640 (1920x8 x 1080x8)	
		Progressive		1024x768	
	PNG	non-interlace		9600x6400	
		interlace		1200x800	
	BMP			9600X6400	

8 Product Specifications

Product Model		DHI-LM50-F400N
Screen Size		50"
Aspect Ratio		16:9
Viewing Angle		178°(H)/178°(V)
Contrast Ratio		1200:1
Display Color		8bit + FRC
Resolution		3840x2160
Refresh Rate		60 Hz
Product Dimensions	Without base	1110.6x641x81.7mm
	With base	1110.6x697.8x231mm
Speaker		Yes
Height range		N/A
Rotation angle		N/A
Vertical angle		N/A
Tilting angle		N/A
Environmental conditions	Operating	Temperature:0°C-40°C(+32°F-104°F) Humidity: 10%-85% RH (non-condensing)
	Storage	Temperature:-20°C-60°C(-4°F-140°F) Humidity: 5%-90% RH (non-condensing)

NOTE

The actual application of the above parameters shall be subject to the specific model.

SN	Resolution	Signal Path
1	800x600@60Hz	VGA
2	1024x768@60Hz	
3	1280x720@60Hz	
4	1280x1024@60Hz	
5	1920x1080@60Hz	
6	800x600@60Hz	HDMI
7	1024x768@60Hz	
8	1280x720@60Hz	
9	1280x1024@60Hz	
10	1600x900@60Hz	
11	1920x1080@60Hz	
12	3840x2160@30Hz	
13	3840x2160@60Hz(default setting)	

Appendix 1 Troubleshooting

Appendix Table 1-1 FAQ

Faults Occurring	Possible Solutions
The power indicator light is not on	Check if the power is on. Check if the power cord is connected.
Plug and play failed	Check if the function of plug-and-play of the device is compatible with PC. Check if the display card is compatible with the plug-and-play function.
Dimming picture	Adjust brightness and contrast.
Flickering picture or picture with ripples	There may be electrical appliances or equipment with electronic disturbance.
The power indicator light is on (flickering), but the monitor has no pictures.	Check if the PC power is on. Check if the PC display card is inserted properly. Check if the signal cable of the monitor is correctly connected with the PC. Check the signal cable plug of the monitor and make sure every pin has no bending. Observe the indicator light by pressing the Caps Lock key on the PC keyboard and check if the PC is working.
Color shortage (red, green and blue)	Check the signal cable of the monitor and make sure every pin has no bending.
Picture with color difference (white looks not white)	Adjust RGB color or reselect color temperature.

Appendix 2 Security Commitment and Recommendation

Dahua Vision Technology Co., Ltd. (hereinafter referred to as "Dahua") attaches great importance to cybersecurity and privacy protection, and continues to invest special funds to comprehensively improve the security awareness and capabilities of Dahua employees and provide adequate security for products. Dahua has established a professional security team to provide full life cycle security empowerment and control for product design, development, testing, production, delivery and maintenance. While adhering to the principle of minimizing data collection, minimizing services, prohibiting backdoor implantation, and removing unnecessary and insecure services (such as Telnet), Dahua products continue to introduce innovative security technologies, and strive to improve the product security assurance capabilities, providing global users with security alarm and 24/7 security incident response services to better protect users' security rights and interests. At the same time, Dahua encourages users, partners, suppliers, government agencies, industry organizations and independent researchers to report any potential risks or vulnerabilities discovered on Dahua devices to Dahua PSIRT, for specific reporting methods, please refer to the cyber security section of Dahua's official website.

Product security requires not only the continuous attention and efforts of manufacturers in R&D, production, and delivery, but also the active participation of users that can help improve the environment and methods of product usage, so as to better ensure the security of products after they are put into use. For this reason, we recommend that users safely use the device, including but not limited to:

1. Account Management

1.1 Use complex passwords

Please refer to the following suggestions to set passwords:

- The length should not be less than 8 characters;
- Include at least two types of characters: upper and lower case letters, numbers and symbols;
- Do not contain the account name or the account name in reverse order;
- Do not use continuous characters, such as 123, abc, etc.;
- Do not use repeating characters, such as 111, aaa, etc.

1.2 Change passwords periodically

It is recommended to periodically change the device password to reduce the risk of being guessed or cracked.

1.3 Allocate accounts and permissions appropriately

Appropriately add users based on service and management requirements and assign minimum permission sets to users.

1.4 Enable account lockout function

The account lockout function is enabled by default. You are advised to keep it enabled to protect account security. After multiple failed password attempts, the corresponding account and source IP address will be locked.

1.5 Set and update password reset information in a timely manner

Dahua device supports password reset function. To reduce the risk of this function being used by threat actors, if there is any change in the information, please modify it in time. When setting security questions, it is recommended not to use easily guessed answers.

2. Service Configuration

2.1 Enable HTTPS

It is recommended that you enable HTTPS to access Web services through secure channels.

2.2 Encrypted transmission of audio and video

If your audio and video data contents are very important or sensitive, we recommend you to use encrypted transmission function in order to reduce the risk of your audio and video data being eavesdropped during transmission.

2.3 Turn off non-essential services and use safe mode

If not needed, it is recommended to turn off some services such as SSH, SNMP, SMTP, UPnP, AP hotspot etc., to reduce the attack surfaces.

If necessary, it is highly recommended to choose safe modes, including but not limited to the following services:

- SNMP: Choose SNMP v3, and set up strong encryption and authentication passwords.
- SMTP: Choose TLS to access mailbox server.
- FTP: Choose SFTP, and set up complex passwords.
- AP hotspot: Choose WPA2-PSK encryption mode, and set up complex passwords.

2.4 Change HTTP and other default service ports

It is recommended that you change the default port of HTTP and other services to any port between 1024 and 65535 to reduce the risk of being guessed by threat actors.

3. Network Configuration

3.1 Enable Allow list

It is recommended that you turn on the allow list function, and only allow IP in the allow list to access the device. Therefore, please be sure to add your computer IP address and supporting device IP address to the allow list.

3.2 MAC address binding

It is recommended that you bind the IP address of the gateway to the MAC address on the device to reduce the risk of ARP spoofing.

3.3 Build a secure network environment

In order to better ensure the security of devices and reduce potential cyber risks, the following are recommended:

Disable the port mapping function of the router to avoid direct access to the intranet devices from external network;

According to the actual network needs, partition the network: if there is no communication demand between the two subnets, it is recommended to use VLAN, gateway and other methods to partition the network to achieve network isolation;

Establish 802.1x access authentication system to reduce the risk of illegal terminal access to the private network.

4. Security auditing

4.1 Check online users

It is recommended to check online users regularly to identify illegal users.

4.2 Check device log

By viewing logs, you can learn about the IP addresses that attempt to log in to the device and key operations of the logged users.

4.3 Configure network log

Due to the limited storage capacity of devices, the stored log is limited. If you need to save the log for a long time, it is recommended to enable the network log function to ensure that the critical logs are synchronized to the network log server for tracing.

5. Software Security

5.1 Update firmware in time

According to the industry standard operating specifications, the firmware of devices needs to be updated to the latest version in time in order to ensure that the device has the latest functions and security. If the device is connected to the public network, it is recommended to enable the online upgrade automatic detection function, so as to obtain the firmware update information released by the manufacturer in a timely manner.

5.2 Update client software in time

We recommend you to download and use the latest client software.

6. Physical protection

It is recommended that you carry out physical protection for devices (especially storage devices), such as placing the device in a dedicated machine room and cabinet, and having access control and key management in place to prevent unauthorized personnel from damaging hardware and other peripheral equipment (e.g. USB flash disk, serial port).

ENABLING A SMARTER SOCIETY AND BETTER LIVING

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