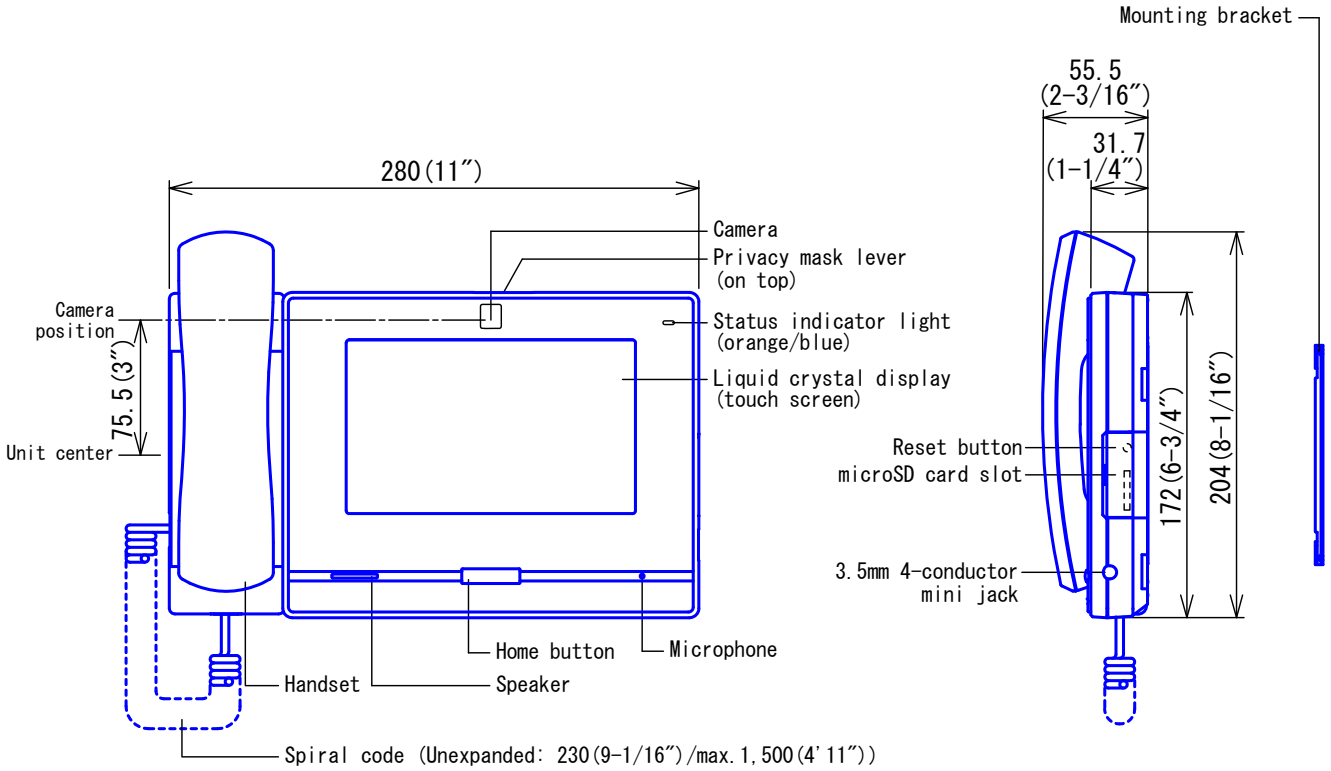
■PRODUCT DRAWING

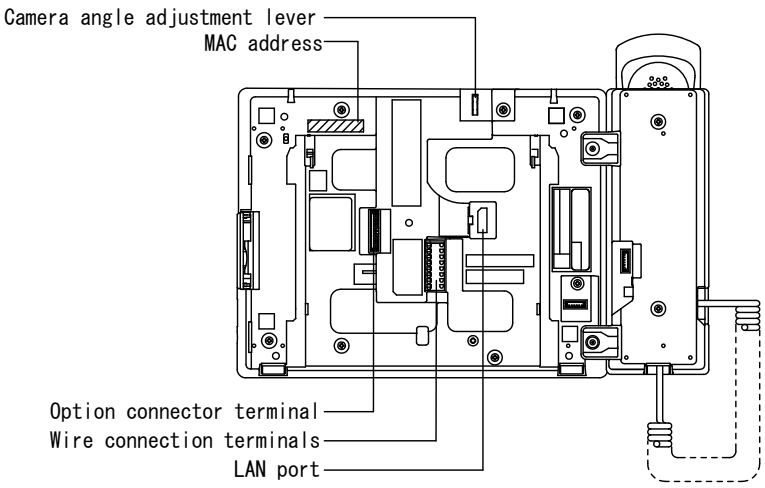


■SPECIFICATIONS

Power source	Power-over-Ethernet(IEEE 802.3af Class 0)
Current consumption	Standby 66mA, maximum 155mA
Type of communication	Hands-free: Automatic voice switching/touch-to-talk Handset: Full-duplex(for calls between handsets only)
Monitor	7″ TFT LCD display, WVGA 800 x 480 (approx. 1.15 million pixels)
Camera	1/4-type CMOS, VGA 640 x 480 (approx. 300,000 pixels)
LAN	Ethernet(10BASE-T, 100BASE-TX) Auto MDI/MDI-X-compatible
Audio codec	G.711(μ-law, A-law)、G.722
Video codec	H.264/AVC, Motion JPEG
Protocol	IPv4, IPv6, TCP, UDP, SIP, HTTP, HTTPS, RTSP, RTP, RTCP, IGMP, MLD, SMTP, SFTP, DHCP, NTP, DNS
Encryption method	TLS1.0, TLS1.1, TLS1.2
Packet delivery	Unicast, Multicast
Number of stations in address book	500 stations
Ambient temperature	0～40℃ (32～104° F)
Mounting	Desktop use (with desktop stand) or wall-mount
Electrical box	3-gang box
Material	Self-extinguishing ABS resin
Unit color	Snow white (5Y9.3/0.1 Munsell Approximation)
Weight	1.0kg (approx.)(2.2 lbs) (when used with desk stand: 1.3kg (approx.)(2.9 lbs))
Remarks	ONVIF Profile S support

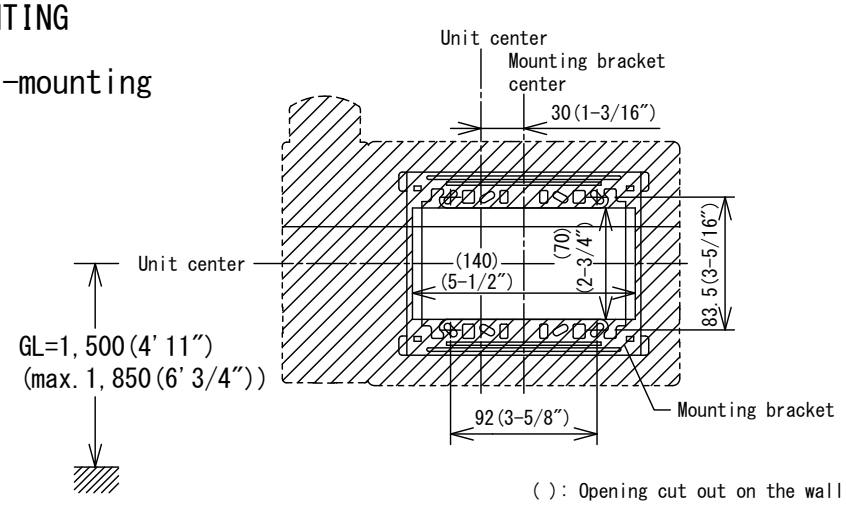
DESCRIPTION	FIG. NAME		UNIT	DATE
MASTER STATION	PRODUCT DRAWING/SPECIFICATIONS		mm	19 December, 2018
MODEL NO.	FIG.NO.	PAGE	REVISION	AIPHONE
IX-MV7-HW	I58509-1-8	1/8	1	

<Back view>



●MOUNTING

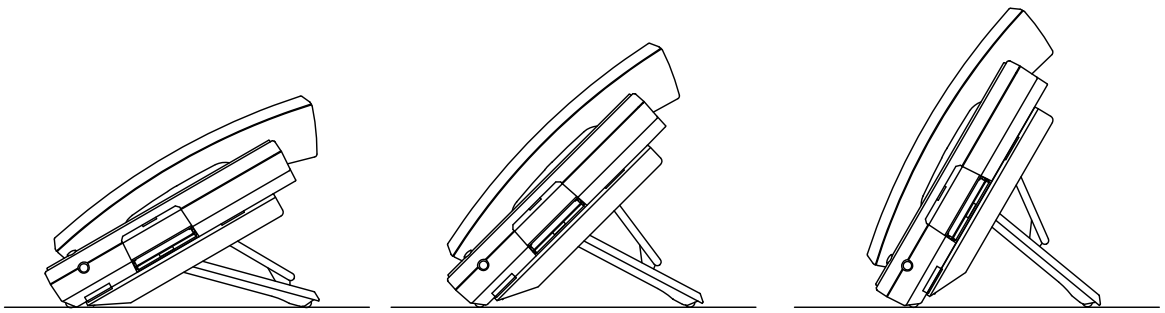
・Wall-mounting



( ): Opening cut out on the wall

・Desktop mounting(with desktop stand)

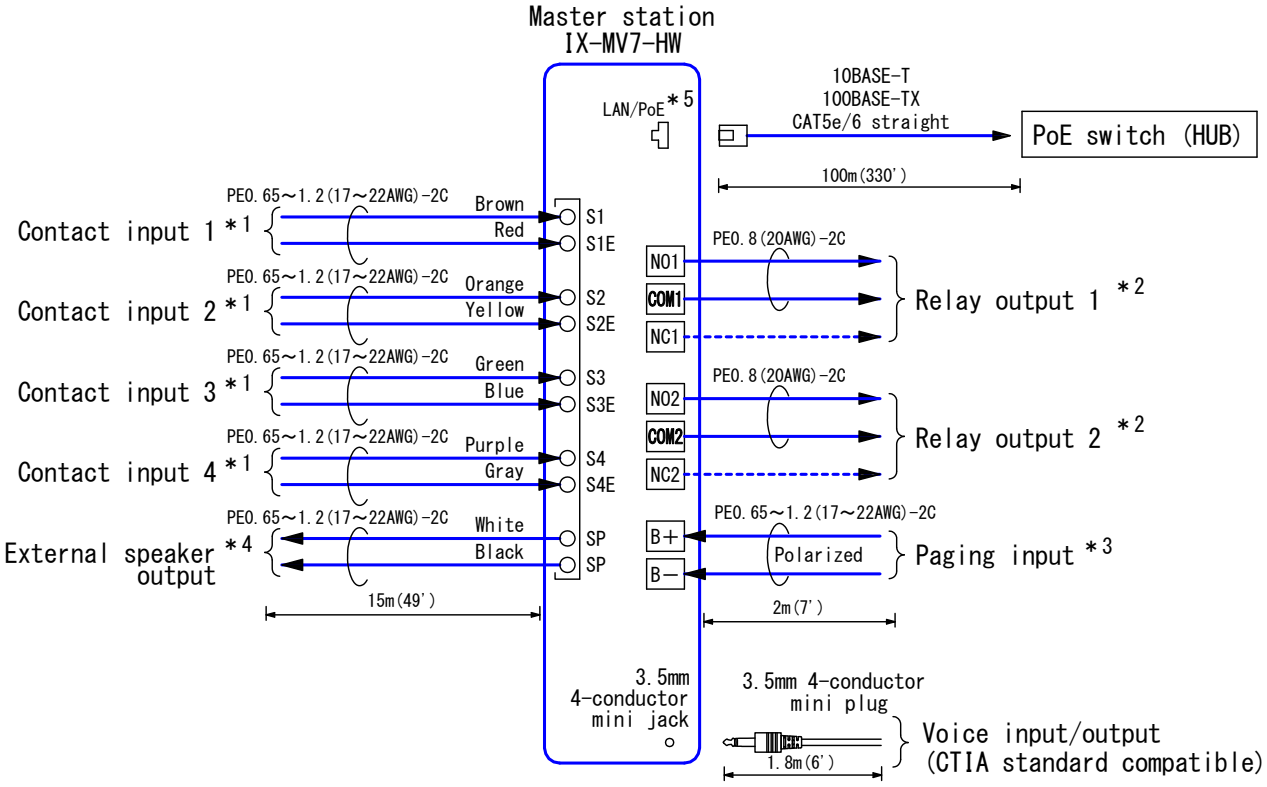
＊Desktop stand is included with Master Station



30° 45° 60°

DESCRIPTION	FIG. NAME		UNIT	DATE
MASTER STATION	PRODUCT DRAWING		mm	19 December, 2018
MODEL NO.	FIG.NO.	PAGE	REVISION	AIPHONE
IX-MV7-HW	I58509-2-8	2/8	1	

■WIRING DIAGRAM



*1. Contact Input Specifications

Input method	Programmable dry contact (N/O or N/C)
	Level detection method
Detection time	70msec or more
Contact resistance	Make: 700Ω or less Break: 3kΩ or more
Terminal short-circuit current	10mA or less
Voltage between terminals	5.5V DC or less(between open terminals)

*2. Relay Output Specifications

Output method	Form C dry contact(N/O or N/C)
Contact rating	24V AC, 1A(resistive load) 24V DC, 1A(resistive load) Minimum overload(AC/DC): 100mV, 0.1mA

*3. Paging Audio Input Specifications

Input impedance	600Ω
Input audio level	50mVrms

*4.External Speaker Output Specifications

Output impedance	8Ω
Maximum output power	0.5W

*5. IEEE802.3af

DESCRIPTION	FIG. NAME		UNIT	DATE
MASTER STATION	WIRING DIAGRAM		mm	19 December, 2018
MODEL NO.	FIG. NO.	PAGE	REVISION	AIPHONE
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■RESTRICTIONS

- A PoE-compatible switch must be used as the switch (hub) for station connection.
- A computer is required to make system settings.
  IX system can be configured in one of the two methods, "IX Support Tool" application or Web browser. Once the system has been configured through a browser, the settings cannot be transferred to IX Support Tool. The IX Support Tool is recommended for system settings management.
- Due to handsfree auto voice actuation system, smooth voice switching may be hindered by voice strength of the opponent or ambient noise, etc.
- While updating the System settings, stations unavailable.
- Do not register unused units in the address list. If unused units are present in the address list, system performance will degrade.
- In order to audio or video record, the following microSD memory card (market goods) compliant with SD standard is necessary.

Standard	Capacity	File System	Speed Classes
SDHC	2GB up to 32GB	FAT32	C10, U1
SDXC	64GB up to 128GB	exFAT	

■RESTRICTIONS ABOUT THE NETWORK

- When connecting via the Internet (global IP networks), VPN Service is necessary.
- We do not recommend using a wireless communication such as wireless LAN as it may not operate correctly due to security issues or communication speed delays.
- For IPv4 Address with DHCP, due to the architecture of the IX system, DHCP configuration is only recommended for network environments utilizing managed (static) IP address leasing.
- For stateless IPv6 Address, do not change the prefix of the device so that it cannot transmit Router Advertisement (RA).
- For IPv6 Address with DHCP, due to the architecture of the IX system, DHCP configuration is only recommended for network environments utilizing managed (static) IP address leasing.
  The DUID of the device: 00030001 + MAC address
- Depending on the network environment and computer, prior arrangements and setup operations involving the network administrator might be necessary.
- Depending on the network environment, operation delays might occur.
- Depending on the network environment or other factors, audio or video dropout, delays, lower frame rates, or other loss of correct operation might occur.
- The protocols used by this system must be supported.
- The network bandwidth required by each device when communicating are as follows.
  G.711・G.722: 64kbps x 2(in communication), 64kbps x stations(on page)
  H.264: 32kbps up to 2048kbps
- IPv4 and IPv6 cannot be mixed in the same system.
- When using multicasting for web-setup network-camera searches, video, or audio, use in an environment that does not reject IGMPv3 or MLDv2.

■FUNCTIONS

- Calling

  Individual Call : Call a specific station.
  Group Call: Make an outgoing call to all stations that belong to the selected group.
  Contact input call: Make an outgoing call to all stations that belong to the selected Contact input call group.

- Answer and communication

  Touch-to-talk: This communication mode switches between sending speech or receiving speech.
  Mute mode: During communication, the camera and microphone can be turned off by pressing the mute button.
  Auto answer: When auto answer is enabled, individual calls from other Master Stations will be answered automatically.
  Privacy: When auto answer feature is enabled, the camera and microphone of the station will not be turned on.

- Monitoring

  Monitor a door station: Monitor video and audio from a door station. Master Stations cannot be monitored.
  Monitor a network camera: Monitor video from a network camera.
  Scan monitor: Monitor video and audio from multiple terminals or network cameras while switching over at regular time intervals.

- Audio or video recording function

  Audio or video recording: Record audio and video to a microSD card at the start of or during a call.
  Audio or video playback: Play an audio or video recording saved to a microSD card on a station or a computer.

- Transfer

  Absent transfer/Schedule transfer/Delay transfer can be transferred to preset 10 stations.
  However, when transferring the transferred call again, it is transferred to one station.
  Transfer calls (during communication): Transfer an answered call to another station.
  Absent transfer: Activate absent transfer, the incoming calls are sent to another station automatically.
  Schedule transfer: A call can be transferred automatically, according to a schedule.
  Delay transfer: Incoming calls can be transferred to another station automatically when not answered within a set period of time.

- Paging

  Paging a group: Send a page to all stations that belong to a selected group.
  Paging all stations: Send a page to all stations that are registered on this device.
  Note) Unicast can reach up to 50 stations.
  Message paging: Distribute message data and play notification sound on receiving device.

- Speed Dials/Favorites

  The following functions can be assigned to each of the eight speed dials.
  Calling: Individual Call, Group Call
  Paging: Group page, All page, Message page
  Monitor: Monitor a station or network camera, Scan monitor
  Option Relay Control: Control another station's relay output.

- Option Input

  The following functions can be assigned to each of the four option inputs.
  Calling: Individual Call, Group Call
  Answer operation: Answer a call and page by option input.
  Paging: Group page, All page, Message page, External input page
  Turn LCD on: Turn on LCD by option input.
  API: Send API command by option input.

- Relay Output

  The following functions can be assigned to each of the two relay outputs.

  Status output: Make a relay output in status of Outgoing a call/Incoming a call/ Communication/Outgoing a page/Incoming a page.

  Door Release: Trigger a relay output when receiving an unlocking instruction.

  Option Relay Control: Trigger a relay output when receiving making an relay output instruction from another station.

- Others

  IP-PBX integration: IX System can integrate with IP-PBX *. Make, receive, transfer calls, answer visitors, and release doors.
  *. Integration with SIP (Unified Communication Manager) of Cisco Systems.

  Unlock a door: Unlock an electric lock during communication, or during monitoring.

  Up to each 500 incoming/outgoing call records are stored. Station monitoring is not logged in call history.

  Adjust video to enhance visibility: The image will be adjusted to back light compensation and night time correction.

  Send emails: Emails can be sent to pre-registered email addresses when triggering events occur.

  Chime: Play message data following a preset schedule.

  Picture-in-picture function: Display images from two cameras simultaneously during calling, monitoring, or other function.

  Supervision: Perform line supervision or device check.

- Indicators

Name	Status *1	Description
Status indicator	Orange flashing	Booting
		Device error
		Communication failure, Line supervision error, Device check error
		Firmware version upgrading
		Initializing
	Orange light	Turning power on, setting transfer on
	Blue flashing	Calling destination busy
		Outgoing calling, monitoring, or outgoing paging
		Incoming calling
		Door releasing *2
		Missed call
		Incoming paging
		Receiving an event notification from a network camera
	Blue light	During communication
		Standby (Depends on setting)

*1. The flashing pattern varies depending on the state of master station.

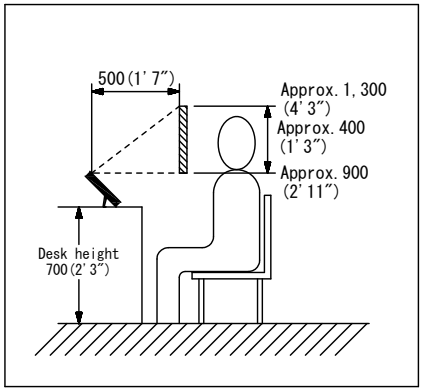
*2. This flashes when the electrical lock connected to this station is released. If the door release timeout is set to 3 seconds or less, it will flash at a 3 second interval.

■IMAGE VIEW AREA & MOUNTING HEIGHT

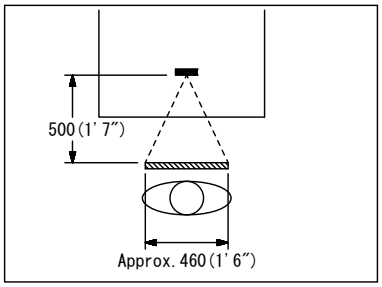
●Note about desktop use

In the case of installed on a desk.
Condition: Desktop stand (45°)
Camera position(the most downward(-20°)
Adjust the camera position according to the desktop stand angle.

Vertical



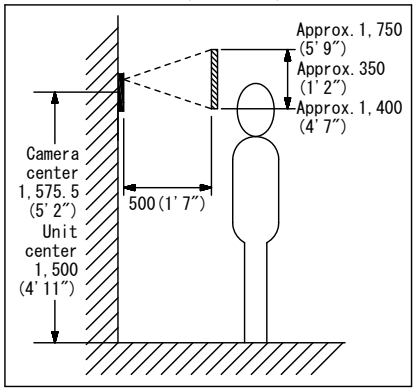
Horizontal



●Wall mounting

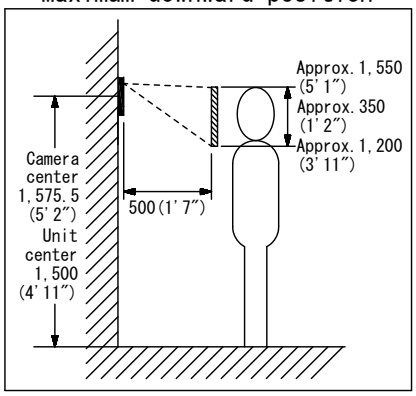
Vertical

Zoom 〈center〉

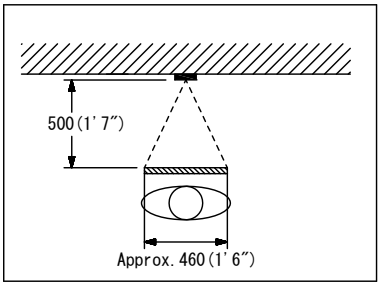


Vertical

Maximum downward position



Horizontal



DESCRIPTION	FIG. NAME		UNIT	DATE
MASTER STATION	IMAGE VIEW AREA & MOUNTING HEIGHT		mm	19 December, 2018
MODEL NO.	FIG. NO.	PAGE	REVISION	AIPHONE
IX-MV7-HW	I58509-7-8	7/8	1	

■SETTING

- Station settings
  Configure on the station
- WEB settings
  Configure using a PC
  System requirements

Network	Ethernet(10BASE-T, 100BASE-TX)
Web browser	Microsoft Edge / Internet Explorer 10.0, 11.0 / Mozilla Firefox 59, 60(TLS1.0、1.1 or 1.2 enabled)

- Using the "IX Support Tool" application
  Install the application on a PC and use to create the setting file for all stations.
  Refer to "■IX SUPPORT TOOL"

■IX SUPPORT TOOL

- System requirements

OS	Windows 7 Professional, Windows 7 Enterprise, Windows 7 Ultimate Windows 8, Windows 8 pro, Windows 8 Enterprise Windows 8.1, Windows 8.1 pro, Windows 8.1 Enterprise Windows 10 Home, Windows 10 pro, Windows 10 Enterprise Windows 10 Education
CPU	32 bit (x86) processor or 64 bit (x64) processor of 1 GHz or higher
Memory	4 GB RAM or higher
Screen resolution	1280x768 or greater

- Functions
  - Settings(Table View)…All stations in the system can be configured from the Settings window.
  - Settings(Station View)…Configure each station in the system individually.
  - Setting File Download…Store the Settings File
  - Setting File Upload…Upload the Settings File
  - Station Search…Search the stations in IX System connected in the network to show the list.
  - Station Replacement…this feature to replace a station.
  - Restore System Settings…If the setting file is lost, the setting file can be restored.
  - Update Firmware…Update the firmware for the station.
- Restrictions
  - If the station was configured or modified using the web interface, the setting file cannot be downloaded using the IX Support Tool.

■IX SUPERVISION TOOL

Install the application on a PC and use to Line supervision and devicw check for stations.

- System requirements

OS	Windows 7 Professional, Windows 7 Enterprise, Windows 7 Ultimate Windows 8, Windows 8 pro, Windows 8 Enterprise Windows 8.1, Windows 8.1 pro, Windows 8.1 Enterprise Windows 10 Home, Windows 10 pro, Windows 10 Enterprise Windows 10 Education
CPU	32 bit (x86) processor or 64 bit (x64) processor of 1 GHz or higher
Memory	4 GB RAM or higher
Screen resolution	1280x768 or greater

- Functions
  - Line Supervision…By checking the response to a ping, this feature confirms that the station is properly connected to the network.
  - Device Check…This function to determine whether stations are operating normally or malfunctioning.
  - Download Video and Audio…To download recordings of the Door Stations.