

AIPHONE **2022-2024**

Communication Systems
GENERAL LINE CATALOG



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MULTI-TENANT BUILDING ENTRY SECURITY

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480 - 5000

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1	1		

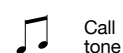
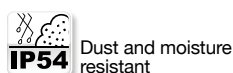
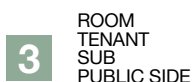
INTEGRATED SECURITY & COMMUNICATION SYSTEM

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Explanation of symbols



INTERCOM SYSTEM

DOOR	ROOM	Open Voice Intercom	
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MASTER	SUB	Open Voice Intercom	
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MULTI-TENANT BUILDING ENTRY SECURITY



COLOR VIDEO ENTRY SECURITY



INTEGRATED SECURITY & COMMUNICATION SYSTEM



AUDIO ENTRY SECURITY



INTERCOM SYSTEM



ACCESSORIES



History

AIPHONE

Communication Systems for business, home and industry

Established In 1948

Aiphone has become the most respected and reliable brand of communication systems in the world. With headquarters in Nagoya and manufacturing in Toyota City, Central Japan, we export to over 70 countries. Our network includes a North American marketing, sales and distribution center near Seattle, Washington, and an European sales and distribution center in Lisses-Evry, France.

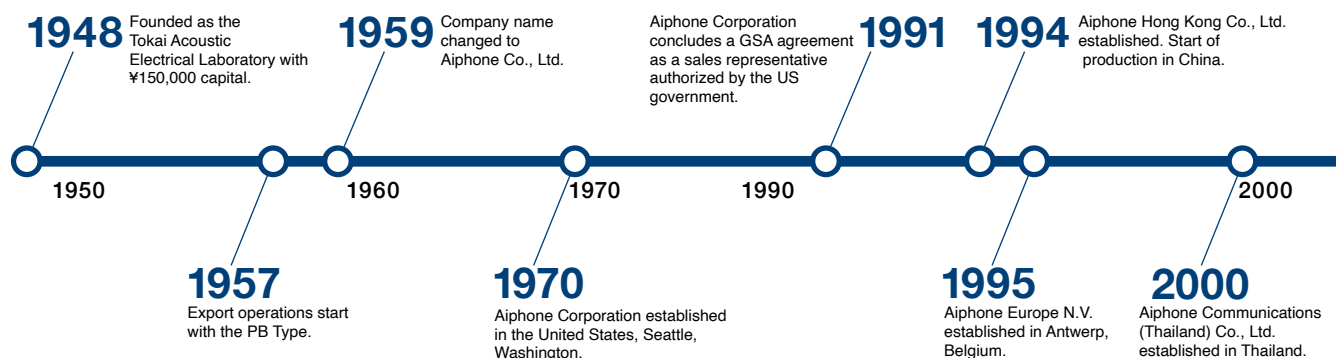
Systems For Every Application

Aiphone products range from simple do-it-yourself door answering units to sophisticated video entry security systems, complex microprocessor-based commercial systems, and luxury condo/apartment security/communication systems. They are unrivaled in design simplicity, technical excellence and reliability. With over 30 standard systems, and additional manufacturing by special order, we can create a system for virtually any intercom application.

Designed To Last

Every Aiphone system is the result of painstaking attention to detail: contemporary European style design, the finest quality hardware and circuitry, engineered, built and 100% pre-tested for sustained trouble-free operation.

Aiphone — expanding our business globally for over 70 years





ISO 9001

Aiphone is the first intercom manufacturer worldwide to receive ISO 9001 certification, and the only one selling in North America. An agency representing the International Standards Organization (ISO), headquartered in Geneva, Switzerland, graded Aiphone against guidelines for design and development, production, and product inspection and testing. ISO 9001 standards provide an immediate recognition of product quality almost anywhere in the world.



ISO 9001 Certified
JQA-0291
Corresponding product:
Standard product
Order product
AIPHONE CO., LTD.

Winner Of The Deming Prize

Aiphone is the first and only intercom manufacturer to be awarded the Deming Prize. This award is given to companies that have successfully implemented the Total Quality Management methodology throughout all business processes. The Deming Prize has been recognized as a marker of reliability and quality since its establishment in 1951. Aiphone was first awarded the Deming Prize in 1981, and has been awarded it once again on October 2nd 2018.



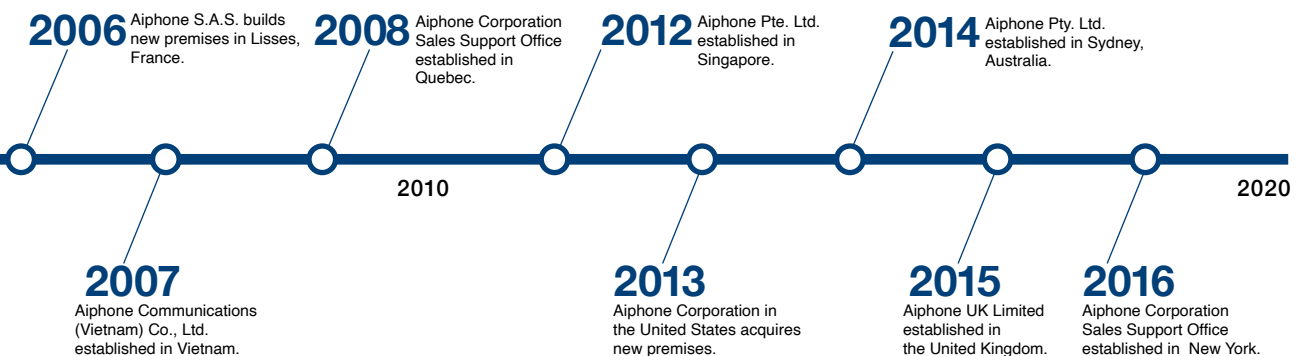
Deming Prize

Acquisition of ISO 14001

ISO's Environmental Standards are a series of voluntary standards and guideline reference documents which include environmental management systems, eco-labeling, environmental auditing, life cycle assessment, environmental performance evaluation, and environmental aspects for product standards. In early 1998, our management team decided to acquire ISO-14001 approval as a company-wide project, and a working committee was established at the same time. Since then, with our ongoing efforts and practice about environmental management standards, we have succeeded in acquiring the approval.



ISO 14001 Certified
JQA-EM0453
Headquarters
Toyota Factory
Taihoh Site
Development Center
AIPHONE CO., LTD.





Global network

We are actively expanding our international network in order to

We provide products to more than





deliver the Aiphone brand to users around the world.

70 countries around the world.





Our Success Stories

Security and communication solutions provided by Aiphone

North America



White House

U.S.

IX System

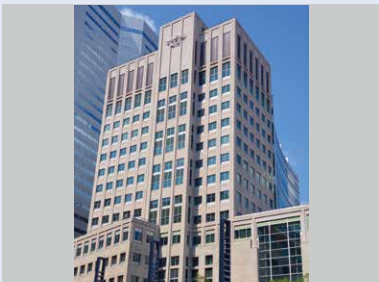


NASA Glenn Research Center

U.S.

IX System

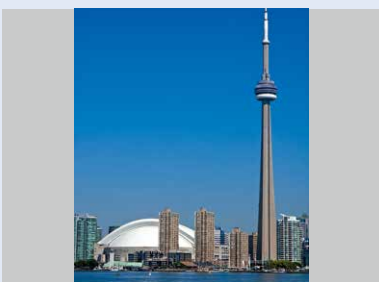
Picture: Alamy/AFL0



ICAO Headquarters

Canada

IX System

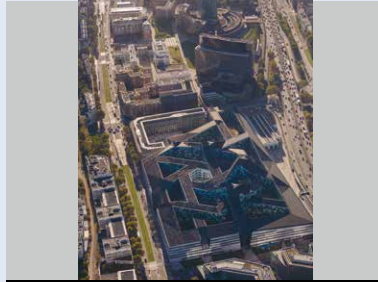


CN Tower

Canada

IX System

Europe



Ministry of the Armies of France

France

IX System



Police Department of Paris

France

IX/JP System



Eiffel Tower

France

IX System



Houses of Parliament

U.K.

GT/RX System



Etihad Stadium

U.K.

TC System

Picture: Alamy/AFL0



Brussels South Charleroi Airport

Belgium

IX System



Mont Saint-Michel

France

GT System



General University Hospital of Valencia

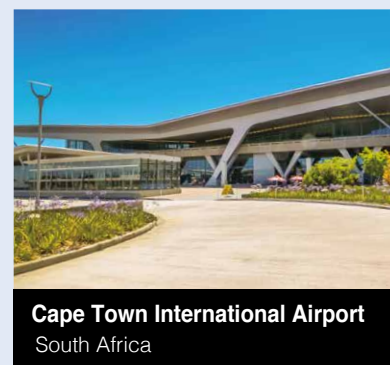
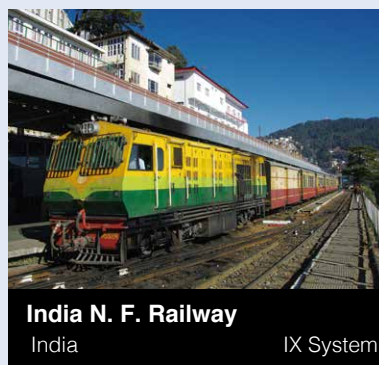
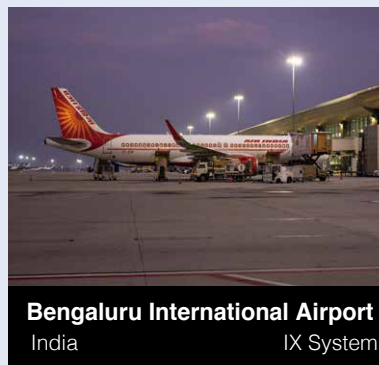
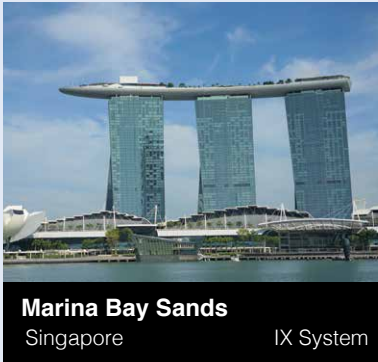
Spain

NIM System



installed at various sites around the world.

■ Asia, Oceania, Middle East, and Africa





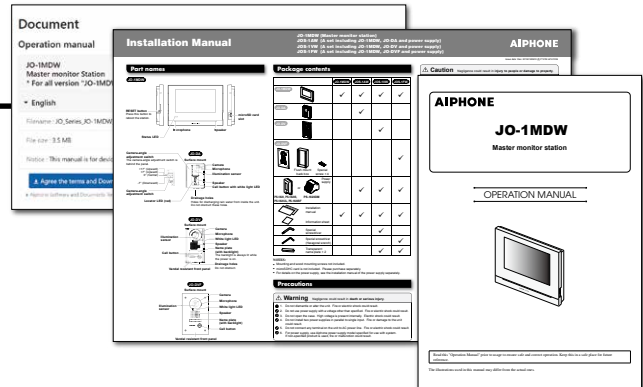
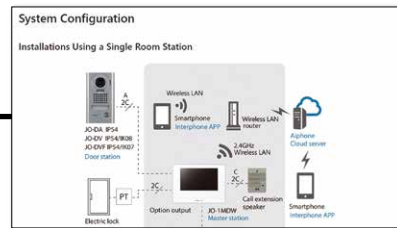
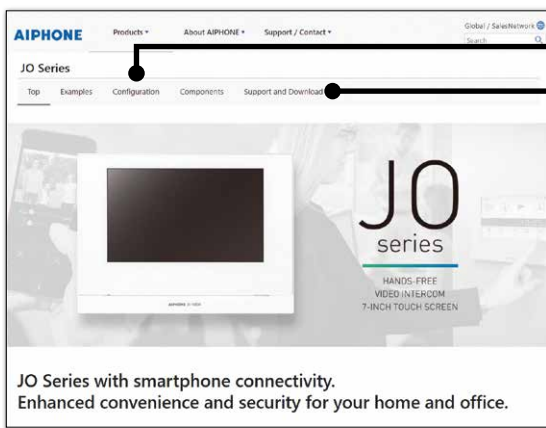
Website and YouTube Channel

The latest product information can be confirmed at our Website and YouTube Channel.

Website

Updated product information can be confirmed, and catalogs, manuals and software applications, etc. can be downloaded.

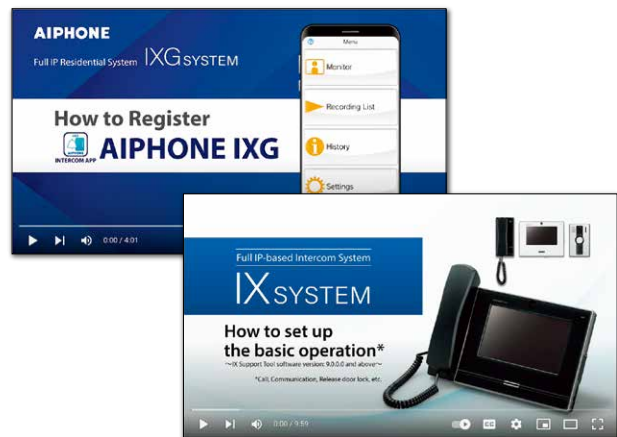
<https://www.aiphone.net/>



YouTube Channel

The movies for product support information, etc. can be confirmed on the official YouTube channel "AIPHONE GLOBAL".

<https://www.youtube.com/channel/UCaE0h15zvTgzQqmex2CpZvw>



Please subscribe to the "AIPHONE GLOBAL" channel.

Lineup

Aiphone provides a variety of security and intercom systems from small to extensive IP network solutions. Choose the perfect solution for your security needs.



MULTI-TENANT BUILDING
ENTRY SECURITY

P12~



COLOR VIDEO
ENTRY SECURITY

P51~



INTEGRATED SECURITY &
COMMUNICATION SYSTEM

P62~



AUDIO ENTRY SECURITY

P88~

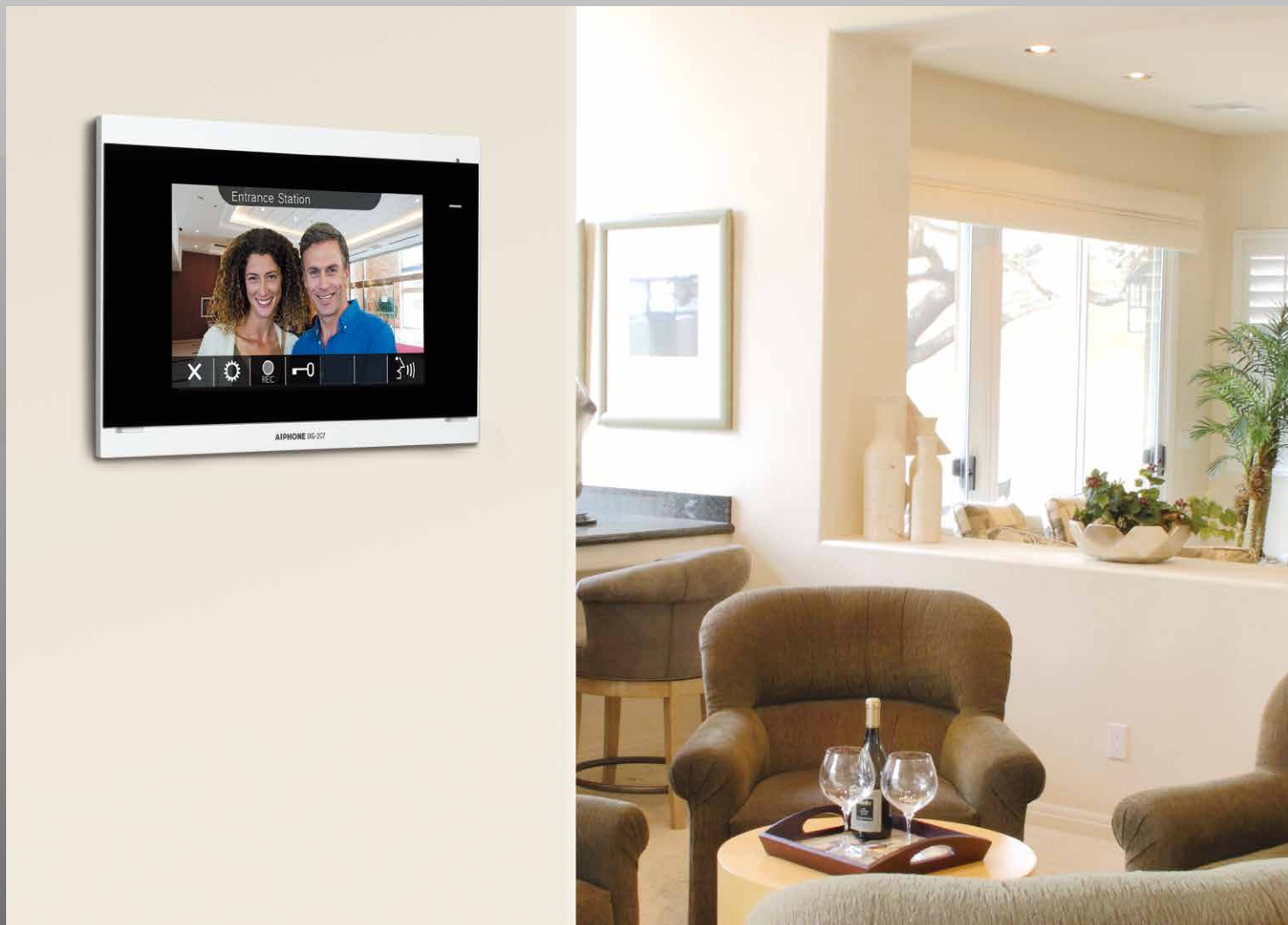


INTERCOM SYSTEM

P100~

MULTI-TENANT BUILDING

Extensive lineup, greater flexibility, covering more applications.
 Can be installed in various types of buildings, from small to large.



Lineup

Full IP Residential System
 IXG System

P14~



- Full IP
- Smartphone App available
- Integration with IX system
- Perfect for complex buildings

ENTRY SECURITY



Multi building development



Large scale residential building

Video Multi-Tenant System
GT System

P28~



- Standard system for residential buildings
- Wide variety of stations
- Audio only system possible

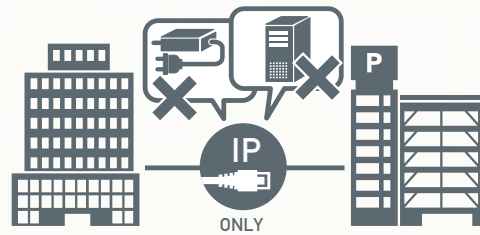
The IXG system is a full IP residential convenience.

Thanks to Smartphone App, you can respond to visitors while out. Integration is the important key of IXG system.

Features

IP-based Peer to Peer system

Communicate between Video tenant station and Video entrance station with no distance limitations. To reduce any further cost, this system requires no servers.



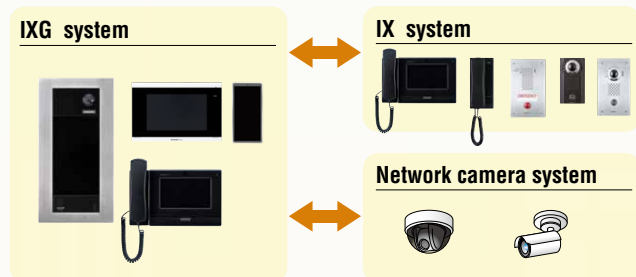
Smartphone App Available

Never miss a call while away from home. You can answer a call with your smartphone.



Integration

Integration with IX system and network camera system.



Complex building development P18~



Use together with IX systems in mixed commercial / residential developments. One solution for the whole site where shared communication channels are necessary.

Multi building development P17~



Max. 99 buildings

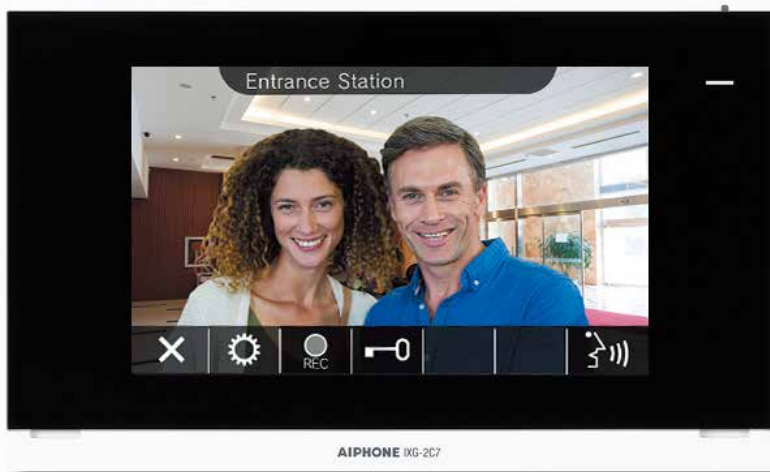
Max. 9,999 units

Up to 99 interconnected buildings and up to 9,999 units. Create flexible solutions for very large developments.

system which improves lifestyle

The system is perfect for complex buildings with mixed residential and commercial systems.

Main Products



Video tenant station
IXG-2C7

P24~

- 7 inch LCD touch screen
- Thin design

Intercom App®
AIPHONE IXG

P25~

- Answer calls anywhere inside or outside your home



Video entrance station
IXG-DM7

P22~

- 7 inch LCD touch screen
- Approx.170° wide angle camera



Guard station
IXG-MK

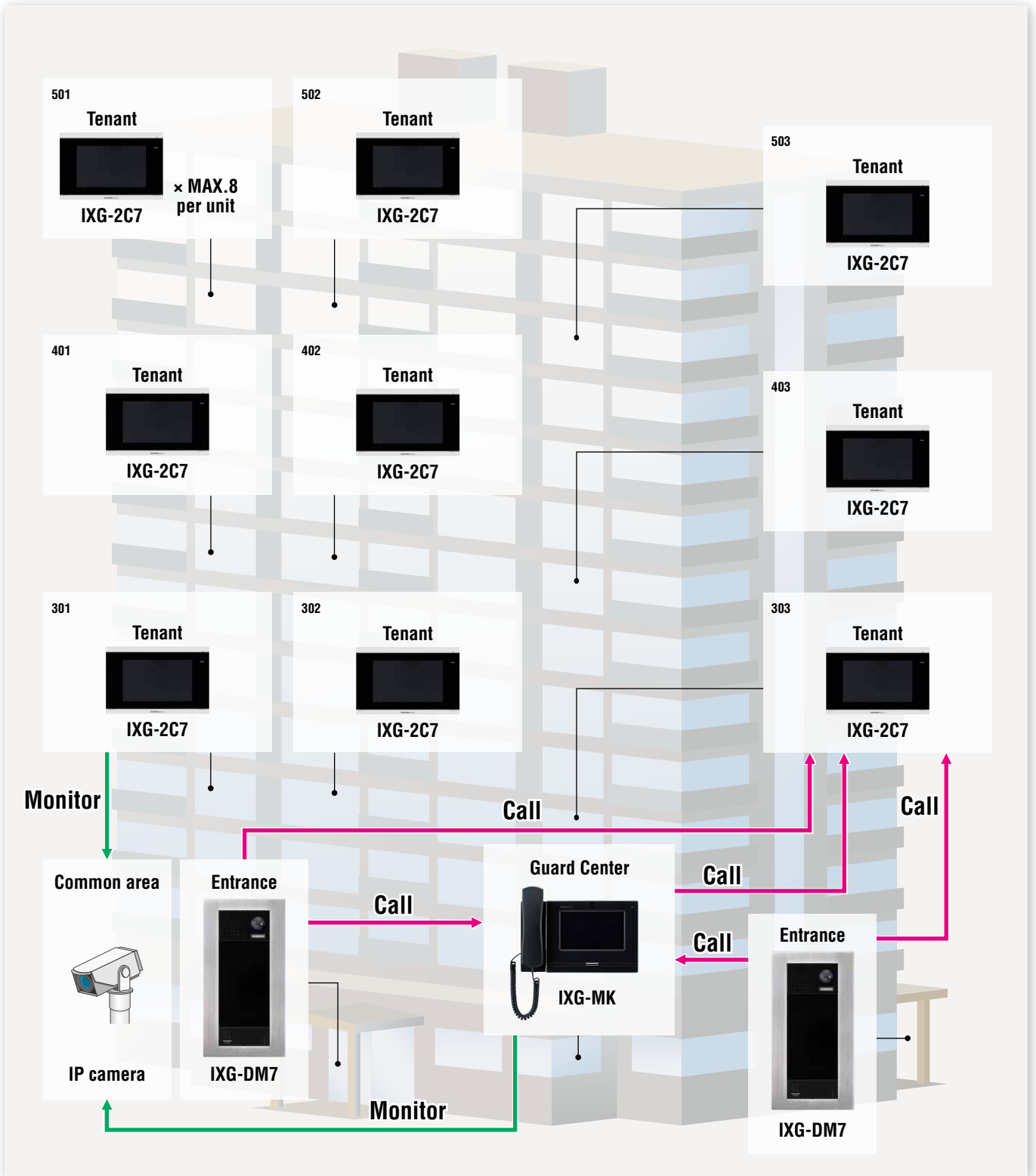
P26~

- 7 inch LCD touch screen



Installation Example

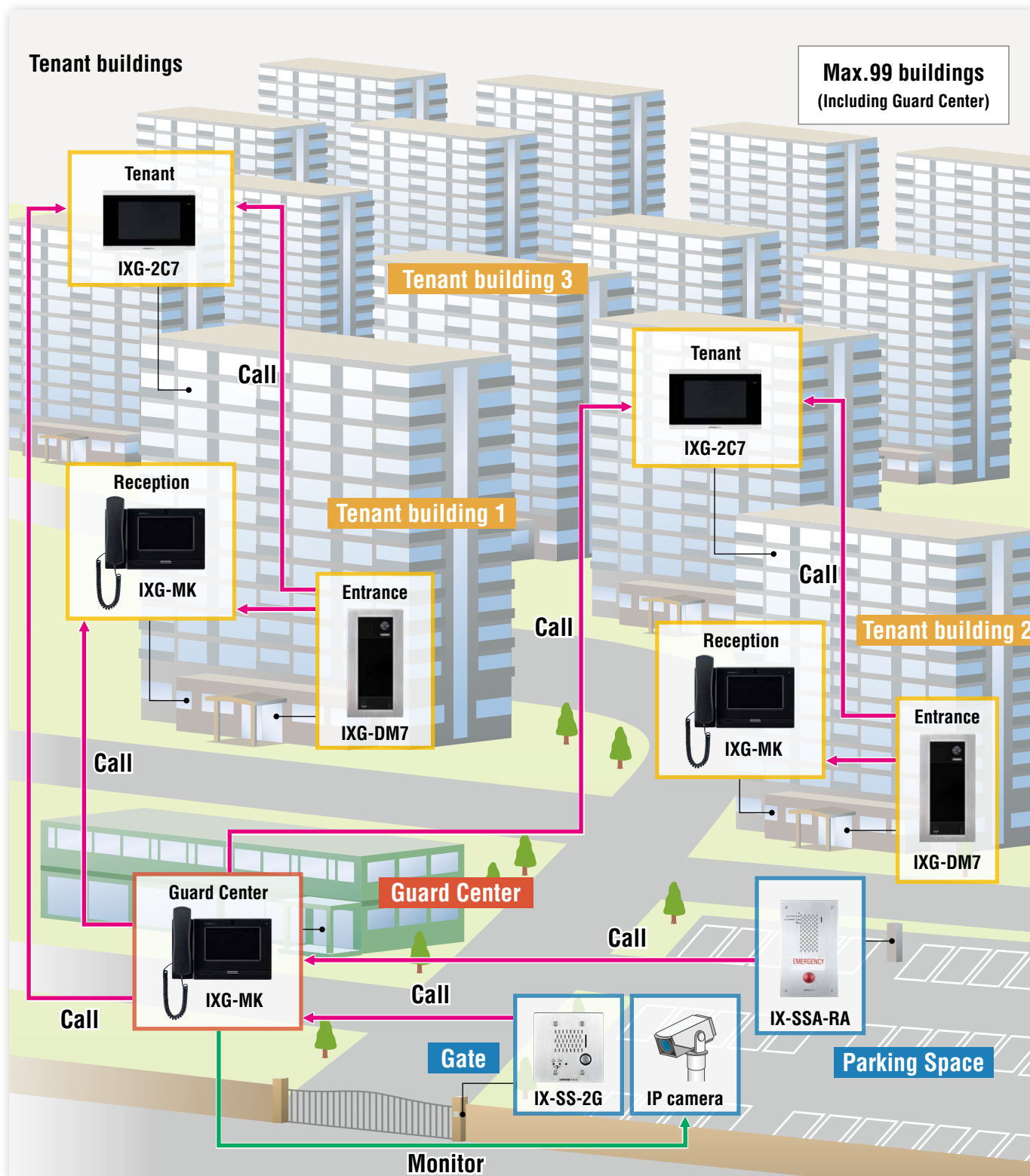
Residential building



All tenant stations can be called from any entrance station or guard station.
Video and audio from the IP camera can be monitored from the tenant station or guard station.

Installation Example

Multi building development



Connect buildings through an IP network. Ideal for large sites with long distances between buildings. The guard center can communicate with all tenant buildings.

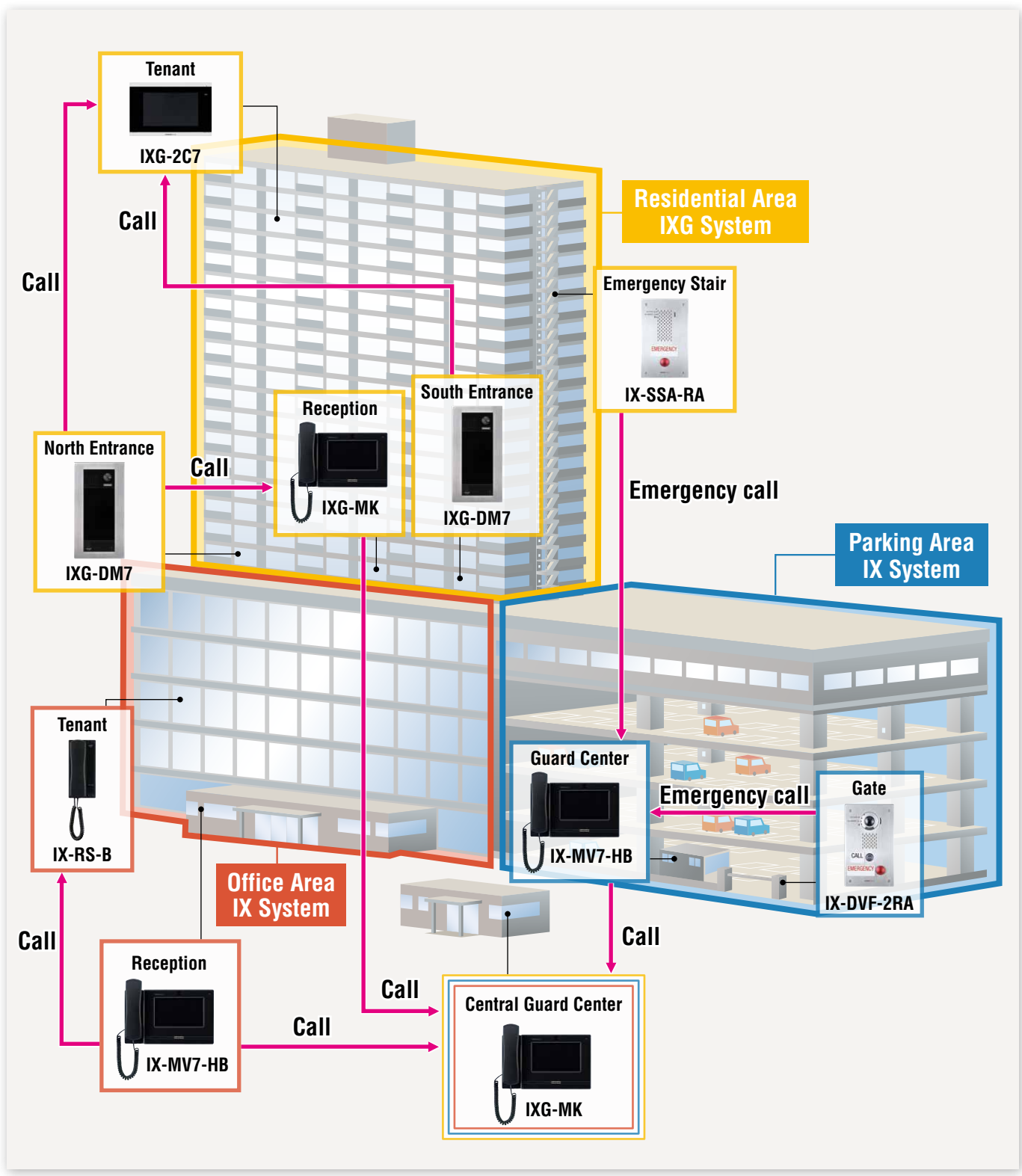
IXG

GT

Full IP Residential System

Installation Example

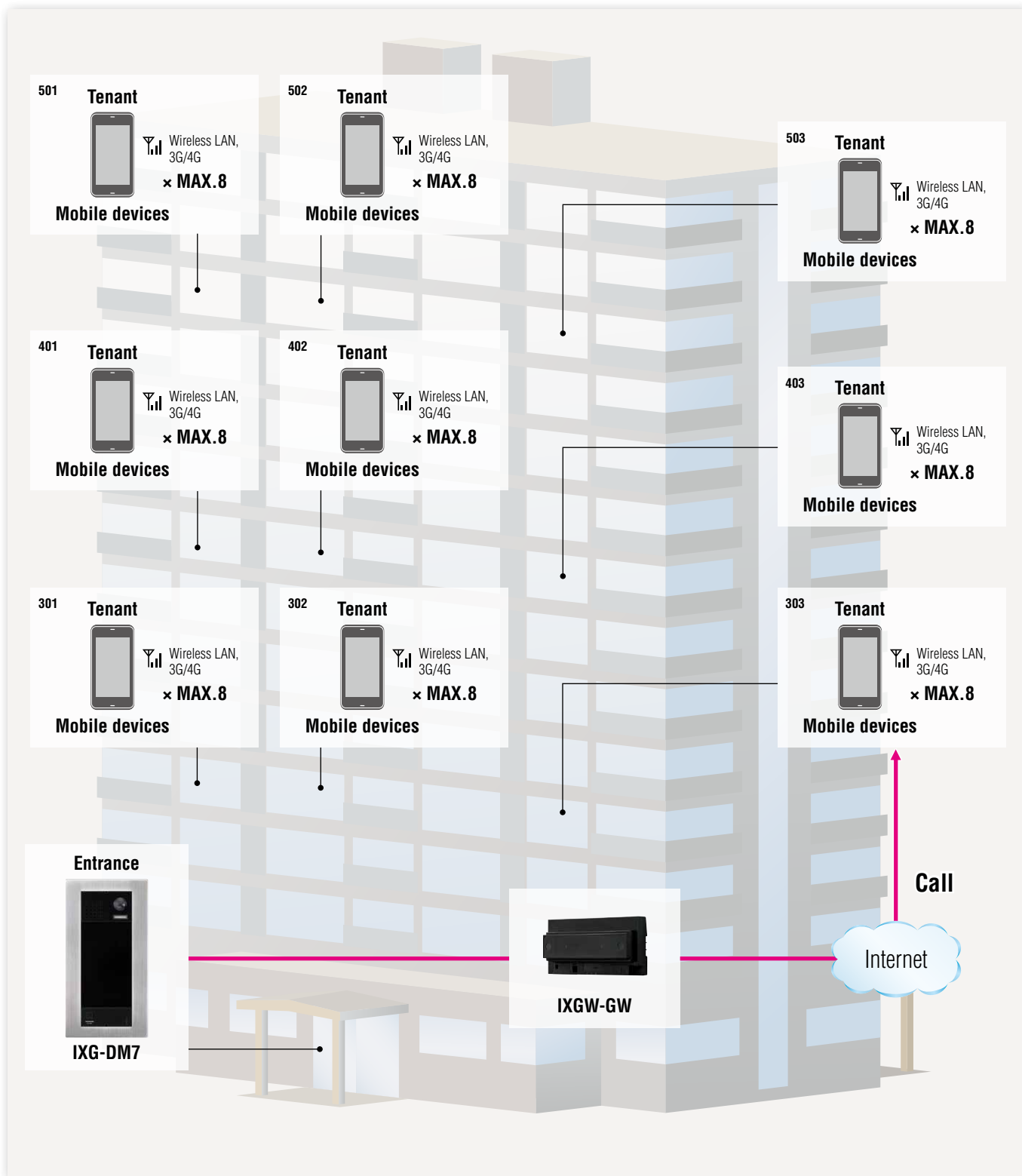
Complex building development



Residential area, office area and commercial area of complex building development can be configured with one system. The central guard center can communicate with all areas.

Installation Example

Residential building (Mobile device entry system)

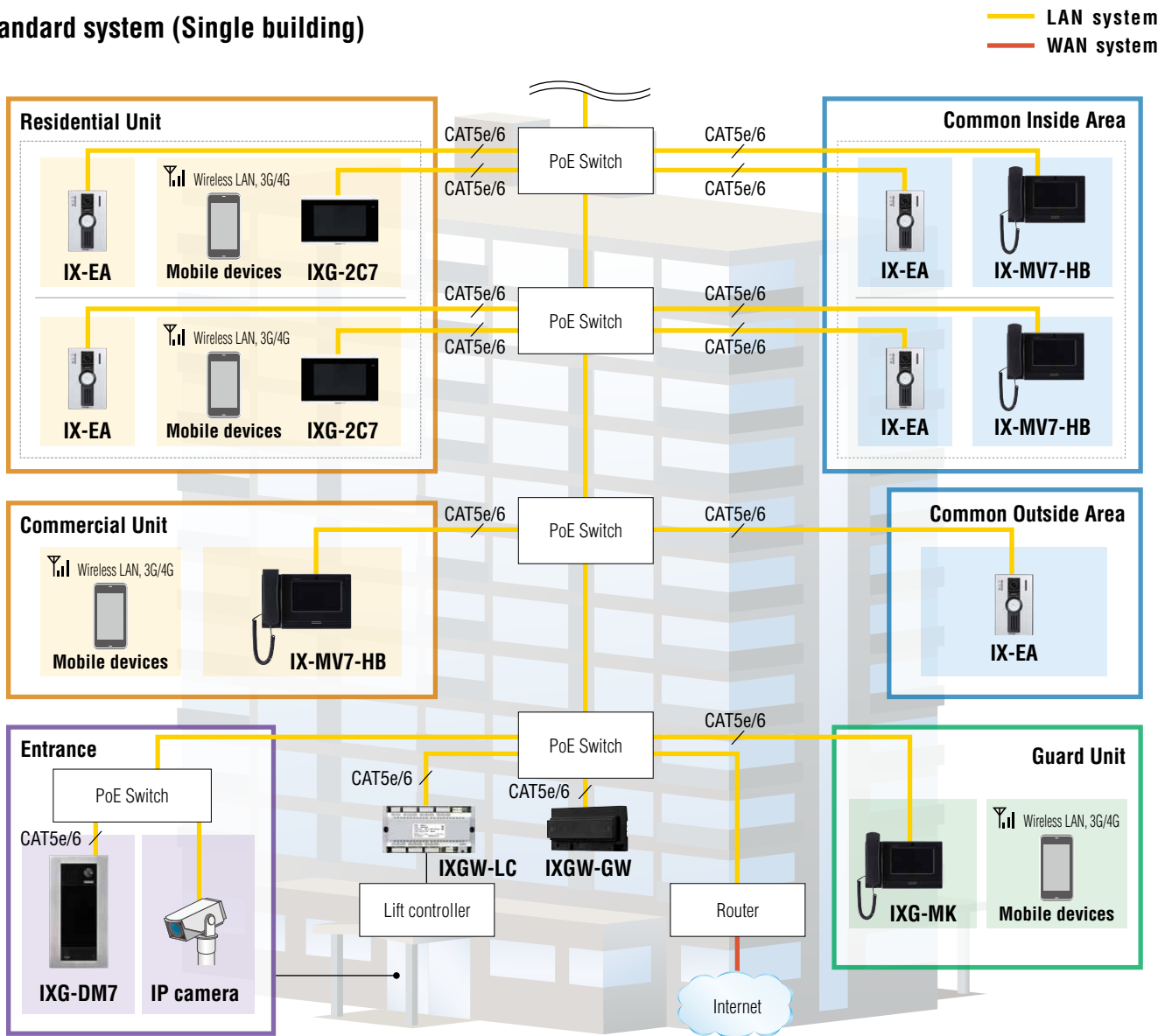


There is no need to install video tenant stations.
 You can talk with visitors through your mobile device even if you are away from home.

Full IP Residential System

System Configuration Example

Standard system (Single building)



Maximum Capacity

A maximum of 9,999 of the following stations and adaptors can be connected:

The system can be configured with IXG system devices only, however you can also use the IX system devices below.

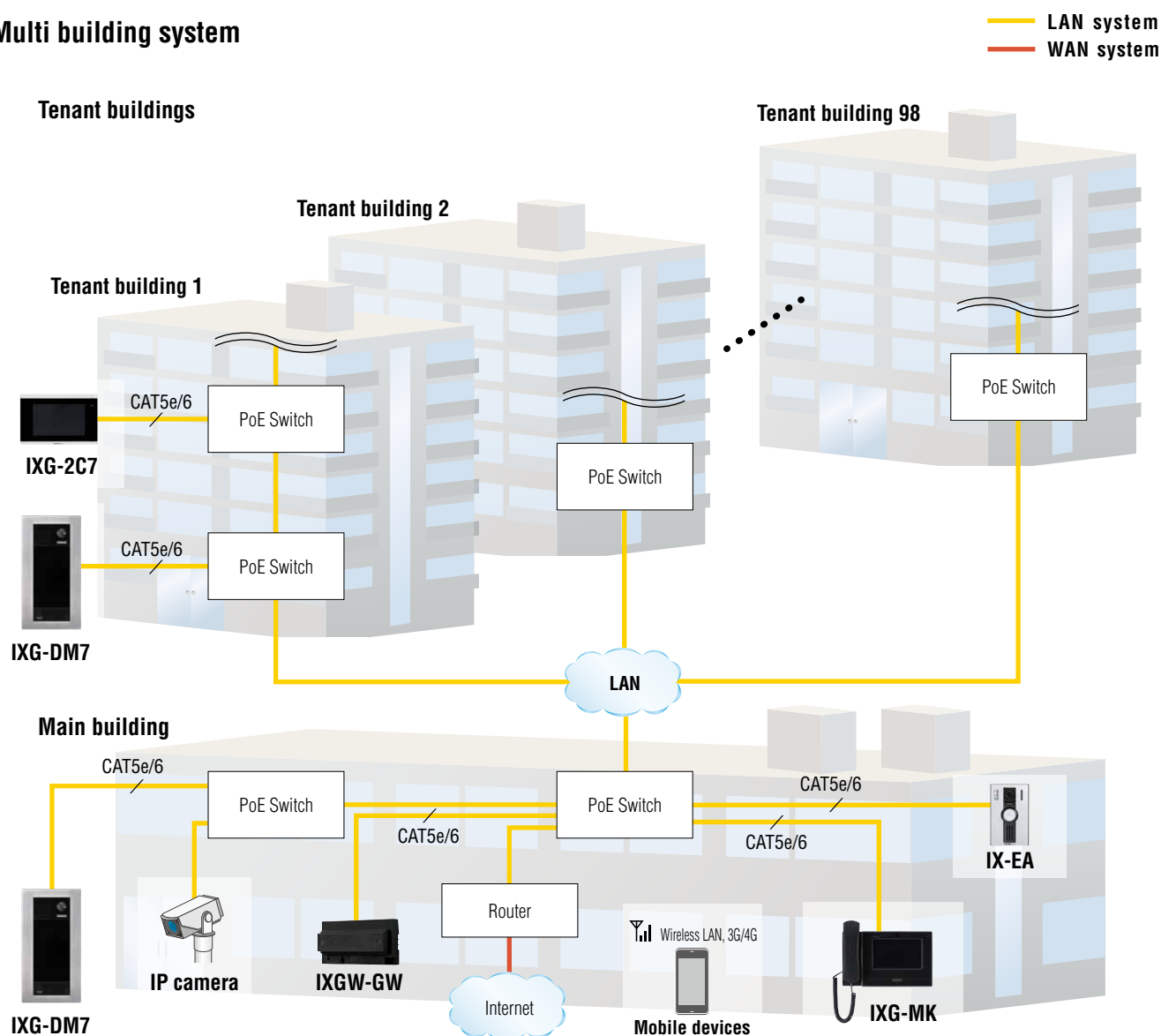
- IXG system : IXG-2C7, IXG-DM7, IXG-MK, IXGW-LC, IXGW-GW
- IX system : Master stations (IX-MV7-HB, IX-MV7-HW, IX-MV7-B, IX-MV7-W), Handset sub stations (IX-RS-B, IX-RS-W), Door stations (IX-EA, IX-DA, IX-BA, IX-DV, IX-DVF, IX-DVF-P, IX-DVF-RA, IX-DVF-2RA, IX-SS-2G, IX-SSA, IX-SSA-RA, IX-SSA-2RA)

A maximum of 9,999 mobile devices can be connected.

Residential Unit	IXG-2C7 or Handset sub station (max.8 per unit), Mobile device (max.8 per unit), Door station (max.2 per unit)
Commercial Unit	Master Station or Handset sub station (max.8 per unit), Mobile device (max.8 per unit), Door station (max.2 per unit)
Common Inside Area	IXG-MK, Master Station or Handset sub station (max.8 per unit), Door station (max.2 per unit)
Common Outside Area	Door station (max.10 per unit)
Guard Unit	IXG-MK or Handset sub station (max.8 per unit), Mobile device (max.8 per unit), Door station (max.2 per unit)
Entrance	IXG-DM7 (max.10 per unit)
Other	IXGW-LC (max.16 per building), IXGW-GW (max.1 per system)

System Configuration Example

Multi building system



Maximum Capacity

Maximum number of buildings: 99 buildings (including Tenant building, Main building)

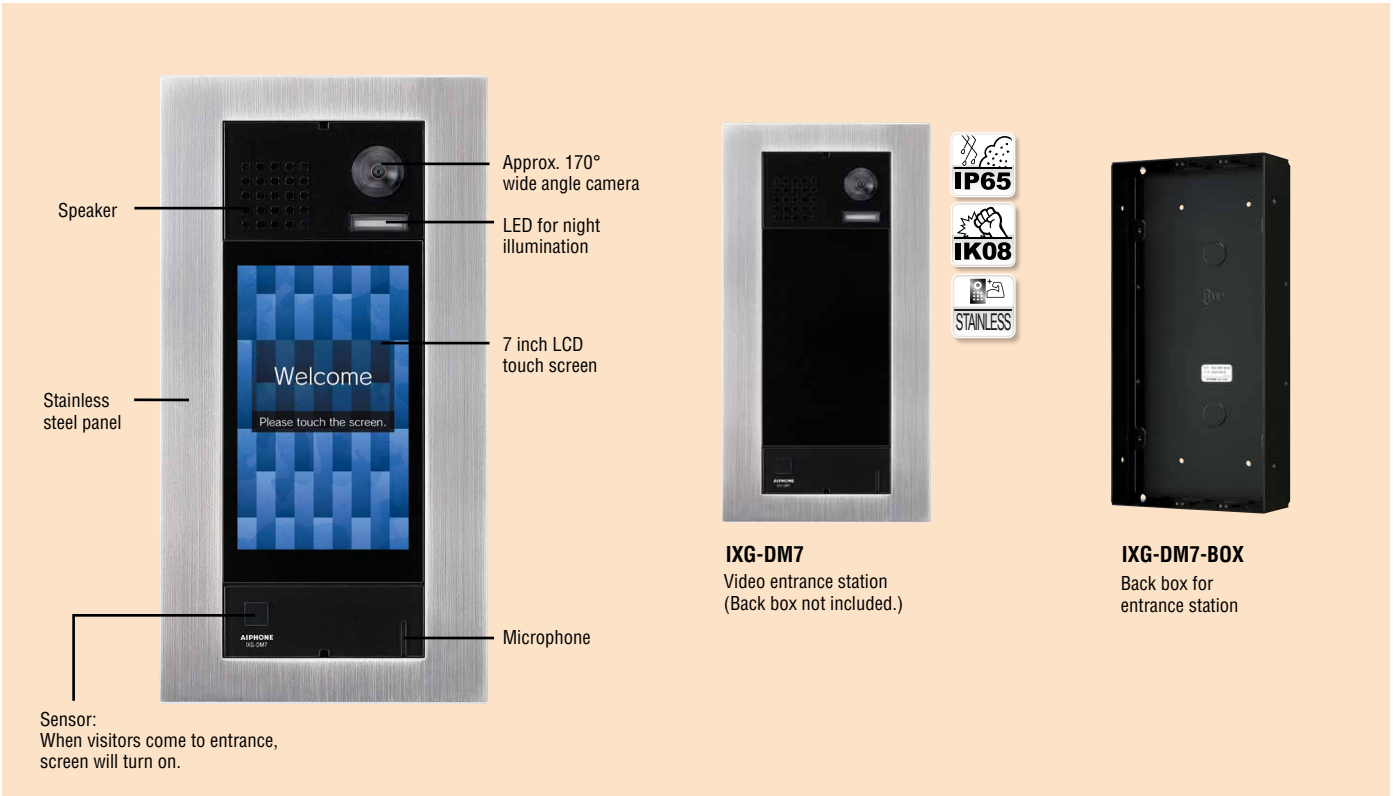
A maximum of 9,999 of the following stations and adaptors can be connected with a multi-building system:

- IXG system : IXG-2C7, IXG-DM7, IXG-MK, IXGW-LC, IXGW-GW
- IX system : Master stations (IX-MV7-HB, IX-MV7-HW, IX-MV7-B, IX-MV7-W), Handset sub stations (IX-RS-B, IX-RS-W), Door stations (IX-EA, IX-DA, IX-BA, IX-DV, IX-DVF, IX-DVF-P, IX-DVF-RA, IX-DVF-2RA, IX-SS-2G, IX-SSA, IX-SSA-RA, IX-SSA-2RA)

A maximum of 9,999 mobile devices can be connected in an entire multi-building system.

Full IP Residential System

Video entrance station



IXG

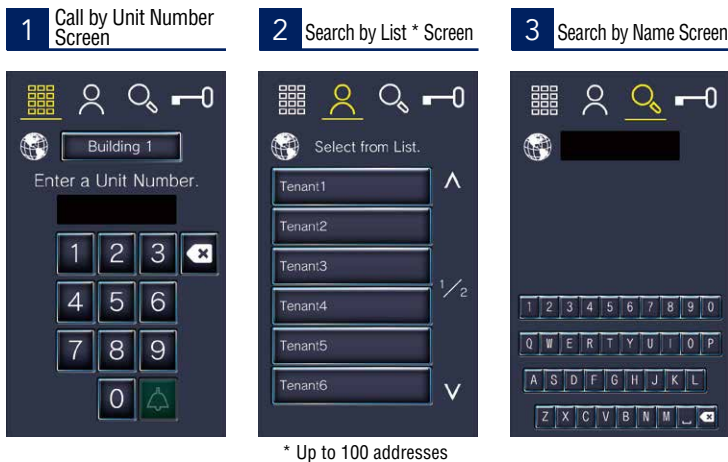
GT

Features

- Call max. 8 Tenant stations and Intercom App in the same unit at the same time
- Call Guard stations and Intercom App
- Door release by Access Code
- 12 languages (English, Spanish, Turkish, Traditional Chinese, Simplified Chinese, etc.) available :
Visitors can temporarily select their display language, will return to the default language after call. Audio message during a call and at the start of the tenant releasing the electric lock will also change temporarily.
- Status indication for calling, communication and door release
- Record video and audio to a microSD card (Refer to specifications for microSD card. →P.24)
- Receives paging

Select a display screen

There are three types of operation screens.
They can be selected by tapping the icon at the top of the screen.



12 languages available

Visitors can select the display language.



Specifications (IXG-DM7)

Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Type of communication	Full duplex audio (depending on the destination station)
Monitor	7 inch TFT LCD touch screen
Camera	1/2.7 inch Color CMOS
Minimum illumination	5 lux
Number of units (in address book)	Max. 9,998 units (IX / IXG stations : Max. 9,998 stations + Intercom App : Max. 9,999)
Number of buildings	Max. 99 buildings
Mounting	Flush wall-mount
Material	Front panel : Stainless steel, vertical alignment finished Main unit - Case : Flame resistant PC + ABS resin LCD display : Glass Chassis : Die-cast aluminum
IP rating	IP65 (dust-proof / spray-resistant)
IK rating	IK08

Unit dimensions

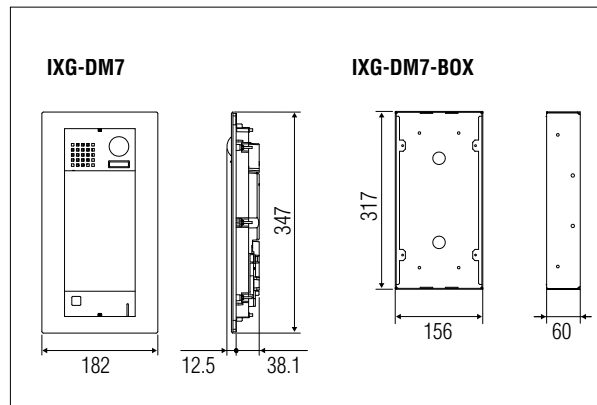
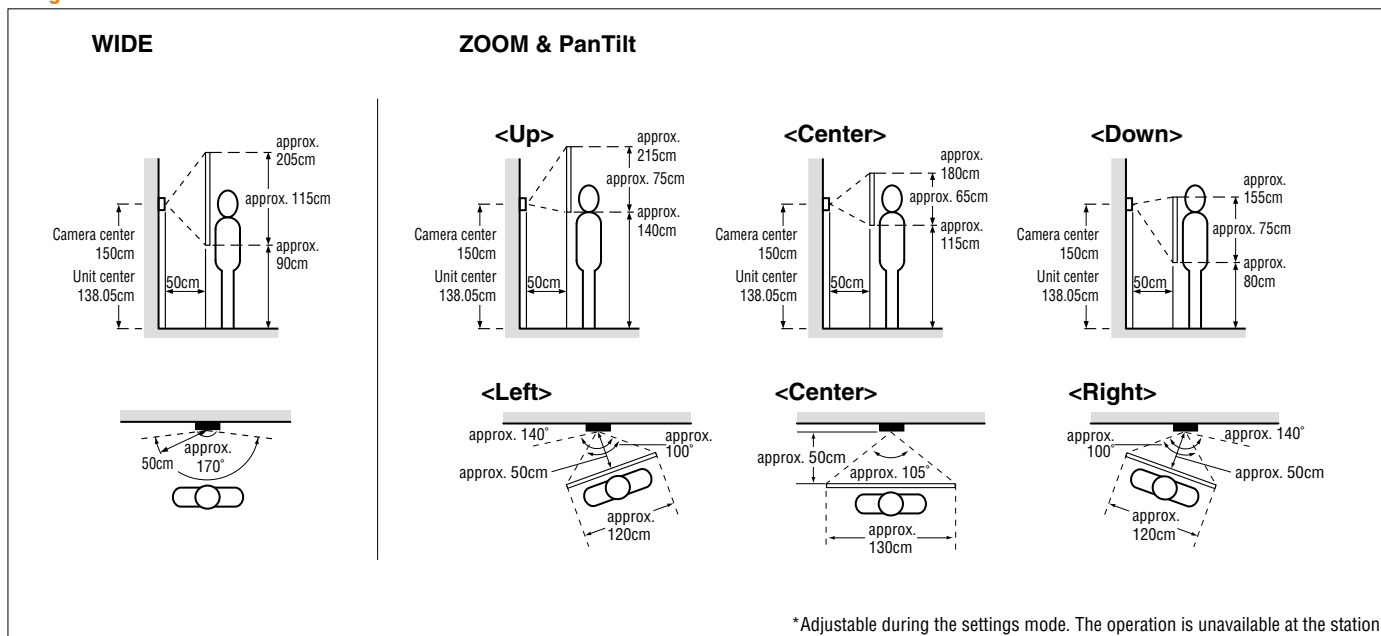
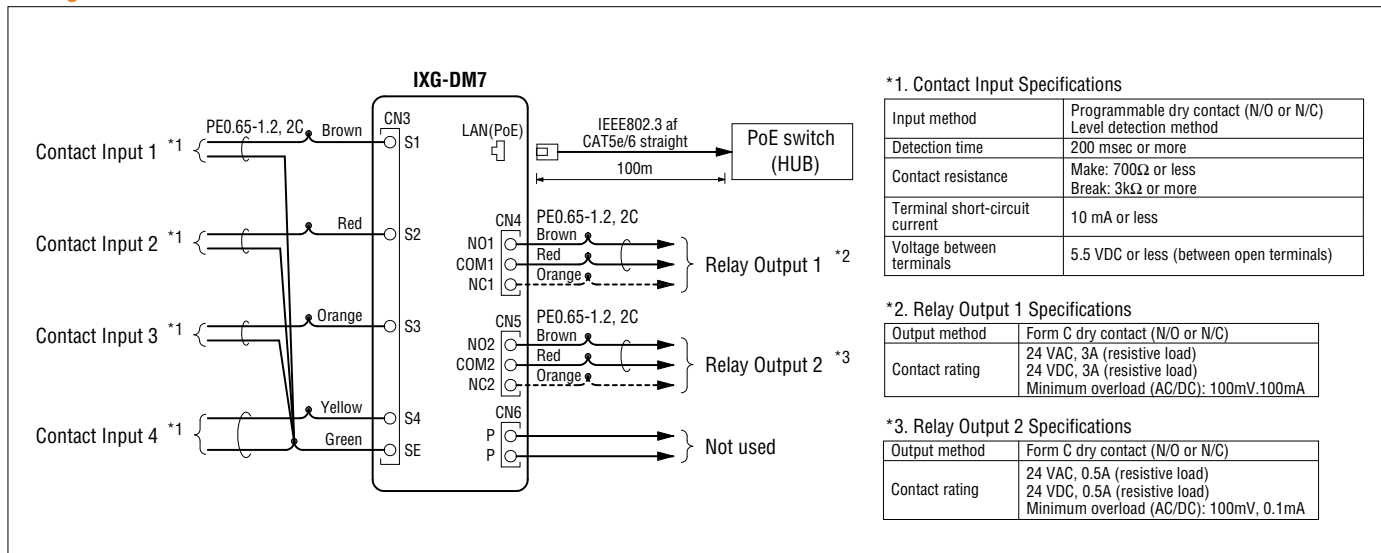


Image view area



*Adjustable during the settings mode. The operation is unavailable at the station.

Wiring



*1. Contact Input Specifications

Input method	Programmable dry contact (N/O or N/C) Level detection method
Detection time	200 msec or more
Contact resistance	Make: 700Ω or less Break: 3kΩ or more
Terminal short-circuit current	10 mA or less
Voltage between terminals	5.5 VDC or less (between open terminals)

*2. Relay Output 1 Specifications

Output method	Form C dry contact (N/O or N/C)
Contact rating	24 VAC, 3A (resistive load) 24 VDC, 3A (resistive load) Minimum overload (AC/DC): 100mV, 100mA

*3. Relay Output 2 Specifications

Output method	Form C dry contact (N/O or N/C)
Contact rating	24 VAC, 0.5A (resistive load) 24 VDC, 0.5A (resistive load) Minimum overload (AC/DC): 100mV, 0.1mA

Full IP Residential System

Video tenant station



IXG-2C7
Video tenant station
(Max. 8 stations per unit)



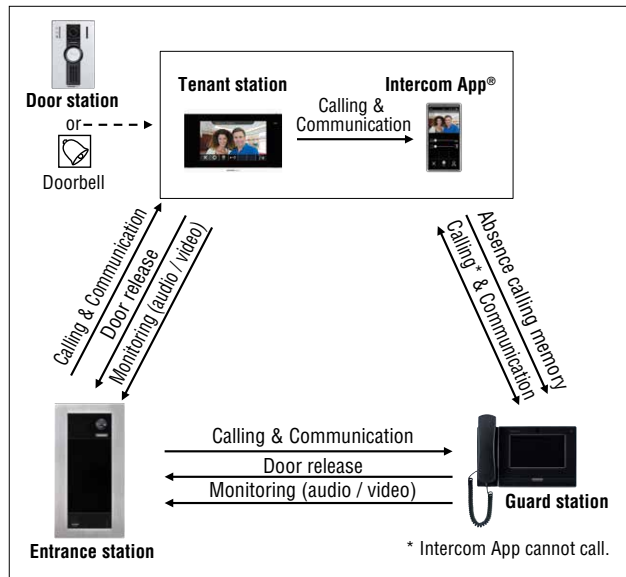
IXG-FMK-2C7
Flush mount kit
for tenant station



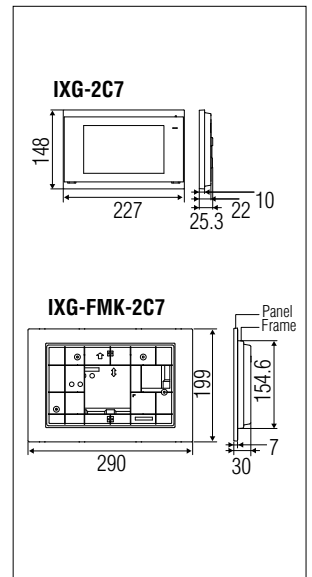
Features

- 7 inch touch screen for easy operation and video monitoring
- Call Guard stations and Intercom App
- Call another Tenant station and Intercom App in the same unit
- Monitor video and audio from a Door station, an Entrance station and network camera
- Record video and audio to a microSD card
- Releasing door lock
- Up to each 20 incoming / outgoing call records are stored
- Control a lift by pressing the lift control button
- Receives paging
- 12 languages (English, Spanish, Turkish, Traditional Chinese, Simplified Chinese, etc.) available

Functions



Unit dimensions



Specifications (IXG-2C7)

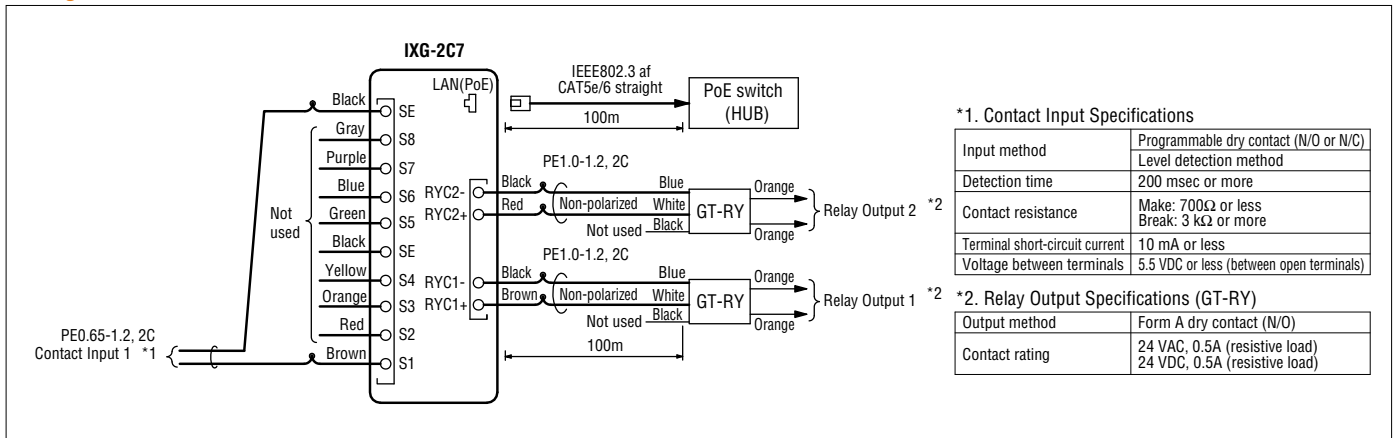
Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Type of communication	Full duplex audio (depending on the destination station)
Monitor	7 inch TFT LCD touch screen
Number of units (in address book)	Max. 9,999 units (IX / IXG stations : Max. 500 stations + Intercom App : Max. 9,999)
Number of buildings	Max. 99 buildings
Mounting	Surface wall-mount
Material	Flame resistant PC + ABS resin

Specifications (recommended microSD card)

Recording function cannot be used without microSD card.

Standard	microSDHC memory card
Supported storage capacity	4 GB to 32 GB
Format	FAT32
Speed classes	SD speed class 10

Wiring



Intercom App®



**Intercom App®
AIPHONE IXG**
(Max. 8 mobile devices
per unit)

Both iOS and Android are
available (Free download)



Features

- Answer calls from the Entrance station, the Tenant station, the Guard station and the Door station
- Monitor video and audio from the Entrance station or the Door station
- Record video and audio
- Releasing door lock
- Up to 20 incoming call records are saved
- 12 languages (English, Spanish, Turkish, Traditional Chinese, Simplified Chinese, etc.) available

Answer calls anywhere inside or outside your home



*Android and Google Play are trademarks of Google LLC.

*App Store is a service mark of Apple Inc.

*iOS is the OS name of Apple Inc. iOS is a trademark or registered trademark of Cisco Systems, Inc. in the U.S. and other countries and is used under license.

Gateway adaptor



IXGW-GW
Gateway adaptor

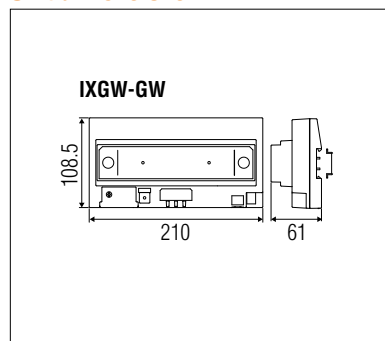
Features

- The Gateway adaptor is a device that can make calls to Intercom App by connecting to the Internet
- Cooperation with Intercom App

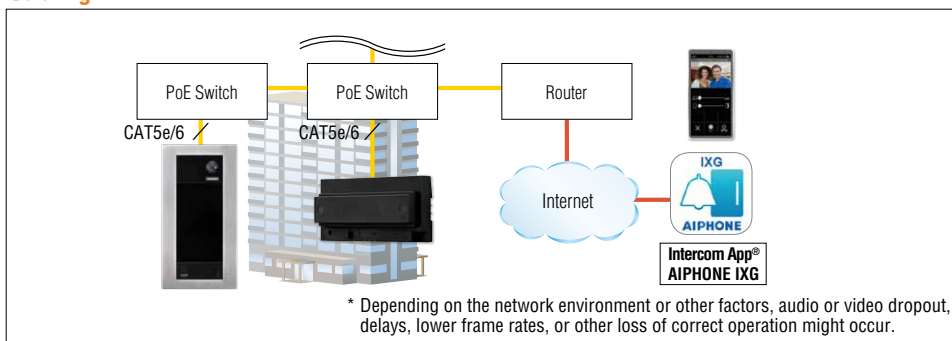
Specifications (IXGW-GW)

Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Mounting	Wall-mounted (DIN rail)
Material	Self-extinguishing ABS resin

Unit dimensions



Cabling



Video/Audio door station



IX-EA
Video door station



IX-SS-2G
Audio door station

Features

- You can connect Door station for Tenant station and Guard station
- Door station can be installed in the common outside area (e.g parking space)

Lineup

Refer to IX system. →P.78~79, 81~83 *IX-DVM is unable to use.

Full IP Residential System

Guard station



Features

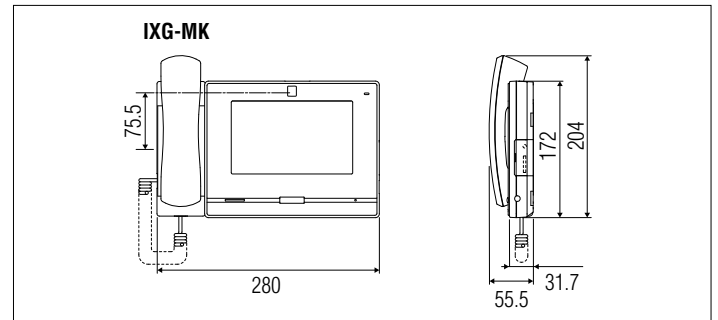
- 7 inch touch screen for easy operation and video monitoring
- Call all the Tenant stations and Intercom App
- Releasing door lock
- Monitor video and audio from an Entrance station, Door station and network camera
- Record video and audio to a microSD card*1
- Call or communication transferring to another station or Intercom App
- Paging (with voice or pre-recorded message) to all stations (up to 500 tenant stations) or selected buildings
- Quick dial buttons
- 7 languages (English, Spanish, Traditional Chinese, Simplified Chinese, etc.) available

*1. Specifications : Refer to P13, plus microSDXC memory card (64 GB to 128 GB, exFAT, SD speed class 10, UHS speed class 1).

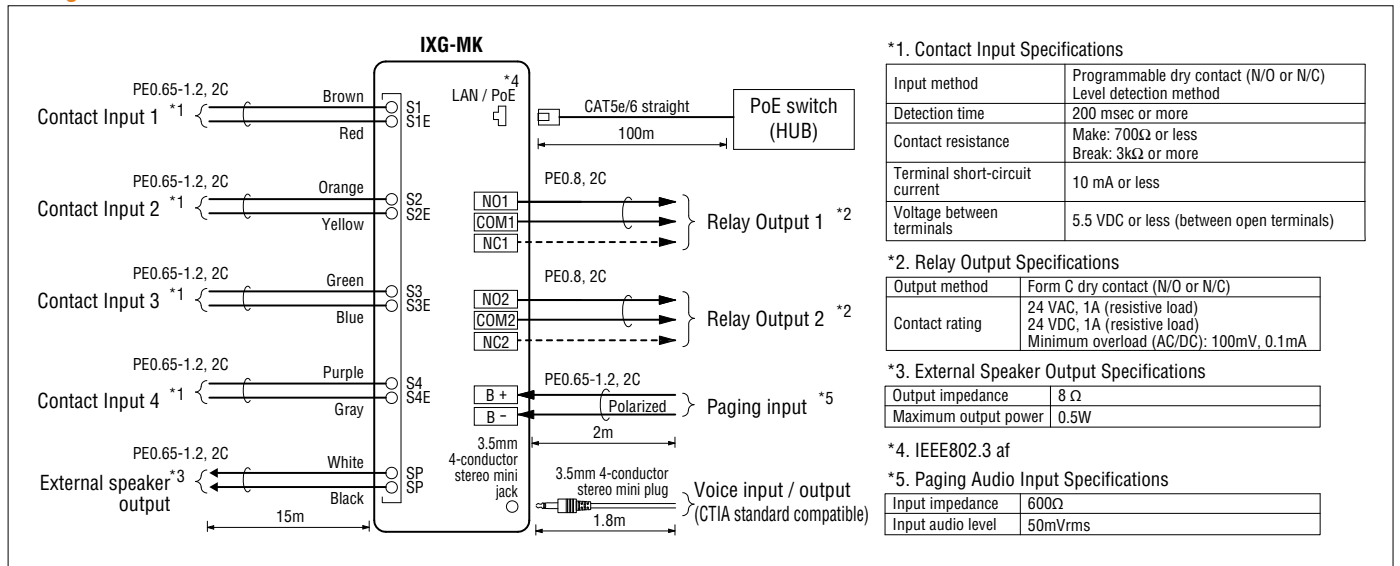
Specifications (IXG-MK)

Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Type of communication	Full duplex audio (depending on the destination station) / touch-to-talk
Monitor	7 inch TFT LCD touch screen
Camera	1/4 inch CMOS
Minimum illumination	15 lux
Number of stations (in address book)	Max. 9,999 units (IX / IXG stations : Max. 9,998 stations + Intercom App : Max. 9,999)
Mounting	Desktop use (with desktop stand) or wall-mount
Material	Flame resistant PC + ABS resin

Unit dimensions



Wiring



Supervision Tool

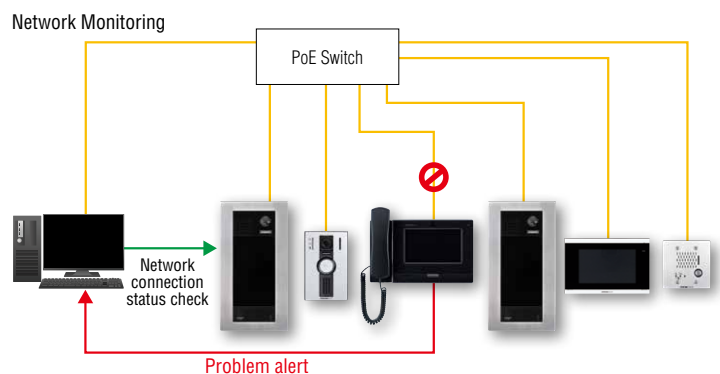
Automatic system status supervision

Use the IXG Supervision Tool on your PC to find problems quickly and accurately to provide the utmost communication reliability.

- Supported OS : Windows 7, 8, 8.1, 10 *1 *2
- Languages : 12 languages (English, Spanish, Turkish, Traditional Chinese, Simplified Chinese, etc.)

*1. For operating system not listed, please contact your AIPHONE distributor.

*2. Windows is a registered trademark or trademark of Microsoft Corporation in the United States and / or other countries.



Lift control adaptor



IXGW-LC
Lift control adaptor

Features

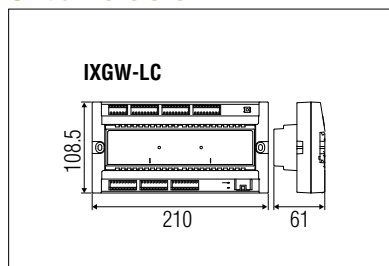
- Installing a Lift control adaptor gives the option to control lifts from the Tenant station, Guard station or Intercom App.
- You can call the lift to your floor by pressing the lift control button on the tenant station
- The lift is controllable from Tenant station or Intercom App while communicating with Entrance station. Access is authorized only to the floor of communicating Tenant station.

Specifications (IXGW-LC)

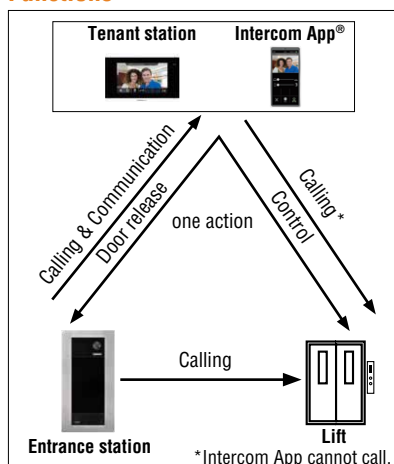
Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Mounting	Wall-mounted / Wall-mounted (DIN-rail)(sold separately)*
Material	Self-extinguishing ABS resin

*Refer to option for GT system. →P.45

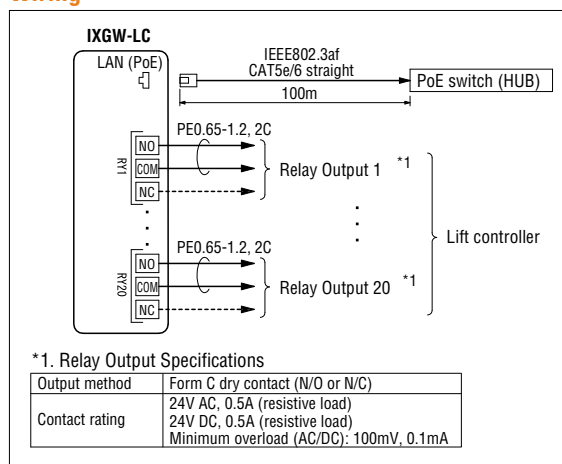
Unit dimensions



Functions



Wiring



Setting

System programming

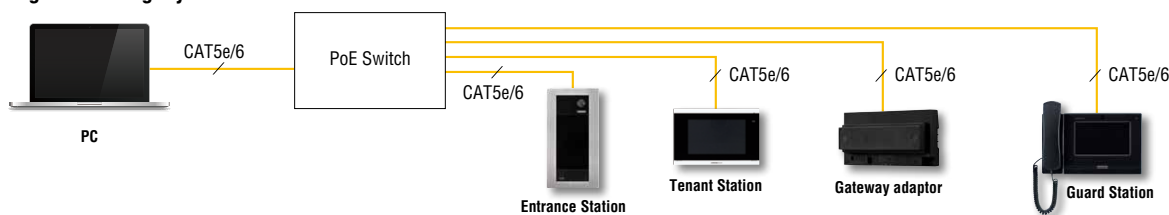
Programming can be achieved using a PC running the IXG Support Tool. You can download IXG Support Tool from the AIPHONE web site. Ensure the operating environment of your computer meets the following conditions.

- Supported OS : Windows 7, 8, 8.1, 10 *1 *2
- Languages : 12 languages (English, Spanish, Turkish, Traditional Chinese, Simplified Chinese, etc.)

*1.For operating system not listed, please contact your AIPHONE distributor.

*2.Windows is a registered trademark or trademark of Microsoft Corporation in the United States and / or other countries.

Image of setting system



Network restrictions

- 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 IXG 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 IXG 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: 64kbps x 2 (in communication) H.264: 32kbps-up to 2048kbps
- IPv4 and IPv6 cannot be mixed in the same system.
- When using multicasting for video, or audio, use in an environment that does not reject IGMPv3 or MLDv2.
- If the Internet connection's uplink speed is slow, video may not be displayed properly. (An uplink speed of 16 Mbps or more is recommended.)
- Intercom app may become unavailable for a certain period of time due to maintenance on the cloud server.
- If the cloud server terminates the service, you will not be able to use the intercom app.
- The intercom app will be unavailable while the Gateway Adaptor firmware is being updated.
- Due to the features and services provided by the Gateway Adaptor and the AIPHONE IXG app, future required changes to device functionality, network communication, security, etc. may require firmware updates unavailable to the Gateway Adaptor.
- In this situation, the Gateway Adaptor would need to be replaced at the cost of the responsible party.

GT System is ideal for large scale multiple buildings. Fresh design,

Aiphone's multi-tenant system can now serve up to 5,000 residences.

Multi building development P30~



- Install one system for housing complexes with multiple buildings
- Building management from anywhere via IP network connection
- All residences can be called from main entrances and guard stations

(Maximum capacity→P.50)

Large scale residential building (more than 500 units) P32~



- Cover a building with more than 500 units with one system

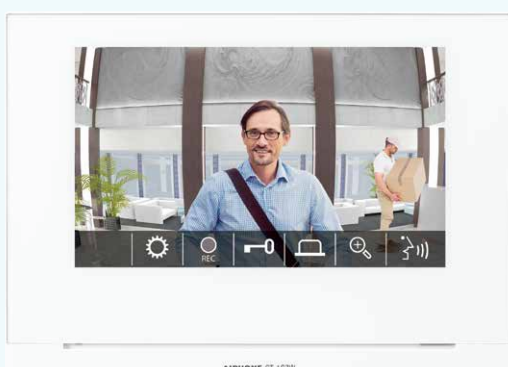
(Maximum capacity→P.50)

residential developments with new technology.

Designed to be even easier to use, our new tenant station features a clear 7 inch display with smartphone App.

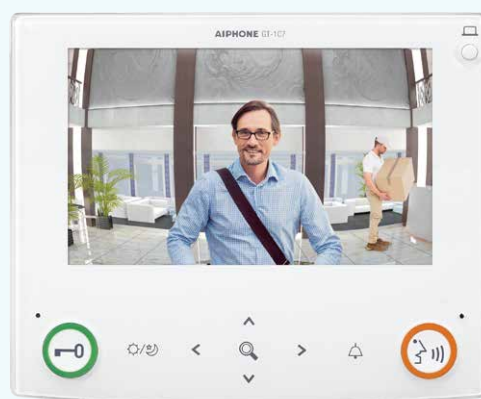
Main Products

Wireless LAN model



7 inch display

Standard model



7 inch display

7 inch Display tenant station

GT-1C7W P40

- Smartphone App available: Answer calls from the entrance station anywhere inside or outside your home.



7 inch Display tenant station

GT-1C7 P40

- Functional design, intuitive control: illuminated easy-to-see buttons for door release and communication.

3.5 inch Display tenant station

GT-1M3 P42

- Simple, compact design



Audio tenant station

GT-1D P42

- Handset audio communication



Entrance station

GT-DMB-N P36~

- Compact design with built-in NFC reader for easy management



Guard station

GT-MKB-N P43

- Check visitors on 3.5 inch display
- Built-in NFC reader for easy management



Video Multi-Tenant System

Installation Example

Multi building development

e.g. 4 Tenant buildings (4 Entrance stations, 4 Guard stations, 1,060 Tenant stations)

2 Main buildings (2 Entrance stations, 6 Guard stations)

- Can be configured as a single system without creating separate systems for each building
- Connect buildings through an IP network. Ideal for large sites with long distances between buildings
- The main building can communicate with all tenant buildings

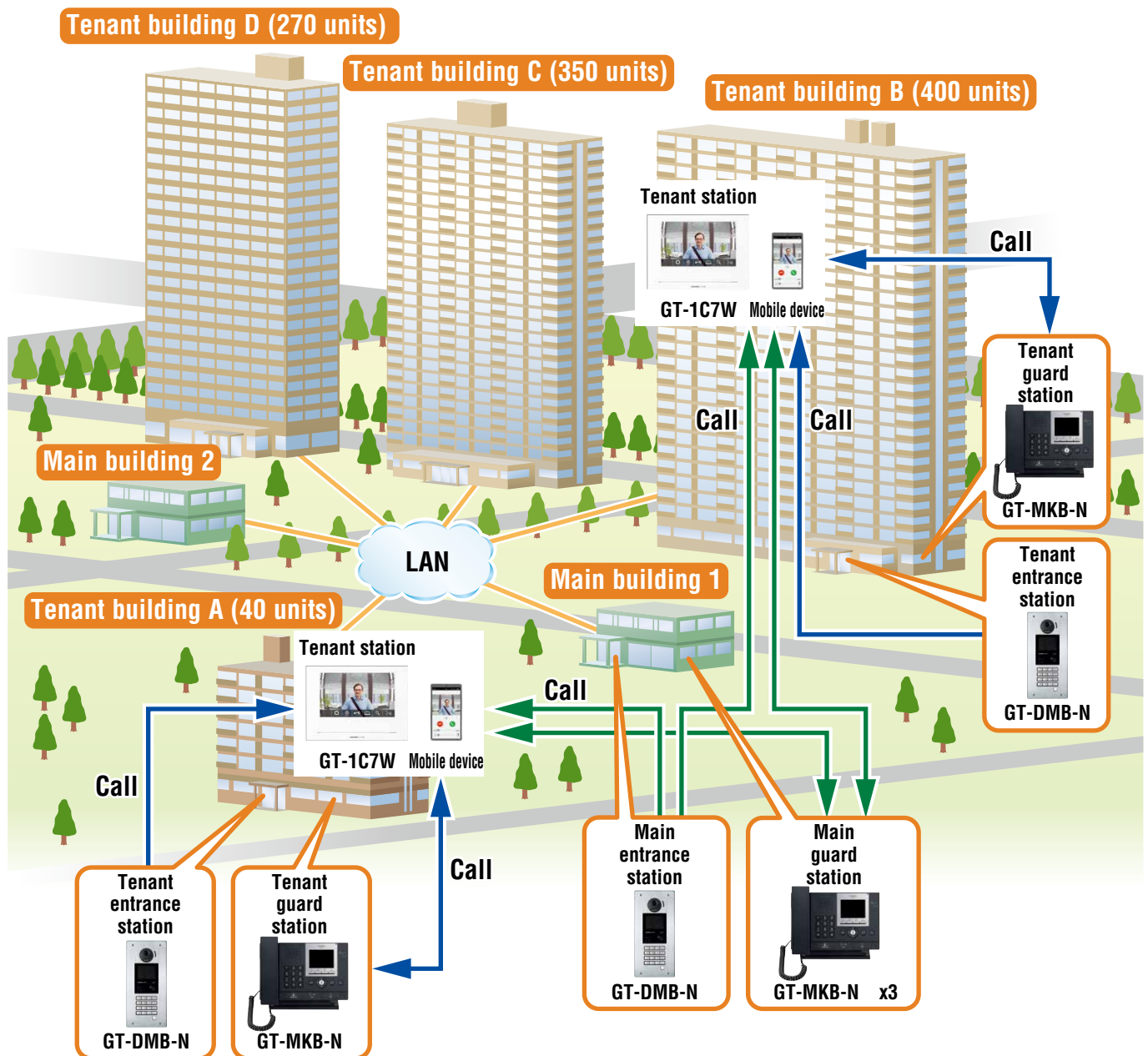
Proposed system :

1 Standard system, 3 Expanded systems in tenant buildings

2 Expanded systems in main buildings

(Maximum capacity→P.50)

*Possible to mix video and audio only systems.



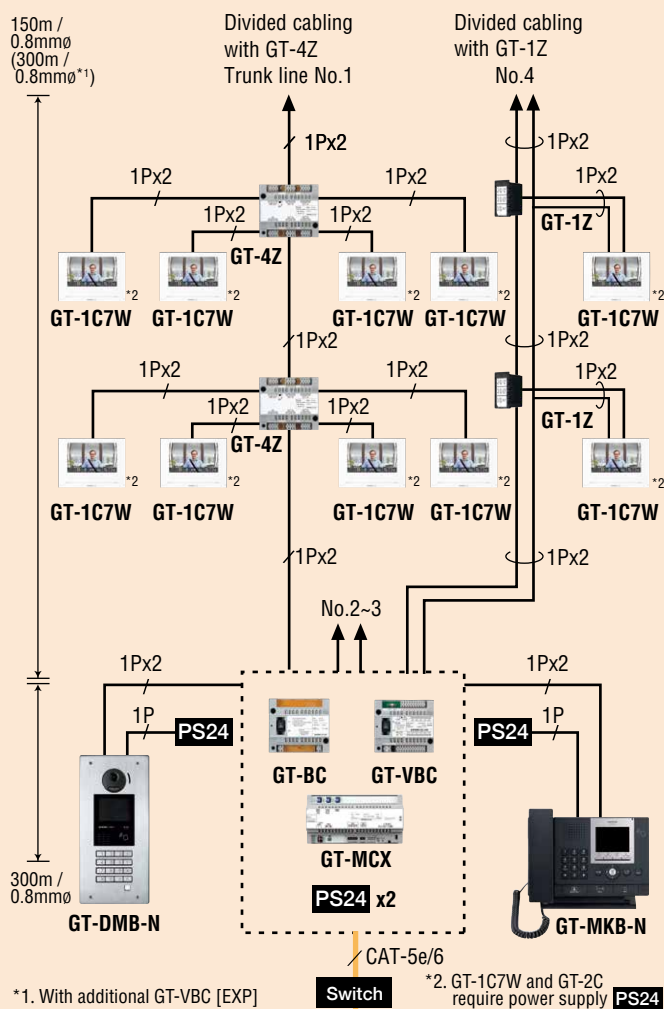
Tenant building A, B, C, D: In the above example, tenant buildings mean residential buildings and towers.

Main building 1 & 2: In the above example, main buildings mean facilities such as security centers and administrative offices.

System Configuration Example

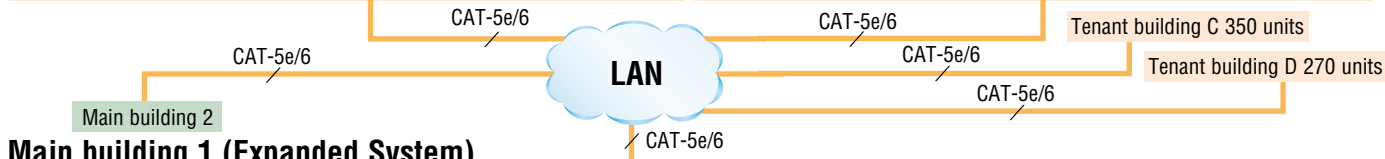
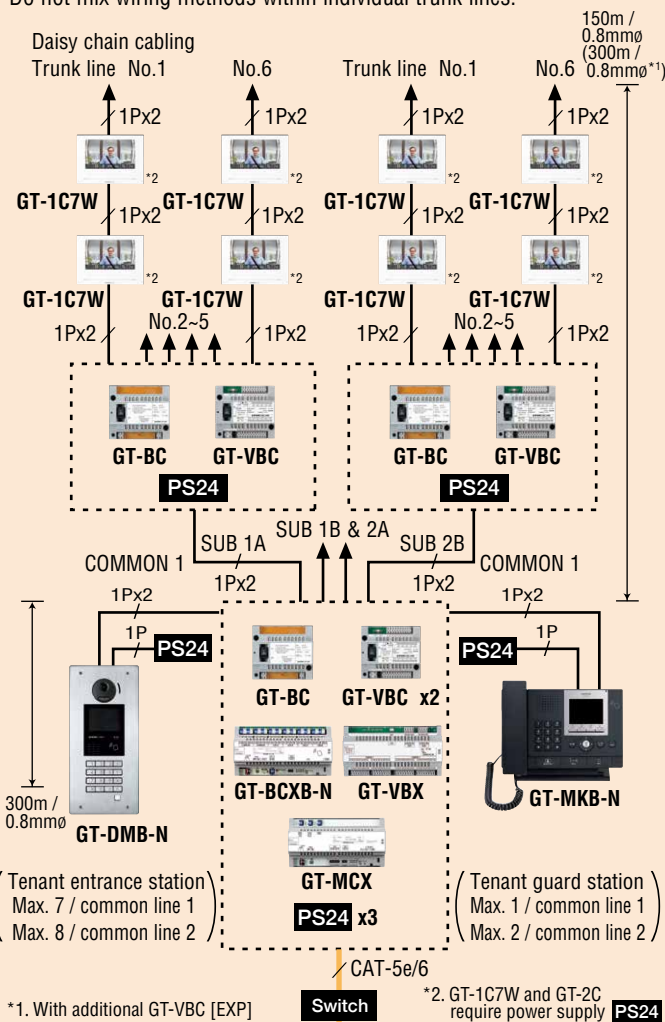
Tenant building A: 40 units (Standard system)

Total max. wiring distance is 2,500m.
Do not mix wiring methods within individual trunk lines.

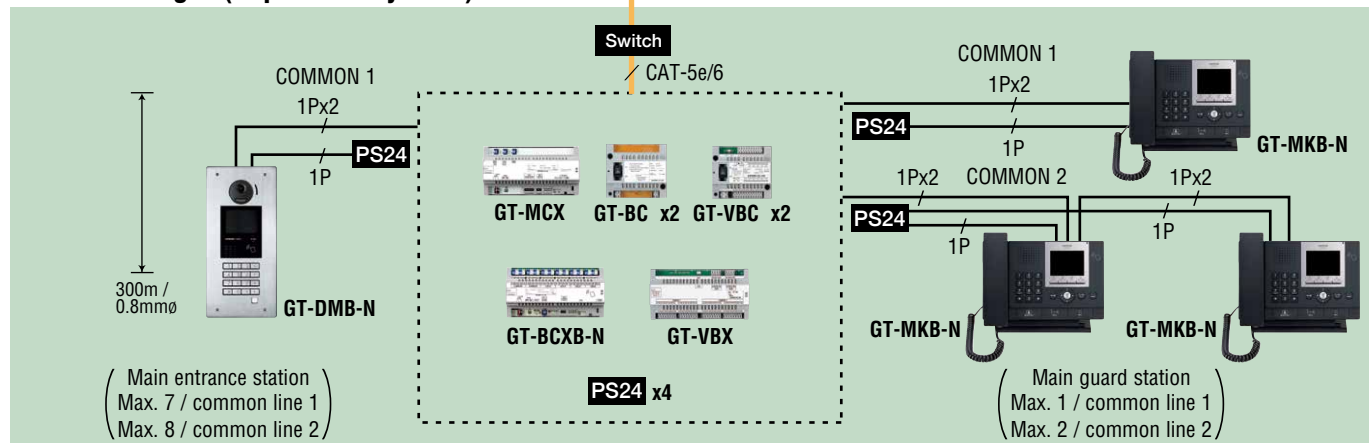


Tenant building B: 400 units (Expanded system)

4 sub trunk lines (SUB1A, 1B, 2A, 2B)
Max. 125 Tenant stations and max. 2,500m wiring distance for each sub trunk line. Total max. wiring distance is 10,000m.
Do not mix wiring methods within individual trunk lines.



Main building 1 (Expanded System)



IXG

GT

Video Multi-Tenant System

Installation Example

Large scale residential building (more than 500 units)

e.g. 3 Tenant sections (1,100 Tenant stations)

1 Main section (3 Entrance stations, 3 Guard stations)

- Multi-building control units allow systems to be configured without having to use separate systems for each section
- All tenant stations can be called from any entrance station or guard station

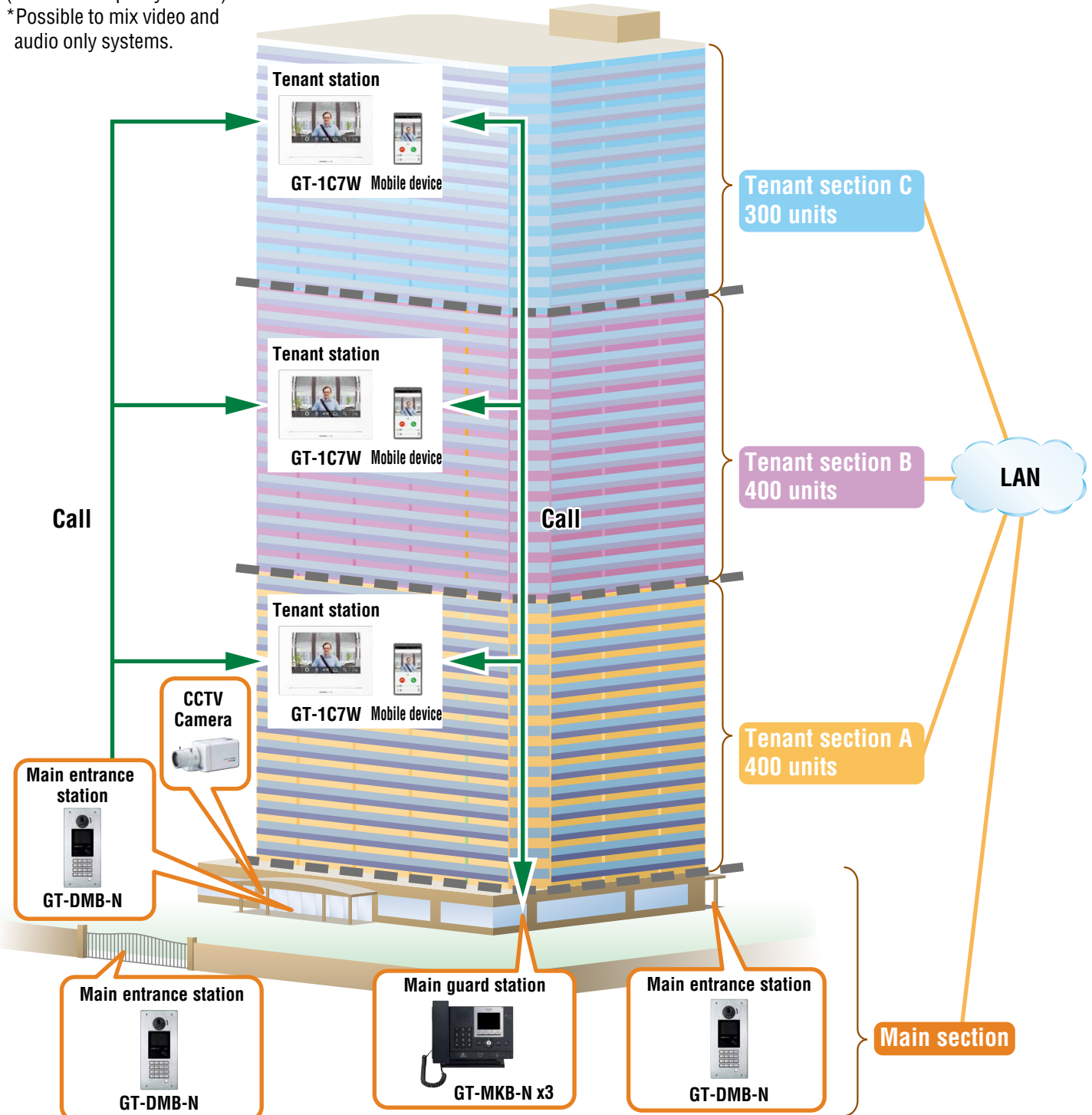
Proposed system :

3 Expanded systems in tenant sections

1 Expanded system in main section

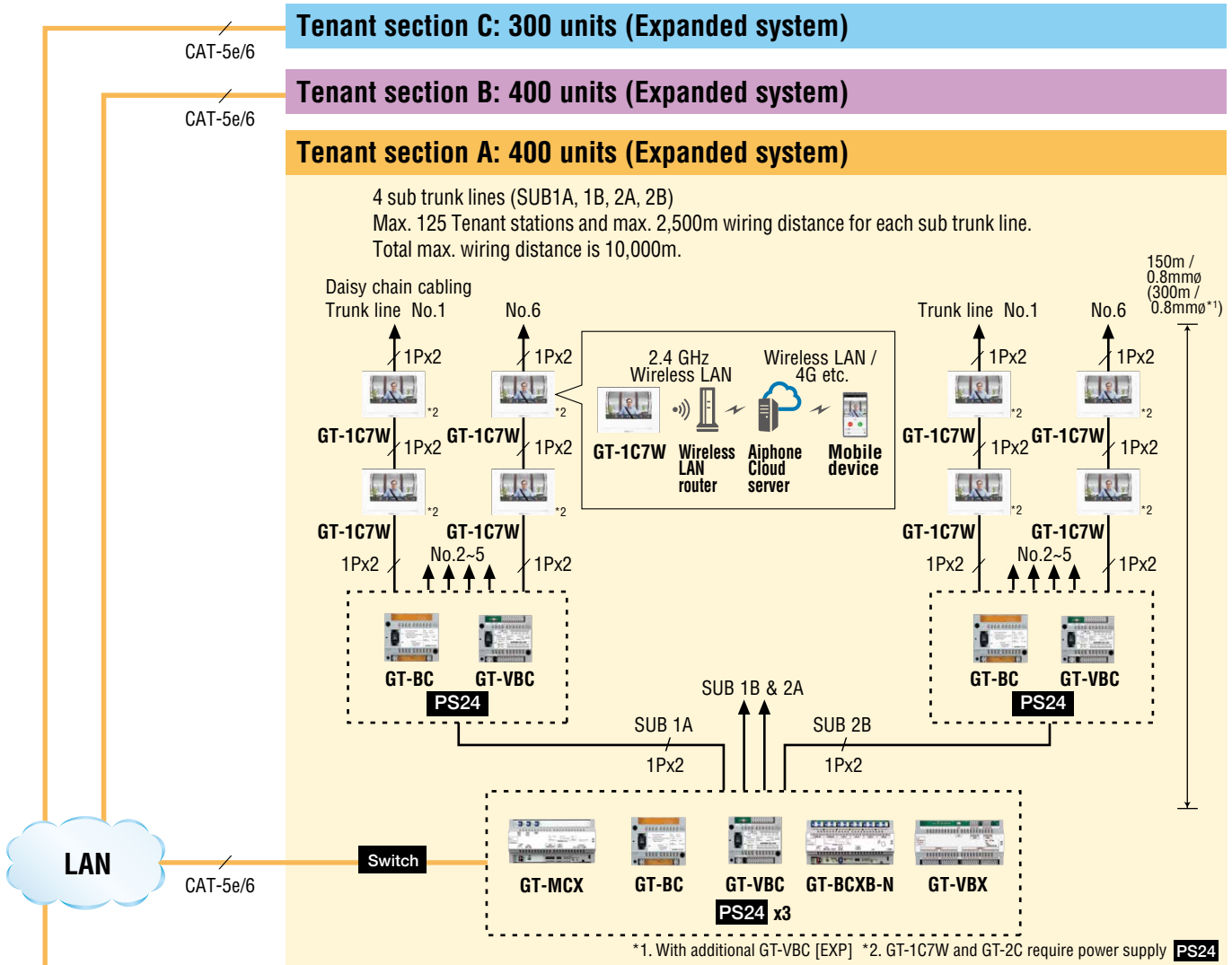
(Maximum capacity→P.50)

*Possible to mix video and audio only systems.

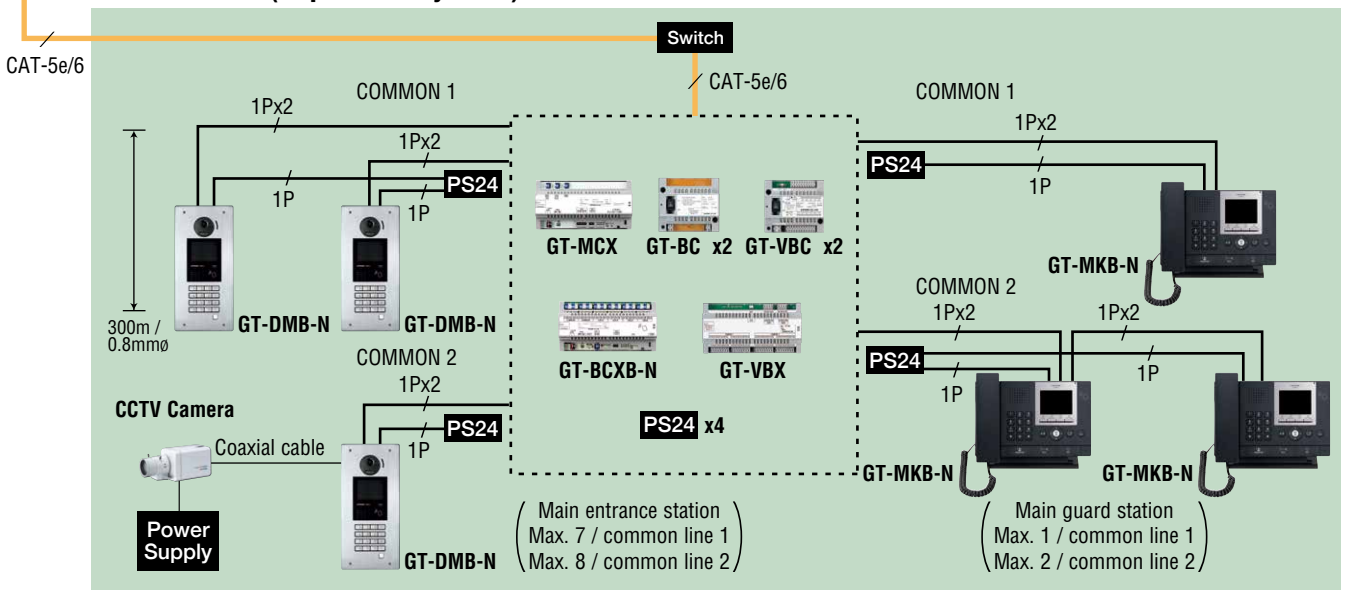


Main section: In the above example, main section means lobby and main entrance.

System Configuration Example



Main section (Expanded System)



Video Multi-Tenant System

Installation Example

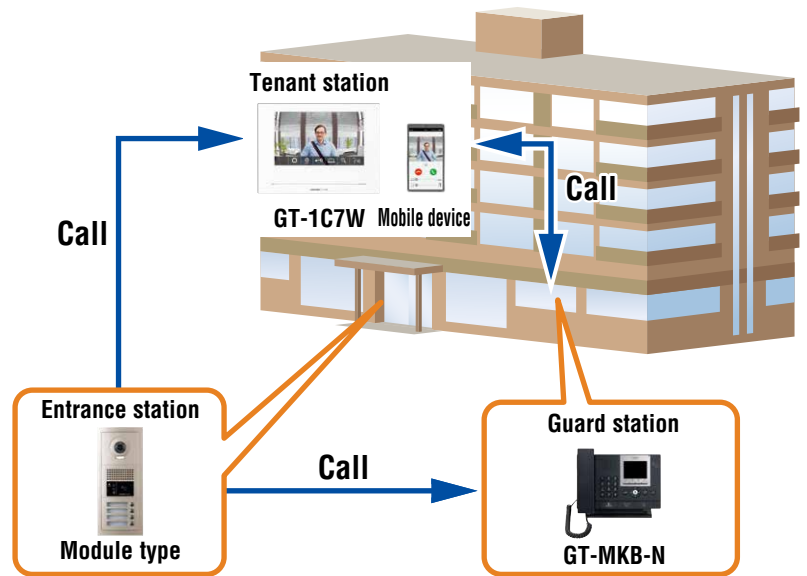
Small residential building (e.g. 20 units)

e.g. 1 Tenant building (1 Entrance station, 1 Guard station, 20 Tenant stations)

Proposed system:

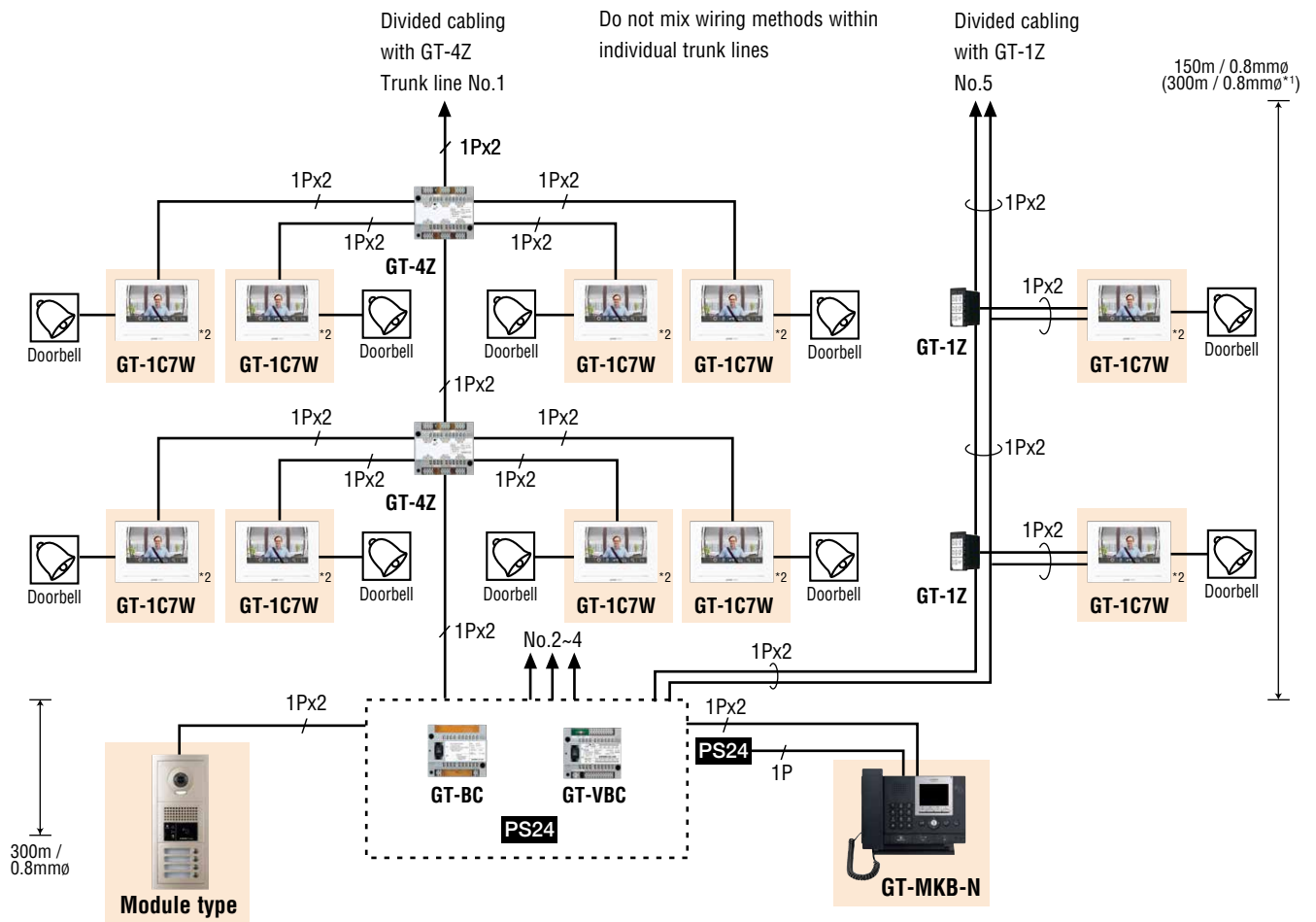
1 Standard system in tenant building
(Maximum capacity → P.50)

*Possible to mix video and audio only tenant stations.



System Configuration Example

Total max. wiring distance is 2,500m.



*1. With additional GT-VBC [EXP] *2. GT-1C7W and GT-2C require power supply PS24

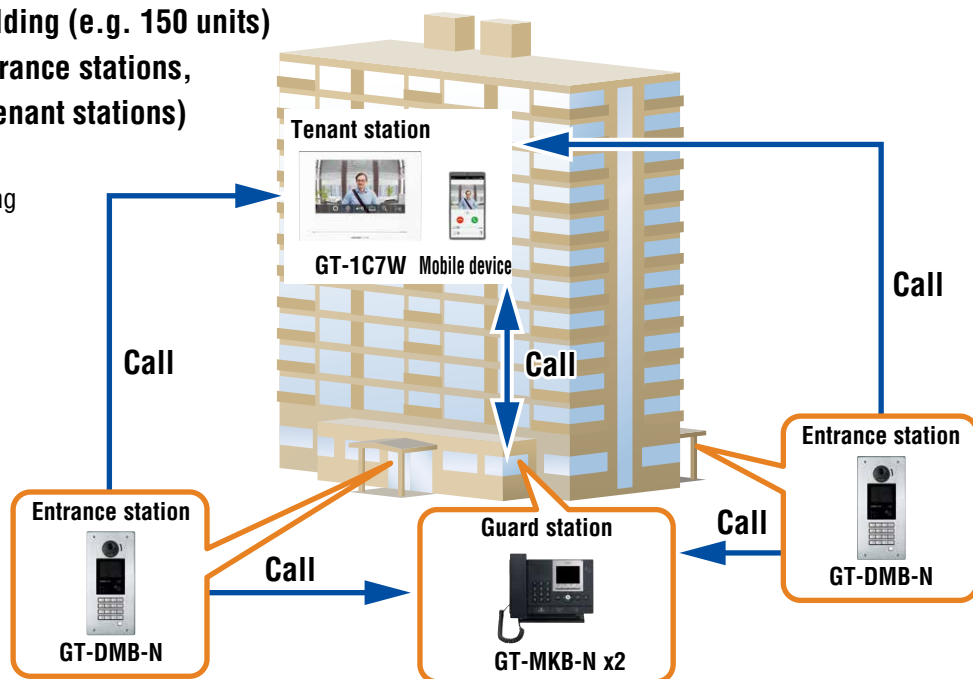
Installation Example

Medium-size residential building (e.g. 150 units)
e.g. 1 Tenant building (2 Entrance stations, 2 Guard stations, 150 Tenant stations)

Proposed system:

1 Expanded system in tenant building
 (Maximum capacity → P.50)

*Possible to mix video and audio only tenant stations.

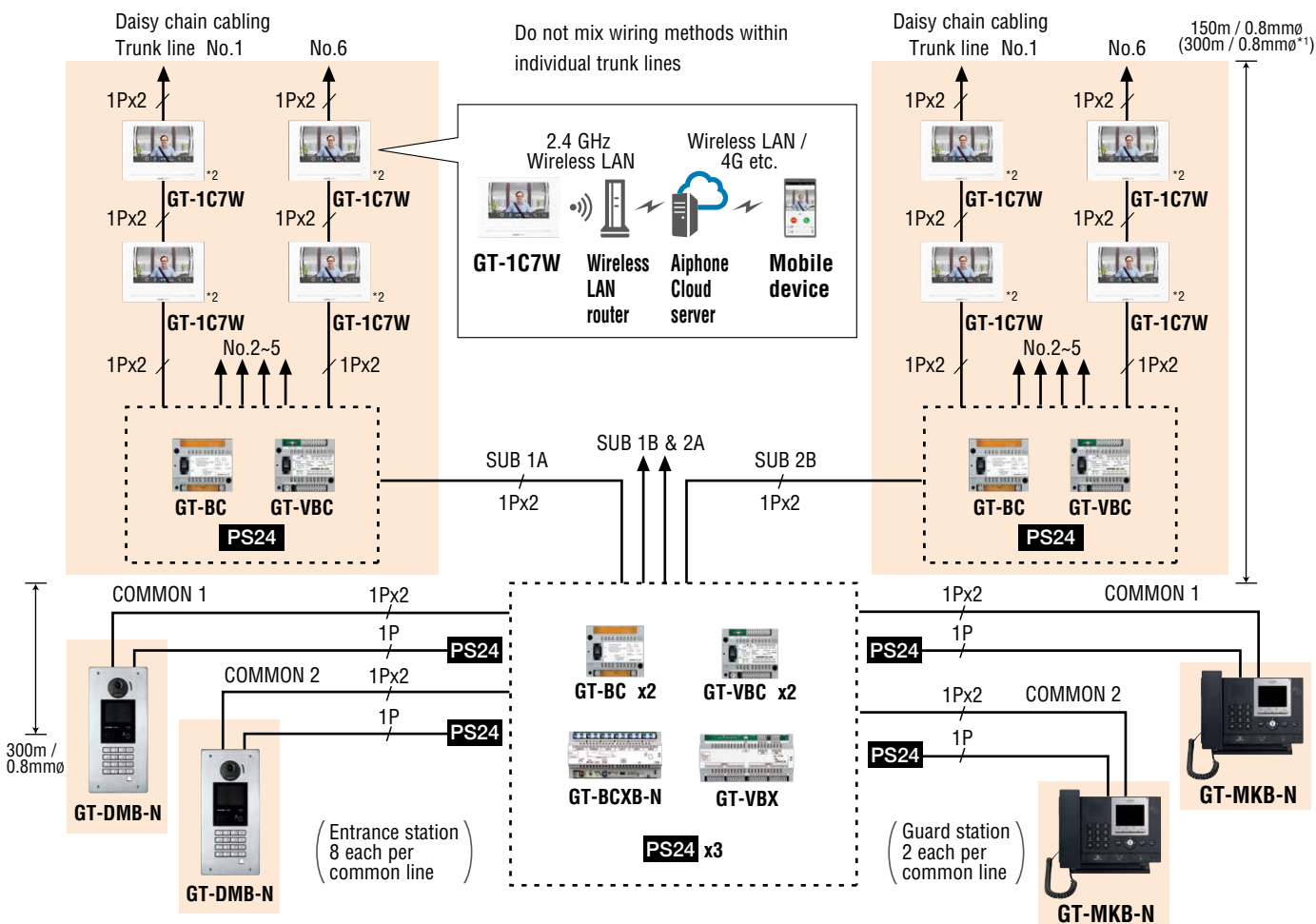


System Configuration Example

4 sub trunk lines (SUB1A, 1B, 2A, 2B)

Max. 125 tenant stations and max. 2,500m wiring distance for each sub trunk line.

Total max. wiring distance is 10,000m.



Video Multi-Tenant System

Entrance station

All-in-one type



GT-DMB-N

Entrance station
W/NFC reader
(Back box not included.)
Use GF-3B.

Module type



Camera Module



GT-VP
Camera panel



GT-VB
Camera module
for GT-DB(-VN)

Audio Module



GT-DBP
Audio panel
for GT-DB(-VN)



GT-DB
Audio module
W/O NFC reader



GT-DB-VN
Audio module
W/NFC reader

Digital name scrolling module



GT-NSP-L
Display module panel



GT-NSB
Digital name scroll
display module for GT-DB(-VN)

Specifications (GT-DMB-N)

Power source	24V DC, supplied from PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-O
Video monitor	3.5 inch TFT color LCD
Camera	1/4 inch color CMOS
Communication	Open voice hands-free communication
Mounting	Flush wall-mount
Material	Panel: Stainless steel Case: Self-extinguishing ABS resin
IP rating	IP54
IK rating	IK07

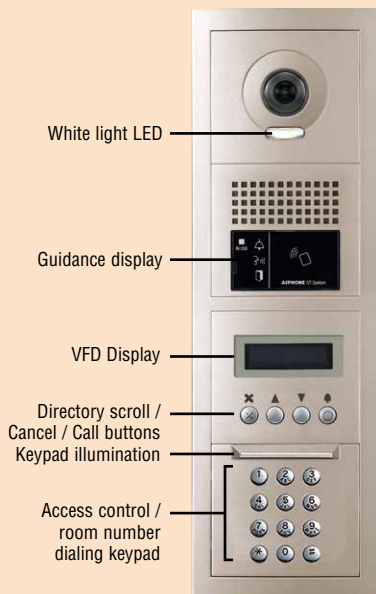
Specifications (GT-VB,GT-DB,GT-DB-VN)

Camera	GT-VB: 1/4 inch color CMOS
Communication	GT-DB, GT-DB-VN: Open voice hands-free communication
Wiring	Two single-pair cable common
Type of cable	2-conductor cable solid copper & non-braided, polyethylene insulation, 0.65mm dia.~1.0mm dia.
Mounting	Box and front frame GF-2B, 3B and GT-4B, and GF-2F, 3F and GT-4F
Material	GT-VB: Self-extinguishing PC + ABS resin GT-DB, GT-DB-VN: Self-extinguishing ABS resin

* GT-DB and GT-DB-VN cannot be used in the main sections of a multi building systems.

Specifications (GT-NSB)

Power source	24V DC, supplied from PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-O
Material	Self-extinguishing ABS resin



- 170° angle wide view camera
- Audio & visual guidance to provide visitors status and operation assistance
- Search names and numbers using the keypad
- Custom programmable welcome messages can be displayed
- 9 languages (English, French, German, Spanish, Dutch, Italian, Norwegian, Turkish and Finnish) are available for messages on Guidance display
- 6 languages (English, French, German, Spanish, Dutch and Norwegian) are available for audio guidance
- White light LED illuminates automatically in low-light conditions

Front frame & back box



- GT-4F**
4-module front frame
- GF-3F**
3-module front frame
- GF-2F**
2-module front frame

- GT-4B**
4-module back box
- GF-3B**
3-module back box
- GF-2B**
2-module back box

Call switch Module



GF-1P
1-call panel



GF-2P
2-call panel



GF-3P
3-call panel



GF-4P
4-call panel



GT-SW
Call switch module

10-key module



GF-10KP
10-key module panel



GT-10K
10-key module

Option



GF-AP
Address module panel



GT-AD
Address module



GF-BP
Blank panel



GT-AC
Access control keypad module



GT-nH
Rain hood



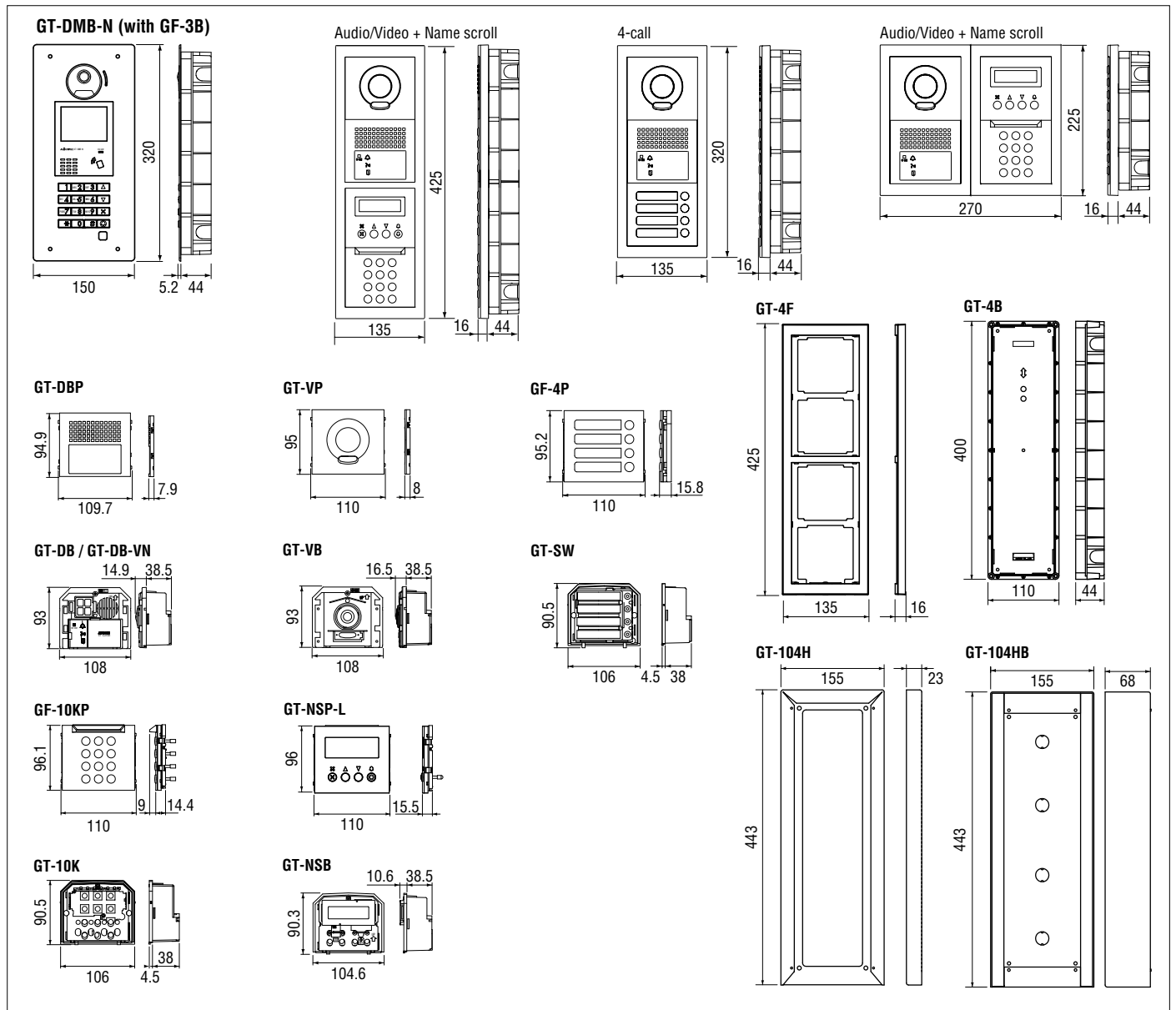
GT-nHB
Hooded surface-mount box
GF-nBA
Surface-mount box

Specifications (GT-SW,GT-10K,GT-AD)

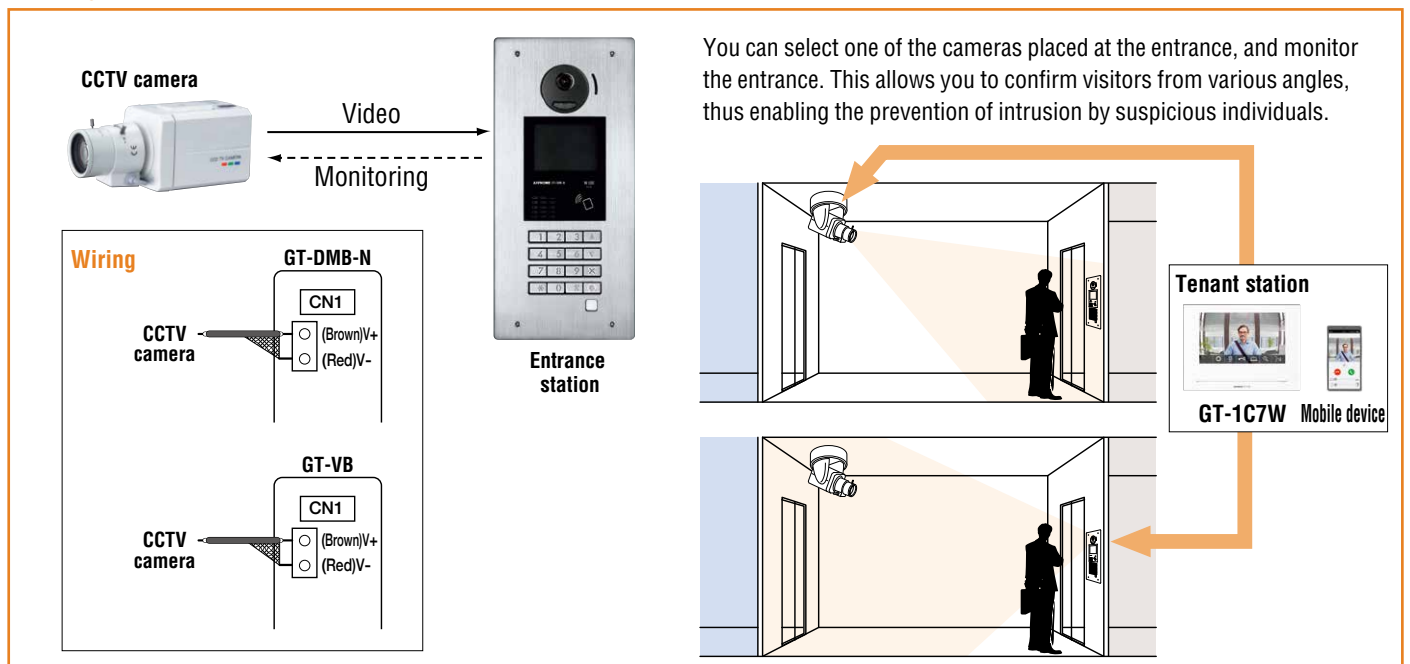
Lighting	Yellow LED
Material	Self-extinguishing ABS plastic

Video Multi-Tenant System

Unit dimensions



Security camera



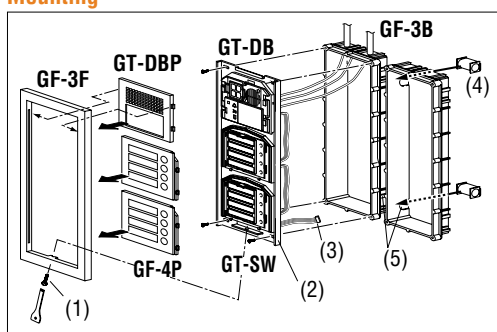
Entrance station components

Number of call buttons	4	8	12	16	20	24	25-48	GT-NSB, GT-10K
(1) GT-VB & GT-VP	1	1	1	1	1	1	For more than 7x GT-SW, installation of additional power supply & special device required. Contact local AIPHONE distributor	1
(2) GT-DB(-VN) & GT-DBP	1	1	1	1	1	1		1
(3) GT-SW & GF-4P	1	2	3	4	5	6		1*
(4) GF-3F & GF-3B	1	—	2	2	—	3		—
(5) GT-4F & GT-4B	—	1	—	—	2	—		1
(6) GF-BP GT-AD & GF-AP	—	—	1	—	1	—		—
(7) GT-NSB & GT-NSP-L GT-10K & GF-10KP	—	—	—	—	—	—		1 1

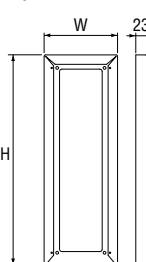
(1) Camera (2) Audio (3) Call switch (4) 3-module Front frame (5) 4-module Front frame (6) Option (7) Digital name scroll

* For the GT-SW, only one module can be connected (max. 4 buttons).

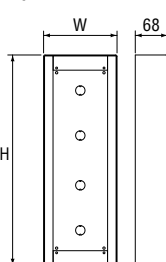
Mounting



· GT-nH

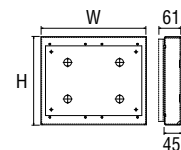


· GT-nHB



	H	W
GT-102H/HB	243	155
GT-202H/HB	243	290
GT-103H/HB	338	155
GT-203H/HB	338	290
GT-303HB	338	425
GT-104H/HB	443	155

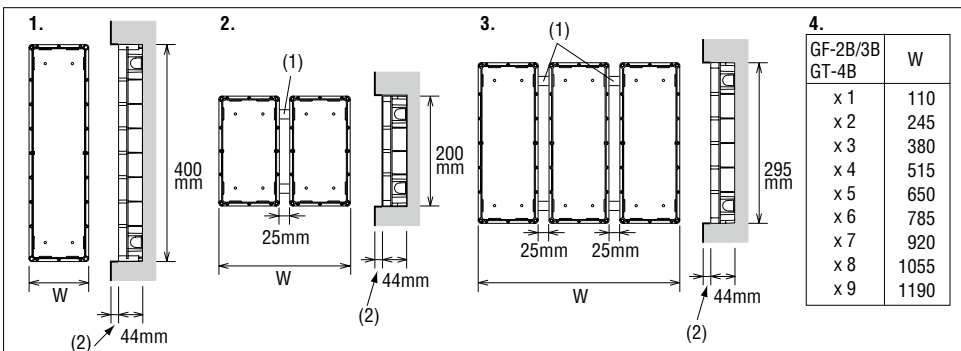
· GF-nBA



	H	W
GF-102BA	229	139
GF-202BA	229	274
GF-103BA	324	139
GF-203BA	324	274

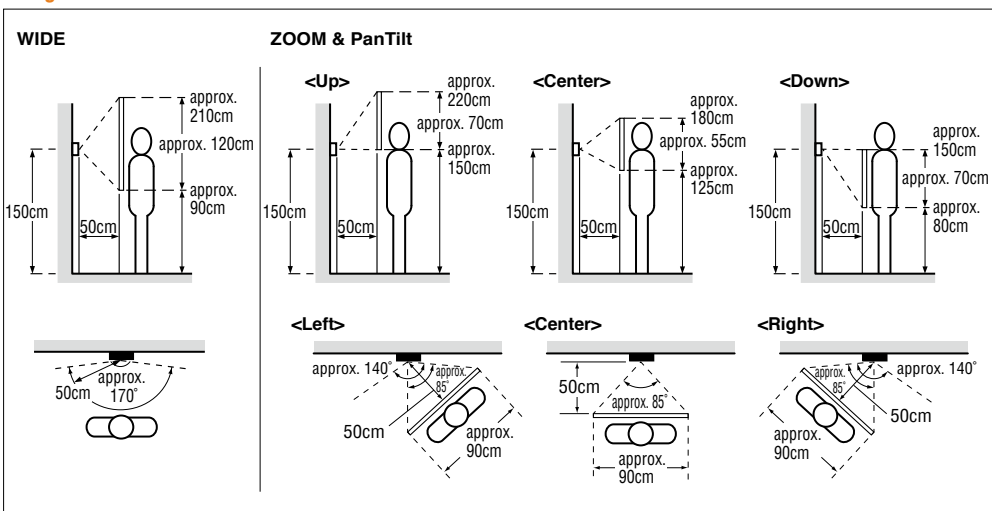
(1) Tamper-proof screw & screwdriver (supplied with GT-BC) (2) Module-mounting bracket (supplied with GF-3F) (3) Internal wiring connector (4) Joint pipe(x2) (5) Cut out openings in advance.

Back box

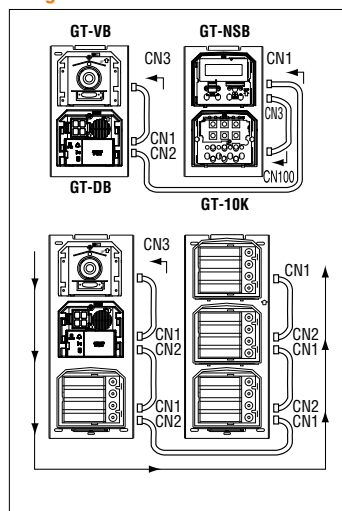


- One 4-module back box
 - Two 2-module back boxes
 - Three 3-module back boxes
 - Back box total width (mm)
- (1) Joint pipe(x2)
(2) Do not recess back box more than 15mm.

Image view area




Interconnecting Modules with Plug-in Connectors




Video Multi-Tenant System

Hands-free color display tenant station (7 inch display) w/ picture memory




GT-1C7W
Color display tenant station*1

Option
Max. 8 mobile devices can be registered



Max. 3 additional stations (GT-1C7W or GT-1A or GT-1D) can be connected (total of 4 per one unit number)



*1. The sales area is limited due to regulations. Please contact your AIPHONE distributor for more details.


Features (GT-1C7W, GT-1C7)

- Intercom App available (GT-1C7W)
- Video recording from an entrance station (GT-1C7W)
- 7 inch LCD for video monitoring
- Zoom / wide and pan & tilt video monitoring function
- Hands-free communication, auto-voice actuation
- Touch (Push) -to-talk communication is available
- Video image adjusting function
- Monitoring an entrance station
- Lighting control for a call from entrance station
- Releasing door lock
- Guard call
- Auto-entry (Doctor call)

Features (Intercom App®)


- Answer calls from the entrance station anywhere inside or outside your home
- Zoom in and zoom out functions
- View recordings stored in the tenant station
- Releasing door lock
- Control external devices while answering a call

w/o picture memory



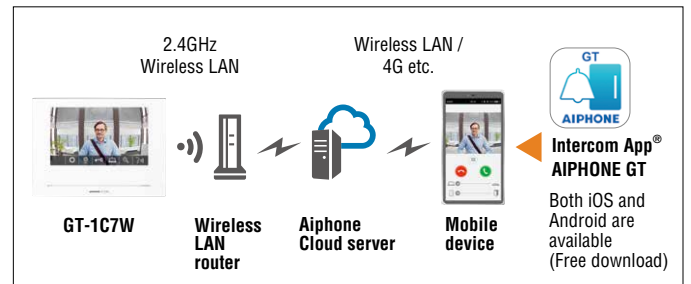
GT-1C7
Color display tenant station

Option
Max. 3 additional audio stations (GT-1A or GT-1D) can be connected (total of 4 per one unit number) *1



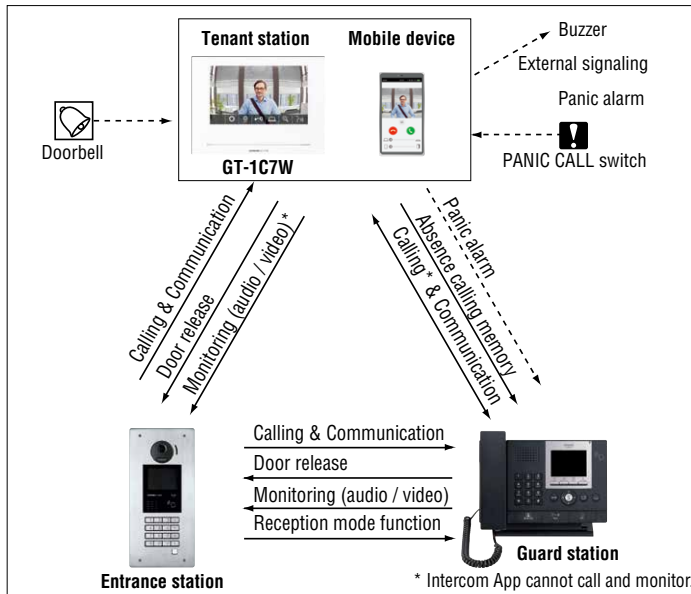
*1. Color display stations cannot be added.

System configuration (Intercom App®)



*A wireless LAN router can register for only one GT-1C7W in the same room number.
 *Ensure that your internet connection for both the master monitor station and your smartphone meets the minimum requirements for using the application. (1.5Mbps for download and 1.5Mbps for upload)
 *Android is a trademark of Google LLC.
 *iOS is the OS name of Apple Inc. IOS is a trademark or registered trademark of Cisco Systems, Inc. in the U.S. and other countries and is used under license.

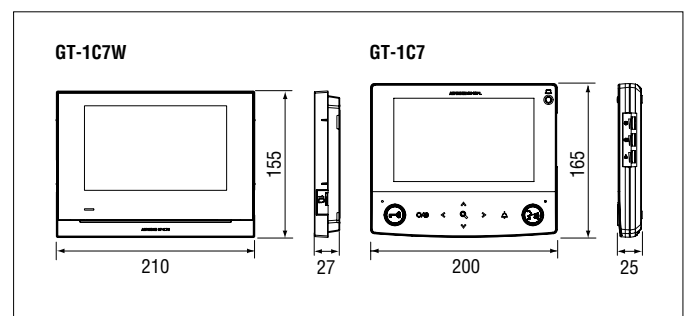
Functions



Specifications (GT-1C7W, GT-1C7)

Power source	GT-1C7W: 24V DC, supplied from PS-2420S/UL/BF/DM/-O GT-1C7: 24V DC, supplied from Bus control units, GT-BC & GT-VBC
Video monitor	GT-1C7W: 7 inch TFT color LCD touch screen GT-1C7: 7 inch TFT color LCD
Wiring	Two common Single-pair cables
Mounting	Surface wall-mount
Material	GT-1C7W Unit case: Self-extinguishing PC + ABS resin, Panel: Glass GT-1C7 Unit case: Self-extinguishing PC + ABS resin, Panel: PMMA

Unit dimensions



Hands-free color display tenant station (3.5 inch display) w/ picture memory



GT-2C
Color display tenant station

Option

Max. 3 sub color display stations (GT-2H) can be connected (total of 4 per one unit number)



Handset (GT-HSA) can be connected



Features (GT-2C)

- Video recording from an entrance station or video door station
- Zoom / wide and pan & tilt video monitoring function
- 3.5 inch LCD for operation and video monitoring
- Hands-free communication, auto-voice actuation
- Push-to-talk communication is available
- Video image adjusting function
- Monitoring an entrance station or video door station
- Lighting control for a call from entrance station
- Releasing door lock
- Guard call
- Auto-entry (Doctor call)
- Optional handset for private communication
- Sensors (commercially available) can be connected for security
- Up to 4 color display stations can be linked per Tenant
- Individual Video door station / audio door station can be connected
- Internal call and communication

Specifications (GT-2C, GT-2H)

Power source	GT-2C: 24V DC, supplied from PS-2420S/UL/BF/DM/-O GT-2H: 24V DC, supplied from GT-2C
Video monitor	3.5 inch TFT color LCD
Wiring	Two common Single-pair cables
Mounting	Surface wall-mount
Material	Front case: Self-extinguishing ABS plastic Acrylic panel: Fire-retardant resin

Door station for GT-2C



JK-DA
Wide and Zoom & PanTilt video door station, surface mount



GT-D
Audio only door station, surface mount

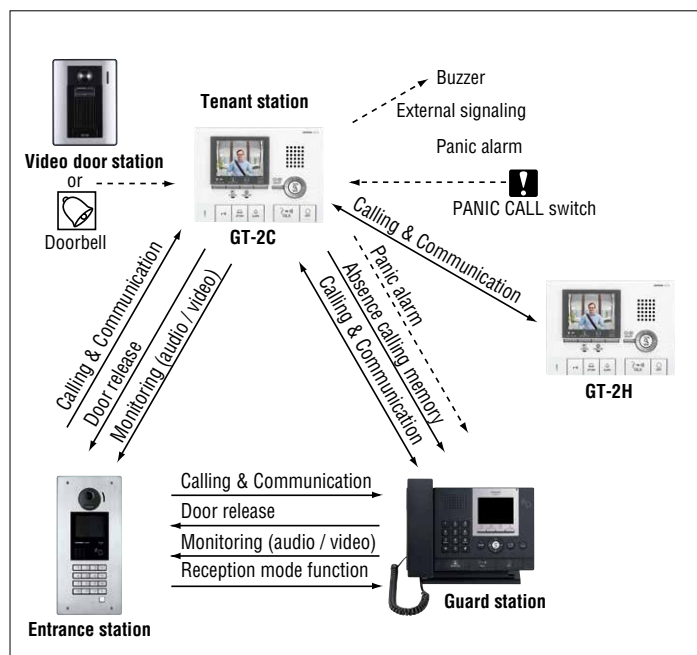
Specifications (JK-DA)

Power source	Supplied from Tenant station
Type of communication	Open voice hands-free communication
Camera	1/4 inch color CMOS
Minimum illumination	5 Lux
Camera angle	Wide: 170° (approx.)(Horizontal)
Mounting	Surface wall mount (Directly to wall or electrical box)
Material	Self-extinguishing ABS plastic

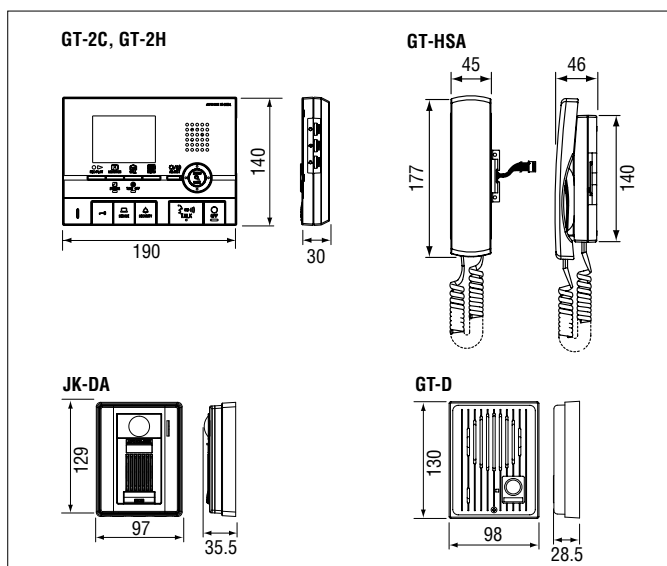
Specifications (GT-D)

Power source	Supplied from Tenant station
Type of communication	Open voice hands-free communication
Mounting	Surface wall mount (Directly to wall or electrical box)
Material	Self-extinguishing PC+PS plastic

Functions



Unit dimensions



Video Multi-Tenant System

Hands-free color display tenant station (3.5 inch display) w/o picture memory



GT-1M3
Color display tenant station

Option

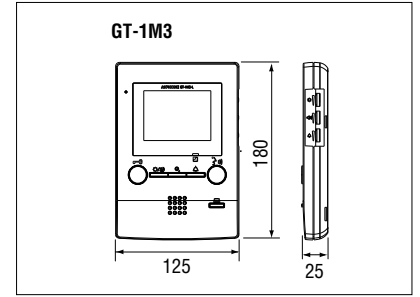
Max. 3 additional stations *1 can be connected (total of 4 per one unit number)



Features

- 3.5 inch LCD for video monitoring
- Zoom / wide video monitoring function
- Hands-free communication, auto-voice actuation
- Push-to-talk communication is available
- Video image adjusting function
- Monitoring an entrance station
- Lighting control for a call from entrance station
- Releasing door lock
- Guard call
- Auto-entry (Doctor call)

Unit dimensions



Specifications

Power source	24V DC, supplied from Bus control units, GT-BC & GT-VBC
Video monitor	3.5 inch TFT color LCD
Wiring	Two common Single-pair cables
Mounting	Surface wall-mount
Material	Unit case: Self-extinguishing PC + ABS resin Panel: Fire-retardant PC

*1. Max. 1 additional color display station can be installed (GT-1M3). Max. 3 additional audio stations can be installed (GT-1A or GT-1D). If 1 additional color display is installed, max. 2 additional audio stations can be installed.

Audio tenant station



GT-1A
Audio tenant station

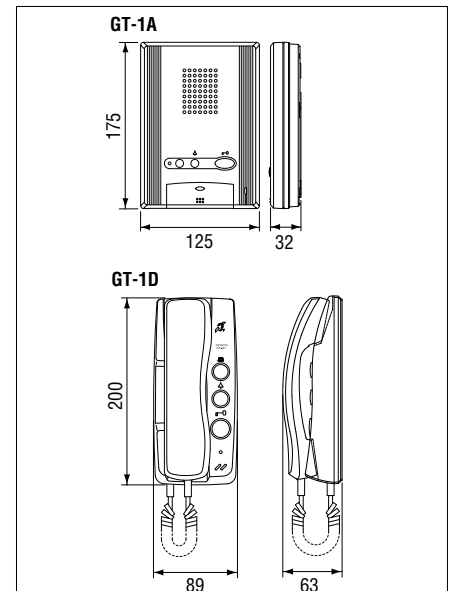


GT-1D
Audio tenant station

Features (GT-1A, GT-1D)

- Lighting control for a call from entrance station
- Releasing door lock
- Guard call
- Auto-entry (Doctor call)

Unit dimensions



Specifications (GT-1A)

Power source	24V DC, supplied from Bus control unit GT-BC
Wiring	Common single-pair cable
Mounting	Surface wall-mount
Material	Self-extinguishing ABS plastic

Specifications (GT-1D)

Power source	24V DC, supplied from Bus control unit GT-BC
Wiring	Common single-pair cable
Mounting	Surface wall-mount
Material	Self-extinguishing ABS plastic

Guard station



GT-MKB-N
Guard station

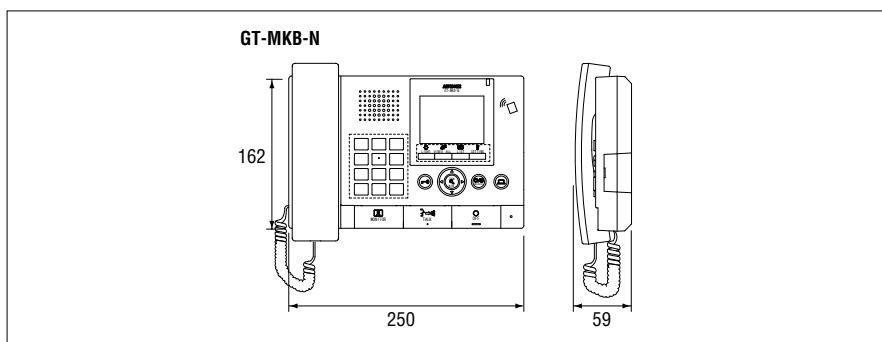
Features

- Zoom / wide and pan & tilt video monitoring function
- 3.5 inch LCD for operation and video monitoring
- Can be programmed via NFC
- Can connect an individual video door station (JO-DV)
- Call to tenant station
- Digital display shows name of tenant & number
- Entrance station call-ins made to the indoor unit can be automatically forwarded to the guard station. (Reception mode function)
- Absence call-in memory stored with Callback
- Optional doorbell at door with different call tone
- User-optional device can be controlled with OPTION button, such as light on and off at entry way to elevator
- Receive a Panic call from tenant station

Specifications

Power source	24V DC, supplied from PS-2420S, 2420UL, 2420BF, 2420DM, 2420-O
Video monitor	3.5 inch TFT color LCD monitor (Up to 32 characters can be registered.); English, French, German, Spanish, Dutch, Italian, Norwegian, Turkish & Finnish
Wiring	2 single-pair cables
Type of cable	2-conductor cable solid copper & non-braided, polyethylene insulation, 0.65mm dia.~1.0mm dia.
Mounting	Surface wall-mount or Desk-top use (with desk-top stand)
Material	Self-extinguishing ABS resin

Unit dimensions



Door station for GT-MKB-N



JO-DV
Vandal resistant
video door station,
surface mount

Features

- Directory card with backlight
- White light LED illuminates the visitor automatically in low-light conditions

Specifications

Power source	Supplied from Guard station
Type of communication	Open voice hands-free communication
Camera	1/4 inch color CMOS
Minimum illumination	5 Lux (approx.)
Mounting	Surface wall mount (Directly to wall or electrical box)
Material	Die-cast zinc
IP rating	IP54
IK rating	IK08

Unit dimensions

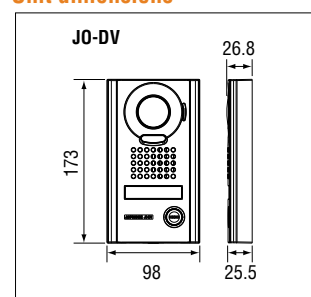


Image view area

Refer to the descriptions for the image view area.
→P.57

IXG

GT

Video Multi-Tenant System

Control units



GT-BC
Bus control unit



GT-VBC
Video bus control unit,
expander video control

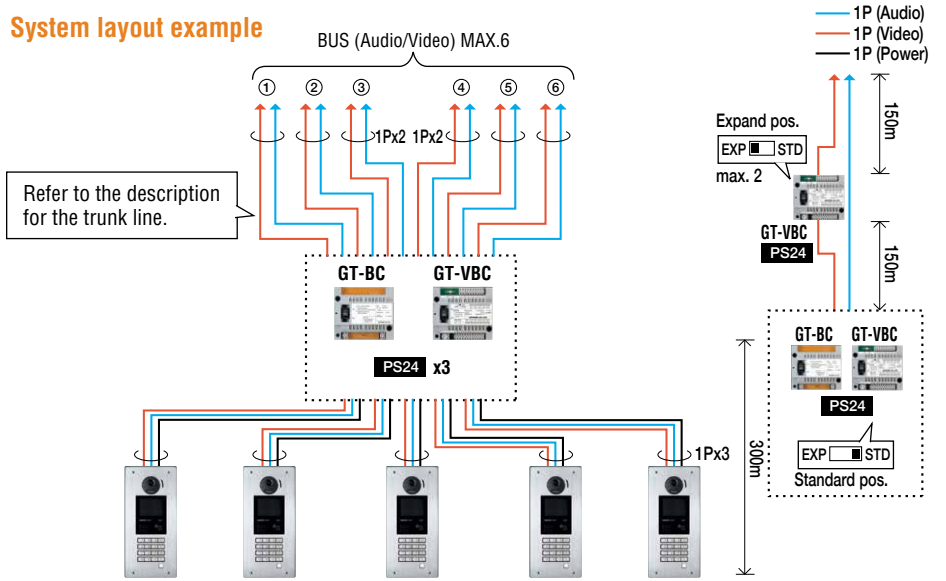


GT-4Z
4-way video
junction unit

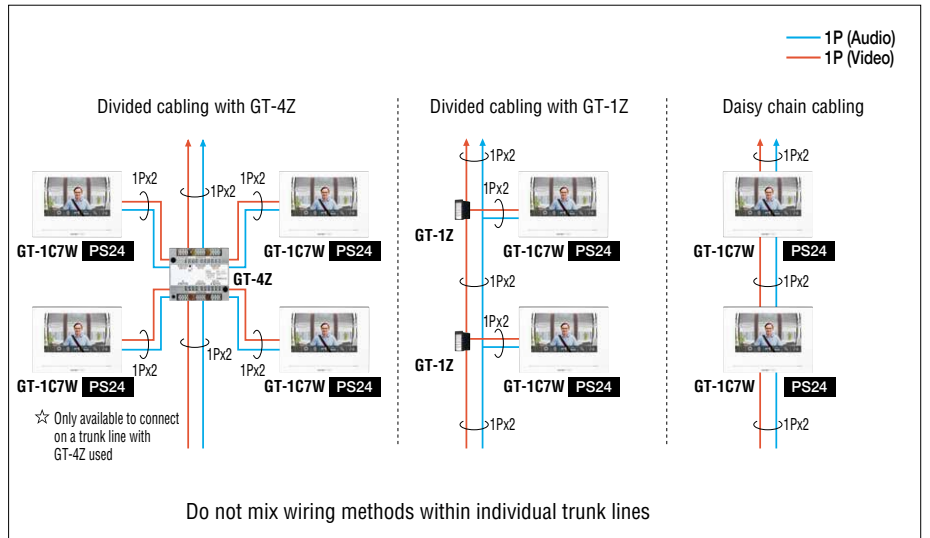


GT-1Z
Video 1-zone divider

System layout example



Trunk line



Wire type

AIPHONE approved product wire: AE7090220B, AE7090220G or 2-conductor cables solid copper & non-braided, polyethylene insulation, 0.65mm ~ 1.0mm dia.

Wiring distance

	Distance (Diameter of wires)
GT-BC, GT-VBC to Farthest Entrance station	300m(0.8mmø)
GT-BC, GT-VBC to Farthest Video tenant station	150m(0.8mmø) Expandable 150m with additional GT-VBC & Power supply
GT-BC, GT-VBC to Farthest Audio tenant station	300m(0.8mmø)
GT-BC, GT-VBC to each Power supply	5m(0.8mmø)
Accumulated Audio lines (R1, R2) Total wiring distance	2,500m(0.8mmø)

Specifications (GT-BC, GT-VBC)

Power source	24V DC, supplied from, PS-2420S, 2420UL, 2420BF, 2420DM, 2420-O
Consumption	900mA.
Wiring	Common single-pair cable
Housing	Self-extinguishing ABS plastic

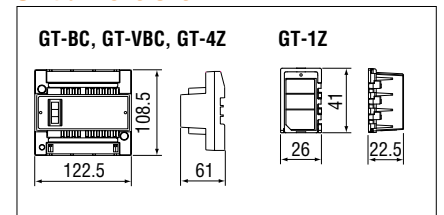
Specifications (GT-4Z)

Wiring	Common two single-pair cables
Material	Self-extinguishing ABS plastic

Specifications (GT-1Z)

Wiring	Common single-pair cable
Material	Self-extinguishing ABS resin

Unit dimensions



Expanded control units



GT-BCXB-N
Expanded bus control unit

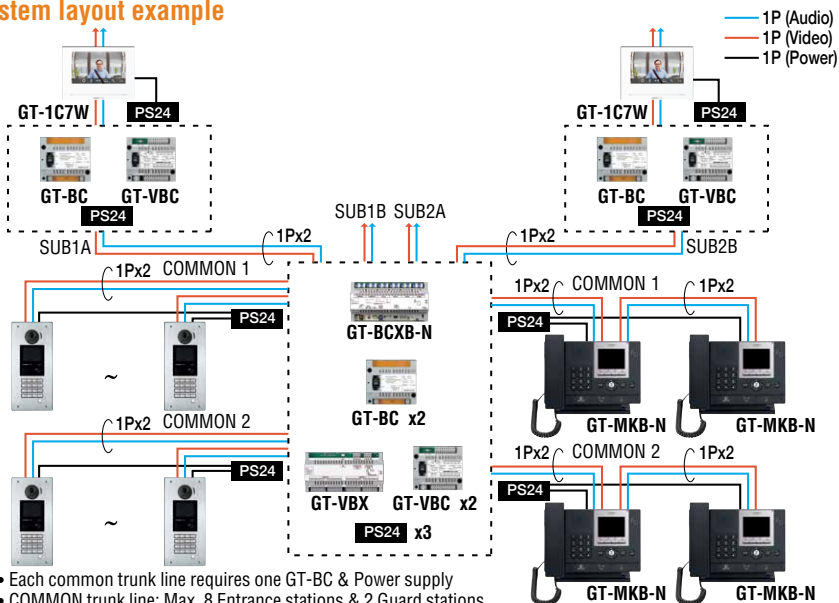


GT-VBX
Expanded video bus control unit

Features

- Expandable to max. 500 Tenant stations, 16 Entrance stations, and 4 Guard stations
- * If multi-building control unit (GT-MCX) is used:
Max. 500 Tenant stations, 15 Entrance stations and 3 Guard stations.

System layout example

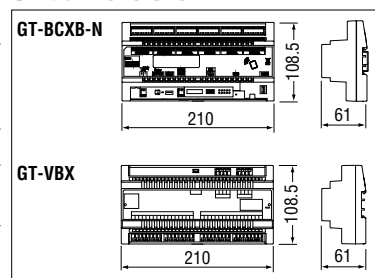


- Each common trunk line requires one GT-BC & Power supply
- COMMON trunk line: Max. 8 Entrance stations & 2 Guard stations
- SUB COMMON trunk line: Max. 125 Tenant stations

Specifications (GT-BCXB-N, GT-VBX)

Power source	GT-BCXB-N, 24V DC, supplied from PS-2420S or 2420UL or 2420BF or 2420DM or 2420-O GT-VBX: Supplied from GT-BCXB-N
Wiring	Common single-pair cable
Material	GT-BCXB-N: Self-extinguishing ABS resin GT-VBX: Self-extinguishing ABS plastic

Unit dimensions



Power supply



PS-2420S
PS-2420UL
PS-2420BF
PS-2420-O
Power supply



PS-2420DM
Power supply

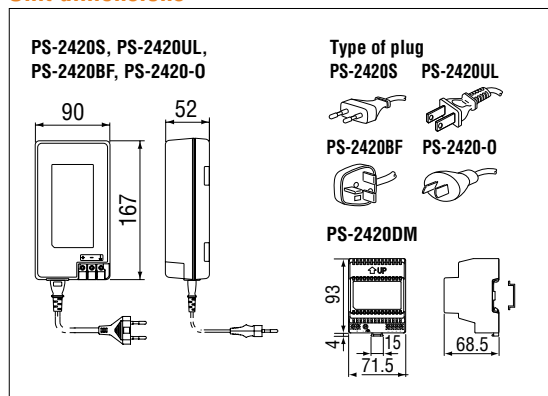
Specifications (PS-2420S, PS-2420UL, PS-2420BF, PS-2420-O)

Input voltage & Capacity	100-240V AC, 50/60Hz., 110-140VA
Output voltage	24V DC, 2A

Specifications (PS-2420DM)

Input voltage & Capacity	230V AC, 50/60Hz.
Output voltage	24V DC, 2.0A

Unit dimensions



Option



GT-RY
External signaling relay for entrance light, external buzzer



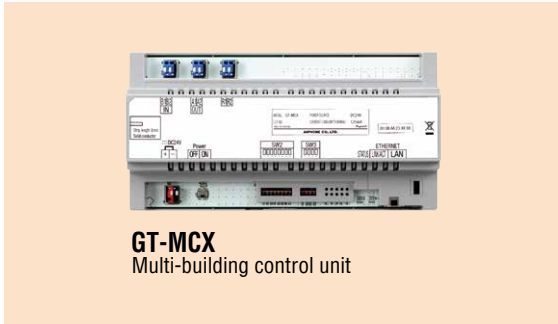
W-DIN11
DIN mounting rail for GT-BC, GT-VBC, GT-4Z



AE7090220B AE7090220G
AIPHONE approved product wire
→ P.137

Video Multi-Tenant System

Multi-building control unit



GT-MCX
Multi-building control unit

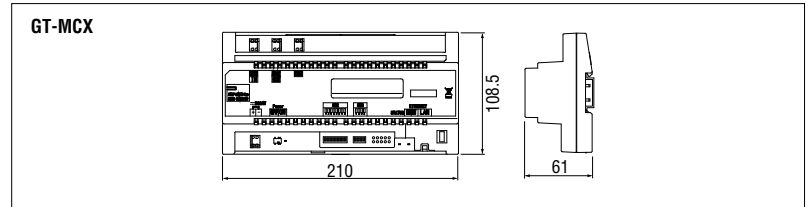
Specifications

Power source	24V DC, supplied from PS-2420S, 2420UL, 2420BF, 2420DM, 2420-O
Wiring	4 Single-pair cables CAT5e / 6 cable (100BASE-TX)
Material	Self-extinguishing ABS resin

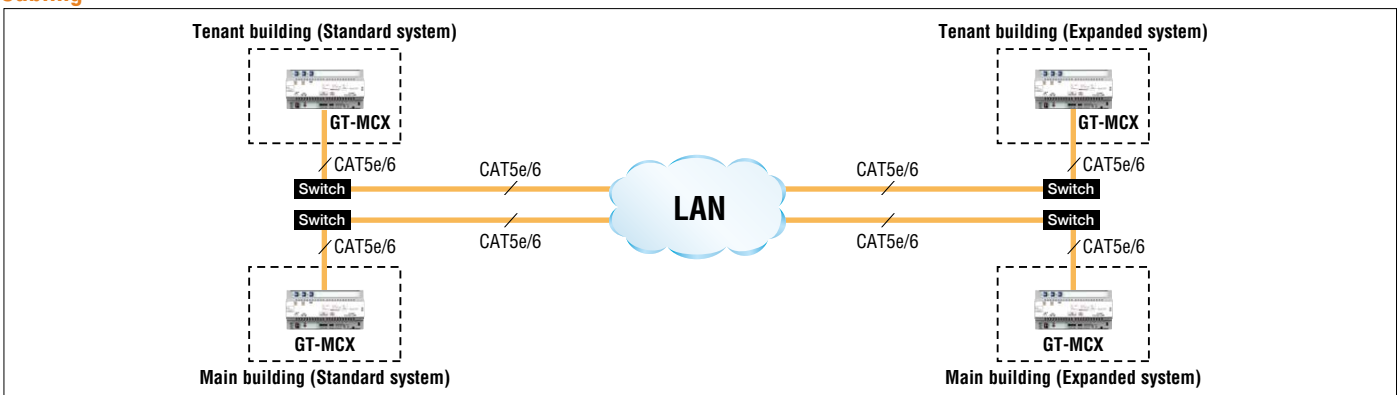
Features

- Multiple tenant buildings and main buildings can be connected via an IP network to create a multi building system for centralized management
- A maximum of 24 tenant buildings and 8 main buildings can be connected
- Multiple tenant buildings can be combined to accommodate large-scale residential buildings with more than 500 units
- Connects buildings together and enables communication

Unit dimensions



Cabling

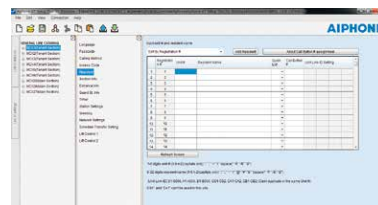


Setting

Easy system setting on a PC or Android mobile device

- Settings can be made from a PC or Android mobile device by using GT Setup Tool
- Supported OS : Windows 7, 8.1, 10^{1, 2}
- Supported Android OS version : Android 5.0 and greater³

*1. For operating systems not listed, please contact your AIPHONE distributor.
 *2. Windows is a registered trademark or trademark of Microsoft Corporation in the United States and / or other countries.
 *3. Android is a trademark of Google LLC.



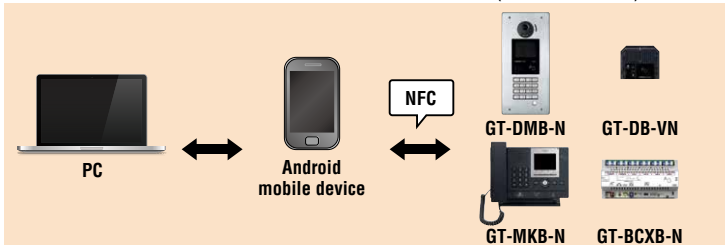
GT Setup Tool for Windows



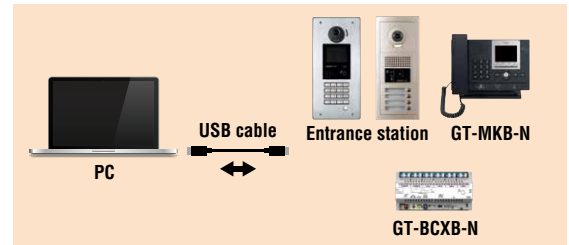
GT Setup Tool for Android

Uploading the setting data

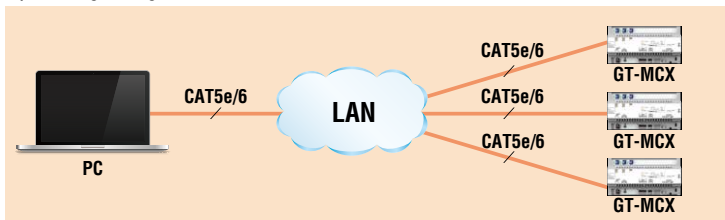
Uploading using an Android mobile device for GT-DMB-N, GT-DB-VN, GT-MKB-N, GT-BCXB-N (W/NFC reader)



Connecting a unit to a PC via USB



Uploading using a network connection



Lift control adaptor

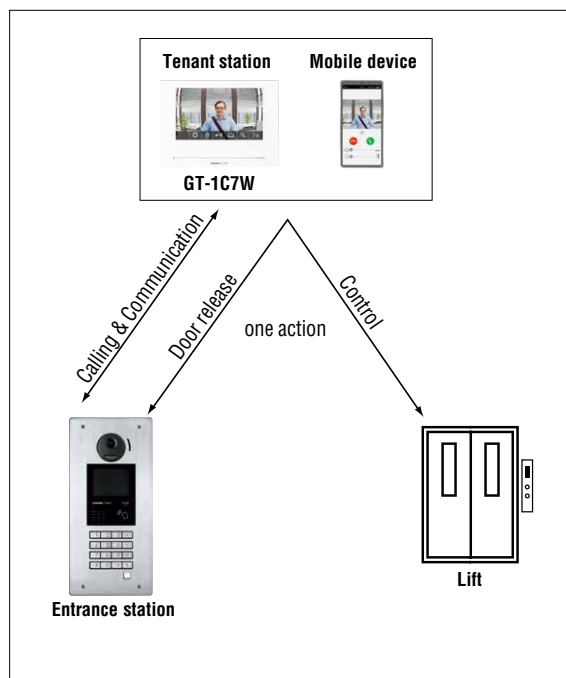


GTW-LC
Lift control adaptor

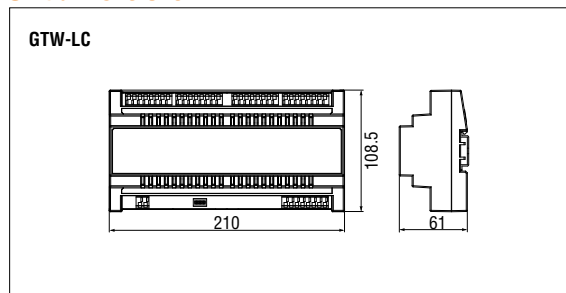
Features

- Lift is controllable from tenant station while communicating with entrance station
When door release button is pressed, electric door strike is activated and simultaneously an output signal is transmitted to the lift controller or the access controller. Access is authorized only to the floor of communicating tenant station.
- Selectable dry contact: Normally Open or Normally Closed
- System setup data is programmable on your PC
- * GT-BCXB-N is required to use GTW-LC
- * GTW-LC cannot be used in the main buildings of a multi building system

Functions



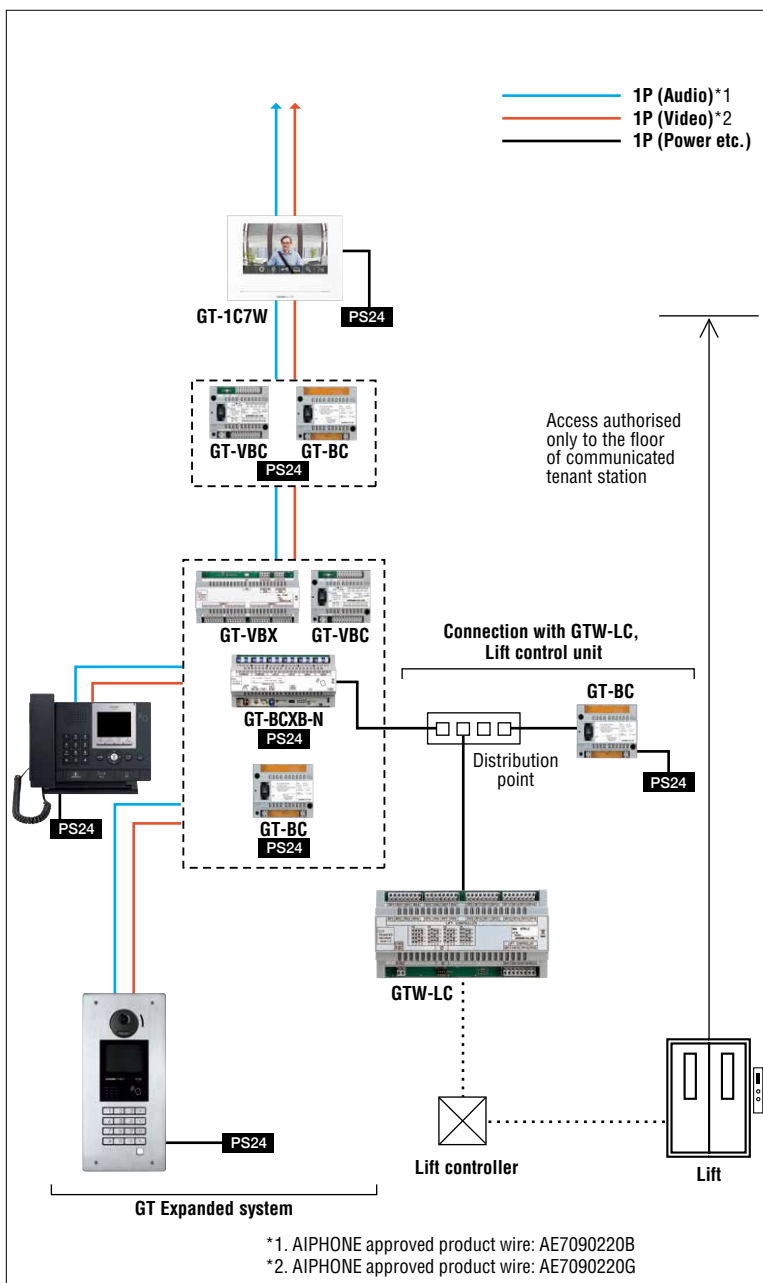
Unit dimensions



Specifications

Power source	Supplied by GT-BC
Relay	Number of outputs 20
	Contact rating 24V AC/DC, 0.5A
	N/O or N/C dry contact
	Operating time From 1 to 600 seconds
Wiring	Single-pair cable
Material	Self-extinguishing ABS plastic

Cabling



PS24 : PS-2420S, 2420UL, 2420BF, 2420DM, 2420-O

Video Multi-Tenant System

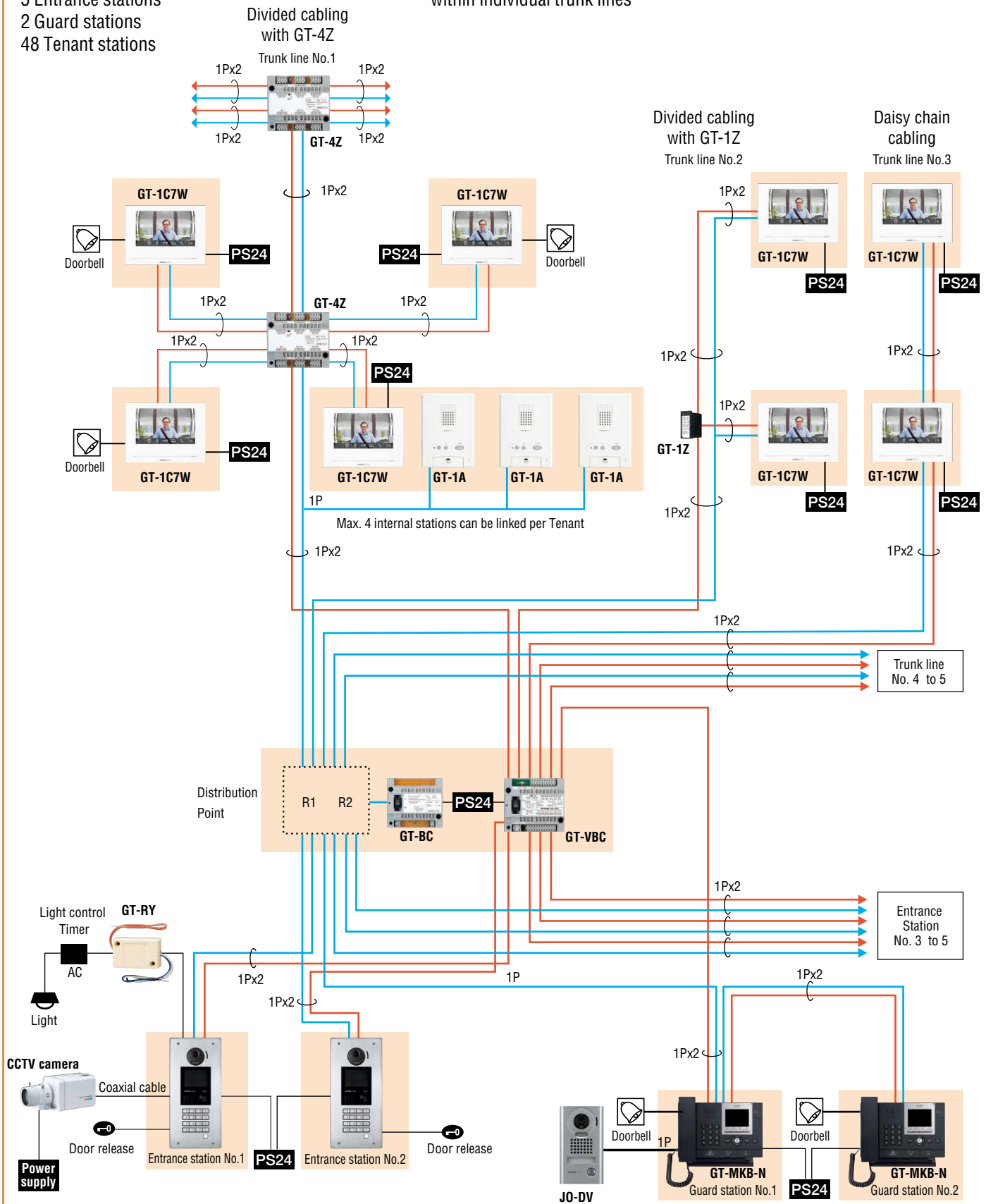
Cabling

Standard system

Capacity
5 Entrance stations
2 Guard stations
48 Tenant stations

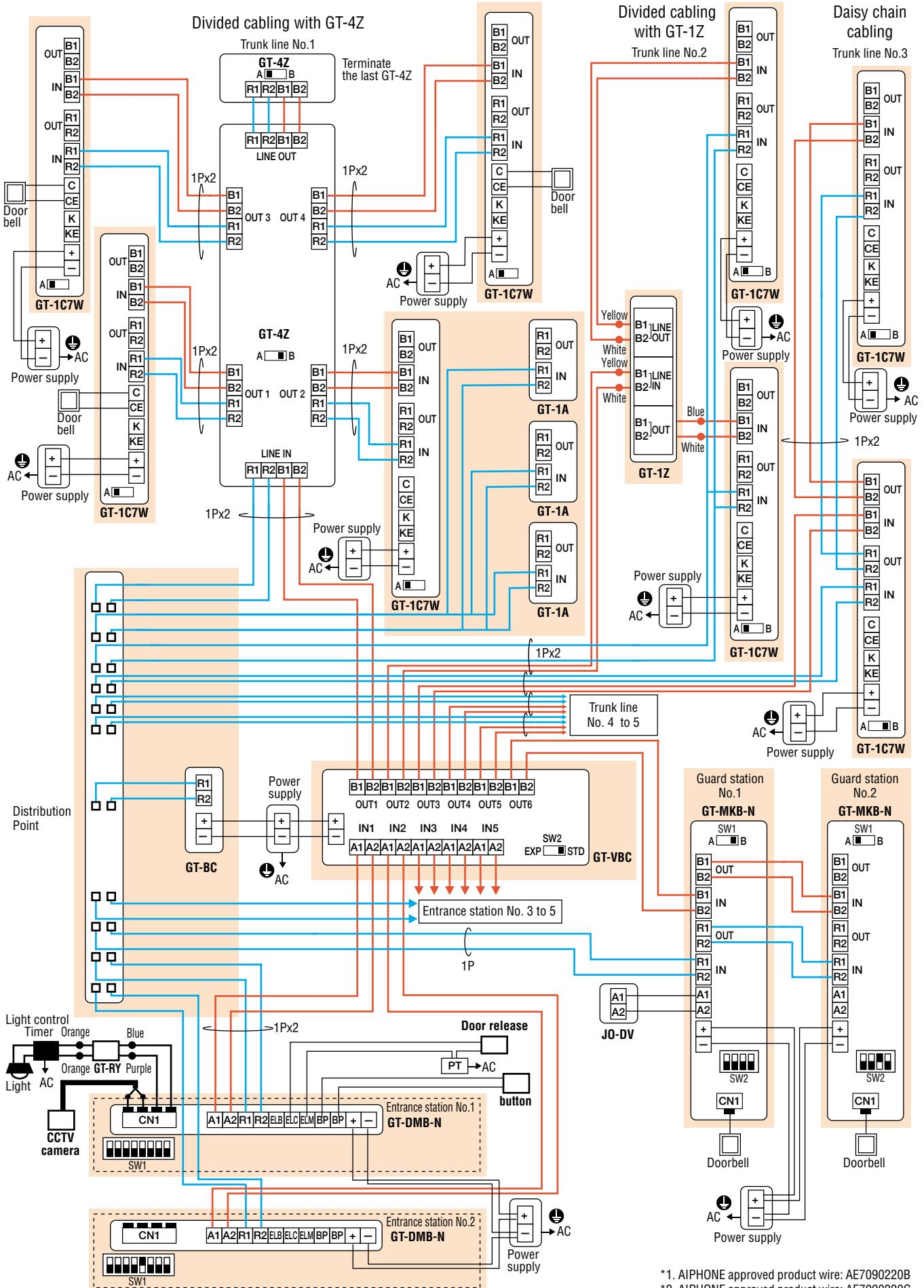
Do not mix wiring methods within individual trunk lines

- 1P (Audio)*1
- 1P (Video)*2
- 1P (Power etc.)



Cable: 1P x 2, 2-conductor cable solid copper & non-braided, polyethylene insulation

Wiring



*1. AIPHONE approved product wire: AE7090220B
 *2. AIPHONE approved product wire: AE7090220G

IXG

GT

Video Multi-Tenant System

Compatibility

Regarding compatibility between Original GT and New GT models for upgrading and repairing existing GT systems, please contact your local distributor of ALPHONE products.

System Capacity

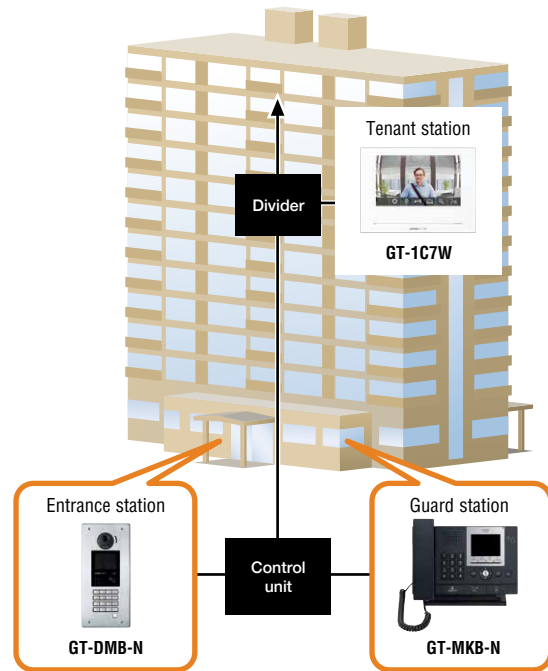
Single building system

- Ideal for small- and medium-size residential buildings
- Audio only configuration also possible

Maximum capacity

	Tenant building / section	
	Standard system	Expanded system
Entrance station	5	16
Guard station	2	4
Tenant station	48 ^{*1}	500

*1. Up to 100 GT-1D audio tenant stations can be connected when configuring a standard audio only system.



Multi building system

- Install one system for housing complexes with multiple buildings
- Cover a building with more than 500 units with one system
- Building management from anywhere via IP network connection
- Audio only configuration for tenant buildings also possible

Maximum capacity (Number of stations are per building / section)

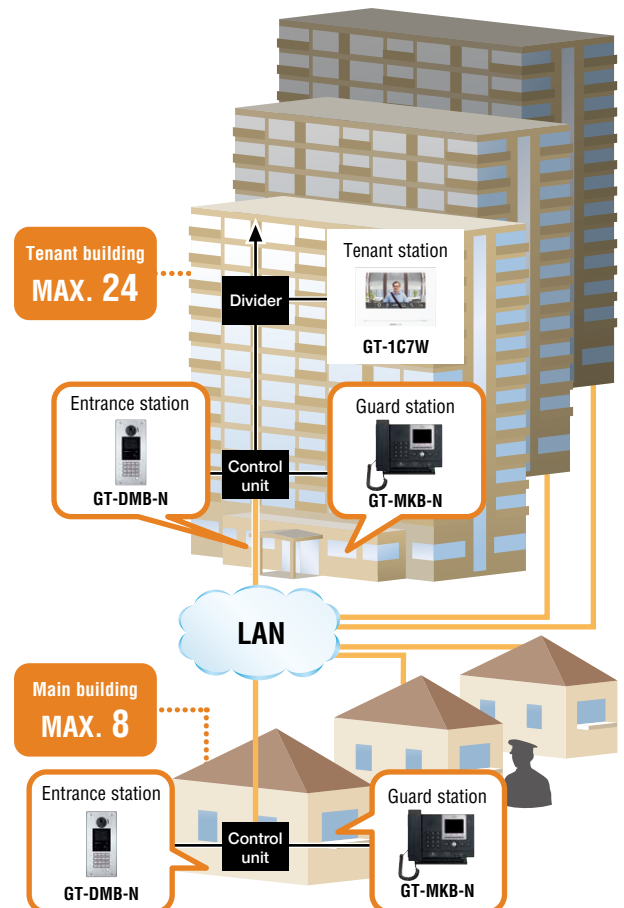
	Tenant building / section		Main building / section	
	Standard system	Expanded system	Standard system	Expanded system
Entrance station	4	15	4	15
Guard station	1	3	1	3
Tenant station	48 ^{*1}	500	—	—

*1. Up to 100 GT-1D audio tenant stations can be connected when configuring a standard audio only system.

Total maximum capacity

(Total for tenant building / section and main building / section)

Entrance station	480
Guard station	96
Tenant station	5,000



COLOR VIDEO ENTRY SECURITY

Wide variety of our line up are suitable your requirements.



Lineup

7 inch Touch Screen
Color Video Intercom
JP-4MED



P52~

7 inch Touch Screen
Color Video Intercom with Wireless LAN
JO-1MDW



P56~

7 inch Screen
Color Video Intercom
JO-1MD



P59~

Wireless Color Video Intercom
WL-1ME



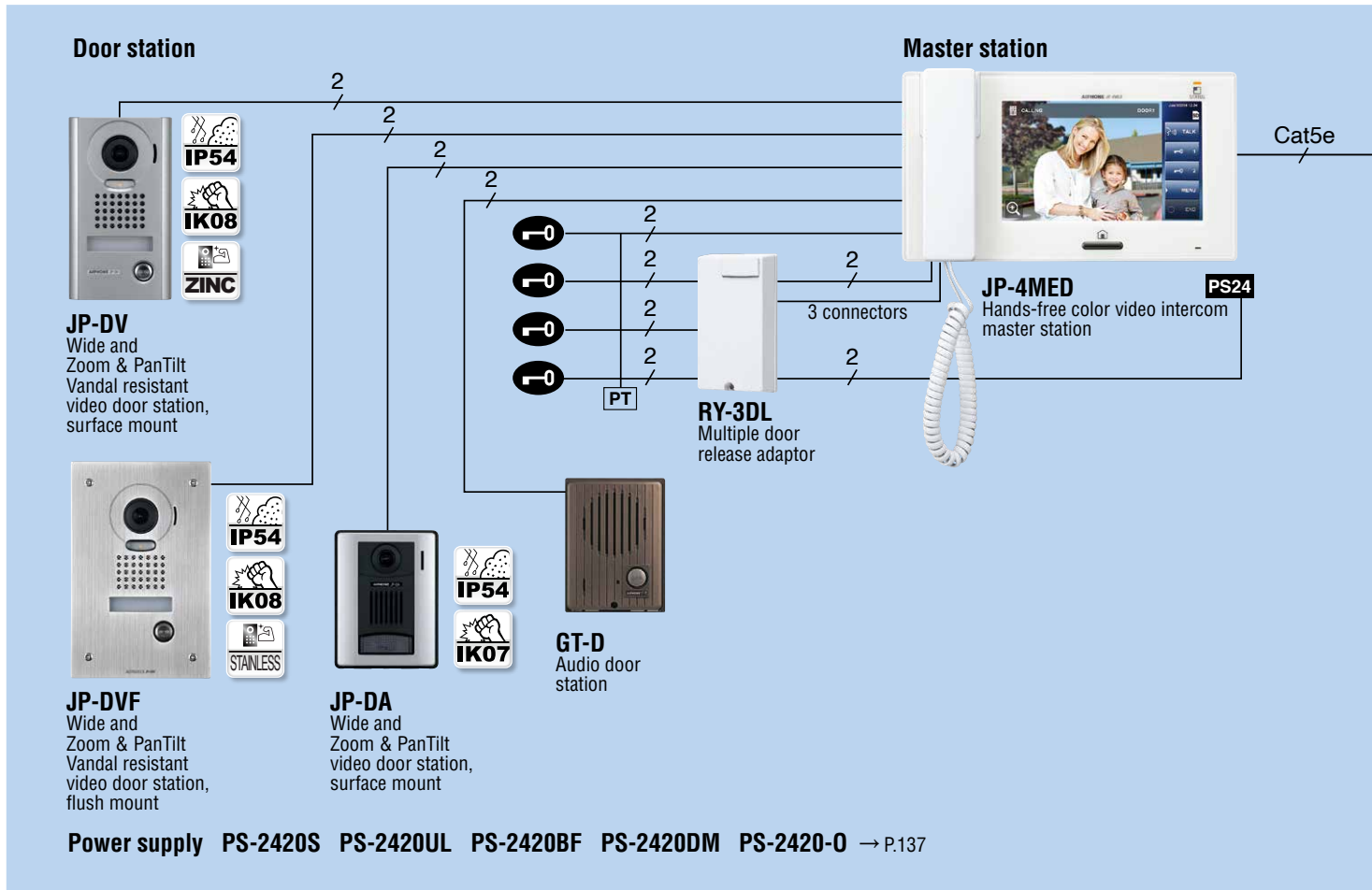
P60~

7 inch Touch Screen Color Video Intercom

DOOR **4** ROOM **8** **JP-4MED**

Features

- 7 inch touch screen for operation
- Hands-free or handset audio communication
- Zoom/wide and pan & tilt video monitoring function
- Video image adjustment function
- Record visitor images both automatically & manually



The wide monitor clearly shows all 170 degrees of video captured by the camera

The JP Series 170° wide angle and 100° vertical angle camera minimizes blind spots, ensuring a clear view of the door station area.

Wide viewing area: Approx. 170°

Tall viewing height: Approx. 100°

Focus on a particular area for more detail

Zoom
Using the touch screen, zoom into visitor faces and other specific areas.

PanTilt
Using the PanTilt function, view details such as ID badges or labels.

Wide Image vs **Zoom Image**

Zoom Image vs **PanTilt Image**

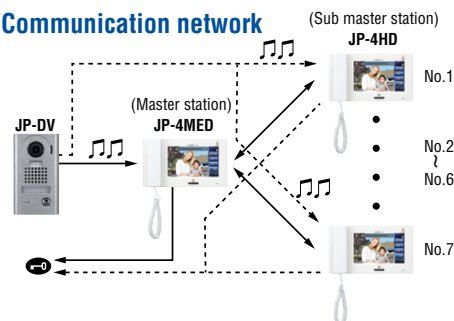
High image quality provides a clear view of detailed areas.

Internal communication

All call
Simultaneously make an announcement to all master stations.

Individual call
Select a single master station to call.

Communication network



- 3 wiring methods selectable (Station-to-station, Homerun, or combined wiring)
- 2 internal calls selectable (All call or individual call)
- Audio monitoring of other master stations
- Option: 3 sensors connectable to the master station



Commercial



Residential



Retail Shops



Factories



Schools

Sub master station



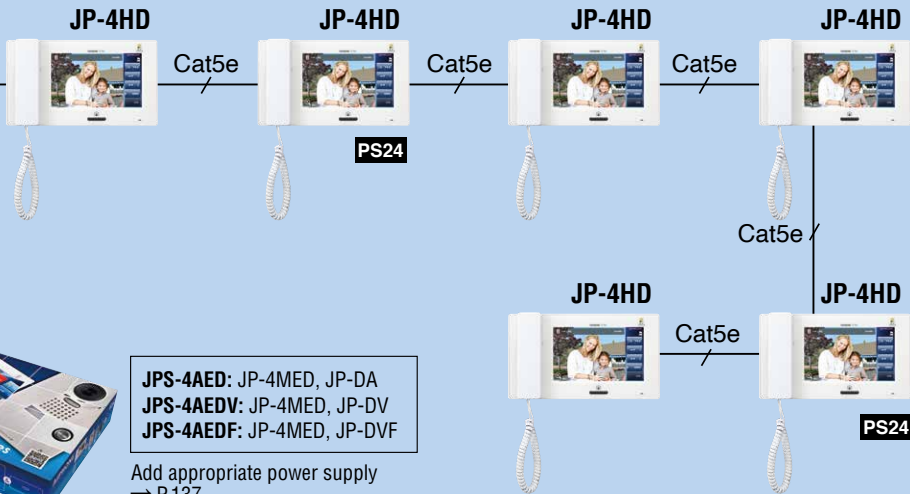
JP-4HD
Hands-free color video intercom sub master station

Boxed sets



JPS-4AED: JP-4MED, JP-DA
JPS-4AEDV: JP-4MED, JP-DV
JPS-4AEDF: JP-4MED, JP-DVF

Add appropriate power supply
 → P.137



Access control → P.132



AC-10S
Access control keypad, surface mount



AC-10F
Access control keypad, flush mount



JP-DV + AC-10S

Lineup



JPW-BA
Long distance adaptor
 → P.55



JP-8Z
Distribution adaptor



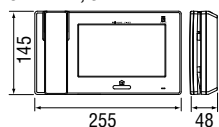
EL-12S
Electric door strike
 → P.134



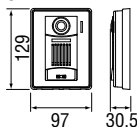
RY-3DL
Multiple door release adaptor
 → P.55

Unit dimensions

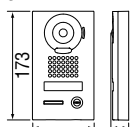
JP-4MED, JP-4HD



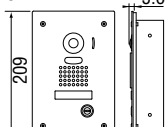
JP-DA



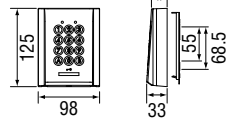
JP-DV



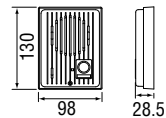
JP-DVF



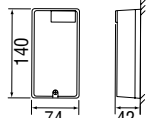
AC-10S



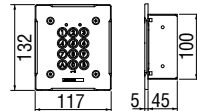
GT-D



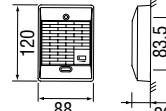
RY-3DL



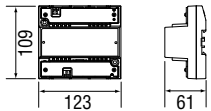
AC-10F



IER-2



JP-8Z

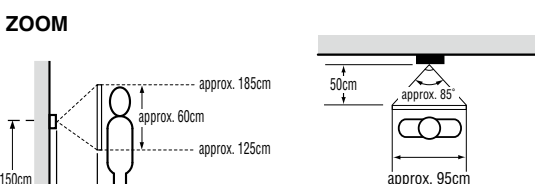
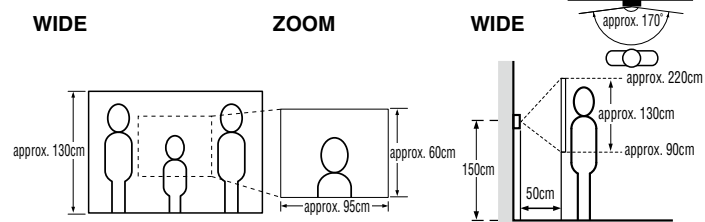


Specifications (JP-4MED, JP-4HD)

Power source	24V DC
Power supply	PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-O
Consumption	Max. 340mA (JP-4MED). Max. 200mA (JP-4HD)
Calling	Chime. Image & audio, approx. 45 or 90 sec.
Communication	Automatic(Hands-free): approx. 1 min. To activate, touch TALK button. Handset: approx. 3 min. To activate, lift handset.
Video monitor	7 inch color LCD screen
Pixels	1,150,000 pixels
Video output	NTSC/PAL, 1Vp-p/75Ω
Night viewing	Up to 50cm from camera, with white LED projected, background beyond 50cm cannot be seen.
Door release	24V AC/DC, 500mA (N/O dry closure contact)
Option output	24V AC/DC, 1A (N/O dry closure contact)
Wiring	Door to master: 2-cond., mid cap, solid, non-shielded. Master to sub: CAT5e
Wiring distance (→ P.54)	Door to Master: 100m (1.0mmφ) Master to farthest sub: 300m(CAT5e)

Image view area

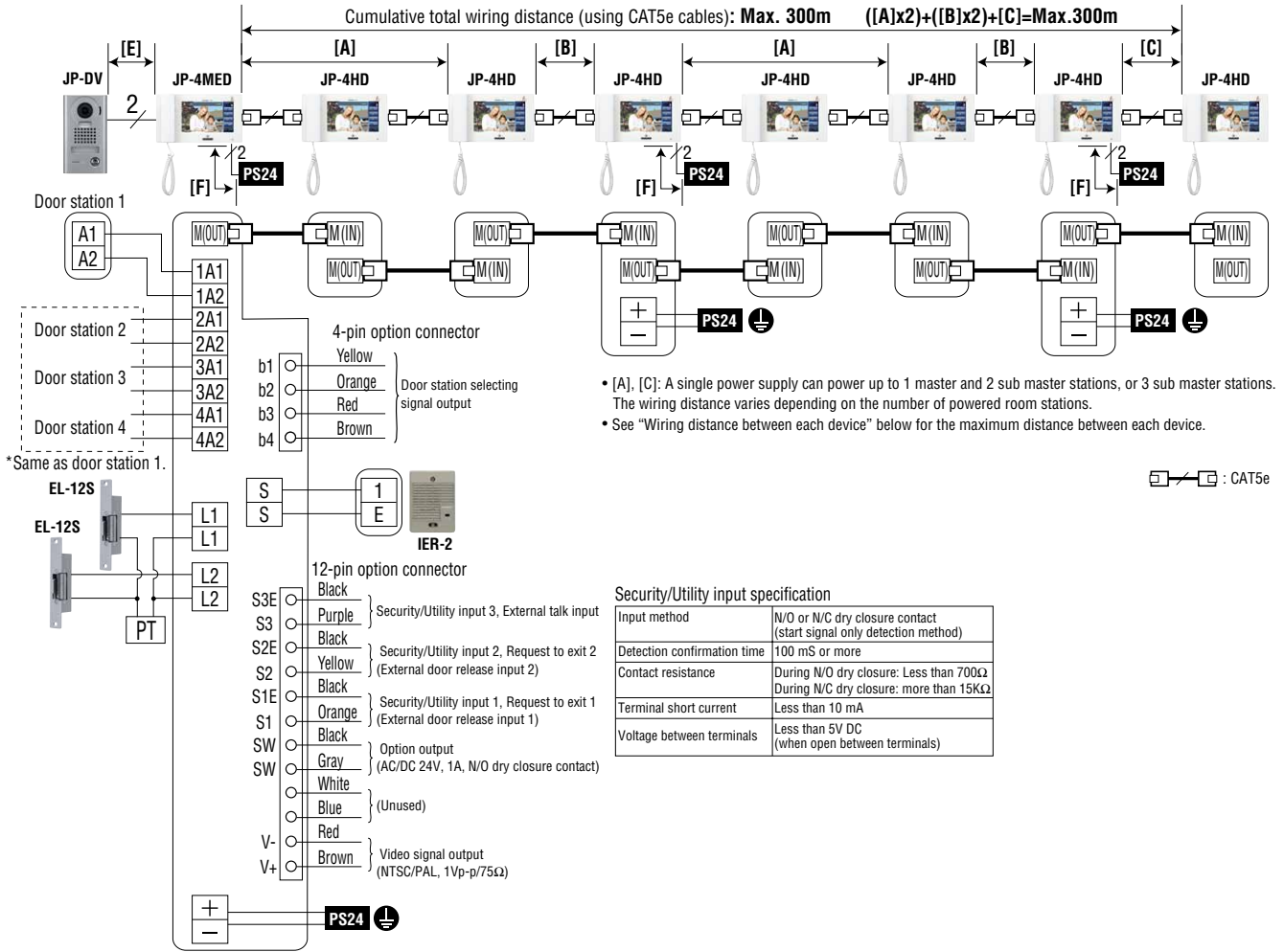
JP-DA, JP-DV, JP-DVF



7 inch Touch Screen Color Video Intercom

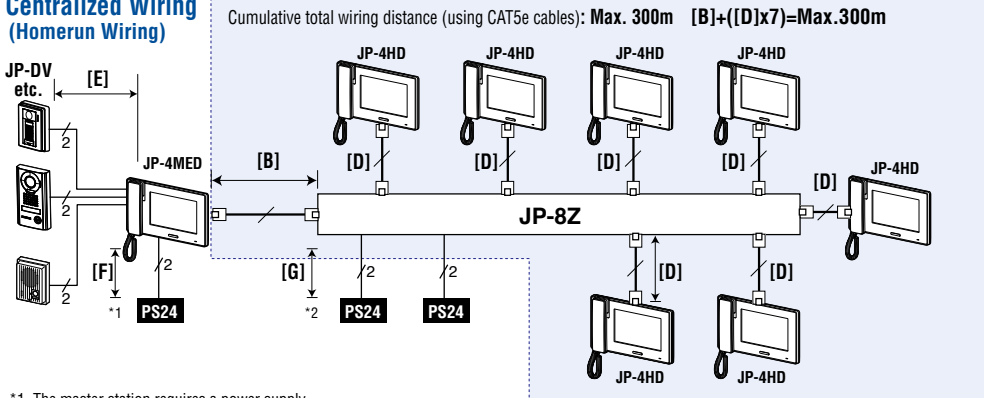
Wiring

Station-to-Station Wiring (Daisy-chain Wiring)



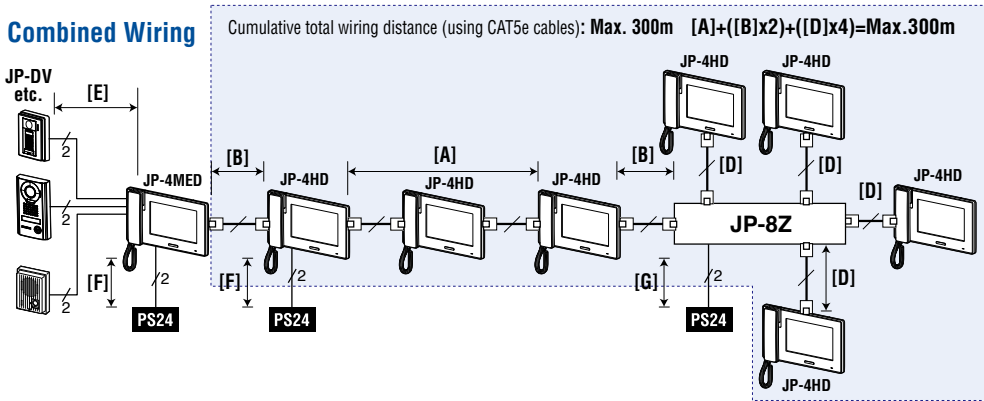
- [A], [C]: A single power supply can power up to 1 master and 2 sub master stations, or 3 sub master stations. The wiring distance varies depending on the number of powered room stations.
- See "Wiring distance between each device" below for the maximum distance between each device.

Centralized Wiring (Homerun Wiring)



- *1. The master station requires a power supply.
- *2. Up to 4 sub master stations can be powered with one power supply. Use two power supplies for 5 - 7 sub master stations. See "Wiring distance between each device" on the right for the maximum distance between each device.

Combined Wiring



Wiring distance between each device

CAT5e	Notes
[A]	30m When 3 room stations are powered by a single power supply
[B]	200m
[C]	50m When 2 room stations are powered by a single power supply
[D]	50m

	Wire diameter (PE cable)			
	Ø0.65 mm	Ø0.8 mm	Ø1.0 mm	Ø1.2 mm
[E]	50m	100m	100m	100m
[F]	5m	5m	10m	10m
[G]	5m	10m	10m	10m

See "Wiring distance between each device" on the right for the maximum distance between each device.

Long distance adaptor

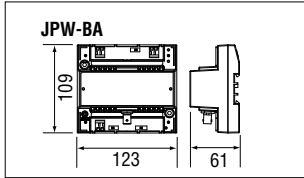


JPW-BA
Long distance adaptor

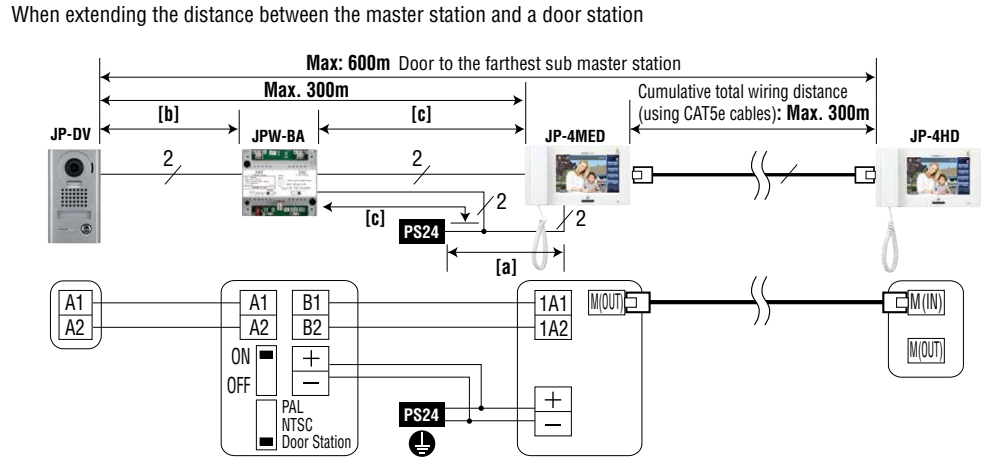
Features

- When JP series door station is more than 100m to max. 300m away.
- CCTV camera can be integrated by connecting JPW-BA.

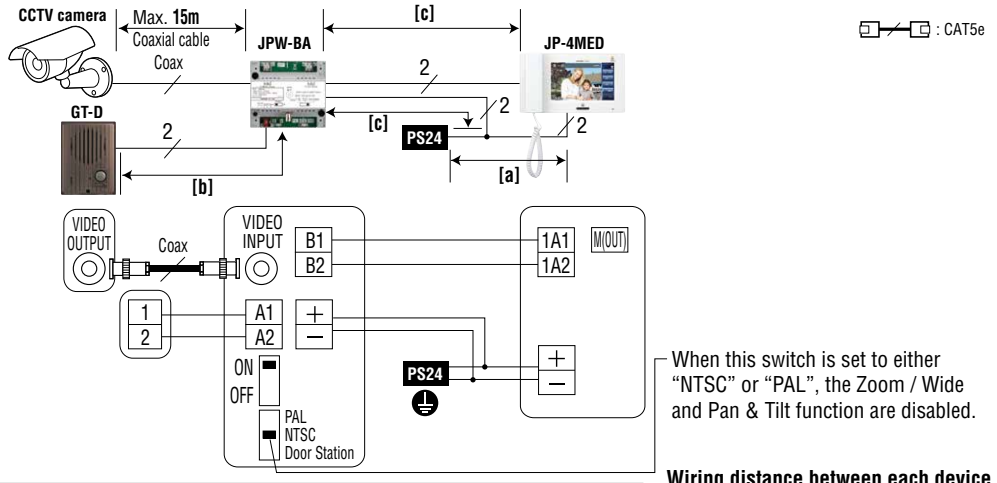
Unit dimensions



Wiring



When connecting a third-party CCTV camera and an audio door station in place of a video door station.



When this switch is set to either "NTSC" or "PAL", the Zoom / Wide and Pan & Tilt function are disabled.

Specifications

Power source	24VDC, supplied by PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-O of system or separate
Current consumption	MAX. 90mA
Wiring	2 parallel wires to ea. door & master.

Wiring distance between each device

	Wire diameter (PE cable)			
	Ø0.65 mm	Ø0.8 mm	Ø1.0 mm	Ø1.2 mm
[a]	5m	5m	10m	10m
[b]	100m	150m	200m	200m
[c]	50m	75m	100m	100m

Multiple door release adaptor



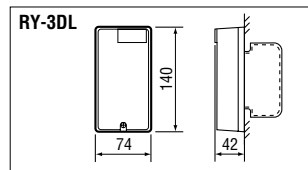
RY-3DL
Multiple door release adaptor

Features

- Selective door release with one button
- Door release contacts release the door where communication is established.
- Normally open contacts for electric strike. Normally closed contacts to work with magnetic locks.

Used for
JP-4MED

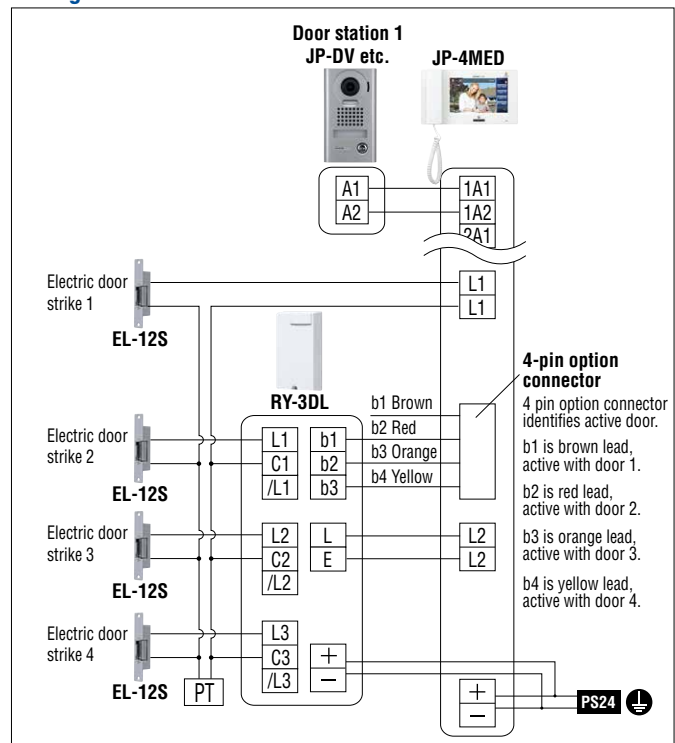
Unit dimensions



Specifications

Power source	12~24V DC, 40mA 12~16V AC, 60mA
Power supply	PS-2420S/UL/BF/DM/-O; PS-1820S/UL/BF/DM/-O; PS-1225S/UL/BF/DM/-O; AC trans.
Relay contacts	Normally open output. 1A at 50V AC. 1A at 30V DC (for other types, use matching relay)
Wiring distance	Master to RY-3DL 50m (0.65mmØ) 100m (1.0mmØ) RY-3DL to EL-12S 50m (0.65mmØ) 100m (1.0mmØ)

Wiring



[PT] : AC transformer PS24 : PS-2420S/UL/BF/DM/-O

7 inch Touch Screen Color Video Intercom with Wireless LAN

DOOR 1 ► ROOM 2 JO-1MDW

Door station



JO-DV
Vandal resistant video door station, surface mount
or

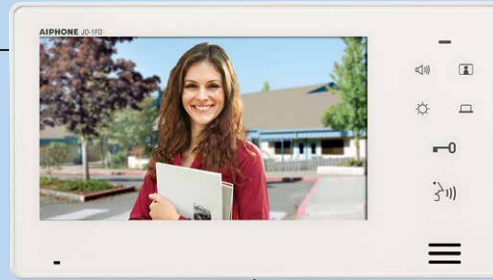


JO-DVF
Vandal resistant video door station, flush mount
or



JO-DA
Video door station, surface mount

Expansion monitor station



JO-1FD
Expansion monitor station

PS18

Boxed sets



JOS-1AW: JO-1MDW, JO-DA
JOS-1VW: JO-1MDW, JO-DV
JOS-1FW: JO-1MDW, JO-DVF

Add appropriate power supply
→ P.136

* The sales area is limited due to regulations.
Please contact your AIPHONE distributor for more details.

Power supply PS-1820S PS-1820UL PS-1820BF PS-1820DM PS-1820-O → P.136

Features

- Total hands-free communication
- Easy operation by 7 inch touch screen (JO-1MDW)
- Video image adjustment function
- Option output: Option button connectable to the master monitor station and expansion monitor station.

Touch screen operation (JO-1MDW)



Smartphone connection
Control whether calls are forwarded to smartphones.



Settings
Manage system settings.



Notifications
Confirm system updates and other important notifications.



Door release
Operate the electric lock connected to the master station.



Play
Play and manage call recordings.



Option output
Control external devices connected to the master station.



Monitor
Monitor around the door station.



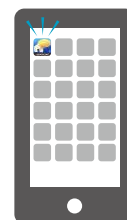
Talk
Communicate with the door station.

Smartphone Application provides connectivity anywhere

- Answer calls from the door station anywhere inside or outside your home
- Monitor the door station
- Operate electric locks while answering a call
- Control external devices while answering a call
- Zoom in and zoom out functions



Install application



Both iOS and Android are available (Free download)

*Android is a trademark of Google LLC.
*iOS is the OS name of Apple Inc. IOS is a trademark or registered trademark of Cisco Systems, Inc. in the U.S. and other countries and is used under license.



Commercial

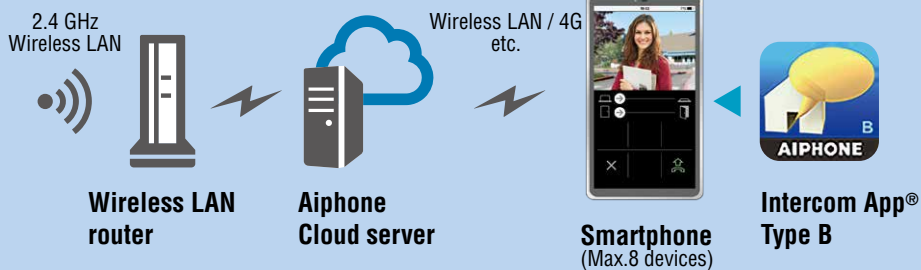


Residential

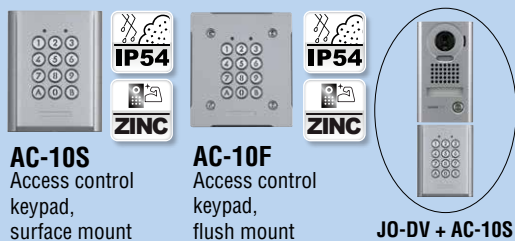
Master monitor station



JO-1MDW
Master monitor station



Access control → P.132



Lineup

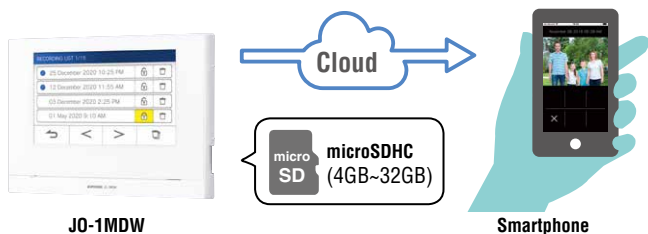


View recorded calls anywhere

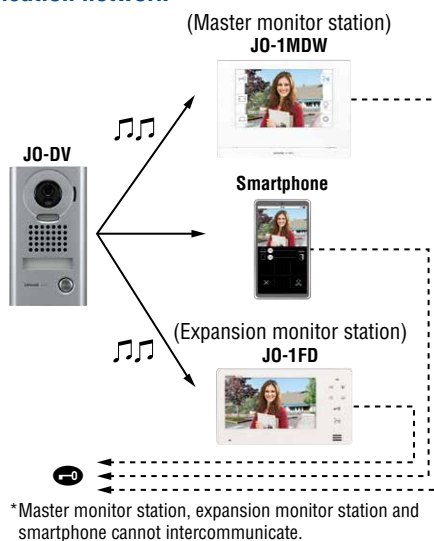
The master monitor station records the video and audio of visitors automatically or manually. Record visitors even when not able to answer calls. View the recordings from the master monitor station or your smartphone.

Video memory

- Internal memory: 10 calls (max.) (10 seconds / call)
- SD card: 1,000 calls (max.) (10 seconds / call)



Communication network



Automatic updates

Automatic updates ensure you always have the latest functionality and security.

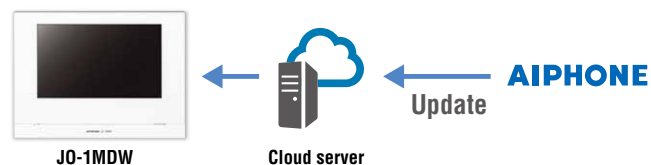
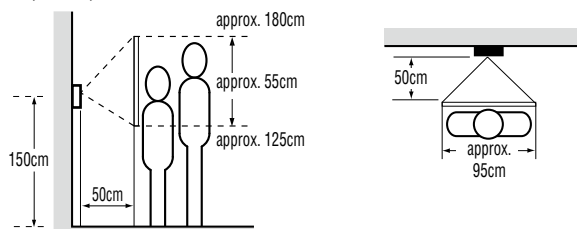


Image view area

JO-DA, JO-DV, JO-DVF



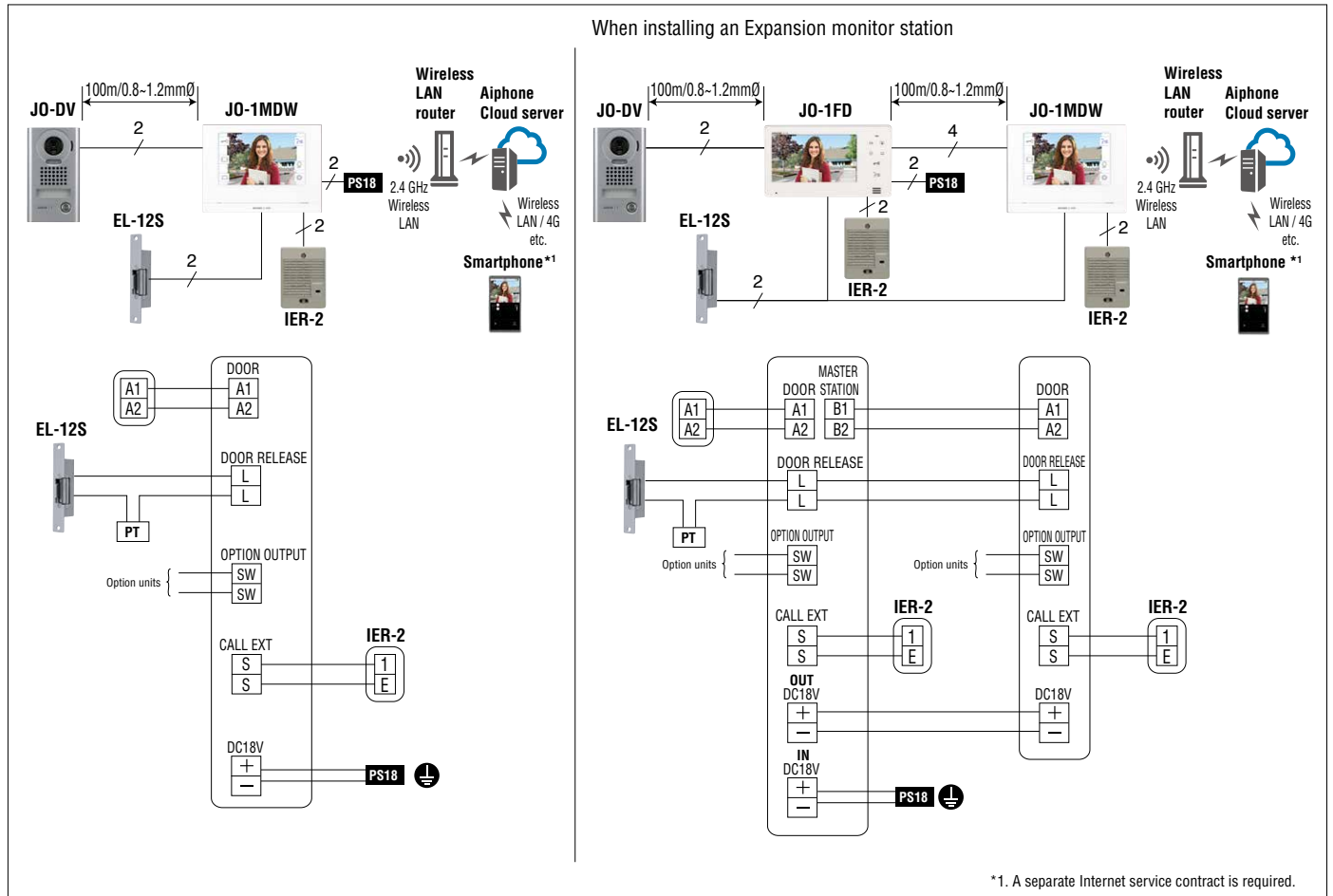
JP

JO

WL

7 inch Touch Screen Color Video Intercom with Wireless LAN

Wiring



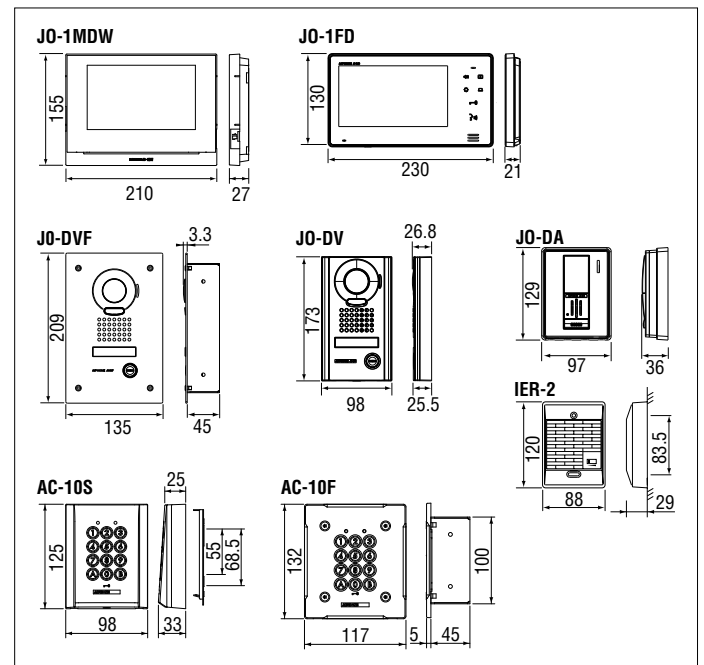
*1. A separate Internet service contract is required.

[PT] : AC Transformer [PS18] : PS-1820S/UL/BF/DM/O

Specifications (JO-1MDW, JO-1FD)

Power source	18V DC
Power supply	PS-1820S, PS-1820UL, PS-1820BF, PS-1820DM, PS-1820-O
Consumption	Max. 450mA (JO-1MDW) Max. 420mA (JO-1FD)
Calling	Chime. Image, approx. 45 sec.
Communication	Approx. 1 min. or 3 min. (JO-1MDW) Open voice hands-free auto-voice actuation or Touch (Press)-to-talk communication
Video monitor	7 inch color LCD touch screen (JO-1MDW) 7 inch color LCD screen (JO-1FD)
Pixels	Approx. 384,000 pixels (JO-1MDW) Approx. 300,000 pixels (JO-1FD)
Night viewing	Up to 50cm from camera, with white LED projected, background beyond 50cm cannot be seen.
Door release contact	24V AC/DC, 1A (N/O dry closure contact)
Option output	24V AC/DC, 1A (N/O dry closure contact)
Wireless LAN interface	IEEE802.11b/g/n (JO-1MDW)
Wiring	Door to Master monitor (or Expansion monitor) : 2-cond., mid cap solid, non-shielded. Expansion monitor to Master monitor : 4-cond., mid cap, solid, non-shielded.
Wiring distance	Door to Master monitor (or Expansion monitor) : 100m (0.8~1.2mmØ) Expansion monitor to Master monitor : 100m (0.8~1.2mmØ), Monitor to IER-2 : 150m (0.8~1.2mmØ)

Unit dimensions



Restrictions


- Connect your JO-1MDW master monitor station to a commercially available wireless LAN router that is connected to the Internet
- Ensure that you install the master monitor station near your wireless LAN router and that the wireless connection is not obstructed
- Ensure that your internet connection for both the master monitor station and your smartphone meets the minimum requirements for using the application (1.5Mbps for download and 1.5Mbps for upload)

- The application cannot be used for emergency calls or communication
- All internet connection fees and data usage fees are the responsibility of the user
- Up to 8 smartphones can be registered to one master monitor station

7 inch Screen Color Video Intercom

DOOR 1 ROOM 2 JO-1MD


Door station



JO-DV
Vandal resistant video door station, surface mount or

IP54
IK08
ZINC


Expansion monitor station




JO-1FD
Expansion monitor station

PS18

Master station



JO-1MD
Master monitor station




JO-DVF
Vandal resistant video door station, flush mount

IP54
IK07
STAINLESS

JO-DA
Video door station, surface mount

IP54

Boxed sets



JOS-1A: JO-1MD, JO-DA
JOS-1V: JO-1MD, JO-DV
JOS-1F: JO-1MD, JO-DVF

Add appropriate power supply → P.136

Access control
→ P.132

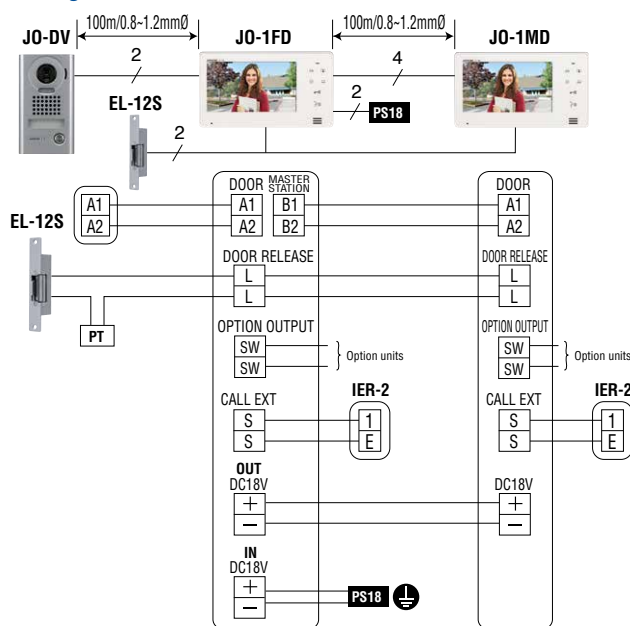
Lineup
EL-12S
Electric door strike → P.134
AE7090220B
AE7090220G
AIPHONE approved product wire → P.137

Power supply PS-1820S PS-1820UL PS-1820BF PS-1820DM PS-1820-O → P.136

Features

- Total hands-free communication
- Video image adjustment function
- Easy operation by buttons with picture indications
- Option output: Option button connectable to the master monitor station and expansion monitor station.

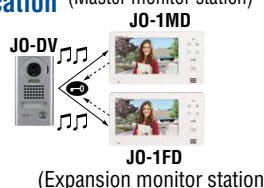
Wiring



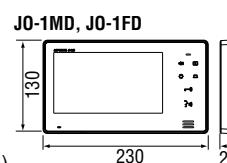
Specifications (JO-1MD, JO-1FD)

Power source	18V DC
Power supply	PS-1820S, PS-1820UL, PS-1820BF, PS-1820DM, PS-1820-O
Consumption	Max. 410mA (JO-1MD) Max. 420mA (JO-1FD)
Calling	Chime. Image, approx. 45 sec.
Communication	Approx. 1 min. Open voice hands-free auto-voice actuation or Press-to-talk communication
Video monitor	7 inch color LCD screen
Pixels	Approx. 300,000 pixels
Night viewing	Up to 50cm from camera, with white LED projected, background beyond 50cm cannot be seen.
Door release	24V AC/DC, 1A (N/O dry closure contact)
Option output	24V AC/DC, 1A (N/O dry closure contact)
Wiring	Door to master monitor (or Expansion monitor) : 2-cond., mid cap solid, non-shielded. Expansion monitor to Master : 4-cond., mid cap, solid, non-shielded.
Wiring distance	Door to Master monitor (or Expansion monitor): 100m (0.8-1.2mmØ) Expansion monitor to master monitor : 100m (0.8-1.2mmØ) Monitor to IER-2: 150m (0.8-1.2mmØ)

Communication network



Unit dimensions



* Master monitor station and expansion monitor station cannot intercommunicate.

Image view area

Refer to the descriptions for the image view area. → P.57

Wireless Color Video Intercom



Wireless door station



WL-DA
Wireless video door station,
surface mount
Powered by 6xAA size batteries*1
(Not included)

Wireless master monitor station



WL-1ME
Wireless master monitor
station
(Charging stand : WLW-C)

1.9 GHz
DECT Wireless

*1. Recommended Ni-MH battery with the capacity of 2500mAh or more.

Features

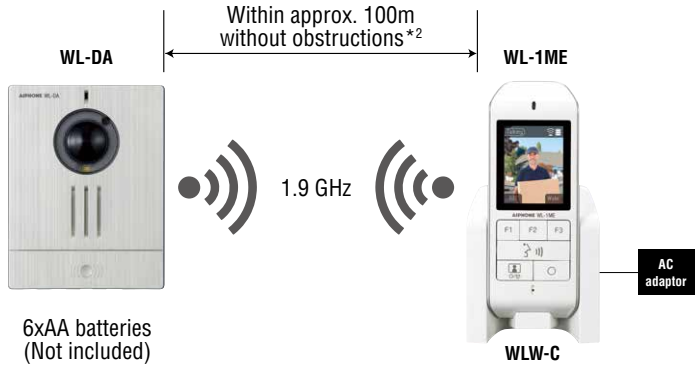
- Total hands-free communication
- No wiring work required
- DECT Wireless: No interference from home appliances on other frequencies.
- Normal and wide screen
- White LED illumination turns on in low-light conditions
- Video image adjustment function
- Record visitor images both automatically & manually

Wire free, Hassle free

Answer calls from the door station anywhere inside your home.



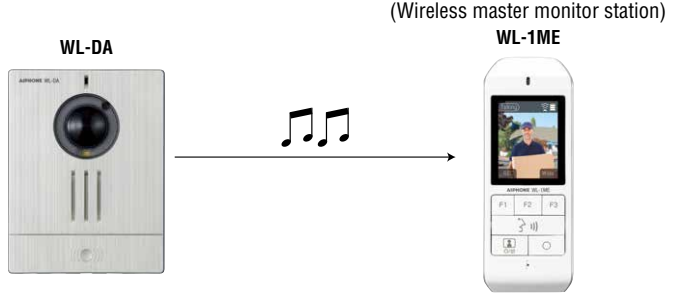
System configuration



6xAA batteries
(Not included)

*2. Walls and other obstructions may affect communication distance.

Communication network



Boxed set



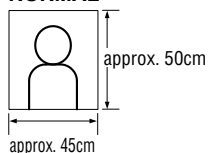
WL-11 : WL-1ME, WLW-C, WL-DA

*The sales area is limited due to regulations.
Please contact your AIPHONE distributor for more details.

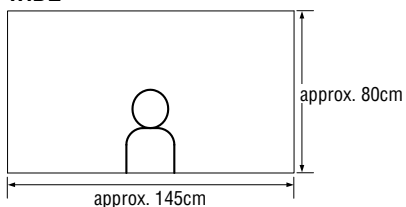
Image view area

WL-DA

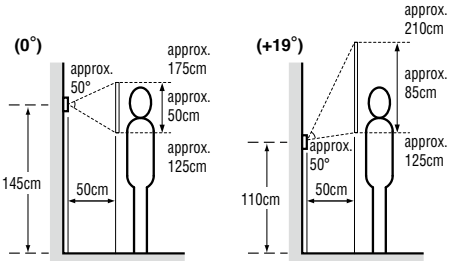
NORMAL



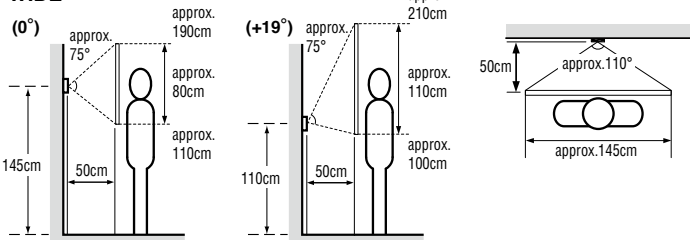
WIDE



NORMAL



WIDE



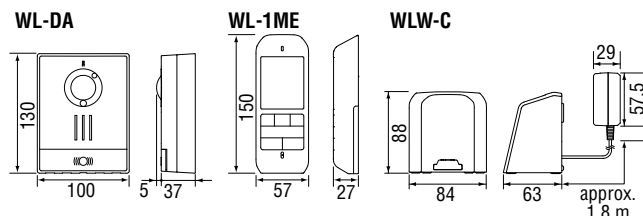
Specifications (WL-1ME)

Power source	2.4V DC
Power supply	Build-in Ni-MH battery (AIPHONE WLW-BT.E) (2000mAh)
Calling	Chime. Image, approx. 30 sec.
Communication	Approx. 1 min. Open voice hands-free auto-voice actuation or Press-to-talk communication
Video monitor	2.4 inch color LCD monitor
Pixels	Approx. 230,000 pixels
Night viewing	Up to 50cm from camera, with white LED projected, background beyond 50cm cannot be seen. (When night illumination LED function is "Enable")
Wireless type	DECT
RF Transmission Frequency Range	1880 - 1900MHz
Wireless distance	Door to Wireless master monitor: Within approx. 100m without obstructions.

Specifications (WLW-C: WLW-C.E + AC Adaptor)

Power source	100V - 240V AC, 50/60Hz
Power consumption	Max. 2.4W

Unit dimensions



INTEGRATED SECURITY & COMMUNICATION SYSTEM

Innovative network-based security management systems. Manage not only your door entry security, but also internal communication through one system via a local network or the internet to dramatically improve security efficiency.



Find Out the Solutions for Your Security Needs.



Large Corporations

Protect staff by giving them the advantage of safely confirming the identity of visitors and vendors before granting access into the building.



Airports

Communications between several departments at separated places can be smoothly realized.



Schools

Broadcast messages throughout the school or to a particular classroom. Reply with a handset or hands-free.



Shopping Malls

Internal communication between tenants can be easily done. Enable quick communication in emergency situations.



Hospitals

Increase staff efficiency by controlling various entrances from a central location. Easily transfer responsibilities to another location or individual.



Parking Garages

Assist visitors and monitor multiple garage entrances from remote locations during or after hours.

Lineup

IP Network Audio - Video Intercom System IX system Full IP System



P64~

Integratable Audio & Video Security AX system Hardwired System



P84~

IP Network Audio - Video Intercom System

IX System

Extensive lineup, greater flexibility, covering more applications.







The IX System – getting the job done for a wide range of business applications, while providing interoperability and integration with third-party IP systems.



Full IP-network compatibility

VPN/LAN

Security enhanced by Integration

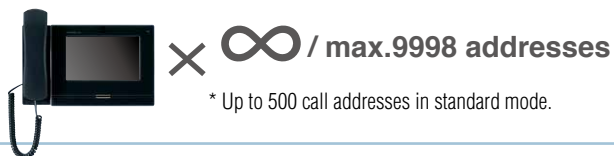
- 
 Network Camera
- 
 Access Control
- 
 VMS/NVR
- 
 IP-PBX
- 
 Emergency Call
- 
 Paging

Full IP-network compatibility, simple installation, and great capacity.

Enable communication between an unlimited number of door/master stations with no distance limitations. Save money as no servers or separate power sources are necessary to build a system.

Unlimited number of IX units can be connected

Up to 9998* call address registrations in IX master stations. Extreme scalability - use for installations of any size.



Peer to peer configuration results in space savings, reduced installation time, and lower cost

Simply connect the units to Power over Ethernet (PoE) switches. No need for a dedicated server, with the additional benefit of eliminating the risk of system downtime due to server malfunction.



No wiring-distance limitations

LAN and VPN connections enable implementation over extensive areas and between remote locations. This allows for closed circuit communication and central control in large facilities, between corporate and satellite offices, and any type of application with multiple locations.

PoE design

Electrical power is supplied over the LAN port connection.



Integration with other IP-based security systems.

Using existing IP infrastructure, IX System can be integrated with Video Management System, Access Control System, and Network Camera System, etc. Combining security components saves time and resources during set-up and training.

Compatible with third-party systems

The IX system is compatible with the ONVIF Profile S interface specifications for network camera equipment. This allows the intercom to be used with third-party systems, enabling interoperability of integrated IP systems. The open API allows for configuring IP systems with greater flexibility.

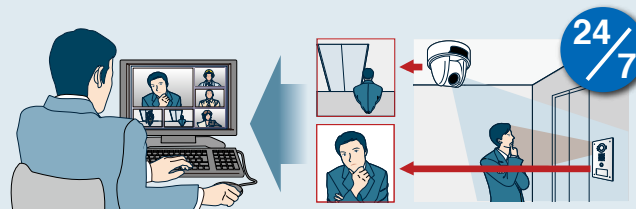


Examples of Integration Use with a Video Management System and Access Control

Interconnection with an ONVIF Profile S-compatible network camera system lets you transform door stations into surveillance cameras for facial identification of visitors. Integrate with video management systems for 24/7 recording. Integration with third-party access control is also possible.

*VMS (video management system): XProtect® by Milestone Systems

*Access control: OnGuard® by Lenel



Clearly identify visitors with both the intercom and Network camera.

IP-PBX Integration

IP-PBX integration enables the IX system to be used as a part of your internal telephone network. Make receive and transfer calls, answer visitors and release doors.

*Integration available for CISCO system (CUCM), Avaya system (Office, Aura), Digium system (Switchvox) and Alcatel-Lucent system (OXO, OXE), Genetec system (Sipelia). For further details, please contact your dealer.

*Some countries have local restrictions on connecting to a PBX. Please refer to our website (<https://www.aiphone.net/>) to check the countries where PBX connection is allowed.



IP Network Audio - Video Intercom System

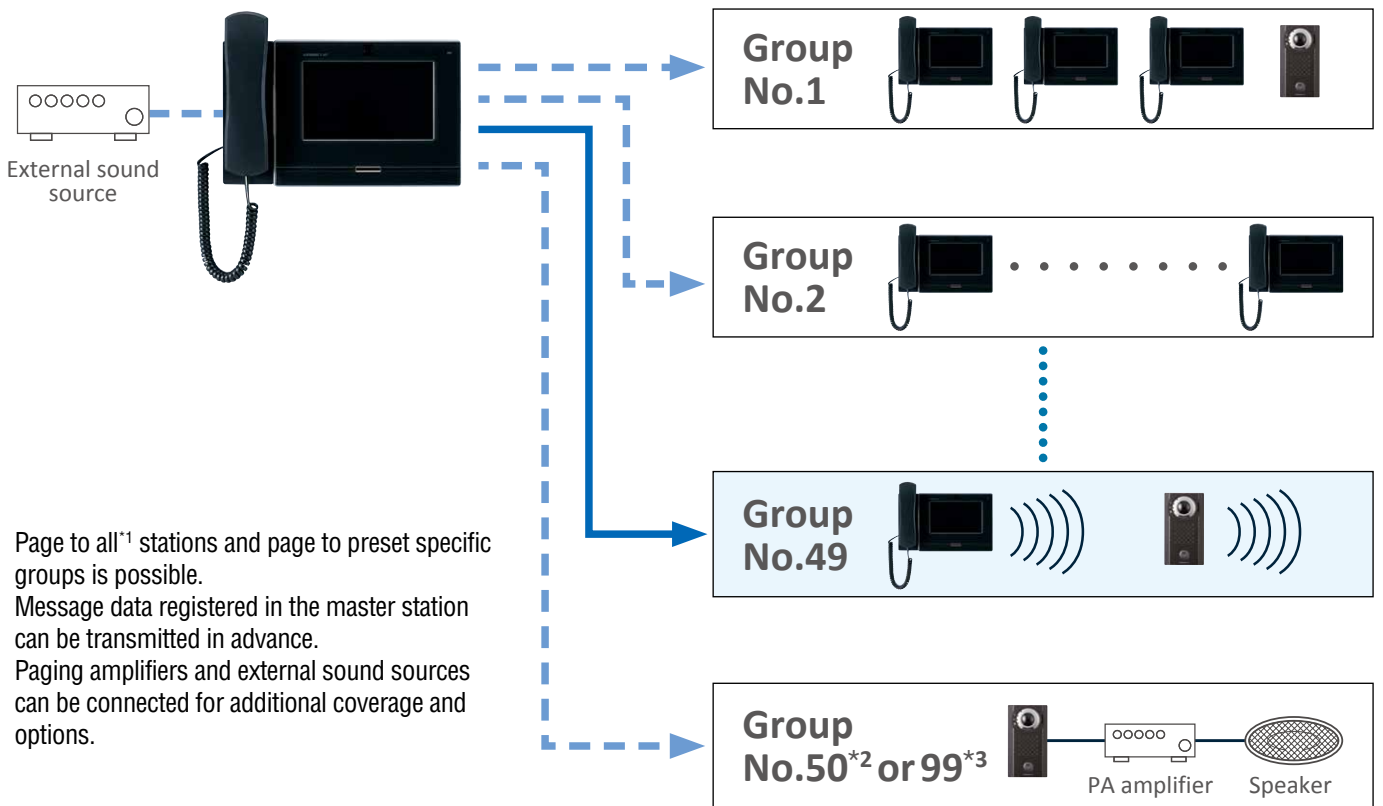
Custom settings for all situations

Call Queuing

Master stations can receive up to 20 incoming calls simultaneously. Caller information is displayed on a call queue list, making it possible to respond selectively to high-priority calls.



Page to all*1 stations or individual groups



Page to all*1 stations and page to preset specific groups is possible. Message data registered in the master station can be transmitted in advance. Paging amplifiers and external sound sources can be connected for additional coverage and options.

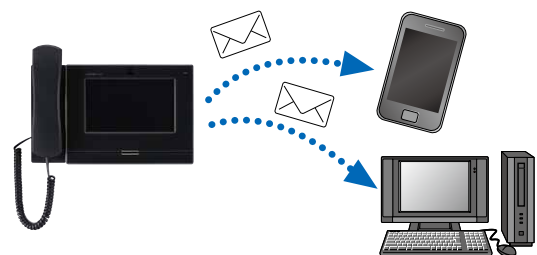
*1.Up to 500 stations
*2.Standard mode
*3.Expanded mode

Unicast/Multicast

Depending on the network infrastructure, you can choose sending data via Unicast or Multicast. Paging to all stations can be done using Multicast, and Unicast, paging up to 50 stations is possible.

Send E-mail reports

When master stations are called, IX System can send an E-mail attached with the visitor's picture up to 3 E-mail addresses. Error and health check reports can be also sent via E-mail.



Customize with prerecorded messages

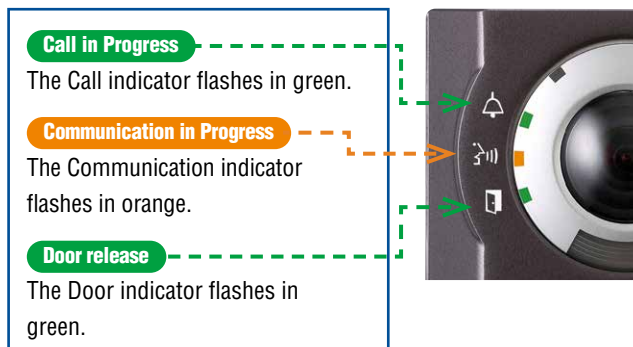
Create and import custom audio files for use as unique voice messages. For visitors at door stations, voice messages let them know the door and communication status.

For security guards/receptions at master stations, voice messages help to identify incoming calls and special situations instantly.



Notification of call and communication status

Indicator lamps and sounds or voice messages provide notification of call and communication status for security and peace of mind.

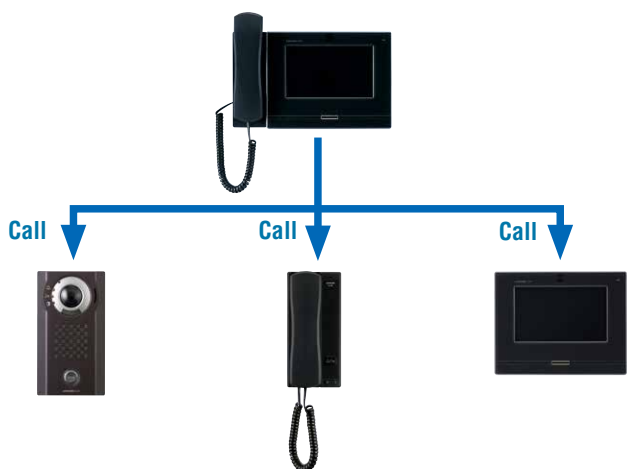


Usage-specific individual calls and simultaneous calls to multiple devices

Multiple calling methods suitable for various applications and user communication needs at the installation premises can be provided.

Individual calls (Master station)

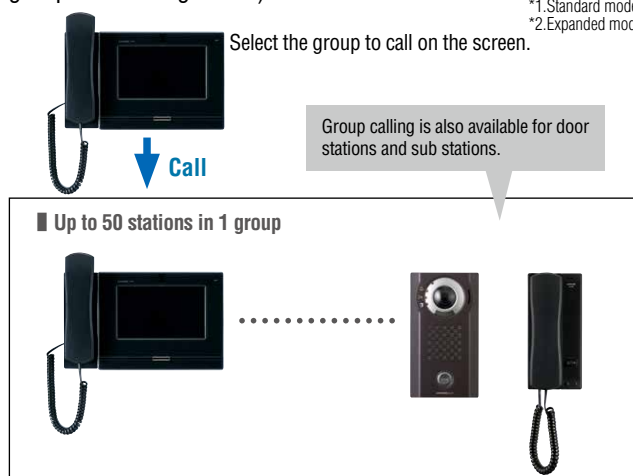
Master station can call and talk with each station individually.



Group calls (Master station)

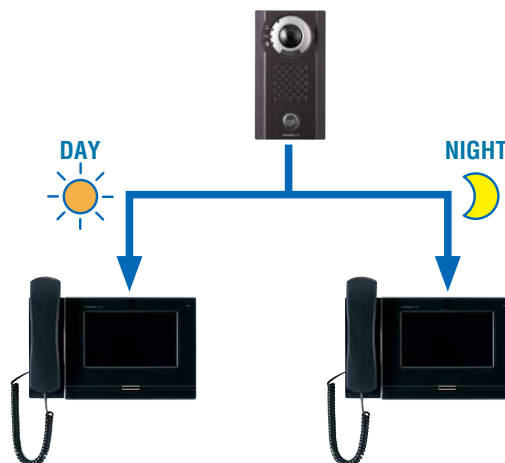
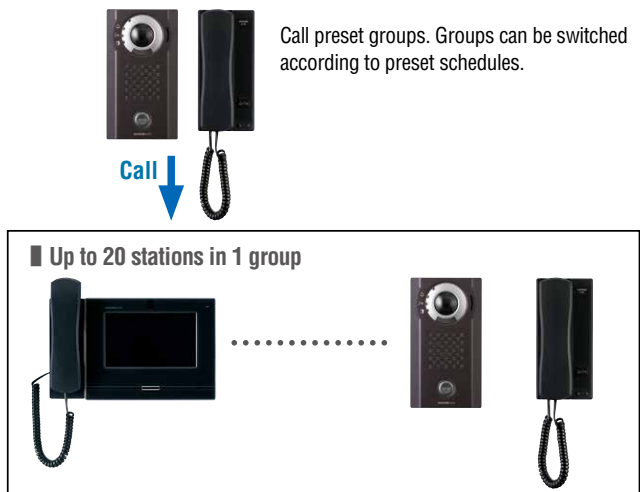
Up to 50 stations can be called at one time. (Up to 50*1 or 99*2 groups can be registered)

*1. Standard mode
*2. Expanded mode



Group calls (Door station/Sub station)

Up to 20 stations can be called at one time. (Up to 10 groups can be registered)



IP Network Audio - Video Intercom System

A wide range of call transfer features

The system offers multiple call transfer features that can be customised to meet users demands.

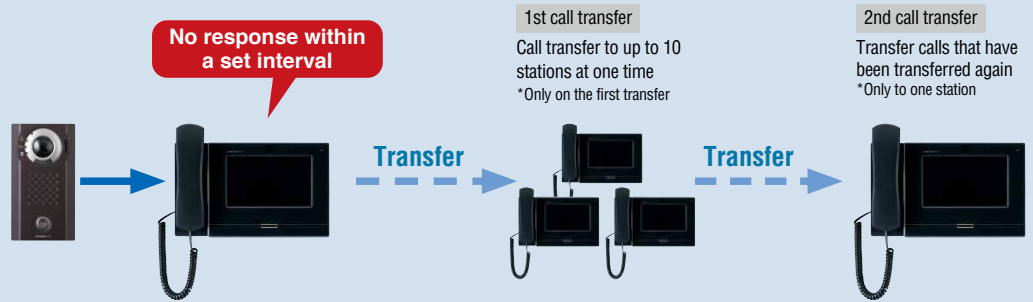
Manual transfer

Calls can be placed on hold and transferred to another master station manually by the operator.



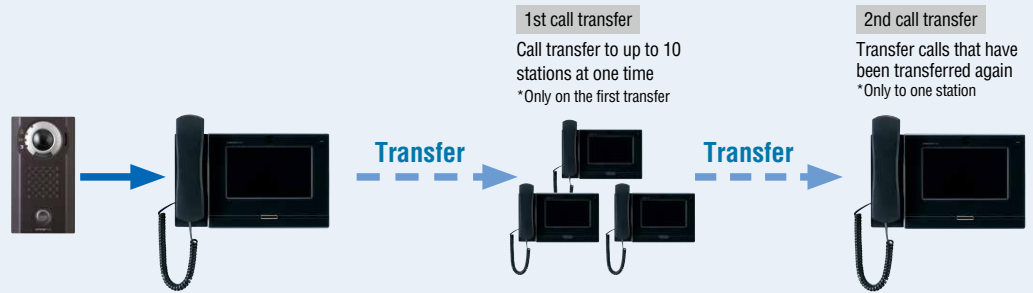
Delay transfer

If no response occurs within a set interval, calls are automatically transferred to a pre-programmed master station.



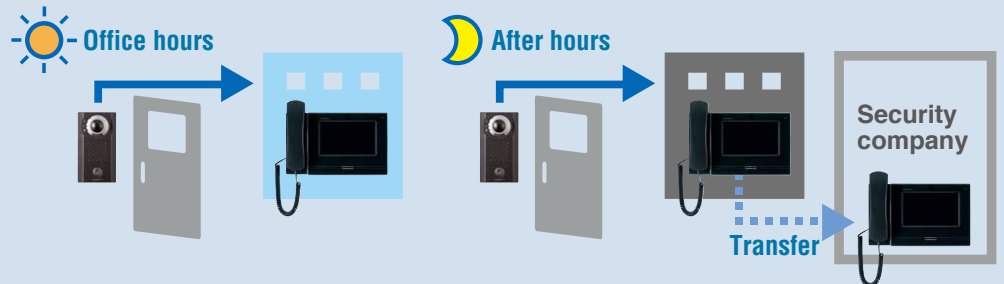
Absent transfer

Calls are automatically transferred to a different master station immediately.



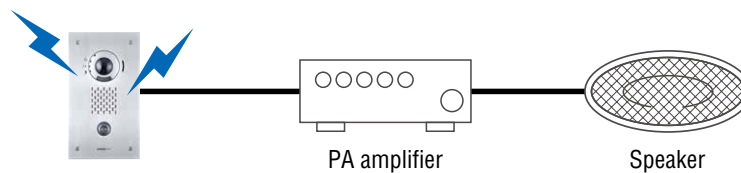
Schedule transfer

Calls are automatically transferred to a preset master station during scheduled times, such as after normal business hours.



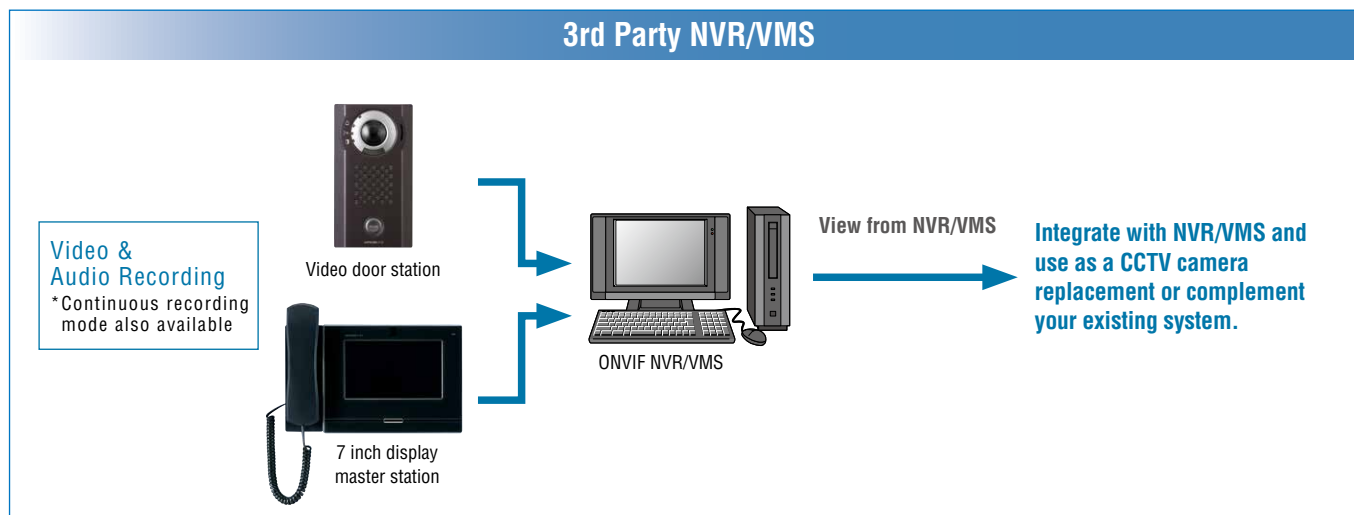
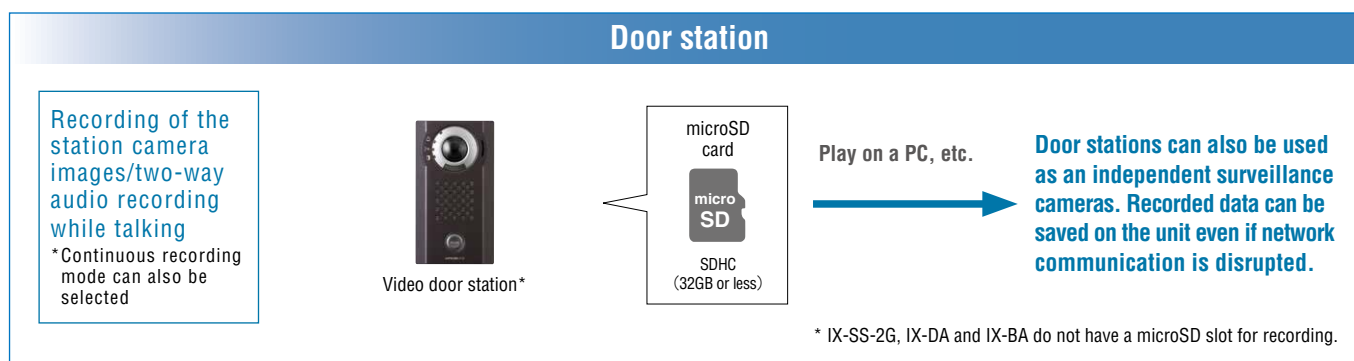
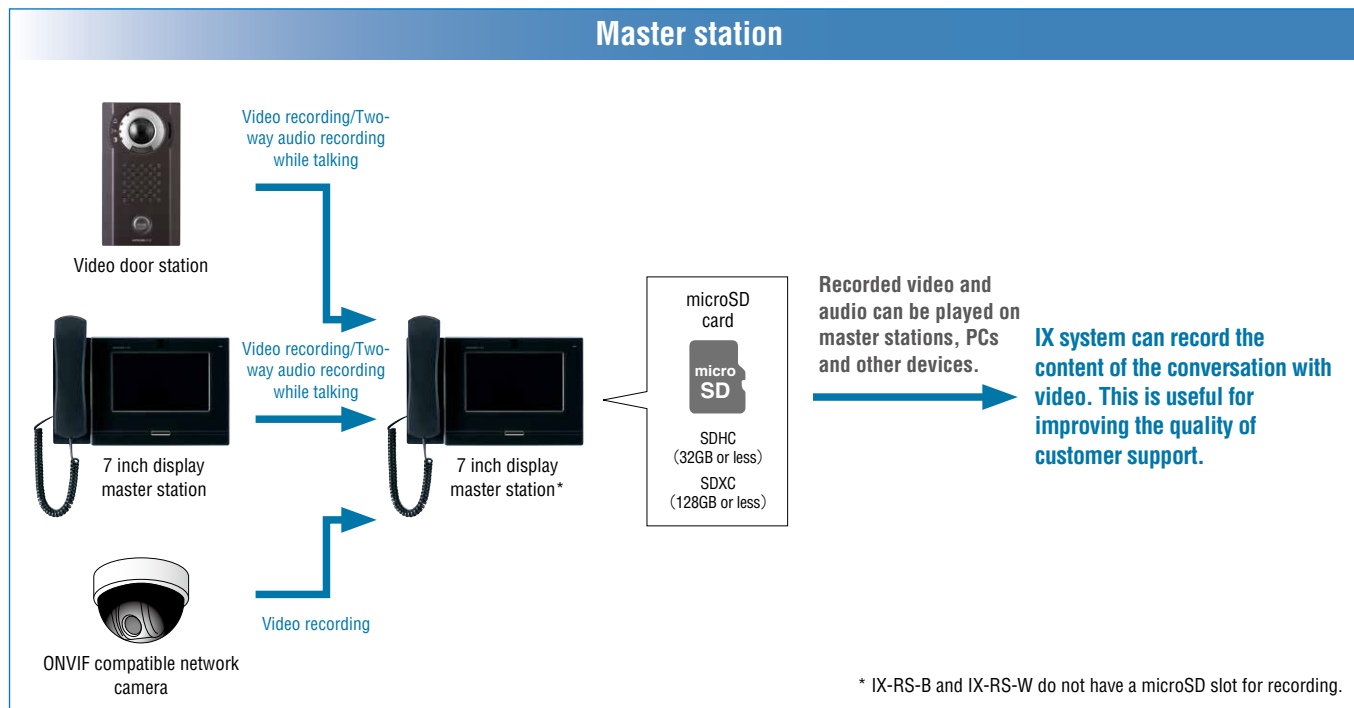
Powerful and clear sound in all situations

- Conversations can be heard clearly while talking even in places with background noise.
- Integrate with PA systems for even more flexibility and power.



Audio and video recording

Audio and video can be recorded onto a microSD card that can be installed in the IX master and door stations. Integration with third party recording systems is also available.



IP Network Audio - Video Intercom System

IX Intercom application for PC

The software offers the same features as a physical IX master station. Video and audio communication, door release, monitoring and paging can all be done through the software.

IX-SOFT*1

License authentication USB dongle*2

*1. Download the software from our website (<https://www.aiphone.net/>) to the PC.
*2. USB dongle must be connected to PC while using software.

Audio and video recording on PC

The software can record the video and audio from conversations automatically or manually. Up to 999 recorded files can be saved and can viewed by selection through the Recordings function.

Number	Records	Date And Time	Name
0002		01/08/2020 02:36 PM	Video Stations1
0001		01/08/2020 01:44 PM	Master Stations1
0008		01/08/2020 01:44 PM	Handset Sub Station1
0008		01/08/2020 01:43 PM	Handset Sub Station1
0001		01/08/2020 01:06 PM	Master Stations1
0002		01/08/2020 12:51 PM	Video Stations1

Speed dial buttons

The speed dial buttons can be used to quickly perform functions that have been pre-assigned. Up to 50 favorite buttons can be configured.

Max. 50
Favorite
Buttons

Interactive map is a visual, efficient way of selecting stations

Interactive map allows system operation and status from a bird's eye view via station icons.

Layering maps provides the ability to zoom into specific areas for easier selection. (campus, building, floor, etc.)

Mullion Door Station

Slim design, suitable for door mullion

The slimmest video door station in the IX range is 48 mm wide and fits the size of the mullions. Able to be installed in a variety of Locations, such as entrance in office buildings, commercial facilities, and outdoor gates.



Contactless call sensor

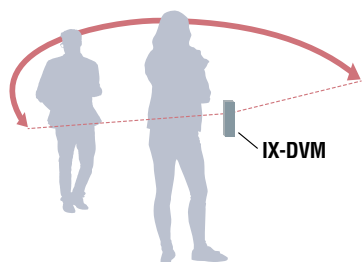
Calls just by holding a hand over the sensor without pressing the physical call button. Employed algorithms reduce false calls caused by sensing rain, snow, and dust etc.



Clear panoramic view

Corrects wide-angle lens distortion and adjusts video images for easy viewing all the way to the edge.

Approx. 170° angle wide view camera



Before distortion correction



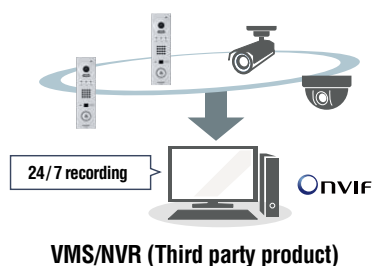
After distortion correction



WDR (Wide Dynamic Range)

Corrects for differences in brightness and darkness, such as in backlighting, and provides natural video images that allow to clearly see both visitor and the background.

As a surveillance camera with high-performance video correction and communication functions, IX-DVM is ideal for the Video Sentry of security doors.



Before video correction



After video correction



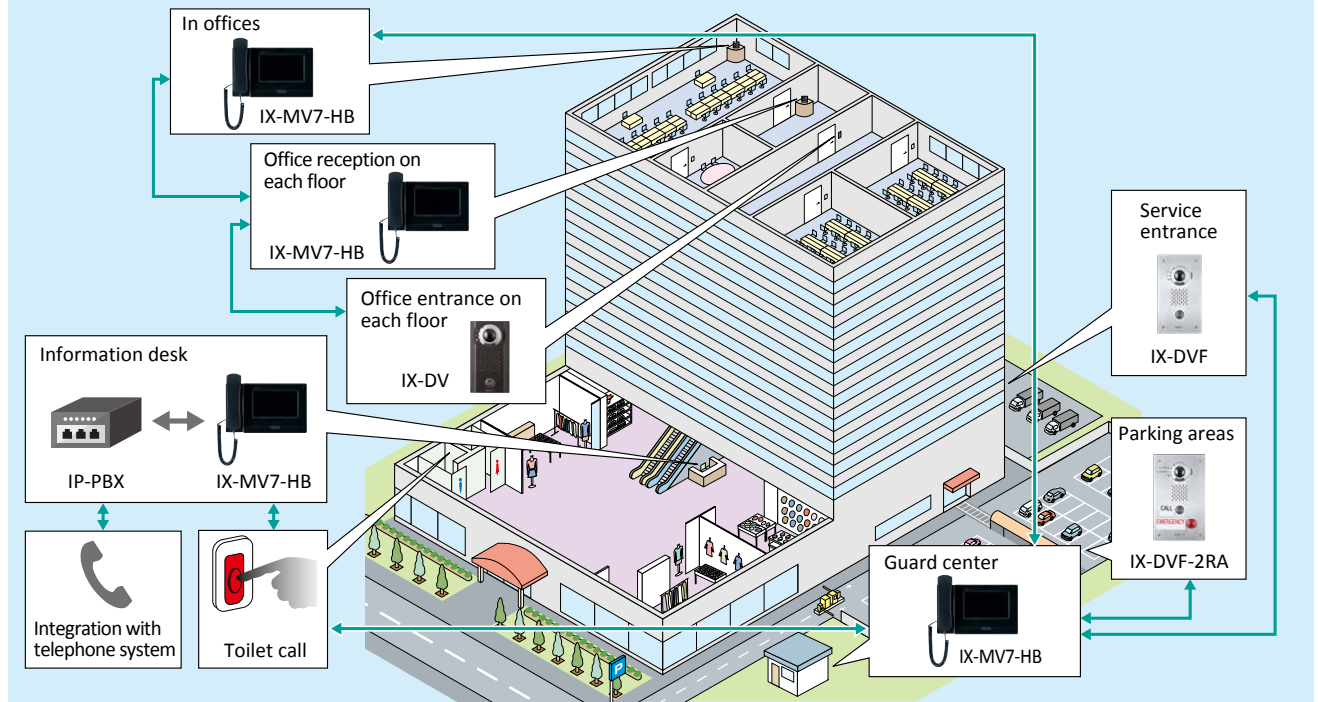
IP Network Audio - Video Intercom System

Examples of Popular Applications

Commercial facilities and offices

All-in-one system for internal communication and emergency assistance.

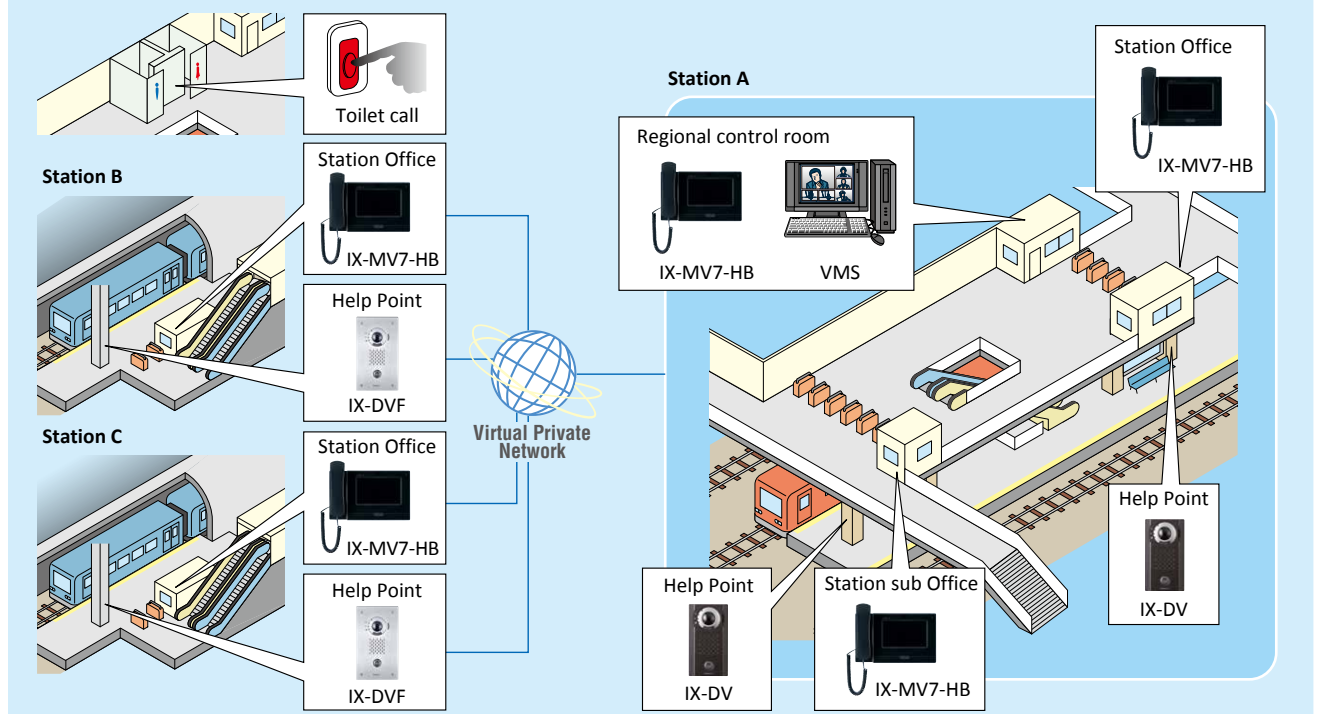
The new IX allows mutual communication between commercial facilities and offices combining emergency assistance functionality at parking areas and toilets. All-in-one system configuration also enables support for outside lines.



Railways

All-in-one system for Help points, Communication between remote stations, and Video surveillance.

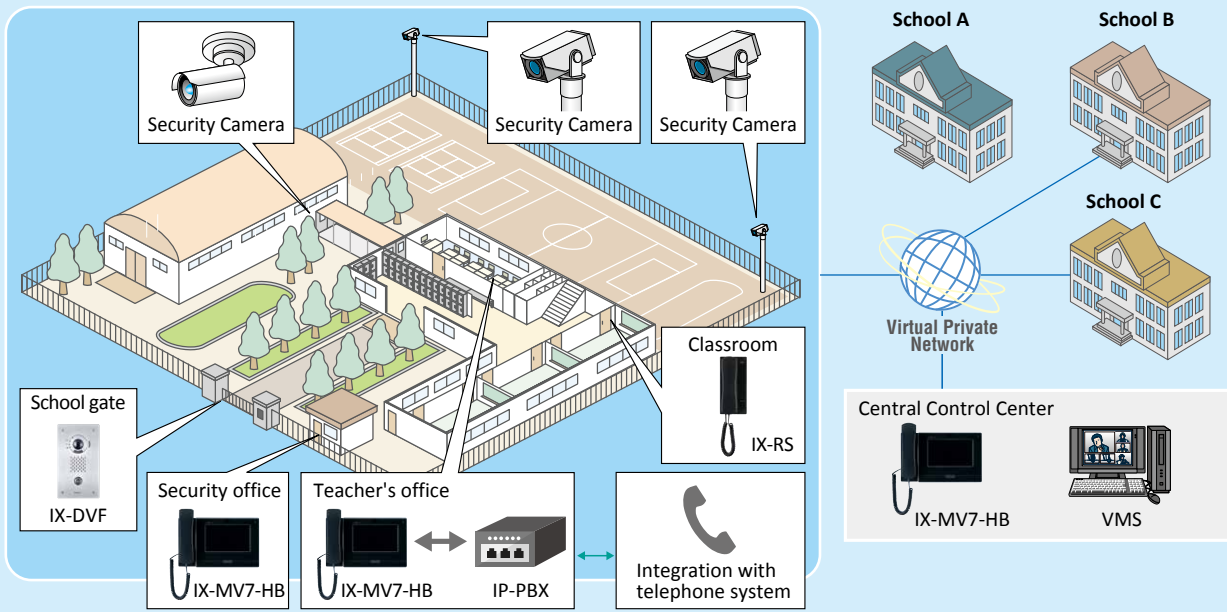
Respond to calls and queries from ticket machines, ticket gates, and platforms with video monitoring. Communication between remote stations is also possible.



Schools

All-in-one system for Door Entry management, Call transfer for after hours, and Emergency paging.

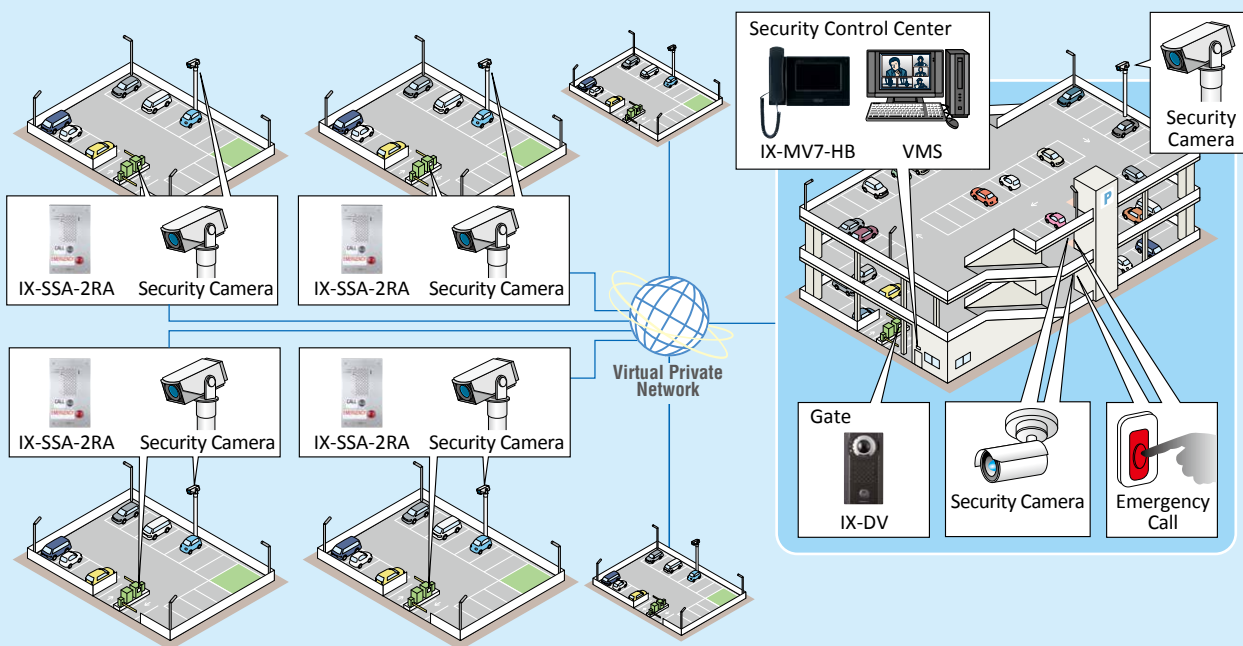
Management of entry and exit points integrated with access control can be accomplished. The system can also be used to enable teachers and staff members to easily communicate with one another. After hours control for schools within the district can be performed at a central control site. Use handset sub stations for privacy inside classrooms.



Parking facilities

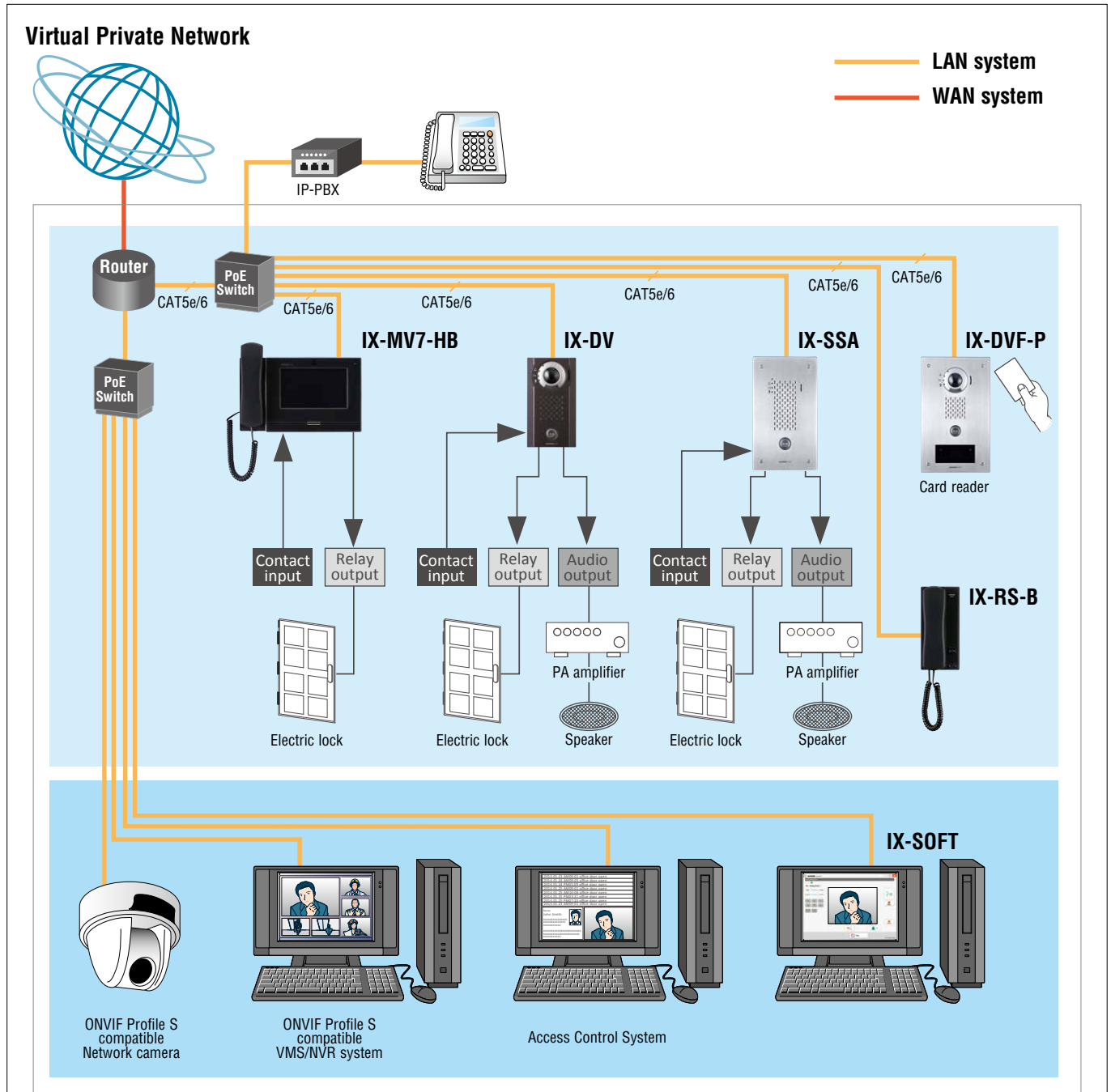
All-in-one system for Emergency call, Remote control of distant parking spaces, and Video surveillance.

Audio communication and video identification allows for immediate response where assistance is needed. Crime prevention can be enhanced further through simultaneous installation of network cameras.



IP Network Audio - Video Intercom System

System Configuration




Number of station registrations in address book

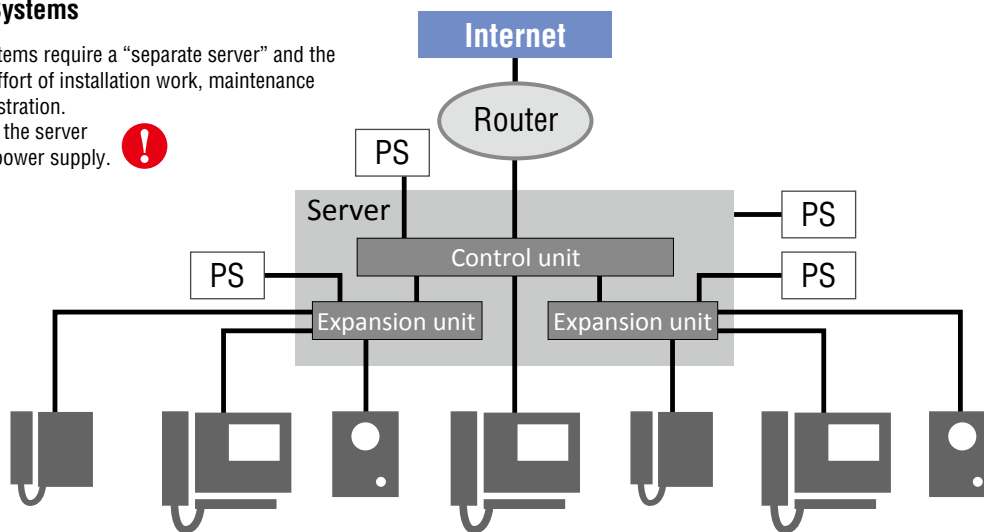
Product number	Product name	Number of station registrations in address book	
IX-MV7-HB, IX-MV7-HW, IX-MV7-B, IX-MV7-W	Master Station	Expanded mode 9998 stations	Standard mode 500 stations
IX-SOFT	Intercom Application for PC	Expanded mode 9998 stations	Standard mode 499 stations
IX-RS-B, IX-RS-W	Handset Sub Station	20 stations* ¹	
IX-DV, IX-DVF, IX-DVF-P, IX-DVF-RA, IX-DVF-2RA, IX-DVM, IX-EA, IX-DA	Video Door Station	20 stations* ¹	
IX-SS-2G, IX-SSA, IX-SSA-RA, IX-SSA-2RA, IX-BA	Audio Only Door Station	20 stations* ¹	

*1.Master stations, sub stations and Intercom applications can be registered (Max. 20).

Serverless Configuration Achieves Savings in Space and Installation Work, and Lower Costs

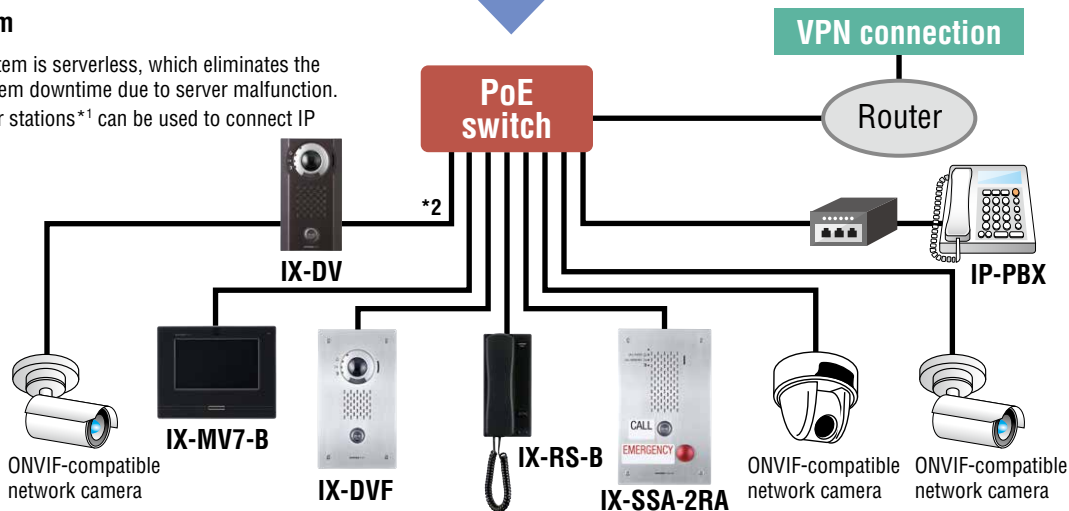
Typical Systems

Typical systems require a "separate server" and the attendant effort of installation work, maintenance and administration. In addition, the server requires a power supply. 



IX System

The IX System is serverless, which eliminates the risk of system downtime due to server malfunction. The IX door stations*1 can be used to connect IP cameras.



*1.Except IX-DVM, IX-EA, IX-DA, IX-SS-2G, IX-BA.

*2.When PoE passthrough function is used, the IX unit must be connected to an IEEE 802.3at compatible PoE switch or hub.

A Guide to Terms

ONVIF (Open Network Video Interface Forum)

The interface specifications established by ONVIF provide standards that enable exchange of live video and audio as well as control information and the like by surveillance cameras and other network video devices feed, even among products from different manufacturers.

VMS (Video Management Software [or "System"])

This refers to video management software using an IP network. Servers and cameras of any make can be installed, enabling configuration of systems matched to user needs.

NVR (Network Video Recorder)

This is a device that records video feed from a network camera over an IP network.

API

This refers to a publicly disclosed set of commands and functions that can be used in programming. It enables control of intercom functioning by user programs, and also makes it possible for user programs to acquire information from intercoms.

IP Network Audio - Video Intercom System

Master station



IX-MV7-HB
IP Audio and video master station (Black)
• UL listed: UL 62368-1



IX-MV7-HW
(Color variation White)
• UL listed: UL 62368-1



IX-MV7-B
IP Audio and video master station (Black)
• UL listed: UL 62368-1



IX-MV7-W
(Color variation White)
• UL listed: UL 62368-1

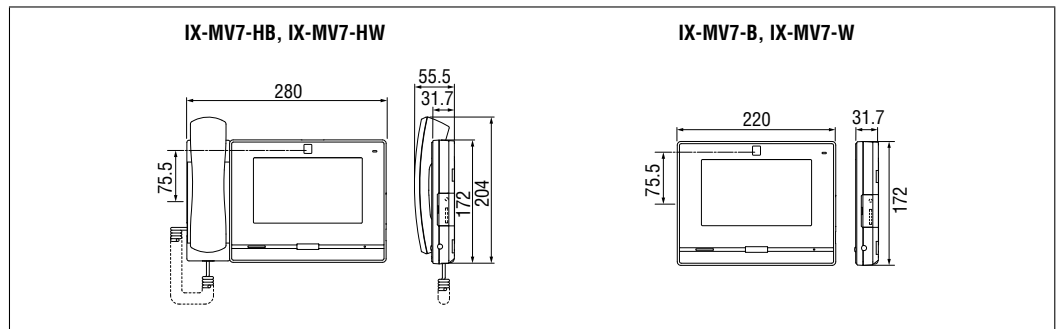
Features

- 7 inch touch display for easy operation and video monitoring
- Camera with privacy cover
- A variety of display modes designed for different situations
- Hands-free, touch-to-talk or handset (IX-MV7-HB, IX-MV7-HW) audio communication
- Direct voice call from master station to another station
- Video image adjusting function
- Record audio and video to a microSD card at the start of or during a call
- Play an audio or video recordings saved to a microSD card on a computer
- Call or communication transferring to another master station
- Paging to a group or all stations
- Message paging: Broadcast messages and notifications through the system
- External input paging: Send a page using contact input and external sound input
- Monitor other audio sub stations and door stations
- Others Door release: Release an electric lock during communication, or during monitoring.
Send e-mails: E-mails can be sent to pre-registered e-mail addresses when triggering events occur.
Transmitting video through ONVIF

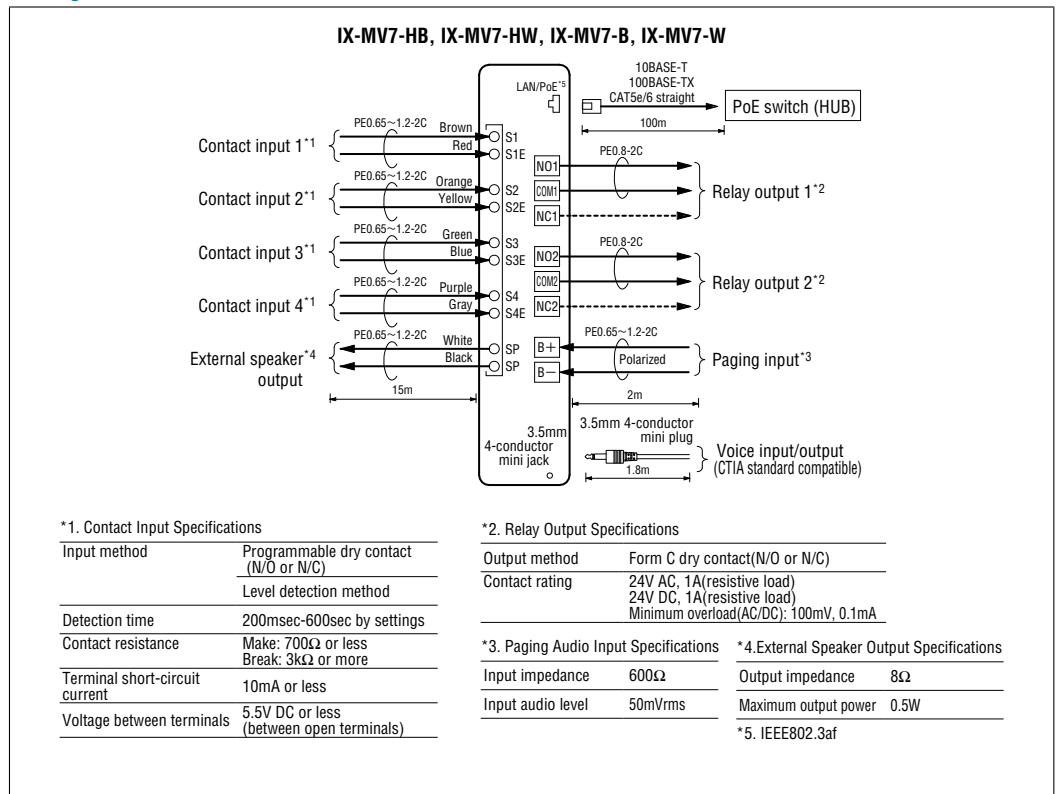
Specifications

Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Type of communication	Hands-free : Automatic voice switching/touch-to-talk Handset : Full-duplex (for calls between handsets only) (IX-MV7-HB, IX-MV7-HW)
Monitor	7 inch TFT color LCD
Camera	1/4 inch CMOS
Minimum illumination	15 lux
Mounting	Desktop use (with desktop stand) or wall-mount
Material	Flame resistant PC + ABS resin

Unit dimensions



Wiring



*1. Contact Input Specifications

Input method	Programmable dry contact (N/O or N/C)
	Level detection method
Detection time	200msec-600sec by settings
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

Intercom application for PC



IX-SOFT

IX Intercom application for PC¹



License authentication USB dongle²

*1. Download the software from our website (<https://www.aiphone.net/>) to the PC.

*2. USB dongle must be connected to PC while using software.

Features

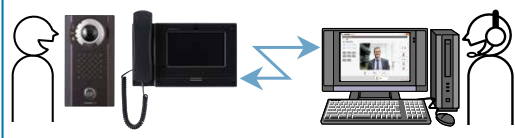
- Software performs all master station functions
- 3 languages available for user interface (English, French and Japanese)
- Up to 50 speed dial function
- Record audio and video to PC at the start or during call
- Compatible with headsets (not included) or handsets (not included)
- Hands-free or push-to-talk communication modes when using headset
- Interactive map allows system operation and status from a bird's eye view via station icons

System requirements

OS	Windows 7 Professional, Windows 7 Enterprise, Windows 7 Ultimate 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 2 GHz or higher (Windows 7 is 64bit only)
Memory	1 GB or more
Screen resolution	1024x768 or greater
Runtime	.NET Framework 4.6.2 or later (Windows 7 requires SP1) Microsoft [®] Visual C ++ Redistributable Package for Visual Studio 2017 or later

* When using Windows 7, the sound during the communication may be interrupted.
* Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and / or other countries.

Video & Audio communication with station by PC



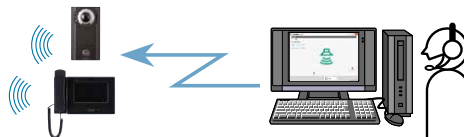
Simultaneous video from door station and network camera



Unlock the door after verifying visitor identity



Page to all stations or individual groups



Handset sub station



IX-RS-B

IP Audio sub station (Black)

• UL listed: UL 62368-1



IX-RS-W

(Color variation White)

• UL listed: UL 62368-1

Features

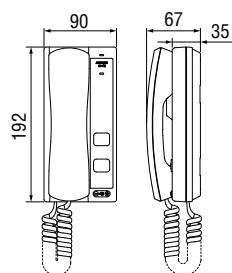
- Calling Group Call: Make an outgoing call to all stations that belong to the selected group.
Contact input call: Make an outgoing call to all stations that belong to the selected contact input call group.
- Calling up to 20 preprogrammed stations simultaneously.
- Receive a paging
- Others Door release: Release an electric lock during communication.
Send e-mails: E-mails can be sent to pre-registered e-mail addresses when triggering events occur.

Specifications

Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Type of communication	Handset: Full-duplex (for calls between handsets only) Hands-free: Automatic Voice switching
Mounting	Surface Wall-mount
Material	Flame resistant PC + ABS resin

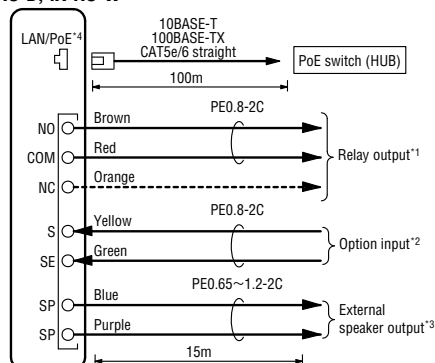
Unit dimensions

IX-RS-B, IX-RS-W



Wiring

IX-RS-B, IX-RS-W



*1. 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

*2. Option Input Specifications

Input method	Programmable dry contact (N/O or N/C) Level detection method
Detection time	200msec-600sec by settings
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)

*3. External speaker output Specifications

Output impedance	8Ω
Maximum output power	2W

*4. IEEE802.3af

IP Network Audio - Video Intercom System

Video door station



IX-DV

IP Audio and video door station

- Input/Output: Contact input x 6
Relay output x 2
Audio output x 1
- UL listed: UL 62368-1



IX-DVF

IP Audio and video door station

- Mounting box included
- Input/Output: Contact input x 6
Relay output x 2
Audio output x 1
- UL listed: UL 62368-1



IX-DVF-P

IP Audio and video door station

- Same features as IX-DVF
- Compatible with Non-touch key reader (HID multi CLASS)
- *Non-touch key reader not included

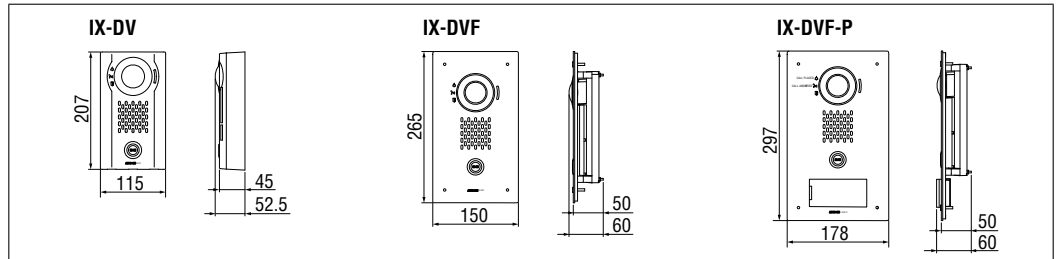
Features

- Door release output
- Status indication for calling, communication and door release
- Nighttime LED illumination
- Calling up to 20 preprogrammed stations simultaneously
- Calling 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.
- Call response function
- Record audio and video to a microSD card
- Receive a paging
- Others: Send e-mails, Transmitting video through ONVIF, Schedule-linked message
- Power supply from PoE or external power supply

Specifications

Power source	Power-over-Ethernet (IEEE 802.3af/at Class 4) or PS-2420S/UL/BF/DM/-O
Type of communication	Hands-free: automatic voice switching
Camera	1/3 inch color CMOS
Minimum illumination	5 lux
Mounting	IX-DV: Surface Wall-mount, IX-DVF, IX-DVF-P: Flush wall-mount
Material	Front panel IX-DV: Die-cast aluminum, IX-DVF, IX-DVF-P: Stainless steel

Unit dimensions



Wiring

IX-DV, IX-DVF, IX-DVF-P

Relay Output 1¹⁻³: PE0.8-2C Brown, Red, Orange to COM1; PE0.8-2C Yellow, Green, Blue to COM2.

Relay Output 2¹⁻³: PE0.8-2C Brown, Red, Orange to S1; PE0.8-2C Yellow, Green, Blue to S2.

Contact Input 1 to 5¹: PE0.8-2C Brown, Red, Orange, Yellow, Green, Blue to S3, S4, S5, SE.

Audio Output²: Yellow (Shielded cable), Orange to COM1, COM2.

LAN: 10BASE-T, 100BASE-TX CAT5e/6 straight to LAN Terminal⁵ (PoE/PSE) for Network camera; 10BASE-T, 100BASE-TX CAT5e/6 straight to LAN Terminal⁴ (PoE/PD) for PoE switch(HUB).

***1. Contact Input Specifications**

Input method	Programmable dry contact (N/O or N/C)
Detection time	200msec-600sec by settings
Contact resistance	Make: 700Ω or less, Break: 3kΩ or more
Terminal short-circuit current	20mA or less
Voltage between terminals	5V DC or less (between open terminals)

***2. Audio Output Specifications**

Output impedance	600Ω
Output audio level	300 mVrms (with 600Ω terminal)

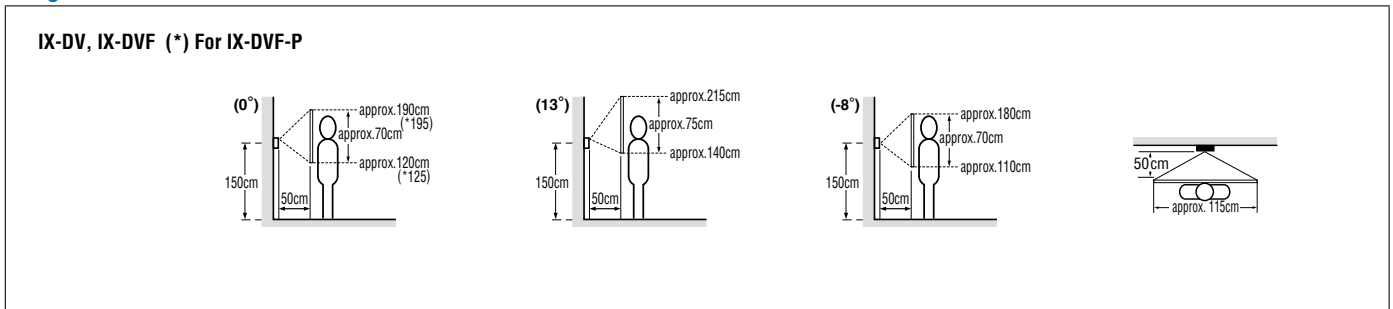
***3. Relay Output Specifications**

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

***4.** The intercom unit can be powered by using a PoE switch or Aiphone PS-2420 power supply. In the case "PoE PSE" output of the intercom unit is used to power other devices, IEEE802.3at compatible PoE switch must be used to power the intercom unit. In the case both a PoE switch and Aiphone PS-2420 power supply are used in combination to power the intercom unit, PS-2420 can provide back-up power if the PoE power supply fails. This allows continuous recording function etc. to continue operating.

***5.** Works only with LAN PoE PSE (IEEE802.3at) switch.

Image view area



Video door station



IX-EA

IP Audio and video door station

- Input/Output: Contact input x 1
Relay output x 1
Audio output x 1



IX-DA

IP Audio and video door station

- Input/Output: Contact input x 1
Relay output x 1
Audio output x 1

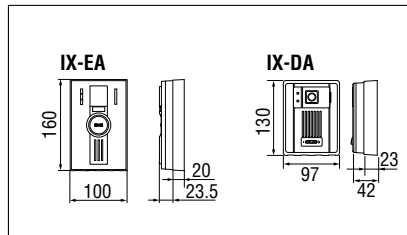
Features

- Door release output
- Status indication for calling, communication and door release
- Nighttime LED illumination
- Calling up to 20 preprogrammed stations simultaneously
- Calling 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.
- Call response function (except IX-DA)
- Record audio and video to a microSD card (except IX-DA)
- Receive a paging
- Others: Send e-mails, Transmitting video through ONVIF, Schedule-linked message (except IX-DA)

Specifications

Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Type of communication	Hands-free: automatic voice switching
Camera	IX-EA: 1/3 inch color CMOS IX-DA: 1/3.2 inch color CMOS
Minimum illumination	5 lux
Mounting	Surface Wall-mount
Material	IX-EA: Self-extinguishing ABS resin IX-DA: Fire-retardant ABS plastic

Unit dimensions



Wiring

***1. Contact Input Specifications**

Input method	Programmable dry contact (N/O or N/C)
Level detection method	
Detection time	200msec - 600sec by setting
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) If the device sending out alarms to contact points has polarity, connect with the polarity of S (+) and SE (-).

***2. Audio Output Specifications**

Output impedance	600Ω
Output audio level	300 mVrms (with 600Ω terminal)

***3. Relay Output Specifications**

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

***4. IEEE802.3af**

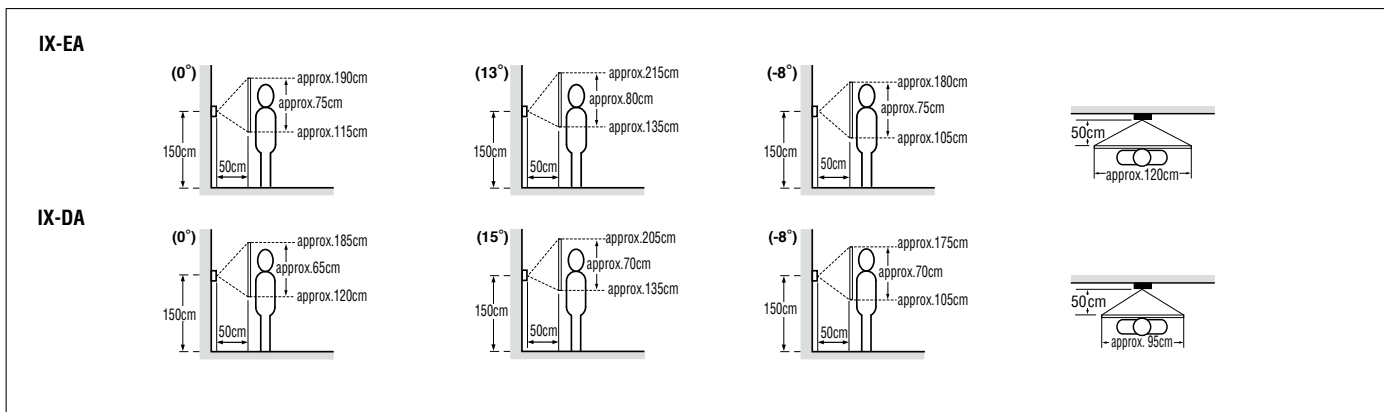
***5. Contact Input Specifications**

Input method	Form C dry contact (N/O or N/C)
Level detection method	
Fixed detection time	200msec - 2000msec by settings
Contact resistance	Maximum closure resistance: 700 Ω or less Minimum open resistance: 3 kΩ or more
Terminal short-circuit current	10 mA or less
Voltage between the terminals	5V DC or less (between open terminals)

***6. Relay Output Specifications**

Output method	Form C dry contact (N/O or N/C)
Voltage between the terminals	24V AC, 0.5A (resistive load) 24V DC, 0.5A (resistive load) Minimum load (AC/DC) : 100 mV, 0.1 mA

Image view area



IP Network Audio - Video Intercom System

Video door station (Mullion and contactless call sensor model)

New



IX-DVM

IP Audio and video door station

- Input/Output: Contact input x 1
Relay output x 1
- With Contactless call sensor
- UL listed: UL 62368-1

*Sales may be limited in certain countries and locations due to government regulations and requirements. Please contact your AIPHONE distributors for more details.

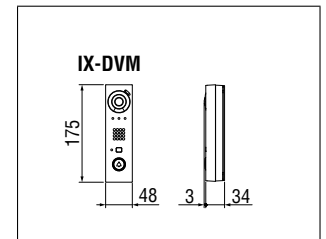
Features

- Door release output
- Status indication for calling, communication and door release
- Nighttime LED illumination
- Calling up to 20 preprogrammed stations simultaneously
- Calling Contactless Call: A call can also be placed by holding a hand over the contactless call sensor.
- 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.
- Call response function
- Record audio and video to a microSD card
- Receive a paging
- Others: Send e-mails, Transmitting video through ONVIF, Schedule-linked message

Specifications

Power source	Power-over-Ethernet (IEEE 802.3af/at Class 0)
Type of communication	Hands-free: automatic voice switching
Camera	1/3.8 inch color CMOS
Minimum illumination	5 lux
Mounting	Surface Wall-mount
Material	Unit: Die-cast aluminum
Remarks	This product incorporates a Class 1 laser. Laser emissions conform with IEC 60825-1:2014.

Unit dimensions



Wiring

***1. Relay Output Specifications**

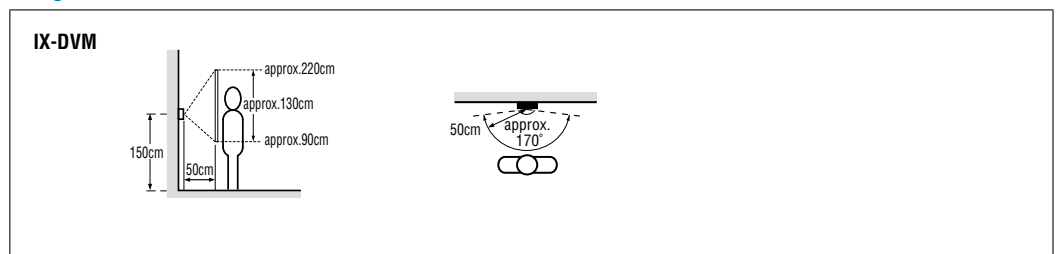
Output method	Form C dry contact (N/O or N/C)
Voltage between terminals	24V AC, 1A (resistive load) 24V DC, 1A (resistive load) Minimum overload (AC/DC): 100mV, 0.1mA

***2. Contact Input Specifications**

Input method	Programmable dry contact (N/O or N/C)
	Level detection method
Detection time	100msec - 600sec by setting
Contact resistance	Make: 700Ω or less Break: 3kΩ or more
Terminal short-circuit current	20mA or less
Voltage between terminals	5.5V DC or less (between open terminals) If the device sending out alarms to contact points has polarity, connect with the polarity of S (+) and SE (-).

***3. IEEE802.3af**

Image view area



Video door station (Emergency call button and braille models)



IX-DVF-RA

IP Audio and video door station

- Mounting box included
- Input/Output: Contact input x 5
Relay output x 2
Audio output x 1
- No call button
- With Emergency call button and braille (English braille)
- UL listed: UL 62368-1



IX-DVF-2RA

IP Audio and video door station

- Mounting box included
- Input/Output: Contact input x 5
Relay output x 2
Audio output x 1
- With call button and braille (English braille)
- With Emergency call button and braille (English braille)
- UL listed: UL 62368-1

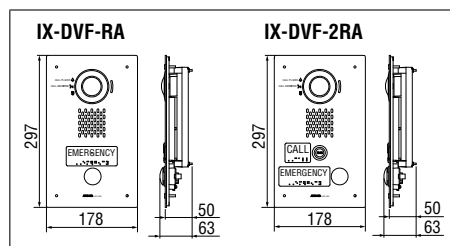
Features

- Door release output
- Status indication for calling, communication and door release
- Nighttime LED illumination
- Calling up to 20 preprogrammed stations simultaneously
- Calling 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.
- Call response function (except IX-DVF-RA)
- Record audio and video to a microSD card
- Receive a paging
- Others: Send e-mails, Transmitting video through ONVIF, Schedule-linked message
- Power supply from PoE or external power supply

Specifications

Power source	Power-over-Ethernet (IEEE 802.3af/at Class 4) or PS-2420S/UL/BF/DM/0
Type of communication	Hands-free: automatic voice switching
Camera	1/3 inch color CMOS
Minimum illumination	5 lux
Mounting	Flush wall-mount
Material	Front panel: Stainless steel

Unit dimensions



Wiring

IX-DVF-RA, IX-DVF-2RA

***1. Contact Input Specifications**

Input method	Programmable dry contact (N/O or N/C)
Level detection method	
Detection time	200msec-600sec by settings
Contact resistance	Make: 700Ω or less Break: 3kΩ or more
Terminal short-circuit current	20mA or less
Voltage between terminals	5V DC or less (between open terminals)

***2. Audio Output Specifications**

Output impedance	600Ω
Output audio level	300 mVrms (with 600Ω terminal)

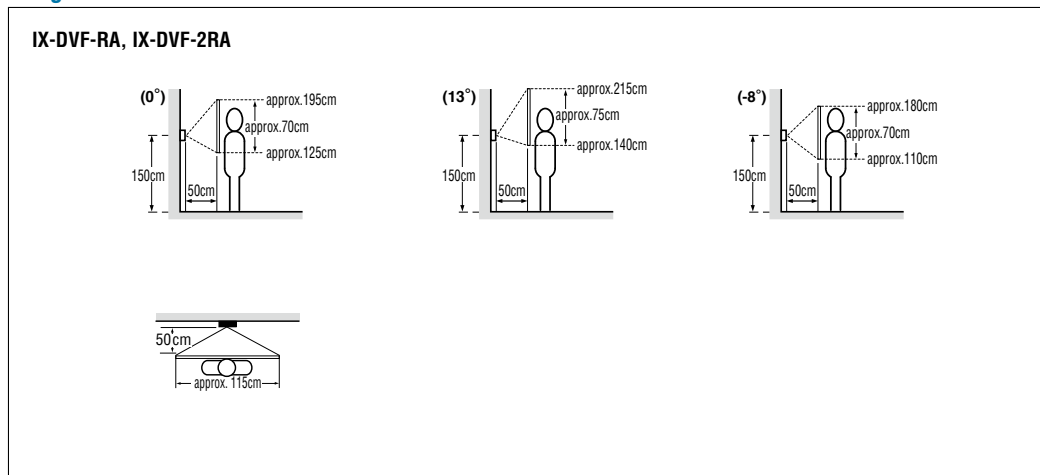
***3. Relay Output Specifications**

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

***4.** The intercom unit can be powered by using a PoE switch or Aiphone PS-2420 power supply. In the case "PoE PSE" output of the intercom unit is used to power other devices, IEEE802.3at compatible PoE switch must be used to power the intercom unit.
In the case both a PoE switch and Aiphone PS-2420 power supply are used in combination to power the intercom unit, PS-2420 can provide back-up power if the PoE power supply fails. This allows continuous recording function etc. to continue operating.

***5.** Works only with LAN PoE PSE (IEEE802.3at) switch.

Image view area



IP Network Audio - Video Intercom System

Audio door station



IX-SSA IP Audio door station

- Mounting box included
- Input/Output: Contact input x 6
Relay output x 2
Audio output x 1
- UL listed: UL 62368-1



IX-SS-2G IP Audio door station

- Input/Output: Contact input x 1
Relay output x 1
- UL listed: UL 62368-1



IX-BA IP Audio door station

- Input/Output: Contact input x 1
Relay output x 1
Audio output x 1

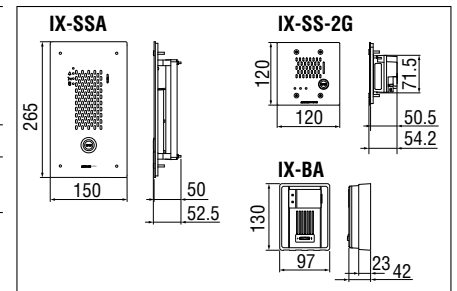
Features

- Door release output
- Status indication for calling, communication and door release
- Calling up to 20 preprogrammed stations simultaneously
- Calling 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.
- Call response function (except IX-BA)
- Record audio to a microSD card (except IX-SS-2G, IX-BA)
- Receive a paging
- Others: Send e-mails, Schedule-linked message (except IX-BA)
- Power supply from PoE or external power supply (except IX-SS-2G, IX-BA)

Specifications

Power source	IX-SSA: Power-over-Ethernet (IEEE 802.3af/at Class 4) or PS-2420S/UL/BF/DM/O IX-SS-2G, IX-BA: Power-over-Ethernet (IEEE 802.3af class 0)
Type of communication	Hands-free: automatic voice switching
Mounting	IX-SSA, IX-SS-2G: Flush wall-mount IX-BA: Surface Wall-mount
Material	Front panel IX-SSA, IX-SS-2G: Stainless steel IX-BA: Fire-retardant ABS plastic

Unit dimensions



Wiring

IX-SSA

Relay Output 1³ (Red, Brown, Orange)
Relay Output 2³ (Yellow, Green, Blue)
Contact Input 1 to 5 (S1-S5, SE)
LAN PoE PSE (LAN Terminal⁵)
LAN PoE PO (LAN Terminal⁴)

IX-SS-2G

Contact Input (S, SE)
Relay Output³ (NO, COM, NC)
LAN PoE PSE (LAN Terminal⁵)
LAN PoE PO (LAN Terminal⁴)

IX-BA

Contact Input¹ (Polarized, Brown, Red)
Audio Output² (to paging amplifier) (Orange, Yellow)
Relay Output³ (the electric lock) (Green, Blue)
LAN PoE PSE (LAN Terminal⁵)
LAN PoE PO (LAN Terminal⁴)

***1. Contact Input Specifications**

Input method	Programmable dry contact (N/O or N/C)
Level detection method	
Detection time	200msec - 600sec by settings
Contact resistance	Make: 700Ω or less Break: 3kΩ or more
Terminal short-circuit current	20mA or less
Voltage between terminals	IX-SSA: 5V DC or less (between open terminals) IX-SS-2G: 5.5V DC or less (between open terminals)

***2. Audio Output Specifications**

Output impedance	600Ω
Output audio level	300 mVrms (with 600Ω terminal)

***3. Relay Output Specifications**

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

***4.** The intercom unit can be powered by using a PoE switch or Aiphone PS-2420 power supply. In the case "PoE PSE" output of the intercom unit is used to power other devices, IEEE802.3af compatible PoE switch must be used to power the intercom unit. In the case both a PoE switch and Aiphone PS-2420 power supply are used in combination to power the intercom unit, PS-2420 can provide back-up power if the PoE power supply fails. This allows continuous recording function etc. to continue operating.

***5.** Works only with LAN PoE PSE (IEEE802.3at) switch.

***6.** IEEE802.3af

***7. Contact Input Specifications**

Input method	Form C dry contact (N/O or N/C)
Level detection method	
Fixed detection time	200msec - 2000msec by settings
Contact resistance	Maximum closure resistance: 700 Ω or less Minimum open resistance: 3 kΩ or more
Terminal short-circuit current	10mA or less
Voltage between terminals	5V DC or less (between open terminals)

***8. Relay Output Specifications**

Output method	Form C dry contact (N/O or N/C)
Voltage between the terminals	24V AC, 0.5A (resistive load) 24V DC, 0.5A (resistive load) Minimum load (AC/DC): 100 mV, 0.1 mA

Audio door station (Emergency call button and braille models)



IX-SSA-RA
IP Audio door station

- Mounting box included
- Input/Output: Contact input x 5
Relay output x 2
Audio output x 1
- No call button
- With Emergency call button and braille (English braille)
- UL listed: UL 62368-1



IX-SSA-2RA
IP Audio door station

- Mounting box included
- Input/Output: Contact input x 5
Relay output x 2
Audio output x 1
- With call button and braille (English braille)
- With Emergency call button and braille (English braille)
- UL listed: UL 62368-1

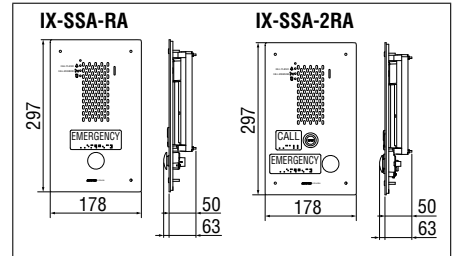
Features

- Door release output
- Status indication for calling, communication and door release
- Calling up to 20 preprogrammed stations simultaneously
- Calling 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.
- Call response function (except IX-SSA-RA)
- Record audio to a microSD card
- Receive a paging
- Others: Send e-mails, Schedule-linked message
- Power supply from PoE or external power supply

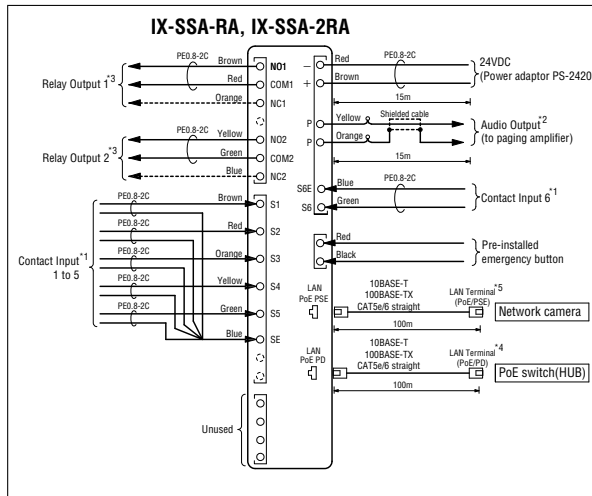
Specifications

Power source	Power-over-Ethernet (IEEE 802.3af/at Class 4) or PS-2420S/UL/BF/DM/-O
Type of communication	Hands-free: automatic voice switching
Mounting	Flush wall-mount
Material	Front panel: Stainless steel

Unit dimensions



Wiring



*1. Contact Input Specifications

Input method	Programmable dry contact (N/O or N/C) Level detection method
Detection time	200msec - 600sec by setting
Contact resistance	Make: 700Ω or less Break: 3kΩ or more
Terminal short-circuit current	20mA or less
Voltage between terminals	5V DC or less (between open terminals)

*2. Audio Output Specifications

Output impedance	600Ω
Output audio level	300 mVrms (with 600Ω terminal)

*3. Relay Output Specifications

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

*4. The intercom unit can be powered by using a PoE switch or Aiphone PS-2420 power supply. In the case "PoE PSE" output of the intercom unit is used to power other devices, IEEE802.3at compatible PoE switch must be used to power the intercom unit.
In the case both a PoE switch and Aiphone PS-2420 power supply are used in combination to power the intercom unit, PS-2420 can provide back-up power if the PoE power supply fails. This allows continuous recording function etc. to continue operating.
*5. Works only with LAN PoE PSE (IEEE802.3at) switch.

Multi-purpose adaptor



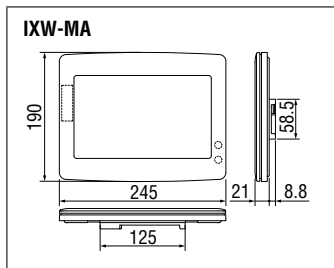
IXW-MA
Multi-purpose adaptor

- 4 Contact inputs
- 10 Relay outputs

Features

- Can be integrated with other IX system devices
- 4 Contact inputs
- 10 Relay outputs
- Power supply from PoE

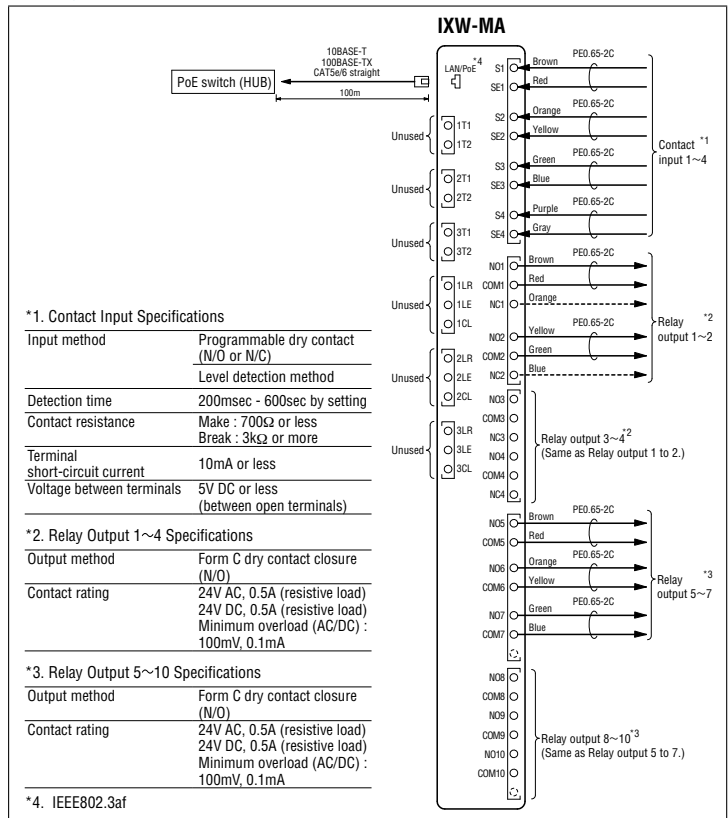
Unit dimensions



Specifications

Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Mounting	Wall-mount
Material	Self-extinguishing PC+ABS resin

Wiring



*1. Contact Input Specifications

Input method	Programmable dry contact (N/O or N/C) Level detection method
Detection time	200msec - 600sec by setting
Contact resistance	Make : 700Ω or less Break : 3kΩ or more
Terminal short-circuit current	10mA or less
Voltage between terminals	5V DC or less (between open terminals)

*2. Relay Output 1~4 Specifications

Output method	Form C dry contact closure (N/O)
Contact rating	24V AC, 0.5A (resistive load) 24V DC, 0.5A (resistive load) Minimum overload (AC/DC) : 100mV, 0.1mA

*3. Relay Output 5~10 Specifications

Output method	Form C dry contact closure (N/O)
Contact rating	24V AC, 0.5A (resistive load) 24V DC, 0.5A (resistive load) Minimum overload (AC/DC) : 100mV, 0.1mA

*4. IEEE802.3af

Integratable Audio & Video Security

MASTER 8 → DOOR 120 AX

Master station



AX-8MV
8-call color monitor master station

AX-8MV-W
(white)



AX-8M
8-call audio master station



AX-16SW
16-call add-on selector



AX-8MV, AX-16SW

Central exchange unit



AX-084C
Central exchange unit,
4 masters and 8 doors

AX-248C (Photo)
Central exchange unit,
8 masters and 24 doors



AX-320C
Add-on exchange unit,
32 doors

Power supply
PS-2420S PS-2420UL
PS-2420BF PS-2420DM PS-2420-O
→ P.137

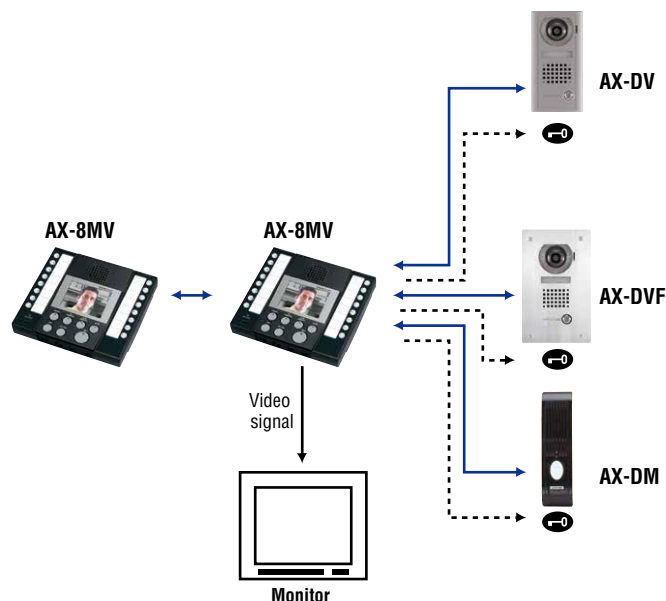
Features

- Up to 120 video entrance stations and 8 master stations
- All wired on CAT5e, homerun cabling
- Total hands-free, auto-voice actuation, communication or Press-to-talk operation
- Two talk channels and two video channels
- Communication privacy
- Master stations available with 3.5 inch color TFT LCD
- Selective door release
- Master-to-master selective calling and All Call
- Standard or Priority call levels from door stations
- Scan monitoring: Hands-free audio/visual monitoring
- Video output from CEU and AX-8MV
- Integrate with CCTV, Access control etc.
- PC interface for programming and event logging
- Rack or wall mountable CEU
- Compatible with IE Series door stations
- Optional features: headset, footswitch, and PC remote control

PC programming

AX Setup Tool							
Exchange Unit/Master Station		Door Station		Time-Out		GO Transfer/Communication	
3. Door							
Exchange No.	No.	Location Name	Video Audio	Series	Call Level	DR Relay	Scan Monitor
1	1	Front Entrance	Video	AX	Priority	N.O.	Enable On
	2	Parking	Video	AX	Normal	N.O.	Enable On
	3		Video	AX	Normal	N.O.	Enable On
	4		Video	AX	Priority	N.O.	Enable On
	5		Video	AX	Normal	N.O.	Enable On
	6		Video	AX	Normal	N.O.	Enable On
	7		Video	AX	Normal	N.O.	Enable On
	8		Video	AX	Normal	N.O.	Enable On

Communication network



↔ Calling & communication (w/video from door)

--- Door release

Door station



AX-DV
Color video door station surface mount



AX-DV-P
Color video door station w/space for embedded proximity reader surface mount



AX-DVF
Color video door station flush mount



AX-DVF-P
Color video door station w/space for embedded proximity reader flush mount



AX-DM
Audio door station Mullion type



IF-DA
Audio door station



IE-JA
Audio door station

Lineup



EL-12S
Electric door strike
→ P.134

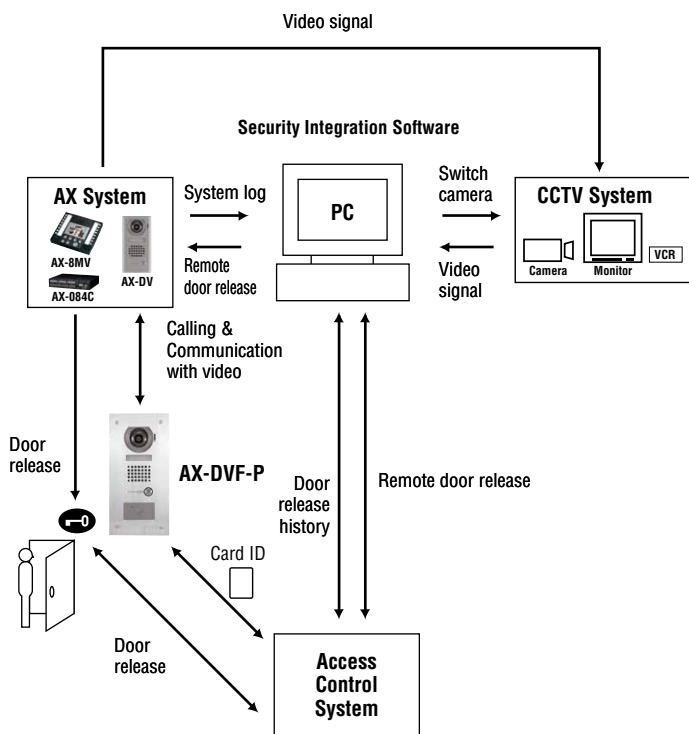


AC-10S
Access control keypad, surface mount
→ P.132

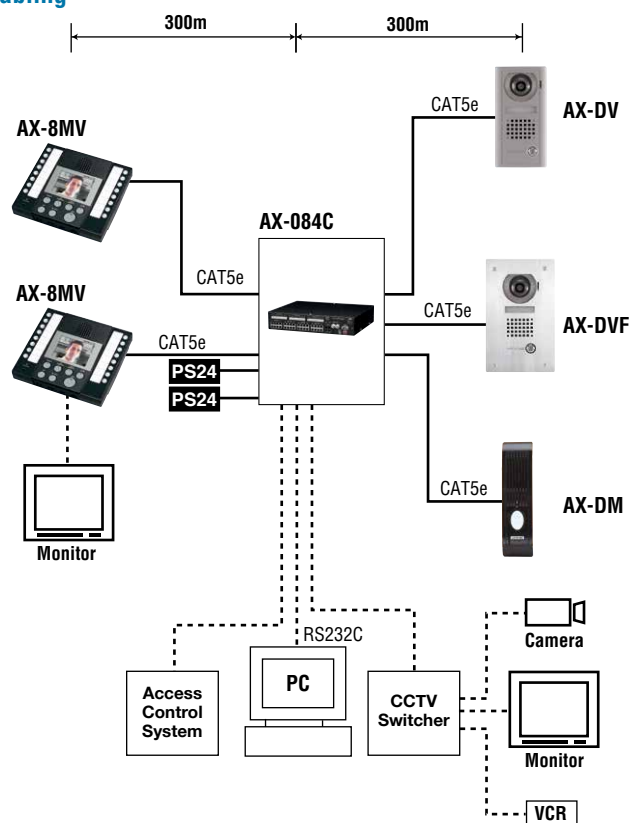


AC-10F
Access control keypad, flush mount
→ P.132

System Integration

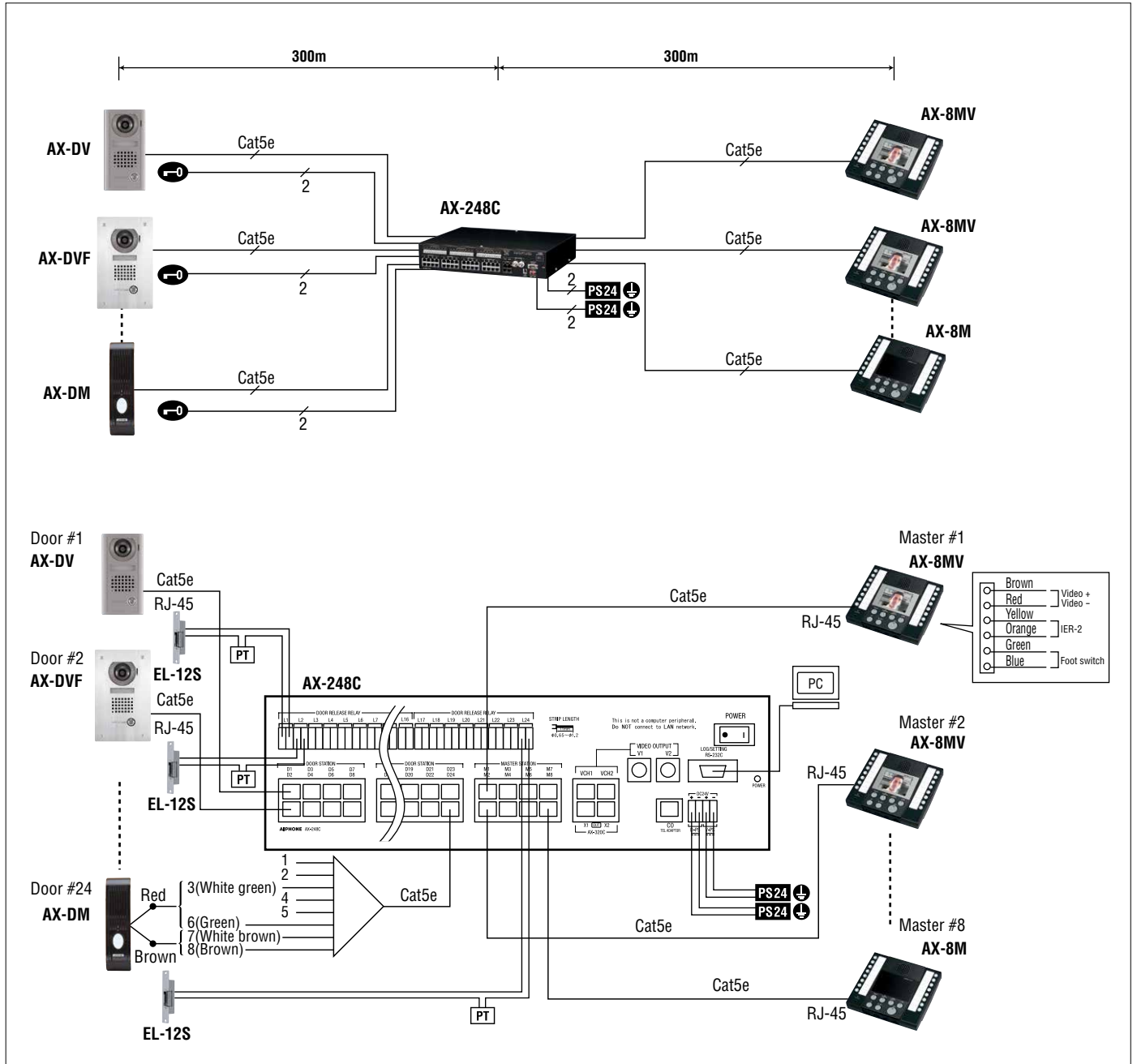


Cabling



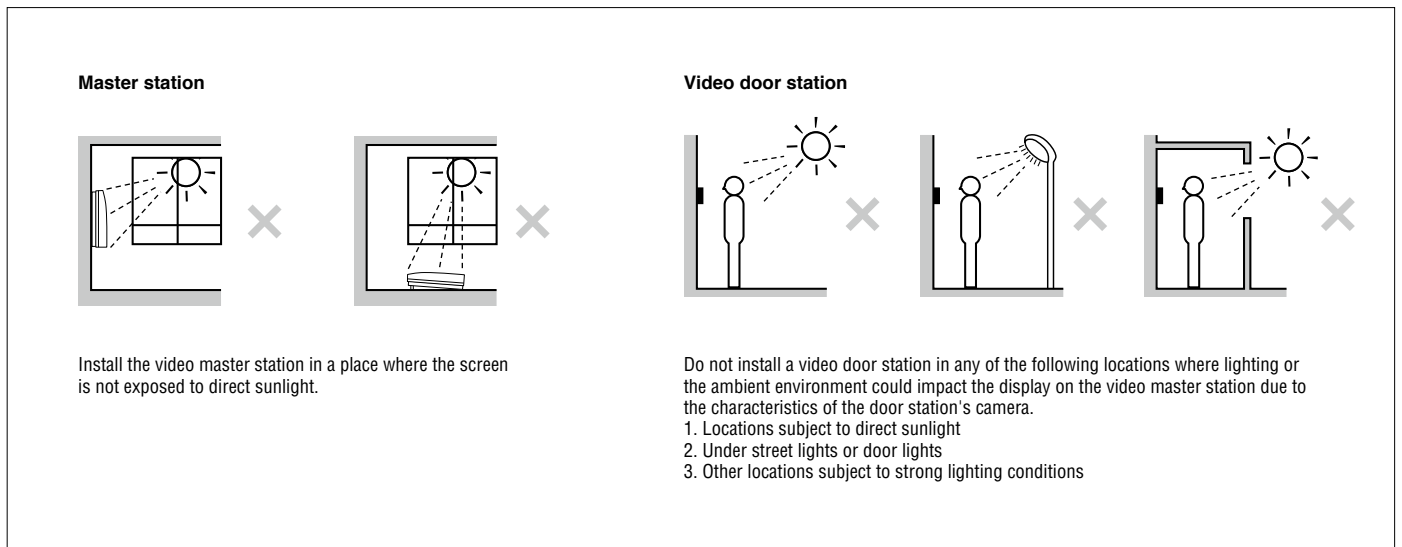
Integratable Audio & Video Security

Wiring










PS24 : PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-0 **PT** : AC transformer

Mounting locations



Components

						
AX-DV	AX-DVF	AX-DM	AX-8MV (AX-8M audio only)	AX-16SW	AX-084C or AX-248C	AX-320C
Number of door stations	Number of master stations	Number of add-on selectors per master	Number of central exchange unit		Number of add-on exchange units	
			AX-084C	AX-248C		
1 ~ 8	up to 4	—	1	—	—	
9 ~ 24	up to 8	1	—	1	—	
25 ~ 40	up to 4	2	1	—	1	
41 ~ 56	up to 8	3	—	1	1	
57 ~ 72	up to 4	4	1	—	2	
73 ~ 88	up to 8	5	—	1	2	
89 ~ 104	up to 4	6	1	—	3	
105 ~ 120	up to 8	7	—	1	3	

NOTE: Use the AX-248C for systems with more than 4 master stations (may effect the required quantity of AX-320C).
2 pcs of power supplies are required for video system.

Unit dimension

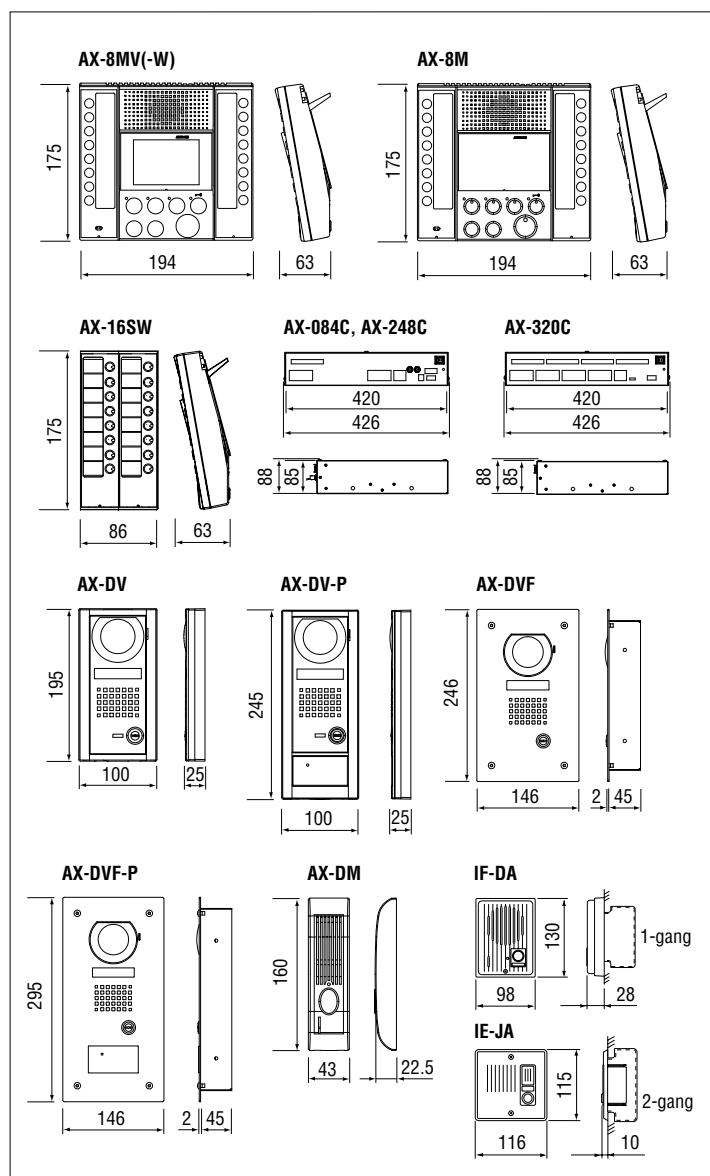
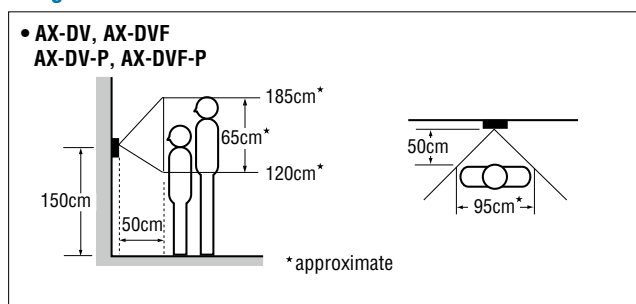


Image view area



Specifications

Power source	24V DC, 2A (Two Power supplies required per video system)
Power supply	PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-O
Current consumption	AX-084C: Video (Max.) 650mA, Audio (Max.) 700mA AX-248C: Video (Max.) 1150mA, Audio (Max.) 1250mA AX-320C: Video (Max.) 280mA, Audio (Max.) 180mA
Calling	Normal call: an intermittent tremolo Priority call: a rapid intermittent tremolo Approx. 10-600 sec. or infinite
Communication	AUTOMATIC (Hands-free); To activate, momentarily press TALK button. MANUAL (Press-to-talk/Release-to-listen); To activate, press TALK button for 1 sec. or more. Approx. 30-600 sec.
Video monitor	3.5 inch direct view TFT color LCD
Scanning lines	525 lines
Night viewing	Up to 30cm from camera, with white LED projected, background beyond 30cm cannot be seen.
Door release contact	24V AC/DC, 0.5A
Outside video output	AX-084C, 248C: NTSC standard 1Vpp (0.7-1.4Vpp) BNC x 2 Switching signal: Open collector output 24V DC, 30mA RJ-45 x 2
Wiring	AX-8MV: NTSC standard 1Vpp (0.7-1.4Vpp) Homerun CAT5e wire to CEU
Wiring distance	CEU to door: 300 m (CAT5e) CEU to master: 300 m (CAT5e)

AUDIO ENTRY SECURITY



Audio based security intercoms for those who want a simple security solution.



DB SYSTEM

Hands-Free Communication in Any Place.
2-Wire System for Simple Installation.

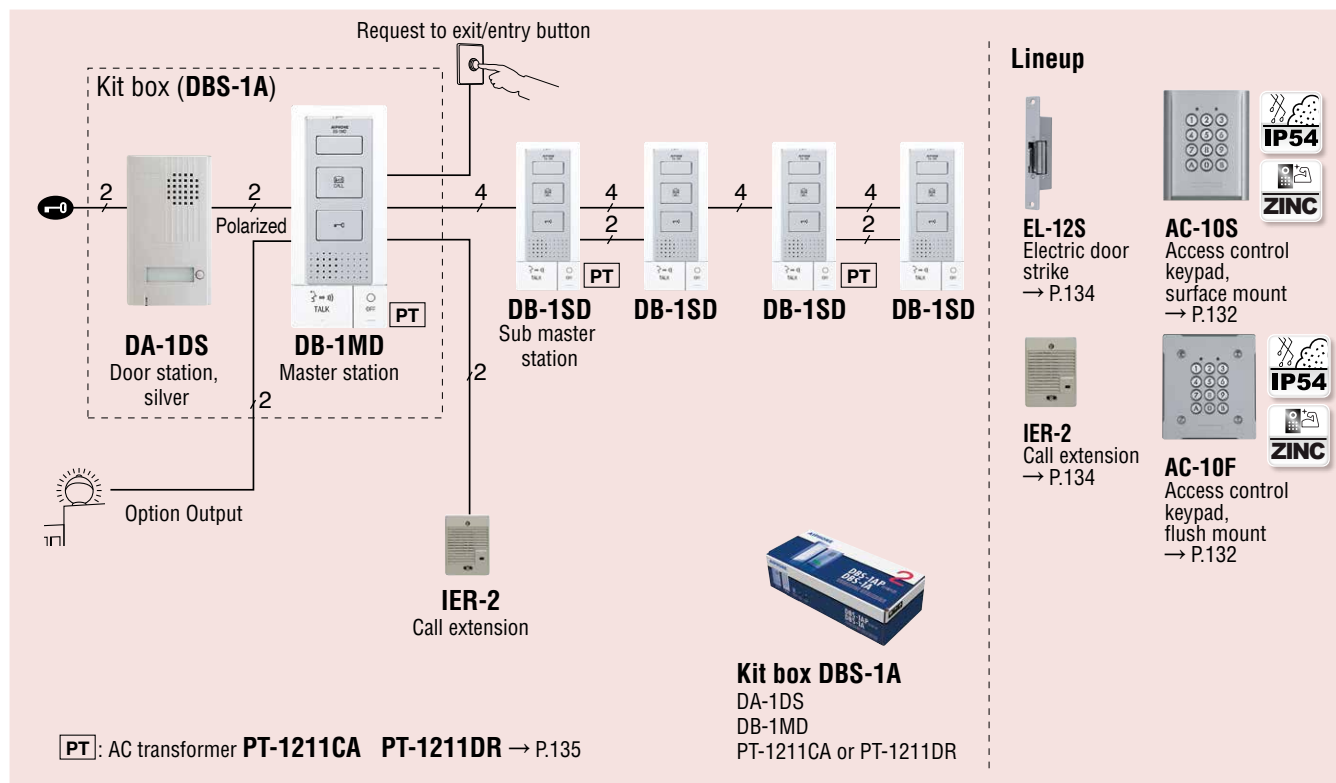
Hands-Free

Lineup

<p>Hands-free Two-Wire Electric Lock Door Phone DB-1MD</p> <p>P89 P90 P91</p>	<p>Two-Wire Electric Lock Door Phone DA-1AS & DA-4DS</p> <p>P92 P93</p>	<p>Chime Tone Intercom C-123L/A</p> <p>P94</p>	
<p>Chime Tone Intercom IE-1AD(U)</p> <p>P95</p>	<p>Chime Tone Intercom IE-1GD(U)</p> <p>P96</p>	<p>Chime Tone Intercom IE-2A2DU</p> <p>P97</p>	<p>Chime Tone Intercom IE-8MD</p> <p>P98</p>

Hands-free Two-Wire Electric Lock Door Phone

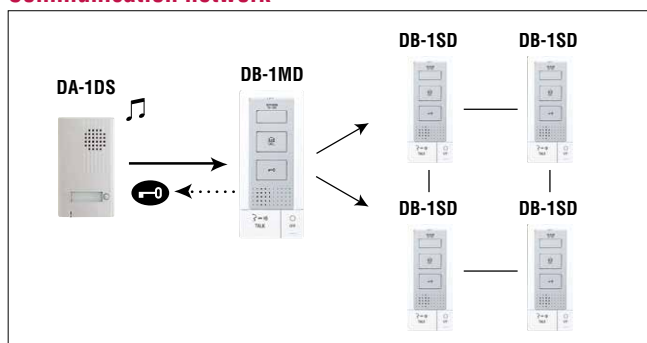
DOOR 1 ROOM 5 DB-1MD



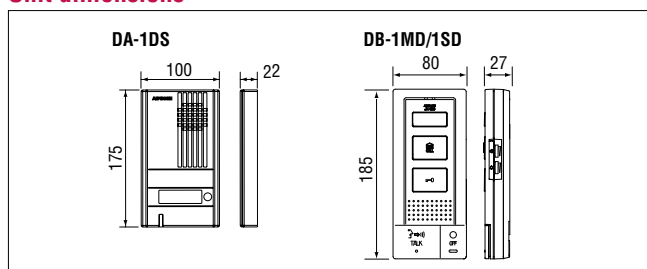
Features

- Door release wired from door station, without additional transformer
- Two-wire system including door release
- Total hands-free communication, auto-voice actuation
- Press-to-talk operation available
- Up to 5 inside stations
- All call for internal communication
- User-optional function button
- Call tone MUTE with indicator
- Call extension speaker
- Directory backlighting
- Continuous chime tone (approx. 4 seconds)

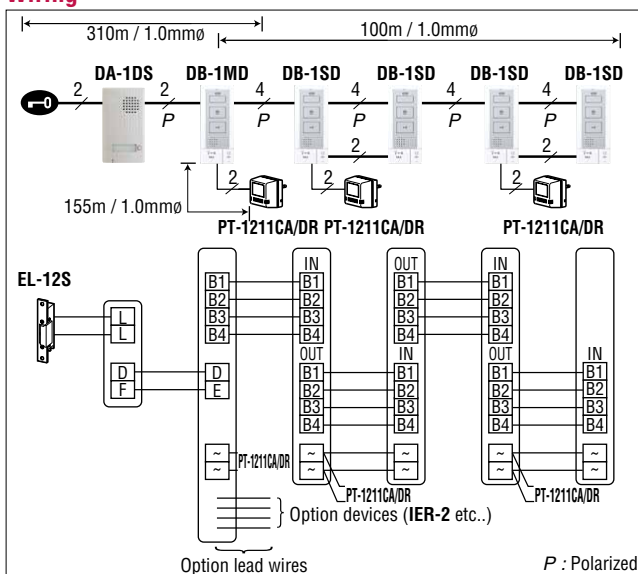
Communication network



Unit dimensions



Wiring



Specifications (DB-1MD, 1SD)

Power source	15V AC
AC transformer	PT-1211CA, PT-1211DR
Communication	Approx. 1 min. AUTOMATIC (Hands-free); To activate, momentarily press TALK button. MANUAL (Press-to-talk/Release-to-listen); To activate, press TALK button for 1 sec. or more.
Door release	EL-12S or others (AC 9.5 ~ 20V, more than 70Ω)
Option contact (AC/DC)	Voltage Max. : 24V, Min. : 1V Current Max. : 1.6A, Min. : 10mA
Wiring	2 wires, throughout AC trans - Master - Door - Door release
Wiring distance	PT-1211CA/DR ~ Door rlse. 110m(0.65mmø) 200m(0.8mmø) 310m(1.0mmø) PT-1211CA/DR ~ DB-1MD 55m(0.65mmø) 100m(0.8mmø) 155m(1.0mmø) DB-1MD ~ farthest DB-1SD 100m(0.65 ~ 1.0mmø)

Hands-free Two-Wire Electric Lock Door Phone

ENTRANCE

TENANT

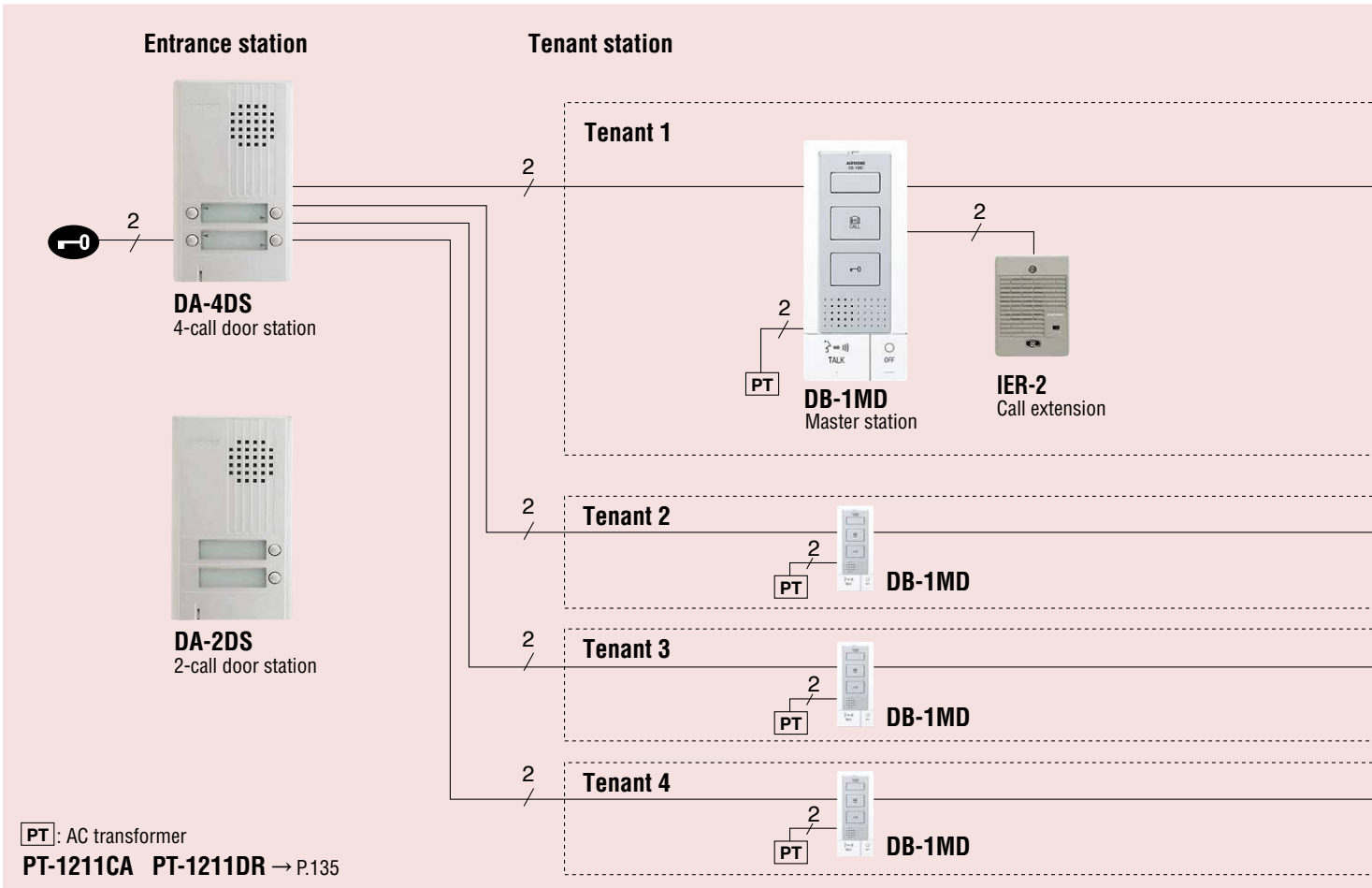
1 4 DA-4DS with DB-1MD

DB

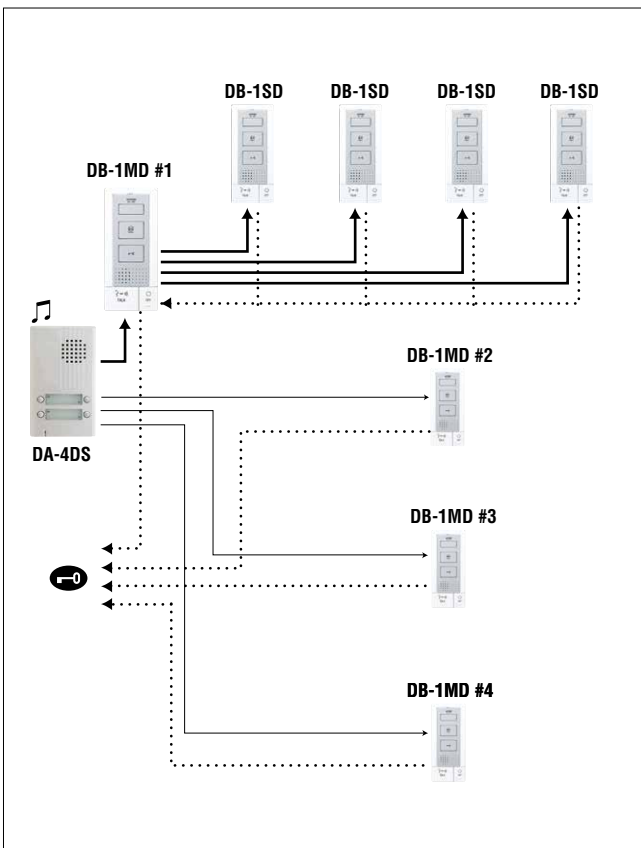
DA

G

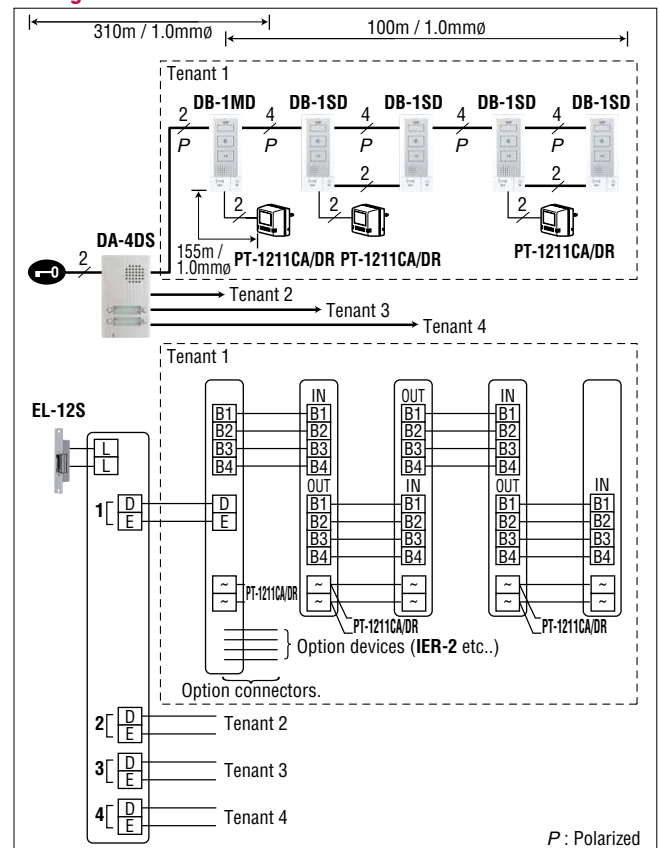
IE

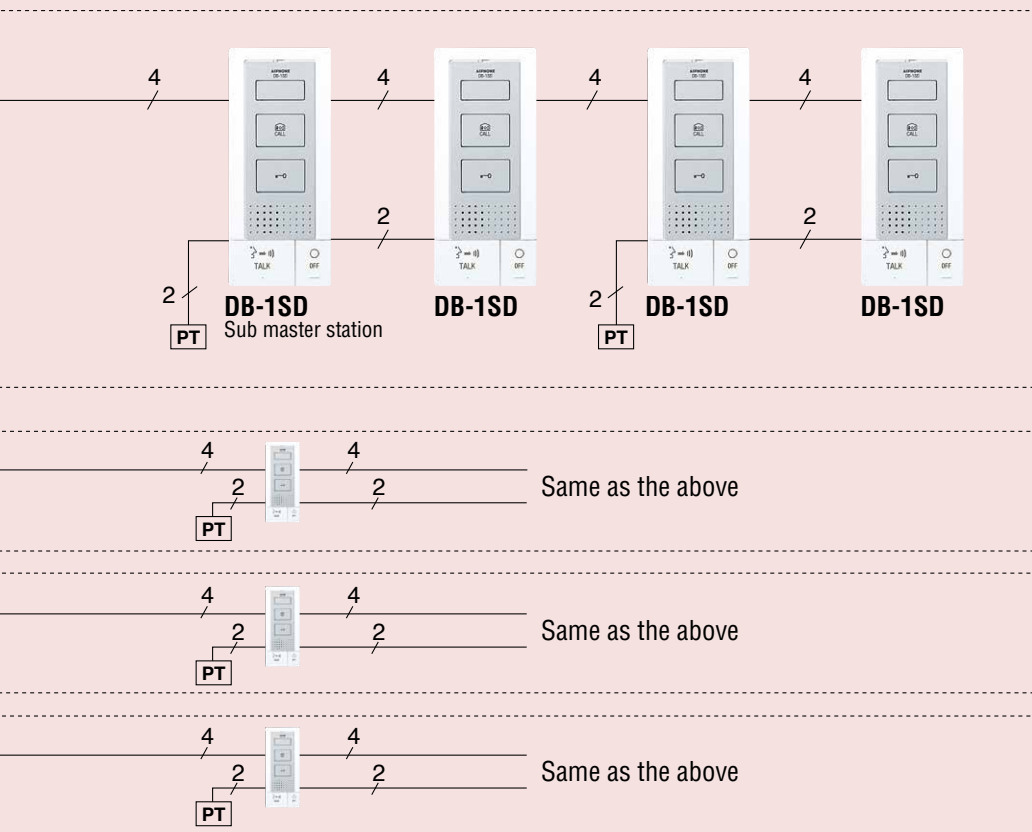


Communication network







Wiring





Lineup

 EL-12S Electric door strike → P.134	 AC-10S Access control keypad, surface mount → P.132
 IER-2 Call extension → P.134	 AC-10F Access control keypad, flush mount → P.132

DB

DA

C

IE

Features

- Door release wired from door station, without additional transformer
- Two-wire system including door release
- Total hands-free communication, auto-voice actuation
- Press-to-talk operation available
- Up to 5 inside stations for each tenant
- All call for internal communication
- User-optional function button
- Call tone MUTE with indicator
- Call extension speaker
- Directory backlighting
- Continuous chime tone (approx. 4 seconds)

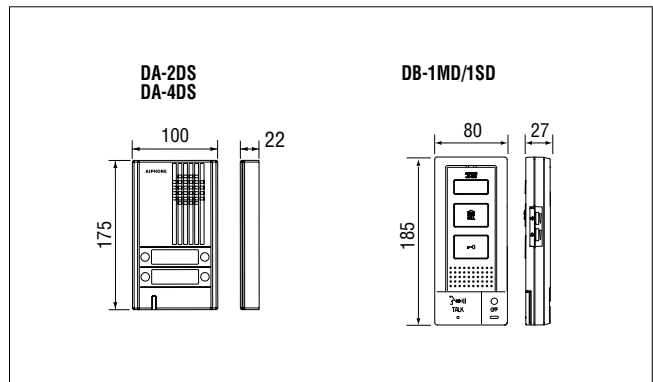
Specifications (DA-4DS)

Power source	15V AC, supplied from Master station
Communication	Press and hold down Button to call.
Wiring	2 wires, throughout system: AC trans - Master - Door - Door rlse.

Specifications (DB-1MD, 1SD)

Power source	15V AC
AC transformer	PT-1211CA, PT-1211DR
Communication	Approx. 1 min. AUTOMATIC (Hands-free); To activate, momentarily press TALK button. MANUAL (Press-to-talk/Release-to-listen); To activate, press TALK button for 1 sec. or more.
Door release	EL-12S or others (AC 9.5 ~ 20V, more than 70Ω)
Option contact (AC/DC)	Voltage Max. : 24V, Min. : 1V Current Max. : 1.6A, Min. : 10mA
Wiring	2 wires, throughout AC trans - Master - Door - Door release
Wiring distance	PT-1211CA/DR ~ Door rlse. 110m(0.65mmØ) 200m(0.8mmØ) 310m(1.0mmØ) PT-1211CA/DR ~ DB-1MD 55m(0.65mmØ) 100m(0.8mmØ) 155m(1.0mmØ) DB-1MD ~ farthest DB-1SD 100m(0.65 ~ 1.0mmØ)

Unit dimensions



Two-Wire Electric Lock Door Phone

DOOR 1 ROOM 1 DA-1AS

Boxed set



DA-1AS
Kit box (silver color)



DA-1DS
Door station
silver panel



DA-1MD
Master station

Lineup



EL-12S
Electric door
strike
→ P.134



AC-10S
Access control
keypad,
surface mount
→ P.132



AC-10F
Access control
keypad,
flush mount
→ P.132

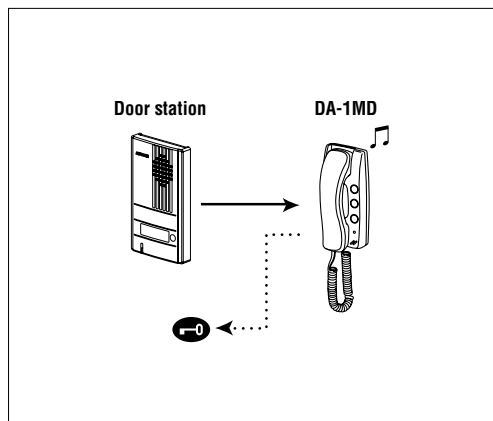
* Add an appropriate power supply.

AC transformer
PT-1211CA PT-1211DR
→ P.135

Features

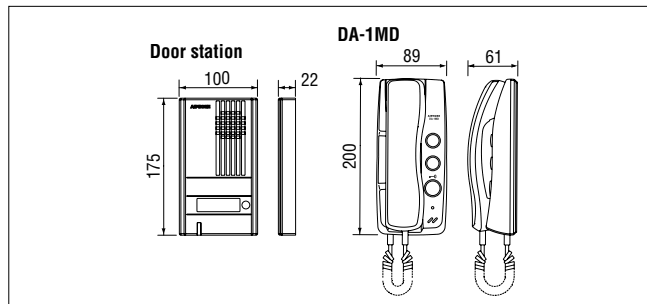
- Two-wire system including door release
- Door release wired to door station, requiring no power transformer
- User-optional function button
- Call tone MUTE with indicator

Communication network

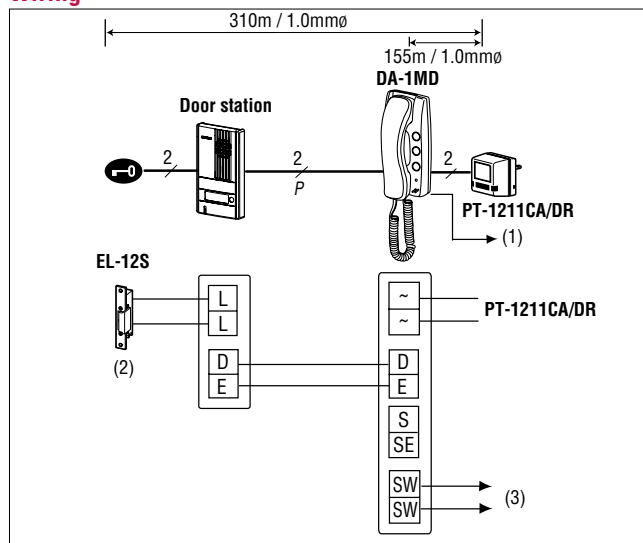


Hold down "CALL" button to ring inside station.

Unit dimensions



Wiring



- Place PT-1211CA/DR inside electrical enclosure and connect to breaker, less than 16A.
 - Do not use PT-1211CA/DR for any other equipment.
 - Terminals SW, SW; Dry-closure contact 18V AC, 40mA to connect user-optional function (Gate, Light, Garage, Proximity Access Control, etc.)
- (1) External device Relay/Controller
 (2) Door release: EL-12S or others (AC 9.5 ~ 20V, more than 70Ω)
 (3) User-optional function (18V AC, 40mA)

Specifications (DA-1AS)

Power source	15V AC
Power supply	PT-1211CA, PT-1211DR
Communication	Press and hold down Button to call.
Wiring	2 wires, throughout system: AC trans - Master - Door- Door release
Wiring distance	PT-1211CA/DR ~ Door rlse. 110m(0.65mmØ) 200m(0.8mmØ) 310m(1.0mmØ) PT-1211CA/DR ~ DA-1MD 55m(0.65mmØ) 100m(0.8mmØ) 155m(1.0mmØ)

Two-Wire Electric Lock Door Phone

ENTRANCE **1** ▶ **4** TENANT **DA-4DS**

Entrance station



DA-2DS
2-call door station



DA-4DS
4-call door station

Tenant station



DA-1MD
Master station

Lineup



EL-12S
Electric door strike
→ P.134



AC-10S
Access control keypad, surface mount
→ P.132



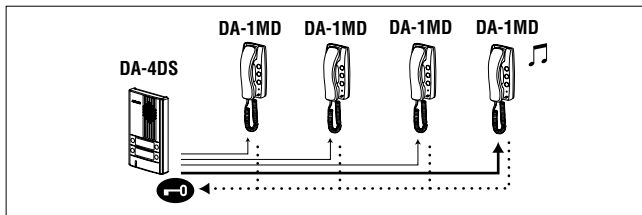
AC-10F
Access control keypad, flush mount
→ P.132

AC transformer
PT-1211CA PT-1211DR
→ P.135

Features

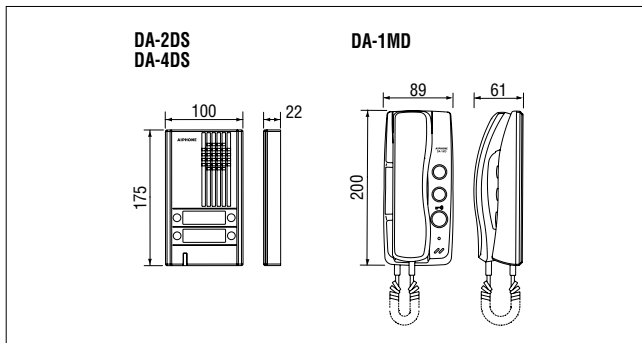
- Two-wire system
- Door release wired to door station, requiring no power transformer
- User-optional function button
- Call tone MUTE with indicator

Communication network



Electronic tone. Direct select ring.

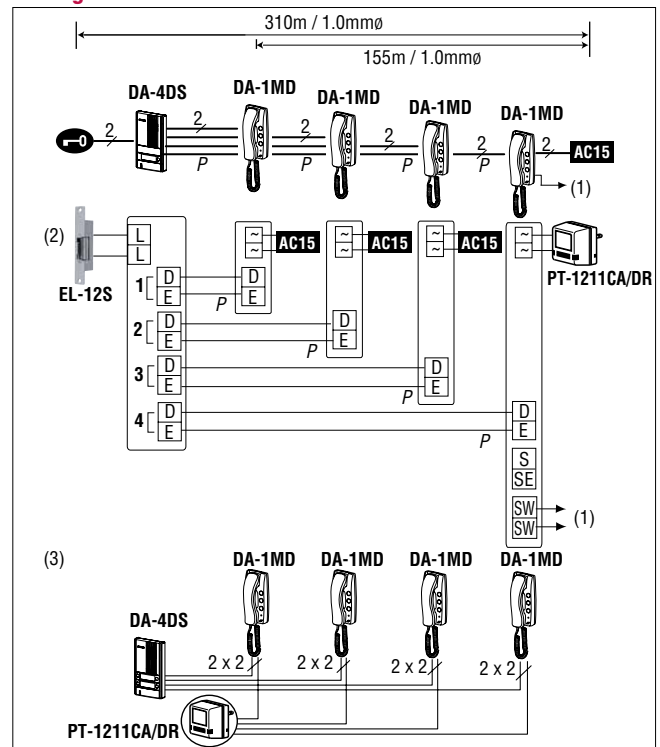
Unit dimensions



Specifications (DA-4DS)

Power source	15V AC, supplied from Master station
Communication	Press and hold down Button to call.
Wiring	2 wires, throughout system: AC trans - Master - Door - Door rise.
Wiring distance	PT-1211CA/DR ~ Door rise. 110m(0.65mmø) 200m(0.8mmø) 310m(1.0mmø) PT-1211CA/DR ~ DA-1MD 55m(0.65mmø) 100m(0.8mmø) 155m(1.0mmø)

Wiring



(1) Ext. device Relay/Controller : User-optional function(AC18V, 40mA) (2) Door release : EL-12S or others (AC 9.5 ~ 20V, more than 70Ω) (3) When a single common power supply is used

Chime Tone Intercom

DOOR 1 ROOM 1 C-123L/A

Door station



C-D
Door station
*Not available separately

Master station



C-ML/A
Master station

Lineup



AC-10S
Access control keypad,
surface mount
→ P.132



AC-10F
Access control keypad,
flush mount
→ P.132



EL-12S
Electric door
strike
→ P.134

Boxed set

C-123L/A
Chime-Com boxed set

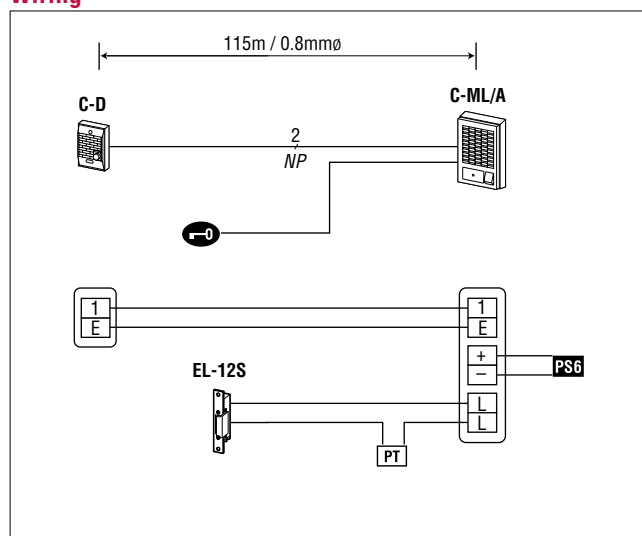
Power supply

PS-0602C PS-0602DM SKK-620C or Batteries
→ P.135

Features

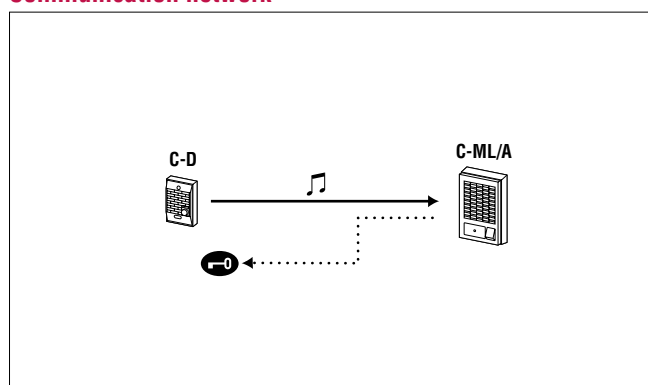
- Open voice door answering with door release control
- Adjustable communication volume
- Automatically turns off
- Battery or DC power supply

Wiring

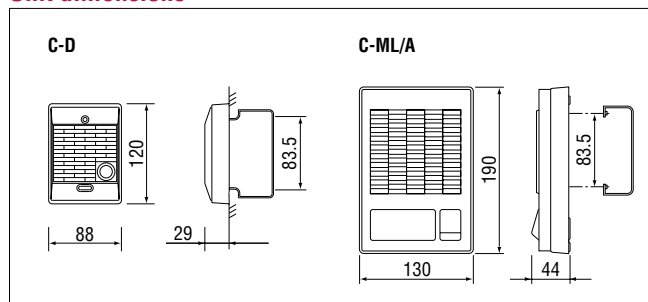


[PT] : AC transformer **[PS6]** : PS-0602C, PS-0602DM, SKK-620C

Communication network



Unit dimensions



Specifications (C-123L/A)

Power source	6V DC, 85mA
Power supply	PS-0602C, PS-0602DM, SKK-620C or Batteries "C" (SUM-2) x 4 pcs.
Communication	Door calls in w/2-tone chime, not adjustable. Press TALK button to reply, release to listen. Power automatically shuts off circuit.
Wiring	2 parallel wires to door, non-polarized (+ 2 for EL-12S).
Wiring distance	Master to door 75m(0.65mmø) 115m(0.8mmø)

Chime Tone Intercom

DOOR 1 ► ROOM 1 IE-1AD(U)

Door station



IF-DA
Door station
→ P.99

Master station



IE-1AD(U)
Master station

Power supply

12~24V DC power supply
12~16V AC transformer

Lineup



EL-12S
Electric door strike
→ P.134



AC-10S
Access control keypad, surface mount
→ P.132



IER-2
Call extension
→ P.134



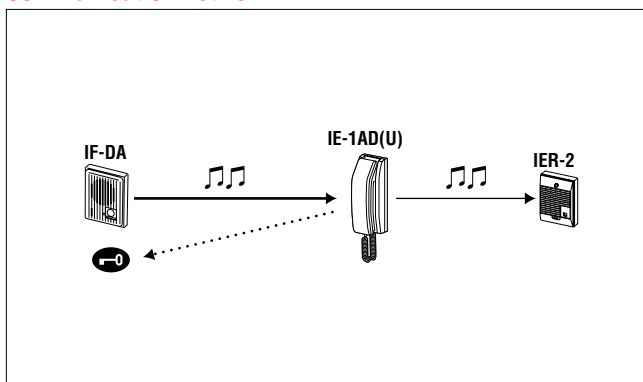
AC-10F
Access control keypad, flush mount
→ P.132



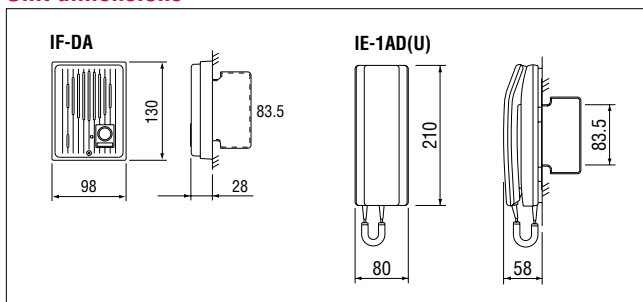
Features

- Chime tone intercom for 2 locations
- Door release button
- AC or DC power source

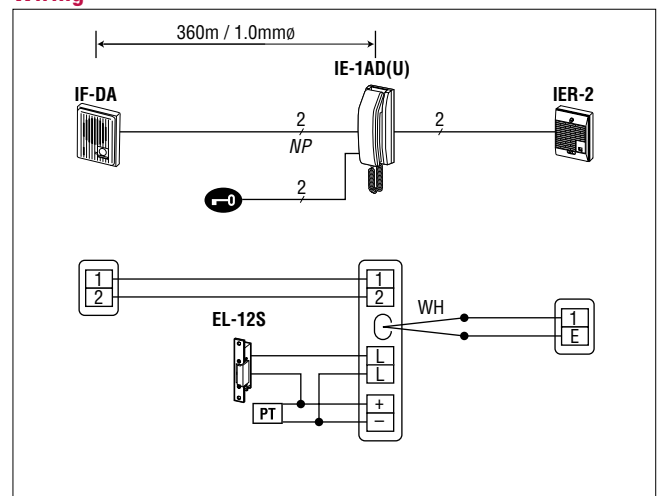
Communication network



Unit dimensions



Wiring



• Run audio wires in a separate jacketed cable from door release wires.

PT : AC transformer WH : White(2)

Specifications (IE-1AD(U))

Power source	12~16V AC, 180mA 12~24V DC, 160mA
Power supply	AC transformer (for IE & EL-12S), PS-1225S/UL/BF/DM/-O
Communication	Door calls in w/4-tone chime, adjustable. Pick up handset to reply.
Door release	Contact rating: 24V AC/DC, 500mA
Wiring	2 parallel wires, non-polarized (+2 for EL-12S)
Wiring distance	IE-1AD(U) to door 150m(0.65mmØ) 360m(1.0mmØ)

DB

DA

C

IE

Chime Tone Intercom

DOOR 1 → ROOM 3 **IE-1GD(U)**

Door station



IE-JA
Door station
→ P.99

Master station



IE-1GD(U)
Master station

Sub station



IEH-1CD
Sub master station

Lineup



EL-12S
Electric door strike
→ P.134



IER-2
Call extension
→ P.134



AC-10S
Access control keypad, surface mount
→ P.132



AC-10F
Access control keypad, flush mount
→ P.132

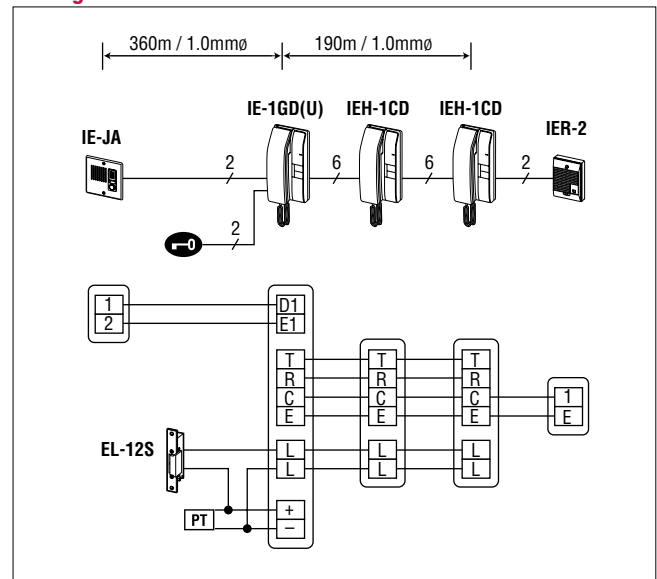


Power supply
12~24V DC power supply or
12~16V AC transformer

Features

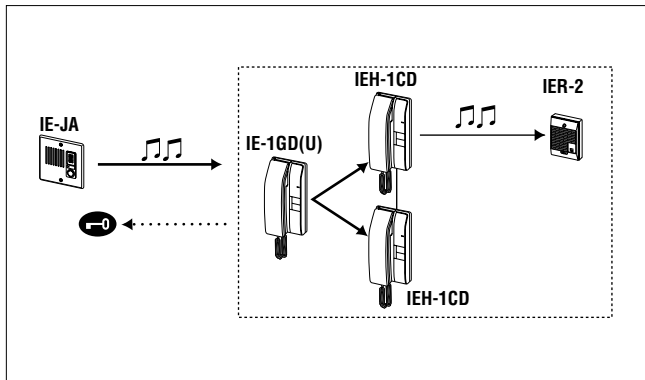
- 3-station chime tone intercom with one door
- Door release button
- All call type room calling
- Chime tone cutout at sub station
- AC or DC power source

Wiring



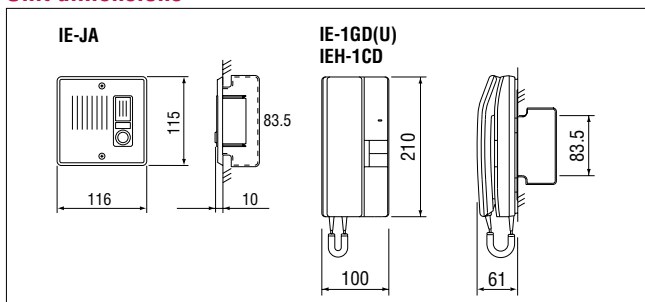
- Run audio wires in a separate jacketed cable from door release wires.
- PT : AC transformer

Communication network



All Call type calling with pretone & voice

Unit dimensions



Specifications (IE-1GD(U))

Power source	12~16V AC, 200mA 12~24V DC, 200mA
Power supply	AC transformer 12~16V, 550mA (for both IE & EL-12S), PS-1225S/UL/BF/DM-O
Communication	Door calls in w/4-tone chime to all stations. Chime can be cut out at sub(s). Pick up any station to reply. Press CALL to call other inside stations with pretone & voice.
Door release	Contact rating: 24V AC/DC, 500mA
Wiring	2 parallel wires to door, non-polarized. 6 wires in loop, between rooms.
Wiring distance	IE-1GD(U) to door 150m(0.65mmØ) 360m(1.0mmØ) Between rooms 75m(0.65mmØ) 190m(1.0mmØ)

Chime Tone Intercom

DOOR 2 ROOM 3 IE-2A2DU

Door station



IE-JA
Door station
→ P.99



IF-DA
Door station
→ P.99
Power supply
12~24V DC power supply
12~16V AC transformer

Master station



IE-2A2DU
Master station, 2 door releases



IE-2AD(U)
Master station

Sub station



IEH-1CD
Sub master station
IEH-1C2D
2 door release

Lineup



EL-12S
Electric door strike
→ P.134



IER-2
Call extension
→ P.134



AC-10S
Access control keypad, surface mount
→ P.132



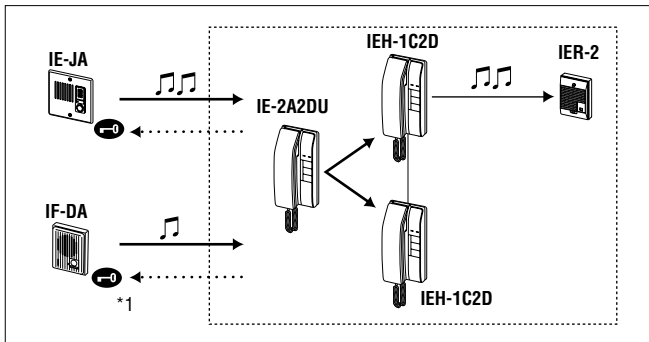
AC-10F
Access control keypad, flush mount
→ P.132



Features

- 3-station chime tone intercom
- 2 door stations w/door release
- All call type room calling
- Chime tone cutout at sub station
- Door selective monitoring at master station
- AC or DC power source

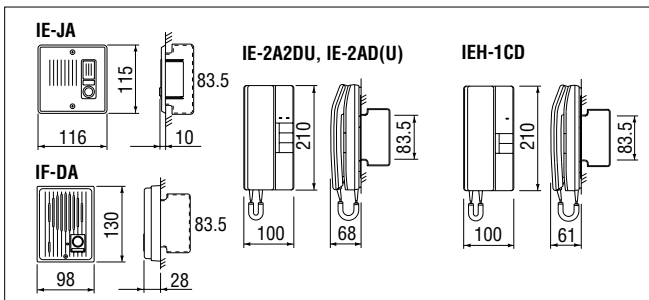
Communication network



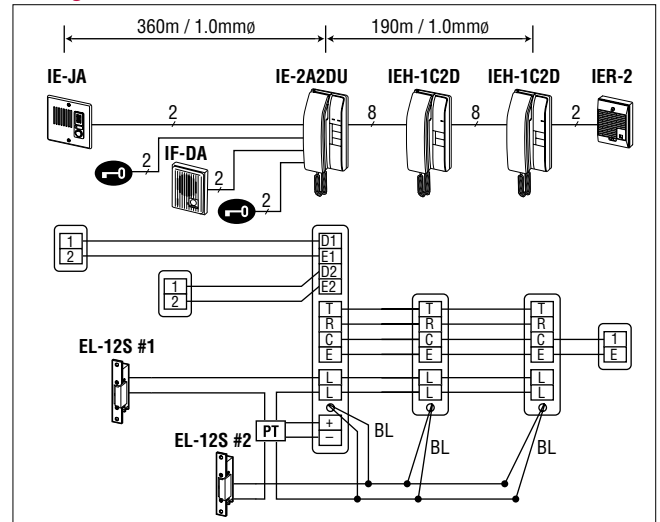
All call type voice calling between rooms

*1. Available in IE-2A2DU or IE-2AD(U) w/RV-3DL

Unit dimensions



Wiring






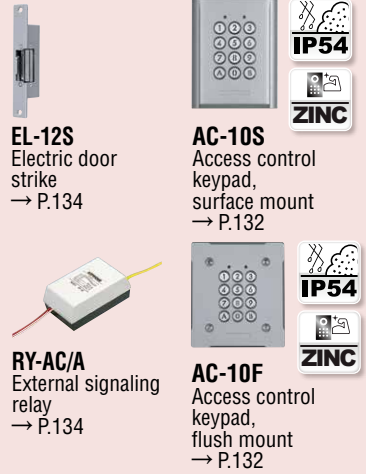
BL : Blue(2) [PT] : AC transformer

Specifications (IE-2A2DU)

Power source	12~16V AC, 200mA 12~24V DC, 200mA
Power supply	AC transformer 12~16V AC, 550mA (for both IE & EL-12S), PS-1225S/UL/BF/DM/-O
Communication	Door calls in w/4- or 2-tone chime to all stations, 45 sec. Chime can be cut out at sub. Pick up any station handset to reply. Press CALL to call other stations with pretone & voice.
Door release	Contact rating: 24V AC/DC, 500mA
Wiring	2 parallel wires, non-polarized. 6 wires in loop, rooms.
Wiring distance	IE-2A2DU to door 150m(0.65mmø) 360m(1.0mmø) Between rooms 75m(0.65mmø) 190m(1.0mmø)

Chime Tone Intercom

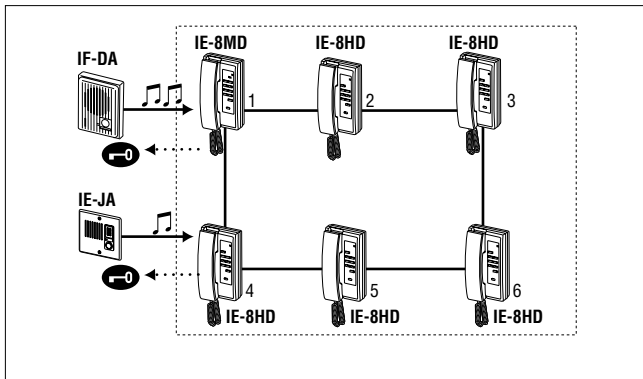
DOOR 2 ROOM 6 IE-8MD

<p>Door station</p>  <p>IE-JA Door station → P.99</p> <p>IF-DA Door station → P.99</p>	<p>Master station</p>  <p>IE-8MD 6-call master</p>	<p>Sub station</p>  <p>IE-8HD 6-call sub master</p>	<p>Lineup</p>  <p>EL-12S Electric door strike → P.134</p> <p>RY-AC/A External signaling relay → P.134</p> <p>AC-10S Access control keypad, surface mount → P.132</p> <p>AC-10F Access control keypad, flush mount → P.132</p>												
<p>Power supply</p> <table border="0"> <tr> <td>PS-1225S</td> <td>PS-1225UL</td> <td>PS-1225BF</td> <td>PS-1225DM</td> <td>PS-1225-O</td> <td>→ P.136</td> </tr> <tr> <td>PS-1820S</td> <td>PS-1820UL</td> <td>PS-1820BF</td> <td>PS-1820DM</td> <td>PS-1820-O</td> <td>→ P.136</td> </tr> </table>				PS-1225S	PS-1225UL	PS-1225BF	PS-1225DM	PS-1225-O	→ P.136	PS-1820S	PS-1820UL	PS-1820BF	PS-1820DM	PS-1820-O	→ P.136
PS-1225S	PS-1225UL	PS-1225BF	PS-1225DM	PS-1225-O	→ P.136										
PS-1820S	PS-1820UL	PS-1820BF	PS-1820DM	PS-1820-O	→ P.136										

Features

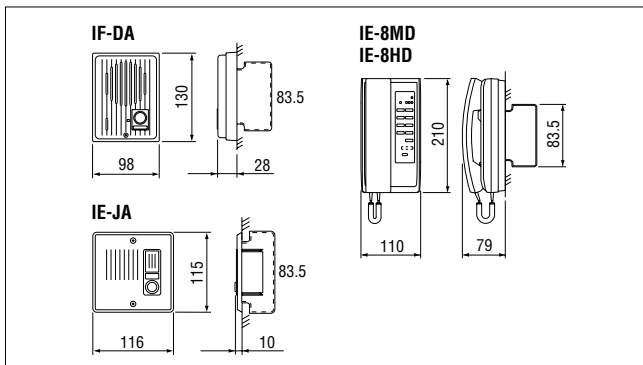
- Expandable to 6-station system
- Selective or All Call between inside stations
- Door select and monitor button (on IE-8MD only)
- AC or DC power source
- Selective door release control
- Chime tone cutout on inside stations, selectable

Communication network

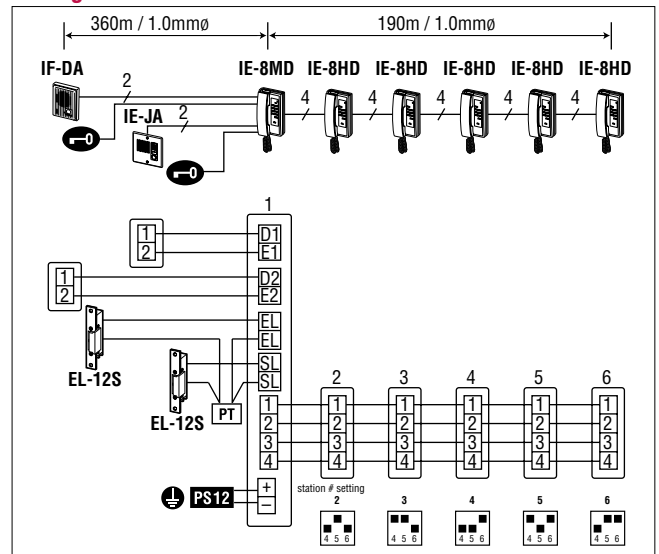


Internal communication by Selective Call or All Call. Chime tone can be muted at each station selectively.

Unit dimensions



Wiring



PT : AC transformer PS12 : PS-1225S/UL/BF/DM/-O PS18 : PS-1820S/UL/BF/DM/-O or AC transformer

Specifications (IE-8MD)

Power source	12~16V AC, 900mA 12~18V DC, 500mA
Power supply	Intercom only; 12V or 18V DC power supply. AC transformer 12V AC, 10VA or 16V AC, 14VA w/no load voltage 20V or less. Intercom + EL-12S; 12V AC, 10VA only
Communication	Door calls in w/4- or 2-tone chime and LED, 45 sec. Pick up any handset to reply. Press 1 ~ 6 to call other station with pretone and voice or All Call. Single channel, common talk system.
Door release	Contact rating: 24V AC/DC, 350mA
Wiring	2 parallel wires, to door. 4 wires in loop, between rooms.
Wiring distance	IE-8MD to door 150m(0.65mmØ) 360m(1.0mmØ) Rooms 75m(0.65mmØ) 190m(1.0mmØ)

Audio Door Stations

IE/IF Series

Surface mount station



IF-DA
Door station



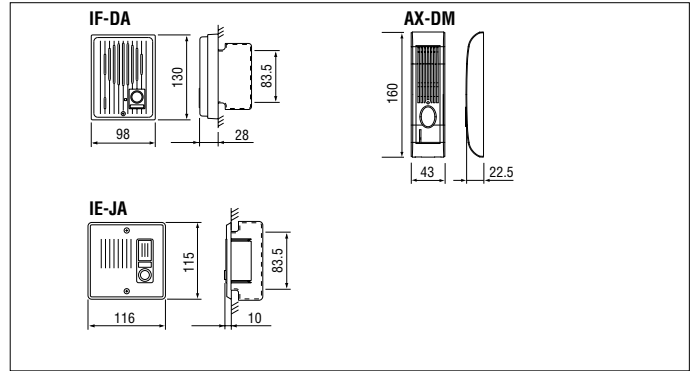
AX-DM
Audio door station
Mullion type

Flush mount station



IE-JA
Door station

Unit dimensions



Specifications

Wiring	2 parallel wires to master, non-polarized
Wiring distance	150m(0.65mm ϕ) 230m(0.8mm ϕ) 360m(1.0mm ϕ)

Features

- Weather resistant audio door stations
- Hands-free communication
- Call button rings chime or tone at inside station

Some applications

- At multiple doors w/TB-AD10

Used for

IE-1AD(U), IE-1GD(U),
IE-2A2DU, IE-2AD(U),
IE-8MD,
TD-nH/B w/DE-UR
(n=3, 6, 12 & 24)
TC-M w/TB-AD1
TC-M w/TB-AD10
AX

INTERCOM SYSTEM



Lineup

Open Voice Intercom
LEM system



P102~

Open Voice Intercom
LEF system



P104~

Handset Intercom
TD-H/B



P110~

Security Window Intercom
IMU-100



P112~

Master/Sub Intercom
TC-M



P114~

Intercom systems for a variety of facilities where effective communication is needed.



Hands-free Intercom
DB-1MD



P108

Handset Intercom
AT-406



P108

Handset Intercom
YAZ-90-3W



P109

Market-Com
MC-60/4A



P117

Nurse Call, Communication System
NIM system



P118~

Nurse Call
NHX



P126~

Open Voice Intercom

DOOR 1 ROOM 1 LEM-1DL

Door station



LE-D
Sub station
→ P.107



LE-DA
Sub station
→ P.107



EL-12S
Electric door strike
→ P.134



LE-DL
Sub station
→ P.107

Master station



LEM-1DL
Master station

Power supply

- PS-1225S** **PS-1225UL**
- PS-1225BF** **PS-1225DM**
- PS-1225-O** → P.136

Lineup



AC-10S
Access control keypad, surface mount
→ P.132

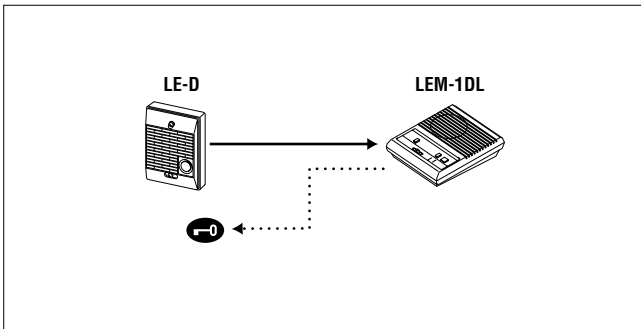


AC-10F
Access control keypad, flush mount
→ P.132

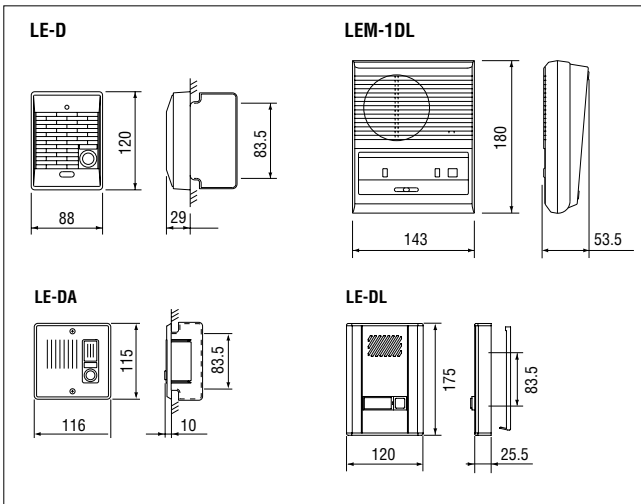
Features

- Single door open voice access control system
- Adjustable transmit (front) and tone volumes
- AC/DC power supply

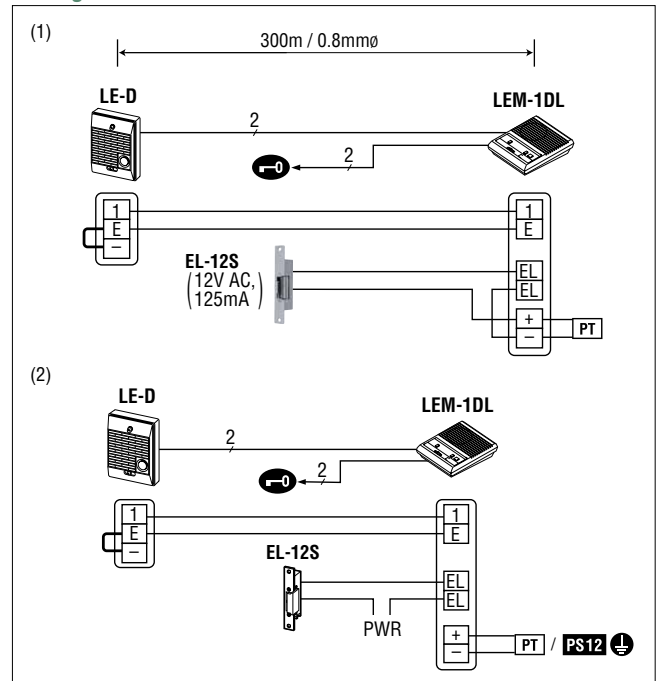
Communication network



Unit dimensions



Wiring



(1) Using EL-12S door release

(2) Using 3rd party door releases. Rating : 30V AC/DC, 1A max.
Do not remove shorting link on LE-D. PWR : Power source


Specifications (LEM-1DL)

Power source	12~16V AC, 4VA 12~24V DC, 200mA (24V)
Power supply	AC transformer, PS-1225S, PS-1225UL, PS-1225BF, PS-1225DM, PS-1225-O
Communication	When called by tone, press TALK to reply. Press door release button to release door, and press OFF for standby.
Wiring	2 wires, non-polarized (+2 for EL-12S)
Wiring distance	LEM-1DL to door 200m(0.65mmø) 300m(0.8mmø)

Open Voice Intercom

MASTER 1 → SUB 3 **LEM**


Master station



LEM-1
1-call master


LEM-3
3-call master

Door station



LE-D
Sub station
→ P.107

Room sub station



LE-A
Sub station
→ P.107

LE-DA
Sub station
→ P.107

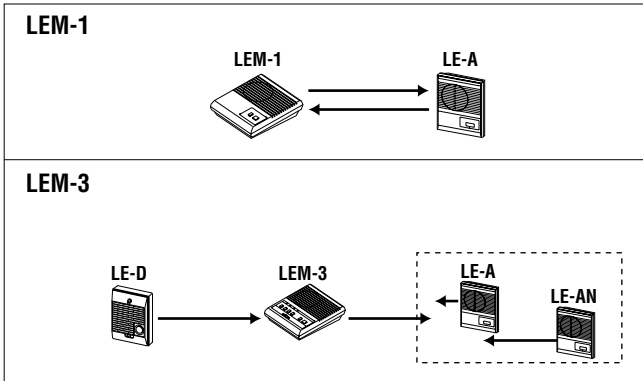
LE-AN
Privacy sub
→ P.107

Power supply
PS-0602C PS-0602DM SKK-620C → P.135

Features

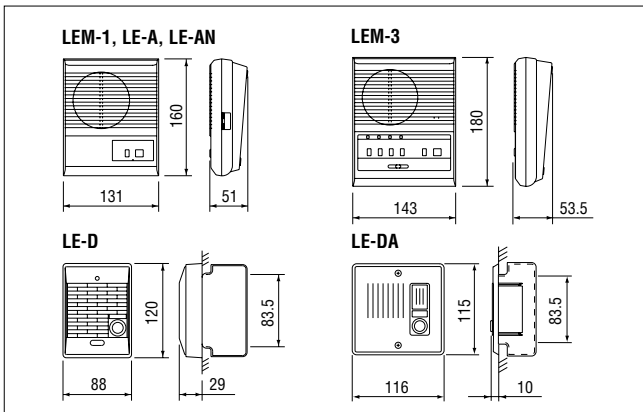
- Open voice communication
- Push-to-talk at master, hands free at remote
- LE sub stations: either door station or room sub station
- Voice volume control

Communication network

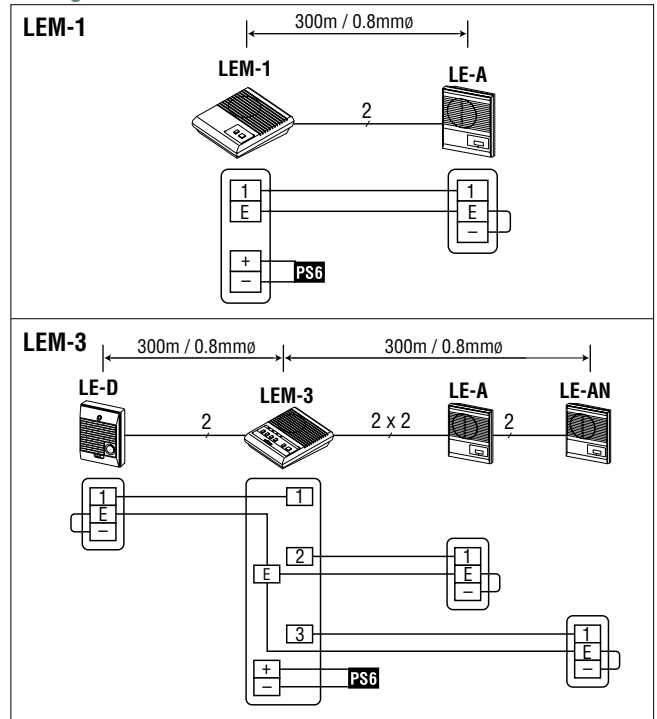


LEM-1; Tone or voice. LEM-3; Selective call w/tone or voice. Tone and LED from sub

Unit dimensions



Wiring



★ Do not remove shorting link on subs. PS6 : PS-0602C, PS-0602DM, SKK-620C

Specifications (LEM)

Power source	6V DC, 200mA
Power supply	PS-0602C, PS-0602DM, SKK-620C
Communication	Sub calls in w/tone and LED, 20 sec. Depress selector button and press or release TALK button. Sub called by tone or voice. Reply hands-free.
Output	350mW output, adjustable
Wiring	2 parallel wires per sub, non-polarized
Wiring distance	LEM to sub 200m(0.65mmφ) 300m(0.8mmφ)

Open Voice Intercom

STATION

11 LEF

Master station



LEF-3
3-call master

LEF-3L
3-call master w/
door release button

Master station



LEF-5
5-call master

LEF-5W
5-call master
w/terminal box



LEF-10
10-call master

LEF-10W
10-call master
w/terminal box



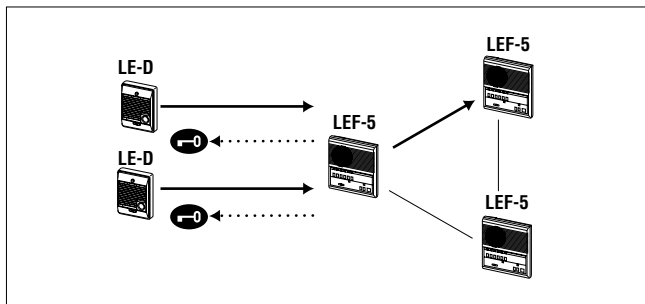
LEF-10S
10-call master (all call)

Power supply
PS-1208S PS-1208UL PS-1208BF → P.136

Features

- Intermixable system with any number of masters and subs to max. capacity
- Selective calling from any master with hands-free reply
- LEF surface and LEF-C semi-flush units can be intermixed
- Variety of sub stations are available
- Weather-resistant door stations (any number) with selective door release
- System options: All Call/Music/Chime
- Selective door release with LEF-5/10/10S (w/RV-PA)

Communication network



Selective call between inside stations. Answering & releasing door from any inside station

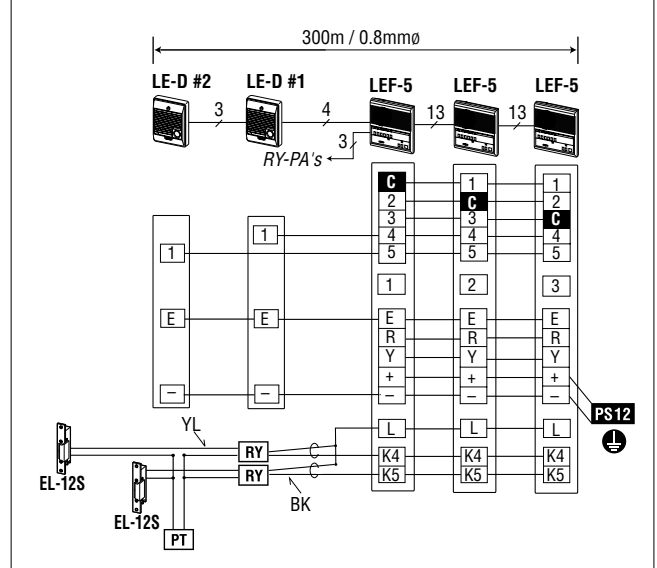
Cabling

Models	Capacity	Cable
LEF-3	4 stations	9 wires
LEF-5	6 stations	11 wires (+5: K1~K5*)
LEF-10	11 stations	17 wires (+10: K1~K10*)
LEF-10S	11 stations	20 wires (+10: K1~K10*)

- K1 ~K10: Control terminals for video, door release.
- LEF-3 does not have L terminal.
- Door & inside sub stations can ring 2 or 3 LEF masters.
- LEF All-master trunk cable=5 (or 6) common + no.of LEF (& subs)

Wiring

Door answering w/selective door release



PS12 : PS-1208S, PS-1208UL, PS-1208BF

PT : AC transformer

Terminal 4 : for LE-D #1, Terminal 5 for LE-D #2.

YL : Yellow(2) BK : Black(2).

Door station



LE-D
Sub station
→ P.107



LE-DA
Sub station
→ P.107

Room sub station



LE-A
Sub station
→ P.107



LE-AN
Privacy sub
→ P.107

All call, music & chime



BG-10C
All call, chime & music
adaptor
→ P.107

Power supply

- PS-1225S PS-1225UL**
- PS-1225BF PS-1225DM**
- PS-1225-0** → P.136

Lineup



EL-12S
Electric door
strike
→ P.134



RY-PA
Door release relay
→ P.134



LEW-5
LEF-5 terminal
box

LEW-10
LEF-10 terminal
box

LEW-10S
LEF-10S terminal
box

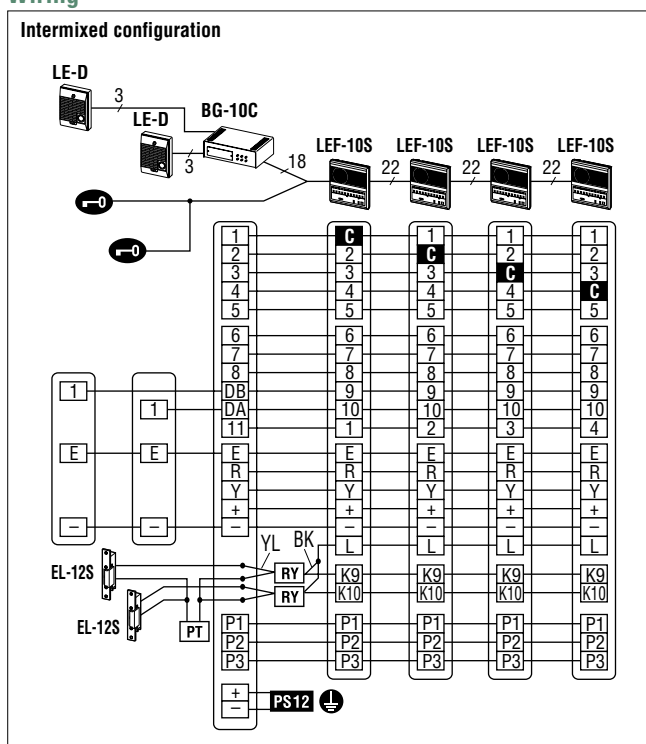


AC-10S
Access control
keypad,
surface mount
→ P.132



AC-10F
Access control
keypad,
flush mount
→ P.132

Wiring



3 wires per sub. Run 3 wires to subs individually, or use multi-conductor cable to wire multiple subs (2 common + 1 per sub).

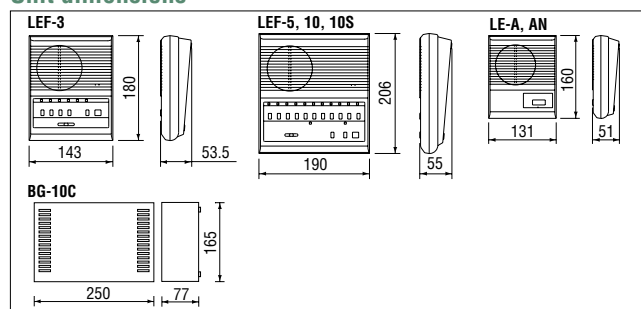
- LE-D call-in chimes on LEF stations.
- Only LEF-10S station can transmit all call.
- Match door release control terminals (Kn) with door selector #10 with K10, #9 with K9.

★ Remove a shorting link on LE subs.

PS12 : PS-1225S, PS-1225UL, PS-1225BF, PS-1225DM, PS-1225-0

PT : AC transformer **RY** : RY-PA

Unit dimensions



Specifications (LEF)

Power source	12V DC, 300mA per LEF station.
Power supply	PS-1208S, PS-1208UL, PS-1208BF
Communication	Sub calls in w/(chime) tone & LED, 20 sec. Depress the LED lit selector button. Use TALK/LISTEN switch. Master calls in w/tone or voice (no LED lit). Reply hands-free. To call, depress a selector, and call by voice or tone.
Door release	Contact: 30V DC, 0.1A (resistance load).
Selector switch	Contact: 12V DC, 30mA.
Wiring	5 wires common + no. LEF (& subs) (all-master system) 2 wires per sub (single-master system). * E to - link remains attached. LE subs: 3 wires with the link removed (when intermixed)
Wiring distance	Farthest LEF's 200m(0.65mmØ) 300m(0.8mmØ)

Specifications (BG-10C)

Power source	12V DC, 2.5A (music max. output). 1.5A(music, chime & all call). 0.1A standby
Power supply	PS-1225S, PS-1225UL, PS-1225BF, PS-1225DM, PS-1225-0
All call transmit	From LEF-3C, 5C, 10C & LEF-1C and LEF-10S
All call receive	All LEF master station
Chime tone transmit	AUX R, E and AUX L, E
Controls	Music on/off. 11 selector switches of music & chime, chime only or off.
Wiring	19 wires max. BG-10C to LEF-10C. 3 wires to each LE-D, DA.
Wiring distance	BG-10C to LEF-C 150m(0.65mmØ). 230m(0.8mmØ) LE-D/DA to BG-10C 200m(0.65mmØ). 300m(0.8mmØ).

Open Voice Intercom



Door station



LE-D
Sub station
→ P.107

Master station



LEF-3C
3-call master



LEF-5C
5-call master



LEF-10C
10-call master

Sub station



LE-B
Sub station



LEF-1C
All call sub master

LE-BN
Privacy sub

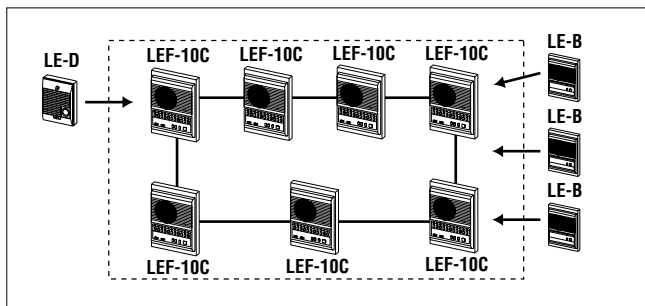
Power supply

PS-1208S PS-1208UL PS-1208BF → P.136

Features

- Intermixable system with any number of masters and subs to max. capacity
- Selective calling from any master with hands-free reply
- LEF surface and LEF-C semi-flush units can be intermixed
- Variety of sub stations are available
- Weather-resistant door stations (any number) with selective door release
- System options: PanTilt door/monitor(s), All Call/Music/Chime
- Selective door release with LEF-5/10/10S (w/RYP-A)

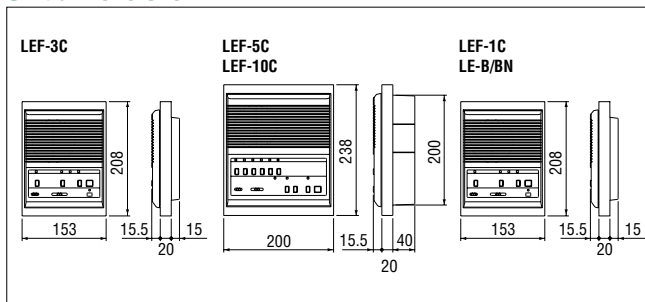
Communication network



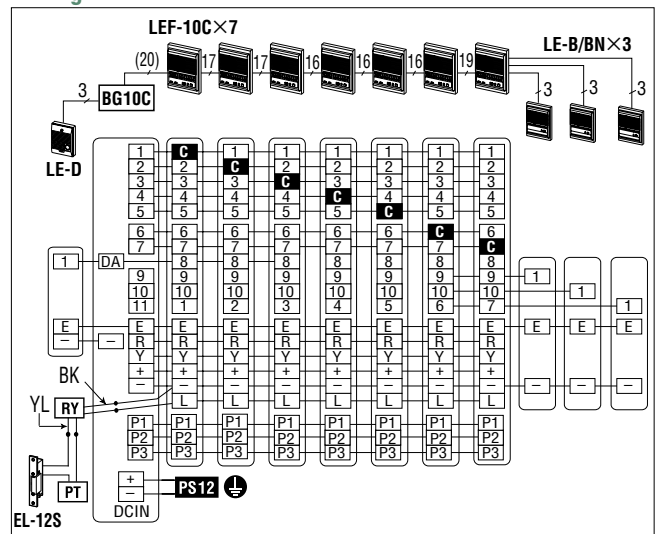
Intermixed configuration

Internal communication by Selective call. Sub calls in with tone & LED 20 sec.

Unit dimensions



Wiring



PS12 : PS-1208S/UL/BF

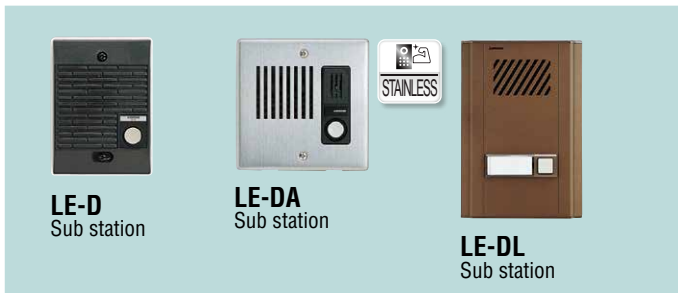
RY : RY-PA relay **PT** : AC transformer **BK** : Black(2) **YL** : Yellow(2)

Specifications (LEF-C)

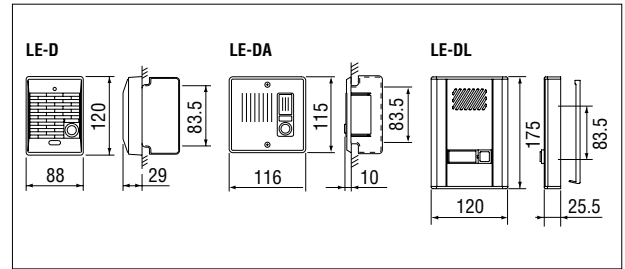
Power source	12V DC, 300mA per station.
Power supply	PS-1208S, PS-1208UL, PS-1208BF
Communication	Sub/door calls in w/tone & LED, 20 sec. Depress the LED lit selector button. Depress TALK/LISTEN switch. The LED stays lit while in use. Single talk channel w/OCCUPIED lit.
Output	800mW at 20Ω(receive). 500mW at 20Ω(transmit).
Door release	Contact: 110V AC, 1A. 24V DC, 1A. (on RY-PA output).
Selector switch	Contact: 12V DC, 1A. (K terminals)
Wiring	5 or 6 common + no. all stations
Wiring distance	Farthest LEF-C's 200m(0.65mmφ) 300m(0.8mmφ)

LE Sub stations & Accessories

Weather-resistant sub

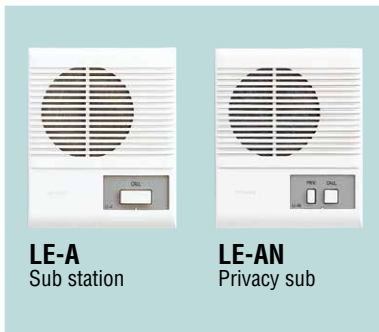


Unit dimensions

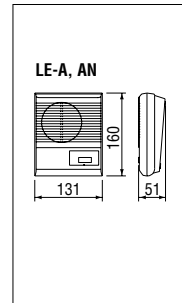


LE-DA: 2-gang mounting

Room sub



Unit dimensions



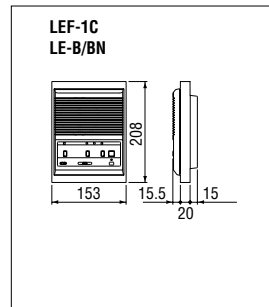
Semiflush mount sub



All call sub master



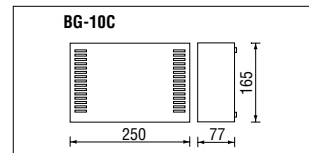
Unit dimensions



All call/music/chime adaptor



Unit dimensions



Specifications (BG-10C)

Power source	12V DC, 2.5A (music max. output). 1.5A(music, chime & all call). 0.1A standby
Power supply	PS-1225S, PS-1225UL, PS-1225BF, PS-1225DM, PS-1225-O
All call transmit	From LEF-3C, 5C, 10C & LEF-1C and LEF-10S
All call receive	All LEF master station
Chime tone transmit	AUX R, E and AUX L, E
Controls	Music on/off. 11 selector switches of music & chime, chime only or off.
Wiring	19 wires max. BG-10C to LEF-10C. 3 wires to each LE-D, DA.
Wiring distance	BG-10C to LEF-C 150m(0.65mmØ). 230m(0.8mmØ). LE-D/DA to BG-10C 200m(0.65mmØ). 300m(0.8mmØ).

LE

DB

AT

YAZ

TD

IMU

TC

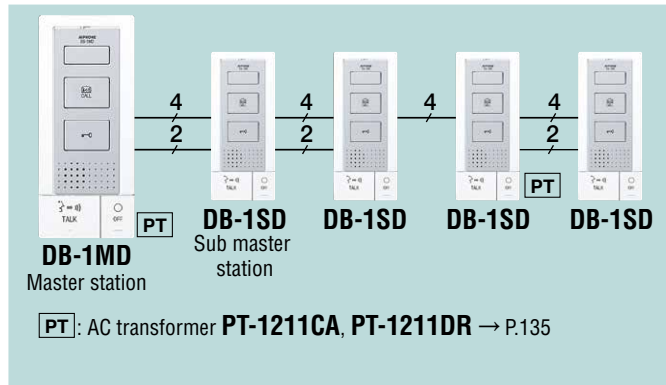
MC

NIM

NHX

Hands-free Intercom

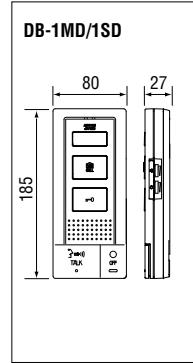
MASTER 1 → SUB 4 **DB-1MD**



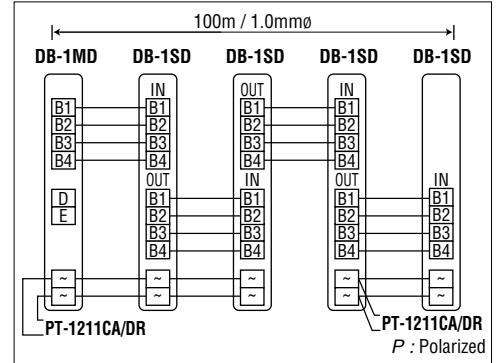
Features

- Total hands-free communication, auto-voice actuation
- Press-to-talk operation available
- Up to 5 stations
- All call for internal communication

Unit dimensions



Wiring



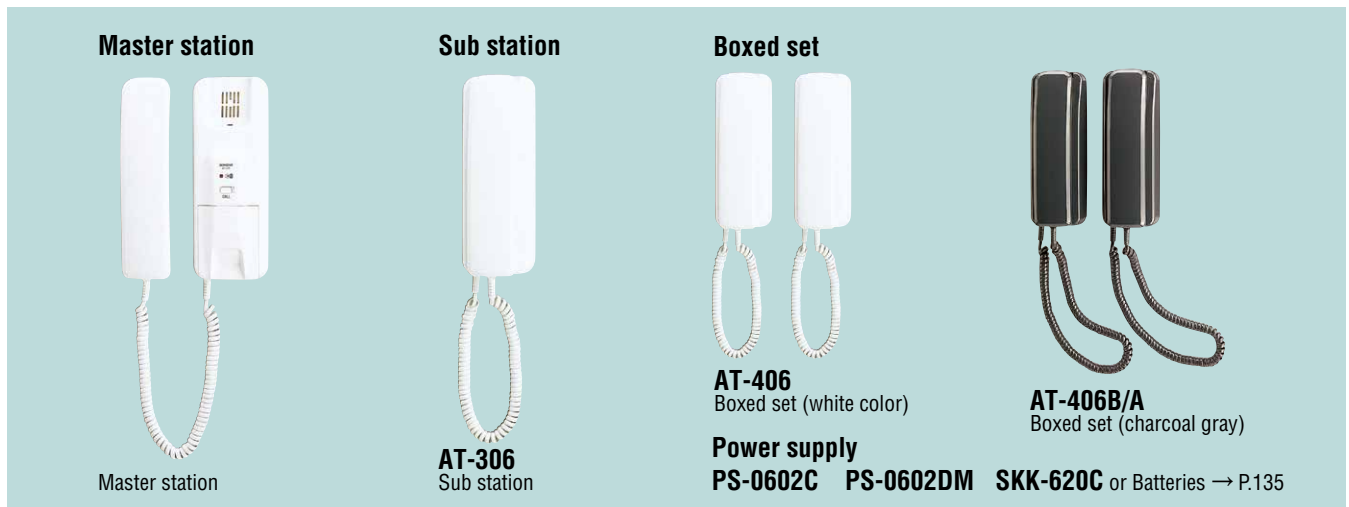
Specifications (DB-1MD, 1SD)

Power source	15V AC
AC transformer	PT-1211CA, PT-1211DR
Communication	Approx. 10 min. AUTOMATIC (Hands-free); To activate, momentarily press TALK button. MANUAL (Press-to-talk/Release-to-listen); To activate, press TALK button twice.

Wiring distance	PT-1211CA/DR ~ DB-1MD 55m(0.65mmø)
	100m(0.8mmø) 155m(1.0mmø)
	DB-1MD ~ farthest DB-1SD 100m(0.65 ~ 1.0mmø)

Handset Intercom

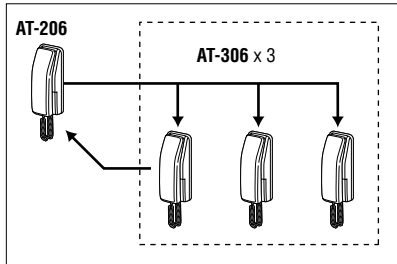
MASTER 1 → SUB 3 **AT-406**



Features

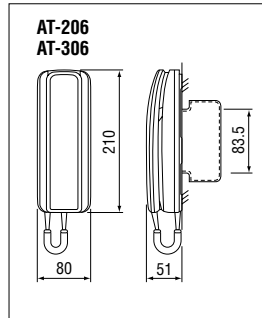
- Handset master-sub intercom w/2 additional subs (optional)
- Battery status LED
- Batteries or DC power supply
- Buzzer or bell activation (optional)

Communication network

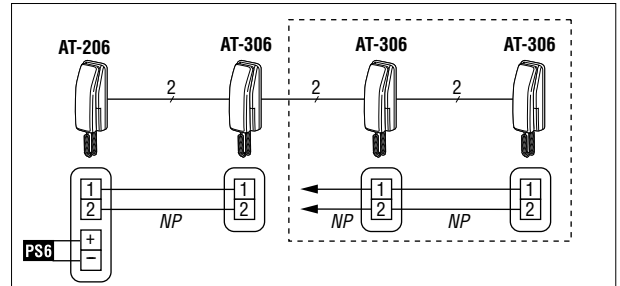


Master calls all the subs simultaneously, while the sub rings only the master.

Unit dimensions



Wiring



PS6 : PS-0602C, PS-0602DM, SKK-620C

Specifications (AT-406)

Power source	6V DC, 150mA
Power supply	PS-0602C, PS-0602DM, SKK-620C or Batteries "AA"(SUM-3) x 4 pcs
Communication	Press CALL button to ring all subs. Pick up any phone. Sub rings master only. Common talk.

Wiring	2 parallel wires. non-polarized
Wiring distance	2-station set 700m(0.65mmø) 1000m(0.8mmø) AT-206 to subs 1~3 400m(0.65mmø) 600m(0.8mmø)

Handset Intercom

STATION

90 YAZ-90-3W

Phone extension



YAZ-90-3W
Phone master station

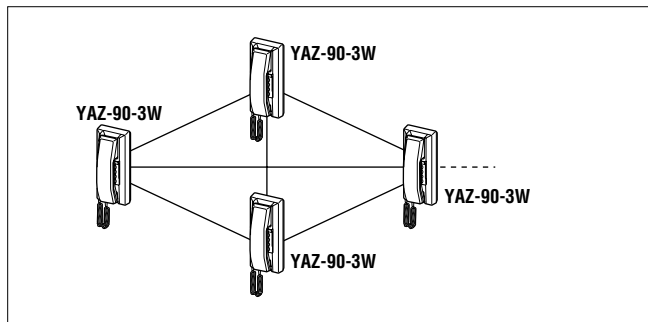
Power supply

- PS-2420S PS-2420UL
- PS-2420BF PS-2420DM
- PS-2420-O → P.137

Features

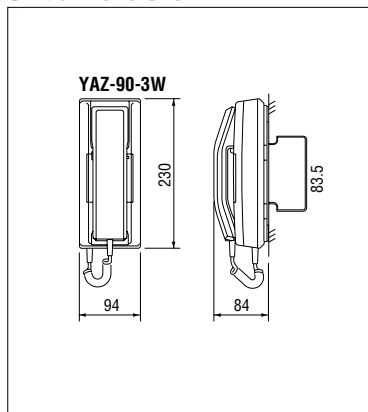
- Microprocessor based intercom expandable to max. 90 stations on 4-pair cable
- Up to 2.9km wiring distance
- Communication functions: Camp-on busy, secretary transfer, call transfer
- Line-off trouble on one channel does not affect the other channels

Communication network

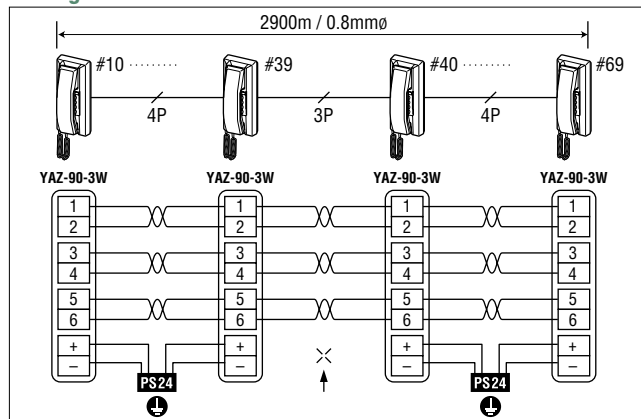


Station to station communication in any pair

Unit dimensions



Wiring



- Remove +, - wires between YAZ stations of different blocks. Within a block locate a power supply in the center of cable run, and make groups of max. 10 YAZ stations. As shown, connect +, - wires from the power supply to each group's initial YAZ station.

PS24 : PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-O

Specifications (YAZ-90-3W)

Power source	24V DC, 150mA max. 20mA standby.
Power supply	PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-O per 30-station block.
Communication	Dial 2-digit station # to ring other station with tone or voice pressing PAGE. Privacy communication on each channel (max. 3).
Line loop resistance	Must not exceed 200Ω for farthest stations. 20Ω for power line.
Wiring	4-twisted pairs (shielded) in loop.
Total wiring distance	Farthest YAZ's 1900m(0.65mmØ), 2900m(0.8mmØ)

LE

DB

AT

YAZ

TD

IMU

TC

MC

NIM

NHX

Handset Intercom

STATION 25 TD-H/B

Door station



IF-DA
Door station
→ P.99



DE-UR
Door station adaptor

Sub station



TD-1H/B
1-call sub

Master station



TD-3H/B
3-call master

TD-6H/B
6-call master

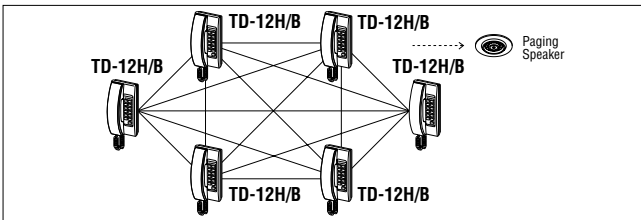
Power supply

- PS-1225S PS-1225UL
- PS-1225BF PS-1225DM
- PS-1225-0 → P.136

Features

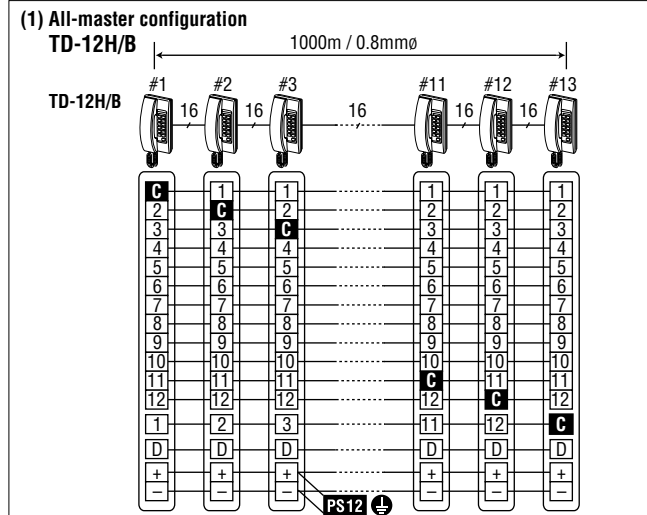
- All-master selective ring system
- Single-master configuration or intermix w/TD-1H/B
- Multi-conductor cable in loop
- Multi-talk channels
- Door station(s), audio or PanTilt video (max. 2)
- Zone paging, with or without talkback
- Music source connection. Page pretone cuts out music.

Communication network



All-master configuration. Station selector & CALL to ring any other station.

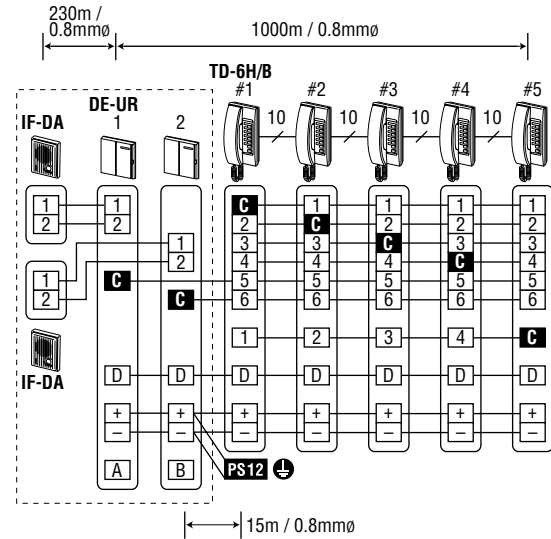
Wiring



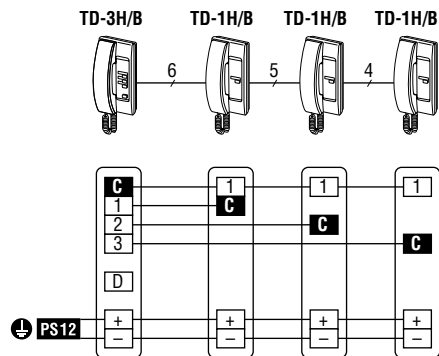
• Install main cable of max. conductors allowed for each TD-H/B station model.
PS12 : PS-1225S, PS-1225UL, PS-1225BF, PS-1225DM, PS-1225-0 Terminal D : Door station

Wiring

(2) Door station communication



(3) Single-master configuration



Terminal 5 for door 1, 6 for door 2. DE-UR's should be powered by power supply.



TD-12H/B
12-call master

TD-24H/B
24-call master



For desk-top or surface wall mounting, provide TDW-n/A terminal box w/1.5m cord.

- TDW-1/A**
TD-1H/B terminal box
- TDW-3/A**
TD-3H/B terminal box
- TDW-6/A**
TD-6H/B terminal box
- TDW-12/A**
TD-12H/B terminal box
- TDW-24/A**
TD-24H/B terminal box

- Power supply**
PS-1225S PS-1225UL
PS-1225BF PS-1225DM
PS-1225-0 → P.136

Lineup



PD-1
Zone page adaptor



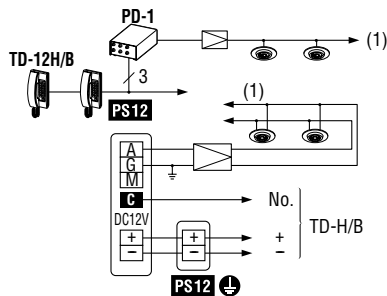
PD-2
Zone page/talkback adaptor



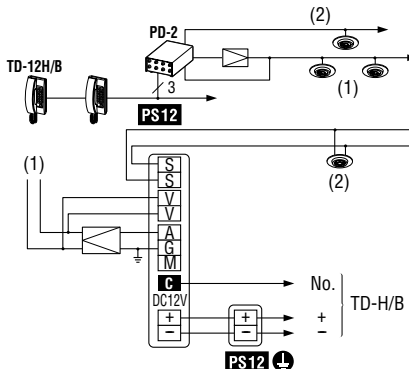
RY-AC/A
External signaling relay
→ P.134

Wiring

(4) Straight paging w/PD-1 (single-zone)

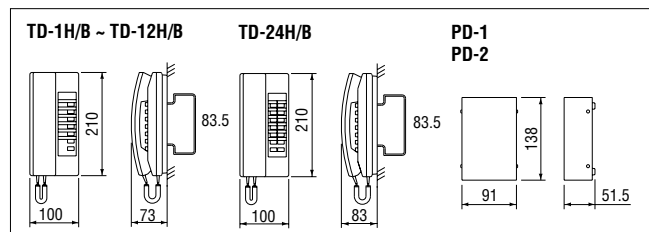


(5) Paging with talkback w/PD-2 (single zone)



(1) Paging Speakers (2) Talkback speakers **PS12** : PS-1225S, PS-1225UL, PS-1225BF, PS-1225DM, PS-1225-0

Unit dimensions



Specifications (TD-H/B)

Power source	12V DC, 70mA per station.
Power supply	PS-1225S, PS-1225UL, PS-1225BF, PS-1225DM, PS-1225-0
Communication	Depress a station selector 1~12 and CALL (or CALL A) to ring station 1~12 (or A1 ~ A12). Lift handset to reply. Door calls in w/standard or faster(B) intermittent tone, 2-1/2 sec. Pick up and depress the selector assigned.
Wiring	2 or 3 + no. TD-H/B in loop. TD-1H/B: 4 wires. TD-3H/B: 7 wires. TD-6H/B: 10 wires. TD-12H/B: 16 wires. TD-24H/B: 28 wires.
Wiring distance	TD-H/B stations 650m(0.65mmø) 1000m(0.8mmø) DE-UR to door 150m(0.65mmø) 230m(0.8mmø)

(PD-1,PD-2)

Power source	PD-1: 12V DC, 300mA. PD-2: 12V DC, 48mA (talkback).
Output	5KΩ. Max. 1.5V
Paging & music tone controls	Treble 12dB at 10KHz. Bass 12dB at 100Hz.
Amp. input	AUX or PHONO 100K-500KΩ, 0.12~0.5V
Music input	17KΩ, 0.3V, 1KHz. for full output
Tuner output	Audio output: Range 100mV~1.2V, 10KΩ or less
Tape output	Low level output: Range 100mV~1.2V, 600Ω
Talkback gain	40dB, 1KHz. at max. volume
Environmental noise	Less than 80dB (phon)
Paging	Select an assigned selector # and page w/PAGE button depressed. Release to receive reply
Wiring	3 wires to TD-H/B via power supply

Security Window Intercom

SERVICE SIDE

PUBLIC SIDE

1 1 IMU-100

Service Side



IMU-100
+
IME-100

IMU-100
Main kit



Operation unit



Main unit



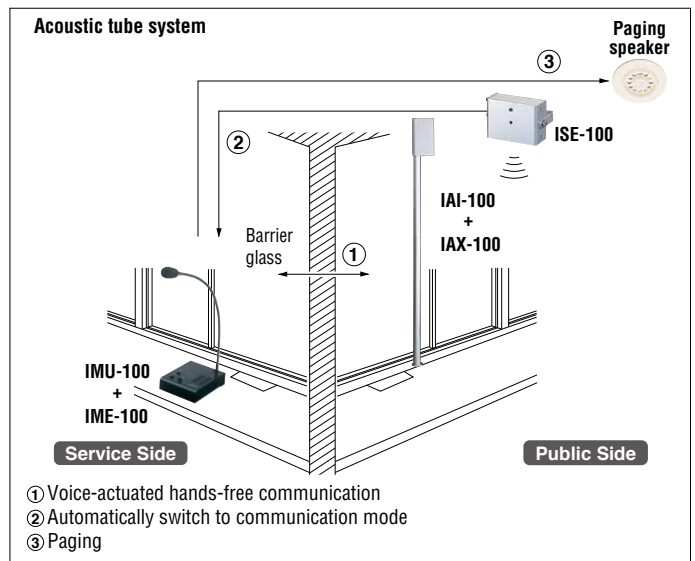
IME-100
Gooseneck microphone

Power supply PS-2420S PS-2420UL PS-2420BF PS-2420DM PS-2420-O → P.137

Features

- First in industry! Uses an acoustic tube with noise cancelling microphone
- Voice-actuated hands-free communication
- Flexible gooseneck type microphone
- Optional Mono type headset (3.5mm plug)
- Detection sensor switches automatically to communication mode
- Paging feature for announcements
- Thin shape of the acoustic tube does not obstruct the field of vision
- Holes in the barrier glass are not necessary for installation

Communication network



LE

DB

AT

YAZ

TD

IMU

TC

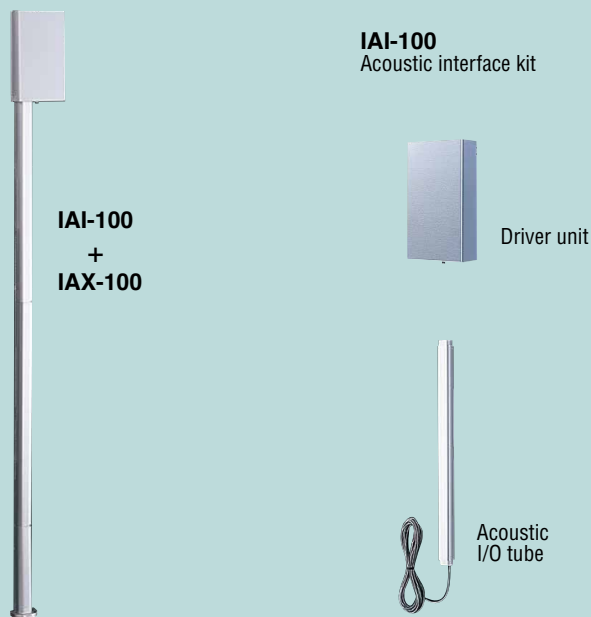
MC

NIM

NHX

Public Side

Acoustic tube system



Lineup

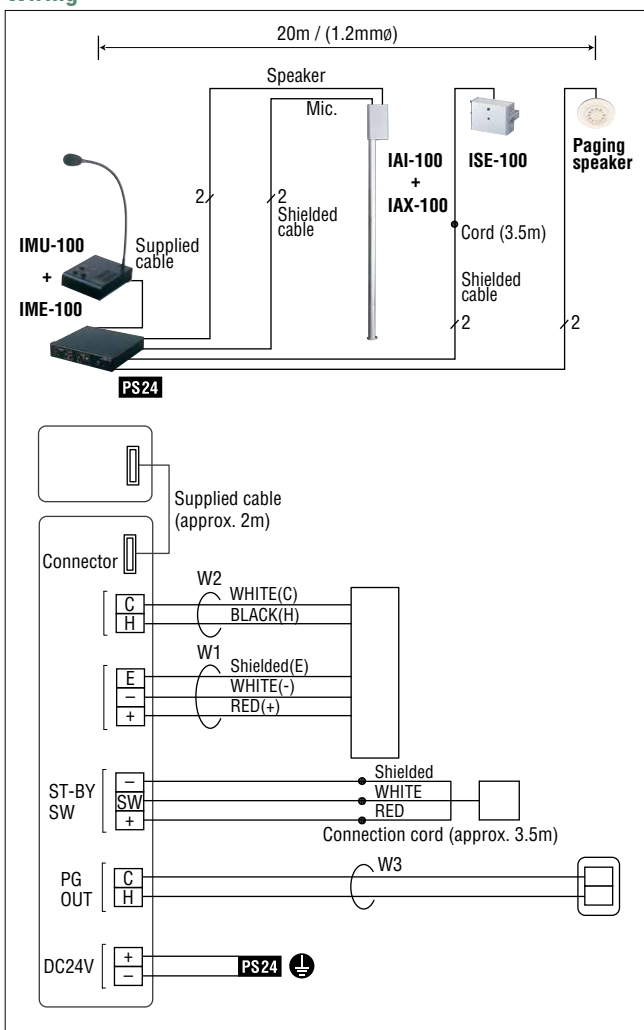


ISE-100 Sensor



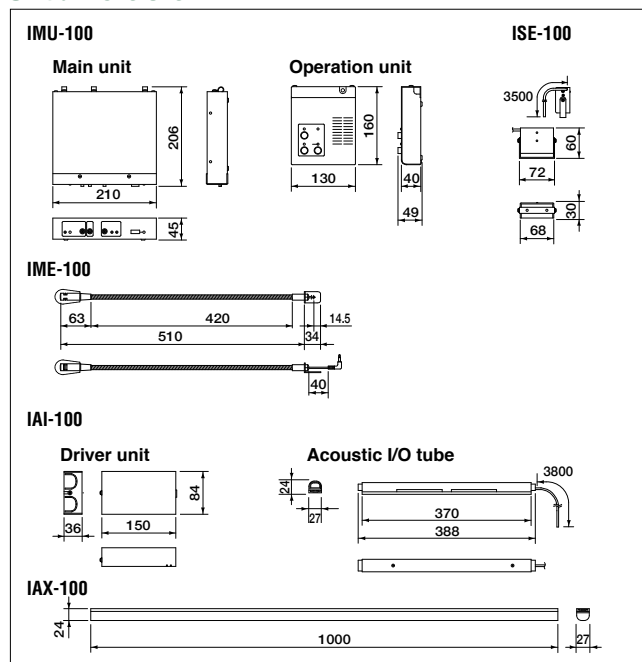
Paging speaker (locally available)

Wiring



PS24 : PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-O

Unit dimensions



Specifications (IMU-100)

Power source	24V DC
Power supply	PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-O
Consumption	120 mA (standby) 780 mA (maximum)
Operating temperature	0°C to 40°C
Communication	Voice-actuated communication
Headset	Transmit output: 3 W 4 Ω, Receive output: 1.5 W 16 Ω 3.5mm plug, Impedance: 32 Ω, Rated input: 40 mW or more, Maximum input: 100 mW or more
External speaker	Impedance: 4 to 8 Ω, Rated input: 3 W or more Maximum input: 6 W or more
Paging speaker	Impedance: 4 to 8 Ω, Rated input: 3 W or more Maximum input: 6 W or more

Master/Sub Intercom

MASTER 2 ▶ SUB 100 **TC-M**

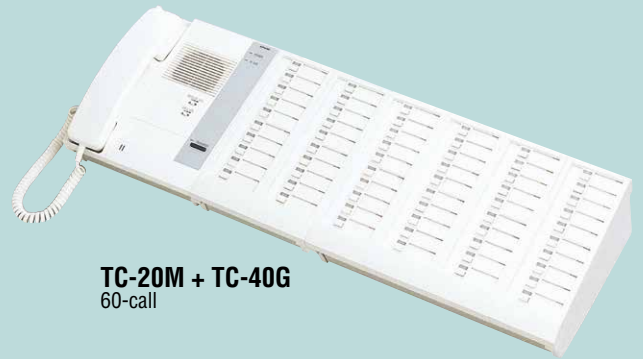
Master station



TC-10M
10-call master



TC-20M
20-call master

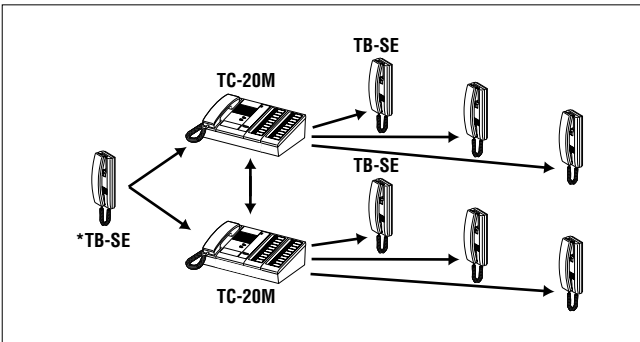


TC-20M + TC-40G
60-call

Features

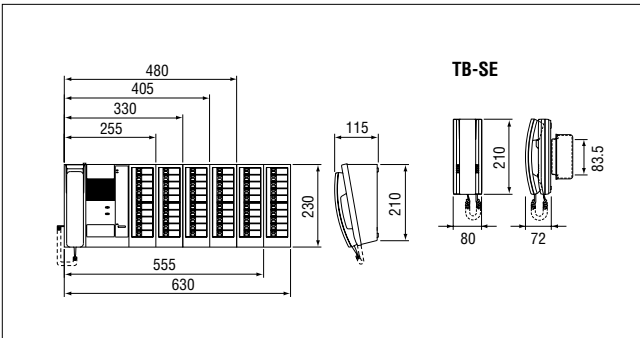
- Expandable internal telephone intercom
- One or dual master configuration
- Tone & LED call-in, staying on until answered
- Additional buzzer at TB-SE (w/relay)
- TRANSFER button on TC-M for communication between two TB-SE subs

Communication network

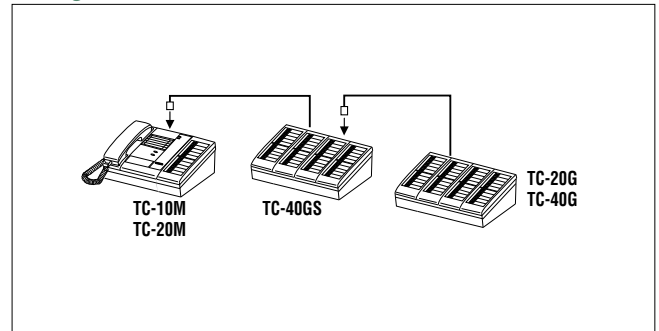


*TB-SE : Sub station for two-master call.

Unit dimensions



Wiring



The TC-40GS is equipped with socket to connect the second add-on selector TC-20G or TC-40G.

Specifications (TC-M)

Power source	18V DC, 350mA. 15~16V AC, 50/60Hz, 750mA.
Consumption	6W. 3W standby.
Power supply	PS-1820S, PS-1820UL, PS-1820BF, PS-1820DM, PS-1820-O, AC transformer.
Communication	Pick up TB-SE handset. Rings TC-M, w/tremolo & LED, staying. At TC-M, pick up and press a lit selector to reply.
Wiring	2 parallel wires per TB-SE, non-polarized.
Wiring distance	TC-M's 200m(0.65mmØ) 480m(1.0mmØ) TC-M~TB-SE 400m(0.65mmØ) 900m(1.0mmØ)

Add-on selector



TC-20G
20-call add-on selector



TC-40G
40-call add-on selector
TC-40GS
W/add'l 20-/40-call expansion

Sub station



TB-SE
Sub station

Lineup

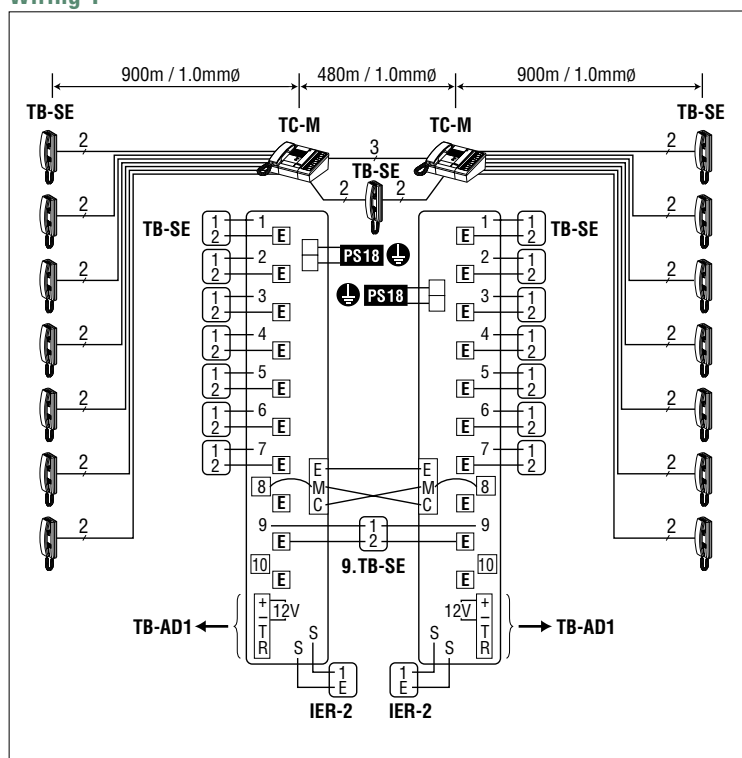


IER-2
Call extension
→ P.134

Power supply

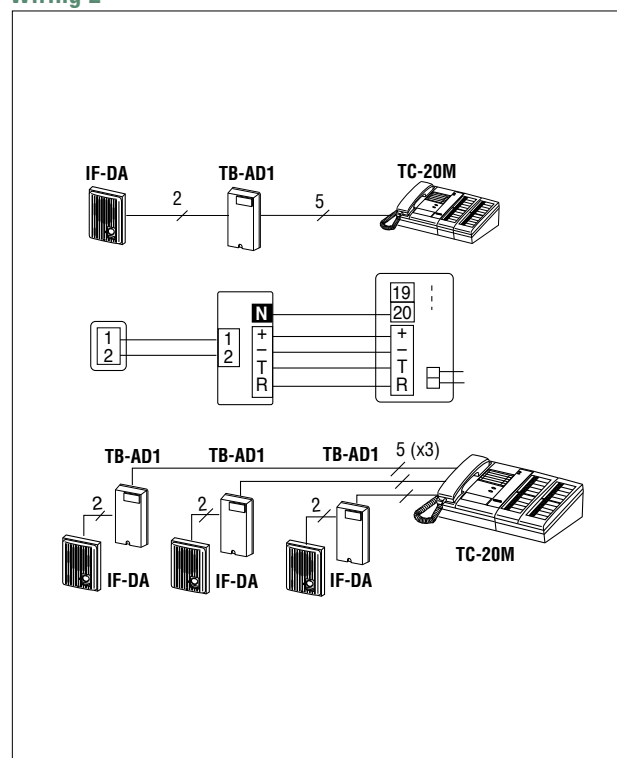
- PS-1820S PS-1820UL
- PS-1820BF PS-1820DM
- PS-1820-0 → P.136

Wiring 1



- Run 2 parallel wires per TB-SE. Use any E terminal for max. three TB-SE's.
- Do not parallel TB-SE sub wires, or door station wires (in dual-TC-M system).

Wiring 2



LE

DB

AT

YAZ

TD

IMU

TC

MC

NIM

NHX

Master/Sub Intercom

DOOR 10 ROOM 1 TC-M & TB-AD10

Door station



IF-DA
Door station
→ P.99

Master station



TC-10M
10-call master

TC-10MD
10-call master
for door release

TB-AD10
10-call door adaptor

Door adaptor



TB-AD1
1-call door adaptor



TB-ADD
10-way door release adaptor

Lineup



IER-2
Call extension
→ P.134



EL-12S
Electric door strike
→ P.134

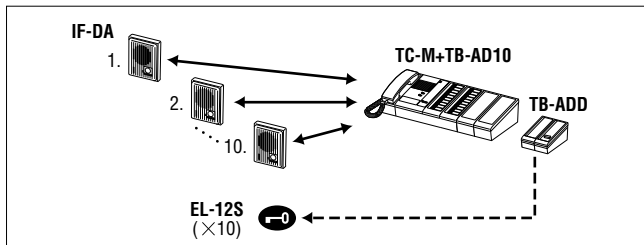
Power supply

PS-1820S PS-1820UL PS-1820BF PS-1820DM PS-1820-O
→ P.136

Features

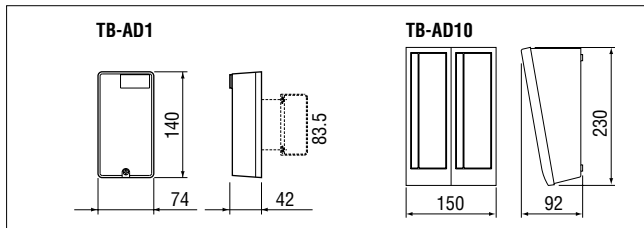
- Single or multiple audio door communication, expandable
- Optional selective door release control

Communication network

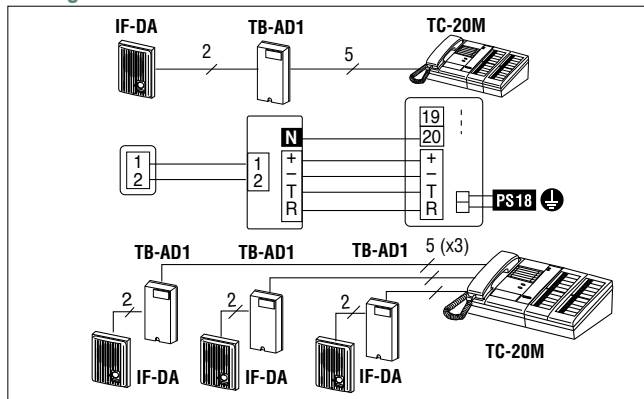


Pre-tone sounding or mute selectable at TB-AD10.

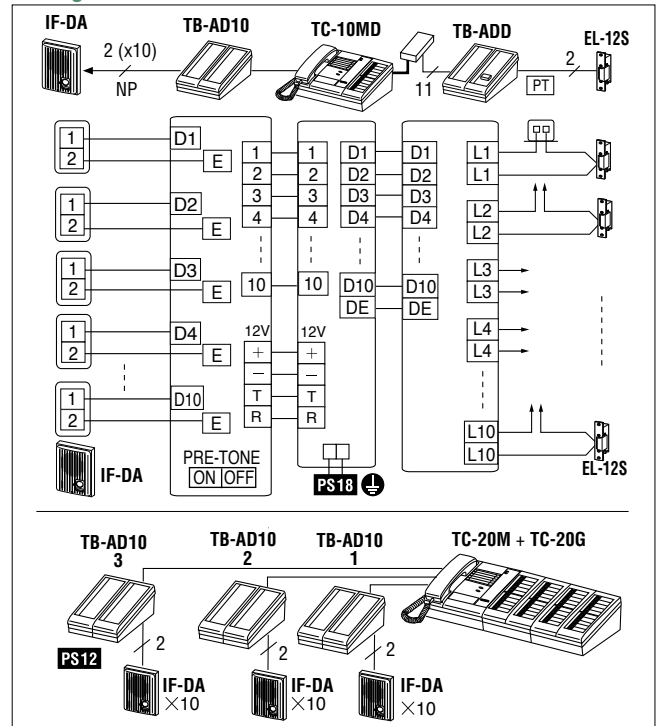
Unit dimensions



Wiring



Wiring



Multiple TB-AD10 installation; Add a power supply for TB-AD10 #3 or after.

PS18 : PS-1820S, PS-1820UL, PS-1820BF, PS-1820DM, PS-1820-O

Specifications (TB-AD10)

Power source	TB-AD10: 12V DC, supplied by TC-M.
Door capacity	10(TB-AD10). 1(TB-AD1).
Communication	Door calls in w/tremolo & LED 40 sec. Pick up and depress LED lit selector. Pretone sounds at door, or silenced.
Wiring	2 parallel wires to door, non-polarized. 4 common + no. doors, TC-M to adaptor.
Wiring distance	TC-M to TB-AD10 65m(0.65mmø) 150m(1.0mmø) TB-AD10 to IF-DA 150m(0.65mmø) 360m(1.0mmø)

60 MC-60/4A

Market-com station



MC-60/4A
Market-Com station

Market-com adaptor



MC-A/A
Zone page adaptor

Lineup

Paging speaker
w/built-in transformer
(locally available)

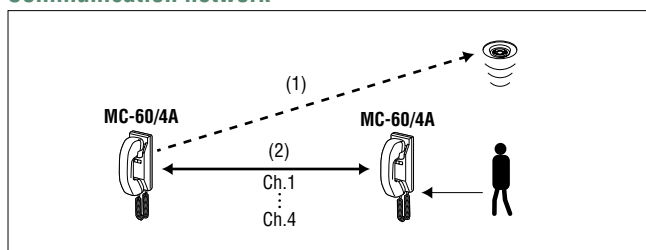
Power supply

PS-2420S PS-2420UL PS-2420BF
PS-2420DM PS-2420-O → P.137

Features

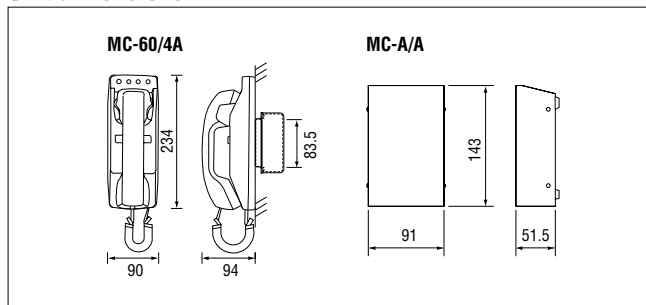
- Max. 60-station paging & communication system
- Selective 4 talk channels with in-use LED's
- Conference call among 3 stations
- Music cutout during paging
- Reinforced modular coil cord

Communication network



(1) Paging (2) Select a channel 1~4 paged, and communicate.

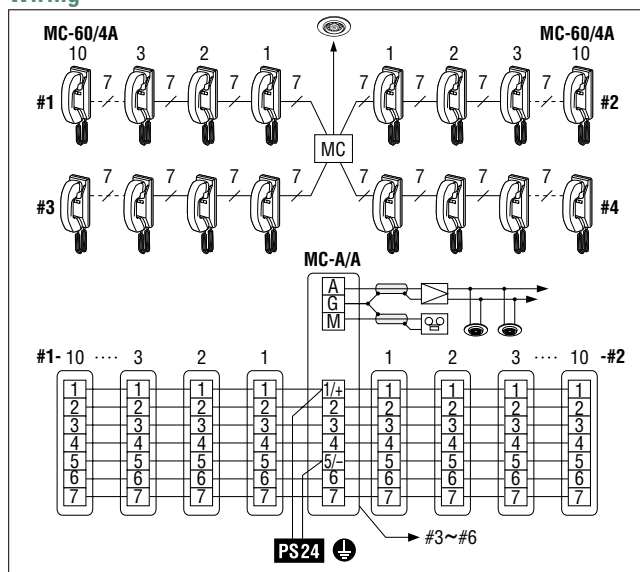
Unit dimensions



Specifications (MC-A/A)

Power source	24V DC, supplied by PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-O
Amp. input	AUX 10KΩ, 0.3V~0.5V
Music source output	Range 100mV~1.2V, 10KΩ or less

Wiring



Station blocks #1~6 of max. ten MC-60/4A's

PS24 : PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-O

Specifications (MC-60/4A)

Power source	24V DC, 70mA max. (in page).
Power supply	PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-O at MC-A/A.
Communication	Pick up and depress channel selector 1~4 and page w/PAGE button. Called party picks up and presses lit LED channel button.
Talk channel	4 and a separate paging channel.
Wiring	7 wires in loop, non-twisted.
Cable specified	Line capacitance less than 25pF/30cm.
Wiring distance	MC-A/A to MC-60/4A(*) 500m(0.65mmØ) 750m(0.8mmØ) Total wiring distance 1500m(0.65mmØ, 0.8mmØ)

(*) MC-A/A to farthest MC-60/4A, or between two farthest MC-60/4A's of different blocks.

A simple communication system sati of needs in medical and commercial

NIM SYSTEM SYSTEM FEATURES ■ All call and group call ■ Call log ■ Powerful sound ■ 20/40/60/80 call capacity ■ Large variety of sub stations ■ Durability and reliability

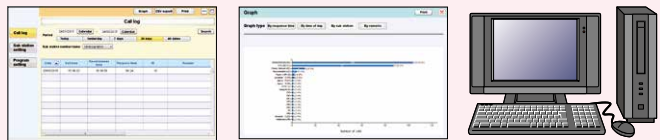
NURSE CALL SYSTEM

Provides reliable communication and enhances the quality of care.



Individual communication with patients is possible by using the bedside handheld sub station.

Call history can be traced and analysed by PC.

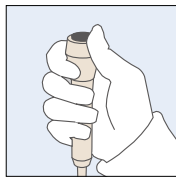


Features

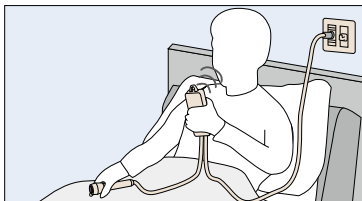
Communication with patients



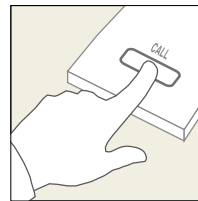
Push the call button.



Bedside handheld sub station NI-RC



Bedside handheld sub station is used to communicate with the nurse station.



Sub station, surface mount NI-BA

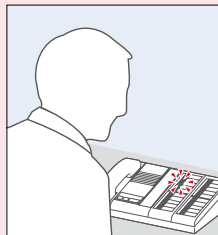
The desk mount sub station can also be used for calls and communication.

CALL TALK

When a call is received, the indicator blinks to notify where the call is made from.



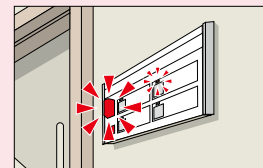
Master station



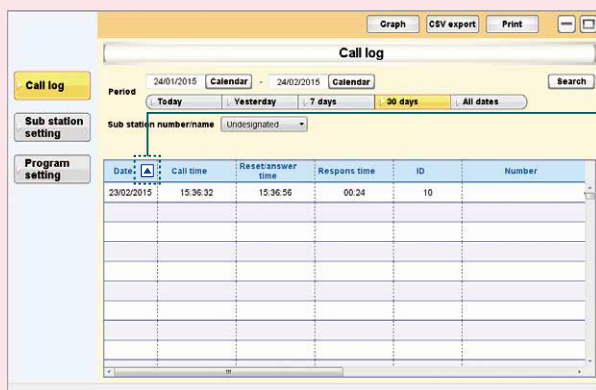
Lighted lamps in corridor enable nurses to notice calls easily and respond to the patient quickly.



Corridor light with nameplates, 4 names NIR-34



Call log software



List and search from call history

Date Call time Reset/answer time

Call history can be searched by date, call time, sub station number, etc.

Name/Remarks
Seiji Yokoi, diabetes, check hourly
Taylor Wyatt, pneumonia, check daily
Isolation room, NO ENTRY

Additional information can be freely entered in the "Name/Remarks" field.

➔ Search results can be printed out or exported into CSV-format files.

Deploying a broad range of fields.



COMMUNICATION SYSTEM

Used in a wide range of environments such as highway toll gates and schools.



Outdoor sub station and newly designed indoor sub station.



Broadcast option is available.

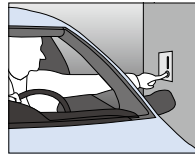
Features

Sub stations for indoors & outdoors

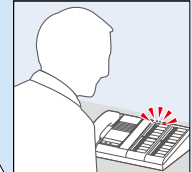
Large button allows easy operation. Communication is enabled by a single push of the button.



Flush mount sub station is weather- and vandalism-resistant.



When a call is received, the call indicator blinks to signify which location is sending the call.



CALL TALK



Master station

The call indicator on the sub stations provides visual indication of call status. Lit while being called, off during communication.

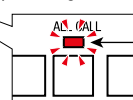
Broadcast

● Broadcast to all stations

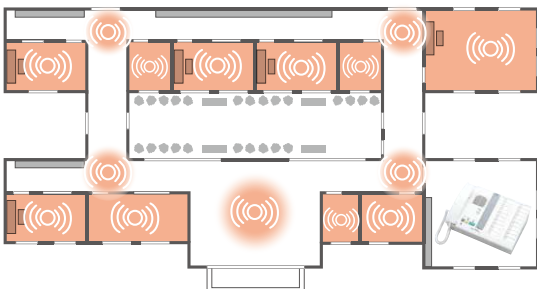
Broadcasting to all sub stations is possible.



Push the **ALL CALL** button. Then start broadcasting by using the handset or pressing the **TALK** button.



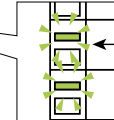
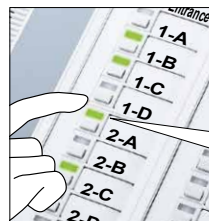
Lights up in red.



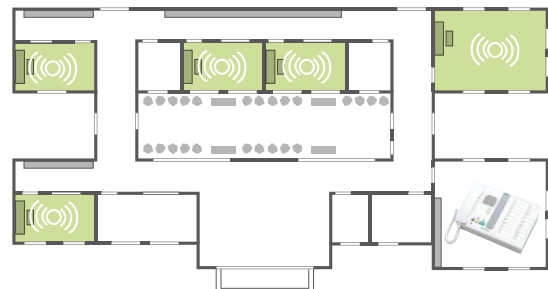
A pre-tone is heard at all the sub stations before the broadcast.

● Group broadcasts to selected stations

Broadcasts limited to selected stations are possible. Push the station selector button(s) for the target sub station(s).



The call-in indicator(s) for the selected station(s) blink(s) in green.



Group broadcasts can be made to up to 5 sub stations.

Nurse Call, Communication System

MASTER

SUB

1

80

NIM

Master station



NIM-20B
Master station, 20-call



NIM-40B
Master station, 40-call

NIM-60B
Master station, 60-call (special order product)

NIM-80B
Master station, 80-call (special order product)

Power supply

IS-PU-S IS-PU-UL → P.135

Call button, wall jack



NIR-8
Bedside call switch



NIR-1
Wall jack for NIR-8



NIR-MB
Wall jack with microphone for NIR-8



NIR-7BS
Call latching wall jack for NIR-8



NIR-6
Call button

Sub station



NI-RC
Bedside handheld sub station



NIR-HP
Wall jack for NI-RC



NIR-HPF
Wall jack with hanger for NI-RC



NI-BA
Sub station, surface mount



NI-JA
Sub station, flush mount



Ceiling speaker



NI-LB
Ceiling speaker

Ceiling microphone



NI-SB
Ceiling microphone

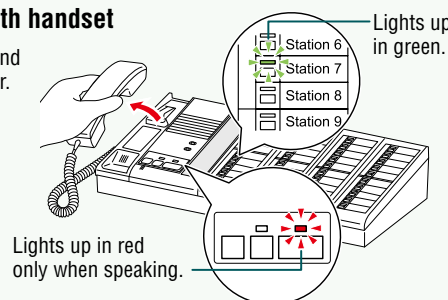
Features

- Can be used as a nurse call system for providing calls from patient rooms and bathrooms to a nurse station.
- PC connection makes it possible to check call history. (NI-SOFT required)
- Single bed communication: Communication system using a speaker and a microphone at every bed.
- Multiple-user communication: Communication system using a ceiling speaker and a microphone for communication with the entire room.
- When a call is received, the indicator blinks to notify where the call is made from.
- Lighted lamps in corridor enable nurses to notice calls easily and respond to the patient quickly.
- Can also be used in challenging conditions and noisy environments.
- Can be utilized to broadcast announcements to selected stations or all stations.

Using the system at the master station

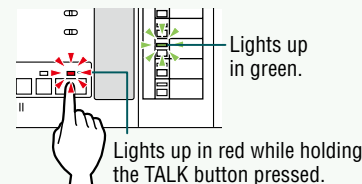
Answering with handset

Lift the handset and talk with the caller.



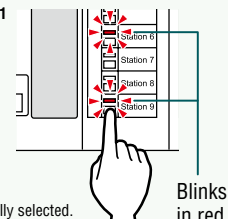
Answering in open voice mode

Push and hold **TALK** to begin talking with the caller. Release **TALK** to listen.



When receiving two or more calls*1

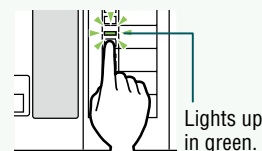
Push the station selector button to select the desired call.*2 Then, talk with the caller by using the handset or pressing the **TALK** button.



*1 : Maximum of 10 calls can be received simultaneously.
*2 : If this step is skipped, the first-arrived call is automatically selected.

Calling a single sub station

Push a call selector button to call the desired sub station. Then, talk with the caller by using the handset or pressing the **TALK** button.



LE

DB

AT

YAZ

TD

IMU

TC

MC

NIM

NHX

Corridor light, reset button



NIR-4
Corridor light, single bed



NIR-2
Call reset button



NIR-4BZ
Corridor light with buzzer



NIR-42
Corridor light with reset button

NIR-4S
Corridor light, multiple beds



NIR-31
Corridor light with nameplate, 1 name



NIR-32
Corridor light with nameplates, 2 names



NIR-34
Corridor light with nameplates, 4 names

Bathroom call button



NIR-7W
Bathroom call button



NIR-7HW
Bathroom call button with pull cord

Call extension speaker



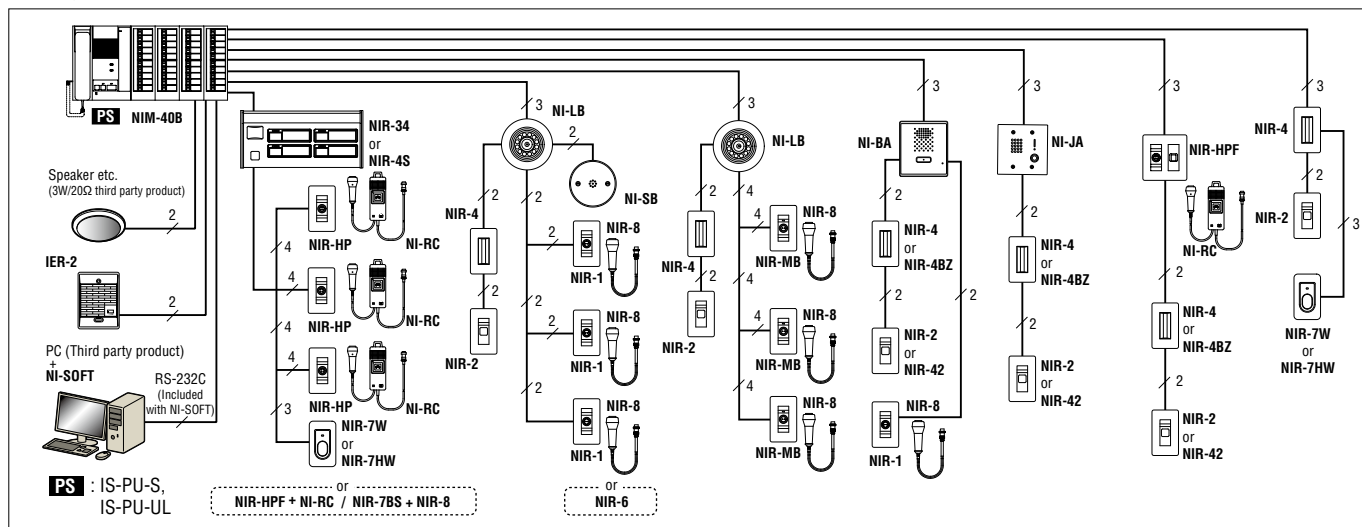
IER-2
Call extension
→P.134

PC application

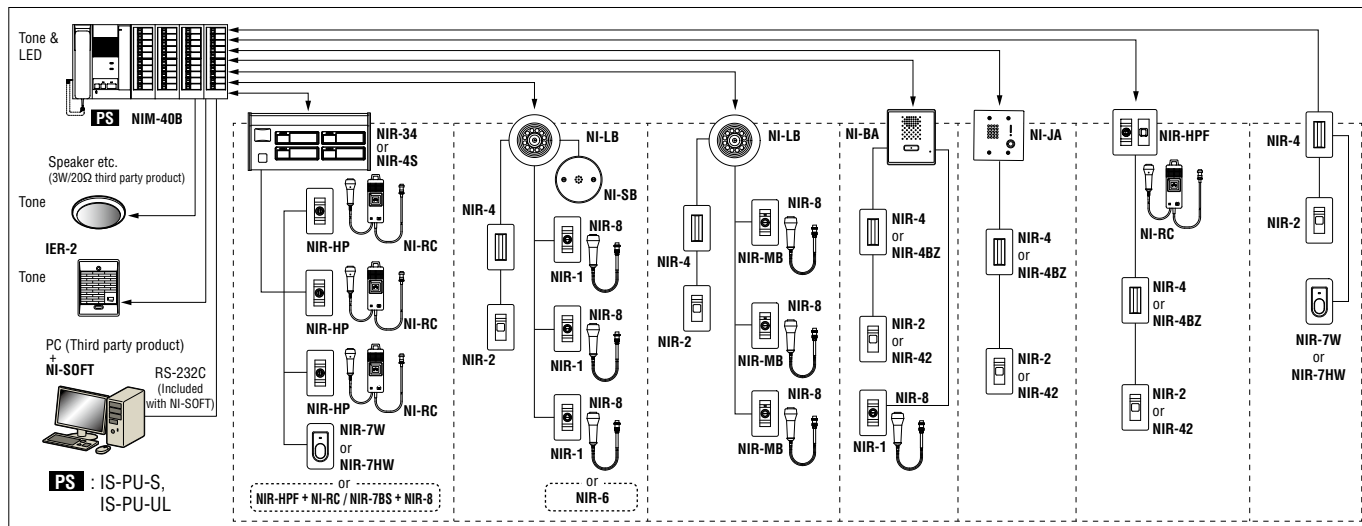


NI-SOFT
Call log software

Wiring



Communication network



LE

DB

AT

YAZ

TD

IMU

TC

MC

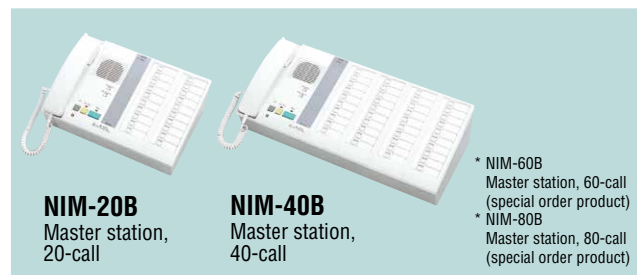
NIM

NHX

Nurse Call, Communication System

NIM Components

Master station



NIM-20B
Master station,
20-call

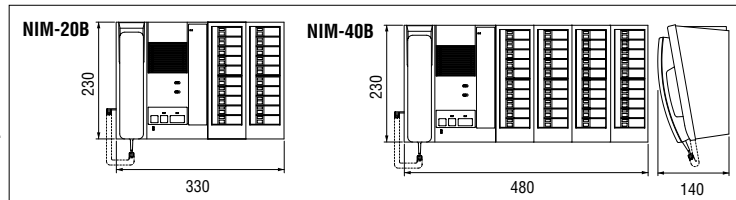
NIM-40B
Master station,
40-call

* NIM-60B
Master station, 60-call
(special order product)
* NIM-80B
Master station, 80-call
(special order product)

Specifications

Power source	48 V DC (supplied by IS-PU-S, IS-PU-UL)
Communication	Handset: Voice-actuated communication Open voice: Push-to-talk (PTT)
Material	Panel: Fire-retardant plastic Chassis: Steel steel SPCC

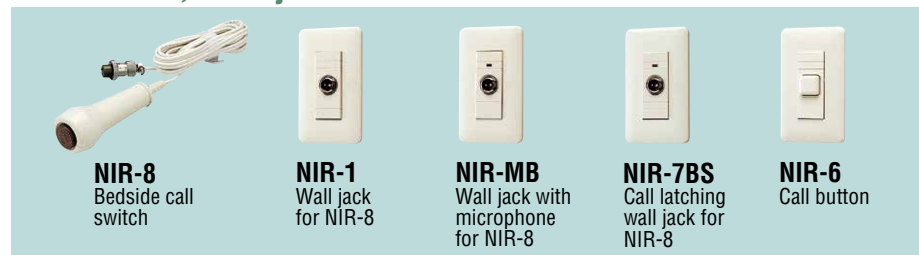
Unit dimensions



Features

- Two-way communication between master station and sub stations.
- When a call is received, the indicator blinks in red. Communication is indicated with green light.
- Broadcast to all stations by pushing ALL CALL button.
- Group broadcasts up to 5 selected stations.

Call button, wall jack



NIR-8
Bedside call
switch

NIR-1
Wall jack
for NIR-8

NIR-MB
Wall jack with
microphone
for NIR-8

NIR-7BS
Call latching
wall jack for
NIR-8

NIR-6
Call button

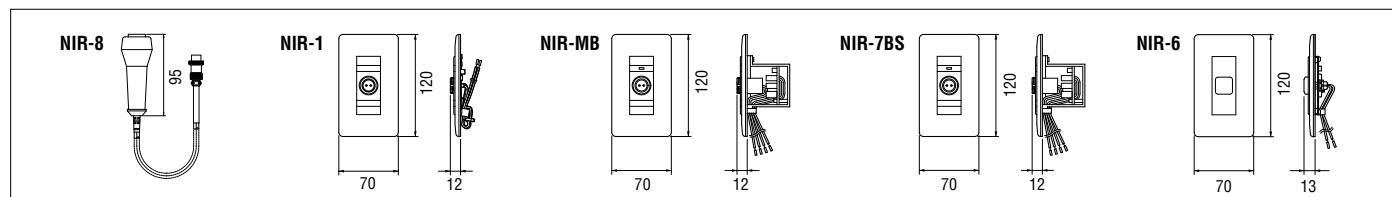
Specifications (NIR-8)

Material	Plastic and Metal plug
----------	------------------------

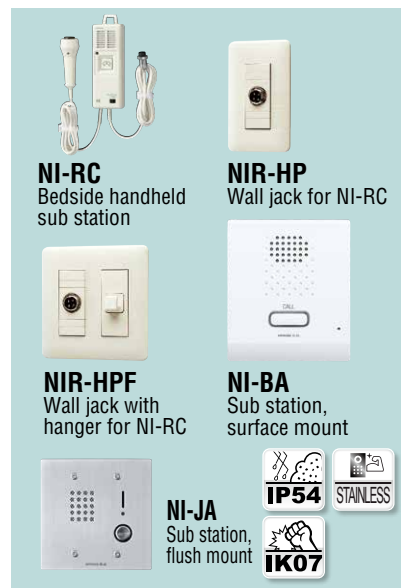
Specifications (NIR-1, NIR-MB, NIR-7BS, NIR-6)

Power Source	Supplied from the master station
Mounting	Wall (flush)-mount
Electrical box	1-gang box
Material	ABS plastic

Unit dimensions



Sub station



NI-RC
Bedside handheld
sub station

NIR-HP
Wall jack for NI-RC

NIR-HPF
Wall jack with
hanger for NI-RC

NI-BA
Sub station,
surface mount

NI-JA
Sub station,
flush mount



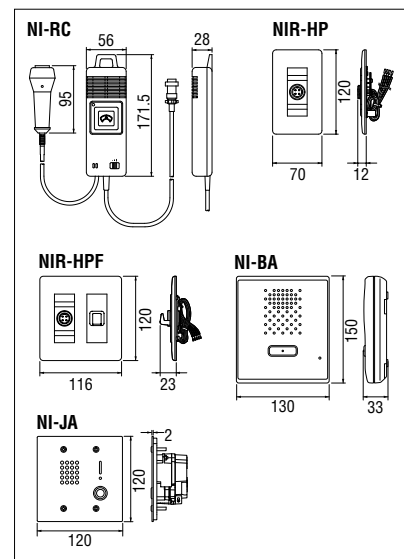
Features

- The handheld sub station is equipped with a microphone and speaker, enabling communication with individual users.
- The flush mount sub station is vandalism- and weather-resistant.
- Surface and flush mount sub stations can also be used in noisy environments.

Specifications

Power source	Supplied from the master station
Communication	NI-RC, NI-BA, NI-JA: Open voice hands-free auto-voice actuation
Mounting	NIR-HP, NIR-HPF: Wall (flush)-mount NI-BA: Desktop use or wall (surface)-mount NI-JA: Flush-mount
Electrical box	NIR-HP, NI-BA: 1-gang box NIR-HPF, NI-JA: 2-gang box
Material	NI-RC: Plastic and Metal plug NIR-HP, NIR-HPF: ABS Plastic NI-BA: Fire-retardant ABS plastic NI-JA: Front panel: Stainless steel Main unit: Flame resisting PC+ABS resin
IP rating	NI-JA: IP54
IK rating	NI-JA: IK07

Unit dimensions



Ceiling speaker



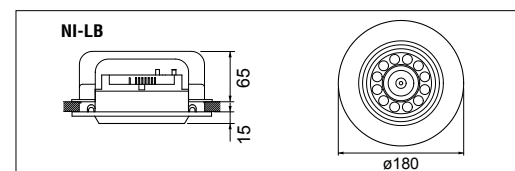
NI-LB
Ceiling speaker

* NIR-MB or NI-SB is required in order to communicate with the master station.

Specifications

Power source	Supplied from the master station
Mounting	Flush-mount on the ceiling
Material	ABS plastic

Unit dimensions



Ceiling microphone

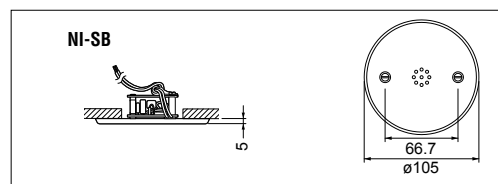


NI-SB
Ceiling microphone


Specifications

Power source	Supplied from the master station
Mounting	Flush-mount on the ceiling
Material	Stainless steel


Unit dimensions




Corridor light, reset button




NIR-4
Corridor light, single bed




NIR-4S
Corridor light, multiple beds




NIR-2
Call reset button




NIR-4BZ
Corridor light with buzzer




NIR-42
Corridor light with reset button



NIR-31
Corridor light with nameplate, 1 name



NIR-32
Corridor light with nameplates, 2 names



NIR-34
Corridor light with nameplates, 4 names

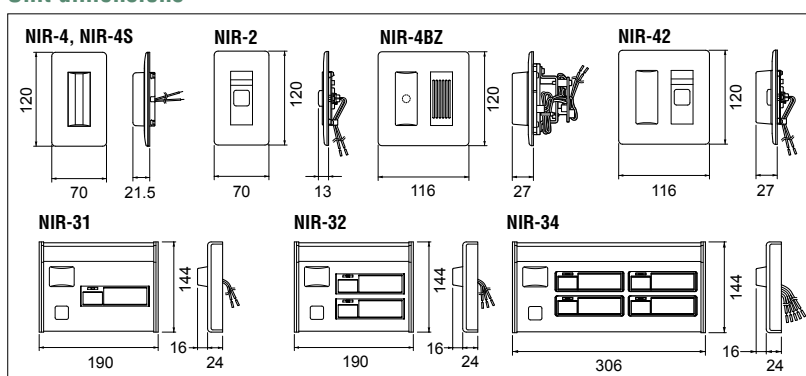
Features

- Call indicated by red light.
- Reset a call by pushing the reset button. (NIR-42, NIR-31, NIR-32, NIR-34)
- Buzzer-equipped corridor light notify calls with buzzer sound. (NI-4BZ)
- Easy identification of patients or areas by using the corridor lights with nameplates. (NIR-31, NIR-32, NIR-34)


Specifications

Power source	Supplied from the master station
Mounting	NIR-4, NIR-4S, NIR-2, NIR-4BZ, NIR-42: Wall (flush)-mount NIR-31, NIR-32, NIR-34: Wall (surface)-mount
Electrical box	NIR-4, NIR-4S, NIR-2: 1-gang box NIR-4BZ, NIR-42, NIR-31, NIR-32: 2-gang box NIR-34 :3-gang box
Material	NIR-4, NIR-4S, NIR-4BZ, NIR-42: Fire-retardant ABS plastic NIR-2: ABS plastic NIR-31, NIR-32, NIR-34: SPCC


Unit dimensions



Bathroom call button



NIR-7W
Bathroom call button

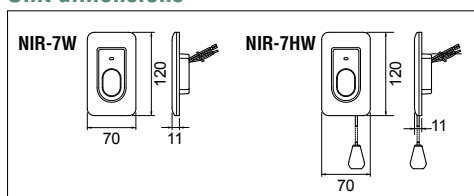


NIR-7HW
Bathroom call button with pull cord

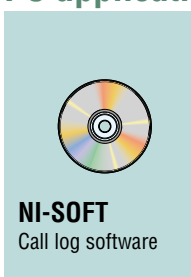
Specifications

Power source	Supplied from the master station
Mounting	Wall (flush)-mount
Electrical box	1-gang box
Material	Fire-retardant ABS plastic
IP rating	IPX4

Unit dimensions



PC application



Features

- The displayed call history headings are Date, Call time, Reset / answer time, Response time, ID, Number and Name- Remarks.
- Automatically create graphs from call history:
 - ① Number of calls from sub stations
 - ② Number of calls during different times of day
 - ③ Response time for calls

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System requirements for PC

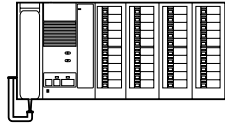
OS	Windows 7 Home Premium / Professional /Ultimate(Service Pack1,32/64bit), Windows 8.1/ Pro (32/64bit), Windows 10 Home / Pro (32/64bit)
Processor	2.7 GHz or higher
System memory (RAM)	2 GB RAM or higher
Hard drive	100 MB or more (Additional space is needed during installation.)*1
Requirements	<ul style="list-style-type: none"> •RS232C port installed on the PC or an add-in board •CD-R readable drive •A PC operable 24 hours a day •Display : 1024 (W) x 768 (H) or higher, 16-bit color or higher •Font : Arial •Run-time : Microsoft®.NET Framework 4.5

- The application may not run or may not operate correctly (such as freezes occurring) on a PC with specifications below the necessary requirements.
 - We recommend using a PC that exceeds the basic system requirements.
- *1 : If the software is to be installed onto a drive other than C:drive, both the C:drive and the installation drive each require 50 MB or more of memory.

Nurse Call, Communication System

Wiring

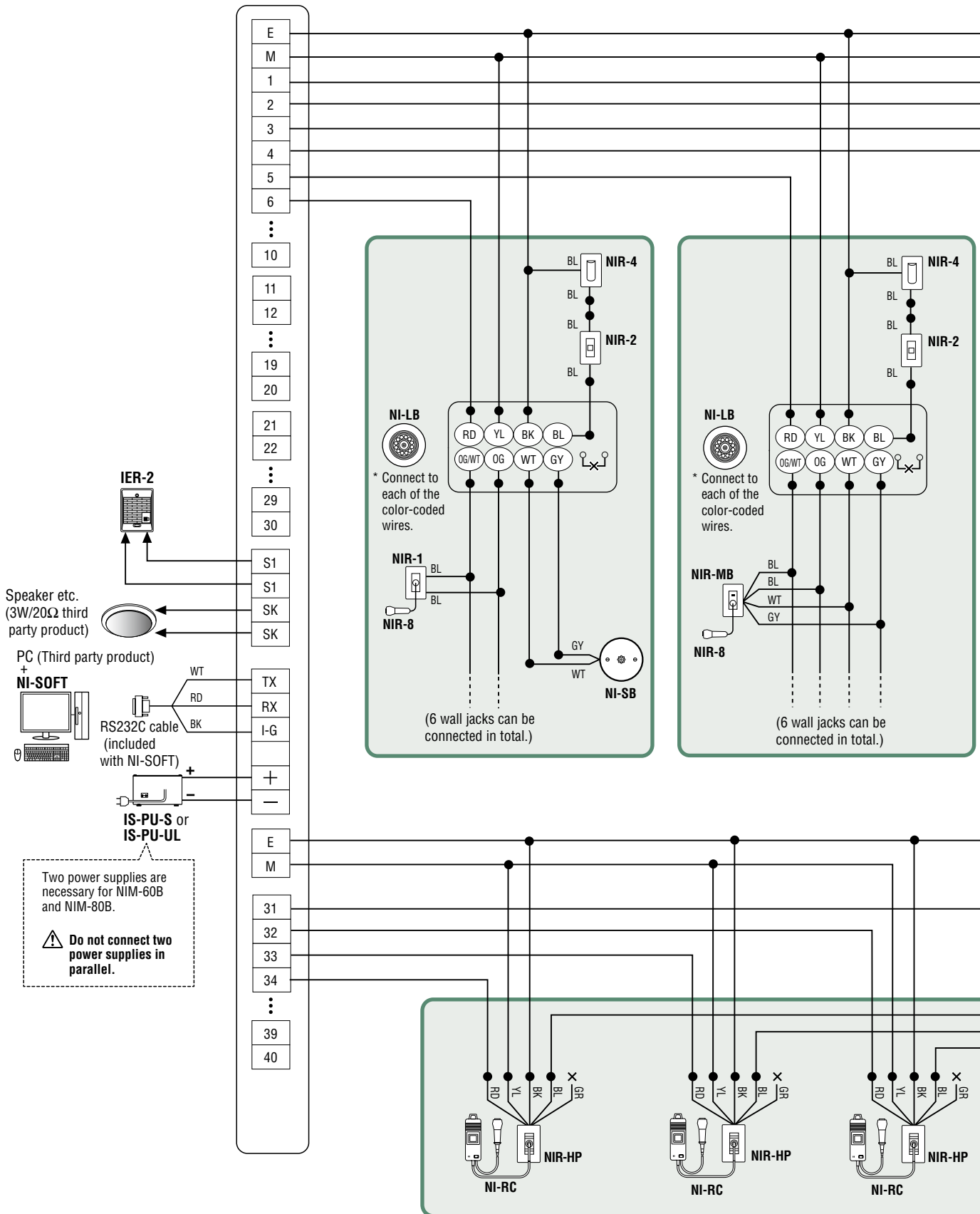
NIM-40B



or

- NIM-20B
- NIM-60B*
- NIM-80B*

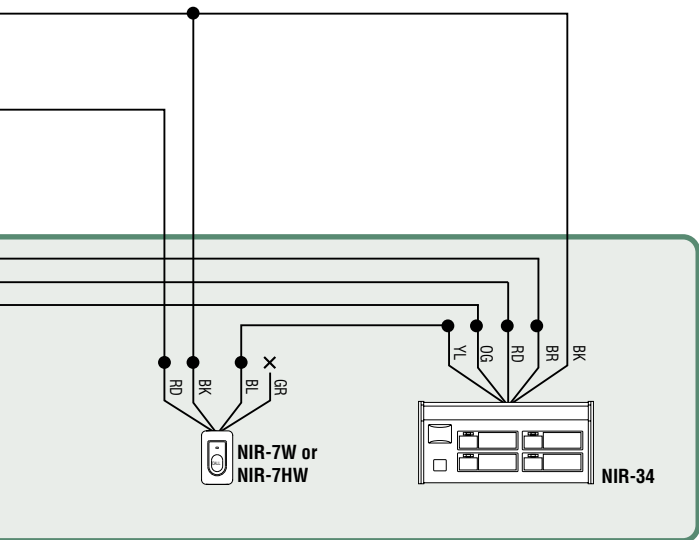
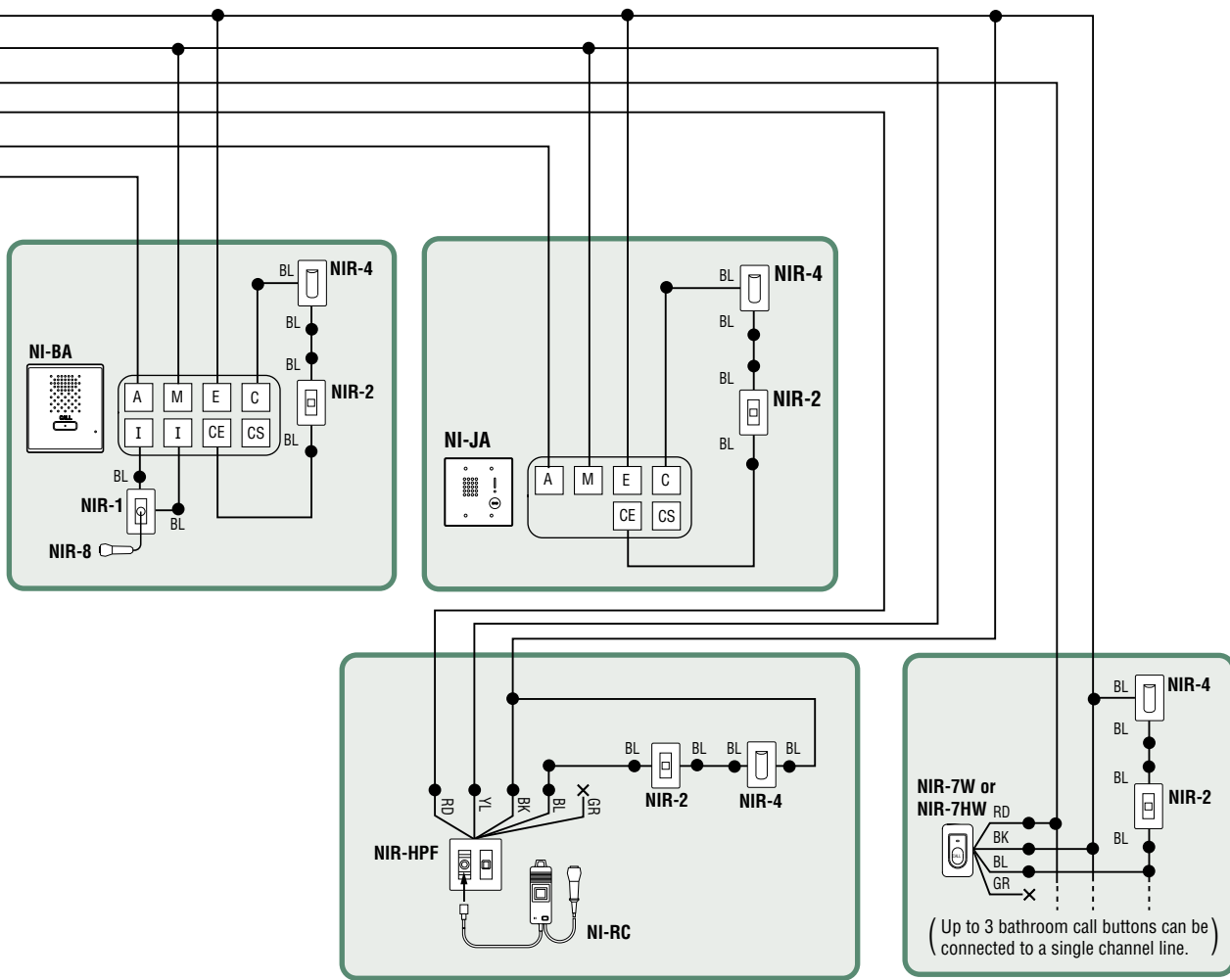
*Special order product.



● : Wire-to-wire connection
 ✕ : The wire should be cut and insulated

Wire color identifications

BR: Brown BL: Blue
 RD: Red GY: Gray
 OG: Orange WT: White
 YL: Yellow BK: Black
 GR: Green



System capacity

The number of sub stations is subject to the type of master station.

Master station		Sub station (Qty)	Power supply (Qty)	Personal computer (Qty)
Model	Qty			
NIM-20B	1	20	1	1
NIM-40B	1	40	1	1
NIM-60B*	1	60	2	1
NIM-80B*	1	80	2	1

* Special order product.

Wiring distance

	Wire diameter	Maximum distance
Master station - sub station	Ø0.65mm (22 AWG)	130m (425')
	Ø0.9mm (18 AWG)	200m (650')
Master station - power supply	Ø0.9mm (18 AWG)	10m (33')
Master station - call extension speaker (IER-2), speaker etc.	Ø0.9mm (18 AWG)	50m (165')

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Nurse Call

MASTER **1** SUB **80** **NHX**

*Not available in Europe, Australia, nor New Zealand

Master station



NHX-50M
50-call master station

Add-on selector

- NHX-30G**
30-call add-on selector
Plugs into NHX-50M
- NHR-30K**
30-call add-on trunk card

Central control unit



NHX-80X
Central control unit

Duty station



NHR-SP
Duty station

Power supply

PS-2420S PS-2420UL PS-2420BF PS-2420DM PS-2420-O → P.137

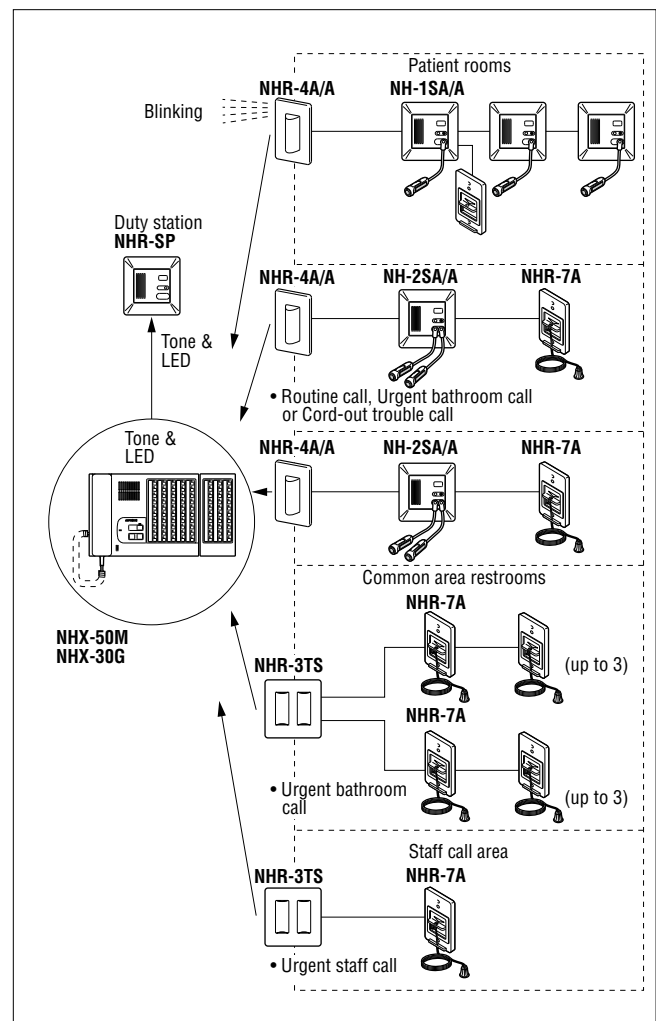
Features

- One master, up to 80 sub stations. Single and dual patient stations
- Multi-station capability per patient room
- Three types of call-ins from patient stations: Routine call, Bathroom call & Cord-out trouble call, identified by tone & blinking LED (w/priority according to urgency and time of call)
- NHR-3TS Common Area Call station is used for common area bathroom call or staff call (urgent)

Communication

1. At NHX-50M master, when called by a bedside sub, either lift handset or press TALK once to establish talk channel. To initiate a call, press the selector button of the sub. At the sub, pretone sounds and TALK is lit green. Corridor and zone lights do not turn on.
To silence the tone, press TONE-OFF button. Tone will resume after 90 seconds or when new call is placed.
2. Corridor lamp turns on with any type of call placed by sub station area. When talk channel is established, the light will turn off.
3. A call from NHR-3TS is of the same level as Urgent bathroom call. (no verbal communication)

Communication network



Sub station



NH-1SA/A
Single-jack bedside sub station



NH-2SA/A
Dual-jack bedside sub station



NHR-3TS
Calling zone light

Corridor lamp



NHR-4A/A
Corridor lamp w/red & white lamps



NHR-8C
Bedside call switch

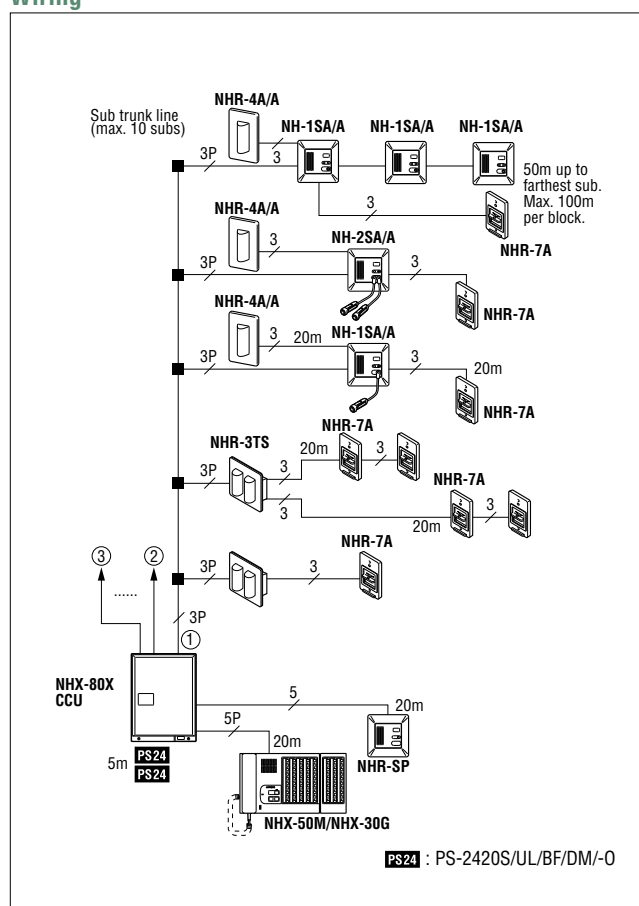


NHR-7A
Staff call / bathroom call switch
(pullcord included)

Call tone & light annunciation

TYPE OF CALL	TONE	LIGHT
Routine call At NHX-50M (& at Duty station) At Bedside sub At Corridor lamp	Single chime, every 6 sec. — —	Blinking, every 2 sec. 'CALL' steadily lit White lamp steadily lit
Urgent bathroom call or NHR-3TS At NHX-50M (& at Duty station) At Bedside sub At Corridor lamp	Single chime, every 2 sec. — —	Double blinking, every 1.8 sec. 'CALL' steadily lit Red lamp Blinking
Cord-out trouble call At NHX-50M (& at Duty station) At Bedside sub At Corridor lamp	Single chime, every 0.5 sec. — —	Blinking fast, every 0.4 sec. 'CALL' steadily lit White lamp Blinking
NHR-3TS in common area Bathroom call (urgent) Staff call (urgent)	— —	Red blinking (2 lamps) White blinking (one lamp)
Line-off trouble at NHX-50M Line-off at bedside sub Line-off at Duty station	Slow buzzer, intermittent Faster buzzer, intermittent	Lit 0.2 sec., every 2 sec. No light

Wiring



Sub trunk line: 6 wires (3P).
 Each zone requires a separate common wire from NHX-80X.
Use twisted pairs with an overall shield, low capacitance, 0.65mm dia., solid conductors. (Rated capacitance level of wire: 25pF/30cm or less)

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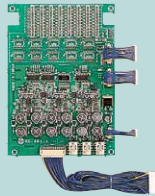
NHX Components

*Not available in Europe, Australia, nor New Zealand

Central control unit



NHX-80X
Central control unit
• UL listed: UL 1069

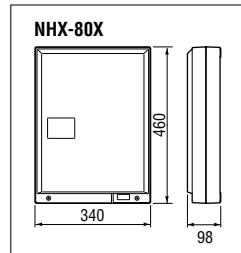


NHR-30K
30-call add-on trunk card
• UL listed: UL 1069

Features

Connect one NHX-50M and up to 80 sub stations. 1 ~ 8 trunk lines of up to 10 stations per trunk connected inside CCU. (3 pairs) 5 pairs to Master station. Terminates duty station, and power supplies(2). After installation, the NHX-80X must be initialized. During use, turn power switch off and back on to reset. Install NHR-30K Expansion Trunk Card when NHX-30G is used.

Unit dimensions



Specifications (NHX-80X)

Power Source	24V DC, 4A max.
Power supply	2 pcs PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-O
Station capacity	50 sub stations (max. 80 with NHX-30G & NHR-30K).
Calling	Routine call, Urgent bathroom call & Cord-out trouble call. Up to 5 calls can be displayed on NHX-50M.
Communication	Single and private talk channel. Press-to-talk or handset voice-actuation
Call-in priority	(1) Cord-out trouble call, (2) Urgent bathroom call and NHR-3TS common area bathroom call or staff call, (3) Routine call. Subs' call-ins on standby connected according to urgency level and time of call.
Warning tones	(1) Line-off trouble at Bedside or NHR-3TS sub & Duty station. (To stop tone on the Duty station, plug in, 2-pin jumper to CN104 in CCU).(2) 90 sec. elapse timer: Call tone goes up to HIGH level.(3) 90 sec. off-hook timer: Steady tone will notify that handset is off-hook.
Wiring	3 twisted pairs, CCU to Sub trunks 1~8. 5 twisted pairs, CCU to NHX-50M. 6 wires (parallel), CCU to NHR-SP. Use twisted pairs with an overall shield, low capacitance, 0.65mm dia., solid conductors. (Rated capacitance level of wire: 25pF/30cm or less)
Wiring distance	CCU to Sub (farthest) 50m(0.65mm) Sub trunk line 100m(0.65mm) CCU to NHX-50M 20m(0.65mm) CCU to Duty station 20m(0.65mm) CCU to PS-2420S/UL/BF/DM/-O 5m(1.0mm)
Mounting	3-gang wall-mounting. Or inside Electrical Enclosure with secured door (Provide a suitable, non-combustible mounting surface).

Master station



NHX-50M
50-call master station
• UL listed: UL 1069

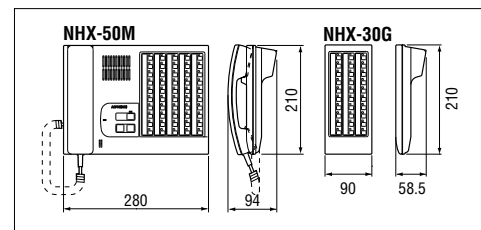


NHR-30G
30-call add-on selector
• UL listed: UL 1069

Features

Extremely compact 50-call desk console. Open voice communication with TALK button, or handset (voice-actuated). When called, simply press TALK or pick up handset to establish channel. Otherwise, press TONE-OFF button and go to calling location. To initiate a call, press a selector button first. NHX-30G is a 30-call add-on selector. Plugs into NHX-50M.

Unit dimensions



Specifications

Wiring	10-pin plug in connector (to NHX-80X). Provided with preset volume controls. Can verify connection of all sub stations.
Wiring distance	Install within 20m from CCU.

Duty station

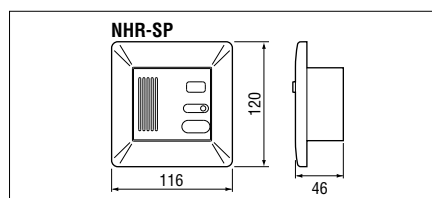


NHR-SP
Duty station
• UL listed: UL 1069

Features

Acknowledges any station call with tone and blinking LED. Go to the NHX-50M. Press TONE-OFF and identify the caller at Master station.

Unit dimensions



Specifications

Mounting	2-gang semi-flush mounting.
Wiring	CN1 (6 pin) to NHX-80X. When NHR-SP is installed, unplug Connector from CN104 on NHX-80X.

Bedside sub station



NH-1SA/A
Single-jack bedside sub station
• UL listed: UL 1069



NH-2SA/A
Dual-jack bedside sub station
• UL listed: UL 1069



NHR-3TS
Calling zone light
• UL listed: UL 1069



NHR-8C
Bedside call switch
• UL listed: UL 1069

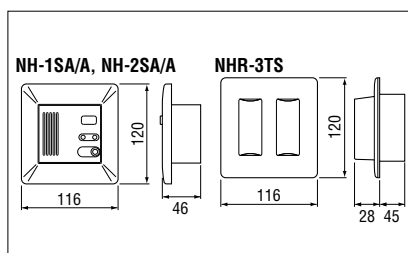
Features

Bedside station for calling and communication. Used with NHR-8C call cord. When call button is pushed, 'CALL' LED is lit red. When master replies, green 'TALK' LED is lit. Press CANCEL to reset the call. When NHX-50M calls in, pre-tone sounds and 'TALK' LED is lit green.

Specifications

Mounting	2-gang semi-flush mounting
Wiring	Sub Nos. 1 ~ 10 setting on SW1. CN1 (6 pin) to sub trunk line. CN2 (8 pin) for NHR-7A, NHR-4A/A.

Unit dimensions



Bathroom pullcord

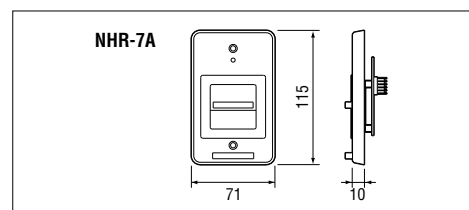


NHR-7A
Staff call / bathroom call switch (pullcord included)
• UL listed: UL 1069

Features

Mechanically locked calling device, used to place an urgent bathroom call from a patient room, common area bathroom or staff call location. Cannot be used alone, and must be used with NH-1SA/A, NH-2SA/A, or with NHR-3TS common area call station. Provides dry closure contact. Master-CALL LED indicates call placed. Ratings 24V DC, 100mA (min. 5mA or more).

Unit dimensions



Specifications

Mounting	Single-gang semi-flush mounting.
Wiring	3 wires to patient station or NHR-3TS.

Corridor lamp

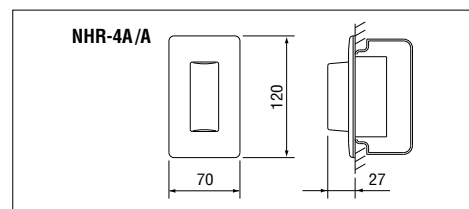


NHR-4A/A
Corridor lamp w/red & white lamps
• UL listed: UL 1069

Features

When a call is placed, the NHR-4A blinks red or is steadily lit white. Ratings: 24V DC (or more), 200mA max.

Unit dimensions



Specifications

Mounting	Single-gang semi-flush mounting.
Wiring	3 wires to Bedside sub station.

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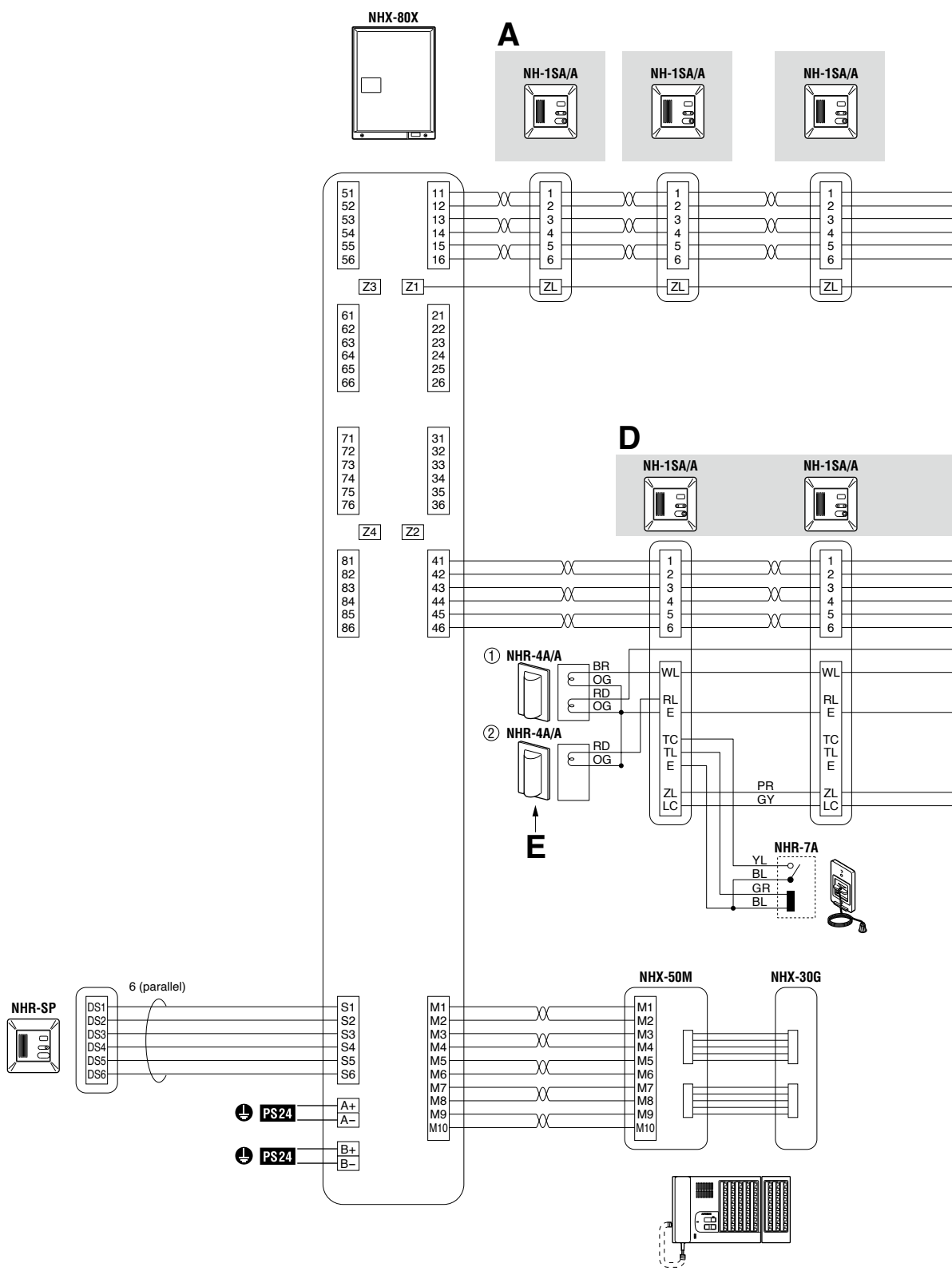
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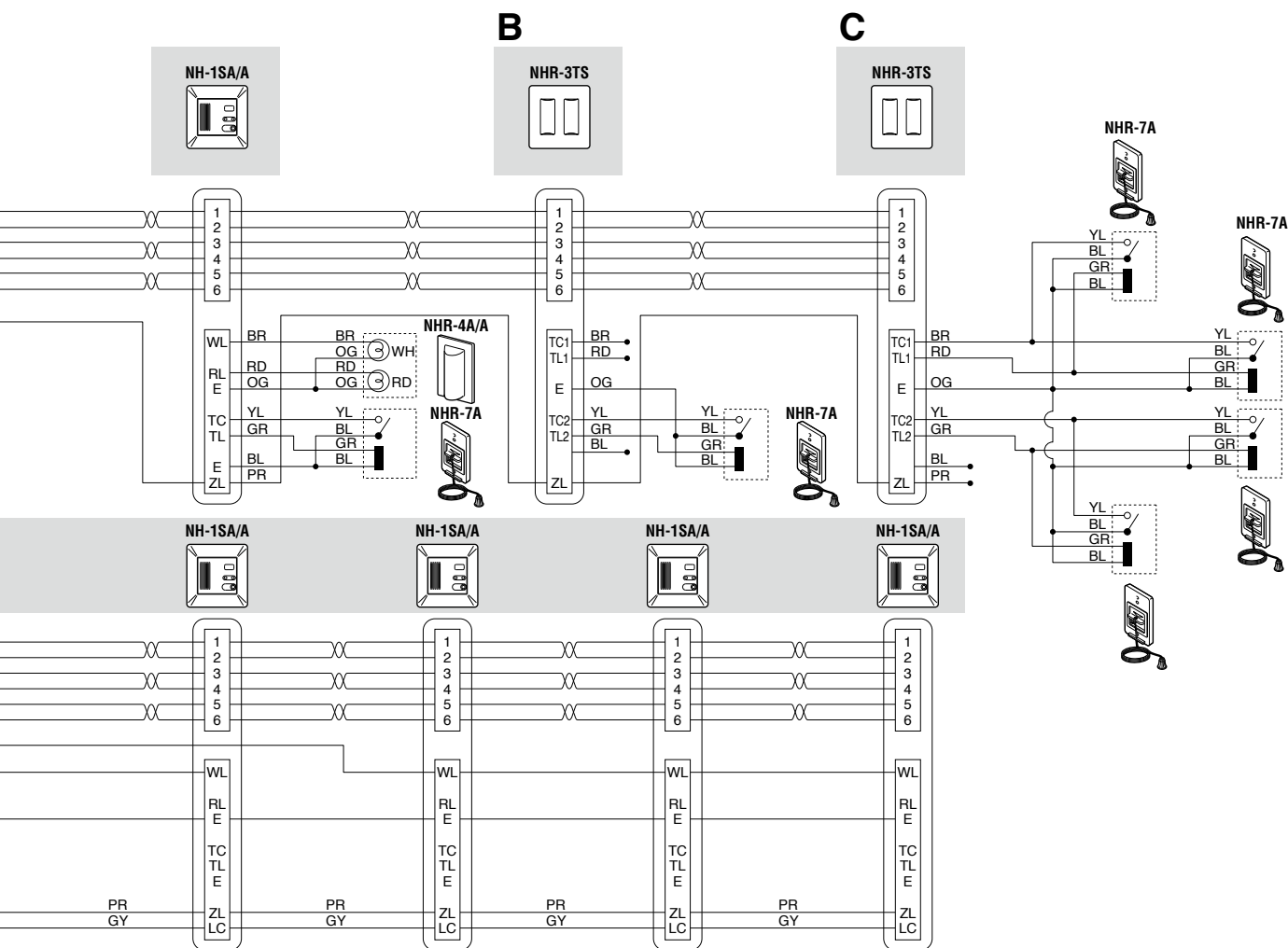
- A** Patient rooms w/a single bedside sub station
- B** Staff call (corridor)
- C** Bathroom call (common area)
- D** Patient rooms w/multiple bedside sub stations
- E** Corridor lamp NHR-4A/A

①: Two white lamps ②: One red lamp
 NHR-4A ② is required only when NHR-7A staff call / bathroom call switch is installed in a single and common bathroom.

PS24 : PS-2420S, PS-2420UL, PS-2420BF, PS-2420DM, PS-2420-O

Wire color identifications

NHR-4A/A BR: Brown OG: Orange RD: Red OG: Orange	NH-1SA/A BR: Brown RD: Red OG: Orange YL: Yellow GR: Green BL: Blue PR: Purple GY: Gray	NHR-3TS BR: Brown RD: Red OG: Orange YL: Yellow GR: Green BL: Blue PR: Purple
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Multi-station patient room applications

Multiple NH-1SA/A and NH-2SA/A bedside sub stations can be installed within a patient room, observing the following conditions;

1. Max. 6 bedside sub stations may be connected per room for max. 12 calls (when NH-2SA/A stations are used).
2. A corridor lamp inside (NHR-4A) must not be connected with more than 4 bedside sub stations.
3. Due to the above, install two NHR-4A/A corridor lamps when more than 4 sub stations are in one room, i.e. two WHITE lamps used in one NHR-4A/A, and one RED bulb used in the other NHR-4A/A.
4. NH-1SA/A and NH-2SA/A station numbers must be programmed in numerical order and connected to the same subs trunk line.
5. NHR-7A staff call / bathroom call switch is optional.

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Accessories

Access control

Surface mount



AC-10S

Vandal resistant access control keypad, surface mount



JO-DV, AC-10S
→ P.56

Flush mount



AC-10F

Vandal resistant access control keypad, flush mount

Power source
12-24V DC power supply
12-24V AC transformer

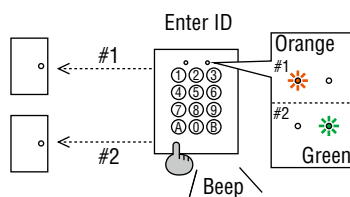
Features

- Two types of keypads are available.
AC-10S: Surface mount type AC-10F: Flush mount type
- AC-10S matches JO-DV and JP-DV, color video door stations.
- Vandal resistant panel, zinc die cast, and tamper proof screws are included.
- Two independent relay outputs (N/O or N/C) are available. When same access code is programmed for both #1 and #2, two relays activate simultaneously.
- Programmable up to 100 access codes* 4, 5, or 6 digits in length.
* #1: up to 60, #2: up to 40
- Keypad lockout: After too many incorrect access codes are attempted.
- Anti-tailgate: As soon as the door is closed after access is granted on #1, the door is locked even before programmed output time. Prevent sneak in.
- One push door release with external timer connection: While the external timer is on operation, access code is not required. Press "0" key only. Programmable #1 and/or #2.
- External output for alarming: When "Lockout" or "Forced entry" occurs, external output is available at #2.
- Two LED indicators show the status of the access control system.
- Illuminated keypad is easy to read.
- Audible key press

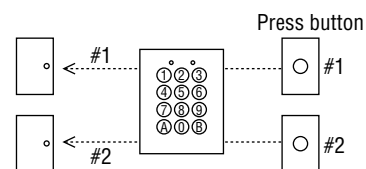
Features

- Activate door release (relay)

By keypad

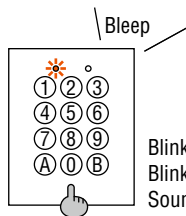


By request to exit/entry button



- Keypad lockout

The keypad is locked out after too many incorrect access codes are attempted.



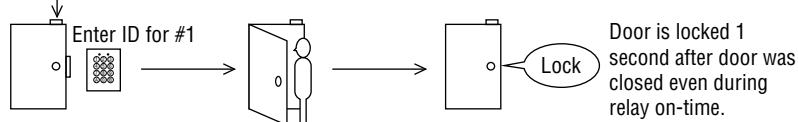
Programmable

- Incorrect access code: 10-99 times
- Lockout time: 10-99 seconds

Blink keypad 4 times
Blink LED (orange) programmed period
Sound buzzer approx. 3 seconds

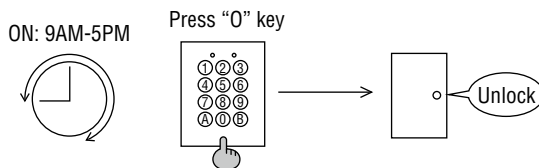
- Anti-tailgate

Door sense switch



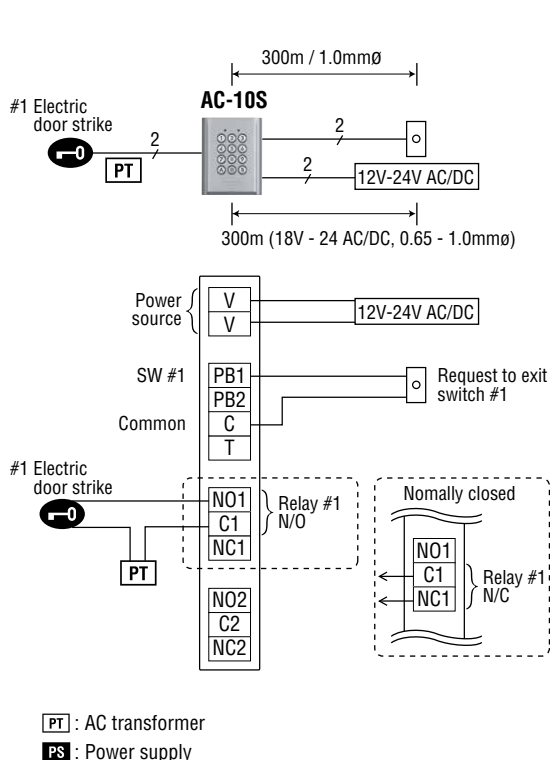
- One push door release with external timer connection

During the timer is on operation

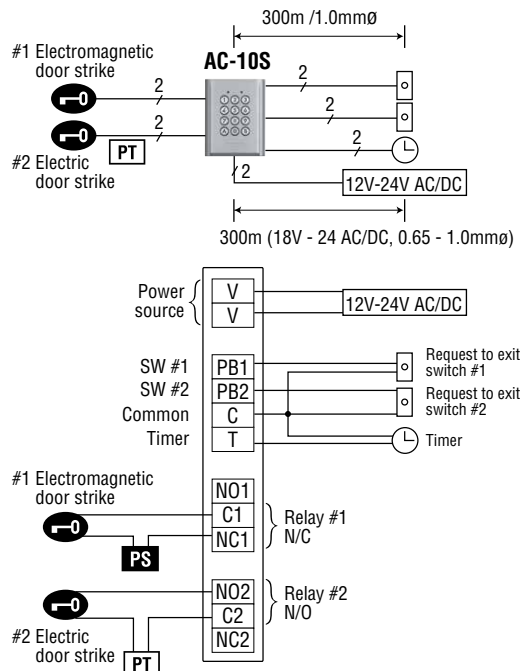


Wiring

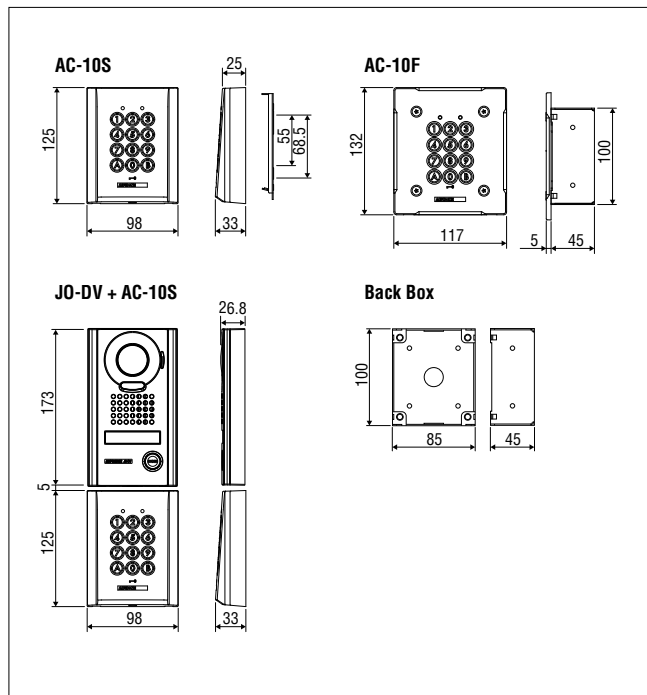
(1) Relay #1 (Normally open)



(2) Relay #1 (Normally closed) & Relay #2 (Normally open)



Unit dimensions



Specifications (AC-10S, AC-10F)

Power source	12 – 24V AC or 12 – 24V DC
Consumption	Max. 100mA
Relay	Output: 2 Contact rating: 24V AC/DC, 3A (resistive load), 1A (inductive load) Dry contact: Normally open or Normally closed Operating time: From 1 second to 99 seconds
Access code	Number: Up to 100 (#1: 60, #2: 40) Code length: From 4, 5, or 6, (0 ~9, A, B)
Wiring	Two conductors
Wiring distance	Access control ~ Power source: 100m (12V – less than 18V AC/DC, 0.65 – 1.0 mmø) 300m (18V – 24V AC/DC, 0.65 – 1.0 mmø) Access control ~ Request to exit button 300m (0.65 – 1.0 mmø)
Environment	Weather resistant (IP54 equivalent)
IP rating	IP54

Accessories

Call extension



IER-2
Call extension

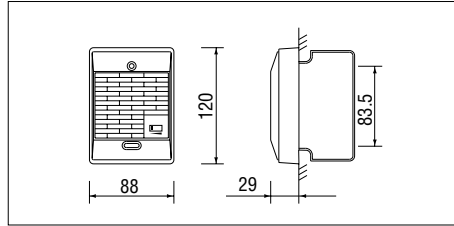
Features

- Announces (chime) call tone only, adjustable
- Indoor mounting

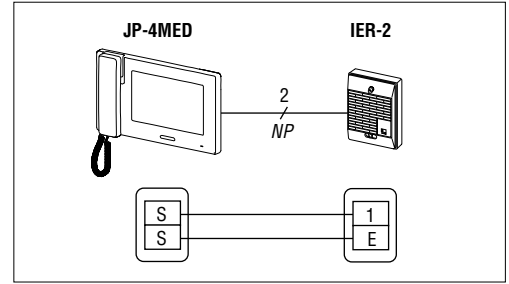
Used for

JP-4MED, JO-1MDW, JO-1MD, JO-1FD
DB-1MD
IE series
TC-M
NIM

Unit dimensions



Wiring



Door release



EL-12S
Electric door strike



RY-PA
Door release relay

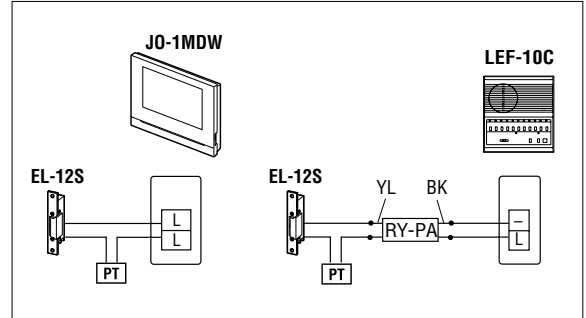
Features

- Door release activation, momentary or talk line-controlled

Used for

JP-4MED, JO-1MDW, JO-1MD, JO-1FD
AX
DA-1DS, C-123L/A
DA-2DS, DA-4DS
IE-1AD(U), IE-1GD(U)
IE-2A2DU, IE-2AD(U), IE-8MD
LEM-1DL
LEF, LEF-C (via RY-PA)
TB-ADD
TD-H/B (via DE-UR)

Wiring



BK : Black(2) YL : Yellow(2)

Specifications (EL-12S)

Power source & Consumption 12V AC, 125mA
12V DC, 200mA

Specifications (RY-PA)

Power source 12V DC
Relay contact rating 110V AC, 1A
24V DC, 1A

Relay



RY-AC/A
External signaling relay

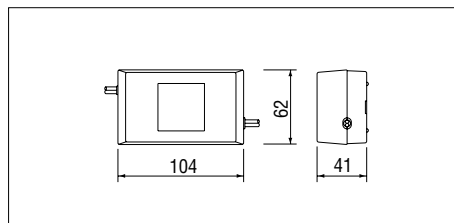
Features

Intercom station can be signaled by external device via RY-AC/A relay. External device will be activated momentarily as long as the call signal on the intercom is activated.

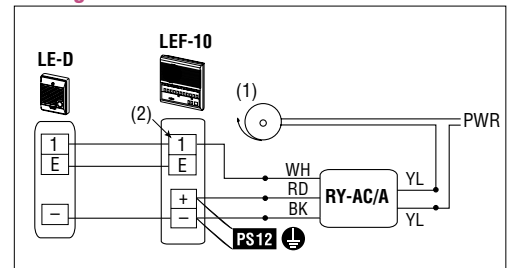
Used for

IE-8MD, LEF
TD-H/B

Unit dimensions



Wiring



(1) External signaling device, bell, etc. (2) Call receive terminal
WH : White RD : Red(+) BK : Black(-) YL : Yellow
PWR : Power source

Specifications (RY-AC/A)

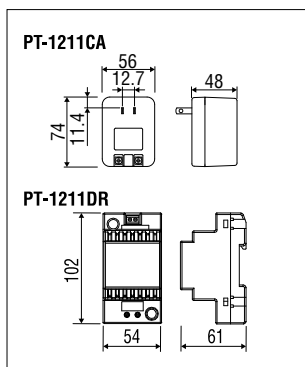
Power source 12V DC, supplied by power supply of system or trunk line.
Contact rating 0.3A, 240V AC 1.0A, 24V DC
Bell, buzzer, etc. must be AC operated or DC mechanical type only.

Power Supplies

15V AC



Unit dimensions



Used for
DA-1MD, DB-1MD, DB-1SD

Specifications (PT-1211CA)

Input voltage & Capacity	120V AC, 60Hz.
Output voltage	15V AC

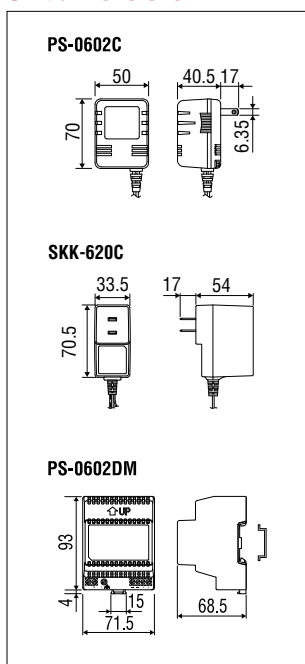
Specifications (PT-1211DR)

Input voltage & Capacity	230V AC, 50/60Hz.
Output voltage	15V AC

6V DC



Unit dimensions



Used for
C-123L/A, LEM, AT-406

Specifications (PS-0602C)

Input voltage & Capacity	120V AC, 50/60Hz.
Output voltage	6V DC, 0.2A

*Manufactured by Sino-American

Specifications (SKK-620C)

Input voltage & Capacity	120V AC, 60Hz.
Output voltage	6V DC, 0.2A

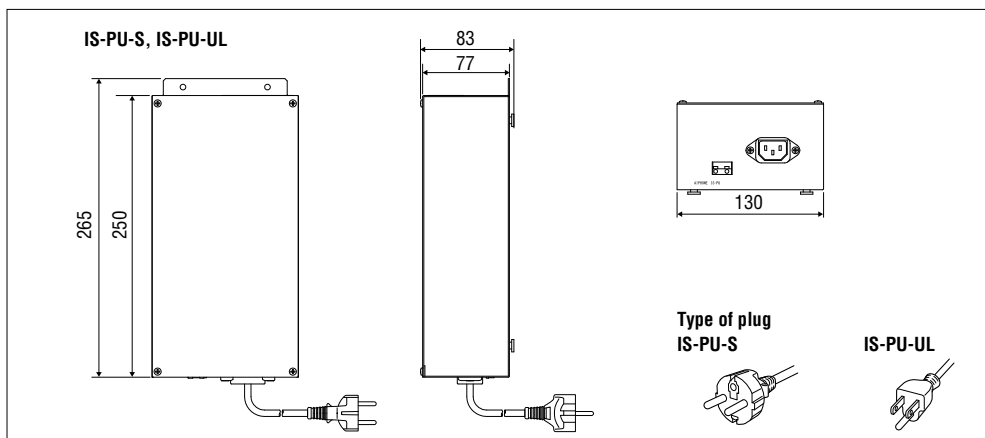
Specifications (PS-0602DM)

Input voltage & Capacity	230V AC, 50/60Hz.
Output voltage	6V DC, 0.2A

48V DC



Unit dimensions



Used for
NIM

*Either rack-mounting (into 19 inch rack) or wall-mounting is possible by using the optional IS-RACK.

Specifications

Input voltage & Capacity	100V-240V AC, 50/60Hz.
Power consumption	120W
Output voltage	48V DC, 2.1A

Power Supplies

12V DC



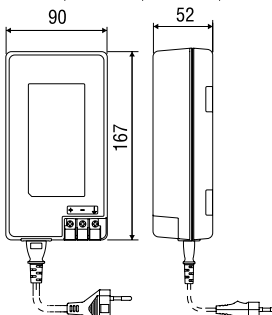
PS-1208S PS-1225S
PS-1208UL PS-1225UL
PS-1208BF PS-1225BF
PS-1225-0



PS-1225DM


Unit dimensions

PS-1208S, PS-1208UL, PS-1208BF
 PS-1225S, PS-1225UL, PS-1225BF, PS-1225-0




Type of plug

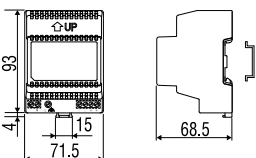
PS-1208S PS-1208UL
 PS-1225S PS-1225UL



PS-1208BF PS-1225BF



PS-1225DM



Used for
 (PS-1208S, PS-1208UL, PS-1208BF)
 LEF, LEF-C

Specifications
 (PS-1208S, PS-1208UL, PS-1208BF)

Input voltage & Capacity	100V-240V AC, 50/60Hz., 21-33VA
Output voltage	12V DC, 0.8A

Used for
 (PS-1225S, PS-1225UL, PS-1225BF,
 PS-1225DM, PS-1225-0)
 RY-3DL, IE-1AD(U), IE-1GD(U), IE-2A2DU, IE-2AD(U),
 IE-8MD, LEM-1DL, BG-10C, TD-H/B

Specifications
 (PS-1225S, PS-1225UL, PS-1225BF, PS-1225-0)

Input voltage & Capacity	100-240V AC, 50/60Hz., 75-90VA
Output voltage	12V DC, 2.5A

Specifications (PS-1225DM)

Input voltage & Capacity	230V AC, 50/60Hz.
Output voltage	12V DC, 2.5A

18V DC



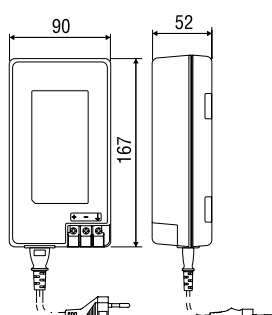
PS-1820S PS-1820UL
PS-1820BF PS-1820-0



PS-1820DM

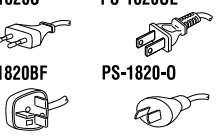
Unit dimensions

PS-1820S, PS-1820UL, PS-1820BF, PS-1820-0

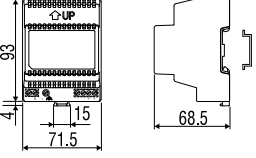


Type of plug

PS-1820S PS-1820UL
 PS-1820BF PS-1820-0



PS-1820DM



Used for
 JO-1MDW, JO-1MD, JO-1FD, IE-8MD, TC-M, RY-3DL

Specifications
 (PS-1820S, PS-1820UL, PS-1820BF, PS-1820-0)

Input voltage & Capacity	100V-240V AC, 50/60Hz., 85-105VA
Output voltage	18V DC, 2A

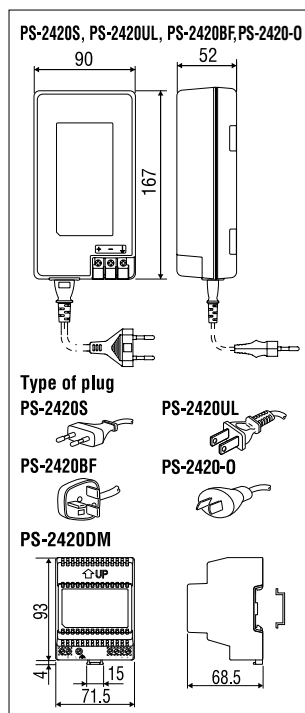
Specifications (PS-1820DM)

Input voltage & Capacity	230V AC, 50/60Hz.
Output voltage	18V DC, 2.0A

24V DC



Unit dimensions



Used for

JP-4MED, JP-4HD, JPW-BA, JP-8Z, RY-3DL, GT, AX, YAZ-90-3W, IMU-100, MC-60/4A, NHX

Specifications

(PS-2420S, PS-2420UL, PS-2420BF, PS-2420-O)

Input voltage & Capacity	100-240V AC, 50/60Hz., 110-140VA
Output voltage	24V DC, 2A

Specifications (PS-2420DM)

Input voltage & Capacity	230V AC, 50/60Hz.
Output voltage	24V DC, 2.0A

AIPHONE Approved product wire

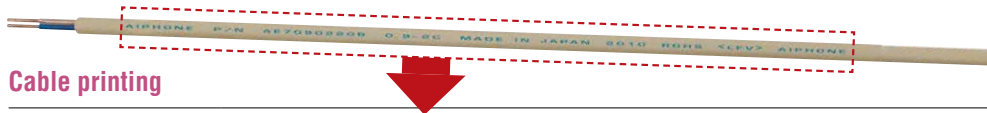


AIPHONE Wire model name

Model	Length	Gauge	Insulation	Jacket color	Description	Recommendation
AE7090220B	200m	ø0.9mm	PE	BEIGE	2 conductor, PE, solid, non-shielded	JO, GT
AE7090220G	200m	ø0.9mm	PE	GRAY	2 conductor, PE, solid, non-shielded	JO, GT
AE7120230B	300m	ø1.2mm	PE	BEIGE	2 conductor, PE, solid, non-shielded	JPW-BA

Wire number coding

1st & 2nd Characters	: Wire Approval	AE =Aiphone approved wire
3rd digit	: Type of Wire	7 =solid, PE, non-shielded
4th & 5th digits	: Gauge	09 =0.9mm diameter, 12 =1.2mm diameter
6th & 7th digits	: Number of Conductors	02 =2 conductors
8th & 9th digits	: Length of Wire	20 =200 meters box, 30 =300 meters box
10th Character	: Color of Jacket	G =Gray, B =Beige



Cable printing

Model	Printing
AE7090220B	AIPHONE P/N AE7090220B 0.9-2C MADE IN JAPAN YYYY ROHS <LFV> AIPHONE
AE7090220G	AIPHONE P/N AE7090220G 0.9-2C MADE IN JAPAN YYYY ROHS <LFV> AIPHONE
AE7120230B	AIPHONE P/N AE7120230B 1.2-2C MADE IN JAPAN YYYY ROHS <LFV> AIPHONE

YYYY: Year of Production <LFV>: Lead free vinyl

USING AIPHONE WIRE EXTENDS YOUR AIPHONE VIDEO PRODUCT WARRANTY BY ONE YEAR.

Communication Distance

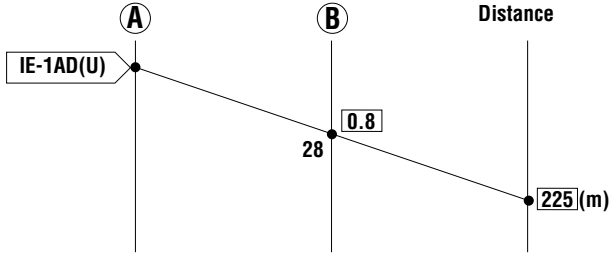
The below graph is to assist you in determining the diameter of wires or communication distance required.

Example;

To obtain the communication distance for IE-1AD(U) system using 0.8 mm dia. wires;

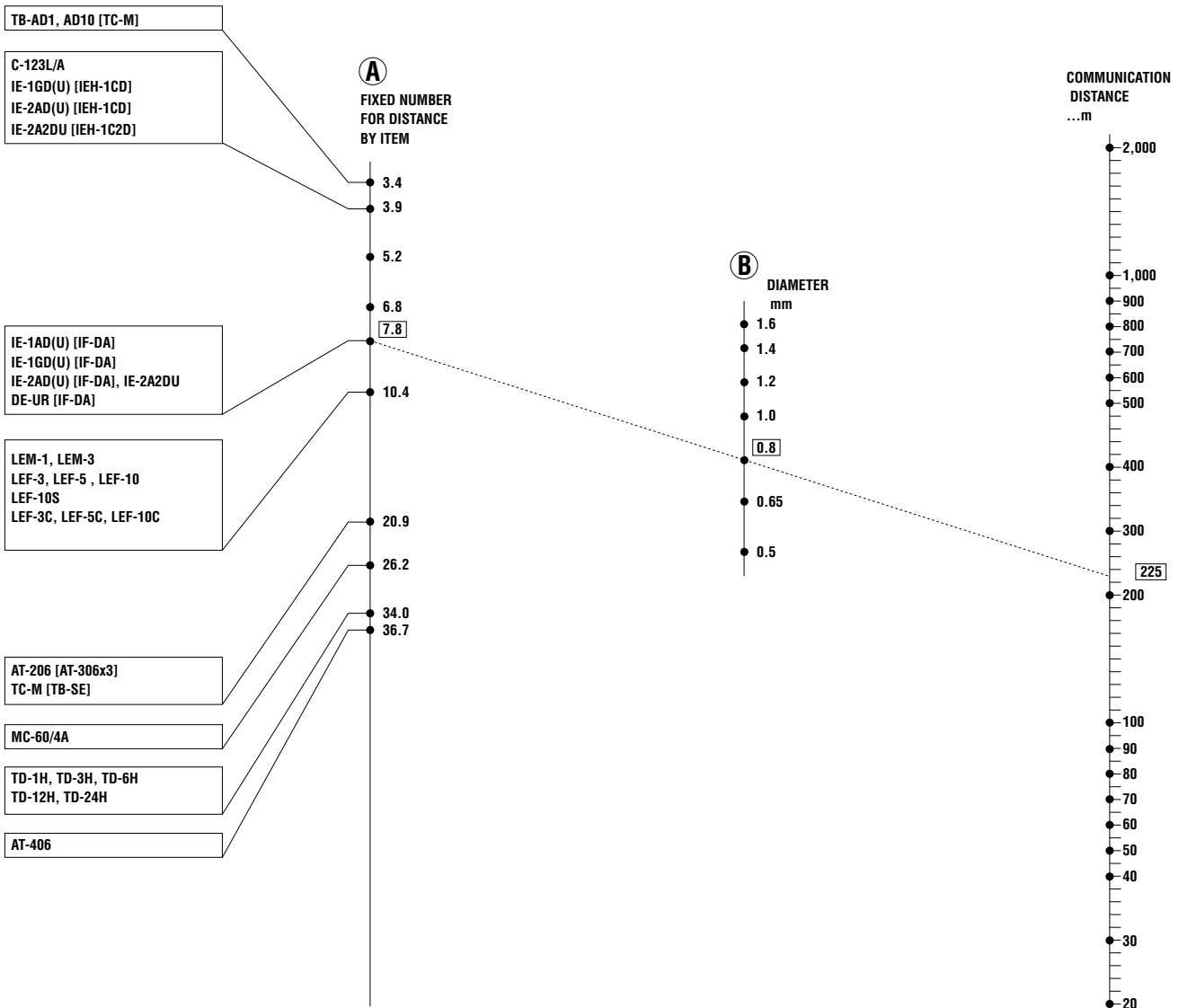
1. On the graph;

Draw a line from IE-1AD(U) on point A 7.8, crossing the line B at the point 0.8 to reach a point reading 225.



COMMUNICATION DISTANCE CALCULATION GRAPH

SYSTEM & MODELS



NOTES;

IE-1AD(U) [IF-DA] shows distance between IE-1AD(U) and IF-DA or other IE door station.

★Video Intercoms are not included in the graph.

Compatibility of video intercom systems

Color video intercom ✓: Compatible Blank: Not Compatible

Door station Sub station Master station	Existing model									
	Video door station					Audio door station	Sub master station			Long distance adaptor
	JP-DA JP-DV JP-DVF	JO-DA JO-DV JO-DVF	JS-DA	WL-DA	AX-DV AX-DV-P AX-DVF AX-DVF-P	GT-D	JO-1FD	JP-4HD	JS-1HD	JPW-BA
JO-1MD		✓					✓			
JO-1MDW		✓					✓			
JP-4MED	✓					✓		✓		✓
JS-1MD			✓						✓	
WL-1ME				✓						
AX-8MV					✓					

AX-8MV requires a central exchange unit.

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AIPHONE CO., LTD.
10th floor Meiji Yasuda Seimei
Nagoya Building,
1-1 Shinsakae-machi, Naka-ku,
Nagoya, Aichi, Japan
Tel.: +81-52-228-8181
Fax.: +81-52-228-9959
URL: <https://www.aiphone.net/>