

# AIPHONE

Communication Systems

**GENERAL LINE CATALOGUE**

**2018**



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## Explanation of symbols

**2** DOOR  
ENTRANCE  
MASTER  
SERVICE SIDE  
STATION

**3** ROOM  
TENANT  
SUB  
PUBLIC SIDE

**PS** Power supply

**PT** AC transformer

 Electric lock


 **IP54** Dust and moisture resistant

 **IK07** Ruggedized against vandalism

 **STAINLESS** STAINLESS STEEL material

 **ZINC** ZINC material

 Ground earth

 Call tone

## INTERCOM SYSTEM

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COLOR VIDEO ENTRY SECURITY



MULTI-TENANT BUILDING ENTRY SECURITY



INTEGRATED SECURITY & COMMUNICATION SYSTEM



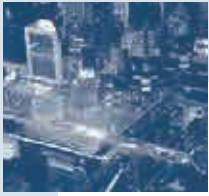
AUDIO ENTRY SECURITY



INTERCOM SYSTEM



ACCESSORIES



# 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.

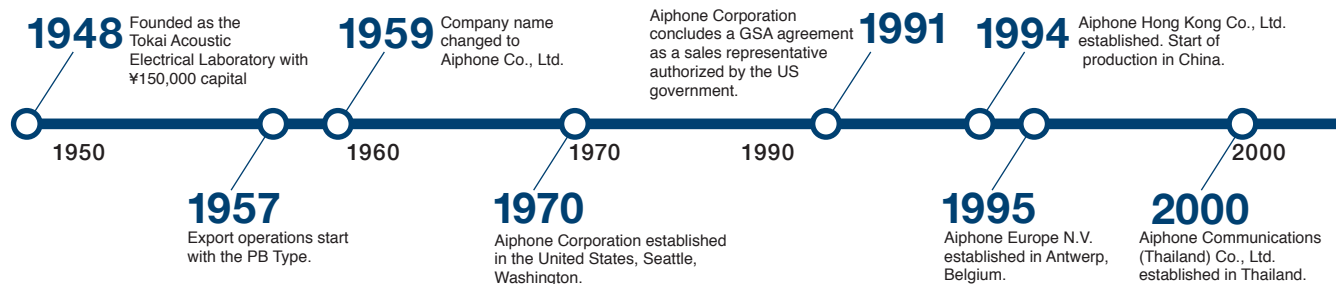
### Systems For Every Application

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 50 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 win the Deming Prize, the highest international award for quality control. Named in honor of Dr. W. Edwards Deming, the award honors firms worldwide which advance and maintain manufacturing quality.



Deming Prize

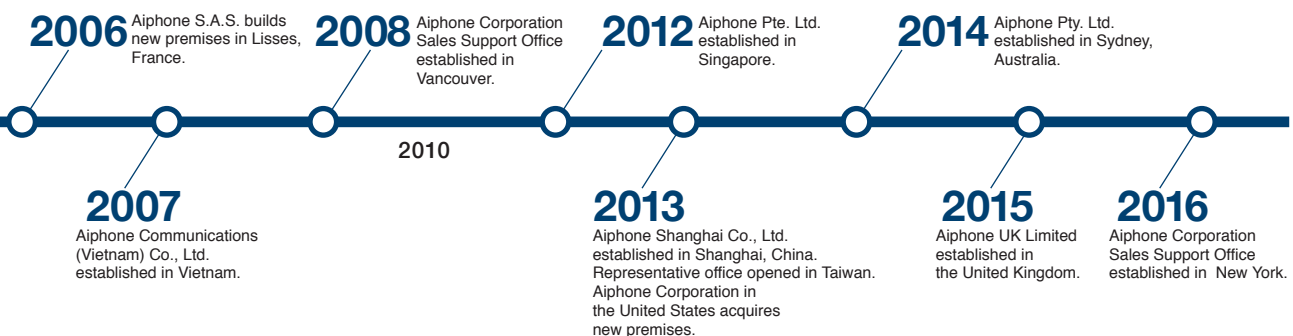
## Acquisition of ISO 14001

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.

Aiphone excludes the use of prohibited material from products according to RoHS directive (2002/95/EC). Therefore, as of July 1, 2006, all the Aiphone products imported in the EU are fully compliant with the RoHS directive.



**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

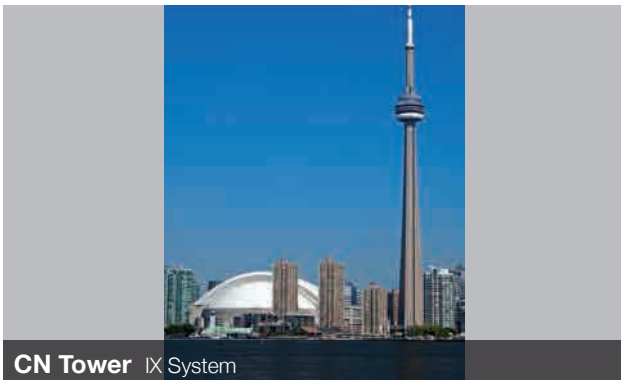
### Government and public services



### Transport infrastructure



### International landmarks





installed at various sites around the world.



Picture: Alamy/AFLO



Picture: Alamy/AFLO





# ENVIRONMENTAL REPORT

**We will contribute to building a sustainable society while cultivating communications with a wide spectrum of our stakeholders.**

## Basic Environmental Philosophy

Revised October 1, 2005

Based on our business philosophy of "Be Responsible for your job and don't cause problems for others," we carry out our activities while harmonizing conservation of the global environment with our business operations.

## Environmental Policy

The AIPHONE group aspires to be enterprises capable of making contributions to society by using communication and security technologies, conducting our environmental activities as follows:

- (1) We will strive to minimize environmental loads to conserve the global environment in our activities of developing, producing, selling, and servicing our products.
- (2) We will make our goals and objectives clear in our business activities, continuously evaluating the following items and thus improving them:
  - a) We will aim to become a recycling society and make efforts to promote the 3R's (Reduce, Reuse, and Recycle) and minimize waste.
  - b) We will not use harmful substances that cause environmental contamination.
  - c) We will strive to conserve energy to prevent global warming.
- (3) We will conform to environment-related laws, regulations, and conventions while establishing voluntary standards to conserve the environment.
- (4) Placing great value on communication, we will promote the manufacture of products friendly to both humans and the environment.
- (5) We will conduct environmental audits in an effort to maintain and improve our environment management system.
- (6) We will make our environmental policy thoroughly known to our employees and all those who work together with us.
- (7) We will publicize this environmental policy to the general public.



**Certificate of acquisition of  
ISO 14001 accreditation**

This report is also posted on our website:  
<http://www.aiphone.net/>



# Lineup

Aiphone provides you a variety of security and intercom systems from small to extensive IP network solutions.

Choose the perfect solution for your security needs.



COLOR VIDEO ENTRY SECURITY **P1~**



MULTI-TENANT BUILDING ENTRY SECURITY **P15~**



INTEGRATED SECURITY & COMMUNICATION SYSTEM **P42~**



AUDIO ENTRY SECURITY **P77~**



INTERCOM SYSTEM **P90~**

# COLOR VIDEO ENTRY SECURITY

7-inch display

COLOR VIDEO ENTRY SECURITY



7-inch display



The JP Series and JO Series intercoms feature a large **7-inch** display for clear visitor identification.

COLOR VIDEO ENTRY SECURITY



Actual size (JO series)



## JP Series Touchscreen

Oversized buttons and intuitive icons allow for quick navigation and control.



**Multi-station,  
multi-function type**



## JO Series Non-mechanical touch buttons

Quick & easy icons simply require a light touch to operate the intercom.



**Simple type**

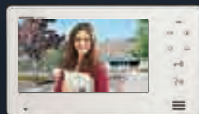
### Lineup

7-inch Touchscreen  
Color Video Intercom  
JP-4MED



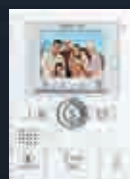
P3~

7-inch Screen  
Color Video Intercom  
JO-1MD



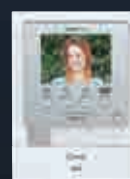
P7~

Wide and Zoom & PanTilt  
Hands-free Color Video Intercom  
JK-1MED



P9~

Hands-free Color  
Video intercom Picture Memory  
JF-2MED



P13~

# 7-inch Touchscreen Color Video Intercom

DOOR

4

ROOM

8

## JP-4MED

### Features

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

COLOR VIDEO ENTRY SECURITY

### Door station



**JP-DV**  
Wide and Zoom & PanTilt Vandal resistant video door station, surface mount



**JP-DV\***  
Wide and Zoom & PanTilt Vandal resistant video door station, flush mount



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

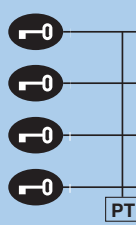


**JP-DV-L**  
Wide and Zoom & PanTilt Vandal resistant video door station, flush mount (Guidance-enabled type)

### Master station



**JP-4MED**  
Hands-free color video intercom master station



**RY-3DL**  
Selective door release adaptor



**GT-D**  
Audio door station



**JPEC**  
Handsfree module for JP-4MED & JP-4HD



**JP-TLI-IPA**  
IP Interface for JP System (compatible with iOS and Android)

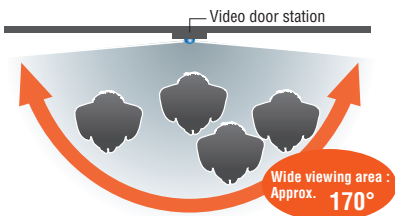
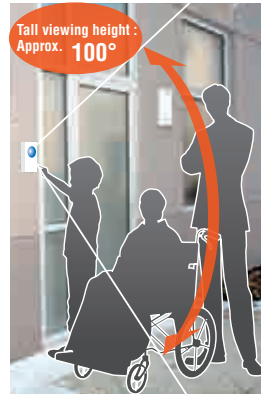
Power supply **PS-2420** → P.112

\* Marine grade option available

### 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.



### Focus on a particular area for more detail.

#### Zoom

Using the touchscreen, zoom into visitor faces and other specific areas.



WIDE IMAGE



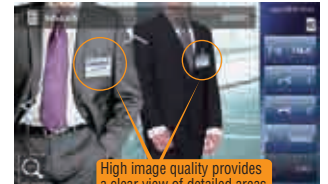
ZOOM IMAGE

#### PanTilt

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

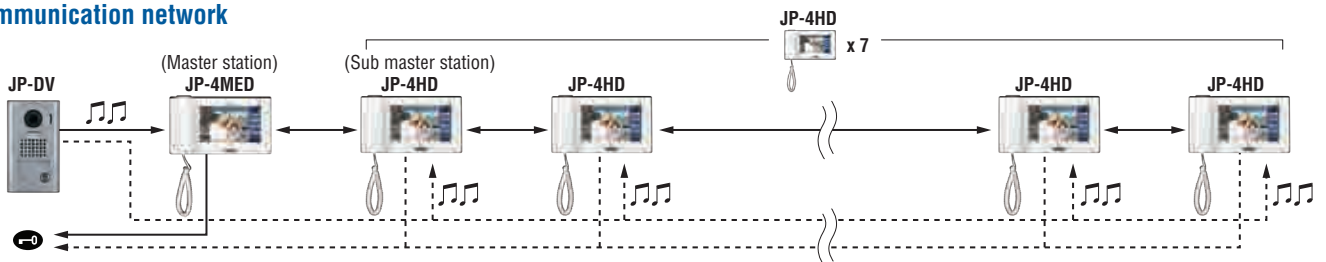


ZOOM IMAGE



PANTILT IMAGE

### Communication network

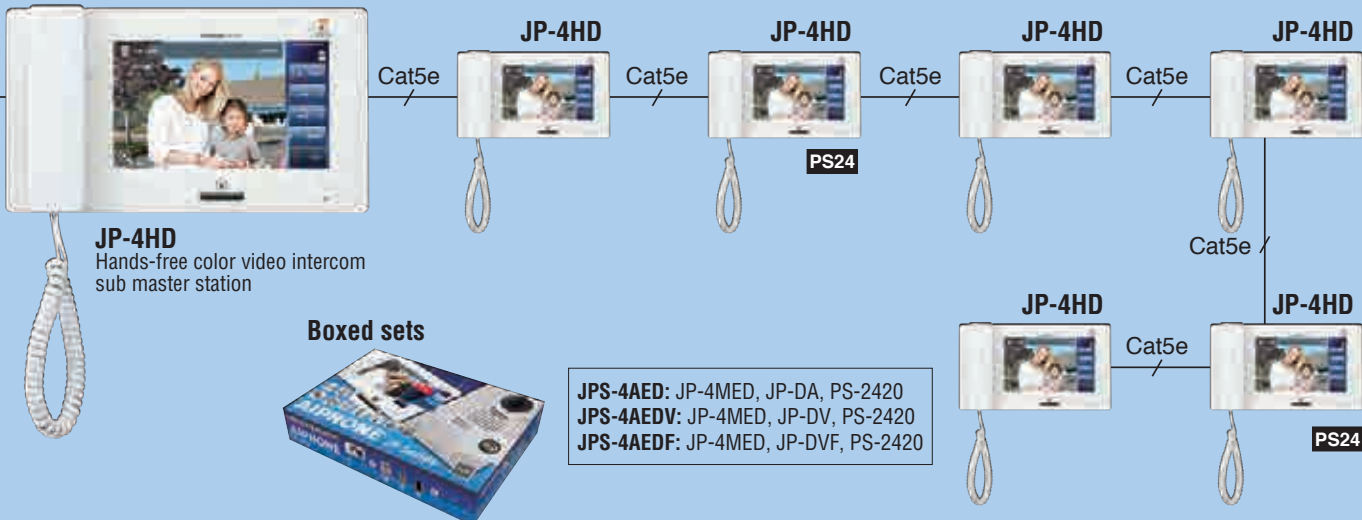


The design and specifications are subject to change without notice for improvement.

- 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



## Sub master station



### Access Control → P.107



**AC-10S**  
Access control keypad, surface mount



**Jx-DVF-AC**  
Jx-DVF-AC + JP-DVF



**JP-DV + AC-10S**

### Lineup



**JPW-BA**  
Long distance adaptor  
→ P.6



**JP-8Z**  
Distribution adaptor

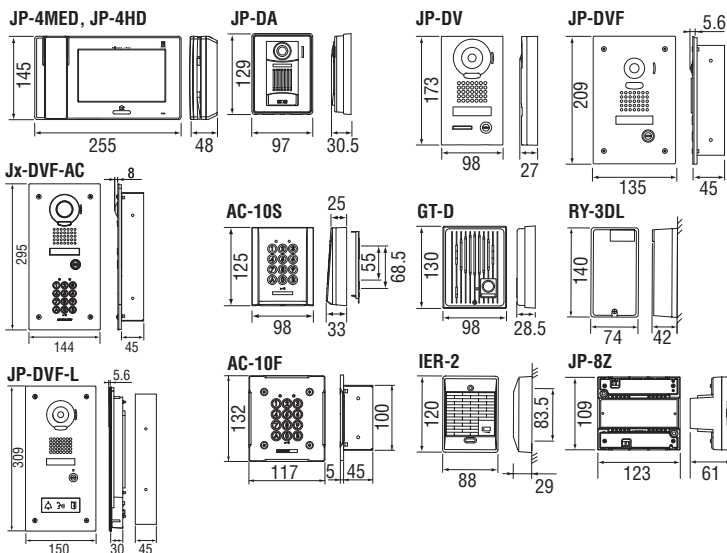


**EL-12S**  
Electric door strike  
→ P.110



**RY-3DL**  
Selective door release adaptor  
→ P.6

## Unit dimensions

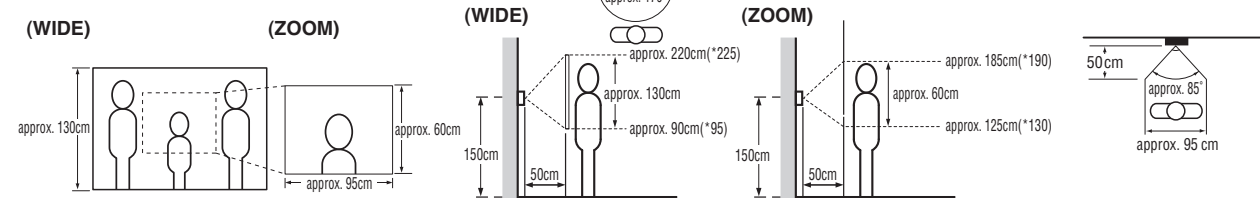


## Specifications (JP-4MED, JP-4HD)

Power source	24V DC
Power supply	PS-2420
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.5)	Door to Master: 100m (1.0mm⇒) Master to farthest sub: 300m (CAT5e)

## Image view area

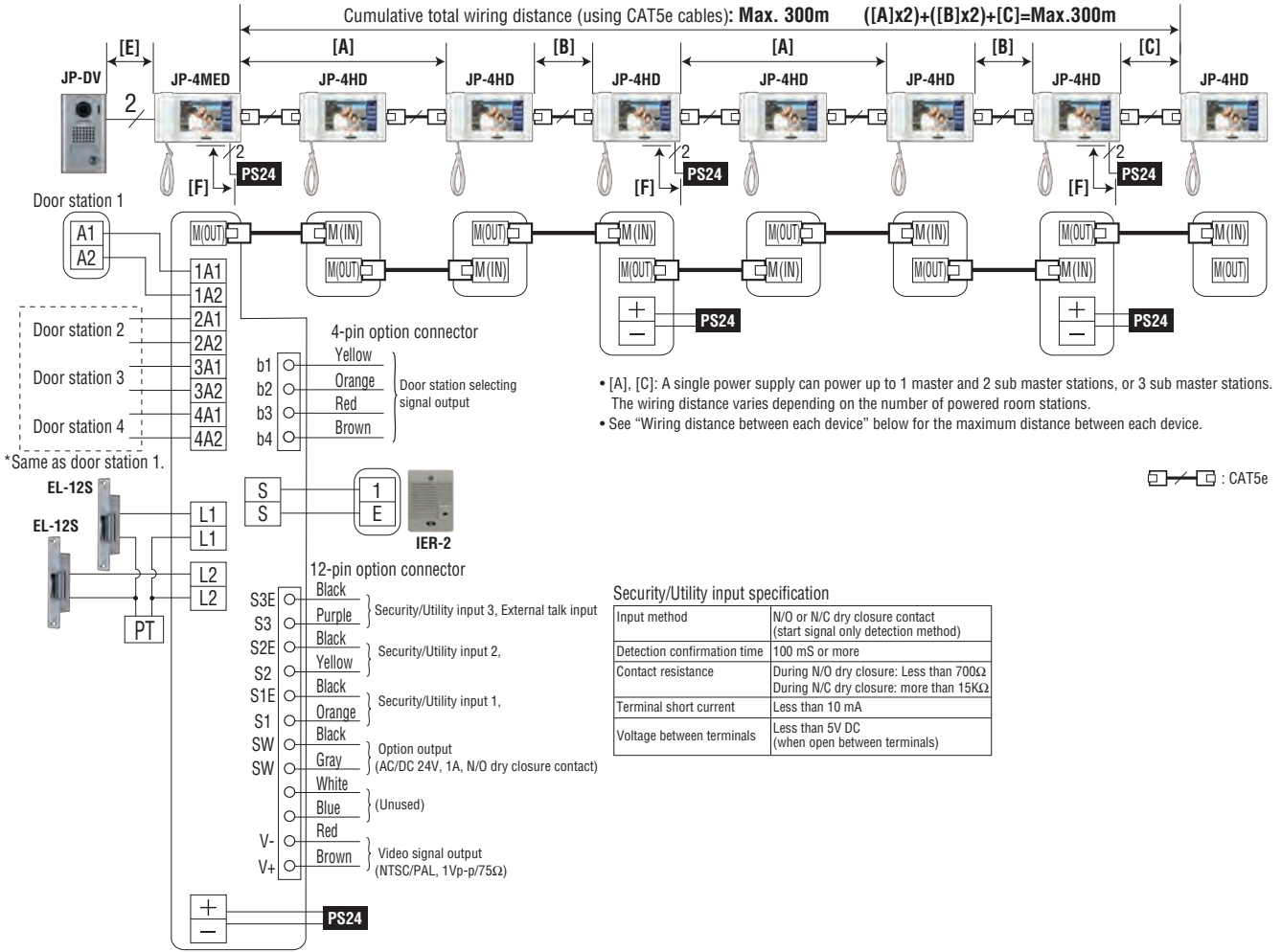
JP-DA, JP-DV, JP-DVF, JP-DVF-L



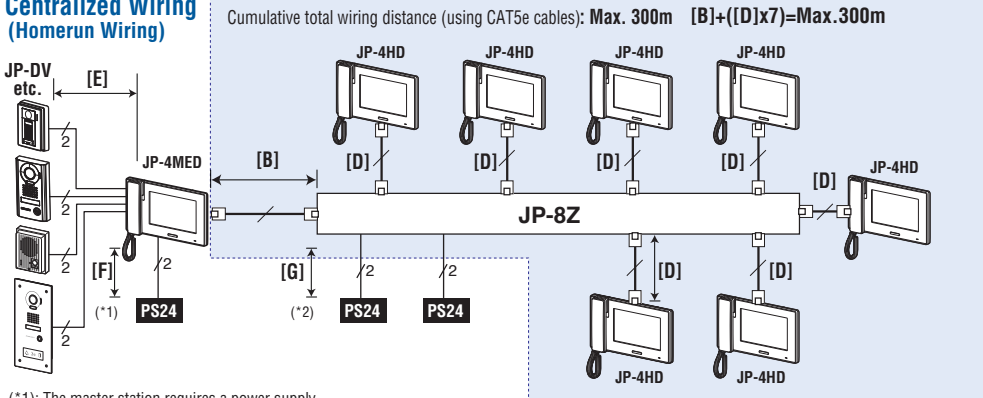
# 7-inch Touchscreen Color Video Intercom

## Wiring

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

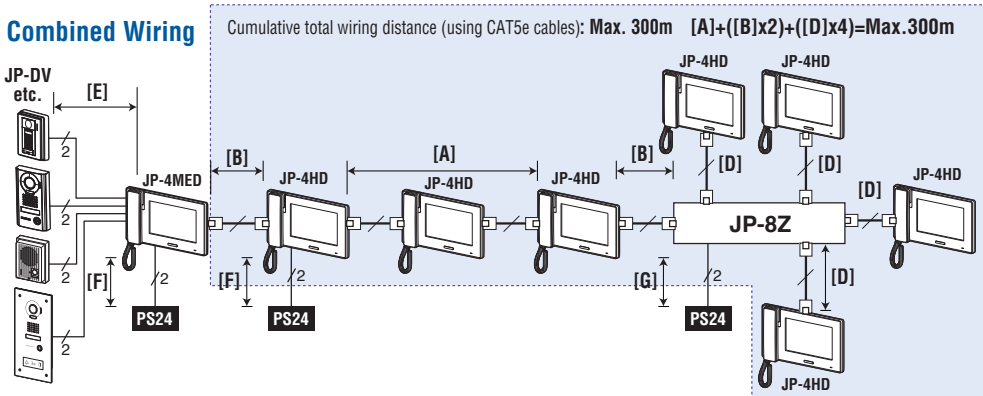


### Centralized Wiring (Homerun Wiring)



(\*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



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

### Wiring distance between each device

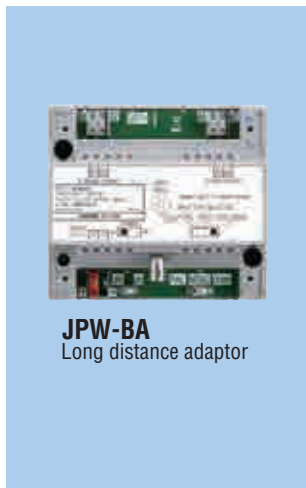
CAT5e	Notes
[A]	30m When 3 room stations are powered by a single power supply
[B]	200m
[C]	50m When 2 room stations are powered by a single power supply
[D]	50m

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



# Long distance adaptor

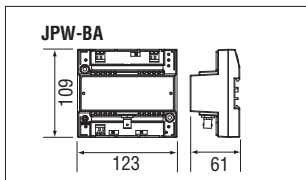


**JPW-BA**  
Long distance adaptor

## Features

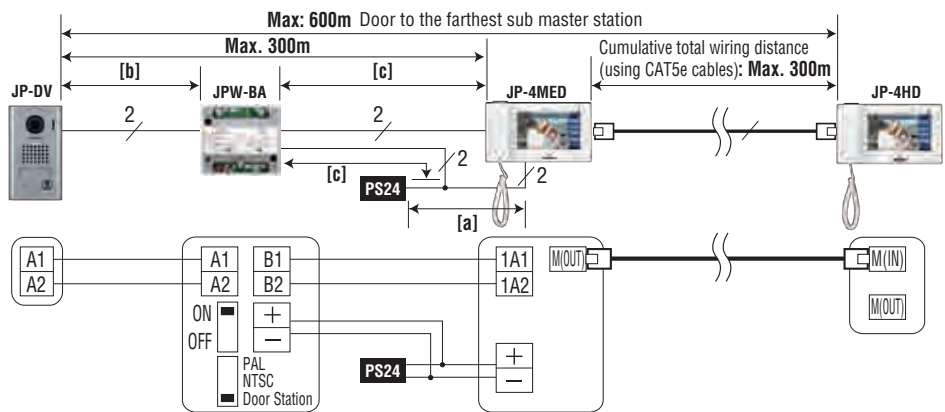
- When JP series door station is more than 100m to max. 300m away.
- CCTV camera can be integrated by connecting JPW-BA.

## Unit dimensions

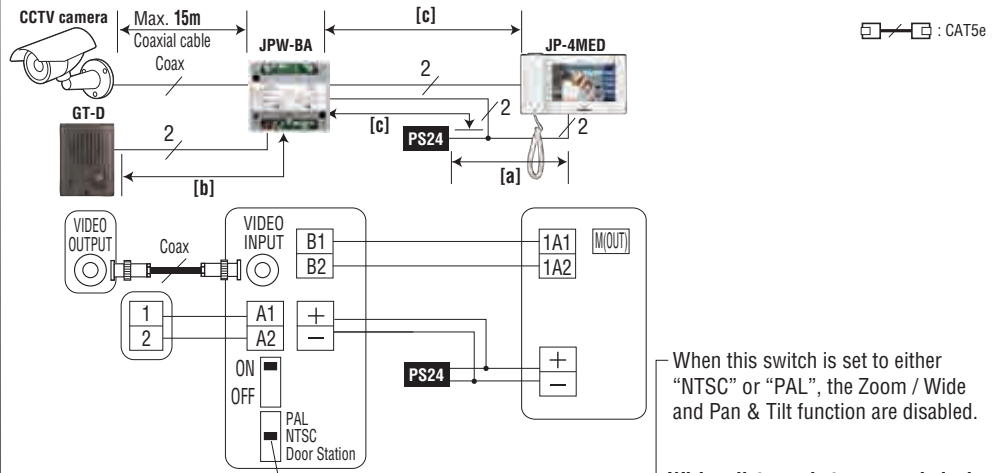


## Wiring

When extending the distance between the master station and a door station



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.

## 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

## Specifications

Power source	24VDC, PS-2420 of system or separate
Current consumption	MAX. 90mA
Wiring	2 parallel wires to ea. door & master.

# Selective door release adaptor



**RY-3DL**  
Selective door release adaptor

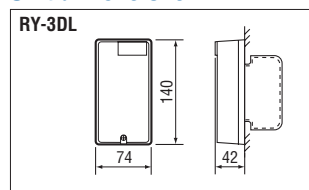
## Features

- 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

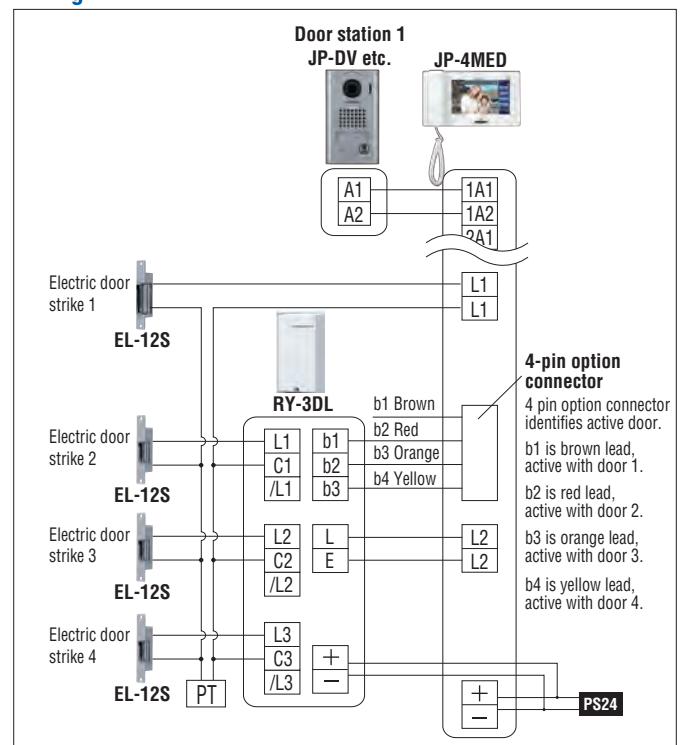
## Unit dimensions



## Specifications

Power source	12~24V DC, 30mA 12~16V AC, 60mA
Power supply	PS-2420; PS-1820; PS-1225; 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-2420

# 7-inch Screen Color Video Intercom

DOOR

ROOM

1

2

## JO-1MD

COLOR VIDEO ENTRY SECURITY

### Door station



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



**JO-DVF\***  
Vandal resistant video door station, flush mount



**JO-DA**  
Video door station, surface mount

**Power supply PS-1820** → P.111

\* Marine grade option available

### Expansion monitor station



**JO-1FD**  
Expansion monitor station

**PS18**



**IER-2**  
Call extension  
→ P.110

### Features

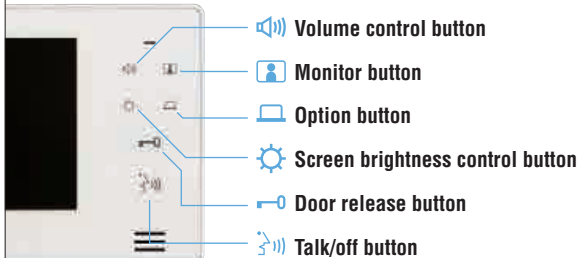
- Total hands-free communication
- Video image adjusting function
- Room to room communication is **not** available
- Easy operation by buttons with picture indications
- Option output: Option button connectable to the master station and expansion monitor station.

### 7-inch screen

View images more clearly with 7-inch screen!

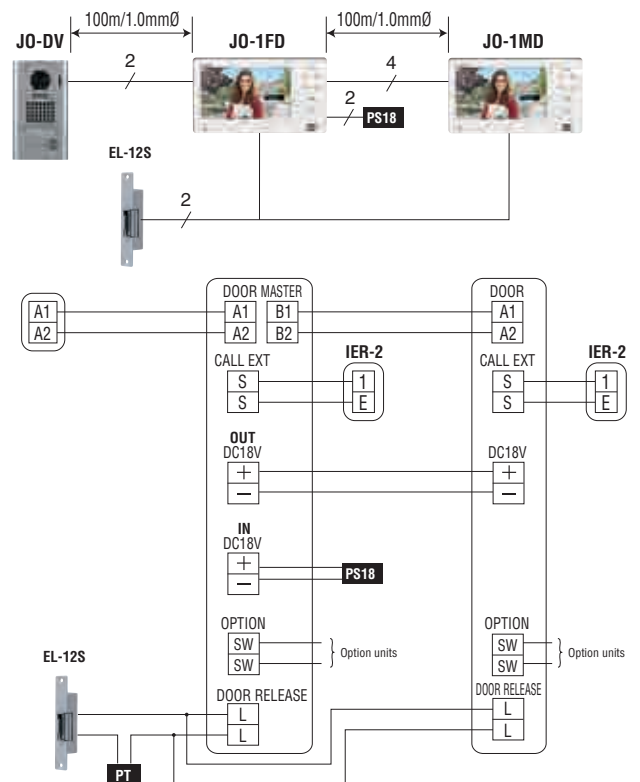


### Control buttons



The design and specifications are subject to change without notice for improvement.

### Wiring





Commercial



Residential

## Master station



**JO-1MD**  
Master station



**IER-2**  
Call extension  
→ P.110

## Boxed sets



Standard

**JOS-1A:** JO-1MD, JO-DA, PS-1820  
**JOS-1V:** JO-1MD, JO-DV, PS-1820  
**JOS-1F:** JO-1MD, JO-DVF, PS-1820

## Access Control → P.107



**AC-10S**  
Access control keypad,  
surface mount



**Jx-DVF-AC**  
**Jx-DVF-AC + JO-DVF**

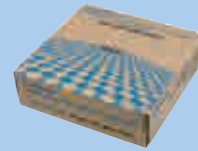


**JO-DV + AC-10S**

## Lineup

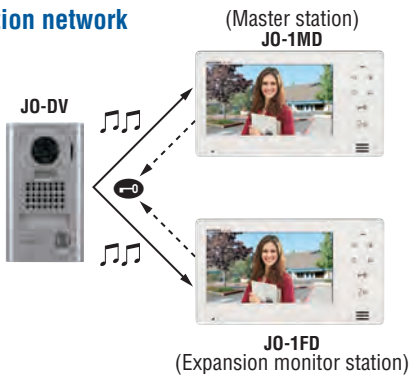


**EL-12S**  
Electric door strike  
→ P.110

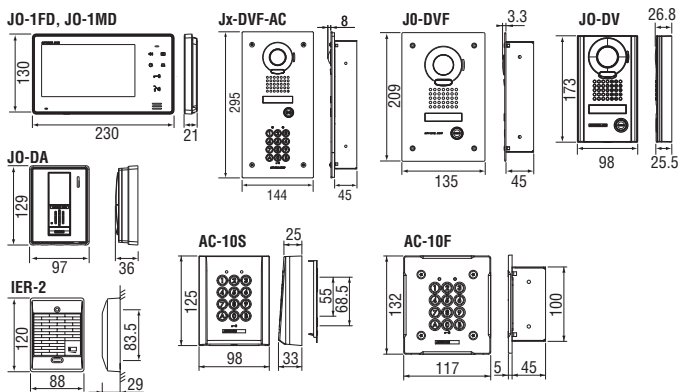


**AE7090210B**  
**AE7090210G**  
AIPHONE approved  
product wire  
→ P.112

## Communication network



## Unit dimensions

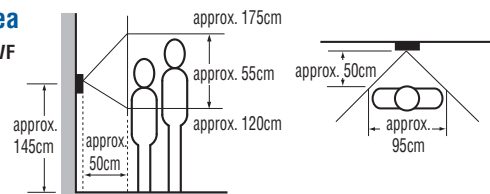


## Specifications

Power source	18V DC
Power supply	PS-1820
Consumption	Max. 440mA(JO-1MD). Max. 460mA (JO-1FD)
Calling	Chime. Image, approx. 45 sec.
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 2 sec. or more.
Video monitor	7-inch color LCD screen
Pixels	1,150,000 pixels
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, 0.5A (N/O dry closure contact)
Wiring	Door to master (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(or Expansion monitor station): 100m (1.0mmØ) Expansion monitor to master monitor station : 100m (1.0mmØ) Monitor station to IER-2: 150m(1.0mmØ)

## Image view area

JO-DA, JO-DV, JO-DVF



# Wide and Zoom & PanTilt Hands-free Color Video Intercom

## DOOR 1 ► ROOM 2 JK-1MED

### Door station



**JK-DV**  
Wide and Zoom & PanTilt Vandal resistant video door station, surface mount  
or



**JK-DVF**  
Wide and Zoom & PanTilt Vandal resistant video door station, flush mount



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

**Power supply PS-1820** → P.111

### Master station



**JK-1MED**  
Master station w/Wide and Zoom & PanTilt color monitor & built-in picture memory.

Picture memory

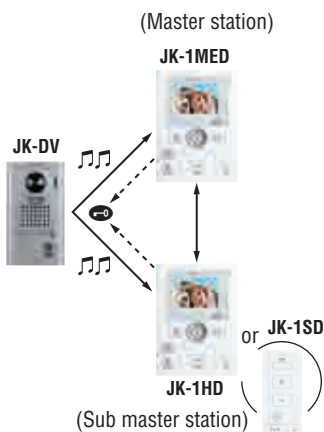
PS18

**IER-2**  
Call extension  
→ P.110

### Features

- Total hands-free communication, auto-voice actuation
- Visual monitoring with audio for 1 minute
- Instant voice call-in with image
- Press-to-talk operation available
- Press-to-talk restriction
- White LED illumination turns on in low-light conditions
- Video image adjusting function
- Full color video in low light situations w/o external illumination
- Camera angle preset
- External input
- Option - Option button, press-to-talk setting, video signal output

### Communication network



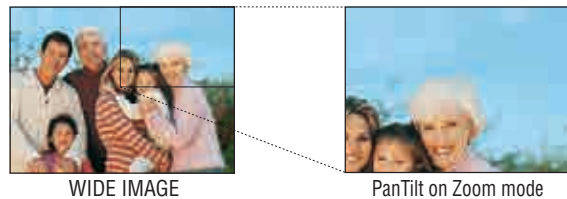
### PANORAMIC WIDE View

Everyone at the entrance can be identified by image from JK wide angle camera. The field of vision can be controlled on Wide mode or Zoom mode from inside.



### Zoom & PanTilt

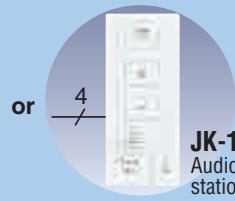
By pressing PanTilt button, the image of the PanTilt video door station can be adjusted to a more visible position from inside on the Zoom mode.



\*The screen images are simulated graphics. They are images to express functions, and are different from the real one. Please understand it beforehand.

The design and specifications are subject to change without notice for improvement.

### Sub master station



**JK-1HD**  
Sub master station  
w/color monitor

**JK-1SD**  
Audio sub master  
station

### Boxed sets



#### Picture memory

- JKS-1AED:** JK-1MED, JK-DA, PS-1820
- JKS-1AEDV:** JK-1MED, JK-DV, PS-1820
- JKS-1AEDF:** JK-1MED, JK-DVF, PS-1820

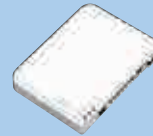
### Lineup



**JKW-BA**  
Long distance adaptor  
→ P.11  
\*Max. 300m away from  
Master/sub to Door.



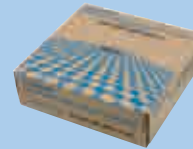
**EL-12S**  
Electric door strike  
→ P.110



**JKW-IP**  
IP color video  
intercom adaptor  
→ P.12



**JK-DVF-AC**  
Vandal resistant color  
video door station with  
access control keypad



**AE7090210B**  
**AE7090210G**  
AIPHONE approved  
product wire  
→ P.112

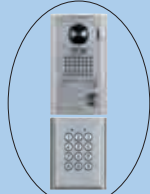
### Access Control → P.107



**AC-10S**  
Access control  
keypad,  
surface mount

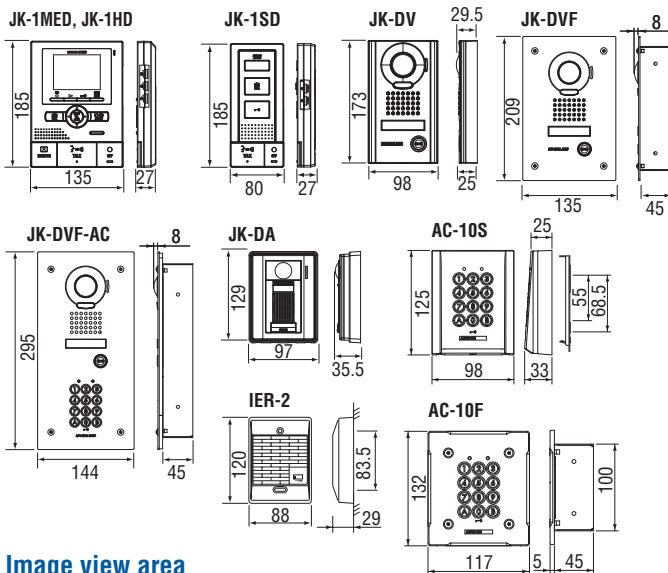


**AC-10F**  
Access control  
keypad,  
flush mount



**JK-DV + AC-10S**

### Unit dimensions

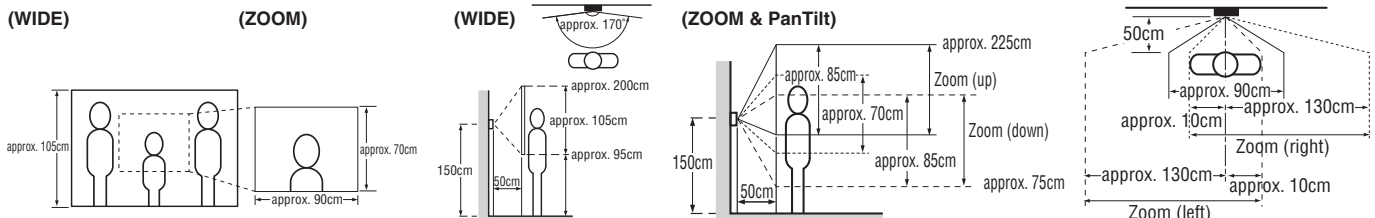


### Specifications

Power source	18V DC
Power supply	PS-1820
Consumption	Max. 400mA (JK-1MED). Max. 200mA (JK-1HD). Max. 120mA (JK-1SD)
Calling	Chime. Image & audio, approx. 45 sec.
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.
Video monitor	3.5-inch direct-view TFT color LCD.
Scanning line	525 lines
Video output	NTSC, 1Vp-p/75
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, 1.6A (N/O dry closure contact)
Wiring	Door to master: 2-cond., mid cap, solid, non-shielded. Master to sub: 4-cond., mid cap, solid, non-shielded.
Wire type	AIPHONE approved product wire: AE7090210B, AE7090210G
Wiring distance	Master/sub to door: 50m (0.65mmø) 100m (1.0mmø) Master to IER-2: 75m (0.65mmø) 150m (1.0mmø)

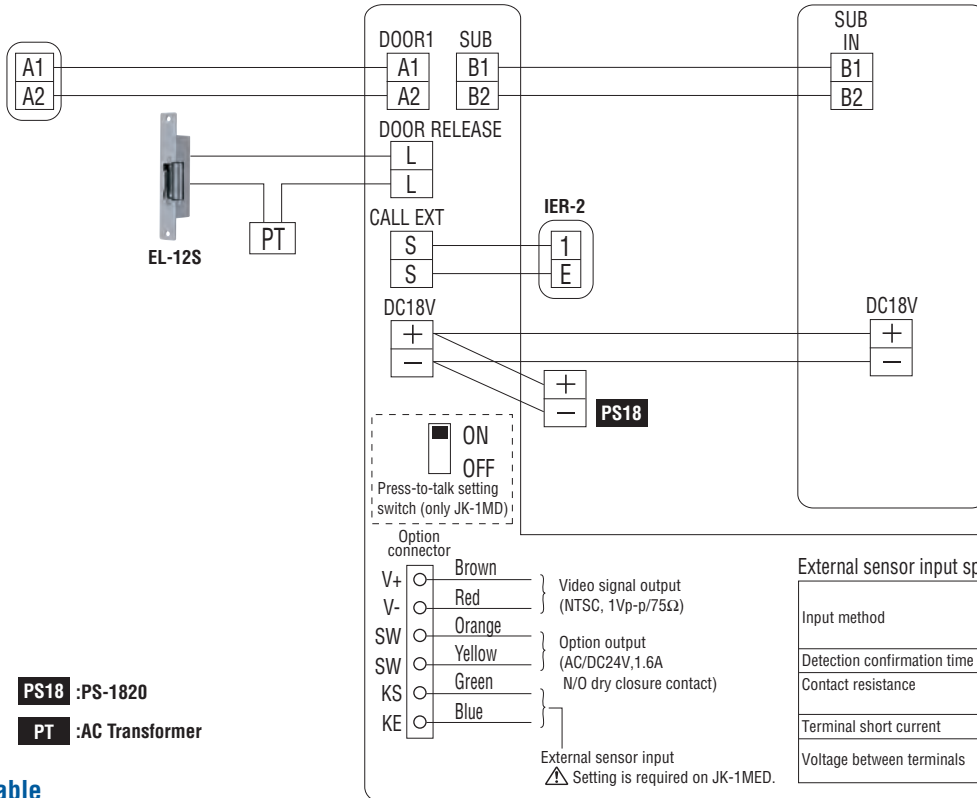
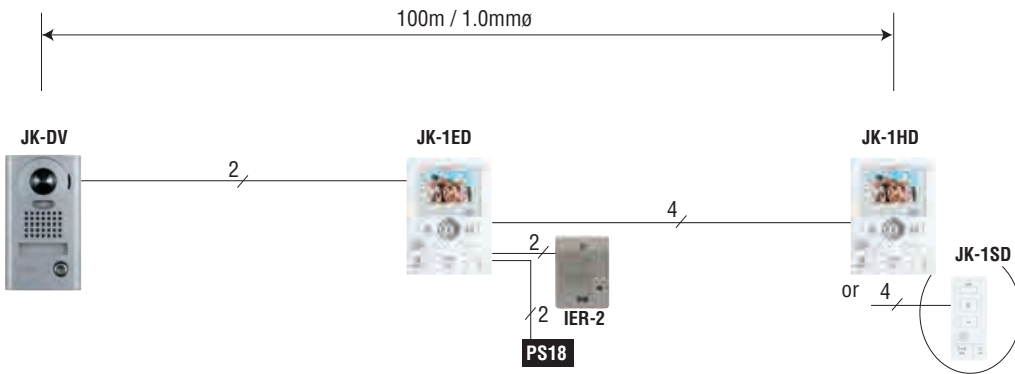
### Image view area

JK-DA, JK-DV, JK-DVF



# Wide and Zoom & PanTilt Hands-free Color Video Intercom

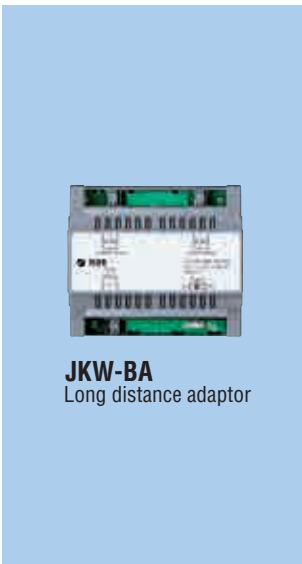
## Wiring



### Cable

Vinyl jacketed, PE(polyethylene) insulation cable is recommended. For other types of cables, normal operation and max. communication distance cannot be guaranteed.

## Long distance adaptor for JK series

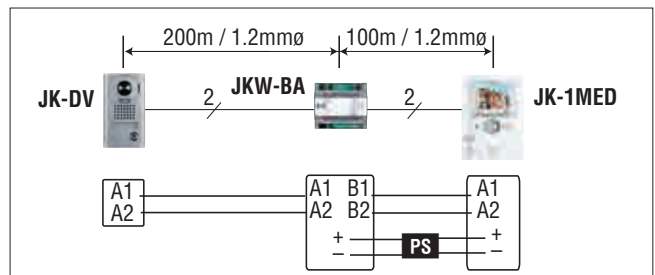
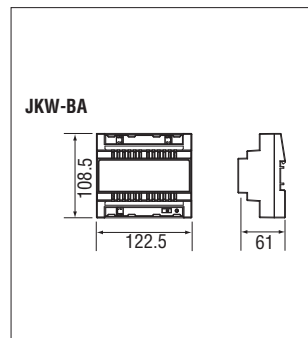


### Features

- When JK series color video door station is more than 100m to max. 300m away.

**Used for**  
JK-1MED

### Unit dimensions



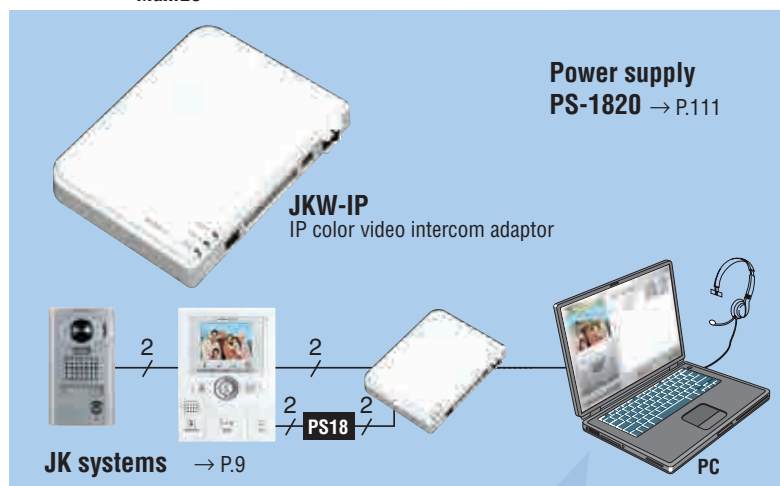
### Specifications

Power source	18VDC, PS-1820 of system or separate
Current consumption	95mA
Wiring	2 parallel wires to ea. door & master.
Wire type	AIPHONE approved product wire: AE7120230B or 1.0mmø to 1.2mmø. Vinyl jacketed, PE (polyethylene) insulation cable.
Wiring distance	JK door~JKW-BA 100m~200m(1.2mmø) JKW-BA~JK master/JK-1HD/JK-1SD 100m(1.2mmø) JKW-BA~PS 100m(1.2mmø)

# IP color video Intercom adaptor

## 1 - 1 - 10 JKW-IP

Max.20



### Features

- Use of local area networks (LANs) and wide area networks (Internet) allow PCs to be used as a JK master unit
- Combine up to 20 JK master/Door systems
- 10 PCs can communicate to 20 JK systems
- Allow a PC to function as a JK master
- Connected PC(s) control PanTilt, zoom and wide views of entryway
- Images or movies from entranceways can be recorded and played back at a PC
- Use headset (not included) for communication
- E-mail can be automatically sent to 10 e-mail addresses when called from door station
- Audio recording with manual video recording
- Communicate to and from JK masters
- A single port can be used for multi-purpose external input

### Notice

- It may not be possible to use this product with certain network environments or PCs.
- To use this product via the Internet, a separate broadband connection and a router with a fixed IP address is required.
- To ensure proper function only use with approved routers. Refer our homepage for a list of approved routers which allow proper operations.
- Maintaining security at the computer(s) connected to the JKW-IP is the responsibility of the customer. Alphone assumes no responsibility for any losses incurred as a result of improper PC, firewall or other security.
- It is recommended that you use a 100BASE-TX wired LAN as the network.

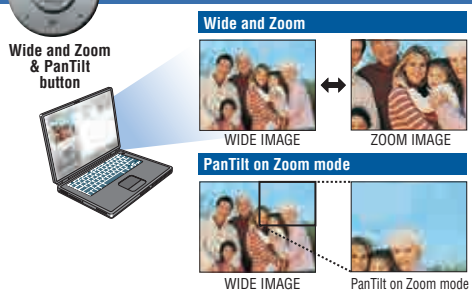
### Application

A user friendly interface contains controls that match those on a JK-1MED. This allows the PC to be controlled in the exact manner as a master monitor.

#### PC monitor



#### Wide and Zoom & PanTilt control from PC



#### Unlock the door after verifying visitor identity



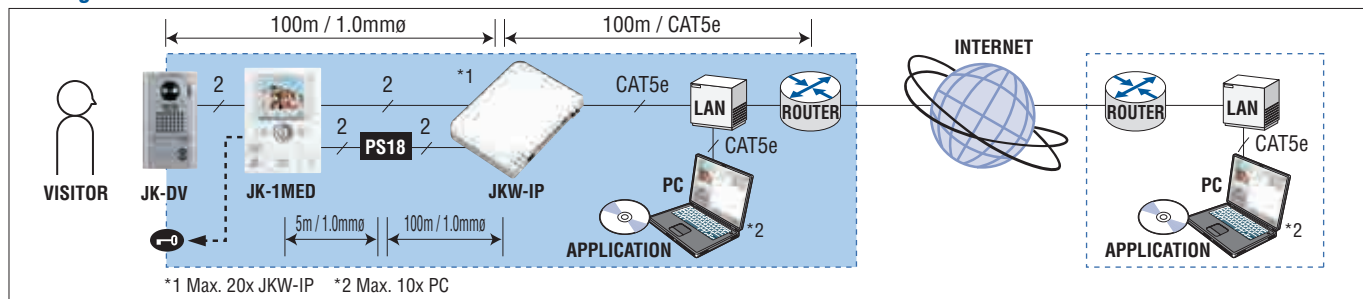
#### Video & Audio communication with entrance side by PC



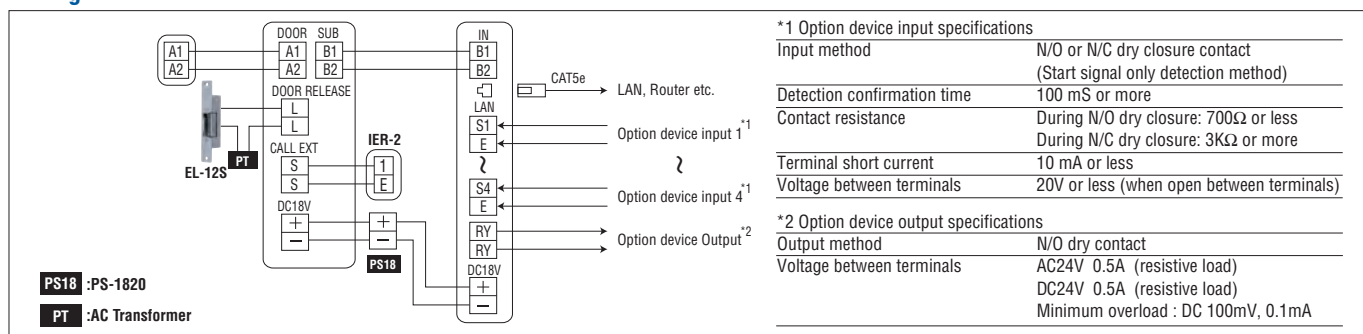
#### Room to room communication with master station (JK-1MED or JK-1MD)



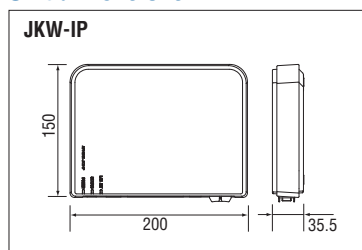
### Cabling



### Wiring



### Unit dimensions



### System requirements

OS	Windows XP Home/Professional (SP3), Windows Vista Ultimate/Home/Business/Enterprise (SP1)/32-bit version/64-bit version Windows 7 Home Premium/Professional/Enterprise/Ultimate/32-bit version/64-bit version Windows 8/Pro/Enterprise(32/64bit)
PC system requirements	Processor: 2 GHz or faster System memory (RAM): 1 GB RAM or more Hard disk: 10 MB or more (additional space is needed for recording) Sound card: 8-bit full duplex, Direct Sound compatible Display: 1024 x 768 or greater Run-time: Microsoft®.NET Framework 2.0 or later Network: 10BASE-T/100BASE-TX Ethernet
Protocol	TCP/IPv4, UDP/IPv4, SIP, Others
Network bandwidth	320 k to 8 Mbps (per IP Video Intercom Adaptor)
Language	English, French, Spanish, German, Dutch, Italian, Japanese
Internet Explorer	Internet Explorer 6.0 or later (with Internet Options SSL 3.0 enabled)

### Specifications

Power source	18V DC
Power supply	PS-1820
Consumption	Max. 200mA

# Hands-free Color Video Intercom, Picture Memory

## DOOR 2 ROOM 3 JF-2MED

### Features

- Two doors & three monitors (3-1/2 inch)
- Total hands-free communication, auto-voice actuation
- Built-in picture memory; Record visitor both automatically & manually
- Voice memo; Internal short voice messages can be recorded and played back

COLOR VIDEO ENTRY SECURITY

### Door station



**JF-DV**  
Vandal-resistant video door station, surface mount



**JF-DVF**  
Vandal-resistant video door station, flush mount



**JF-DA**  
Standard video door station



**JF-D**  
Audio only door station

Power supply **PS-1820** → P.111

### Master station



**JF-2MED**  
Master station w/color monitor and picture memory



**IER-2**  
Call extension  
→ P.110

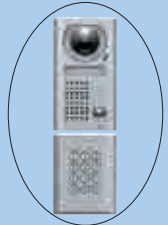
### Access Control → P.107



**AC-10S**  
Access control keypad, surface mount

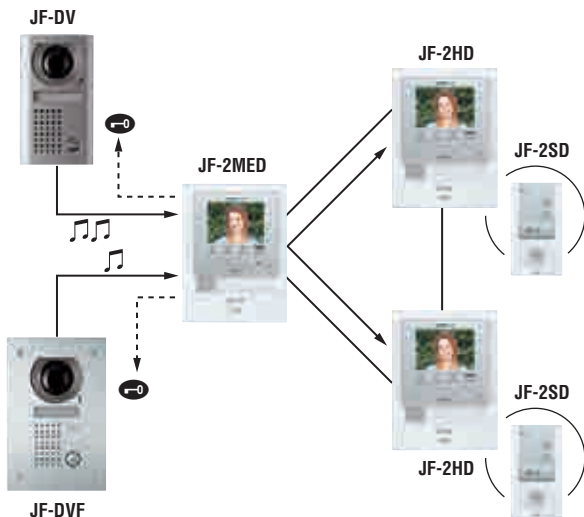


**AC-10F**  
Access control keypad, flush mount



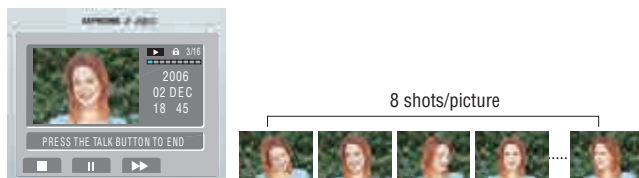
**JF-DV + AC-10S**

### Communication network

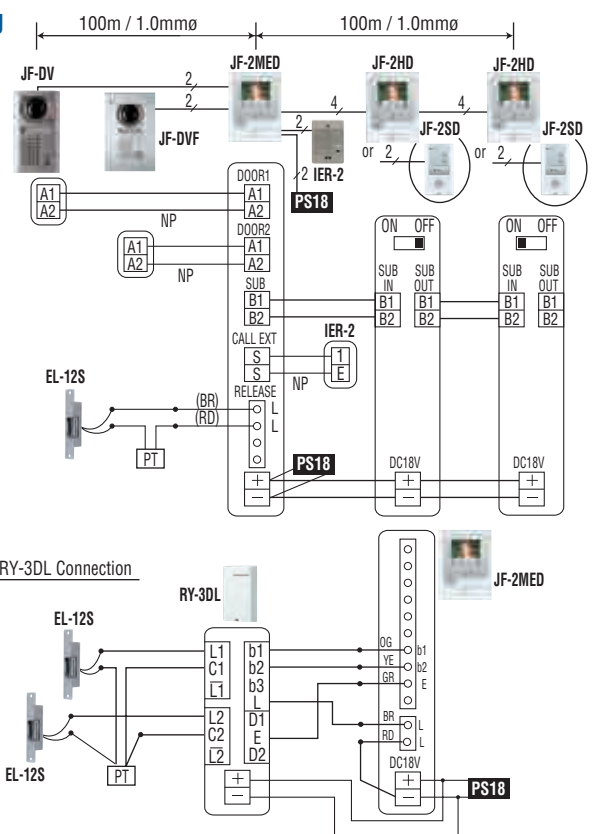


Selective control of door release at communicating Door station.  
All-Call the inside stations by voice, then talk individually.

### Picture memory



### Wiring



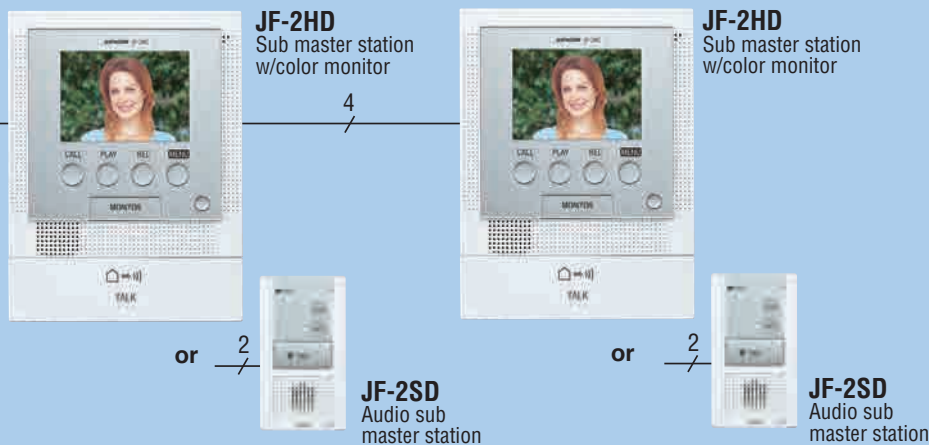
BR: Brown RD: Red OG: Orange YE: Yellow GR: Green  
**PS18** : PS-1820: **PT** AC Transformer



- Message for entrance; Outgoing messages can be recorded and sent out at the door station manually
- Streamlined & Thin design, only 32 mm thickness
- Vandal resistant video door stations are available
- White LED illumination turns on in low-light conditions
- Visual monitoring with audio for 1 minute
- External sensor connectable for notifying and pictograph on monitor
- Instant voice call-in with image

- Different chimes to indicate which door is calling
- Press-to-talk operation available
- All-Call for internal communication
- Transfer of door station call to other inside stations
- Selective door release control (with RY-3DL)
- Optional audio sub master station (JF-2SD)
- Audio door station in lieu of 2nd video door station
- Option - Option button, Video signal (NTSC) output, External talk switch, press-to-talk restriction

## Sub station



## Boxed sets



**JFS-2AED:** JF-2MED, JF-DA, PS-1820  
**JFS-2AEDV:** JF-2MED, JF-DV, PS-1820  
**JFS-2AEDF:** JF-2MED, JF-DVF, PS-1820

## Lineup



**RY-3DL**  
Selective door release adaptor  
→ P.6



**JBW-BA**  
Long distance adaptor  
\*Max. 300m away from Master to Door

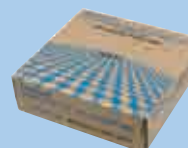


**KAW-D**  
30° angled box  
→ P.109



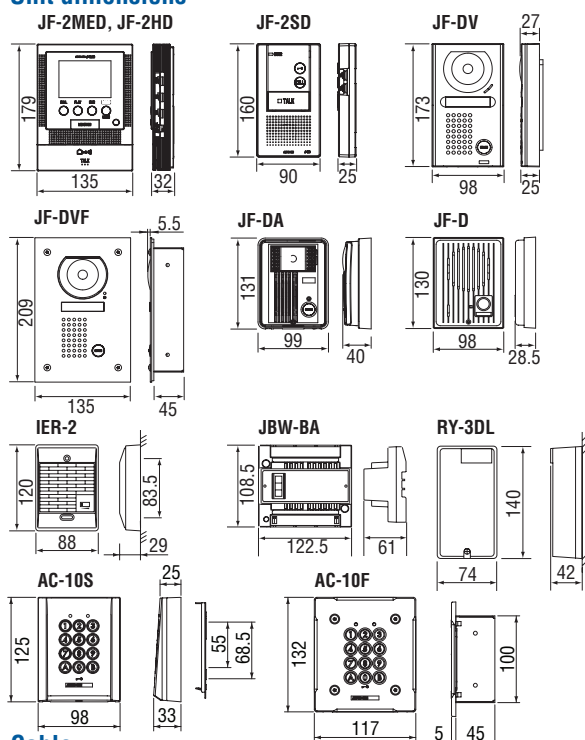
**EL-12S**  
Electric door strike  
→ P.110

**JBW-D**  
15° angled box



**AE7090210B AE7090210G**  
AIPHONE approved product wire  
→ P.112

## Unit dimensions

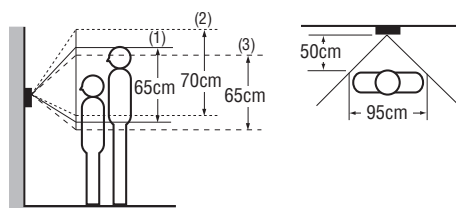


## Cable

Vinyl jacketed, PE(polyethylene) insulation cable is recommended. For other types of cables, normal operation and max. communication distance cannot be guaranteed.

## Image view area

JF-DA, JF-DV, JF-DVF



(1) Initial horizontal view (2), (3) When camera is turned up or down (JF-DA only)

## Specifications (JF-2MED)

Power source	18V DC
Power supply	PS-1820
Consumption	Max. 400mA (JF-2MED). Max. 220mA (JF-2HD)
Calling	Chime. Image & audio, approx. 45 sec.
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.
Video monitor	3-1/2 inch direct-view TFT color LCD.
Scanning line	525 lines
Night viewing	Up to 30cm from camera, with white LED projected, background beyond 30cm cannot be seen.
Door release	24V AC/DC, 500mA (N/O dry closure contact)
Wiring	Door to master: 2-cond., mid cap, solid, non-shielded. Master to sub: 4-cond., mid cap, solid, non-shielded.
Wire type	AIPHONE approved product wire: AE7090210B, AE7090210G
Wiring distance	Master to door: 50m (0.65mmø) 100m (1.0mmø) Master to farthest sub: 50m (0.65mmø) 100m (1.0mmø) Master to IER-2: 75m (0.65mmø) 150m (1.0mmø)

# GT system is ideal for large scale multiple buildings. Modern look,

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



## Multi building development P17



- 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 concierge stations.

(Maximum capacity→P39)

## Large scale residential building (more than 500 units) P19



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

(Maximum capacity→P39)

\* The design and specifications are subject to change without notice.

# residential developments with with new technology.

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

## Lineup



7-inch display

MULTI-TENANT BUILDING ENTRY SECURITY

7-inch Display tenant station

**GT-1C7** P27

- High-resolution, 7-inch display makes visitors easy to recognize.
- Functional design, intuitive control: illuminated easy-to-see buttons for door release and communication.

3.5-inch Display tenant station

**GT-1M3** P27

- Simple, compact design.



Entrance station

**GT-DMB-N** P23

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



Concierge station

**GT-MKB-N** P29

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



Video1-zone divider

**GT-1Z** P31

- Compact form factor is ideal for renewal installations.



# Hands-Free Color Video Multi-tenant Building System with Zoom & PanTilt

## Installation Example

### Multi building development

e.g. 4 Tenant sections (4 Entrance stations, 4 Concierge stations, 1,140 Tenant stations)

2 Common sections (2 Entrance stations, 6 Concierge stations)

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

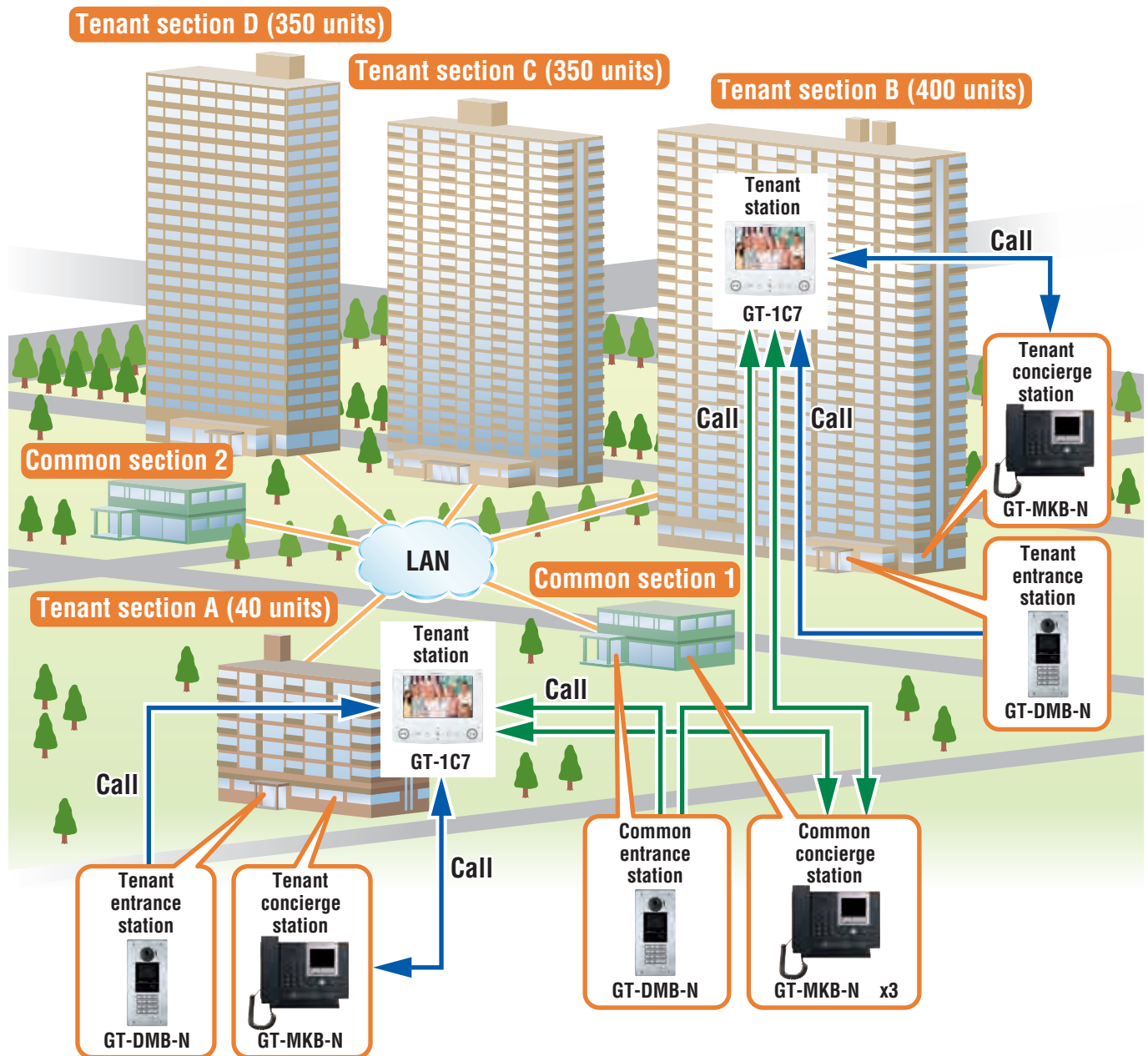
### Proposed system :

1 Standard system, 3 Expanded systems in tenant sections

2 Expanded systems in common sections

(Maximum capacity→P.37)

\*Possible to mix video and audio only systems.

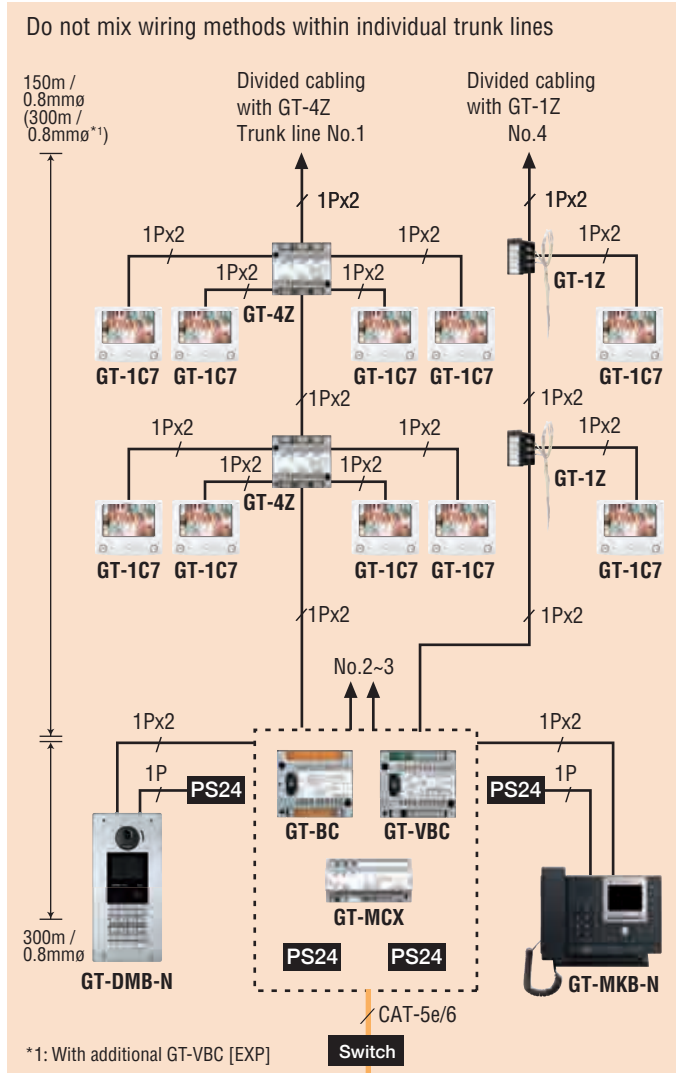


Tenant section A, B, C, D: In the above example, tenant sections mean residential buildings and towers.

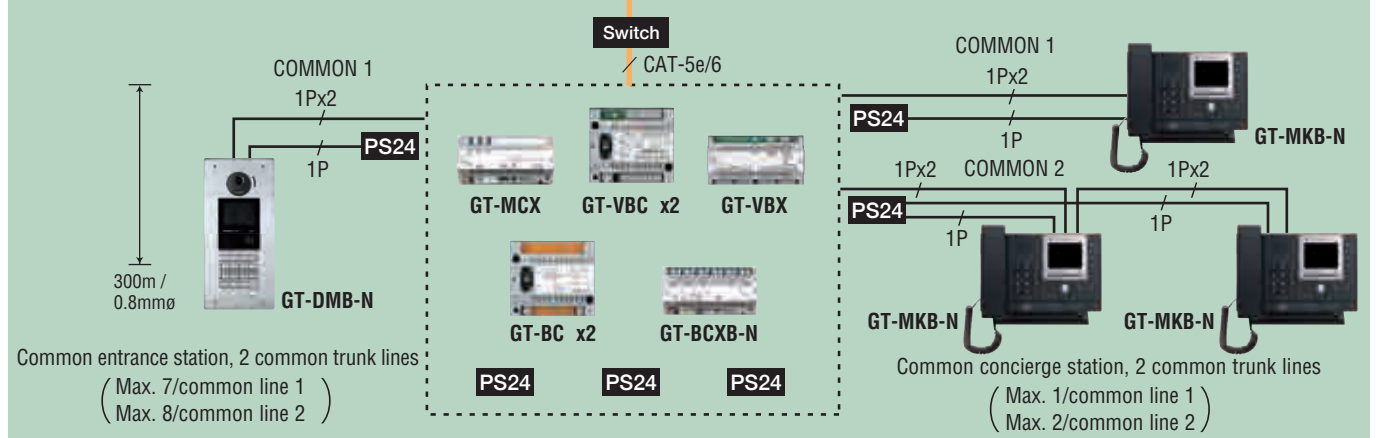
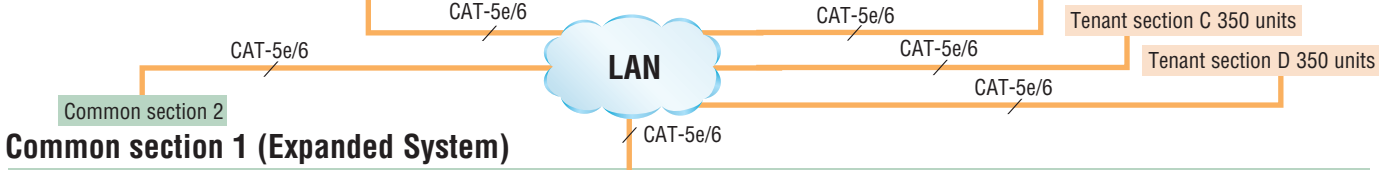
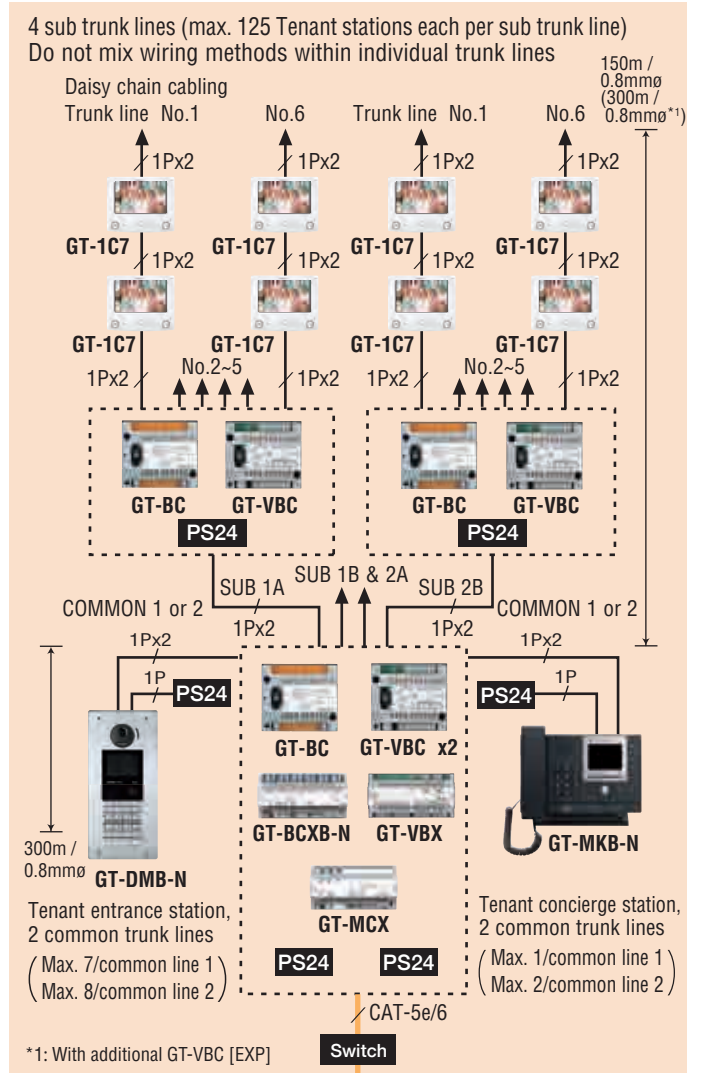
Common section 1 & 2: In the above example, common sections mean buildings such as security centers and administrative offices.

# System Configuration Example

## Tenant section A: 40 units (Standard system)



## Tenant section B: 400 units (Expanded system)



MULTI-TENANT BUILDING ENTRY SECURITY

# Hands-Free Color Video Multi-tenant Building System with Zoom & PanTilt

## Installation Example

Large scale residential building (more than 500 units)

e.g. 3 Tenant sections (1,200 Tenant stations)

1 Common section (3 Entrance stations, 3 Concierge stations)

- Section 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 concierge station.

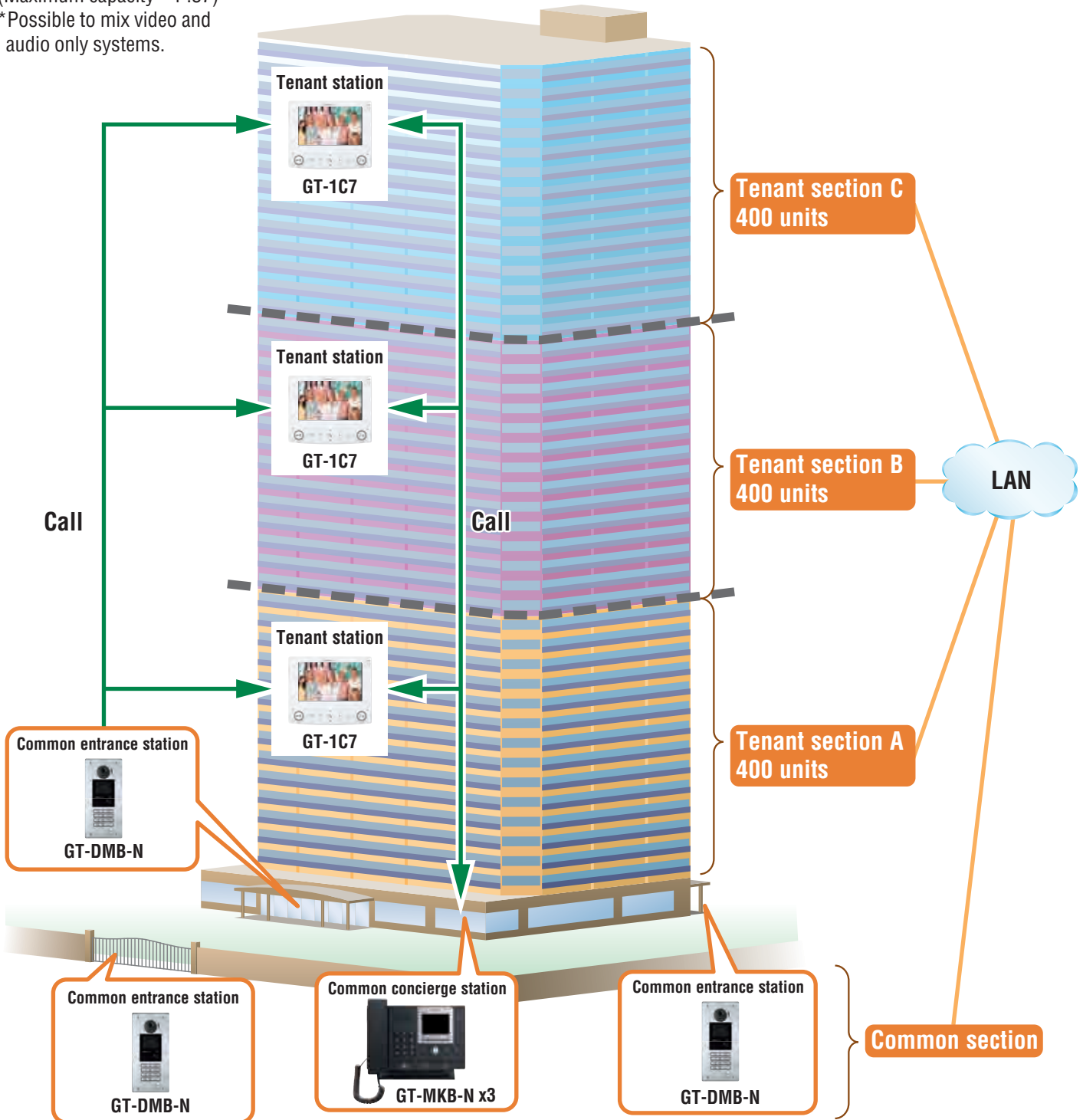
### Proposed system :

3 Expanded systems in tenant sections

1 Expanded system in common section

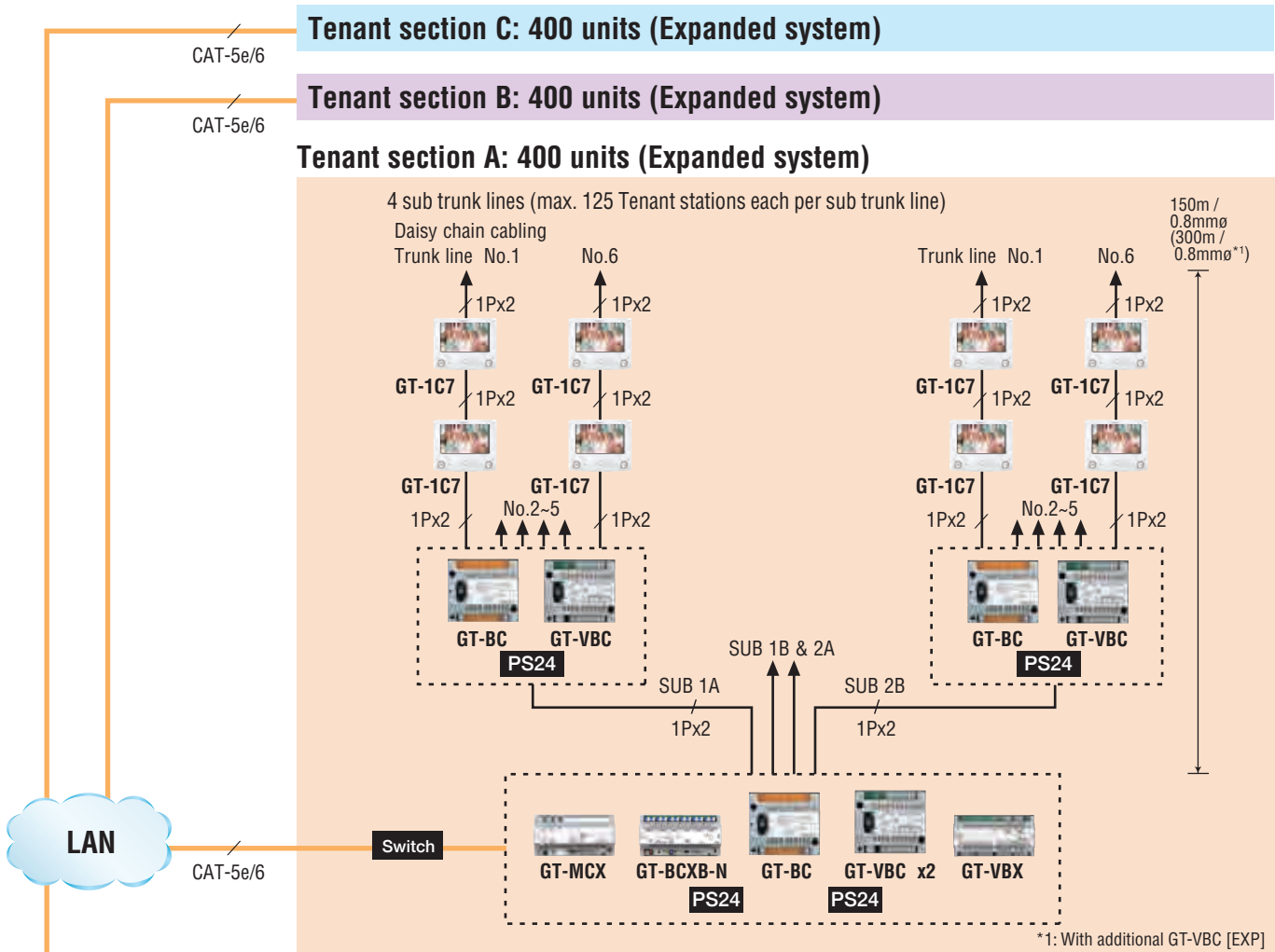
(Maximum capacity→P.37)

\*Possible to mix video and audio only systems.

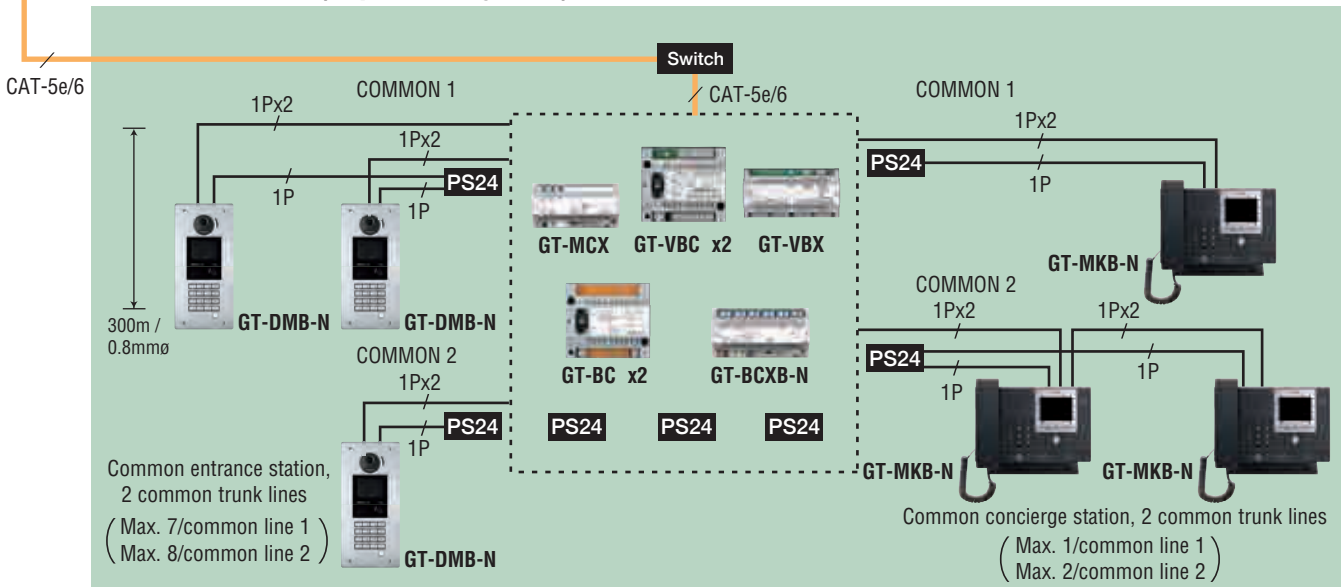


Common section: In the above example, common section means lobby and main entrance.

# System Configuration Example



## Common section (Expanded System)



# Hands-Free Color Video Multi-tenant Building System with Zoom & PanTilt

## Installation Example

Small residential building (e.g. 20 units)

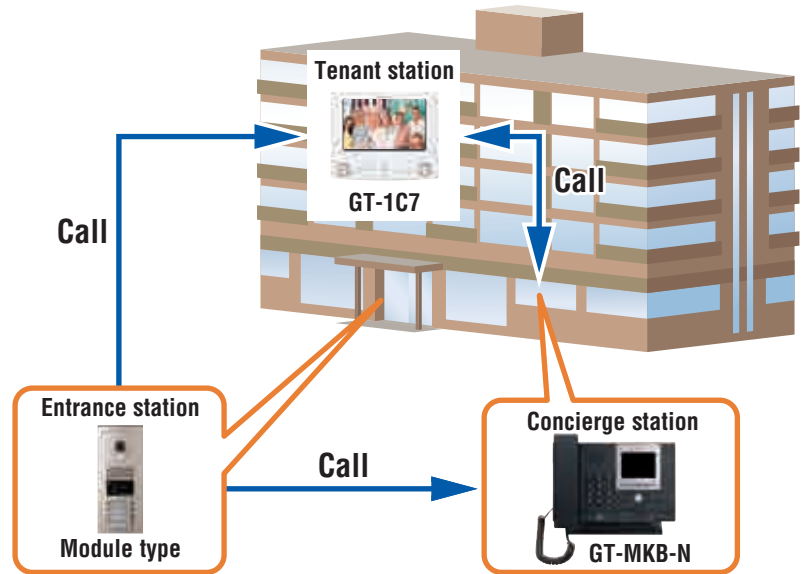
e.g. 1 Tenant section (1 Entrance station, 1 Concierge station, 20 Tenant stations)

**Proposed system:**

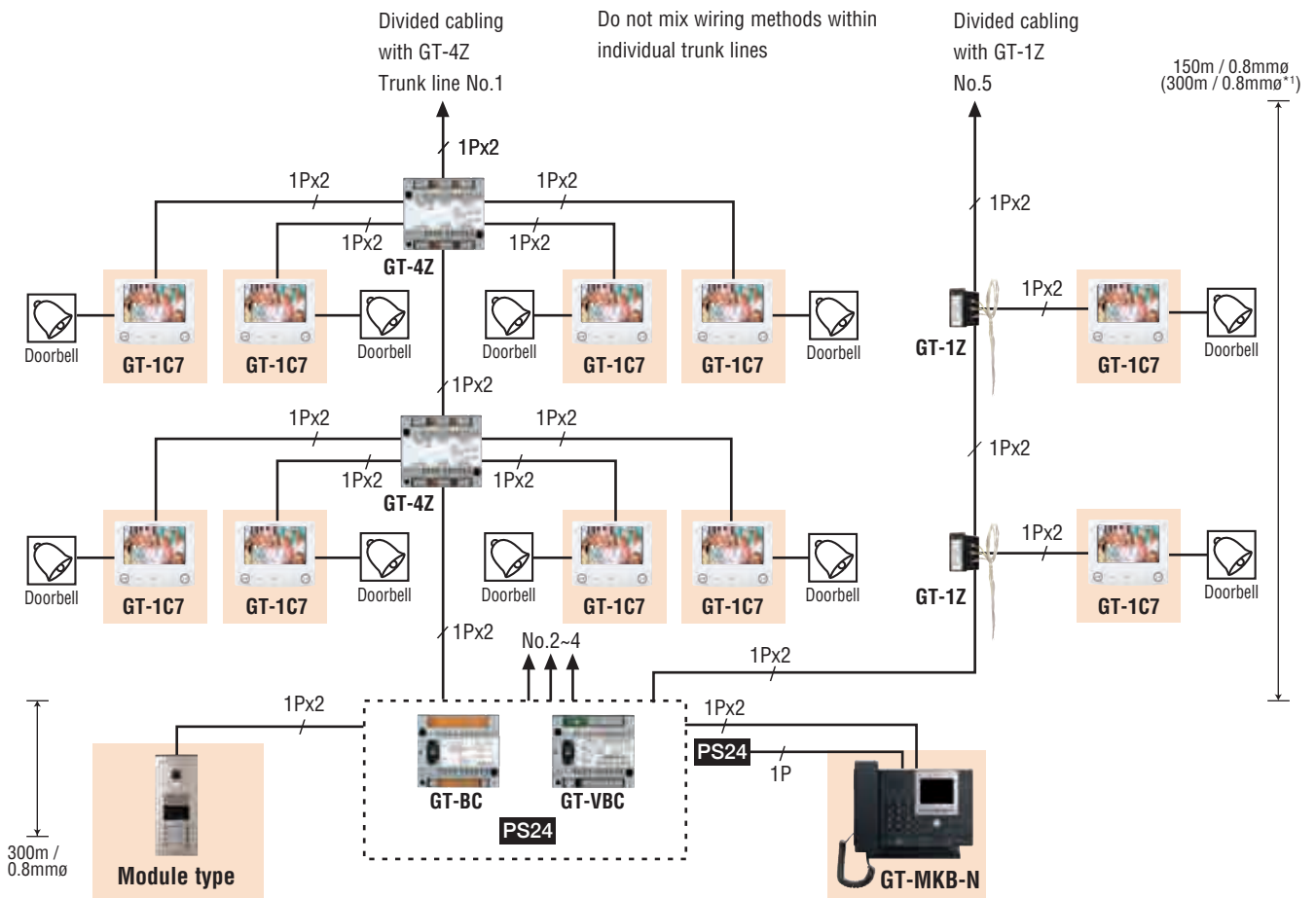
1 Standard system in tenant section

(Maximum capacity → P.37)

\*Possible to mix video and audio only tenant stations.



## System Configuration Example



\*1: With additional GT-VBC [EXP]



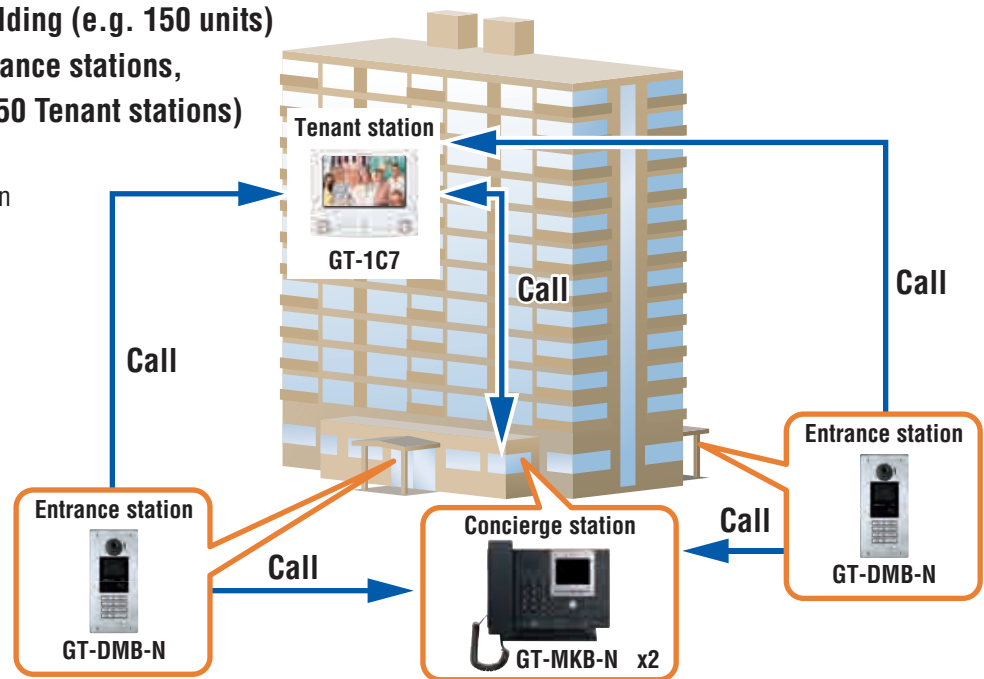
## Installation Example

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

### Proposed system:

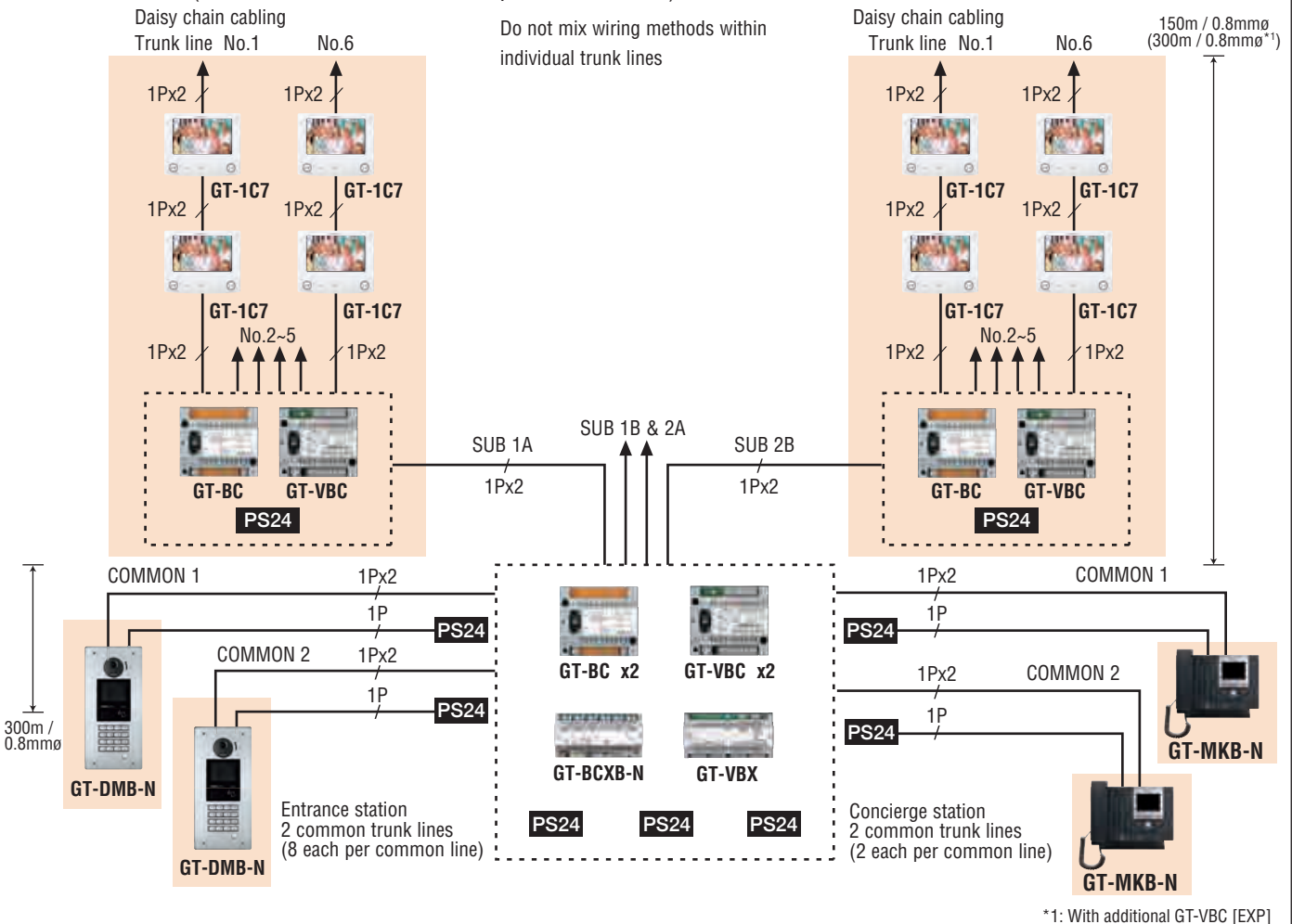
1 Expanded system in tenant section  
 (Maximum capacity → P.37)

\*Possible to mix video and audio only tenant stations.



## System Configuration Example

4 sub trunk lines (max. 125 Tenant stations each per sub trunk line)



# Video Multi-Tenant System

## Entrance station

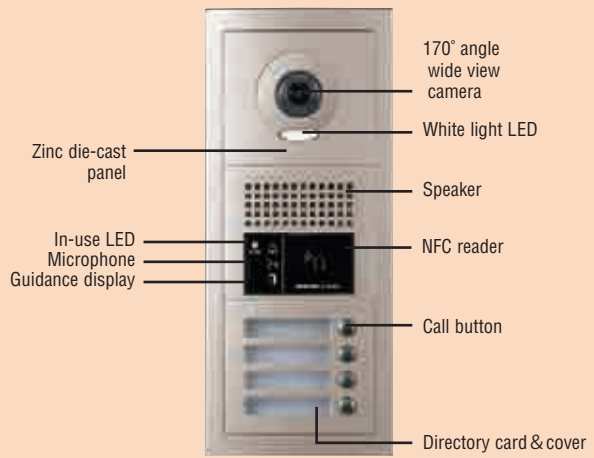
### All-in-one type



#### 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-2420
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

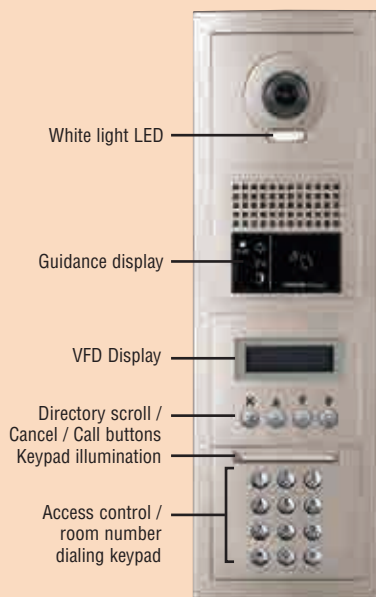
### Specifications (GT-VB,GT-DB,GT-DB-VN)

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-2420
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



- GF-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



**GT-AC**  
Access control keypad module



**GT-HID**  
Card reader panel

Access control keypad module

Option



**GF-AP**  
Address module panel



**GT-AD**  
Address module



**GF-BP**  
Blank panel



**GT-nH**  
Rain hood



**GT-nHB**  
Hooded surface-mount box



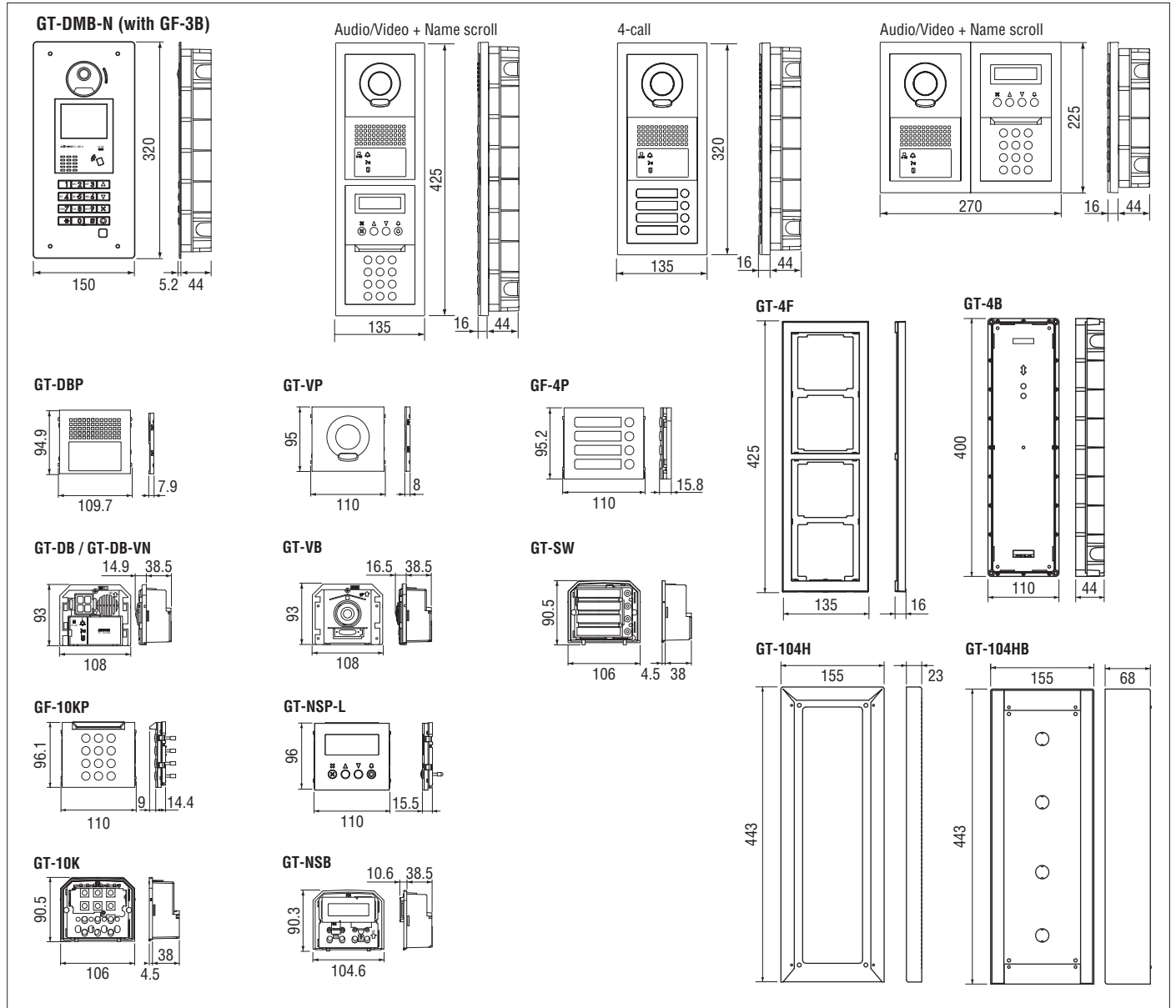
**SBX-GTDMB**  
Surface Mount Box for GT-DM

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

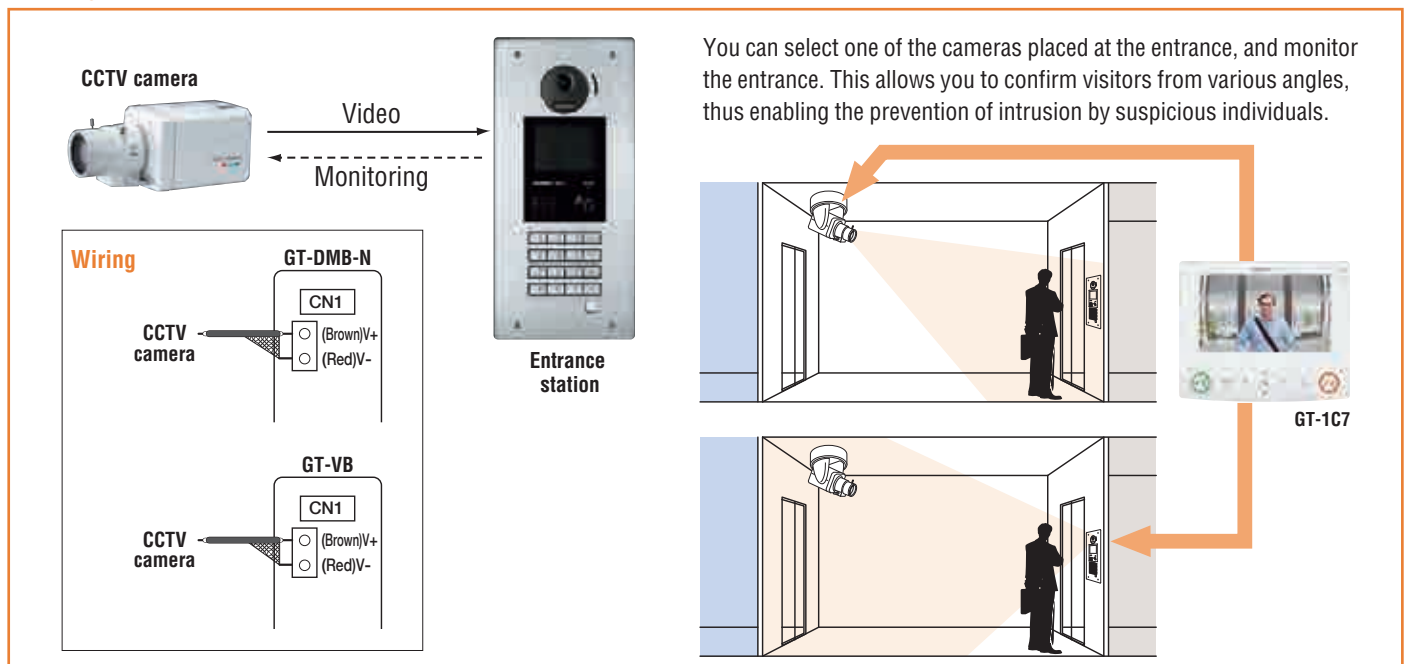
Lighting	Yellow LED
Material	Fire-retardant ABS plastic

# Video Multi-Tenant System

## Unit dimensions



## Security camera



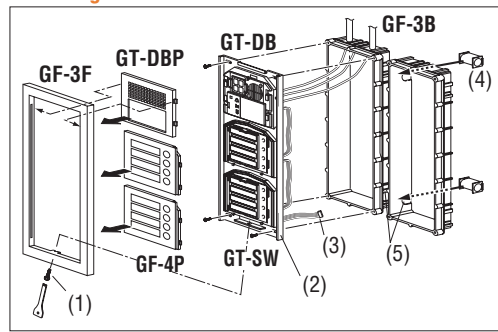
## Entrance station components

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	1	1
(2) GT-DB(-VN) & GT-DBP	1	1	1	1	1	1	1	1
(3) GT-SW & GF-4P	1	2	3	4	5	6	For more than 7×GT-SW, installation of additional power supply & special device required. Contact local ALPHONE distributor	1*
(4) GF-3F & GF-3B	1	—	2	2	—	3		—
(5) GT-4F & GT-4B	—	1	—	—	2	—		1
(6) GF-BP	—	—	—	—	—	1		—
GT-AD & GF-AP	—	—	1	—	1	—		—
GT-NSB & GT-NSP-L	—	—	—	—	—	—		1
GT-10K & GF-10KP	—	—	—	—	—	—		1

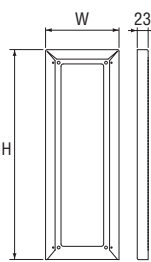
(1) Camera (2) Audio (3) Call switch (4) 3-module Front frame (5) 4-module Front frame (6) Option (7) Digital name scroll

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

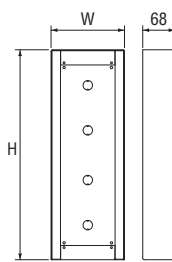
## Mounting



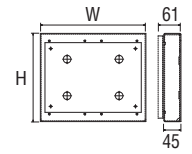
· GT-nH



· GT-nHB



· GF-nBA

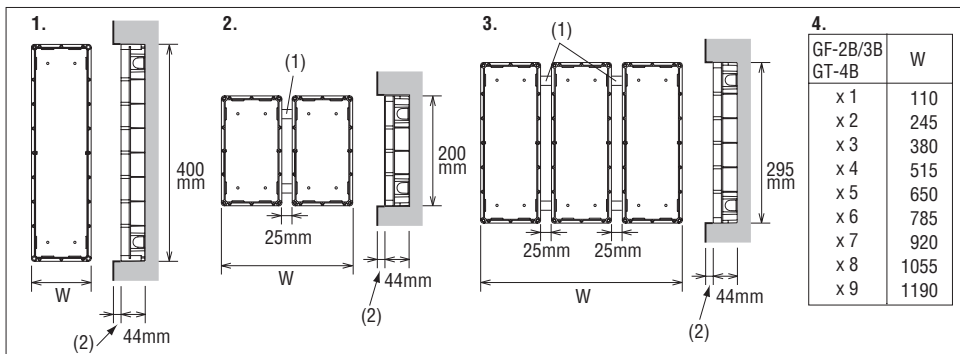


	H	W
GT-102H/HB	243	155
GT-202H/HB	243	290
GT-103H/HB	338	155
GT-203H/HB	338	290
GT-303HB	338	425
GT-104H/HB	443	155

	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.

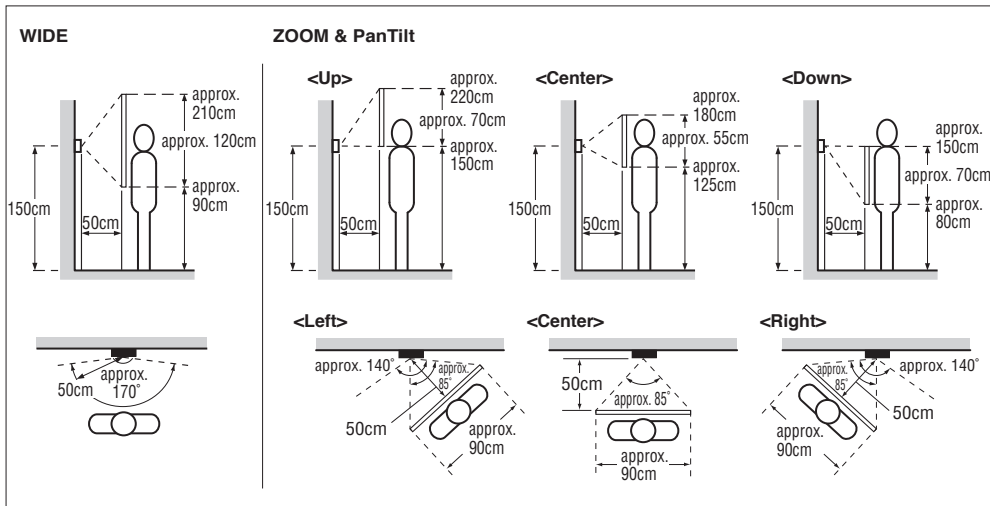
## Back box



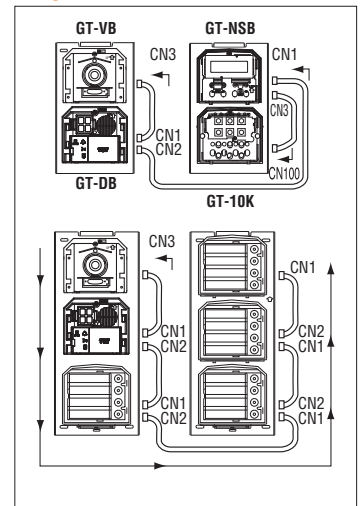
- One 4-module back box
- Two 2-module back boxes
- Three 3-module back boxes
- Back box total width (mm)

(1) Joint pipe(x2)  
(2) Do not recess back box more than 15mm.

## Image view area



## Interconnecting Modules with Plug-in Connectors



# Hands-Free Color Video Multi-tenant Building System with Zoom & PanTilt

## Hands-free color display tenant station 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) (\*)



(\*) Color display stations cannot be added.

### Features (GT-1C7)

- 7-inch LCD for video monitoring
- Zoom/wide and pan & tilt 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
- Concierge call
- Auto-entry (Doctor call)

## w/o picture memory



**GT-1M3**  
Color display tenant station

### Option

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

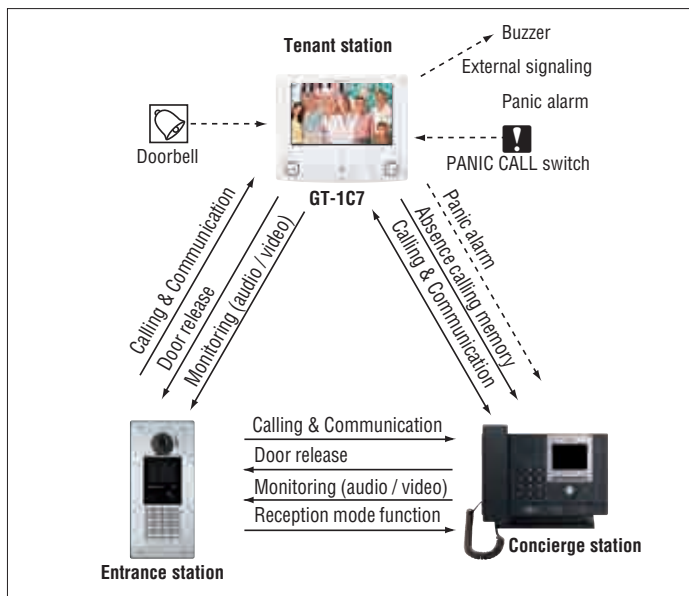


(\*) Max. 1 additional color display station can be installed (GT-1M3).  
Max. 3 additional audio stations can be installed (GT-1A or GT-1D).  
If 1 additional color display is installed, max. 2 additional audio stations can be installed.

### Features (GT-1M3)

- 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
- Concierge call
- Auto-entry (Doctor call)

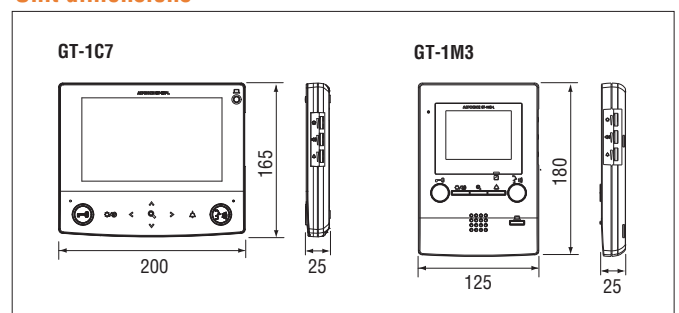
## Functions



## Specifications (GT-1C7, GT-1M3)

Power source	24V DC, supplied from Bus control units, GT-BC & GT-VBC
Video monitor	GT-1C7: 7-inch TFT color LCD GT-1M3: 3.5-inch TFT color LCD
Wiring	Two common Single-pair cables
Mounting	Surface wall-mount
Material	GT-1C7 Unit case: Self-extinguishing ABS resin GT-1M3 Unit case: Self-extinguishing PC + ABS resin GT-1C7, GT-1M3 Panel: Fire-retardant plastic

## Unit dimensions



## 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)



**GT-2H**

### Features (GT-2C)

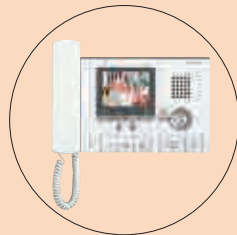
- Video recording from an entrance station or video door station
- Zoom/wide and pan & tilt video monitoring function
- 3.5-inch LCD for operation and video monitoring
- Hands-free communication, auto-voice actuation
- Push-to-talk communication is available
- Video image adjusting function
- Monitoring an entrance station or video door station
- Lighting control for a call from entrance station
- Releasing door lock
- Concierge 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

### Common items

#### Optional Handset



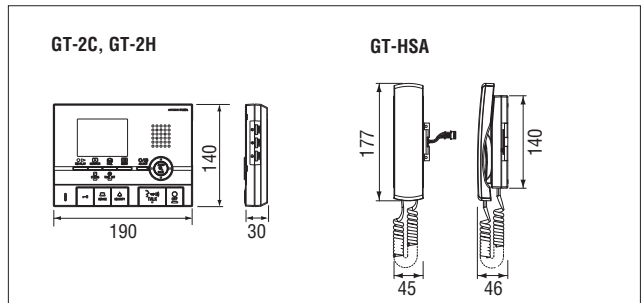
**GT-HSA**  
Handset  
for GT-2C, GT-2H



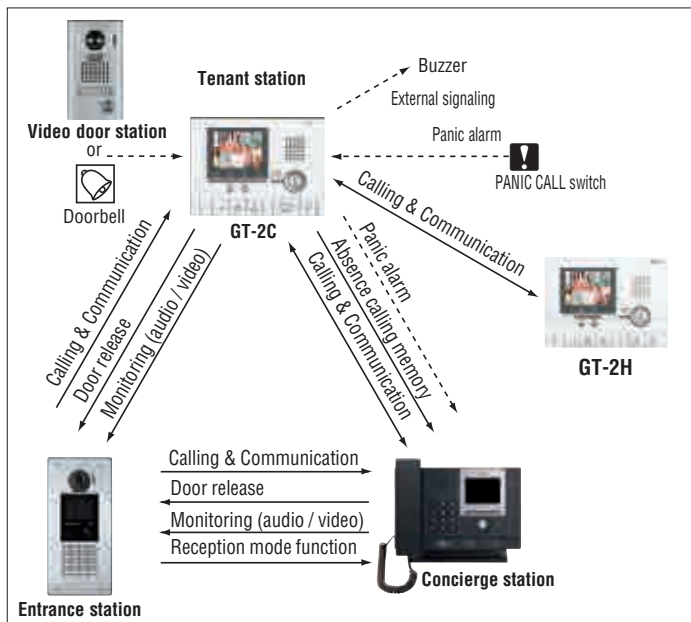
### Specifications (GT-2C, GT-2H)

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

### Unit dimensions



### Functions



# Video Multi-Tenant System

## Audio tenant station



**GT-1A**  
Audio tenant station

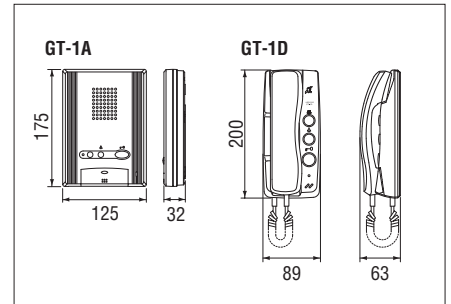


**GT-1D**  
Audio tenant station

### 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	Fire-retardant 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	Fire-retardant ABS plastic

## Concierge station



**GT-MKB-N**  
Concierge station

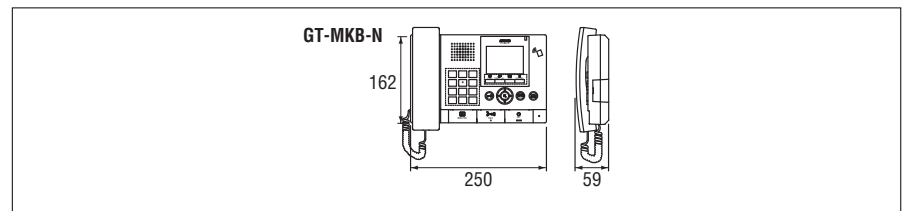
### Feature

- 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 concierge 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-2420
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-2C

### Video door station



#### JK-DA

Wide and Zoom & PanTilt video door station, surface mount for GT-2C



#### JK-DV

Wide and Zoom & PanTilt Vandal resistant video door station, surface mount for GT-2C



#### JK-DVF

Wide and Zoom & PanTilt Vandal resistant video door station, flush mount for GT-2C

### Door station



#### GT-D

Audio only door station, surface mount for GT-2C

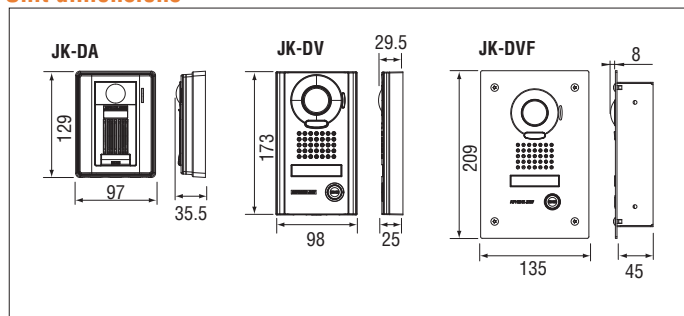
### Features

- 170° angle wide view camera
- Directory card with backlight (JK-DV, JK-DVF)
- White light LED illuminates the visitor automatically in low-light conditions

### Specifications (JK-DA, JK-DV, JK-DVF)

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	JK-DA, JK-DV: Surface wall mount (Directly to wall or electrical box) JK-DVF: Flush mount
Material	JK-DA: Fire-retardant PC + ABS plastic JK-DV: Die-cast zinc JK-DVF: Front panel Stainless steel

### Unit dimensions



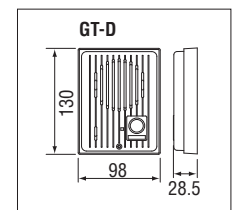
### Image view area

Refer to the descriptions for the image view area.  
→ P.10

### 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	Fire-retardant PC + ABS plastic

### Unit dimensions



## Door station for GT-MKB-N

### Video door station



#### JO-DV

Vandal resistant video door station, surface mount for GT-MKB-N

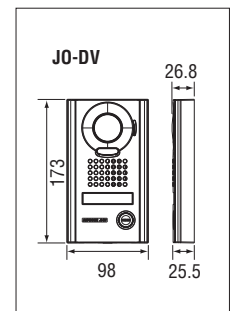
### Features

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

### Specifications

Power source	Supplied from Concierge 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



# Video Multi-Tenant System

## Control units



**GT-BC**  
Bus control unit



**GT-VBC**  
Video bus control unit,  
expander video control



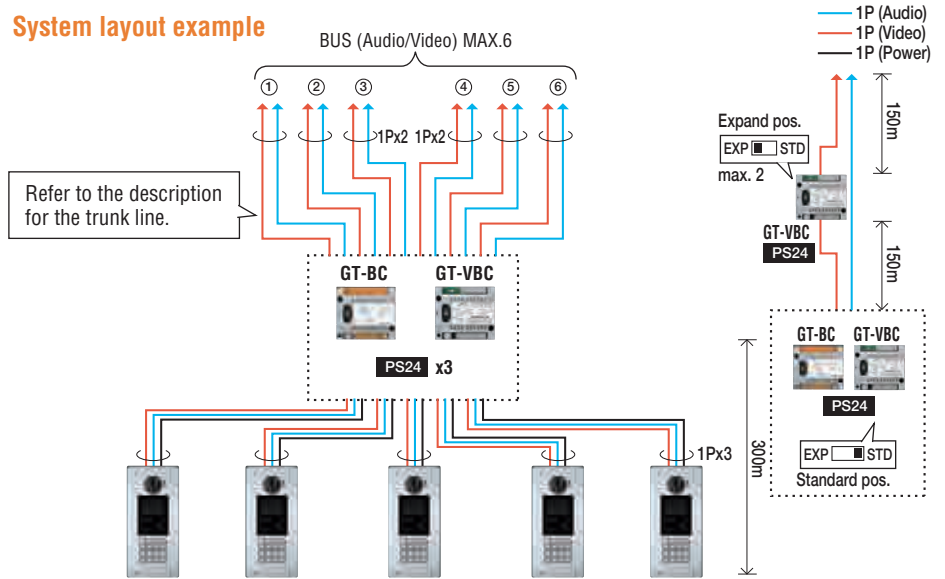
**GT-4Z**  
4-way video  
junction unit



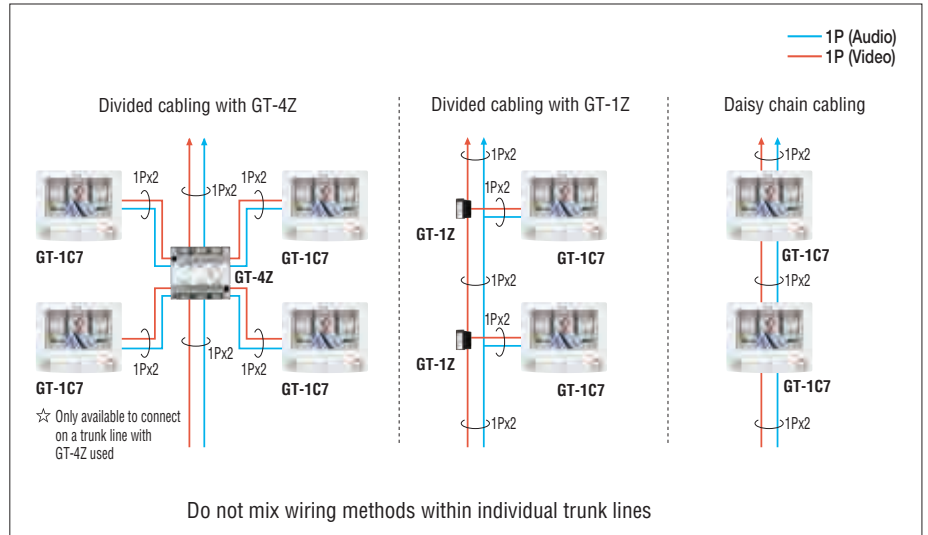
**GT-1Z**  
Video 1-zone divider

MULTI-TENANT BUILDING ENTRY SECURITY

### System layout example



### Trunk line



### Wire type

AIPHONE approved product wire: AE7090220B, AE7090220G, AE7090210B, AE7090210G 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-2420
Consumption	900mA.
Wiring	Common single-pair cable
Housing	Fire-retardant ABS plastic

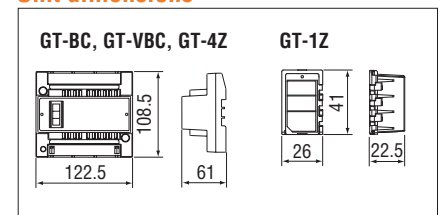
### Specifications (GT-4Z)

Wiring	Common two single-pair cables
Material	Fire-retardant 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

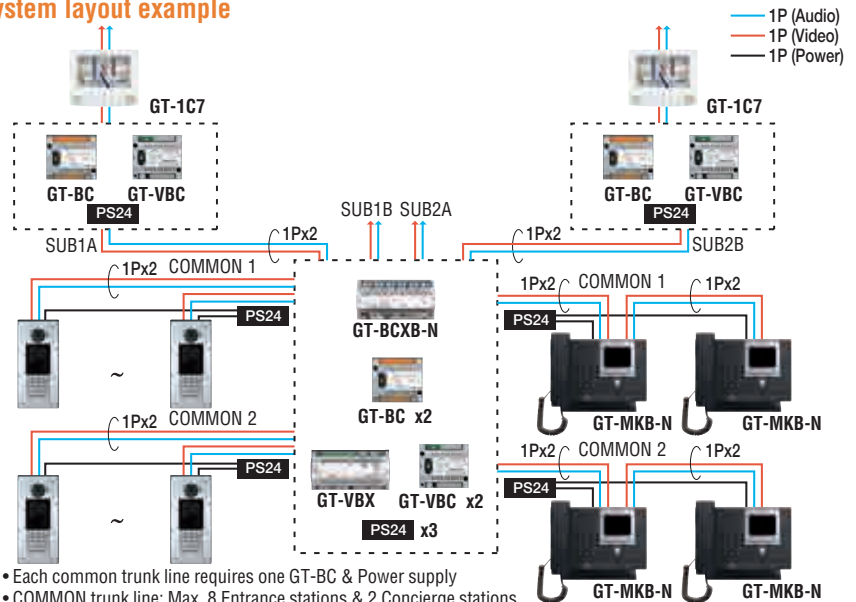


**GT-VBX**  
Expanded video bus control unit

### Features

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

### System layout example

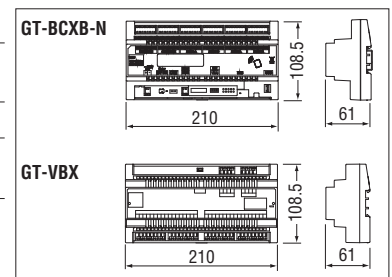


- Each common trunk line requires one GT-BC & Power supply
- COMMON trunk line: Max. 8 Entrance stations & 2 Concierge stations
- SUB COMMON trunk line: Max. 125 Tenant stations

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

Power source	GT-BCXB-N, 24V DC, supplied from PS-2420 GT-VBX: Supplied from GT-BCXB-N
Wiring	Common single-pair cable
Material	GT-BCXB-N: Self-extinguishing ABS resin GT-VBX: Fire-retardant ABS plastic

### Unit dimensions



## Power supply

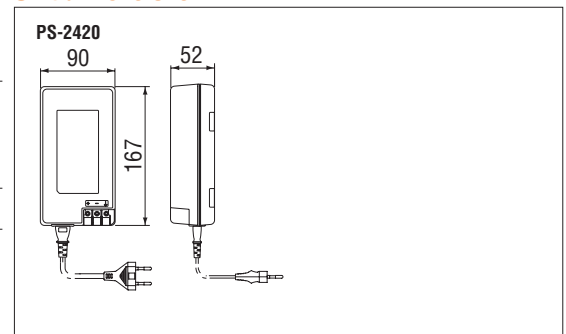


**PS-2420**

### Specifications (PS-2420)

Input voltage & Capacity	100-240V AC, 50/60Hz 60W/100-125VA
Output voltage	24V DC, 2A

### Unit dimensions



## Option



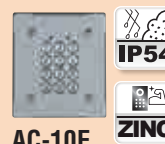
**GT-RY**  
External signaling relay for entrance light, external buzzer



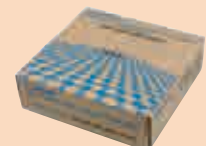
**W-DIN11**  
DIN mounting rail for GT-BC, GT-VBC, GT-4Z



**AC-10S**  
Access control keypad, surface mount  
→ P.107



**AC-10F**  
Access control keypad, flush mount  
→ P.107



**AE7090220B AE7090220G  
AE7090210B AE7090210G**  
AIPHONE approved product wire  
→ P.112

# Hands-Free Color Video Multi-tenant Building System with Zoom & PanTilt

## IP Adaptor



**GT-MCX**  
IP Adaptor

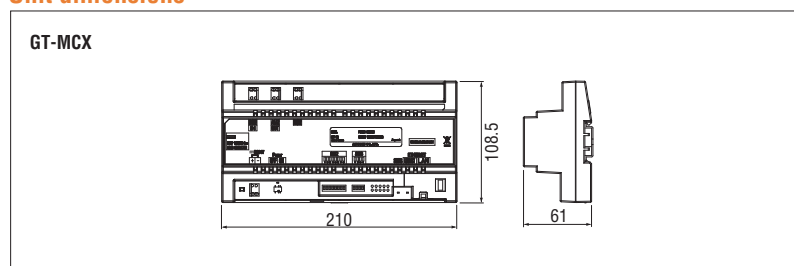
### Specifications

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

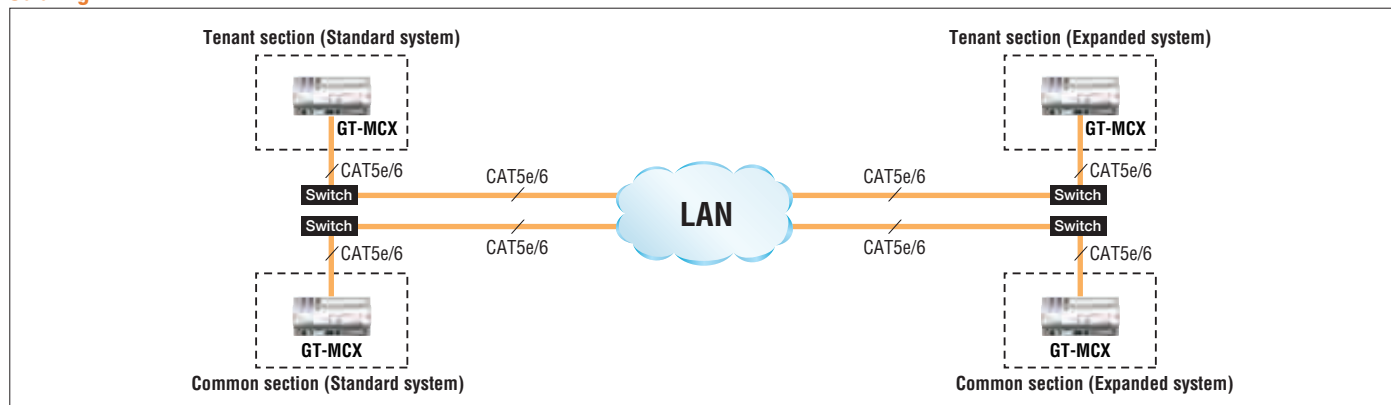
### Features

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

### Unit dimensions



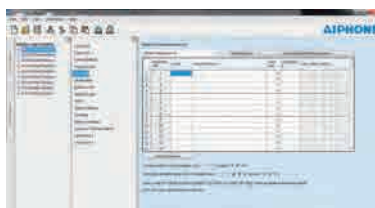
### Cabling



## Setting

### Easy system setting on a PC or mobile device

- Settings can be made from a PC or mobile device by using the Setting Software.
- Supported OS:  
Windows 7, 8.1, 10
- Supported Android OS version:  
Android 5.0 and greater



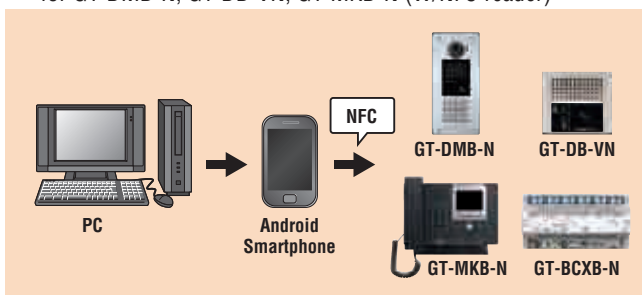
GT Setup Tool for Windows



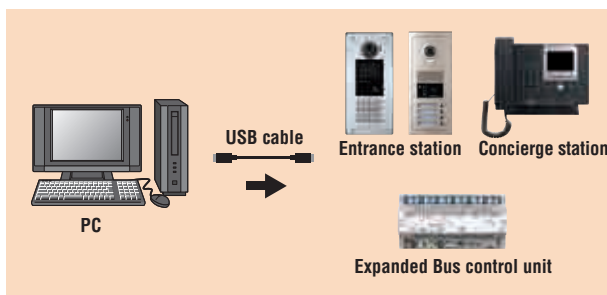
GT Setup Tool for Android

### Uploading the setting data

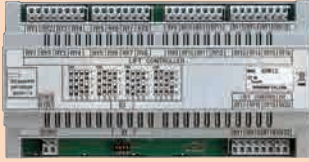
① Uploading using a mobile device for GT-DMB-N, GT-DB-VN, GT-MKB-N (W/NFC reader)



② Connecting the unit to a PC via USB



# Lift control adaptor



**GTW-LC**  
Lift control adaptor

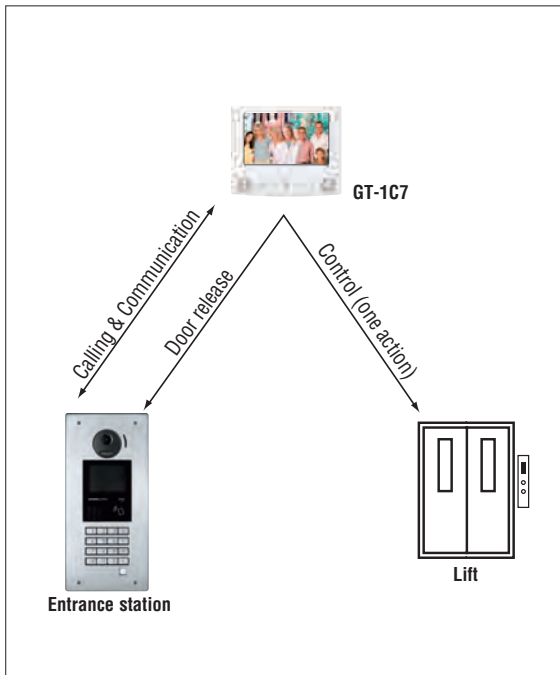
## Features

- 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 authorised only to the floor of communicating tenant station.
- Selectable dry contact: Normally Open or Normally Closed
- System setup data is programmable on your PC

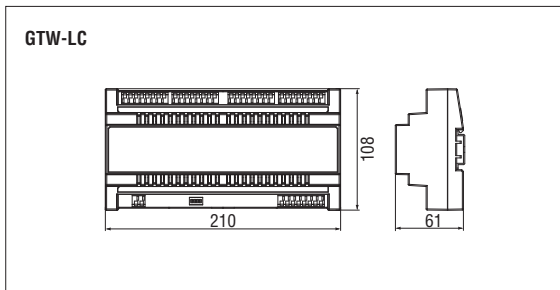
\* GT-BCXB-N or GT-BCX is required to use GTW-LC

\* GTW-LC cannot be used in the common sections of a multi building system

## Functions



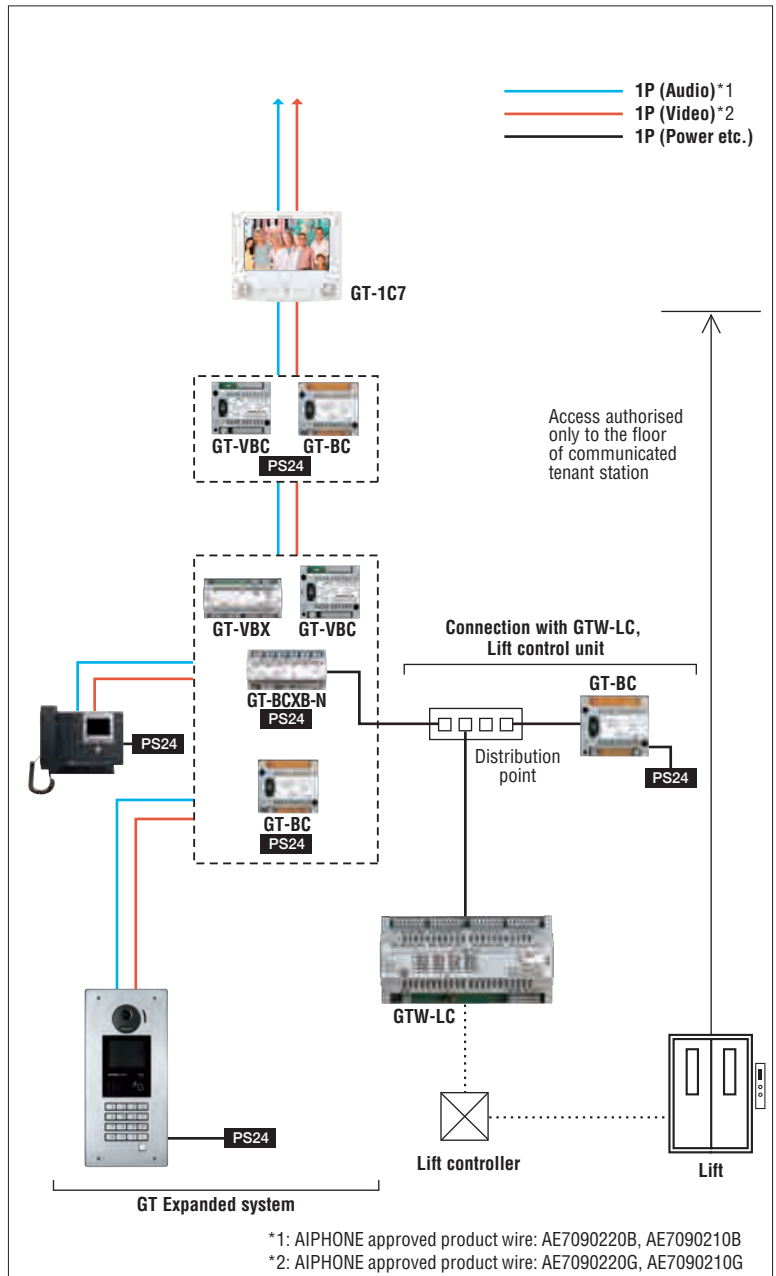
## Unit dimensions



## 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	Fire-retardant ABS plastic	

## Cabling



PS24 : PS-2420

# Hands-Free Color Video Multi-tenant Building System with Zoom & PanTilt

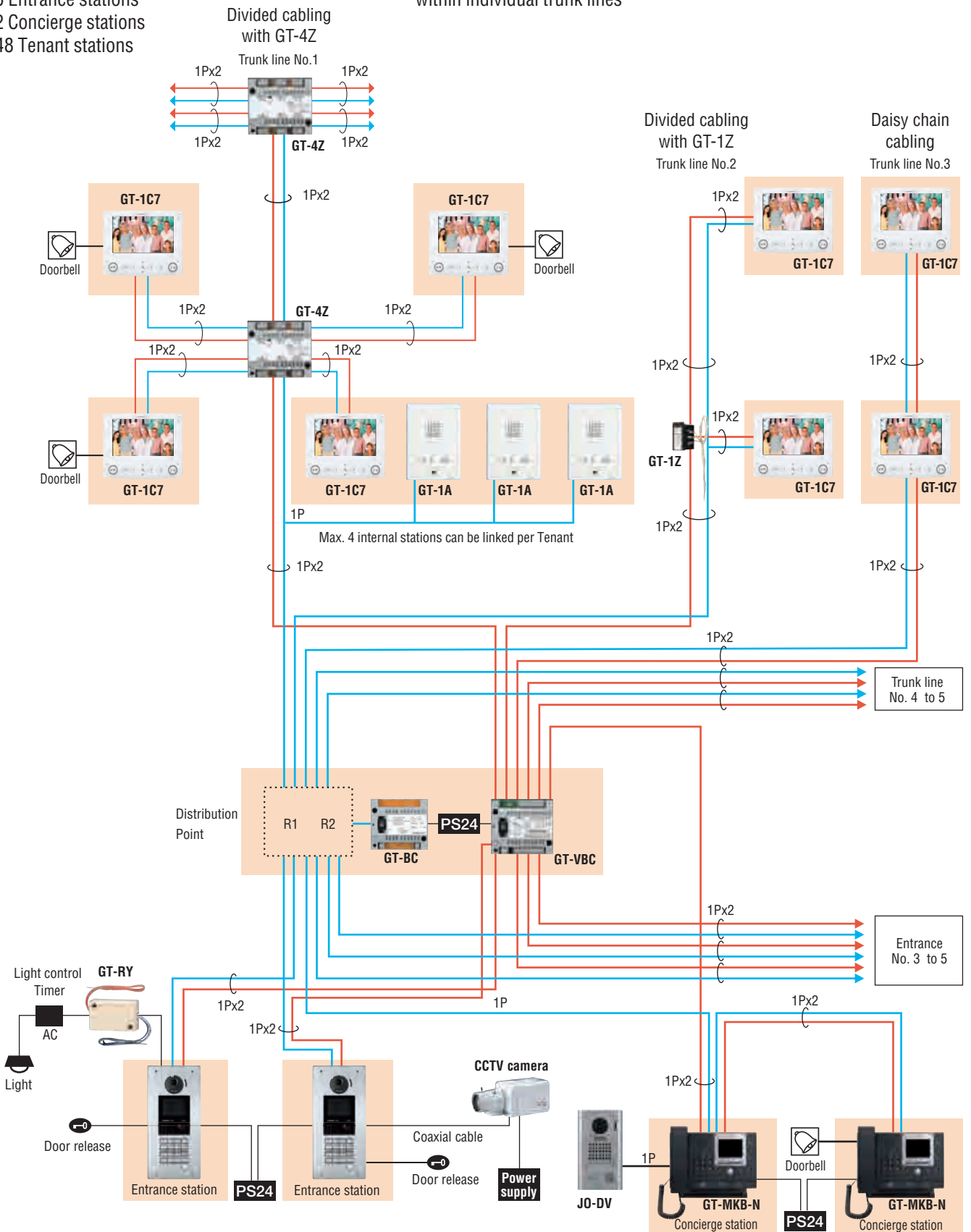
## Cabling

### Standard system

Capacity  
5 Entrance stations  
2 Concierge 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



# 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 Aiphone products.

## System Capacity

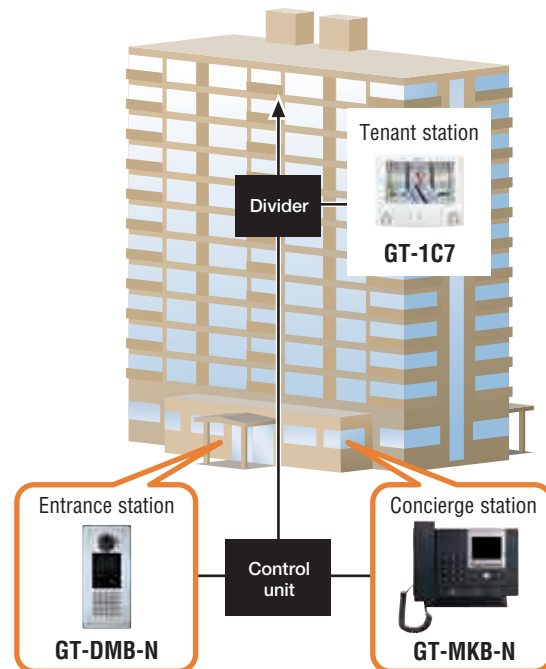
### Single building system

- 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
Concierge 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)

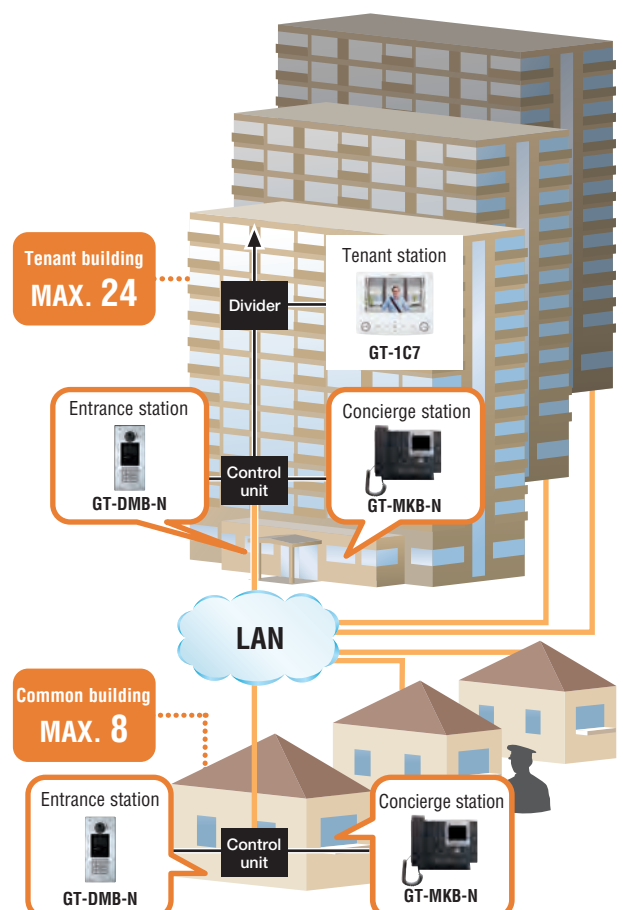
	Tenant building / section		Common building / section	
	Standard system	Expanded system	Standard system	Expanded system
Entrance station	4	15	4	15
Concierge station	1	3	1	3
Tenant station	48*1	500	—	—

\*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 common building / section)

Entrance station	480
Concierge station	96
Tenant station	5,000





# IP Multi-Tenant Building System

**IXG System**

**Available 4th Quarter 2018**

**Max  
9999 units**



**Smartphone Application**

Android iOS

1. Fully IP-based system. Use existing network infrastructure & share with other systems.
2. Peer to Peer & PoE for simple installation and reduced costs.
3. Smartphone Application ensures connectivity anywhere.
4. New 7-inch touchscreen residential master station and 7-inch touchscreen entrance station with recording.
5. Compatible with IX System. New possibilities for mixed developments.



MULTI-TENANT BUILDING ENTRY SECURITY

\* The design and specifications are subject to change without notice.

# The long awaited IP Apartment system. A

New connectivity and new options with our upcoming IP system. Connect together with the IX system to provide a complete communication solution.

MULTI-TENANT BUILDING ENTRY SECURITY

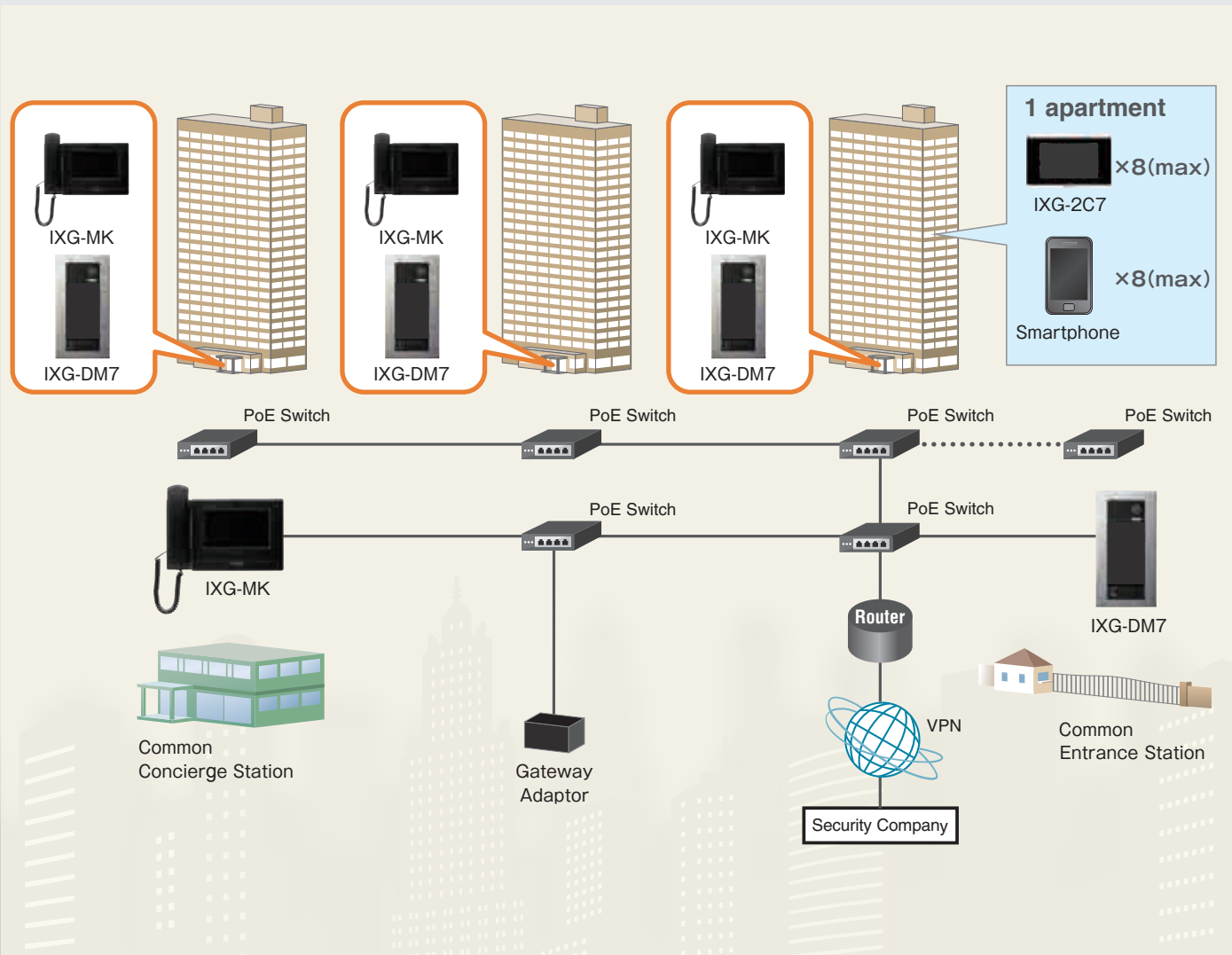
## Multiple apartment buildings



Compatible with multi building system (up to 99 buildings)

- Up to 99 interconnected buildings and up to 9999 units. Create flexible solutions for very large developments.
- Use the SmartPhone application to extend the system range to anywhere in the world.

## Installation Example



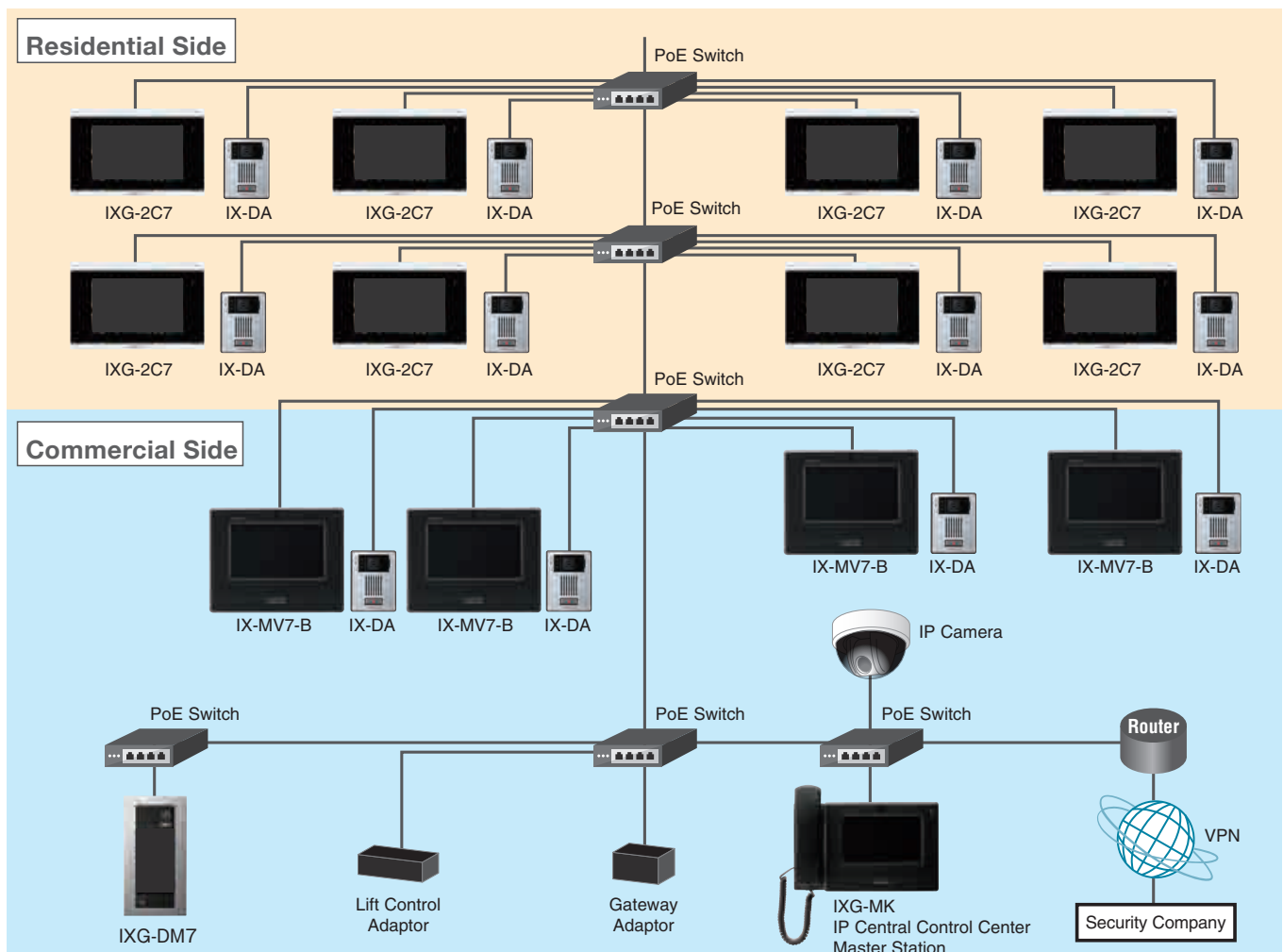
# reliable all-in-one solution for mixed applications.

## Complex building



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

## Installation Example



# IP Multi-tenant Building System

## Main Products



Master Station  
with 7-inch  
touchscreen

Video tenant station  
**IXG-2C7**

### Features

- 7-inch LCD touchscreen
- Internal communication between home master stations is possible.
- Connect with your smartphone and answer calls, release doors and check recordings from anywhere.
- Install up to 8 master stations in one apartment.
- Video and audio recorded to micro SD card.
- Use IXG-2C7-FMK for flush mount installation.



Video entrance station  
**IXG-DM7**

### Features

- 7-inch LCD touchscreen
- Customizable welcome screen.
- Video and audio can be continuously recorded in the internal micro SD card.
- 2-way video communication possible with concierge stations.
- Back box not included.
- Use IXG-DM7-BOX for flush mount included.
- Use IXG-DM7-SBOX for surface mount.



Concierge station  
**IXG-MK**

### Features

- Communication with tenant stations is possible.
- Video and audio recorded to a micro SD card.
- 2-way video communication possible with entrance stations.

Lift Control Adaptor  
**IXGW-LC**

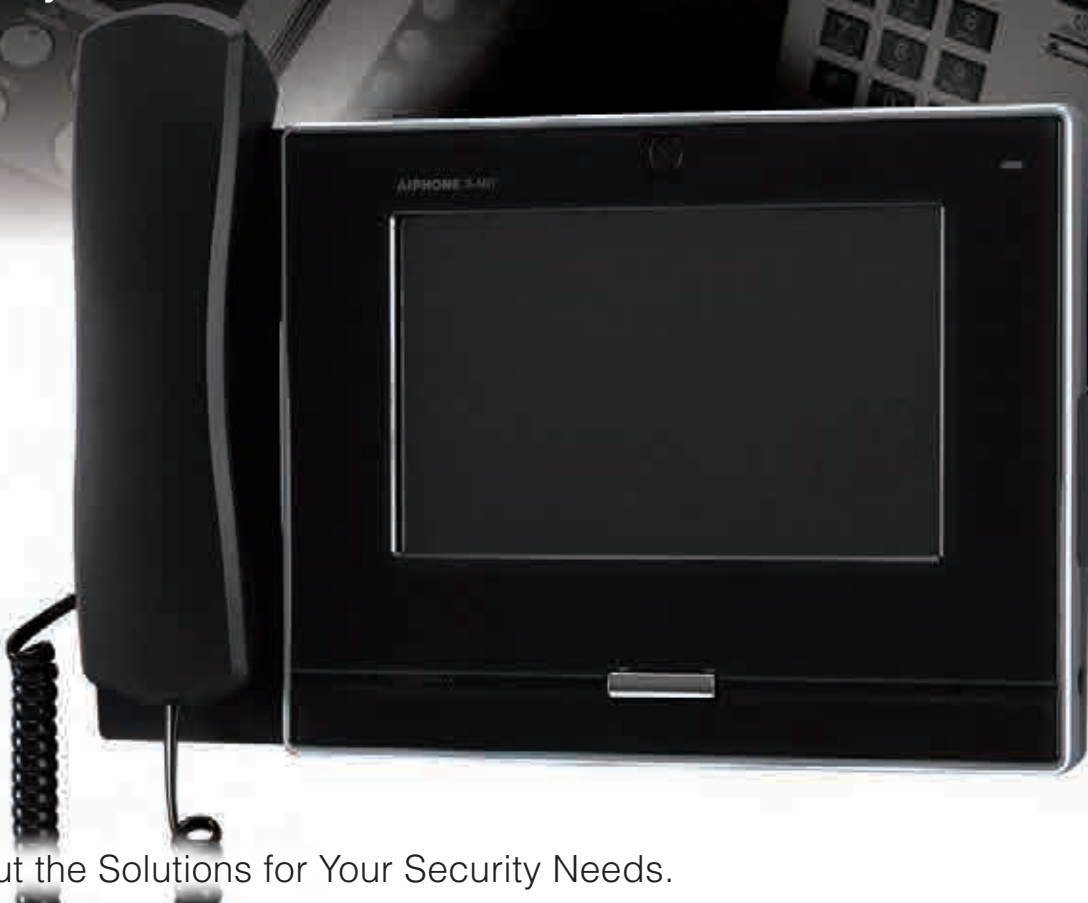
Gateway adaptor  
**IXGW-GW**

Intercom APP for iOS  
**ASP-IXGI**

Intercom APP for Android  
**ASP-IXGA**

# 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 series



P43~

Security IP Video Intercom System  
IS series



P61~

Integratable Audio / Video Security  
AX series



P73~

# IP Network Audio - Video Intercom System

## IX System **New**


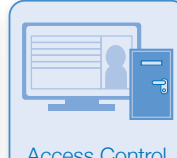

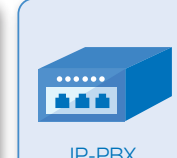
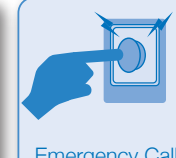
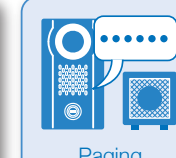
### Extensive lineup, greater flexibility, covering more applications.

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



INTEGRATED SECURITY & COMMUNICATION SYSTEM

### Security enhanced by Integration

 Network Camera	 Access Control	 VMS/NVR	 IP-PBX	 Emergency Call	 Paging
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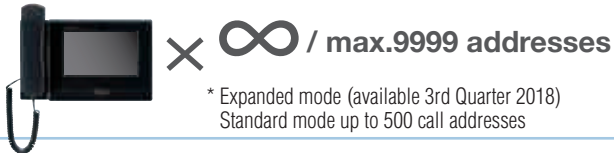
\* The design and specifications are subject to change without notice.

## 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 9999\* 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.

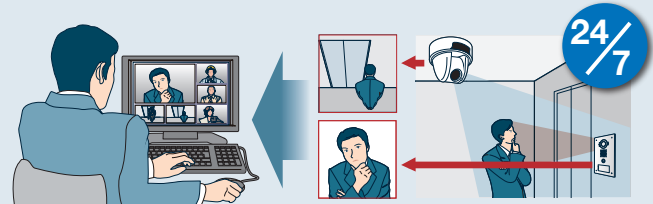


### Examples of Integration Use with a Video Management System and Access Control

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 only. For further details, please contact your dealer.



# IP Network Audio - Video Intercom System

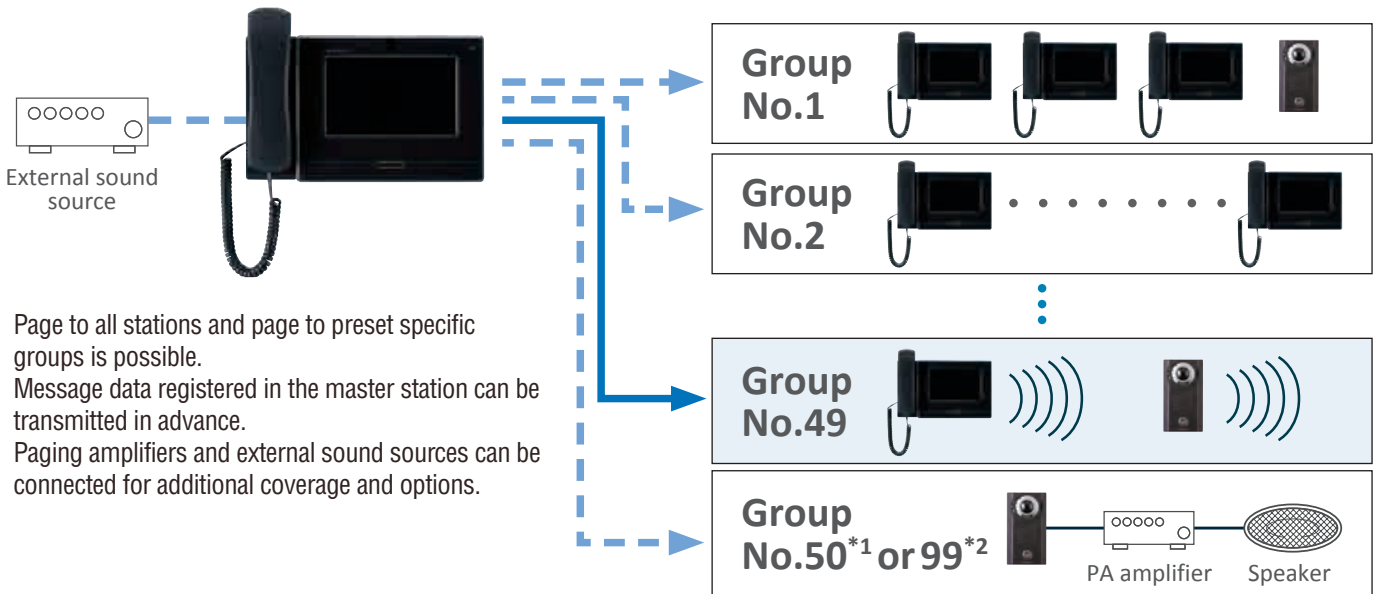
## Custom settings for all situations.

### 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 stations or individual groups



Page to all 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 Standard mode  
\*2 Expanded mode (Available 3rd Quarter 2018)

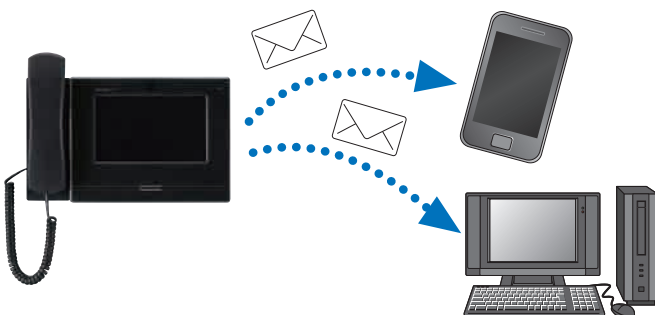
### Unicast / Multicast

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

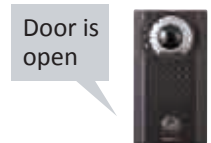
When master stations are called, IX System can send an E-mail attached with the visitor's picture up to 4\* E-mail addresses. Error and health check reports can be also sent via E-mail.

\*1 administrator, 3 user accounts.



### 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.

- Call in Progress** - The Call indicator flashes in green.
- Communication in Progress** - The Communication indicator flashes in orange.
- Door release** - The Door indicator flashes in green.





## A wide range of call transfer features

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

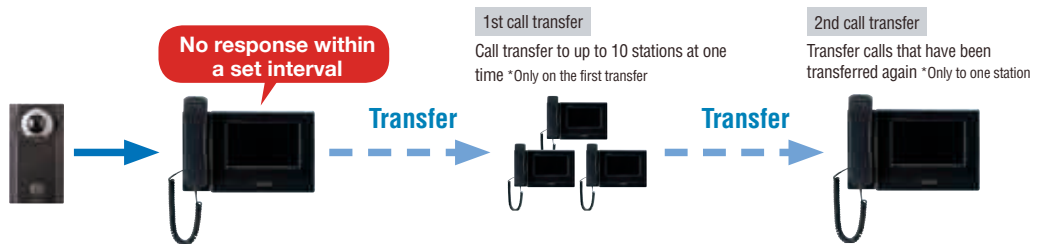
### Manual transfer

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



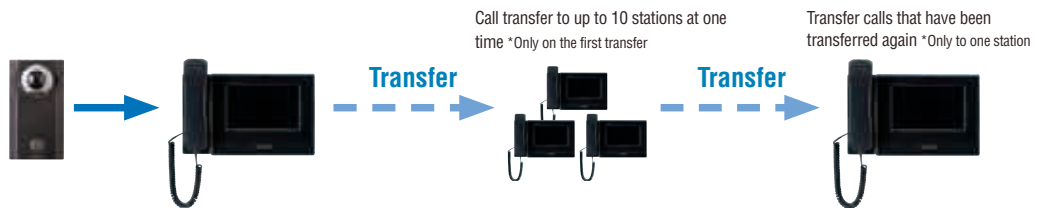
### Delay transfer

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.

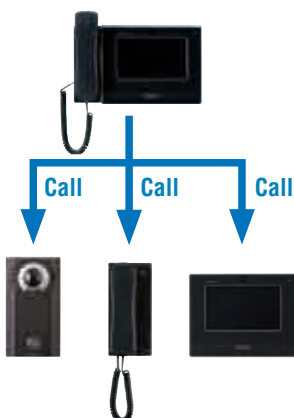


## Usage-specific individual calls and simultaneous calls to multiple devices

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

### Individual calls

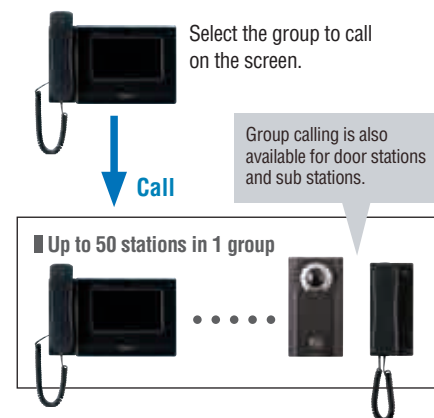
Master station can call and talk with each station individually.



### Group calls (master station)

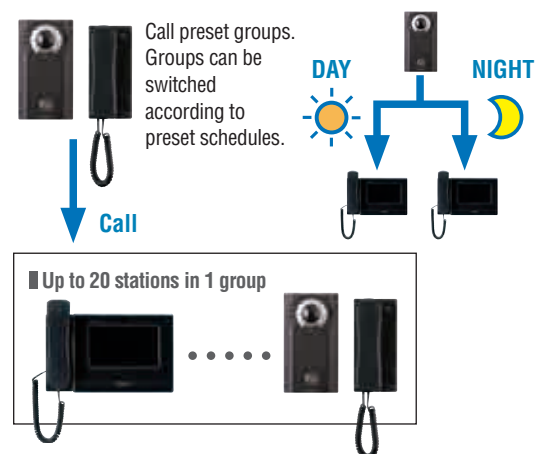
Up to 50 stations can be called at one time. (Up to 50\*<sup>1</sup> or 99\*<sup>2</sup> groups can be registered)

\*1 Standard mode  
\*2 Expanded mode (Available 3rd Quarter 2018)



### Group calls (Door station / sub station)

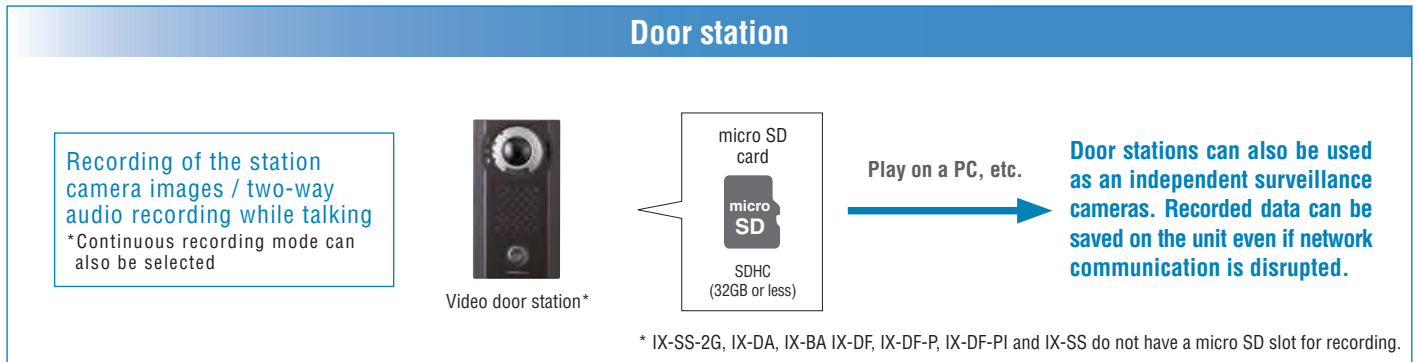
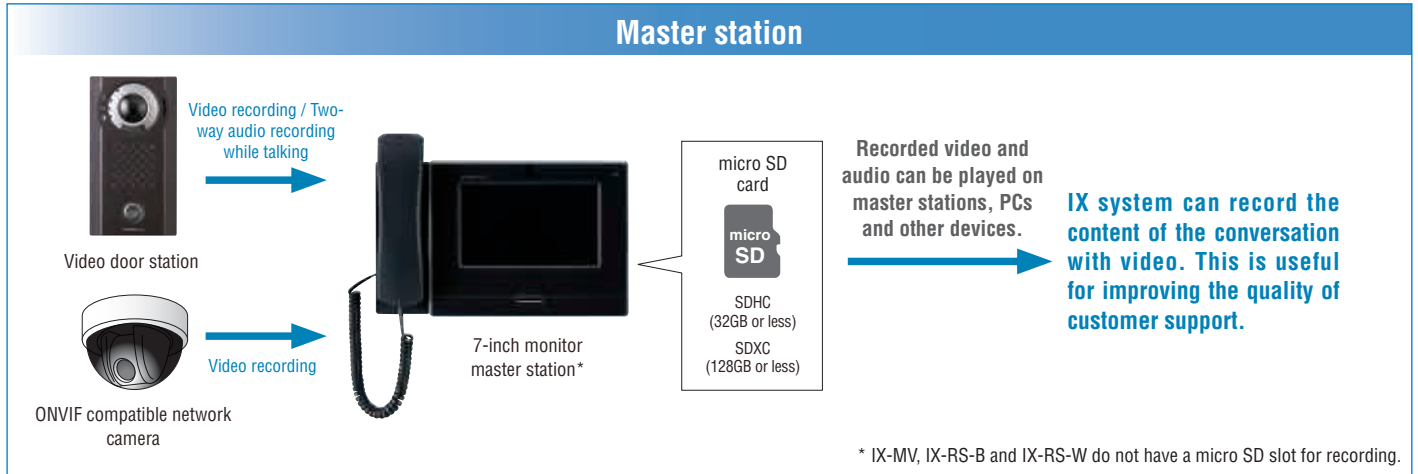
Up to 20 stations can be called at one time. (Up to 10 groups can be registered)



# IP Network Audio - Video Intercom System

## Audio and video recording

Even without linking to a third party recording system, video and audio can be recorded on a micro SD card in the IX system master and door stations.

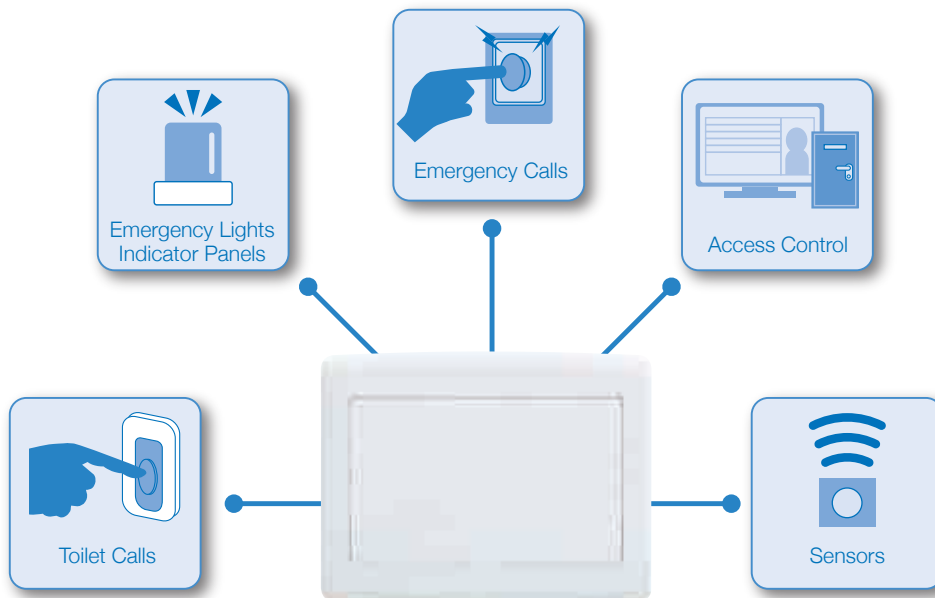


## Powerful and clear sound in all situations



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

## Use of a multi-purpose adaptor (IXW-MA) Exclusive IX system accessory



### Specifications

- 4 Contact inputs
- 10 Relay outputs

### Usage examples


- Link to various devices to allow two way control
- Connect toilet calls
- Access control management
- Connect emergency calls
- Connect sensors
- Connect lights / indicators

### API

- Use API to add even more functionality\*
- \*For further details, please contact your dealer.

## Compatible with existing IX installations.

Integrate and upgrade previously installed IX systems.  
Use the existing network infrastructure while providing powerful new options.



New IX products can be connected to existing IX installations. Upgrade and enhance your communication network.



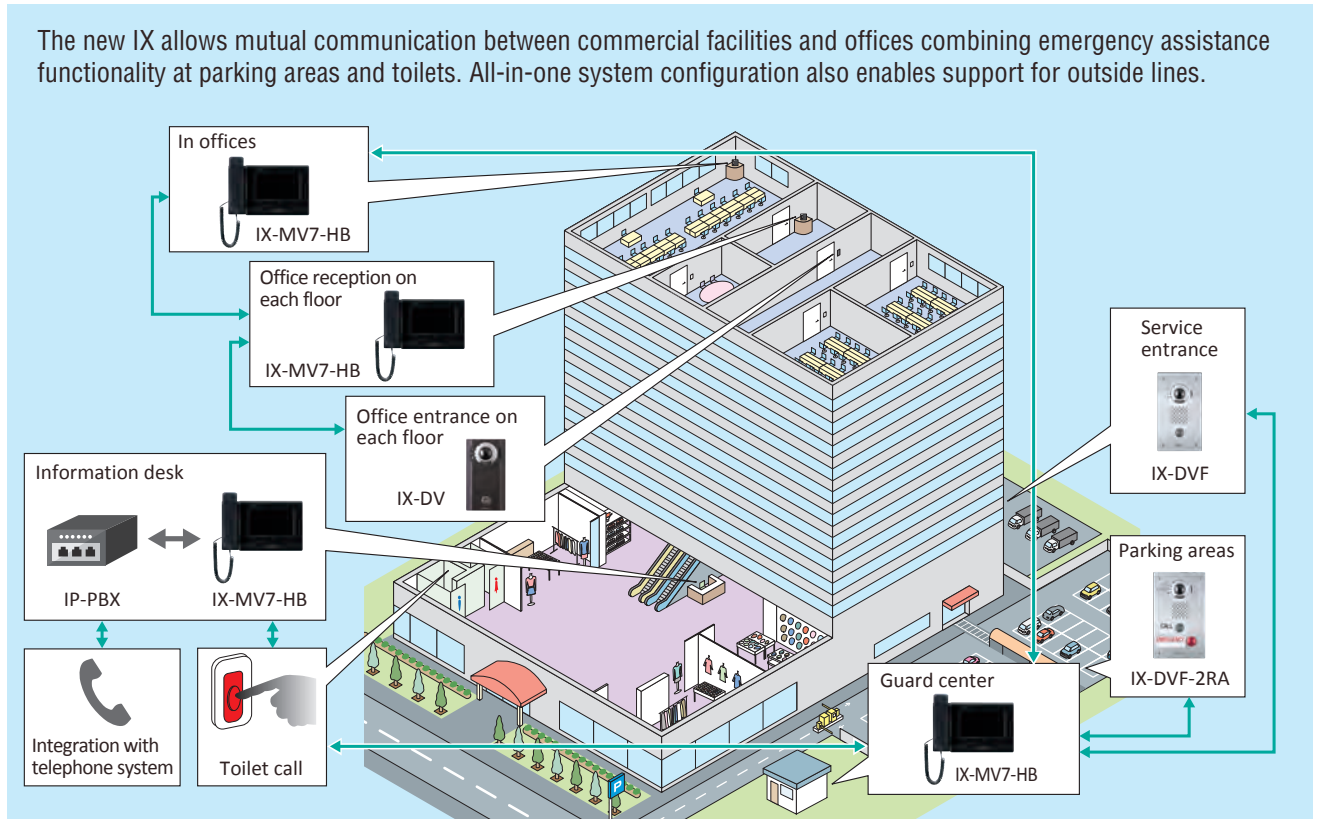
# IP Network Audio - Video Intercom System

## Examples of Popular Applications

### Commercial facilities and offices

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

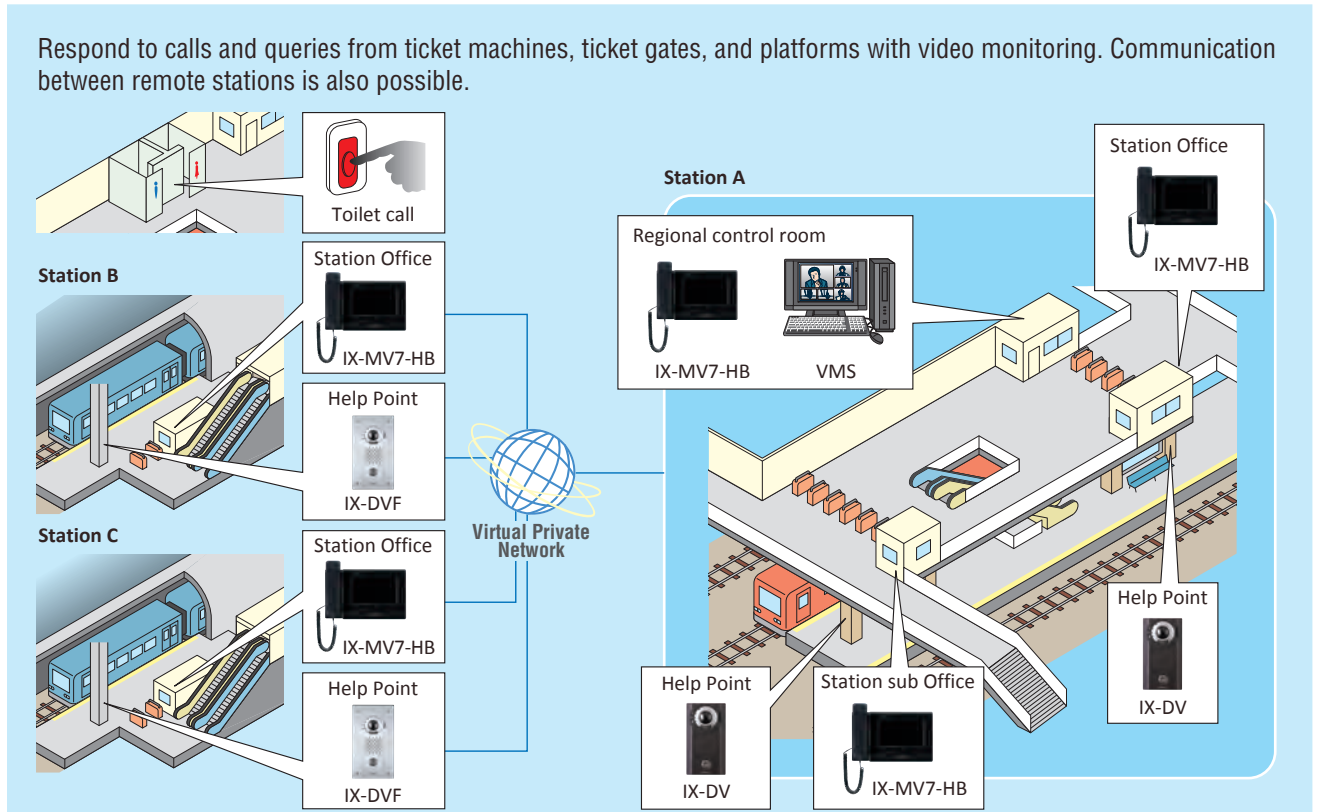
The new IX allows mutual communication between commercial facilities and offices combining emergency assistance functionality at parking areas and toilets. All-in-one system configuration also enables support for outside lines.



### Railways

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

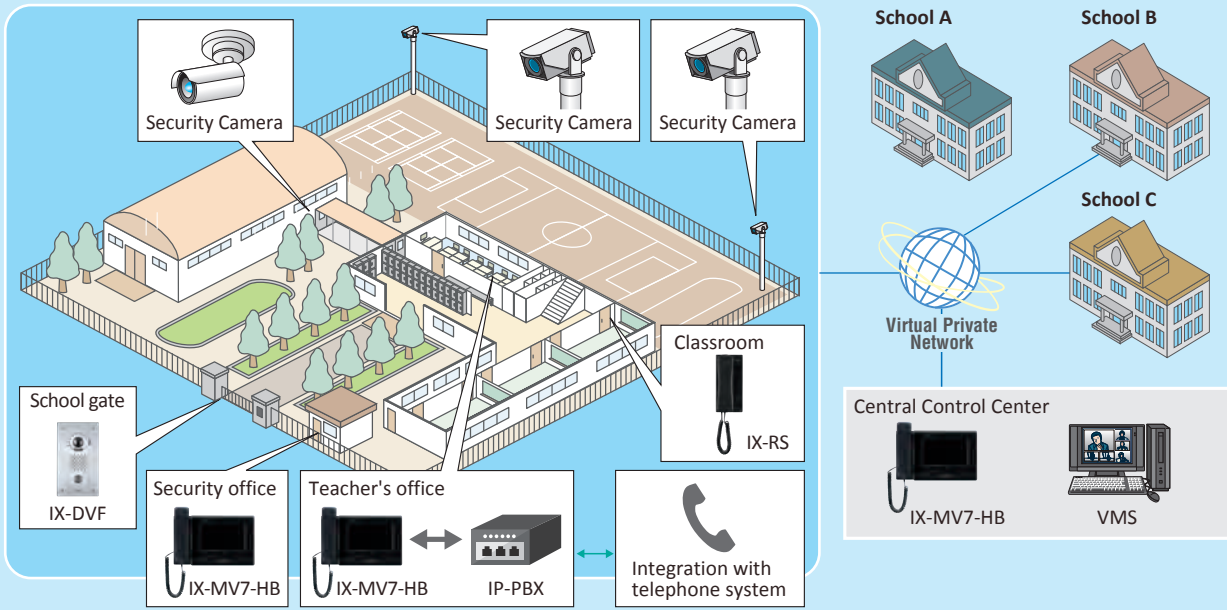
Respond to calls and queries from ticket machines, ticket gates, and platforms with video monitoring. Communication between remote stations is also possible.



## Schools

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

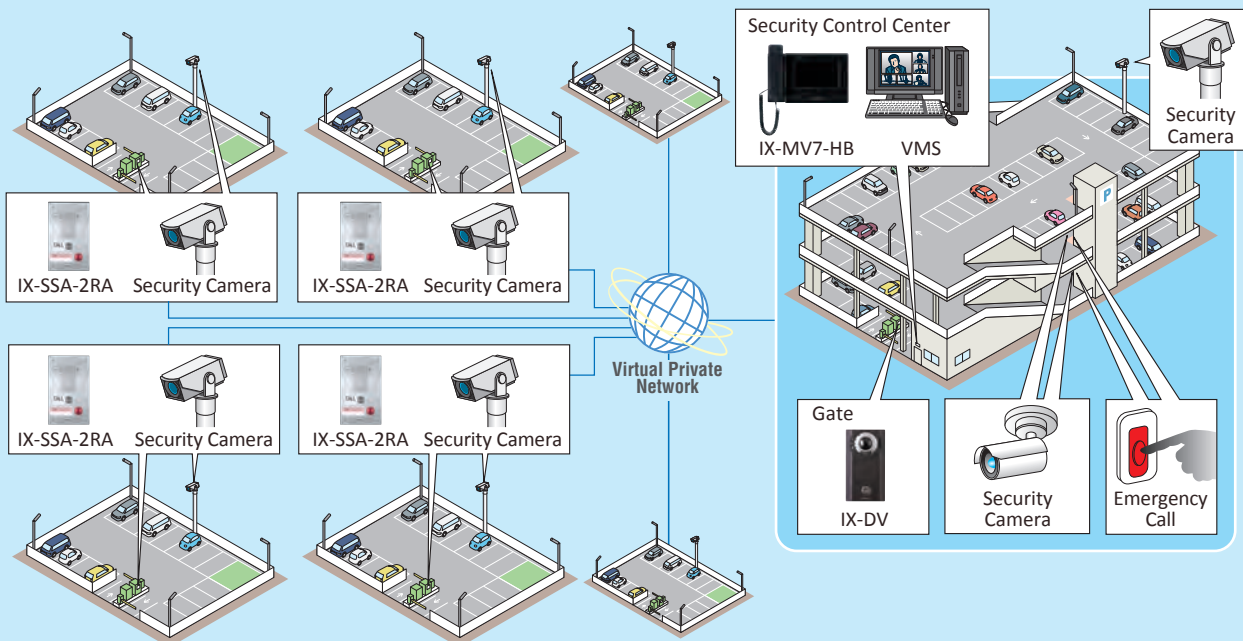
Management of entry and exit points integrated with access control can be accomplished. The system can also be used to enable teachers and staff members to easily communicate with one another. After hours control for schools within the district can be performed at a central control site. Use handset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



## Parking facilities

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

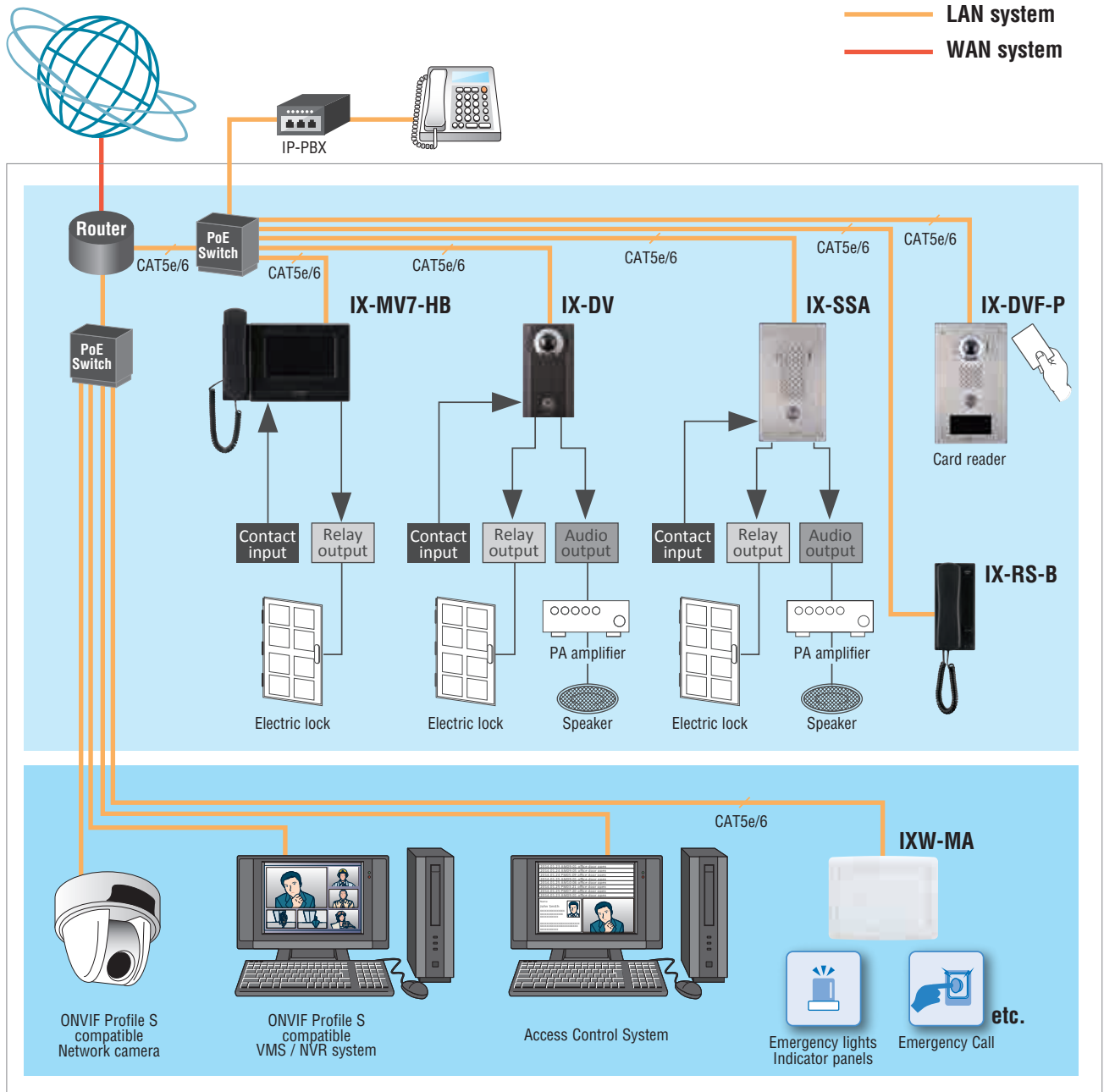
Audio communication and video identification allows for immediate response where assistance is needed. Crime prevention can be enhanced further through simultaneous installation of network cameras.



# IP Network Audio - Video Intercom System

## System Configuration

### Virtual Private Network



### 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, IX-MV* <sup>1</sup>	Master Station	Expanded mode* <sup>2</sup> 9999 stations	Standard mode 500 stations
IX-RS-B, IX-RS-W	Handset Sub Station	20 stations* <sup>3</sup>	
IX-DV, IX-DVF, IX-DVF-L, IX-DVF-P, IX-DVF-RA, IX-DVF-2RA, IX-DA* <sup>1</sup> , IX-DF* <sup>1</sup> , IX-DF-PI* <sup>1</sup> , IX-DF-P* <sup>1</sup>	Video Door Station	20 stations* <sup>3</sup>	
IX-SS-2G, IX-SSA, IX-SSA-RA, IX-SSA-2RA, IX-BA* <sup>1</sup> , IX-SS* <sup>1</sup>	Audio Only Door Station	20 stations* <sup>3</sup>	

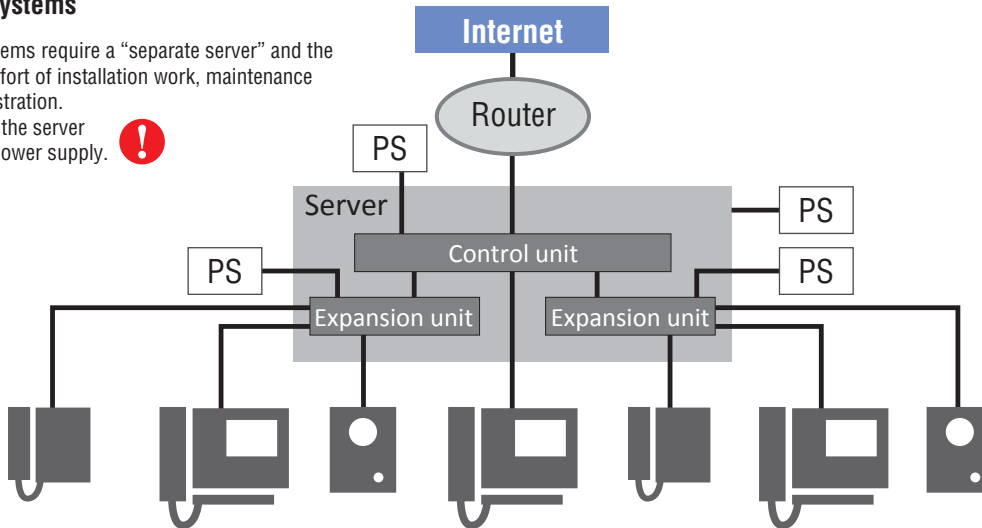
\*<sup>1</sup> IX-MV, IX-DA, IX-DF, IX-DF-PI, IX-DF-P and IX-SS cannot be used in expanded mode. \*<sup>2</sup> Expanded mode will be available 3rd Quarter 2018.

\*<sup>3</sup> Master Stations and sub stations can be registered (Max. 20).

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

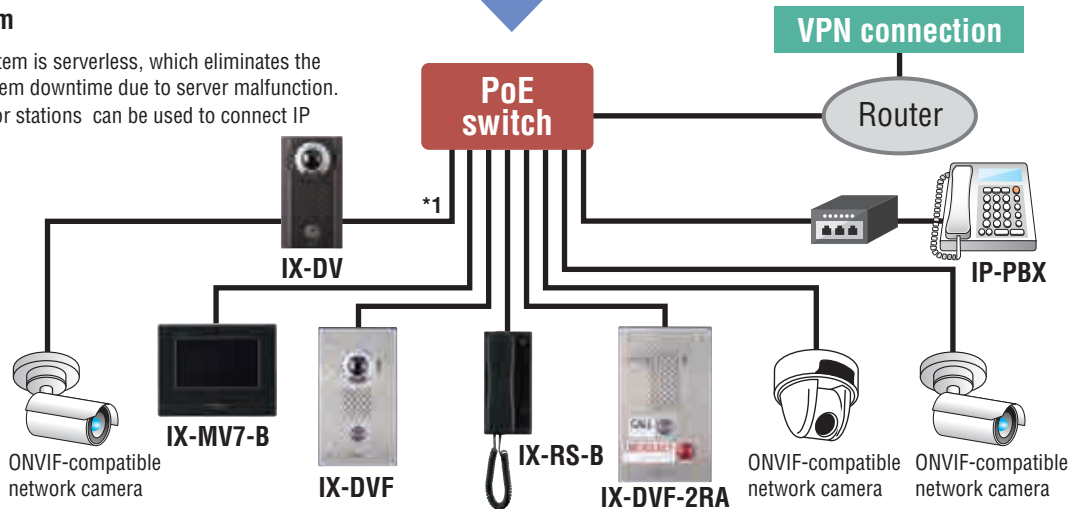
## Typical Systems

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. New IX door stations can be used to connect IP cameras.



\*1 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



New

**IX-MV7-HB**  
IP Audio and Video Master Station (Black)

**IX-MV7-HW**  
(Color variation White)

### Features

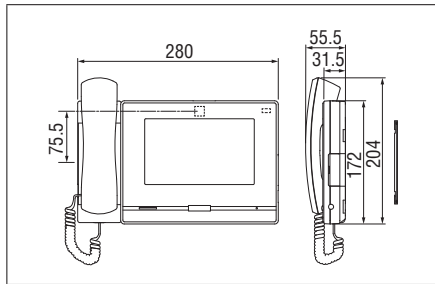
- Directly connectable to an IP network
- 7-inch touch display for easy operation and video monitoring
- Camera with privacy cover
- A variety of display modes designed for different situations
- Hands-free, push-to-talk or handset audio communication
- Direct voice call from master station to another station
- Video image adjusting function
- Record audio and video to a micro SD card at the start of or during a call
- Play an audio or video recordings saved to a micro SD 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 stations

### Specifications

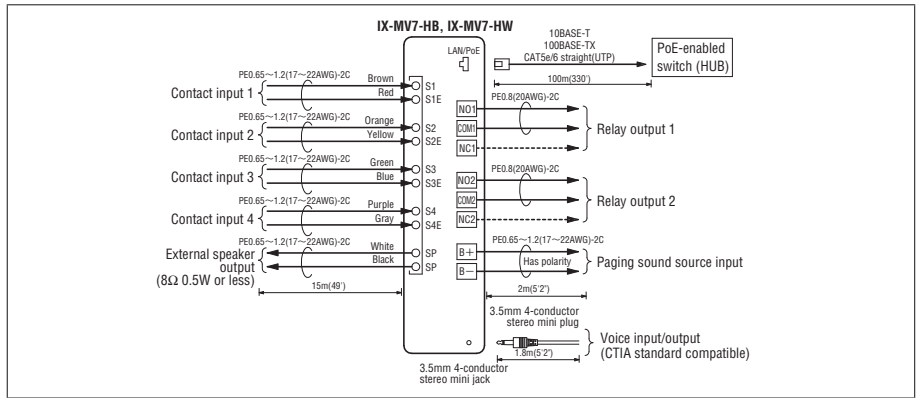
**(IX-MV7-HB, IX-MV7-HW)**

Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Type of communication	Hands-free / Push-to-talk Handset: Full-duplex / Push-to-talk
Monitor	7 inch TFT color LCD
Mounting	Desktop use (with desktop stand) or wall-mount
Material	Fire-retardant resin

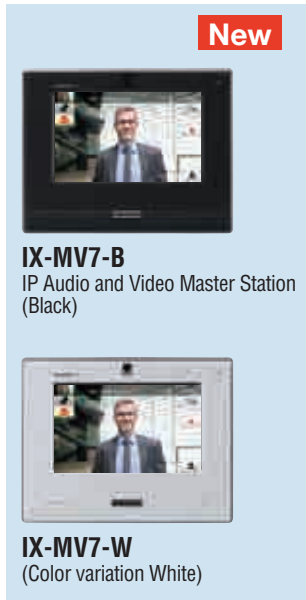
### Unit dimensions



### Wiring



## Master station



New

**IX-MV7-B**  
IP Audio and Video Master Station (Black)



**IX-MV7-W**  
(Color variation White)

### Features

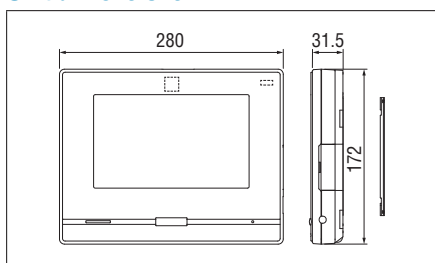
- Directly connectable to an IP network
- 7-inch touch display for easy operation and video monitoring
- Camera with privacy cover
- A variety of display modes designed for different situations
- Hands-free, push-to-talk
- Direct voice call from master station to another station
- Video image adjusting function
- Record audio and video to a micro SD card at the start of or during a call
- Play an audio or video recordings saved to a micro SD 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 stations

### Specifications

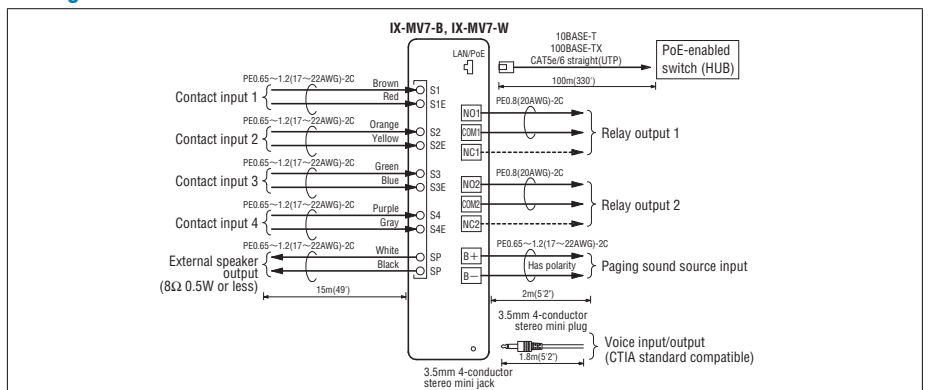
**(IX-MV7-B, IX-MV7-W)**

Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Type of communication	Hands-free / Push-to-talk
Monitor	7 inch TFT color LCD
Mounting	Desktop use (with desktop stand) or wall-mount
Material	Fire-retardant resin

### Unit dimensions



### Wiring





## Master station



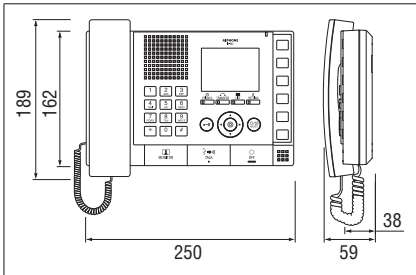
### Features

- Directly connectable to an IP network
- 3.5-inch display for operation and video monitoring
- Hands-free, push-to-talk or handset audio communication
- Direct voice call from master station to another station
- Video image adjusting function
- Call or communication transferring to another master station
- Paging to a group or all stations
- Monitor other stations

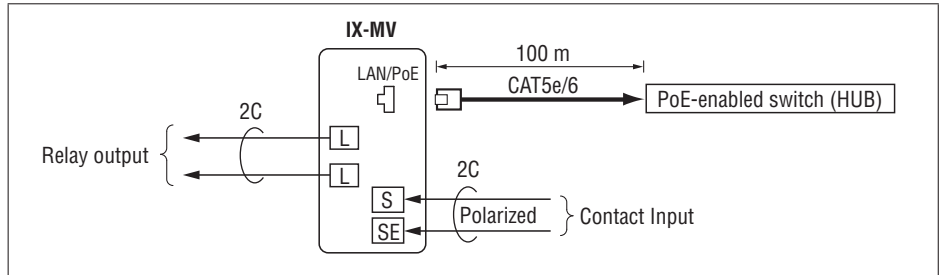
### Specifications (IX-MV)

Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Type of communication	Hands-free / Push-to-talk
Monitor	3.5-inch color LCD monitor
Mounting	Desktop use (with or without desktop stand) or wall-mounting
Material	Fire-retardant resin

### Unit dimensions



### Wiring



## Handset sub station



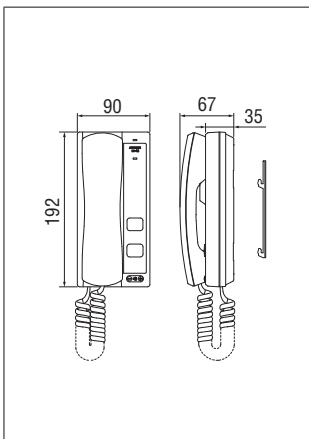
### Features

- Directly connectable to an IP network
- 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 while receiving an incoming call, during communication.
- Send e-mails: An e-mail can be sent to pre-registered e-mail addresses when triggering events occur.

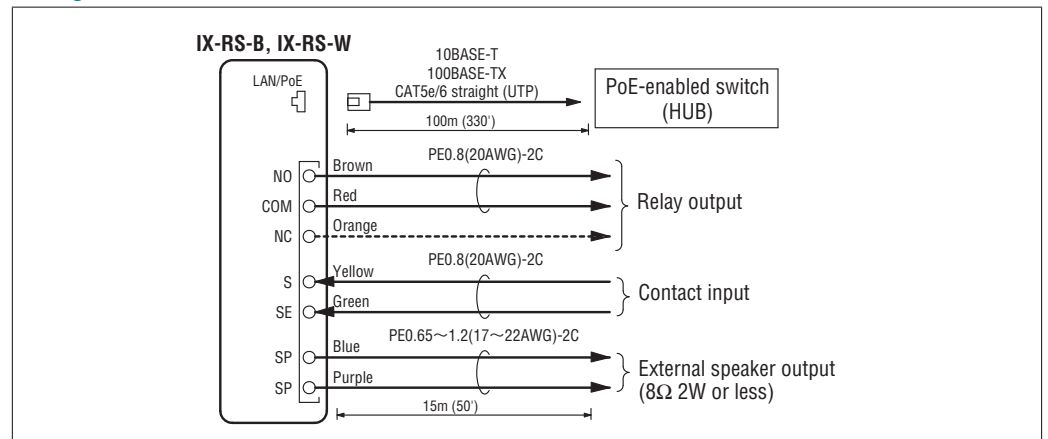
### Specifications (IX-RS-B, IX-RS-W)

Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Type of communication	Handset: Full-duplex Hands-free: Automatic Voice switching
Mounting	Wall-mount
Material	Fire-retardant ABS resin

### Unit dimensions




### Wiring




# IP Network Audio - Video Intercom System

## Video door station **New**




**IX-DV**

- Aluminium
- PoE-802.3af / at
- Surface Wall-mount
- Input / Output: Contact input x 5  
Relay output x 2  
Audio output x 1



**IX-DVF**

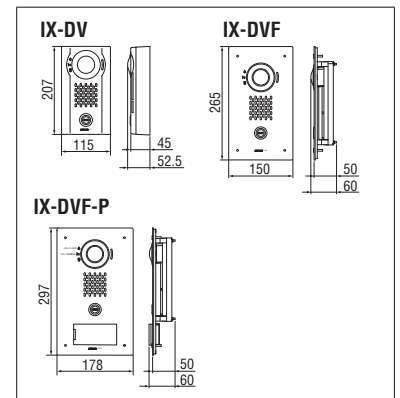
- Stainless steel
- PoE-802.3af / at
- Flush wall-mount
- Mounting box included
- Input / Output: Contact input x 5  
Relay output x 2  
Audio output x 1



**IX-DVF-P**

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

### Unit dimensions



## Video door station (Emergency call button and braille models) **New**



**IX-DVF-RA**

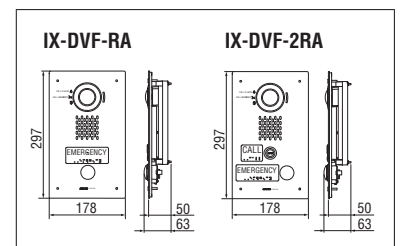
- Stainless steel
- PoE-802.3af / at
- Flush wall-mount
- Mounting box included
- Input / Output: Contact input x 5  
Relay output x 2  
Audio output x 1
- No call button
- With Emergency call button and braille (English braille)



**IX-DVF-2RA**

- Stainless steel
- PoE-802.3af / at
- Flush wall-mount
- 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)

### Unit dimensions



### Features

- Directly connectable to an IP network
- 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.

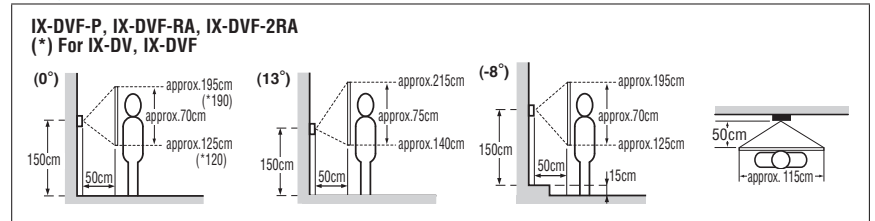
Contact input call: Make an outgoing call to all stations that belong to the selected contact input call group.

- Call response function (except IX-DVF-RA)
- Record audio and video to a micro SD card
- Receive a paging
- Others Send e-mails  
Transmitting video through ONVIF  
Schedule-linked message
- Power supply from PoE or external power supply

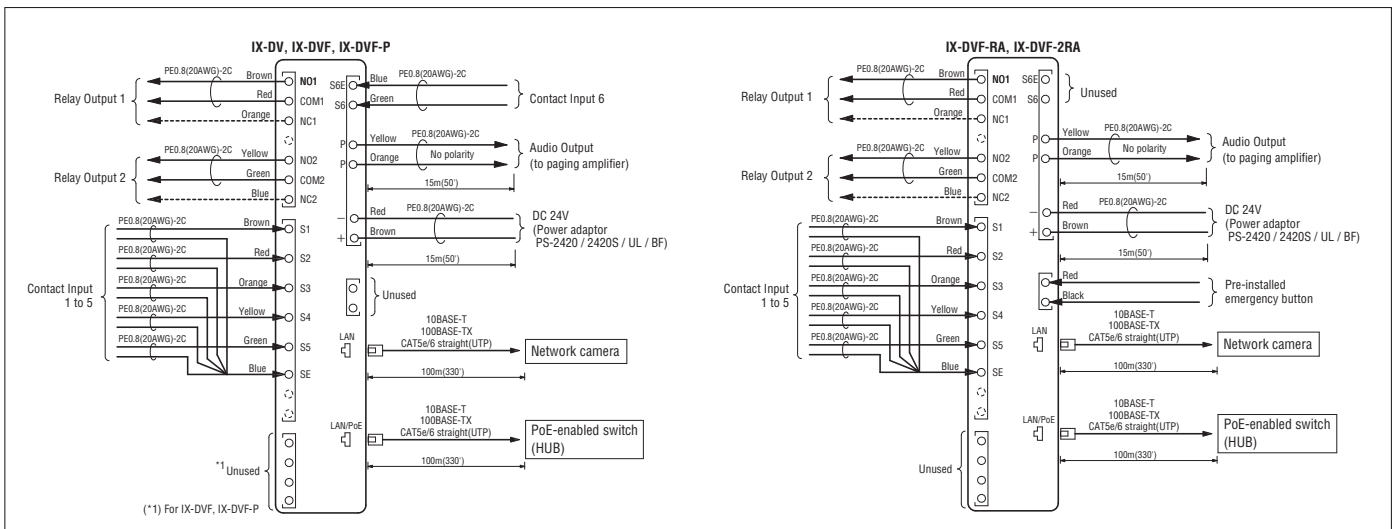
### Specifications (IX-DV, IX-DVF, IX-DVF-P, IX-DVF-RA, IX-DVF-2RA)

Power source	Power-over-Ethernet (IEEE 802.3af / at Class 0) or PS-2420
Type of communication	Automatic voice switching
Camera	1/3-inch color CMOS
Minimum illumination	5 Lux
Mounting	IX-DV: Surface Wall-mount IX-DVF, IX-DVF-P, IX-DVF-RA, IX-DVF-2RA: Flush wall-mount
Material	Front panel: IX-DV: Die-cast aluminium, Others: Stainless steel


### Image view area



### Wiring




## Audio door station **New**



**IX-SSA**

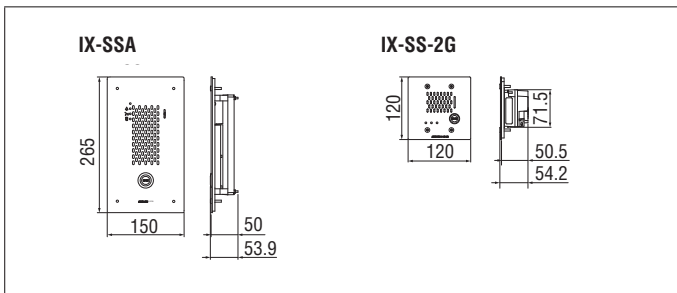
- Stainless steel
- PoE-802.3af / at
- Flush wall-mount
- Mounting box included
- Input / Output: Contact input x 6  
Relay output x 2  
Audio output x 1



**IX-SS-2G**

- Stainless steel
- PoE-802.3af
- Flush wall-mount
- Input / Output: Contact input x 1  
Relay output x 1

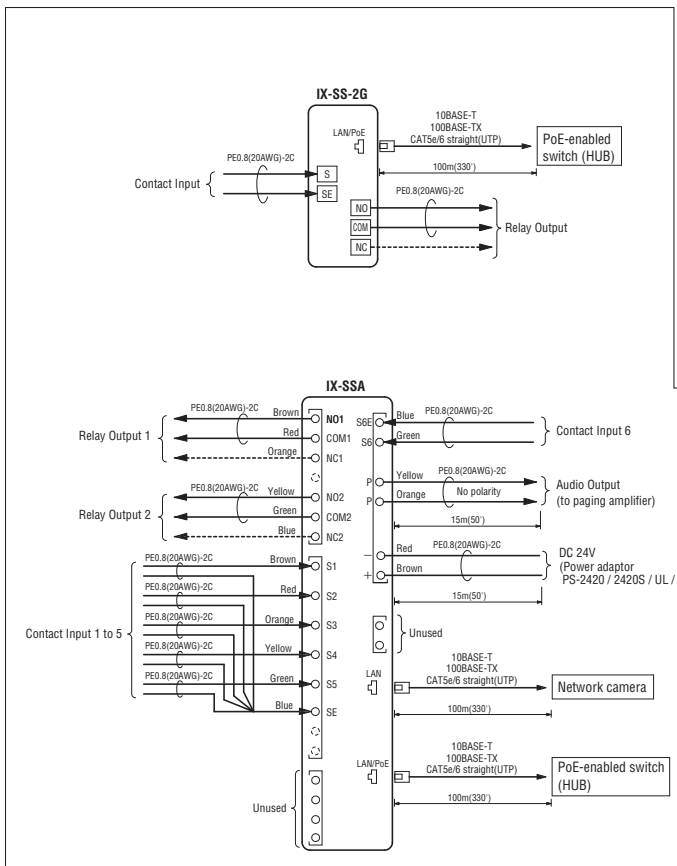
### Unit dimensions




### Specifications (IX-SSA, IX-SS-2G, IX-SSA-RA, IX-SSA-2RA)

Power source	Power-over-Ethernet (IEEE 802.3af / at Class 0) or PS-2420
Type of communication	Automatic voice switching
Mounting	Flush wall-mount
Material	Front panel: Stainless steel

### Wiring




## Audio door station **New** (Emergency call button and braille models)



**IX-SSA-RA**

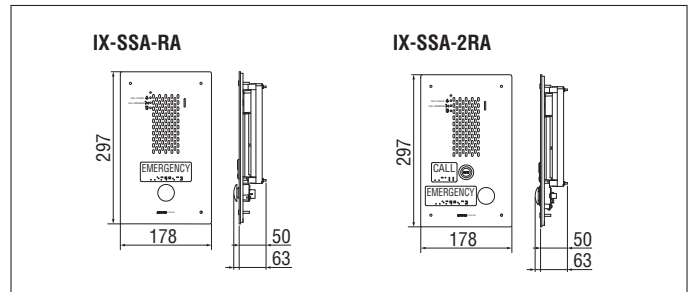
- Stainless steel
- PoE-802.3af / at
- Flush wall-mount
- Mounting box included
- Input / Output: Contact input x 5  
Relay output x 2  
Audio output x 1
- No call button
- With Emergency call button and braille (English braille)



**IX-SSA-2RA**

- Stainless steel
- PoE-802.3af / at
- Flush wall-mount
- 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)

### Unit dimensions



### Features

- Directly connectable to an IP network
- 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)
- Audio recording function (except IX-SS-2G)
  - Audio recording: Record audio of call to a micro SD card.
  - Audio playback: Play audio recordings saved to a micro SD card on a computer.
- Receive a paging
- Others Send e-mails  
Schedule-linked message
- Power supply from PoE or external power supply (except IX-SS-2G)

# IP Network Audio - Video Intercom System

## Video door station



**IX-DA**  
IP Audio and Video Door Station



**IX-DF**  
IP Audio and Video Door Station  
• Stainless steel  
• PoE - 802.3af  
• Flush wall mount  
• Mounting box included  
• Input/Output : Contact input X 1  
Relay output X 1  
Audio output X 1



**IX-DF-P\***  
IP Audio and Video Door Station for ProxPoint® Reader  
• Same features as IX-DF  
• Compatible with HID®  
ProxPoint® Smart Card Reader  
• Input/Output : Contact input X 1  
Relay output X 1  
Audio output X 1  
\* Card reader not included



**IX-DF-PI\***  
IP Audio and Video Door Station for iCLASS® Reader  
• Same features as IX-DF  
• Compatible with HID® iCLASS®  
Smart Card Reader  
• Input/Output : Contact input X 1  
Relay output X 1  
Audio output X 1  
\* Card reader not included

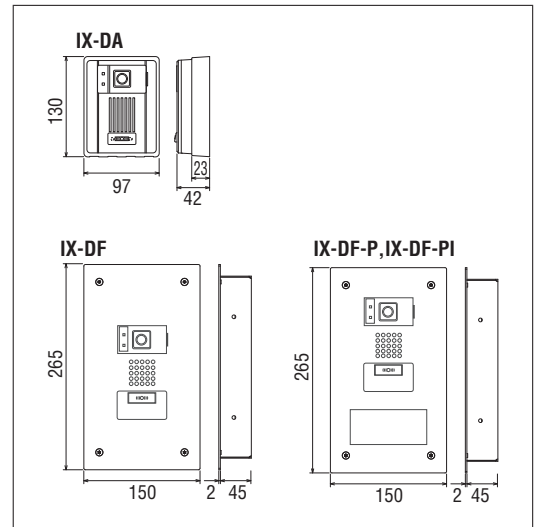
### Features

- Directly connectable to an IP network
- Door release output
- The indicator flash by press the button, talking, door releasing
- Nighttime LED illumination
- Calling up to 20 preprogrammed master stations simultaneously
- Power supply by PoE

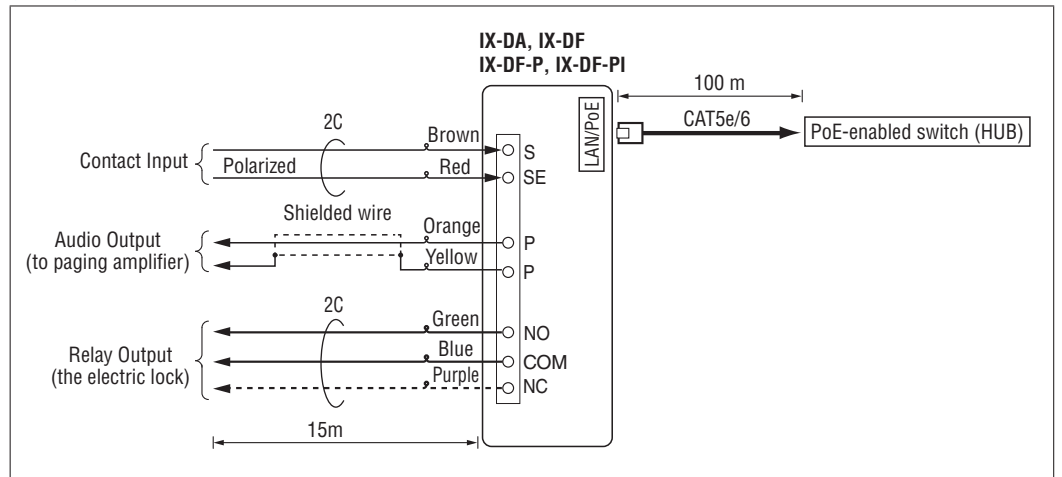
### Specifications (IX-DA)

Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Communication	Hands-free, automatic voice switching
Camera	1/4-inch color CCD
Minimum illumination	5 Lux
Mounting	Surface-wall mount (directly to wall)
Material	Front panel: Fire-retardant resin Main unit: flame resisting PC+ABS resin

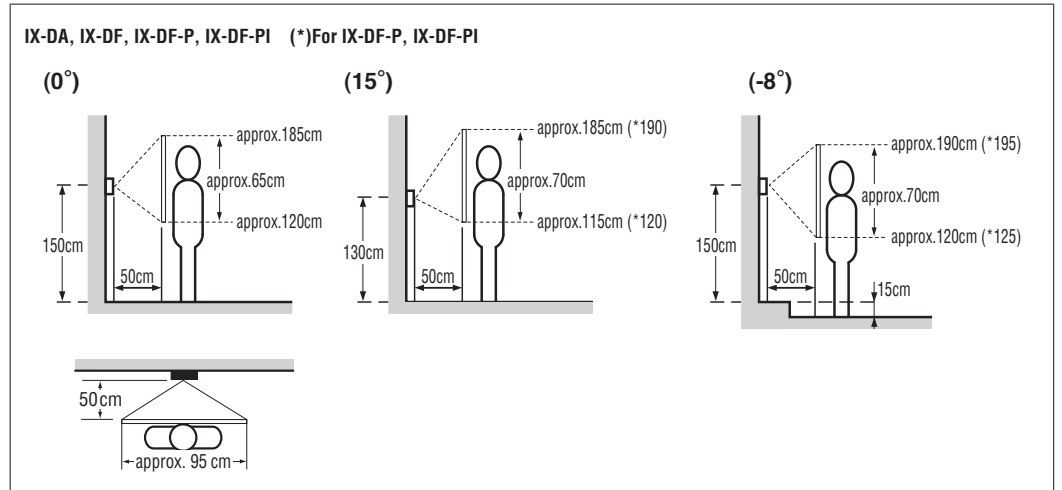
### Unit dimensions



### Wiring



### Image view area



## Audio door station



**IX-BA**  
IP Audio Door Station



**IX-SS**  
IP Audio Door Station

- Stainless steel
- PoE - 802.3af
- Flush wall mount
- Mounting box included
- Input/Output : Contact input X 1  
Relay output X 1  
Audio output X 1

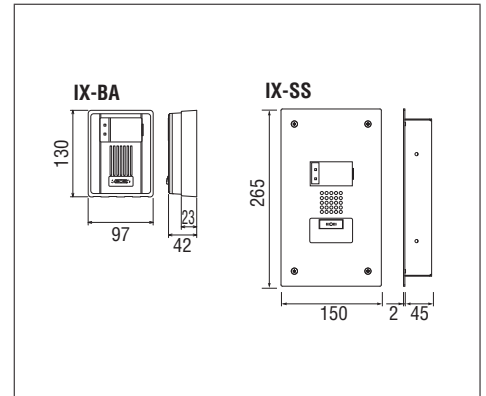
### Features

- Directly connectable to an IP network
- Door release output
- Nighttime LED illumination
- Calling up to 20 preprogrammed master stations simultaneously
- Power supply by PoE

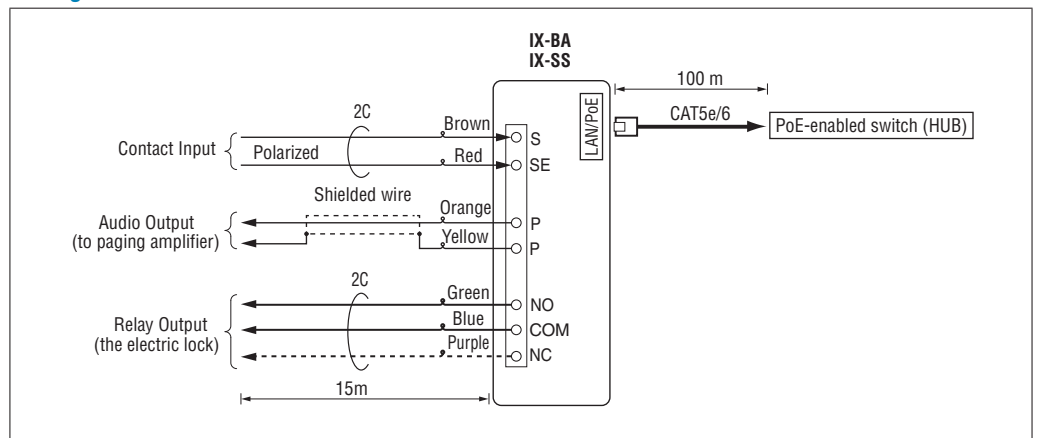
### Specifications (IX-BA)

Power source	Power-over-Ethernet (IEEE 802.3af Class 0)
Communication	Hands-free, automatic voice switching
Mounting	Surface-wall mount (directly to wall)
Material	Front panel: Fire-retardant resin Main unit: flame resisting PC+ABS resin

### Unit dimensions



### Wiring



## Multi-purpose adaptor

**New**



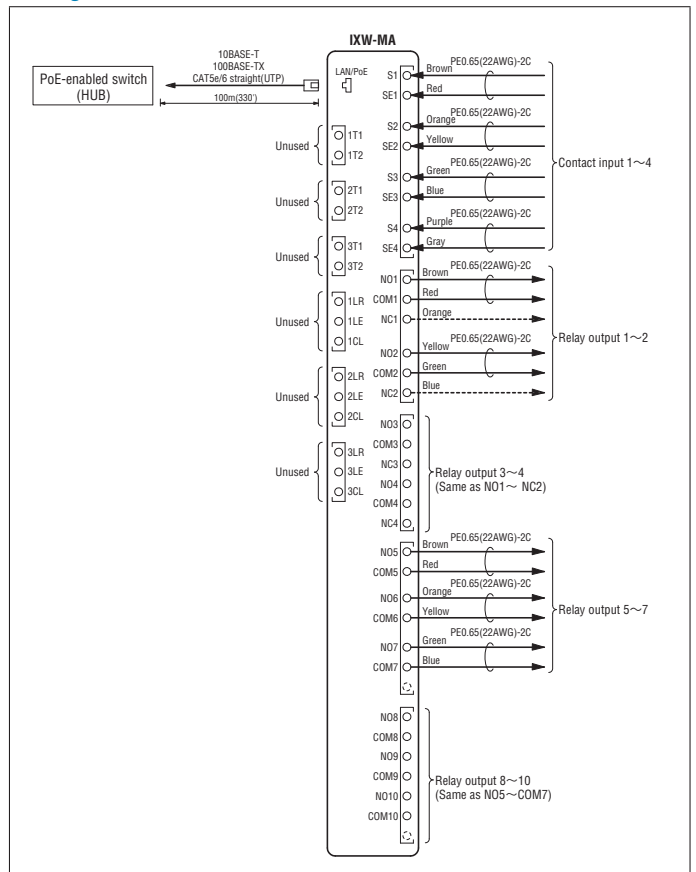
**IXW-MA**  
Multi-purpose adaptor

- 4 Contact inputs
- 10 Relay outputs

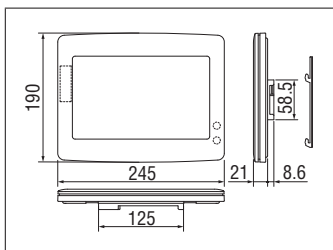
### Features

- Directly connectable to an IP network
- 4 Contact inputs
- 10 Relay outputs
- Power supply from PoE

### Wiring



### Unit dimensions



### Specifications (IXW-MA)

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

# IP Network Audio - Video Intercom System

## Emergency Wall Boxes (optional)



### WB-CA\*

- Light cage with beacon/strobe light
- "ASSISTANCE" lettering
- Compatible with any IX Series Emergency Station
- Stainless steel
- Wall mount



### WB-HA\*

- Light hood with beacon/strobe light
- "ASSISTANCE" lettering
- Compatible with any IX Series Emergency Station
- Stainless steel
- Wall mount



### WB-CE\*

- Light cage with beacon/strobe light
- "EMERGENCY" lettering
- Compatible with any IX Series Emergency Station
- Stainless steel
- Wall mount



### WB-HE\*

- Light hood with beacon/strobe light
- "EMERGENCY" lettering
- Compatible with any IX Series Emergency Station
- Stainless steel
- Wall mount



**Emergency Towers**  
Please contact Aiphone for more details.



**PS-2420**  
24V DC, 2A  
Power Supply

\*Power supply required for beacon/strobe light with Wall Box  
2 wires

## IP Addressable Emergency Stations: Mix and match unlimited (can call up to 20 master stations at one time)



### IX-DF-2RA

IP Addressable Video Emergency Station

- PoE
- Fixed camera
- Lettering and Braille signage
- LED call status indicator
- Dual call buttons
- 2 Form C relay outputs
- Stainless steel
- Weather resistant
- Flush mount
- Back box included



### IX-SS-2RA

IP Addressable Audio Emergency Station

- PoE
- Lettering and Braille signage
- LED call status indicator
- Dual call buttons
- 2 Form C relay outputs
- Stainless steel
- Weather resistant
- Flush mount
- Back box included



### IX-SS-RA

IP Addressable Audio Emergency Station

- PoE
- Lettering and Braille signage
- LED call status indicator
- Single call button
- 2 Form C relay outputs
- Stainless steel
- Weather resistant
- Flush mount
- Back box included

## Emergency Station Features

- Fixed camera provides clear visitor identification (video station)

## System Features

- Scalable system is easy to expand - mix and match an infinite ( $\infty$ ) number of emergency stations, and master stations!
- All-in-one communication system to control video entry and access control
- Uses new or existing CAT-5e or CAT-6 network infrastructure (multicast support recommended)
- Program system functions via Support Tool (recommended) or browser
- IP addressable stations provide easy network communication
- 24/7 streaming from video emergency station
- ONVIF compliant video output
- Integration with Lenel® OnGuard®
- View third party IP cameras from IX-MV master stations
- Forward missed calls automatically
- Paging with two priority levels
- Priority call queueing
- Transfer door calls to any master station
- Standard door release wiring to emergency station or to RY-IP44 for added security

**\* Use existing 2-wire LE Series or NE Series Audio Door/Sub Stations!**



**IX-1AS**  
2-Wire Audio Door/Sub Station Network Adaptor

- Supports 1 LE Series or NE Series Door/Sub Station



**IX-10AS**  
2-Wire Audio Door/Sub Station Network Adaptor

- Supports up to 10 LE Series or NE Series Door/Sub Stations

## Mobile App



**IX Mobile App**  
Mobile App Sub Master Station for Smartphones and Tablets (mobile devices not included)

- Available on Google Play™  
*(Google Play is a trademark of Google Inc.)*
- Available on the App Store™  
*(App Store is a service mark of Apple Inc.)*
- Provides sub master station functionality with 4 speed dial buttons
- The IX Mobile App requires 1 IX-MV and 1 RY-IP44 per 8 apps in the system

## Specifications

**Network Interface** WiFi or VPN

**Network Protocols** IPv4, TCP, UDP, SIP, RTP, RTCP, IGMP, DHCP

**Bandwidth Usage** G.711: 64Kbps x 2 per video call, 64Kbps per monitor

H.264: 24Kbps ~ 2,048Kbps

**Operating System** Android™: 4.1 or higher  
Apple® iOS: 8.0 or higher

**Communication** Hands-free (full-duplex), push-to-talk (simplex), or handset (full-duplex)

## Network Paging Adaptor



**IX-PA**  
IP Addressable Network Paging Adaptor

- 8Ω speaker output
- 600Ω amplifier output
- Audio input
- PoE

## Specifications

**Power Source** PoE (802.3af, class 0)

**Consumption** 250mA

**Network Interface** Ethernet (10BASE-T, 100BASE-TX)

**Network Protocols** IPv4, TCP, UDP, SIP, HTTP, RTP, RTCP, IGMP, DHCP

**Audio Codec** G.711

**Temp. Rating** 0°C ~ 50°C

**Material** Aluminum

**Mounting** Mounting rail (included)

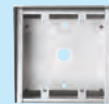
**Wire Type** Paging Adaptor to Network Node: Cat-5e or Cat-6  
Paging Adaptor to 8Ω Speaker: 2 cond., overall shield –

**Distance** Paging Adaptor to 8Ω Speaker: 200m (0.65mm) 480m (1mm)  
Paging Adaptor to Network Node: 100m

## Accessories



**KAW-D**  
30° Angle Box for IX-DA or IX-BA  
→ P.109



**SBX-2G/A**  
Surface Mount Box for IX-SS-2G  
→ P.109



**SBX-IDVF**  
Surface Mount Box for IX-DVF, IX-SSA, IX-DF, IX-DF-P, IX-DF-PI or IX-SS  
→ P.109



**SBX-IDVFRA**  
Surface Mount Box for IX-DVF-P, IX-DVF-RA, IX-SSA-2RA, IX-DF-2RA, IX-SS-2RA, or IX-SS-RA  
→ P.109



**EL-12S**  
Electric Door Strike  
→ P.110



**RY-IP44**  
IP Input/Output Relay Adaptor  
*(requires PS-1225)*

## Specifications

**Power Source** PoE (802.3af)

**Network Interface** Hardwired Stations: 10 BASE-T/100 BASE-TX Ethernet (RJ-45)

**Network Protocols** IPv4, IPv6, TCP, UDP, SIP, HTTP, HTTPS, RTSP, RTP, RTCP, IGMP, MLD, SMTP, DHCP, NTP, DNS

**Bandwidth Usage** G.711: 64Kbps x 2 per video call, 64Kbps per monitor

H.264: 24Kbps ~ 2,048Kbps

**Video Stream** ONVIF Profile S

**Communication** Hands-free (full-duplex), push-to-talk (simplex), or handset (full-duplex)

**Door Release** Programmable dry contact, 24V AC/DC, 500mA – use EL-12S or use RY-IP44 with 4 multipurpose relays

**Wire Type** CAT-5e or CAT-6

**Distance** Door Station or Emergency Station to Network Node: 100m  
Master Station to Network Node: 100m

## IP Addressable Door Stations



**IX-4DF**

- PoE
- 4 call buttons for selective calling to IX-MV and IX Mobile *(RY-IP44 adaptor required)*
- Marine grade stainless steel
- Back box included



**IX-PR**

- PoE
- Anti-ligature door station meeting Australian Standards to suit prison applications
- Marine grade stainless steel
- Back box optional *(i.e. sizing can be met with requirements)*

# Security IP Video Intercom System

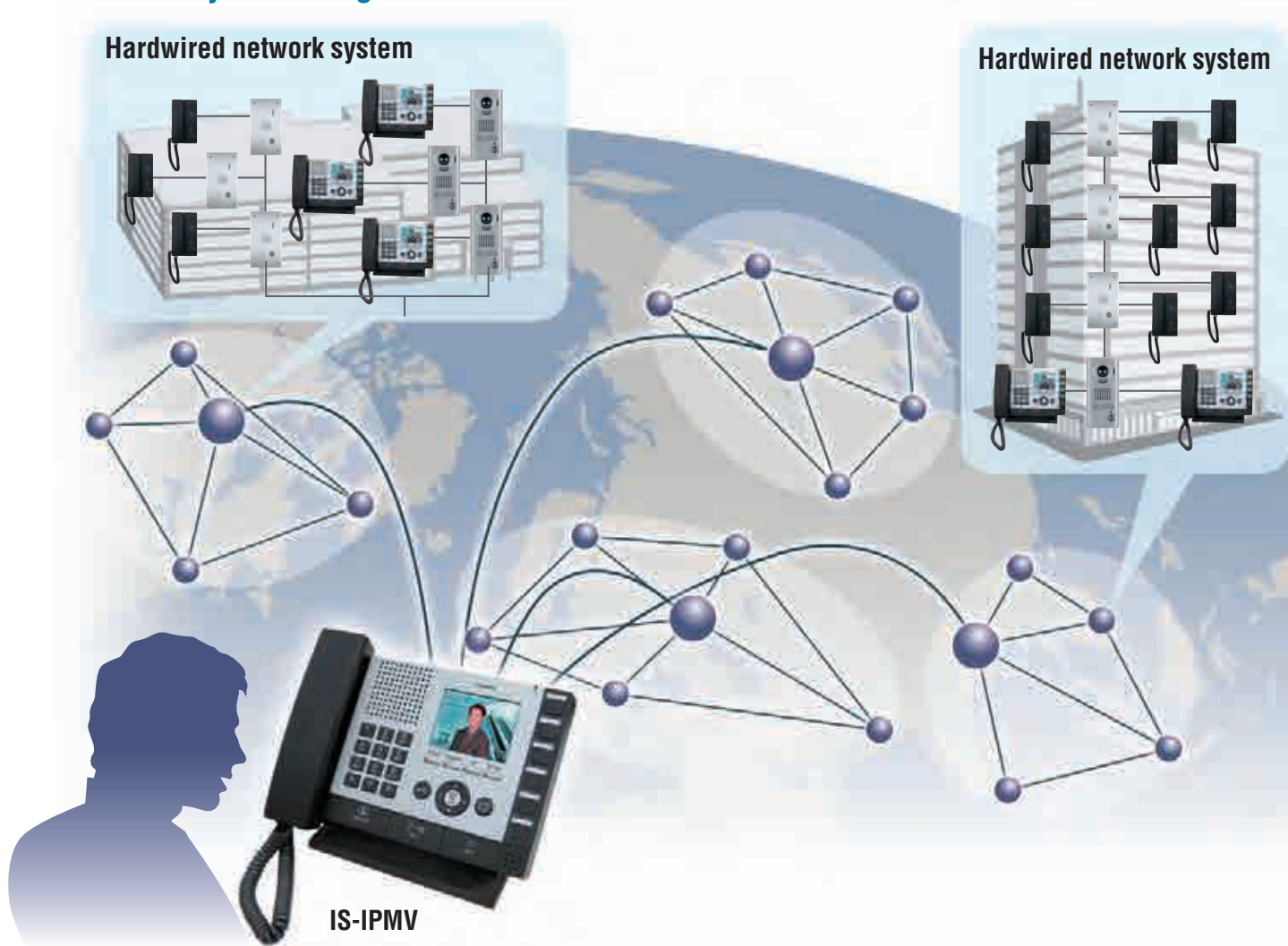
## IS System

IS Series is a network-based IP intercom system that can make centralized security management simple and easy. Ideal for both small and large facilities.

### Used as IP network system

IS Series can be used as a local network security system in a facility, or as an IP network security system that can manage more than one facility from a control center.

### IP network system image



INTEGRATED SECURITY & COMMUNICATION SYSTEM

### The Audio Sub Station is available.

You can choose the Audio Sub Station. The Audio Sub Station can be selected from 3 types, a handset type or hands-free type.



### Your PC can be used as the Master Station (IS-SOFT).

You can use your PC just like the Master Station by installing the IS software. \* It may not be available depending on your PC or OS version.





## Panoramic wide angle view and Zoom & PanTilt for higher security

To provide effective security, IS series features a wide angle camera that enables you to see an innovative panoramic view! People standing on sides and people of all heights can be easily identified.

### 170° viewing angle

The IS Series features a wide angle camera with PanTilt & Zoom function.



## Other Functions

### Schedule Chime

Program daily Chime by day, week, month, Create different schedules for holidays, breaks, or after hours.

### Forward Unanswered Calls Automatically

If a master station is not answered, have the calling forwarded to another master station.

### Emergency Broadcasts

Create zones easily to broadcast emergency announcements quickly.

### Create Unique System Settings

Save system settings, then export and upload them to another system.

### Customize Sounds

Load up to 15 Pre-recorded messages or sound source.

### Transfer Video Calls

Call-ins from a video door station can be transferred to any standard or PC master station on the network for easy identification.



### Browser Based Set-up

Simply use a browser to get on line and set-up, change, or customize the IS systems.

### Paging

You can make a paging from the Master Station to other Master Stations, Door Stations, and Room Sub Stations.

Hardwired system

**20**

IP system

**X 160** /site

**Master Stations**



IS-MV

Hardwired system

**20**

IP system

**X 160** /site

**Video Door Stations**



IS-DV IS-DVDF

Hardwired system

**120**

IP system

**X 960** /site

**Audio Stations**



IS-RS IS-SS

IP system

**32** /site

**IP Master Stations**



IS-IPMV

IP system

**32** /site

**IP Door Stations**



IS-IPDV IS-IPDVF

IP system

**31** /site

**PC Master Stations Application**



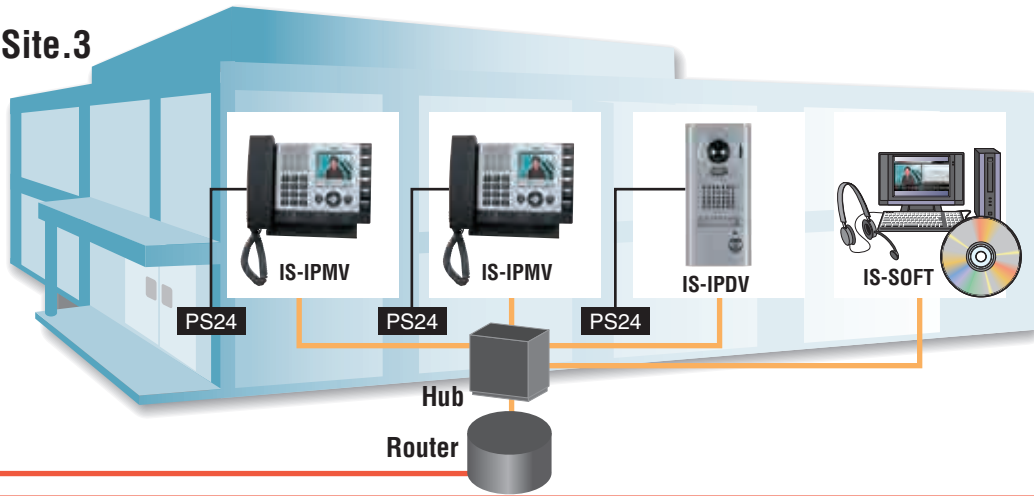
IS-SOFT

The maximum number of each unit connectable to a standard (IP) system differs from the system configuration.

\* Depending on combinations, the number above may not be applied.



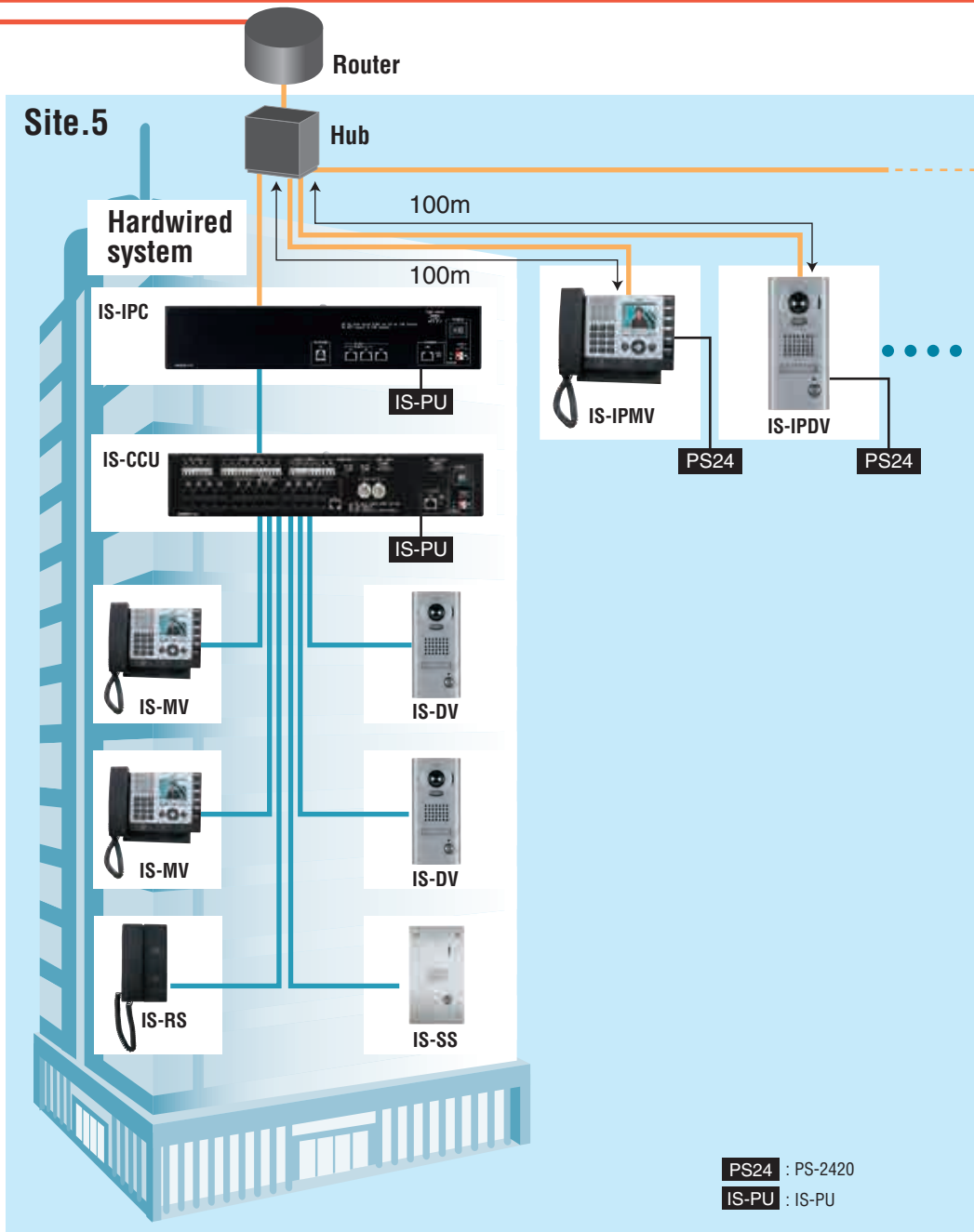
Site.3



- WAN system
- LAN system
- Hardwired system

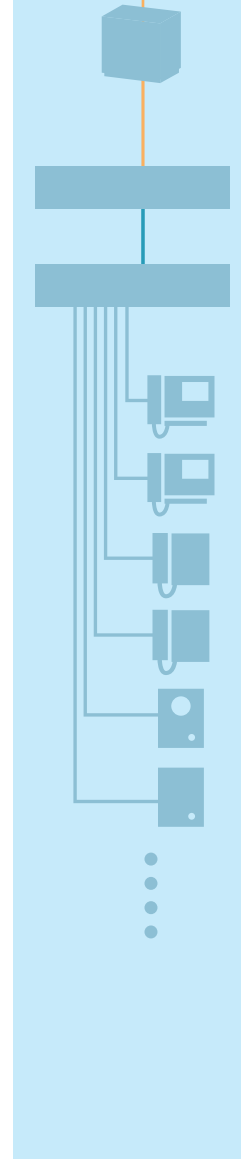
Site  
x Max.32

Site.5



Router

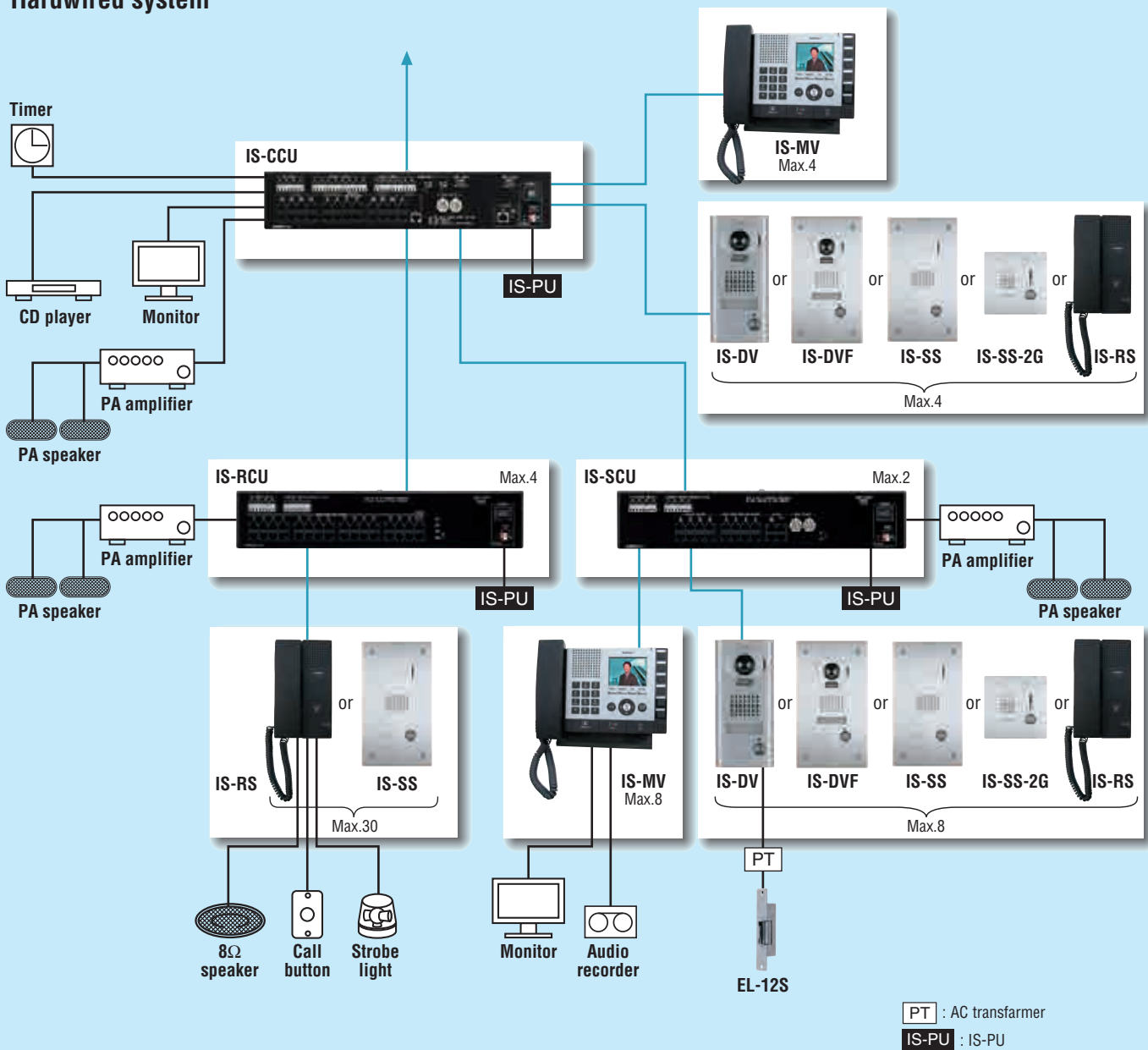
Site..





# System Configuration

## Hardwired system



Maximum number of each unit connectable to a hardwired system

Category	Model name	Type	Max. number
Control unit	IS-CCU	Central control unit	1
	IS-SCU	Add-on control unit	2
	IS-RCU	Room sub control unit	4
Master station	IS-MV	Color monitor master station	20
Sub station	IS-DV	Vandal resistant video door station (surface-mount)	20
	IS-DVF	Vandal resistant video door station (flush-mount)	
	IS-SS(-2G)	Vandal resistant door station (flush-mount)	
	IS-RS	Room sub station*1	120

\*1: You can use vandal resistant door stations (IS-SS or IS-SS-2G) instead of room sub stations (IS-RS).

# Security IP Video Intercom System

## IP Master station



**IS-IPMV**  
IP master station w/Wide and Zoom & PanTilt color monitor

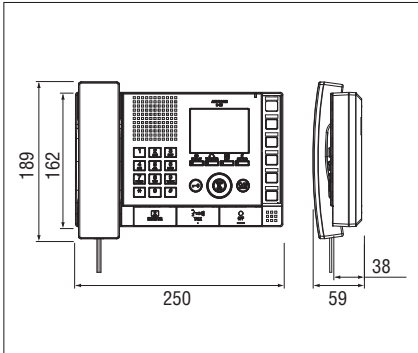
### Features

- Directly connectable to an IP network
- 3.5-inch display for operation and video monitoring
- A variety of display modes designed for assisting your operation
- Hands-free, press-to-talk or handset audio communication
- Direct voice call from master station to another station
- System settings are possible on the connected PC
- Various setting items for customizing your master station
- Zoom/wide and pan & tilt video monitoring function
- Video image adjusting function
- Call or communication transferring to another master station
- Paging or chime paging to the registered zones and / or stations
- Monitoring a single station or scan-monitoring up to 20 pre-programmed stations
- Either power supply unit (PS-2420) or PoE

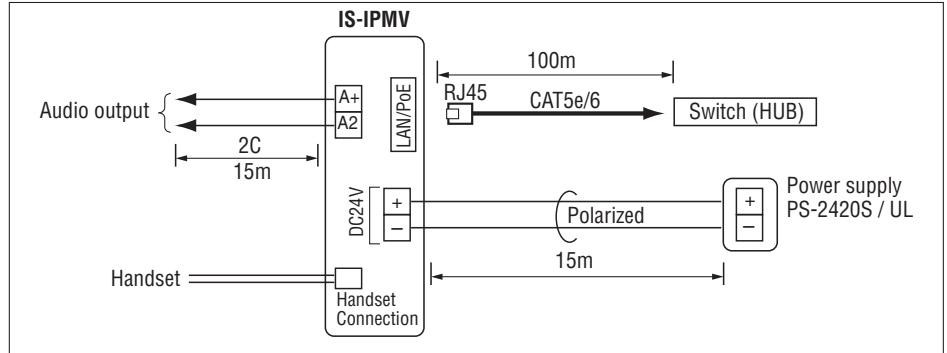
### Specifications (IS-IPMV)

Power source	PS-2420, or PoE
Current consumption	Max. 65mA (PoE) Max. 130mA (when power supply unit is used)
Communication	Handset: simultaneous communication (When press-to-talk (PTT) is not set) Hands-free: auto-voice actuation or Press-to-talk (PTT)
Monitor	3.5-inch color LCD monitor
Mounting	Desktop use (with or without desktop stand) or wall-mounting
Material	Flame resisting ABS resin

### Unit dimensions



### Wiring



## IP Video door station



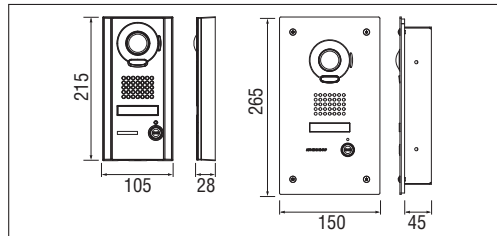
**IS-IPDV**  
Wide and Zoom & PanTilt Vandal resistant IP video door station, surface mount

**IS-IPDVF**  
Wide and Zoom & PanTilt Vandal resistant IP video door station flush mount

### Features

- Directly connectable to an IP network
- Approx. 170° range wide view video camera
- Door release output
- Directory card with backlight
- White light LED to illuminate the visitor automatically at night
- System settings are possible on the connected PC
- Calling up to 20 preprogrammed master stations all together
- Remote site calling and communicating capability
- Either power supply unit (PS-2420) or PoE

### Unit dimensions



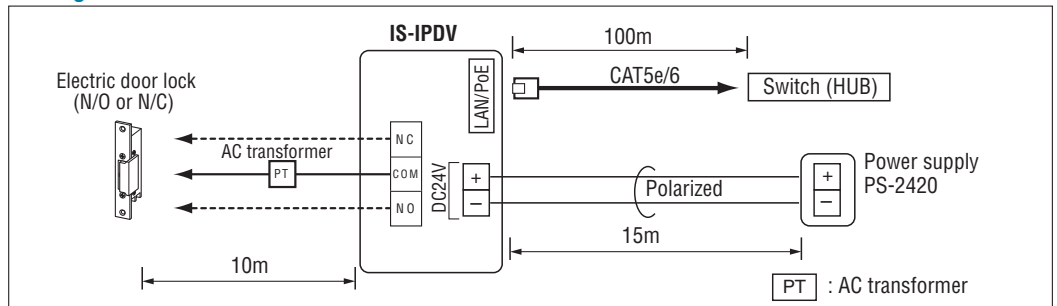
### Specifications (IS-IPDV, IS-IPDVF)

Power source	PS-2420, or PoE
Current consumption	Max. 85mA (PoE) Max. 160mA (when power supply unit is used)
Communication	Open voice hands-free communication
Camera	1/4-inch color CMOS
Minimum illumination	5 Lux
Camera angle	Wide: approx. 170° (horizontal)
Mounting	IS-IPDV: Surface-wall mount (directly to wall) IS-IPDVF: Flush-mount
Material	Front panel: aluminum die-cast (IS-IPDV) stainless steel (IS-IPDVF) Main unit: flame resisting PC+ABS resin

### Image view area

Refer to the descriptions for the image view area.  
→ P.10

### Wiring



## PC application



**IS-SOFT**  
PC application

### PC monitor



### Features

- PC software with full master station functions
- 7 languages (English, French, Spanish, German, Dutch, Italian & Japanese) are selectable for displaying windows
- Various settings are possible from 9 setting windows
- Play window for searching for and playing back recorded files
- Up to 24 speed dials are available
- Records video and audio from video door stations
- A still picture or video of visitor can be recorded
- Either headset (not included) or handset (not included) can be used for communication
- Hands-free or press-to-talk communication is possible with a headset

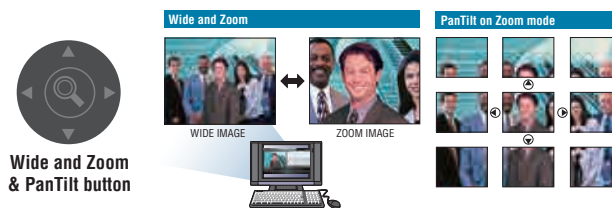
### System requirements

OS	Windows XP Home/Professional (SP3)/32-bit version, Windows Vista Ultimate/Home/Business/Enterprise (SP2)/32-bit version/64-bit version Windows 7 Home Premium/Professional/Enterprise/Ultimate/32-bit version/64-bit version Windows 8/Pro/Enterprise/32-bit version/64-bit version
PC system requirements	Processor: 2 GHz or faster System memory (RAM): 1 GB RAM or more Hard disk: 10 MB or more (additional space is needed for recording) Sound card: 8-bit full duplex, Direct Sound compatible Display: 800 x 600 or higher 1024 x 768 or higher 1920 x 1200 or higher Run-time: Microsoft®.NET Framework 4.0 or later Network: 10BASE-T/100BASE-TX Ethernet
Protocol	TCP/IPv4, UDP/IPv4, TCP/IPv6, UDP/IPv6, SIP, Others
Network bandwidth	320 k to 8 Mbps

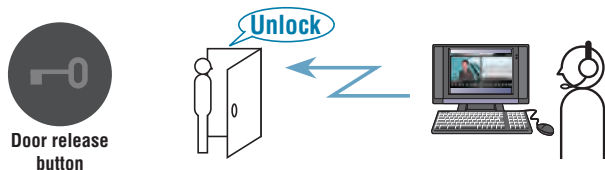
### Video & Audio communication with entrance side by PC



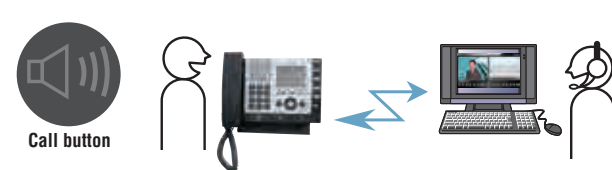
### Wide and Zoom & PanTilt control from PC



### Unlock the door after verifying visitor identity



### Room to room communication with master station



## IP Control unit



**IS-IPC**  
IP control unit

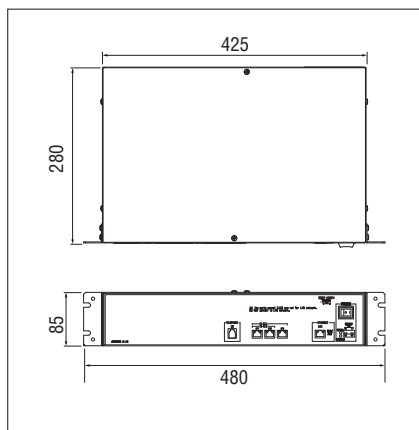
### Features

- Configures a standard (IP) system connecting with an IP network
- Connectable with either a central control unit (IS-CCU) or room sub control unit (IS-RCU)
- System settings are possible on the connected PC
- Chime and transfer schedule can be set
- System setting data can be downloaded or uploaded
- Time correction function synchronized with a PC or NTP server
- Daylight saving time is available
- Either rack-mounting (into 19-inch rack) or wall-mounting is possible

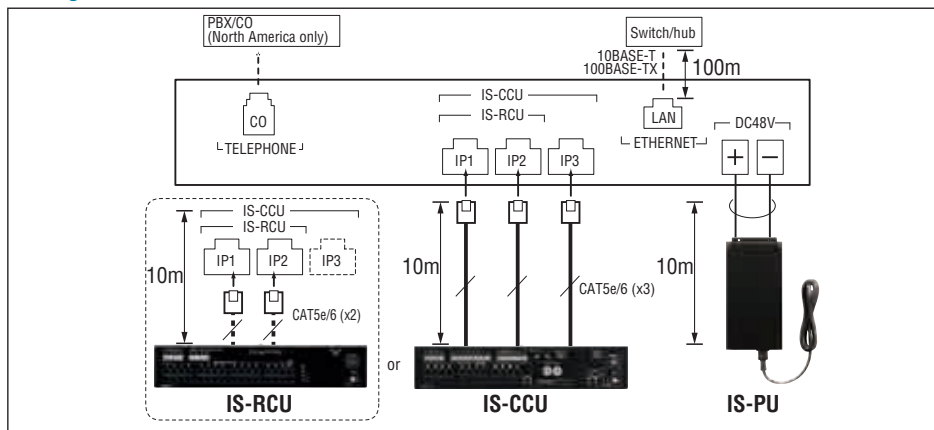
### Specifications (IS-IPC)

Power source	48V DC (supplied from IS-PU)
Current consumption	Max. 105mA
Talk channels - Video channels, other channels	2 talk & 2 constrained video channels, 1 chime,
Central control unit	Max. 1
Room sub control unit	
LAN	Ethernet (10 BASE-T, 100 BASE-TX)
Mounting rack-mount (19-inch, 2U rack) or wall-mount	
Material	Steel plate

### Unit dimensions



### Wiring



# Security IP Video Intercom System

## Master station



**IS-MV**  
Master station w/Wide and Zoom & PanTilt color monitor

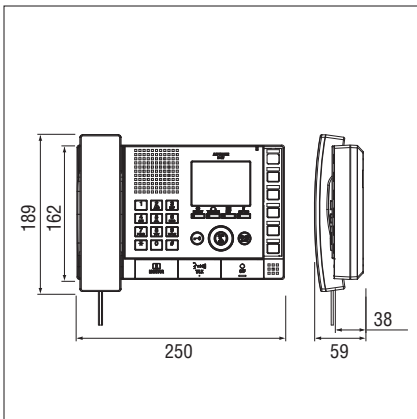
### Features

- 3.5-inch display for operation and video monitoring
- A variety of display modes designed for assisting your operation
- Hands-free, press-to-talk or handset audio communication
- Direct voice call from master station to another station
- System settings are possible on the connected PC
- Various setting items for customizing your master station
- Zoom/wide and pan & tilt video monitoring function
- Video image adjusting function
- Call or communication transferring to another master station
- Paging or chime paging to the registered zones and/or stations
- Monitoring a single station or scan-monitoring up to 20 pre-programmed stations
- Remote site calling and communicating capability (required IS-IPC)

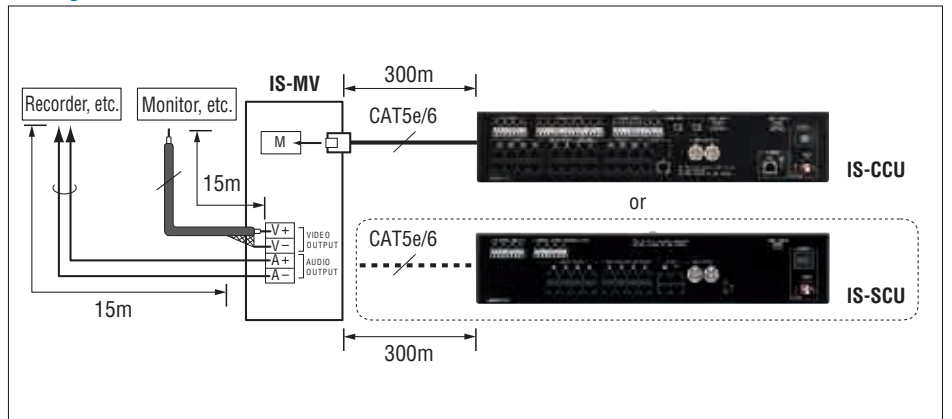
### Specifications (IS-MV)

Power source	Supplied from the central control unit or add-on control unit
Communication	Handset: simultaneous communication (When press-to-talk (PTT) is not set) Hands-free: auto-voice actuation or Press-to-talk (PTT)
Monitor	3.5-inch color LCD monitor
Mounting	Desktop use (with or without desktop stand) or wall-mounting
Material	Flame resisting ABS resin

### Unit dimensions



### Wiring



## Video door station



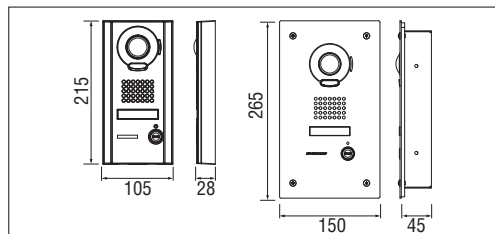
**IS-DV**  
Wide and Zoom & PanTilt Vandal resistant video door station, surface mount

**IS-DVF**  
Wide and Zoom & PanTilt Vandal resistant video door station flush mount

### Features

- Approx. 170° range wide view video camera
- Door release output
- Directory card with backlight
- White light LED to illuminate the visitor automatically at night
- Calling up to 20 pre-programmed master stations all together
- Remote site calling and communicating capability (required IS-IPC)

### Unit dimensions



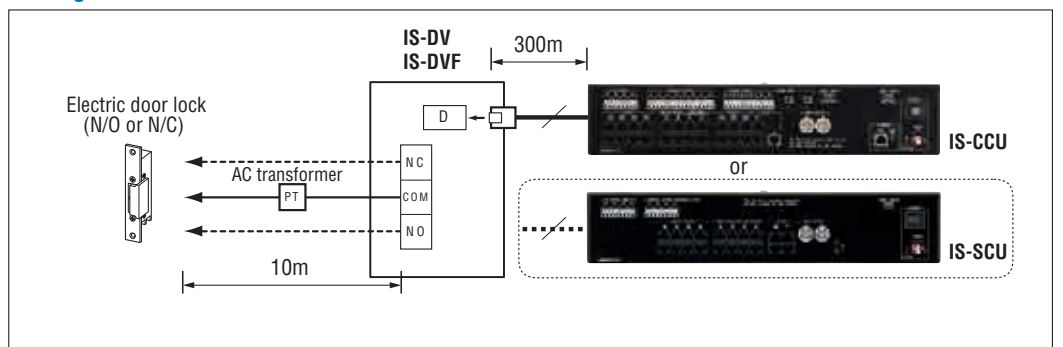
### Specifications (IS-DV, IS-DVF)

Power source	Supplied from the central control unit or add-on control unit
Communication	Open voice hands-free communication
Camera	1/4-inch color CMOS
Minimum illumination	5 Lux
Camera angle	Wide: approx. 170° (horizontal)
Mounting	IS-DV: Surface-wall mount (directly to wall) IS-DVF: Flush-mount
Material	Front panel: aluminum die-cast (IS-DV) stainless steel (IS-DVF) Main unit: flame resisting PC+ABS resin

### Image view area

Refer to the descriptions for the image view area.  
→ P.10

### Wiring





## Audio station



**IS-RS**  
Room sub station



**IS-SS**  
Vandal resistant door station, flush mount



**IS-SS-2G**  
Vandal resistant door station, flush mount 2-gang mounting

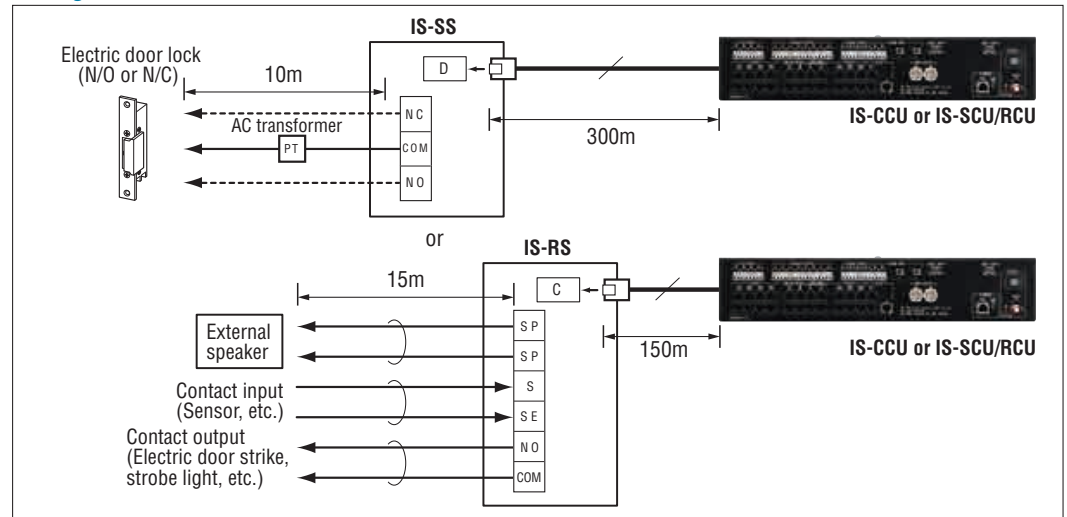
### Features

- Calling up to 20 pre-programmed master stations all together
- Remote site calling and communicating capability (required IS-IPC)
- Electric door strike can be connected.
- External speaker can be connected (IS-RS only)
- Option input and option output (IS-RS and IS-SS-2G)

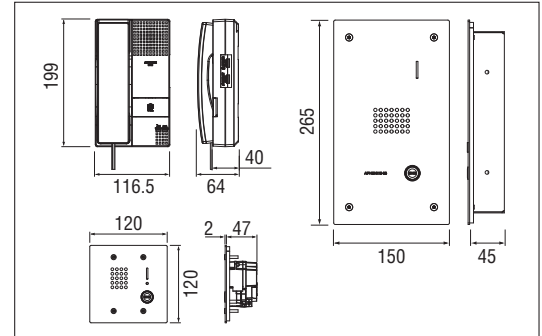
### Specifications (IS-RS)

Power source	Supplied from the central control unit, add-on control unit or room sub control unit
Communication	Handset: simultaneous communication Hands-free: auto-voice actuation or Press-to-talk (PTT)
Mounting	Surface-wall mount (directly to wall or electrical box)
Material	Flame resisting ABS resin

### Wiring



### Unit dimensions



### Specifications (IS-SS, IS-SS-2G)

Power source	Supplied from the central control unit, add-on control unit or room sub control unit
Communication	Open voice hands-free communication
Mounting	Flush-mount
Material	Front panel: stainless steel Main unit: flame resisting PC+ABC resin

## Control unit



**IS-CCU**  
Central control unit



**IS-SCU**  
Add-on control unit



**IS-RCU**  
Room sub control unit

### Features (IS-CCU)

- Configures a local system with up to 2 add-on control units, 4 room sub control units, in total 20 master stations, 120 sub stations and 28 PA outputs
- 4 PA outputs, 2 chime inputs, 2 video outputs
- System settings are possible on the connected PC
- Up to 3 M Bytes of audio files can be uploaded for sound source
- Chime and transfer schedule can be set
- 3 triggered actions selectable for contact input
- 5 trigger conditions selectable for contact output
- System setting data can be downloaded or uploaded
- Time correction function synchronized with a PC or NTP server
- Daylight saving time is available
- Either rack-mounting (into 19-inch rack) or wall-mounting is possible

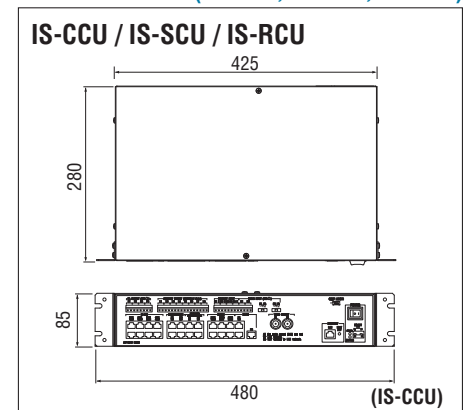
### Features (IS-SCU)

- Adds up to 8 master stations and 8 sub stations in a local system
- 4 PA outputs
- 4 trigger conditions selectable for contact output
- Either rack-mounting (into 19-inch rack) or wall-mounting is possible

### Features (IS-RCU)

- Connectable with up to 30 sub stations
- Connectable with either an IP control unit (IS-IPC) or central control unit (IS-CCU)
- 4 PA outputs
- 4 trigger conditions selectable for contact output
- Either rack-mounting (into 19-inch rack) or wall-mounting is possible

### Unit dimensions (IS-CCU, IS-SCU, IS-RCU)



# Security IP Video Intercom System

## Specifications (IS-CCU)

Power source	48V DC (supplied from the power supply unit)
Current consumption	Max. 0.8A
Talk channels	Local system: 2 talk & 2 video channels, 1 chime
Video channels	
Master station(s)	Max. 4
Video door station(s)	
Audio door station(s)	Max. 4
Room sub station(s)	
Add-on control unit	Max. 2
Room sub control unit	Max. 4
IP control unit	Max. 1
Video output	NTSC BNC (Video channel 1,2)
Mounting	Rack-mount (19-inch, 2U rack) or wall-mount

\* The system setting tool is compliant with Windows XP, Windows VISTA and Windows 7.

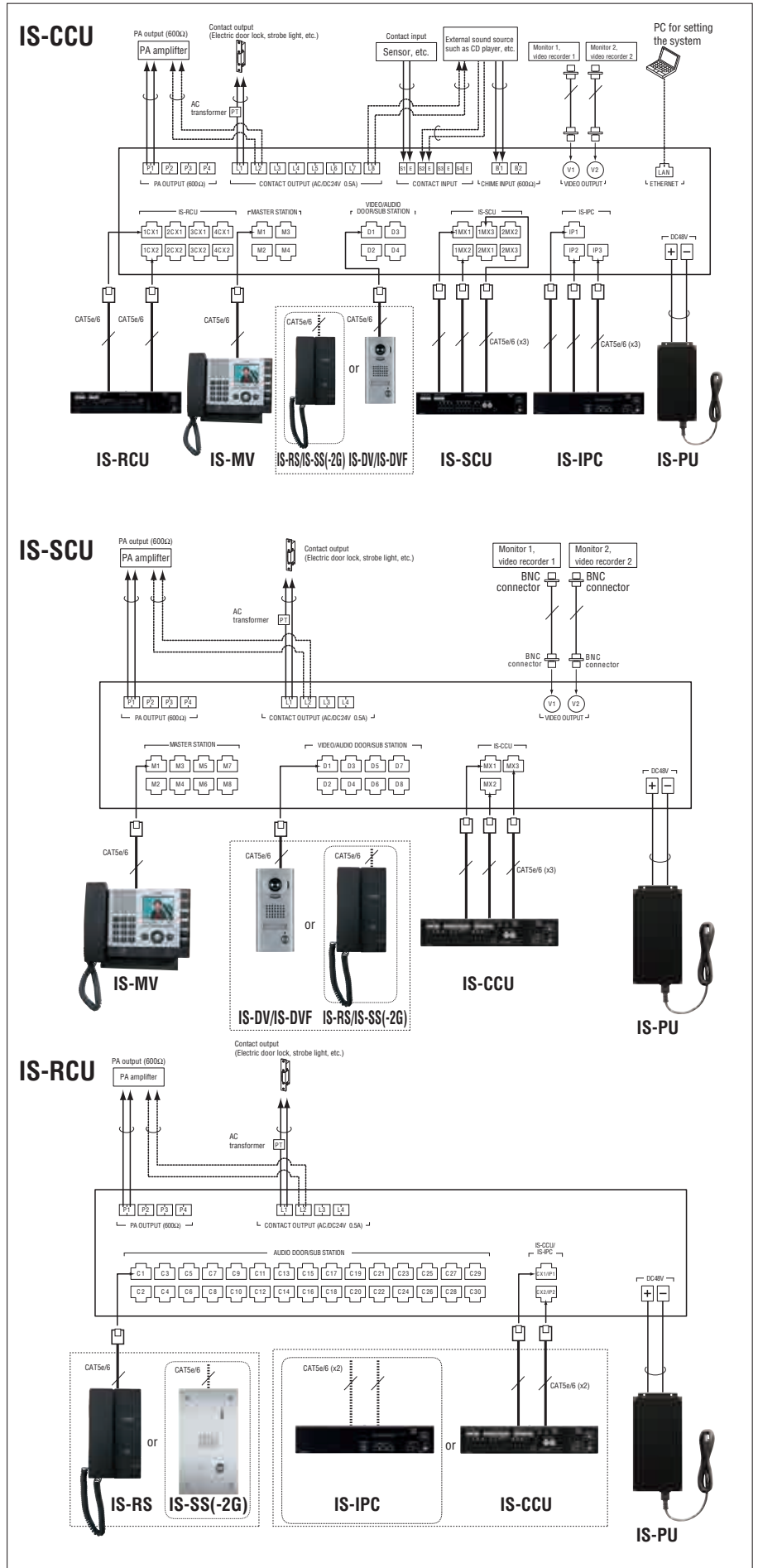
## Specifications (IS-SCU)

Power source	48V DC (supplied from the power supply unit)
Current consumption	Max. 1.2A
Talk channels	Local system: 2 talk & 2 video channels, 1 chime
Video channels	
Master station(s)	Max. 8
Video door station(s)	
Audio door station(s)	Max. 8
Room sub station(s)	
Video output	NTSC BNC (Video channel 1,2)
Mounting	Rack-mount (19-inch, 2U rack) or wall-mount

## Specifications (IS-RCU)

Power source	48V DC (supplied from the power supply unit)
Current consumption	Max. 1.8A
Talk channels	Local system: 2 talk channels, 1 chime
Audio door station(s)	
Room sub station(s)	Max. 30
Mounting	Rack-mount (19-inch, 2U rack) or wall-mount

## Wiring



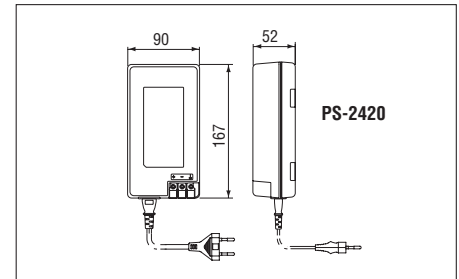
## Power supply



### Specifications (PS-2420)

Input voltage & Capacity	100-240V AC, 50/60Hz 60W/100-125VA
Output voltage	24V DC, 2A

### Unit dimensions



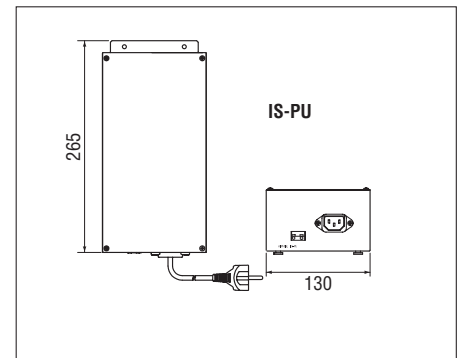
### Features

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

### Specifications

Power source	AC 100 - 240V, 50/60Hz.
Power consumption	120W
Output voltage	DC 48V
Output current	2.1A
Mounting	Wall-mount or rack-mount (IS-RACK)
Material	Steel plate

### Unit dimensions



## Functional Specification

Features	Item						
	Video Door Station	Audio Station	Master Station	IP Video Door Station	IP Master Station	PC application	
Hands-free	✓	✓	✓	✓	✓	✓	✓
Press-to-talk	—	—	✓	—	✓	✓	✓
Handset	—	✓	✓	—	✓	—	—
Talk transfer	—	—	✓	—	✓	✓	✓
Video identification at door call	—	—	✓	—	✓	✓	✓
Answering to door call	—	—	✓	—	✓	✓	✓
Door release (contact output)	—	—	✓	—	✓	✓	✓
Call forwarding on door call	—	—	✓	—	✓	✓	✓
Absence transfer on door call	—	—	✓	—	✓	✓	✓
Zone page to door station	—	—	✓	—	✓	✓	✓
Direct Voice call and talk-back	—	—	✓	—	✓	✓	✓
Monitor of door camera image / audio	—	—	✓	—	✓	✓	✓
Answering to master call	✓	✓	✓	✓	✓	✓	✓
Answering to PC master call	✓	✓	✓	✓	✓	✓	✓
Zone paging	—	—	✓	—	✓	✓	✓
Zone chime of external sound source	—	—	✓	—	✓	✓	✓
Zone chime of internal sound source	—	—	✓	—	✓	✓	✓
E-mail at set trigger (small number of addresses)	✓	✓	—	✓	—	—	—
Video output	—	—	✓	—	—	—	—

# 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-2420**  
→ P.112

INTEGRATED SECURITY & COMMUNICATION SYSTEM

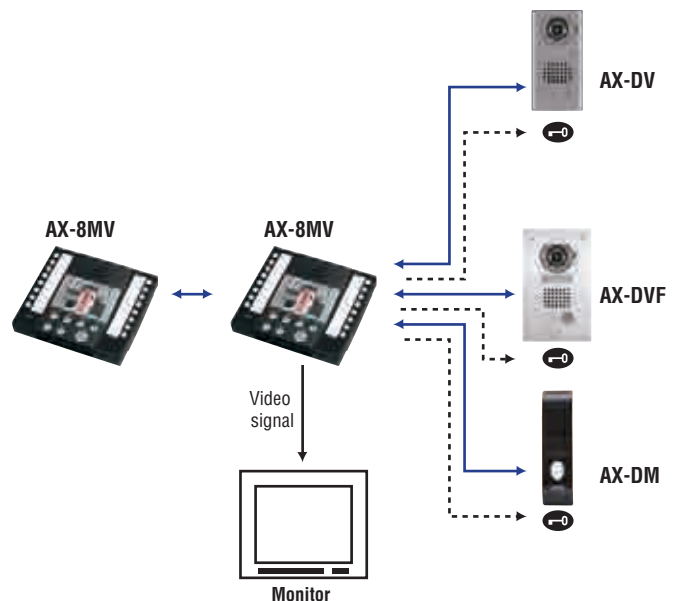
## Features

- 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
- Masters 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

Station No.	No.	Location Name	Video Audio	Series	Call Level	LR Release	Scan Mode	RM/CT
1	1	Front Entrance	Video	AX	Priority	NO	Enable	On
2	2	Backline	Video	AX	Priority	NO	Enable	On
3	3		Video	AX	Priority	NO	Enable	On
4	4		Video	AX	Normal	NO	Enable	On
5	5		Video	AX	Normal	NO	Enable	On
6	6		Video	AX	Normal	NO	Enable	On
7	7		Video	AX	Normal	NO	Enable	On
8	8		Video	AX	Normal	NO	Enable	On

## Communication network



↔ Calling & communication (w/video from door)  
 - - - Door release

## Door station



**AX-DV**  
Color video door station surface mount



**AX-DVF**  
Color video door station flush mount



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



**AX-DVF-P**  
Color video door station w/space for embed 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.110

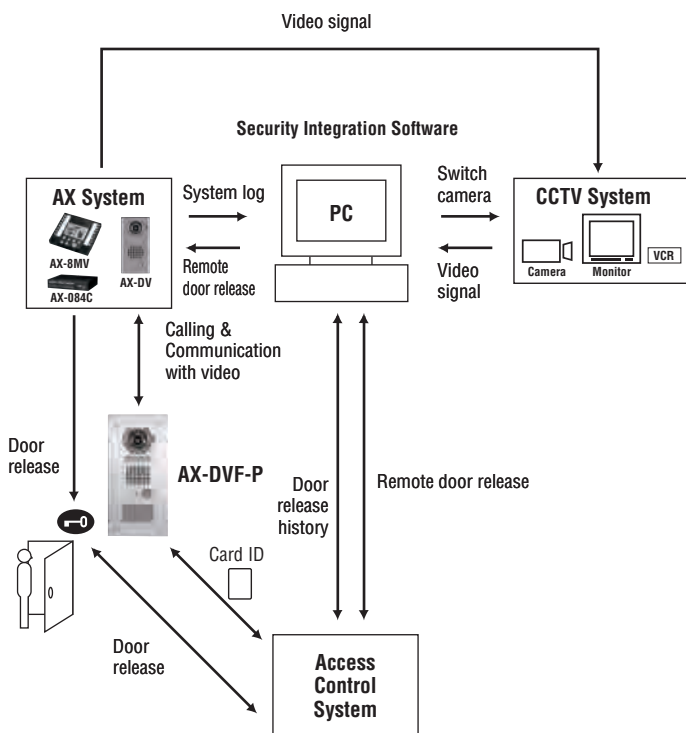


**AC-10S**  
Access control keypad, surface mount  
→ P.107

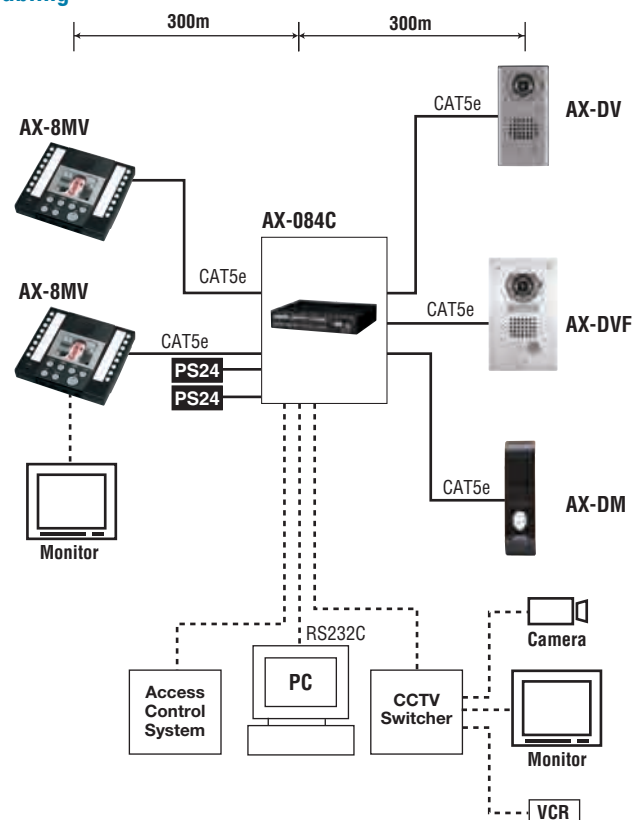


**AC-10F**  
Access control keypad, flush mount  
→ P.107

## System Integration

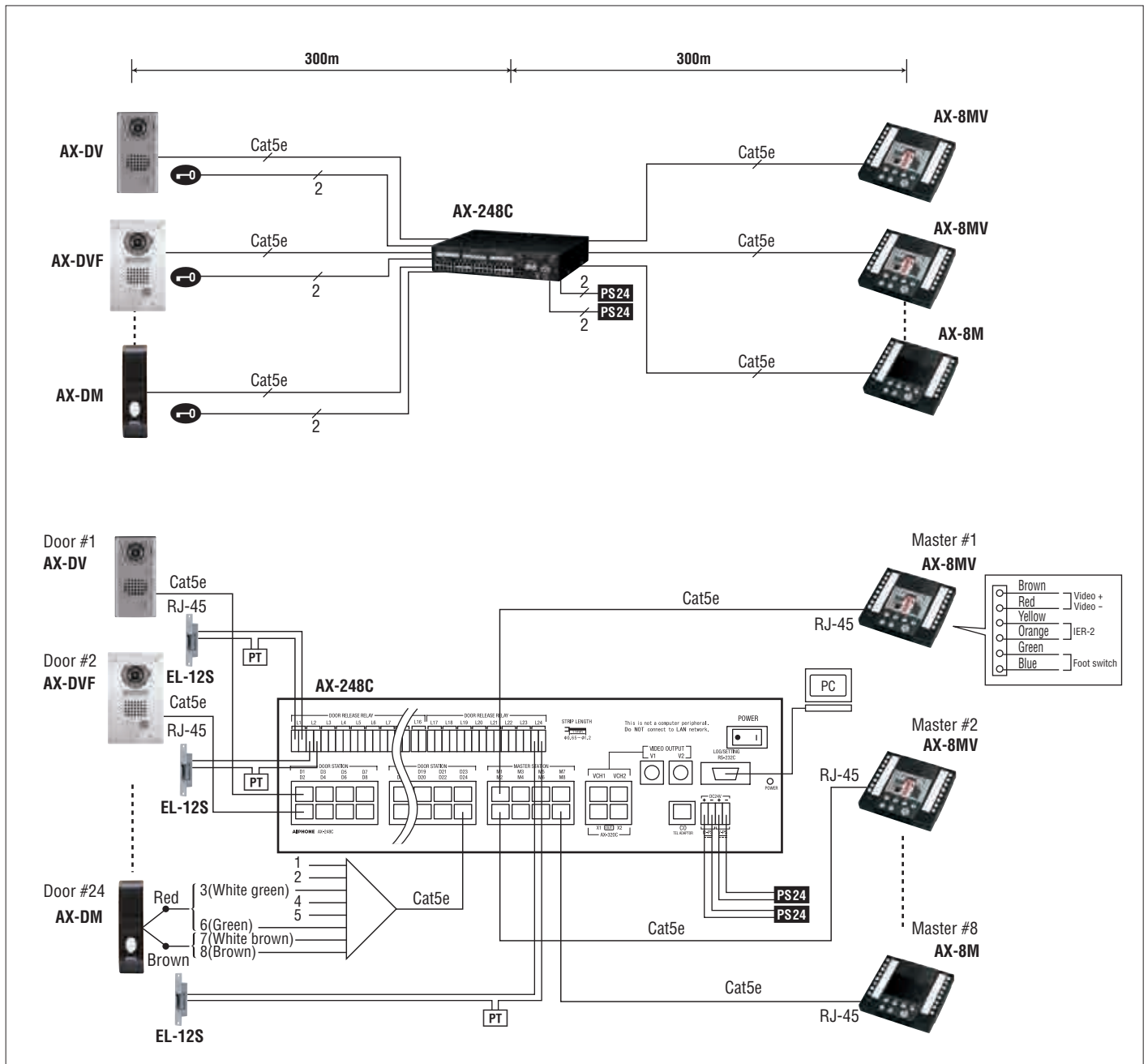


## Cabling



# Integratable Audio & Video Security

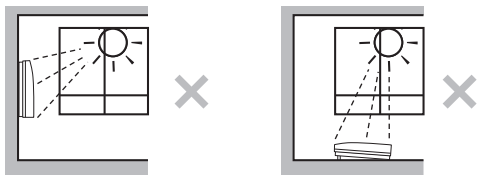
## Wiring



PS24 : PS-2420 PT : AC transformer

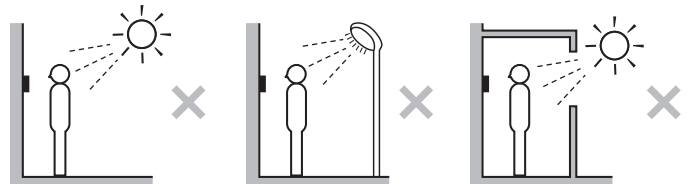
## Mounting locations

### Master station



Install the video master station in a place where the screen is not exposed to direct sunlight.

### Video door station



Do not install a video door station in any of the following locations where lighting or the ambient environment could impact the display on the video master station due to the characteristics of the door station's camera.

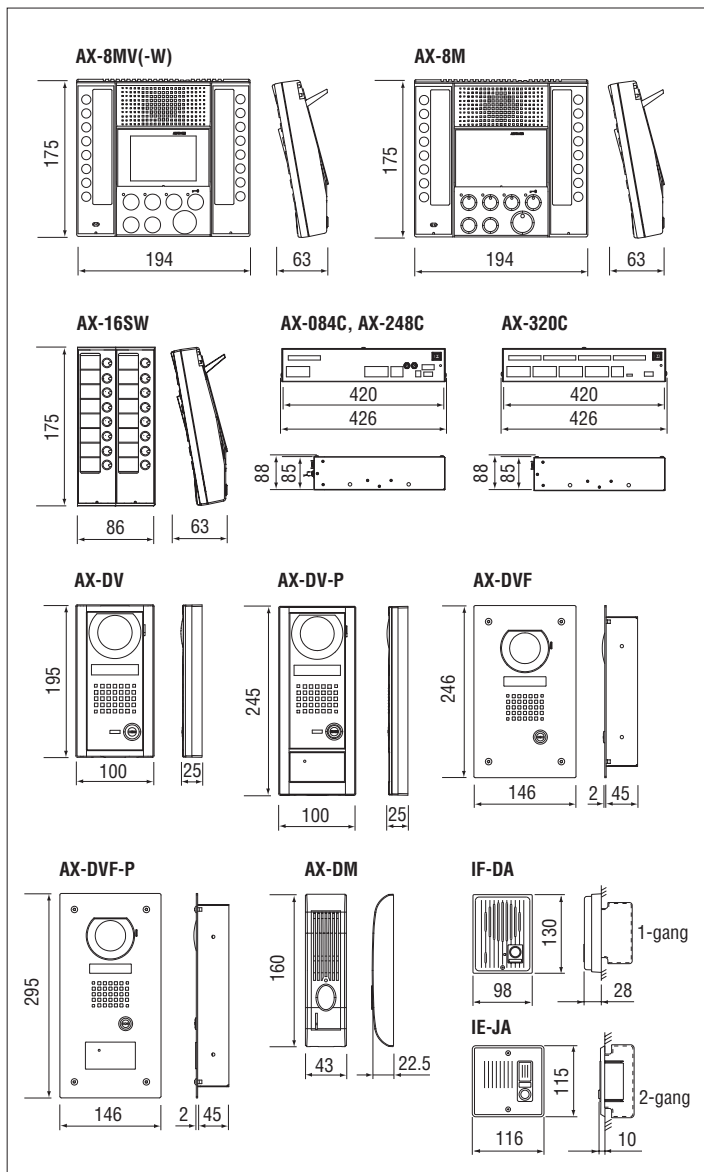
1. Locations subject to direct sunlight
2. Under street lights or door lights
3. Other locations subject to strong lighting conditions

## Components

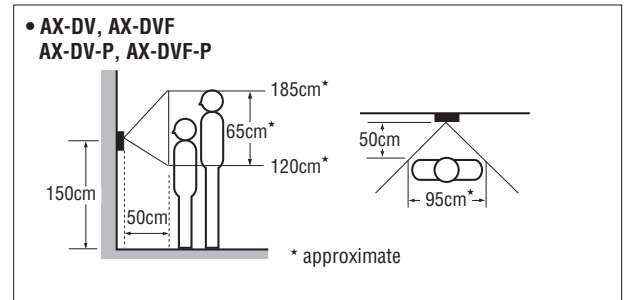
AX-DV	AX-DVF	AX-DM	AX-8MV (AX-8M audio only)	AX-16SW	AX-084C or AX-248C	AX-320C	
Number of door stations			Number of master stations	Number of add-on selectors per master	Number of central exchange unit		Number of add-on exchange units
					AX-084C	AX-248C	
1 ~ 8			up to 4	—	1	—	—
9 ~ 24			up to 8	1	—	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-2420
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

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



### Lineup

Hands-free Two-Wire Electric Lock Door Phone DB-1MD



P78  
P79

Two-Wire Electric Lock Door Phone DA-1AS & DA-4DS



P81  
P82

Chime Tone Intercom C-123L/A



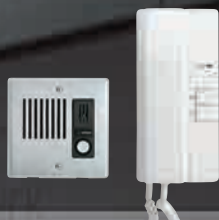
P83

Chime Tone Intercom IE-1AD(U)



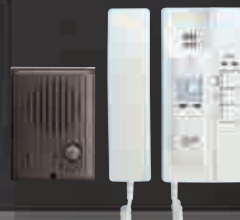
P84

Chime Tone Intercom IE-1GD(U)



P85

Chime Tone Intercom IE-2A2DU



P86

Chime Tone Intercom IE-8MD

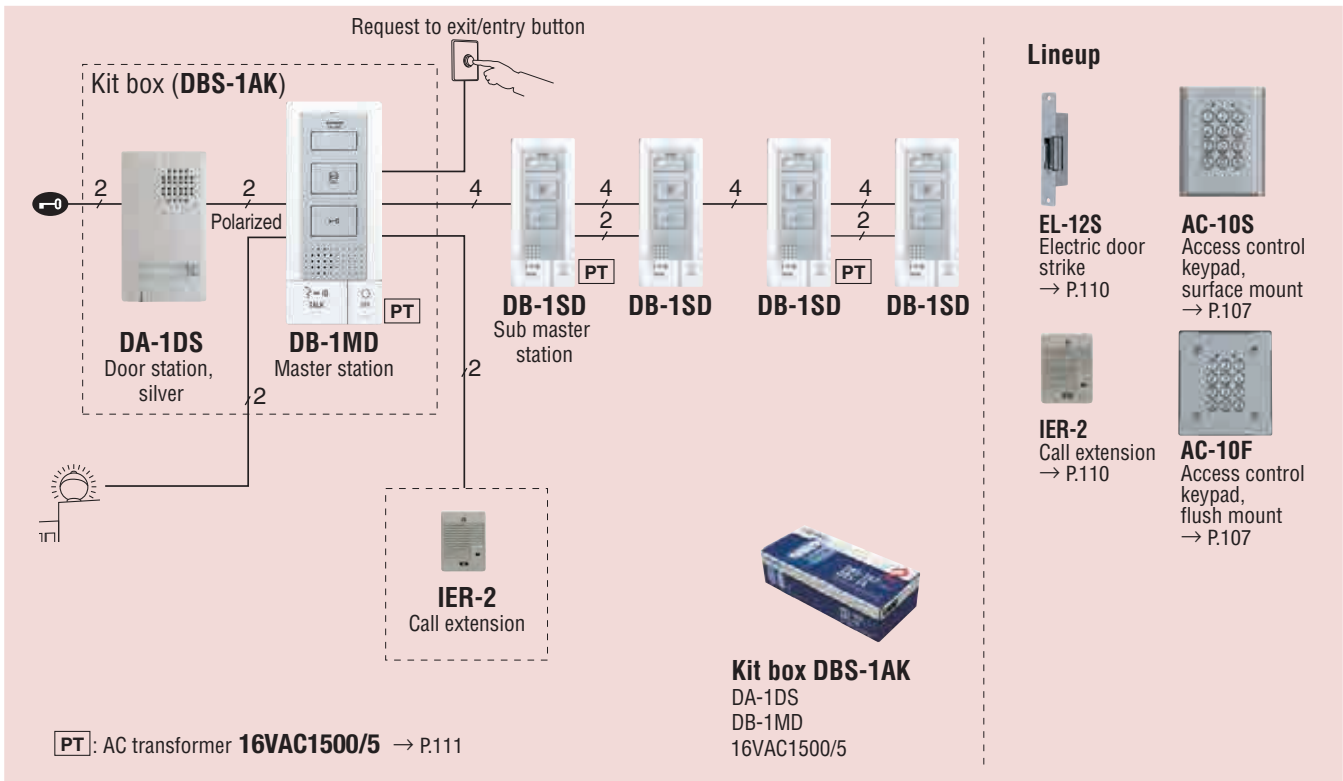


P87



# Hands-free Two-Wire Electric Lock Door Phone

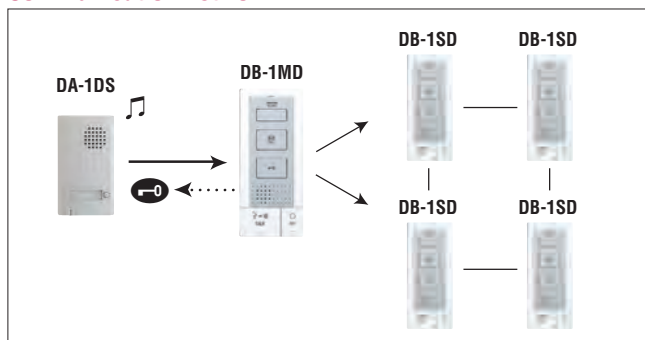
## DOOR 1 ROOM 5 DB-1MD



### Features

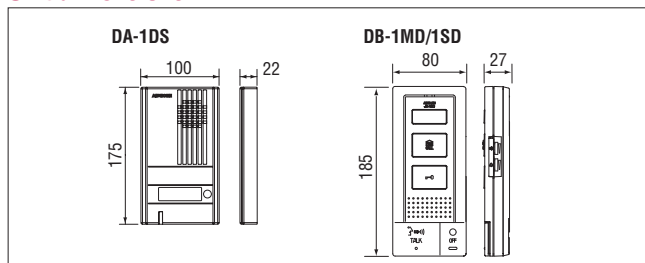
- Door release wired from door station, without additional transformer
- Two-wire system including door release
- Total hands-free communication, auto-voice actuation
- Press-to-talk operation available
- Up to 5 inside stations
- All call for internal communication
- User-optional function button
-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

### Communication network

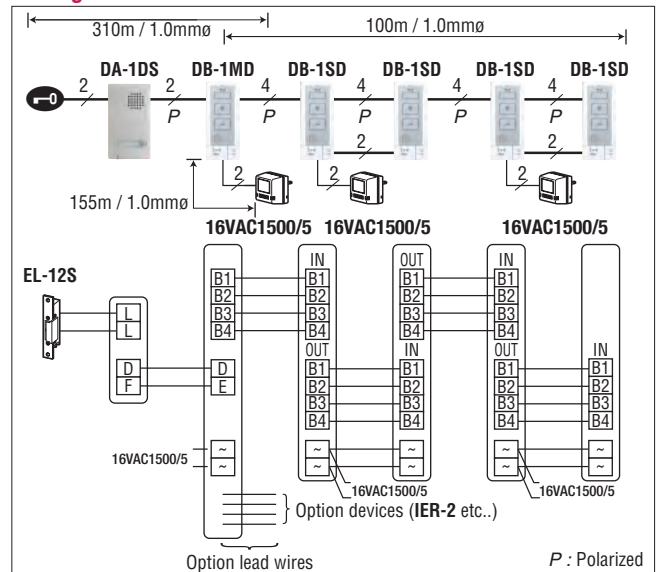


Press "call" button to ring inside station (s).

### Unit dimensions



### Wiring



### Specifications (DB-1MD, 1SD)

Power source	16V AC
AC transformer	16VAC1500/5
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 (More than (AC) 70Ω, AC 9.5 ~ 20V)
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	16VAC1500/5 ~ Door rlse. 110m(0.65mmø) 200m(0.8mmø) 310m(1.0mmø) 16VAC1500/5 ~ 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

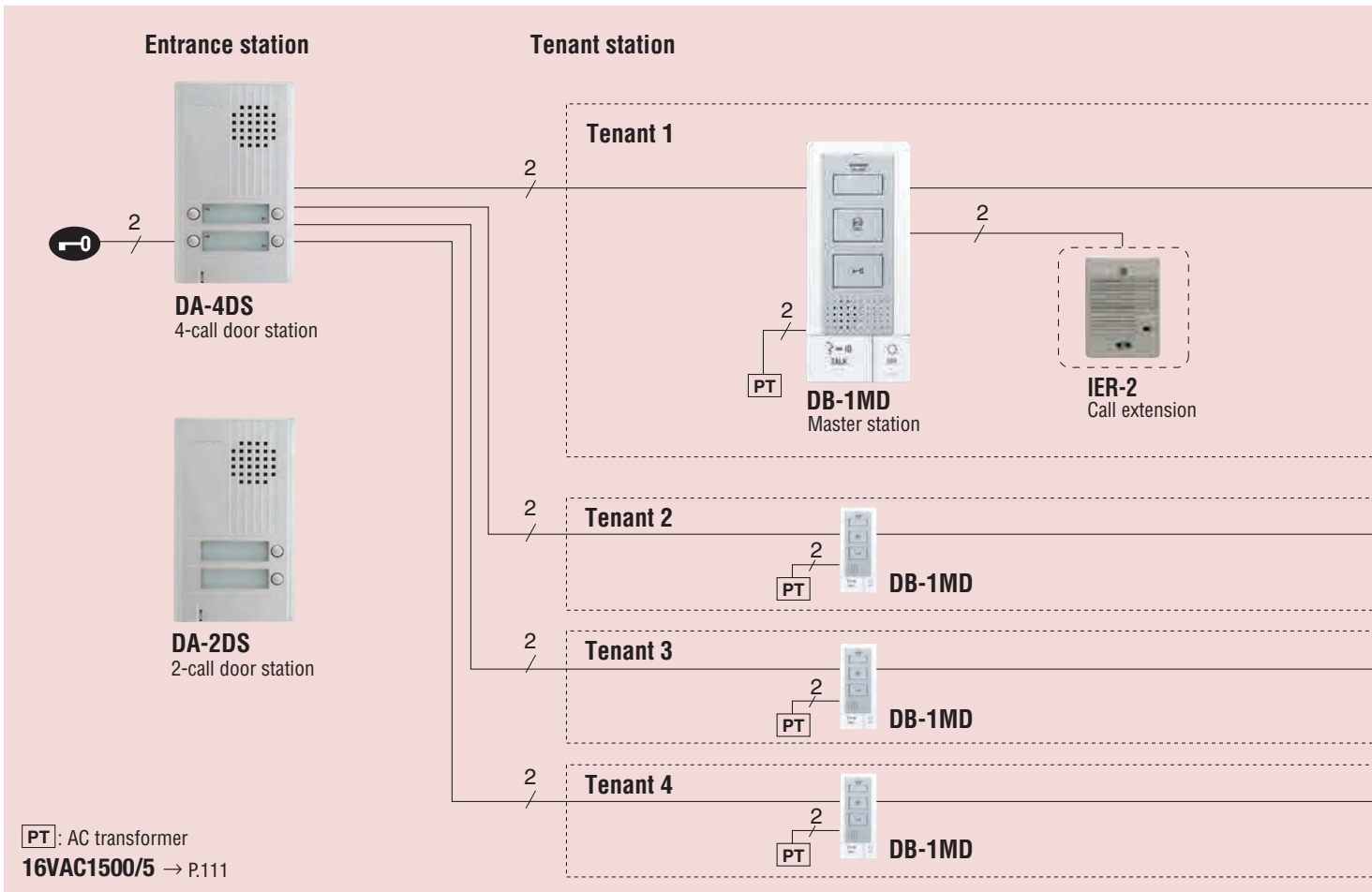
ENTRANCE

TENANT

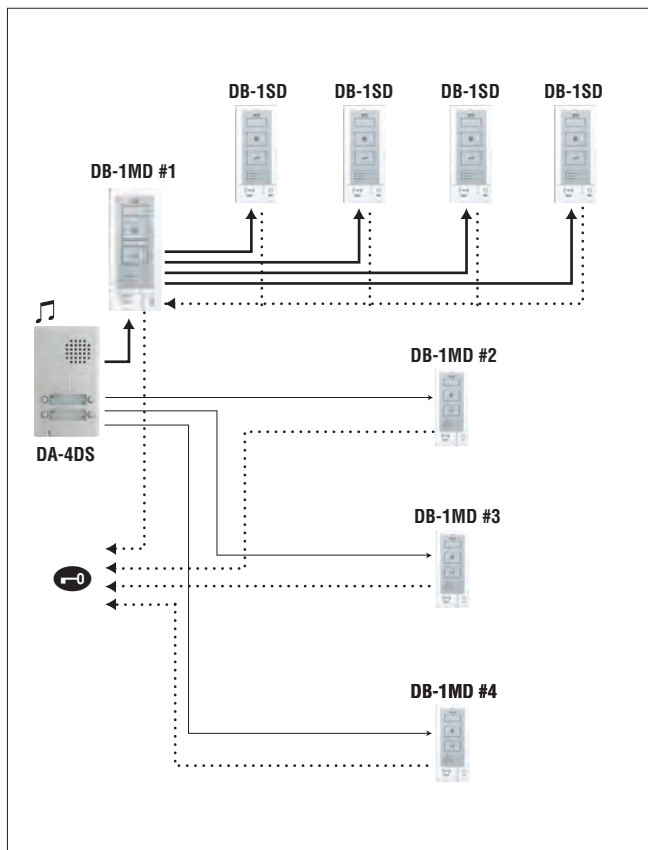
1

4

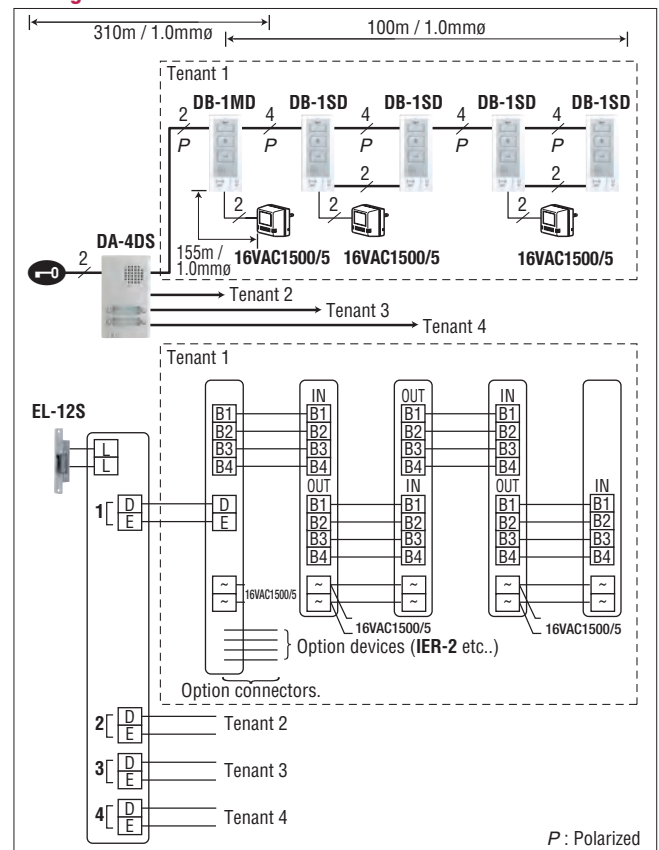
## DA-4DS with DB-1MD



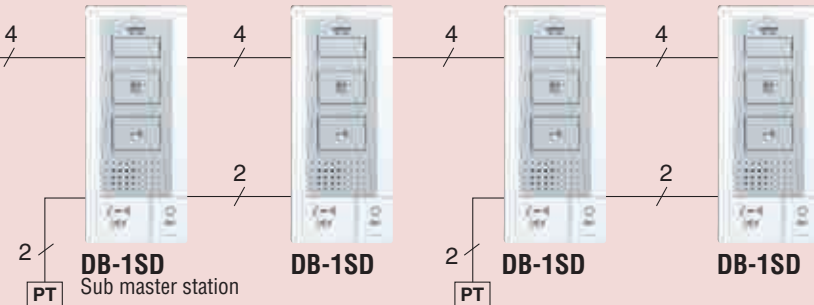
### Communication network



### Wiring



AUDIO ENTRY SECURITY



## Lineup



**EL-12S**  
Electric door strike  
→ P.110



**AC-10S**  
Access control keypad, surface mount  
→ P.107



**IER-2**  
Call extension  
→ P.110

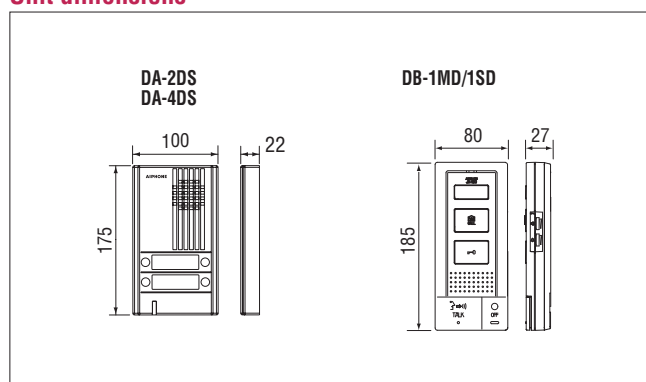


**AC-10F**  
Access control keypad, flush mount  
→ P.107

## 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 in each tenant
- All call for internal communication
- User-optional function button
- Call tone MUTE with indicator
- Call extension sounder
- Directory backlighting
- Continuous chime tone (approx. 4 seconds)

## Unit dimensions



## Specifications (DA-4DS)

Power source	16V AC
Power supply	16VAC1500/5
Communication	Press and hold down Button to call.
Wiring	2 wires, throughout system: AC trans - Master - Door - Door rise.

## Specifications (DB-1MD, 1SD)

Power source	16V AC
AC transformer	16VAC1500/5
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 (More than (AC) 70Ω, AC 9.5 ~ 20V)
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	16VAC1500/5 ~ Door rise. 110m(0.65mmø) 200m(0.8mmø) 310m(1.0mmø) 16VAC1500/5 ~ DB-1MD 55m(0.65mmø) 100m(0.8mmø) 155m(1.0mmø) DB-1MD ~ farthest DB-1SD 100m(0.65 ~ 1.0mmø)



# Two-Wire Electric Lock Door Phone

ENTRANCE

TENANT

1

4

# 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.110



**AC-10S**  
Access control keypad, surface mount  
→ P.107



**AC-10F**  
Access control keypad, flush mount  
→ P.107

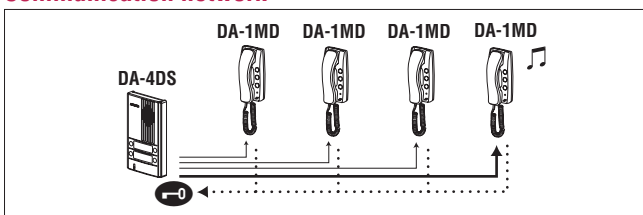
**AC transformer**  
**16VAC1500/5**

→ P.111

## Features

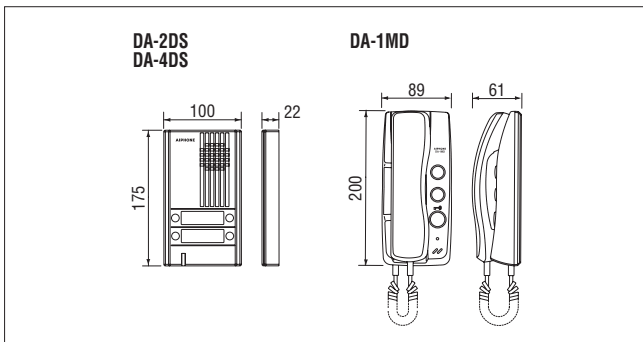
- Two-wire system
- Door release wired to door station, requiring no power transformer
- User-optional function button
- Call tone MUTE with indicator
- Call extension sounder

## Communication network



Electronic tone. Direct select ring.

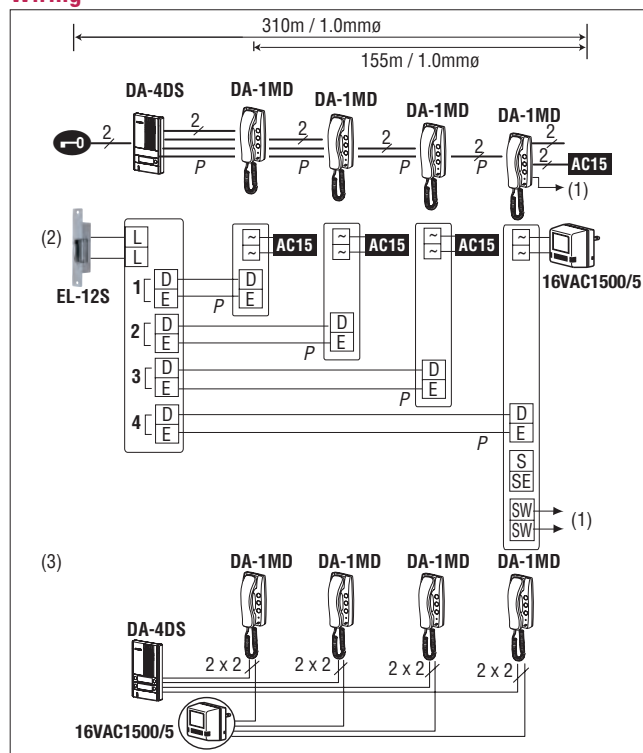
## Unit dimensions



## Specifications (DA-4DS)

Power source	16V AC
Power supply	16VAC1500/5
Communication	Press and hold down Button to call.
Wiring	2 wires, throughout system: AC trans - Master - Door - Door rlse.
Wiring distance	16VAC1500/5 ~ Door rlse. 110m(0.65mmø) 200m(0.8mmø) 310m(1.0mmø) 16VAC1500/5 ~ 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 16V AC, 20 Ω or more (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

**Power supply**  
**AMS66** or Batteries  
→ P.111

### Boxed set

**C-123L/A**  
Chime-Com boxed set

### Lineup



**AC-10S**  
Access control keypad,  
surface mount  
→ P.107



**AC-10F**  
Access control keypad,  
flush mount  
→ P.107

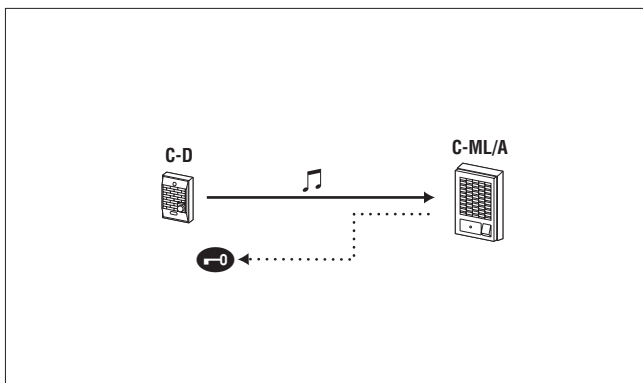


**EL-12S**  
Electric door  
strike  
→ P.110

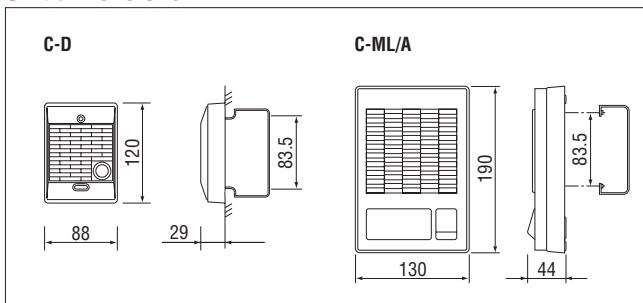
### Features

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

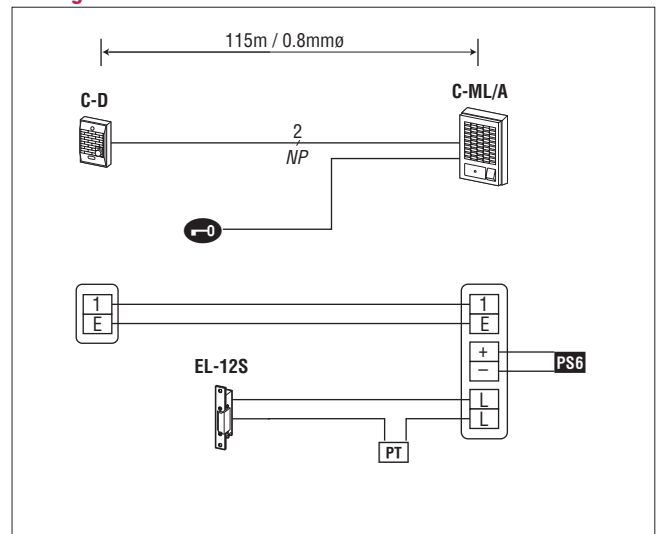
### Communication network



### Unit dimensions



### Wiring



**PT** : AC transformer **PS6** : AMS66

### Specifications (C-123L/A)

Power source	AMS66
Power supply	AMS66 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.88

### Master station



**IE-1AD(U)**  
Master station

### Lineup



**EL-12S**  
Electric door strike  
→ P.110



**AC-10S**  
Access control keypad, surface mount  
→ P.107



**IER-2**  
Call extension  
→ P.110



**AC-10F**  
Access control keypad, flush mount  
→ P.107

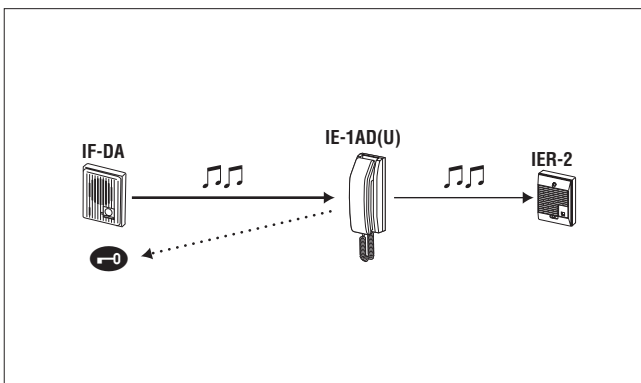
### Power supply

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

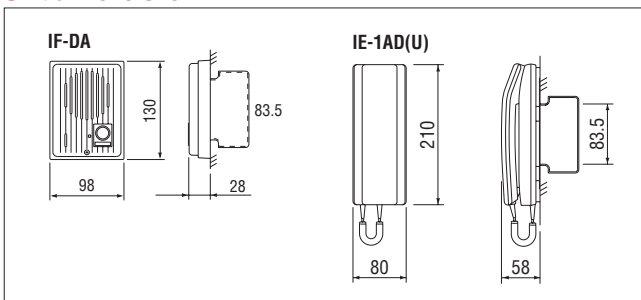
### Features

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

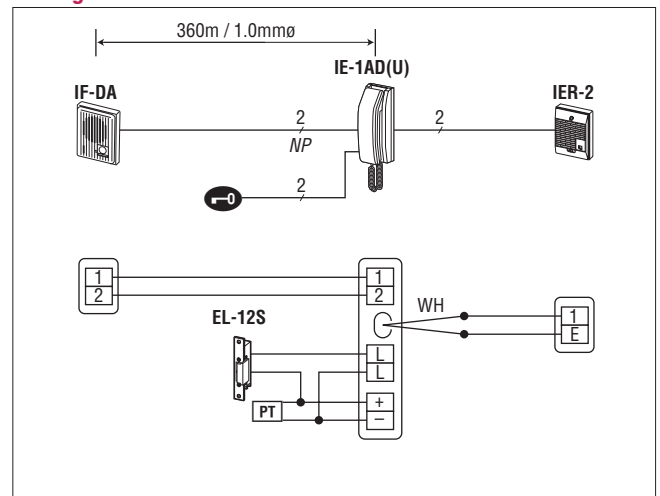
### Communication network



### 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-1225.
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)

# Chime Tone Intercom


## DOOR 1 ROOM 3 IE-1GD(U)

**Door station**




**IE-JA**  
Door station  
→ P.88

**Master station**




**IE-1GD(U)**  
Master station

**Sub station**




**IEH-1CD**  
Sub master station


**Lineup**




**EL-12S**  
Electric door strike  
→ P.110



**AC-10S**  
Access control keypad, surface mount  
→ P.107



**IER-2**  
Call extension  
→ P.110



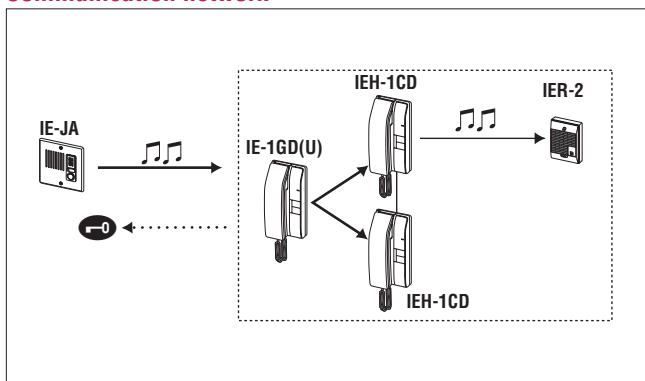
**AC-10F**  
Access control keypad, flush mount  
→ P.107

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

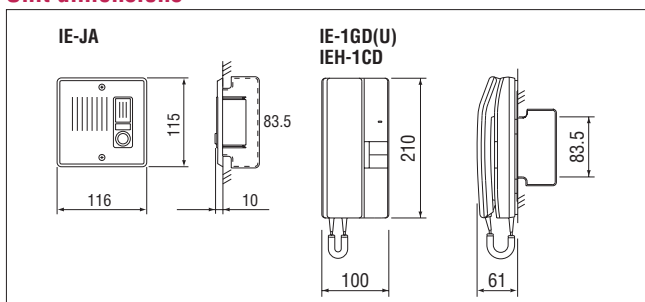
### Features

- 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

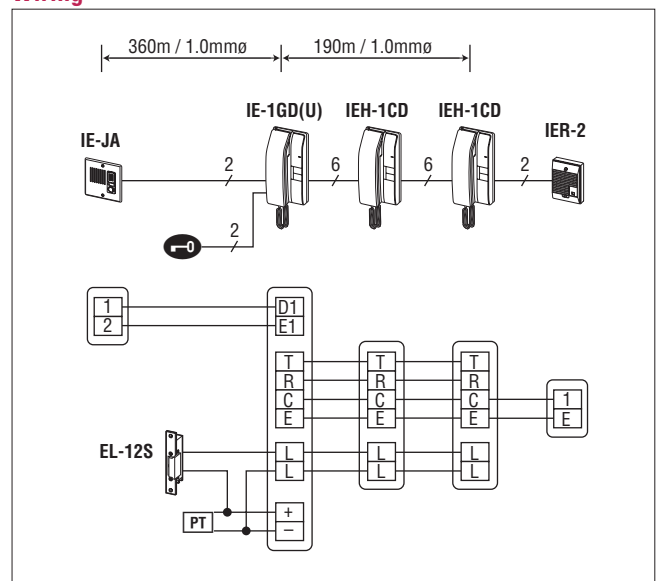
### Communication network



### Unit dimensions



### Wiring



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

PT : AC transformer










### 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-1225
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

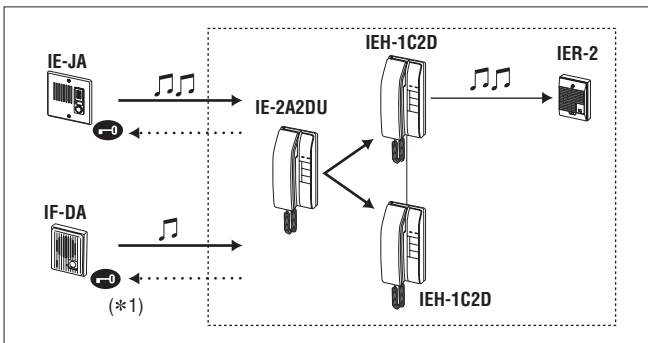
## DOOR 2 ROOM 3 IE-2A2DU

Door station	Master station	Sub station	Lineup	
 <p><b>IE-JA</b> Door station → P.88</p>  <p><b>IF-DA</b> Door station → P.88</p> <p><b>Power supply</b> 12~24V DC power supply 12~16V AC transformer</p>	 <p><b>IE-2A2DU</b> Master station, 2 door releases</p>	 <p><b>IE-2AD(U)</b> Master station</p>	 <p><b>IEH-1CD</b> Sub master station</p> <p><b>IEH-1C2D</b> 2 door release</p>	 <p><b>EL-12S</b> Electric door strike → P.110</p>  <p><b>AC-10S</b> Access control keypad, surface mount → P.107</p>  <p><b>IER-2</b> Call extension → P.110</p>  <p><b>AC-10F</b> Access control keypad, flush mount → P.107</p>

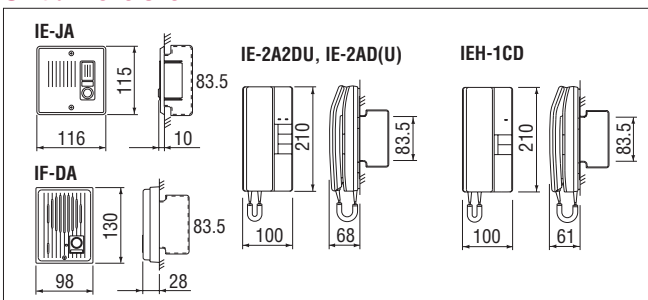
### Features

- 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

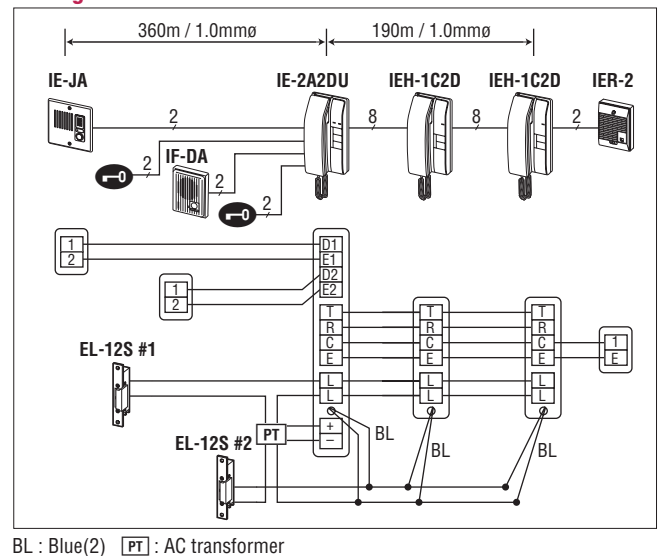
### Communication network



### Unit dimensions



### Wiring











### 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-1225
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

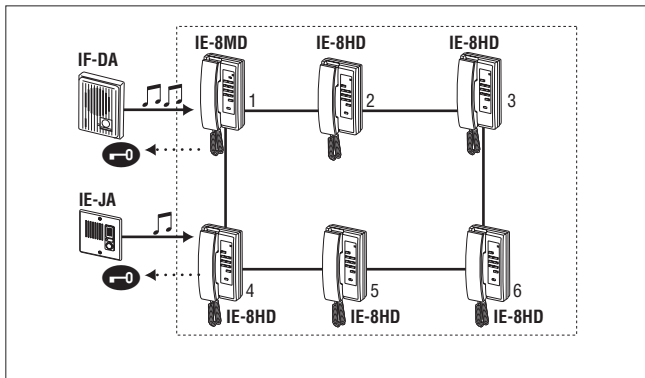
## DOOR 2 ROOM 6 IE-8MD

<p><b>Door station</b></p>  <p><b>IE-JA</b> Door station → P.88</p>  <p><b>IF-DA</b> Door station → P.88</p> <p><b>Power supply</b> <b>PS-1225</b> → P.111 <b>PS-1820</b> → P.111</p>	<p><b>Master station</b></p>  <p><b>IE-8MD</b> 6-call master</p>	<p><b>Sub station</b></p>  <p><b>IE-8HD</b> 6-call sub master</p>	<p><b>Lineup</b></p>  <p><b>EL-12S</b> Electric door strike → P.110</p>  <p><b>AC-10S</b> Access control keypad, surface mount → P.107</p>  <p><b>RY-AC/A</b> External signaling relay → P.110</p>  <p><b>AC-10F</b> Access control keypad, flush mount → P.107</p>
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### Features

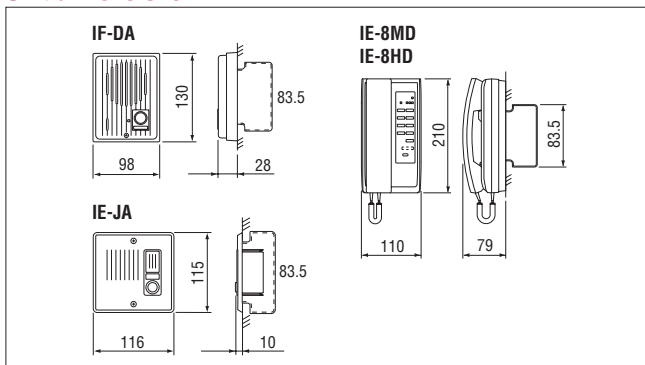
- Expandable to 6-station system
- Selective or All Call between inside stations
- Door select and monitor button (on IE-8MD only)
- AC or DC power source
- Selective door release control
- Chime tone cutout on inside stations, selectable

### Communication network

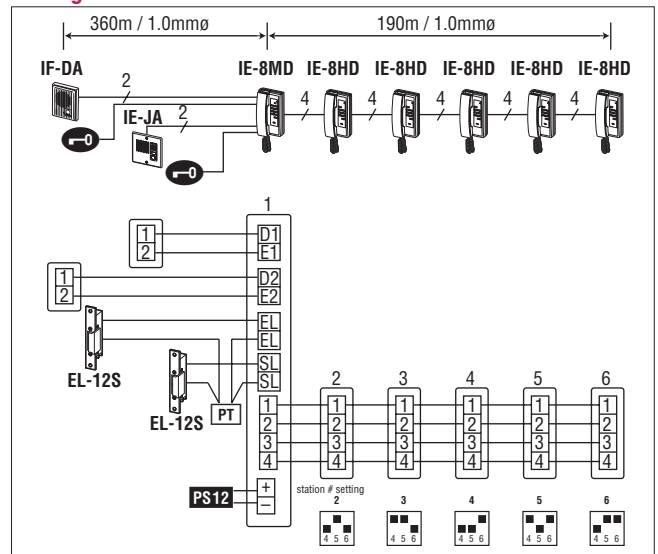


Internal communication by Selective Call or All Call. Chime tone can be muted at each station selectively.

### Unit dimensions



### Wiring



PT : AC transformer PS12 : PS-1225 PS18 : PS-1820 or AC transformer

### Specifications (IE-8MD)

Power source	12~16V AC, 900mA 12~18V DC, 500mA
Power supply	<b>Intercom only;</b> 12V or 18V DC power supply. AC transformer 12V AC, 10VA or 16V AC, 14VA w/no load voltage 20V or less. <b>Intercom + EL-12S;</b> 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)

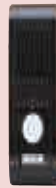
# Audio Door Stations

## IE/IF Series

### Surface mount station



**IF-DA**  
Door station



**AX-DM**  
Audio door station  
Mullion type

### Flush mount station

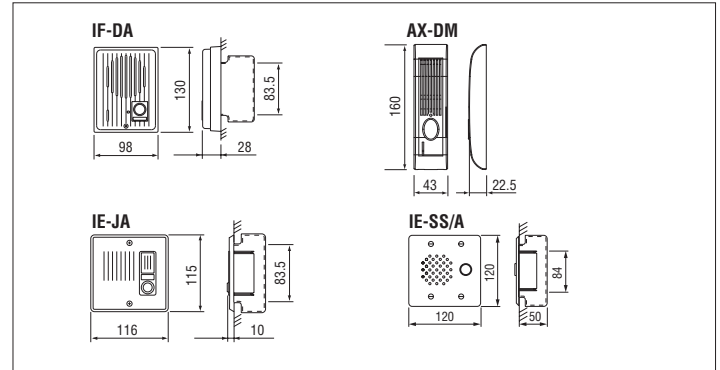


**IE-JA**  
Door station



**IE-SS/A**  
Audio door station

### Unit dimensions



### Specifications

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

### 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

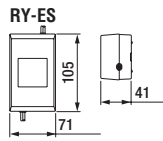
IE-1AD(U), IE-1GD(U),  
IE-2AD(U), IE-8MD,  
TD-nH/B w/DE-UR  
(n=3, 6, 12 & 24)  
TC-M w/TB-AD1  
TC-M w/TB-AD10  
AX

# External Signaling Relays

## External Signaling Relays



**RY-ES**  
External  
Signaling Relay



### Specification

Power Source RY-ES: 12~24V DC, 12~16V AC – supplied by Master Station  
Contact Rating RY-ES: 125V AC, 1.0A 30V DC, 1.0A

### Features (RY-ES)

- Allows an external device to be triggered when the intercom is called
- External device will be activated when the door station calls in

### Used with:

RY-ES – AX Series, DB Series, JF Series, JK Series, JO Series, JP Series, or KB Series

# INTERCOM SYSTEM

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

## Lineup

Open Voice Intercom  
LEM system



P91~

Open Voice Intercom  
LEF system



P93~

Hands-free Intercom  
DB-1MD



P97~

Handset Intercom  
AT-406



P97~

Handset Intercom  
YAZ-90-3W



P98~

Handset Intercom  
TD-H/B



P99~

Security Window Intercom  
IMU-100



P101~

Master / Sub Intercom  
TC-M



P103~

Market-Com  
MC-60/4A




P106~

INTERCOM SYSTEM

# Open Voice Intercom

## DOOR 1 ROOM 1 LEM-1DL

**Door station**



**LE-D**  
Sub station  
→ P.96



**LE-DA**  
Sub station  
→ P.96




**EL-12S**  
Electric door strike  
→ P.110



**LE-DL**  
Sub station  
→ P.96


**Master station**



**LEM-1DL**  
Master station

**Power supply**  
**PS-1225**  
→ P.111

**Lineup**



**AC-10S**  
Access control keypad, surface mount  
→ P.107

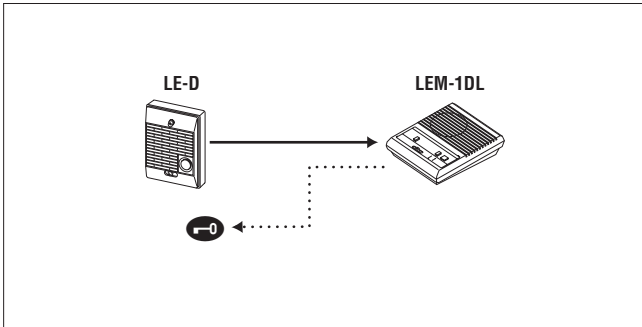


**AC-10F**  
Access control keypad, flush mount  
→ P.107

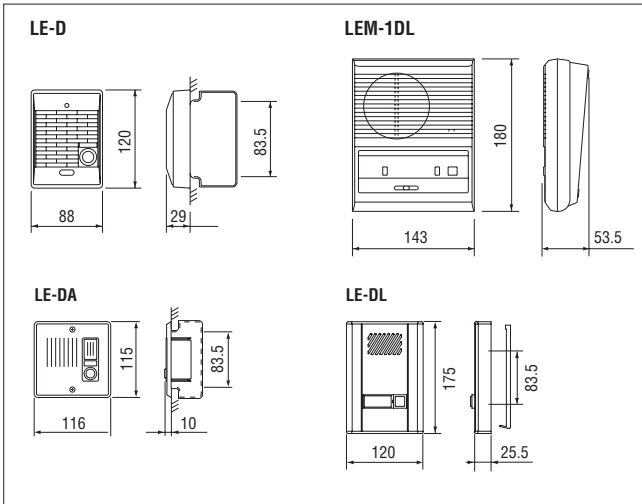
### Features

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

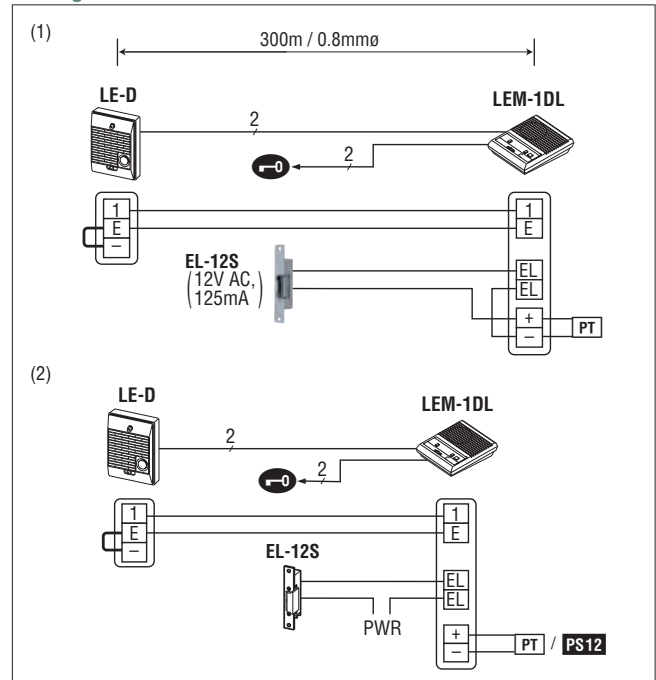
### Communication network



### Unit dimensions



### Wiring



(1) Using EL-12S door release

(2) Using door release of other manufacture rated : 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-1225
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

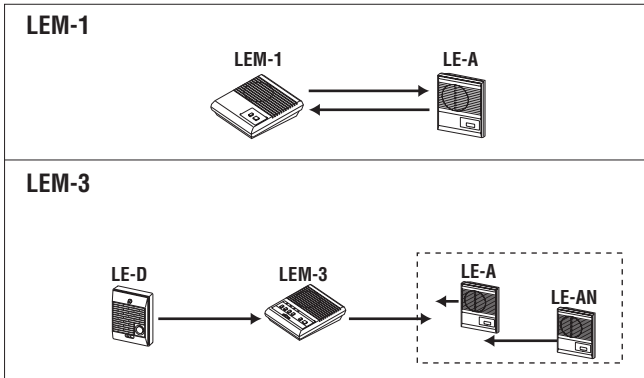
MASTER **1** ▶ SUB **3** **LEM**

<p><b>Master station</b></p>  <p><b>LEM-1</b> 1-call master</p> <p><b>LEM-3</b> 3-call master</p>	<p><b>Door station</b></p>  <p><b>LE-D</b> Sub station → P.96</p>  <p><b>LE-DA</b> Sub station → P.96</p>	<p><b>Room sub station</b></p>  <p><b>LE-A</b> Sub station → P.96</p> <p><b>LE-AN</b> Privacy sub → P.96</p>
<p><b>Power supply</b> <b>AMS66</b> → P.111</p>		

## Features

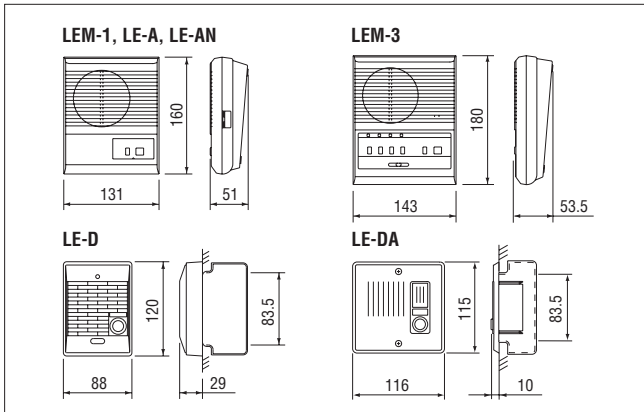
- Open voice communication
- Push-to-talk at master, hands free at remote
- LE sub stations: either door station or room sub station
- Voice volume control

## Communication network

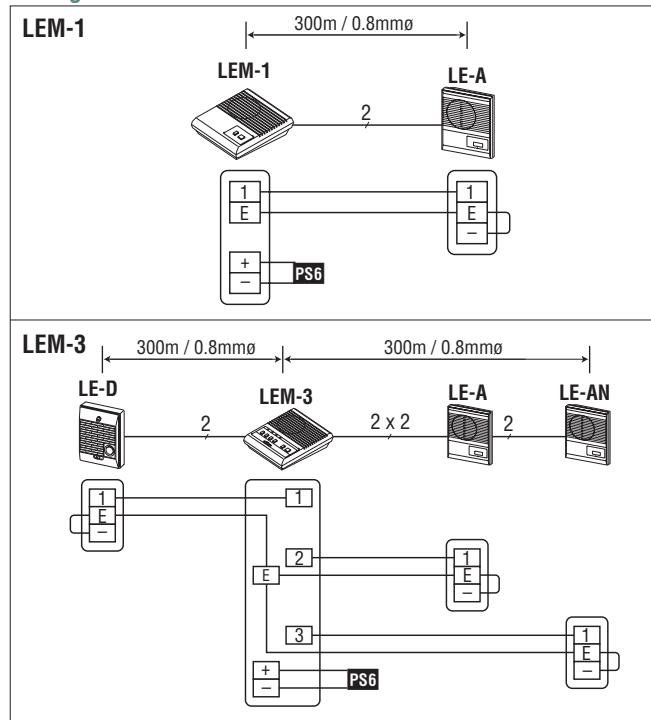


LEM-1; Tone or voice. LEM-3; Selective call w/tone or voice. Tone and LED from sub

## Unit dimensions



## Wiring



★ Do not remove shorting link on subs.

## Specifications (LEM)

Power source	6V DC
Power supply	AMS66
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(0.65mmØ) 300m(0.8mmØ)

# 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



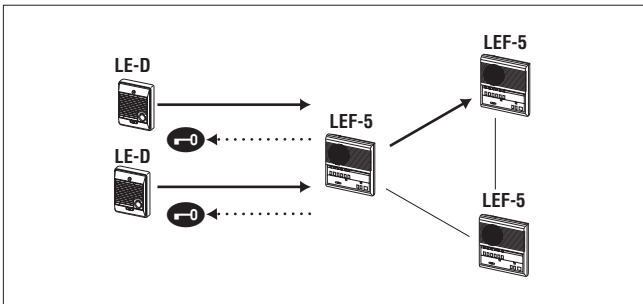
**LEF-10S**  
10-call master (all call)

**Power supply**  
**PS-1225** → P.111

## 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

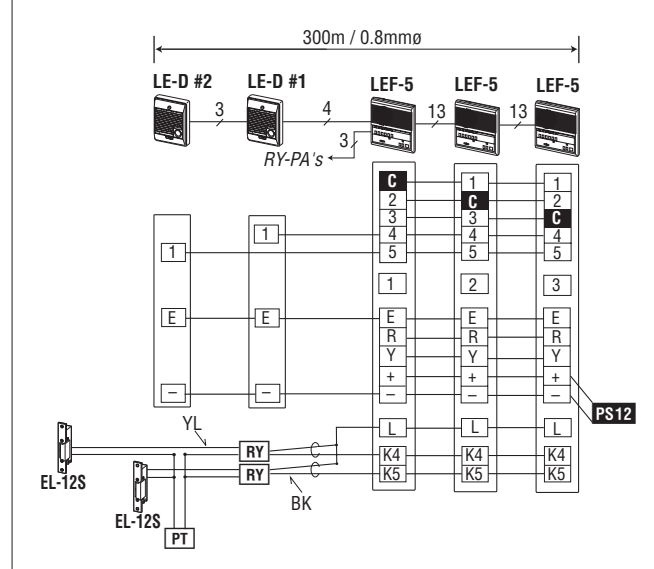
## Cabling

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



**PS** : PS-1225 **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.96



**LE-DA**  
Sub station  
→ P.96

## Room sub station



**LE-A**  
Sub station  
→ P.96



**LE-AN**  
Privacy sub  
→ P.96

## All call, music & chime



**BG-10C**  
All call, chime & music  
adaptor  
→ P.96

## Lineup



**EL-12S**  
Electric door  
strike  
→ P.110



**TDW-n\A**



**AC-10S**  
Access control  
keypad,  
surface mount  
→ P.107



**RY-PA**  
Door release relay  
→ P.110

**LEW-5**  
LEF-5 terminal  
box

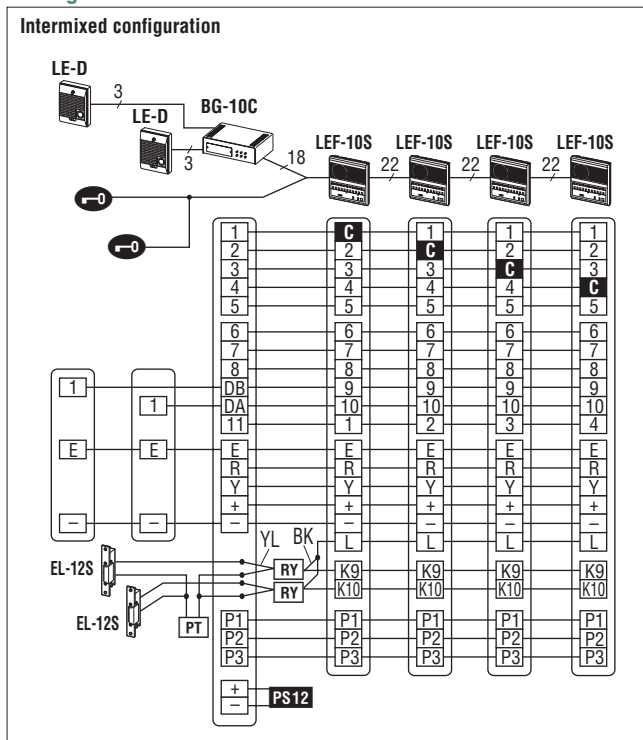
**LEW-10**  
LEF-10 terminal  
box

**LEW-10S**  
LEF-10S terminal  
box



**AC-10F**  
Access control  
keypad,  
flush mount  
→ P.107

## Wiring



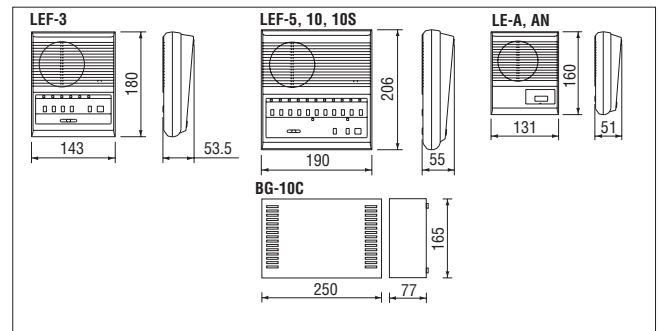
3 wires per sub. Run 3 wires to subs individually, or use multi-conductor cable to wire multiple subs (2 common + 1 per sub).

- 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-1225 **PT** : AC transformer **RY** : RY-PA

## Unit dimensions



## Specifications (LEF)

Power source	12V DC, 300mA per LEF station.
Power supply	PS-1225
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
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 3 ► ROOM 8 LEF-C

### Door station



**LE-D**  
Sub station  
→ P.96

### Master station



**LEF-3C**  
3-call master



**LEF-5C**  
5-call master



**LEF-10C**  
10-call master

### Sub station



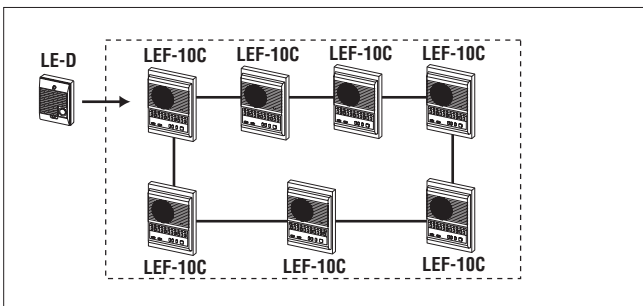
**LEF-1C**  
All call sub master

**Power supply**  
PS-1225 → P.111

### Features

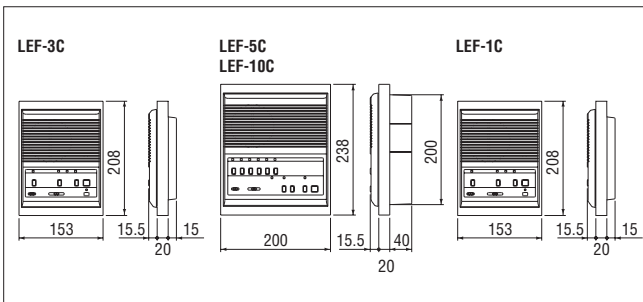
- Intermixable system with any number of masters and subs to max. capacity
- Selective calling from any master with hands-free reply
- LEF surface and LEF-C semi-flush units can be intermixed
- Variety of sub stations are available
- Weather-resistant door stations (any number) with selective door release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

### Communication network

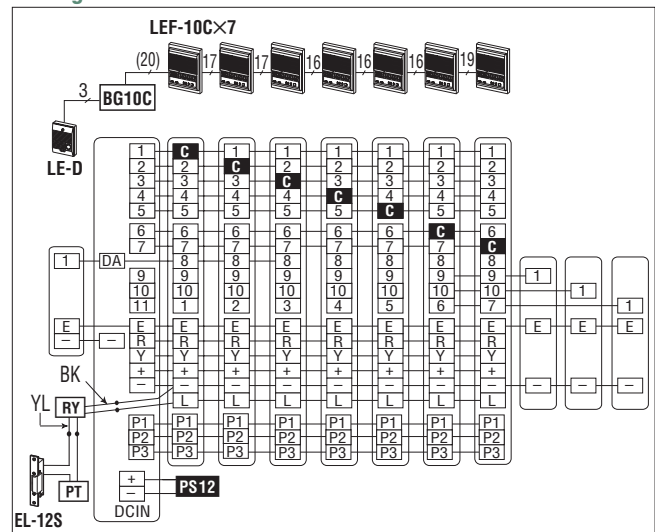


**Intermixed configuration**  
Internal communication by Selective call. Sub calls in with tone & LED 20 sec.

### Unit dimensions



### Wiring



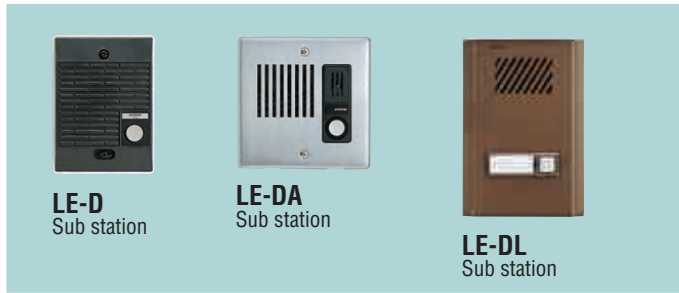
**PS12** : PS-1225 **RY** : RY-PA relay **PT** : AC transformer  
BK : Black(2) YL : Yellow(2)

### Specifications (LEF-C)

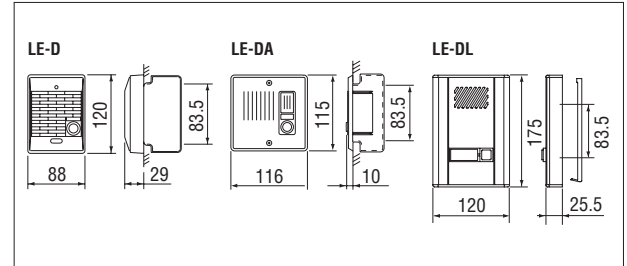
Power source	12V DC, 300mA per station.
Power supply	PS-1225
Communication	Sub/door calls in w/tone & LED, 20 sec. Depress the LED lit selector button. Depress TALK/LISTEN switch. The LED stays lit while in use. Single talk channel w/OCCUPIED lit.
Output	800mW at 20Ω (receive). 500mW at 20Ω (transmit).
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(0.65mmØ) 300m(0.8mmØ)

# LE Sub stations & Accessories

## Weather-resistant sub



## Unit dimensions

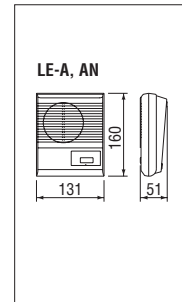


LE-DA; 2-gang mounting

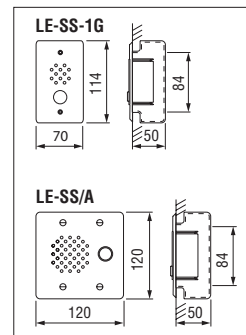
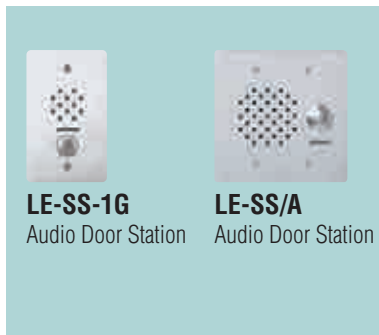
## Room sub



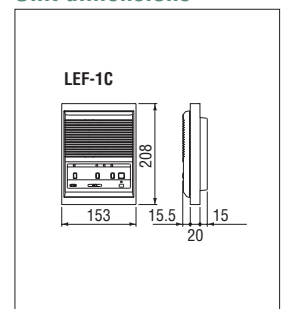
## Unit dimensions



## All call sub master



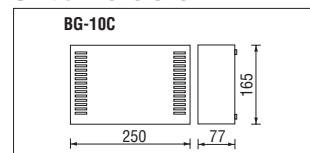
## Unit dimensions



## 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
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).

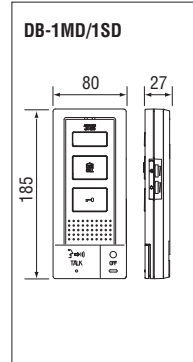
# Hands-free Intercom

MASTER 1 ▶ SUB 4 **DB-1MD**

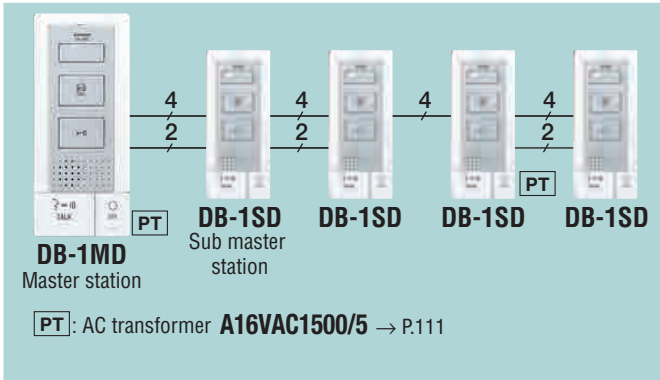
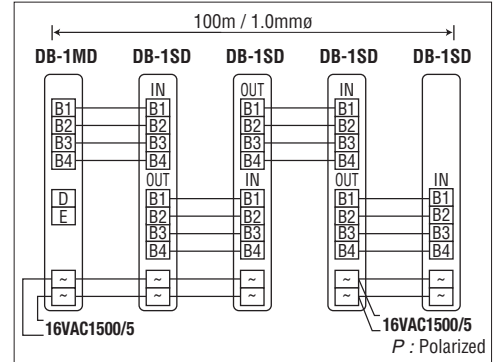
### Features

- 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	16V AC
AC transformer	16VAC1500/5
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	16VAC1500/5 ~ 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)

INTERCOM SYSTEM

**Master station**

Master station

**Sub station**

Sub station

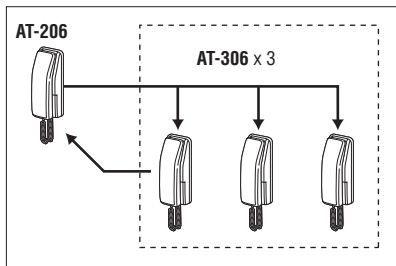
**Boxed set**

**AT-406**  
Boxed set (white color)

**AT-406B/A**  
Boxed set (charcoal gray)

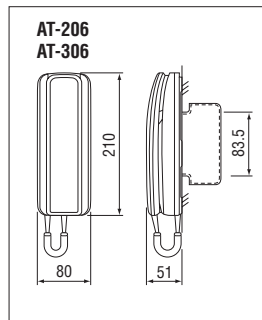
**Power supply**  
AMS66 or Batteries → P.111

### Communication network

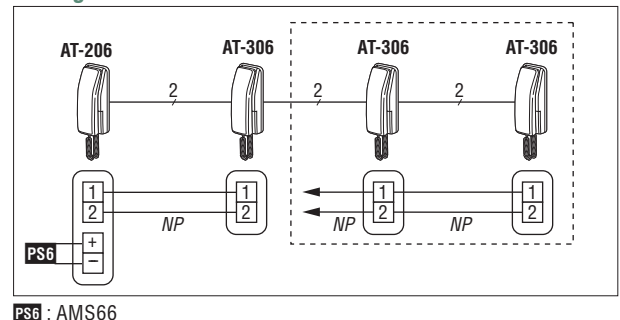


Master calls all the subs simultaneously, while the sub rings the master only.

### Unit dimensions



### Wiring



PS6 : AMS66

### Specifications (AT-406)

Power source	6V DC
Power supply	AMS66 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



### Power supply PS-2420

→ P.112

### YAZ-90-3W Phone master station

## Lineup

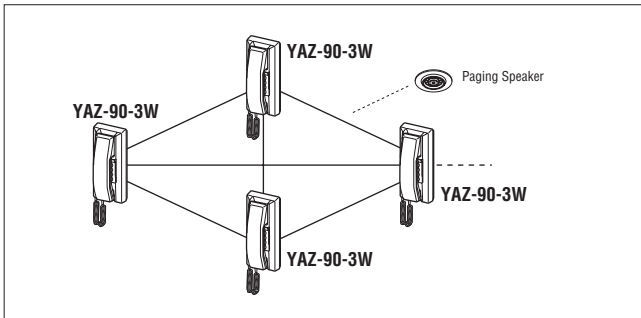


### YAW-RB 1-zone paging adaptor for YAZ-90-3W

## Features

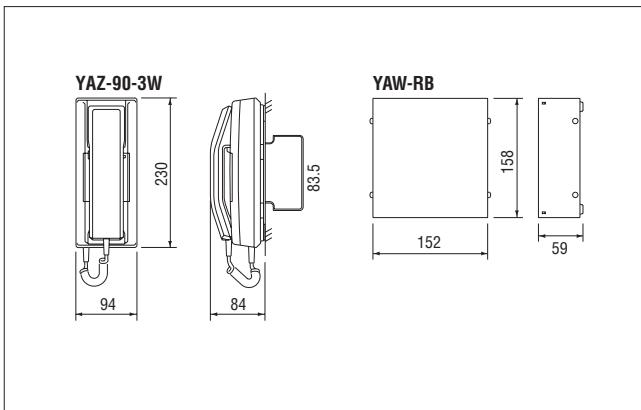
- Microprocessor built-in intercom expandable to max. 90 stations on 4-pair cable
- Up to 2.9km wiring distance
- Zone paging
- Communication functions: Camp-on busy, secretary transfer, call transfer
- Line-off trouble on one channel does not affect the other channels

## Communication network

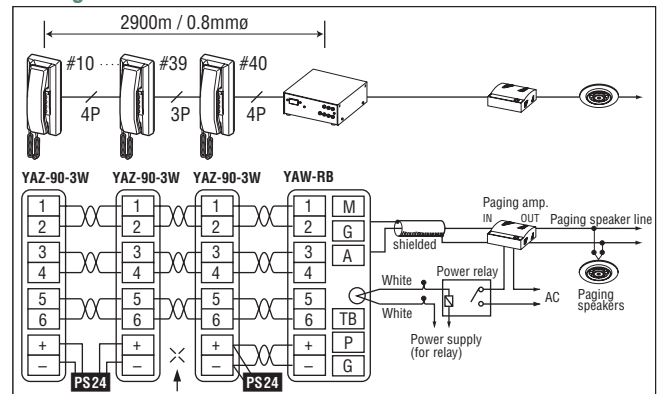


Station to station communication in any pair

## 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-2420

## Specifications (YAZ-90-3W)

Power source	24V DC, 150mA max. 20mA standby.
Power supply	PS-2420 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)

## Specifications (YAW-RB)

Power source	YAW-RB: 24V DC, 150mA (paging). 40mA (standby).
Consumption	YAW-RB = 5 YAZ's, powered by YAZ network.
Paging impedance/level	Input: 600Ω/78mV(RMS), 1KHz. Output: 600Ω/300mV(RMS), 1KHz.
Music impedance/level	Input: 20KΩ/300mV(RMS), 1KHz. Output: 600Ω/150mV(RMS), 1KHz.
Line resistance	20Ω loop for power supply line. 200Ω loop for intercom line.
Amp. power ctrl. contact	YAW-RB: 240V AC 10A. 24V DC, 10A.

# Handset Intercom

STATION

# 25 TD-H/B

### Door station



**IF-DA**  
Door station  
→ P.88



**DE-UR**  
Door station adaptor

**Power supply**  
**PS-1225** → P.111

### Sub station



**TD-1H/B**  
1-call sub

### Master station



**TD-3H/B**  
3-call master



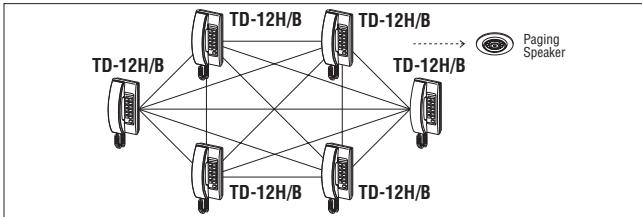
**TD-6H/B**  
6-call master

INTERCOM SYSTEM

### 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.

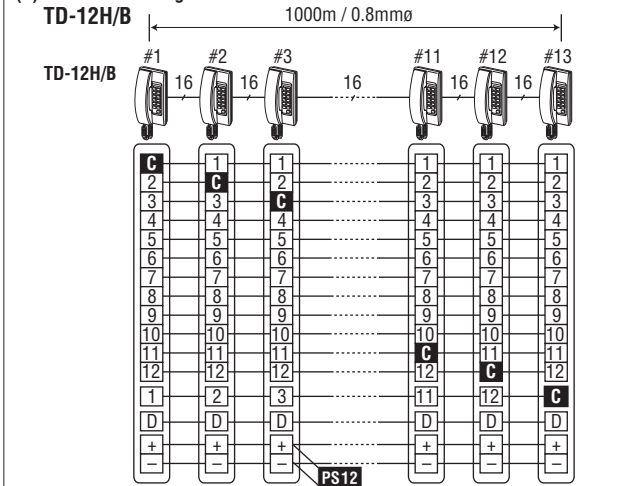
### Communication network



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

### Wiring

#### (1) All-master configuration

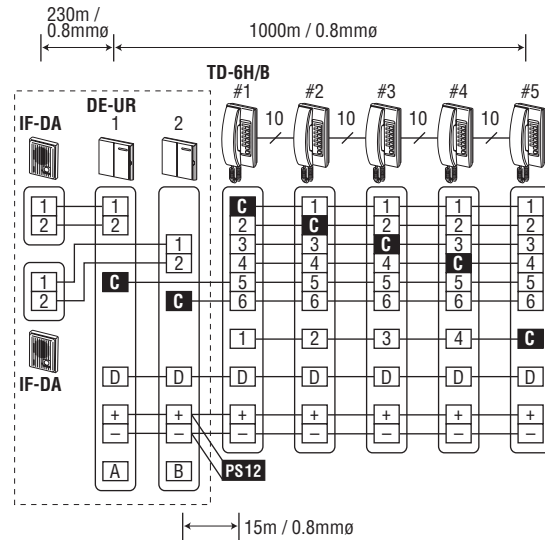


• Install main cable of max. conductors allowed for each TD-H/B station model.

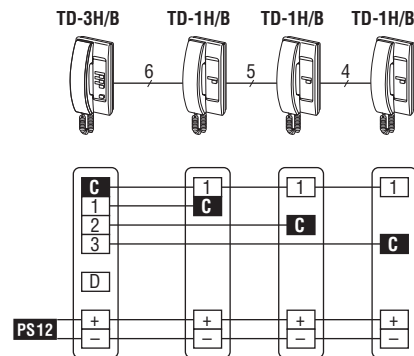
PS Terminal D : Door station

### 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-1225**

→ P.111

**Lineup**



**PD-1**  
Zone page adaptor



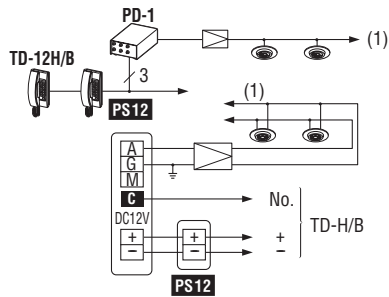
**PD-2**  
Zone page/talkback adaptor



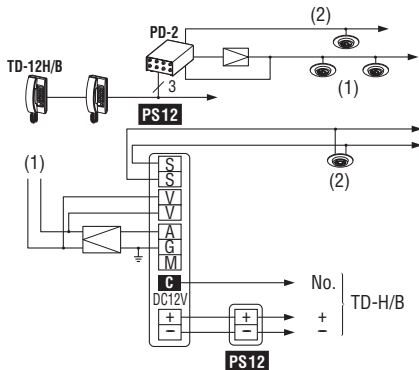
**RY-AC/A**  
External signaling relay  
→ P.110

**Wiring**

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

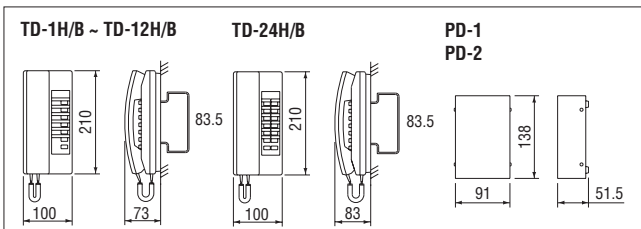


**(5) Paging with talkback w/PD-2 (single zone)**



(1) Paging Speakers (2) Talkback speakers PS12 : PS-1225

**Unit dimensions**



**Specifications (TD-H/B)**

Power source	12V DC, 70mA per station.
Power supply	PS-1225
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

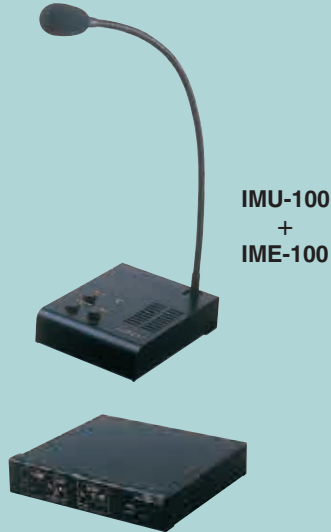
1



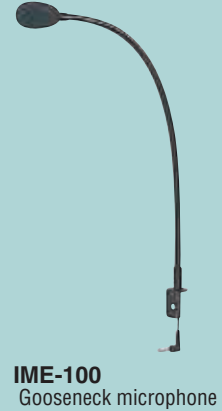
1

## IMU-100

Service Side



IMU-100  
Main kit

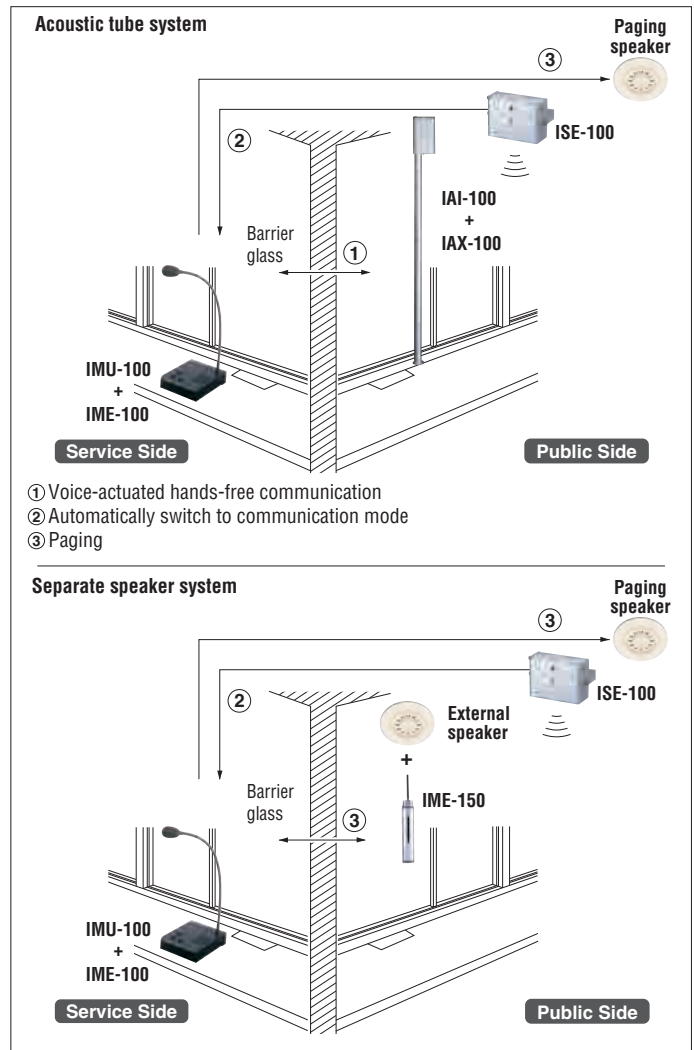


Power supply PS-2420 → P.112

### Features

- First in industry! Using an acoustic tube with noise cancelling microphone
- Voice-actuated hands-free communication
- Flexible gooseneck type microphone
- Optional Mono type headset (ø3.5 plug)
- Detection sensor switches automatically to communication mode
- Separate speaker system using an optional microphone
- 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 to install

### Communication network

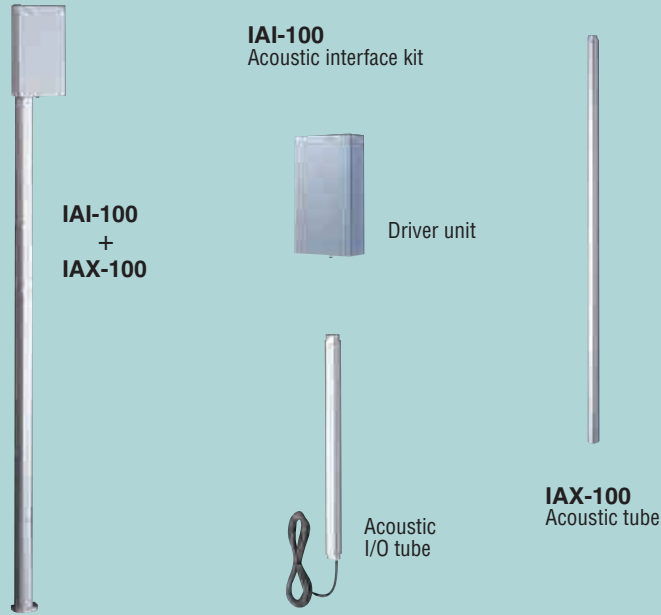


INTERCOM SYSTEM

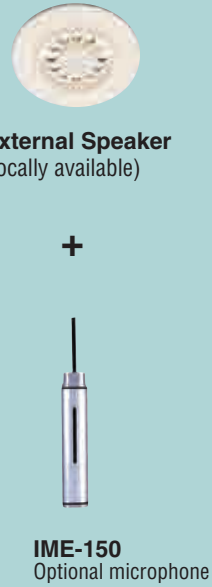


Public Side

Acoustic tube system



Separate speaker system



Lineup

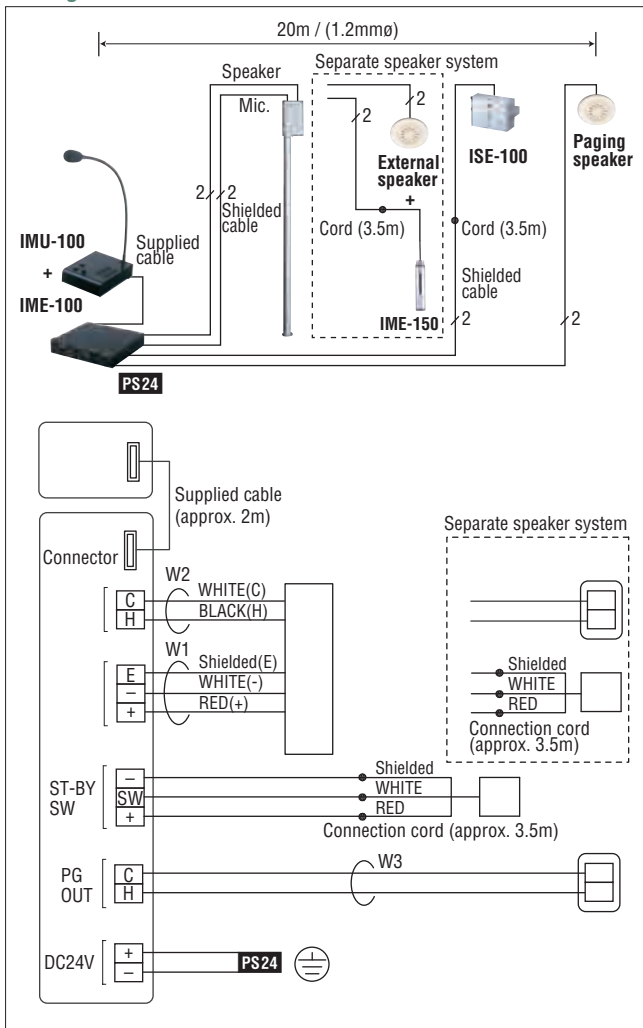


ISE-100 Sensor



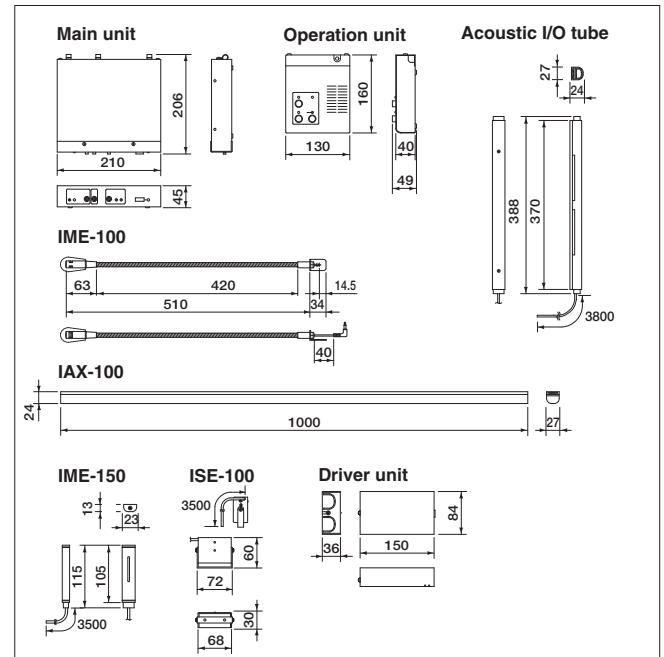
Paging speaker (locally available)

Wiring



PS24 : PS-2420

Unit dimensions



Specifications (IMU-100)

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

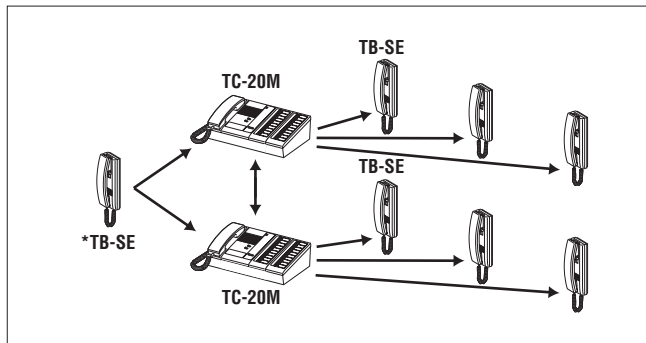


**TC-20M + TC-40G**  
60-call

## Features

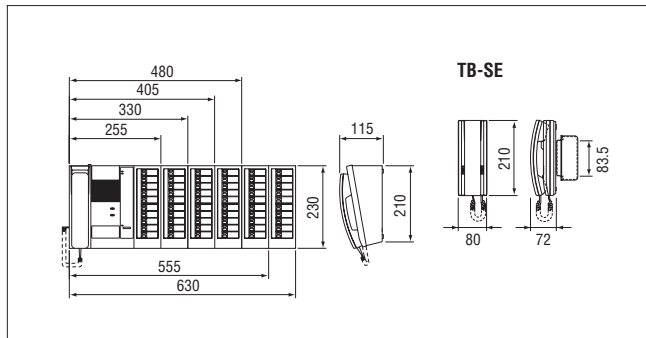
- Expandable internal telephone intercom
- One or dual master configuration
- Tone & LED call-in, staying on until answered
- Additional buzzer at TB-SE (w/relay)
- TRANSFER button on TC-M for communication between two TB-SE subs

## Communication network

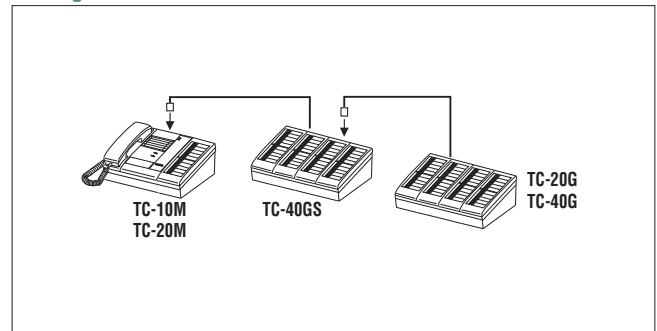


\*TB-SE : Sub station for two-master call.

## 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-1820 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

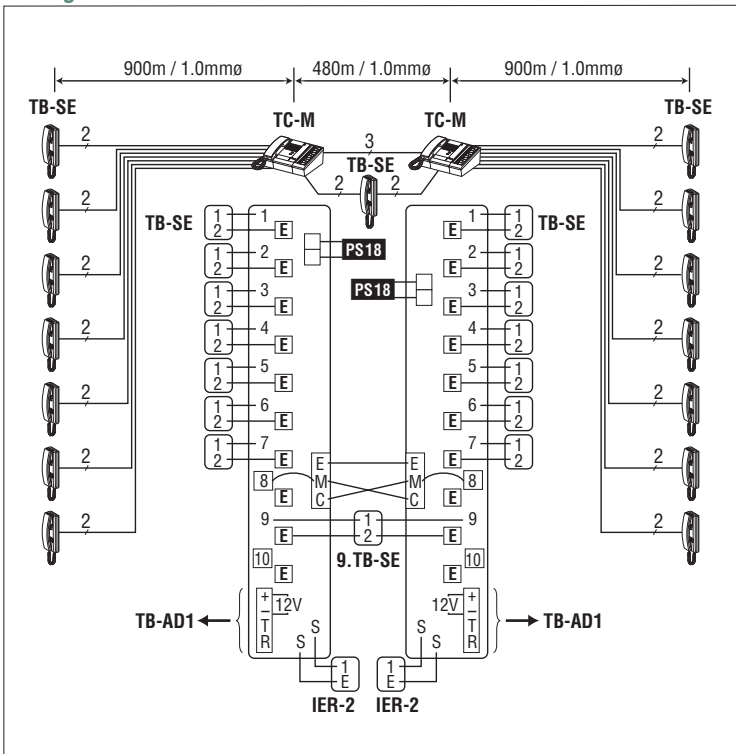
**Power supply**  
**PS-1820**  
→ P.111

**Lineup**

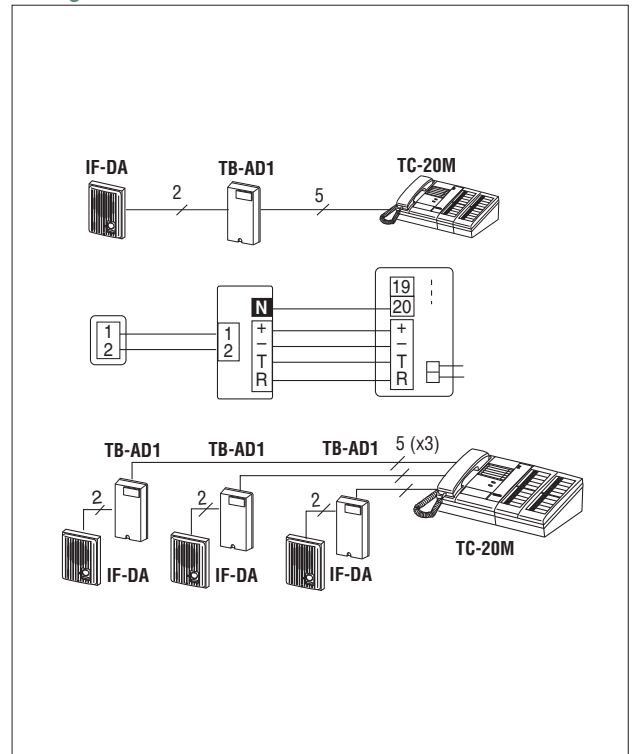


**IER-2**  
Call extension  
→ P.110

**Wiring 1**



**Wiring 2**



- 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).

# Master / Sub Intercom

## DOOR 10 ROOM 1 TC-M & TB-AD10

### Door station



**IF-DA**  
Door station  
→ P.98

### Master station



**TC-10M**  
10-call master

### Door adaptor



**TB-AD1**  
1-call door adaptor

### Lineup



**IER-2**  
Call extension  
→ P.110



**EL-12S**  
Electric door strike  
→ P.110

**TB-AD10**  
10-call door adaptor

### Power supply

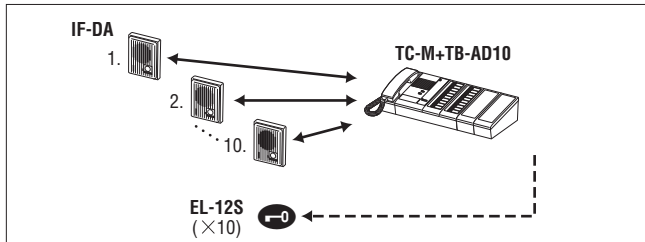
**PS-1820**

→ P.111

### Features

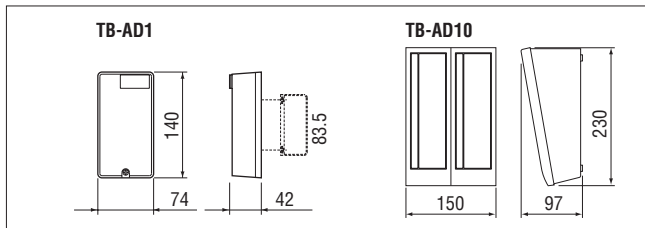
- Single or multiple audio door communication, expandable
- Optional selective door release control

### Communication network

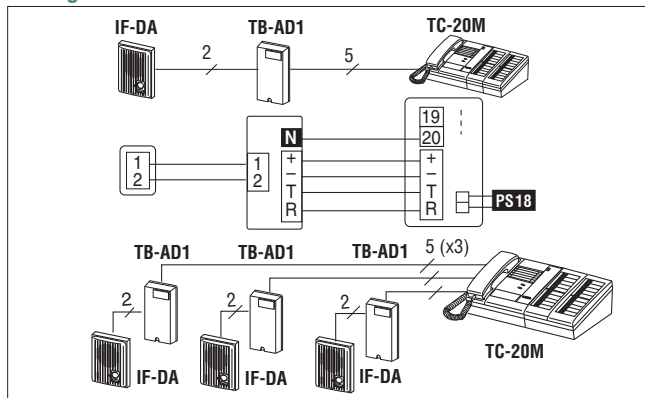


Pre-tone sounding or mute selectable at TB-AD10.

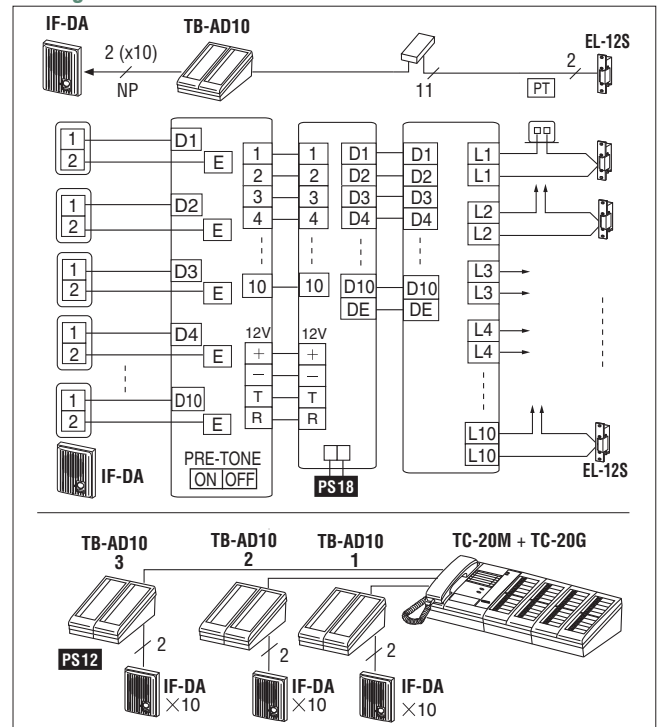
### Unit dimensions



### Wiring



### Wiring



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

PS18 : PS-1820

### 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)

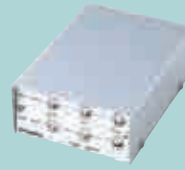
# 60 MC-60/4A

### 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)

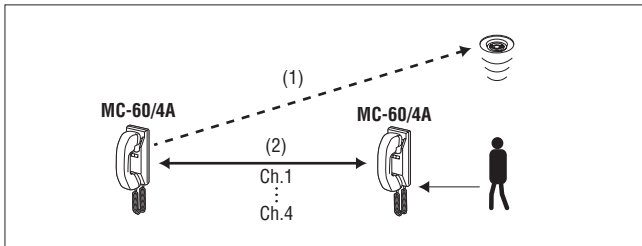
### Power supply PS-2420

→ P.112

### Features

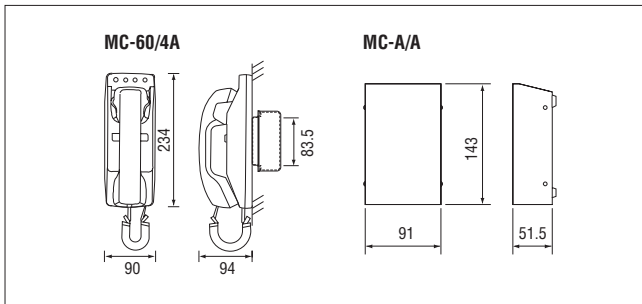
- Max. 60-station paging & communication system
- Selective 4 talk channels with in-use LED's
- Conference call among 3 stations
- Music cutout during paging
- Reinforced modular coil cord

### Communication network



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

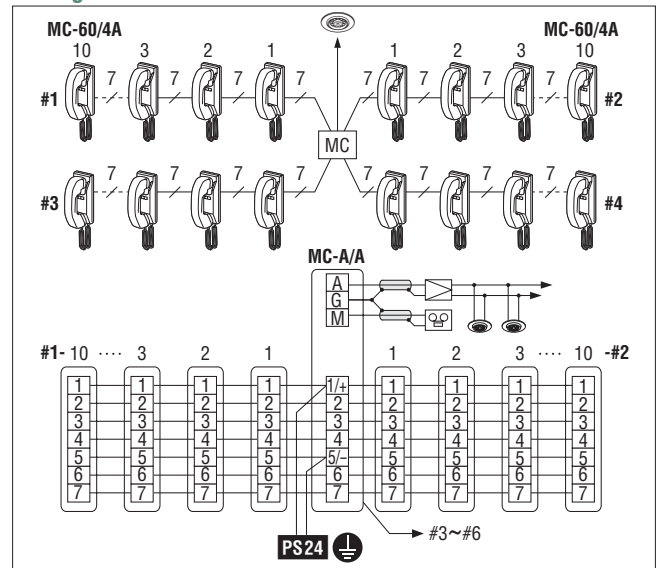
### Unit dimensions



### Specifications (MC-A/A)

Power source	24V DC, PS-2420
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-2420

### Specifications (MC-60/4A)

Power source	24V DC, 70mA max. (in page).
Power supply	PS-2420 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.

## Access control

### Surface mount



#### AC-10S

Vandal resistant access control keypad, surface mount



#### JK-DV, AC-10S

→ P.10

### Flush mount



#### AC-10F

Vandal resistant access control keypad, flush mount

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

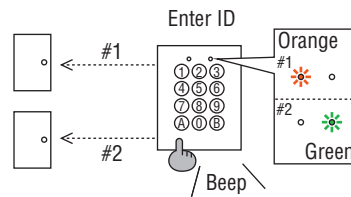
### Features

- Two types of keypads are available.  
AC-10S: Surface mount type AC-10F: Flush mount type
- AC-10S matches JK-DV, 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

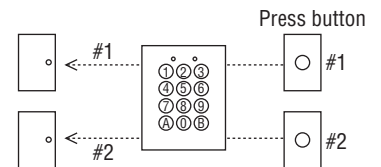
### Features

- Activate door release (relay)

By keypad

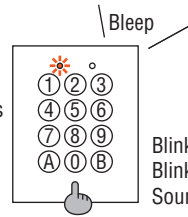


By request to exit/entry button



- Keypad lockout

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



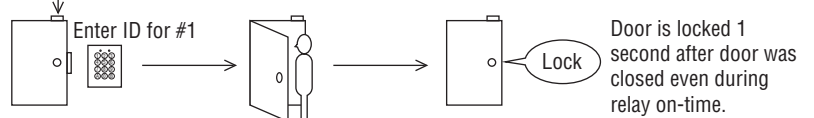
Programmable

- 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

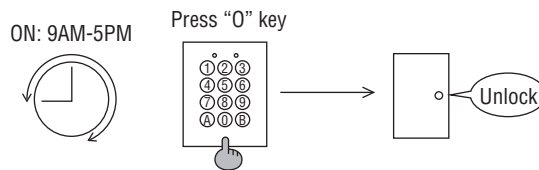
Door sense switch



Door is locked 1 second after door was closed even during relay on-time.

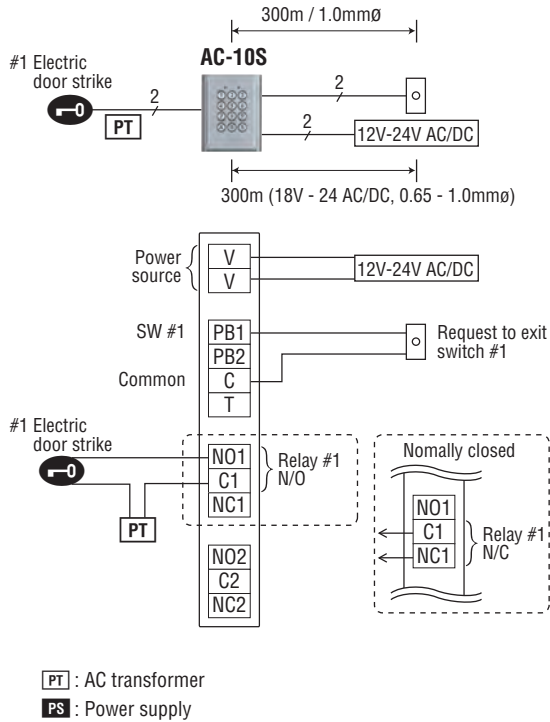
- One push door release with external timer connection

During the timer is on operation

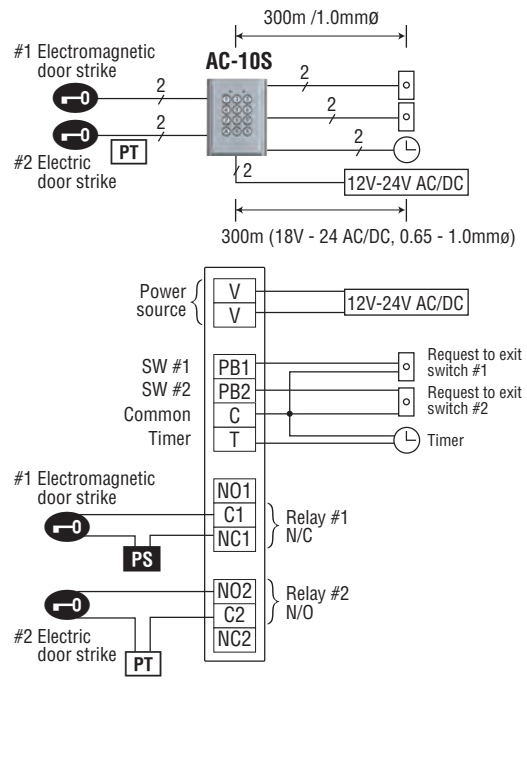


\* The design and specifications are subject to change without notice for improvement.

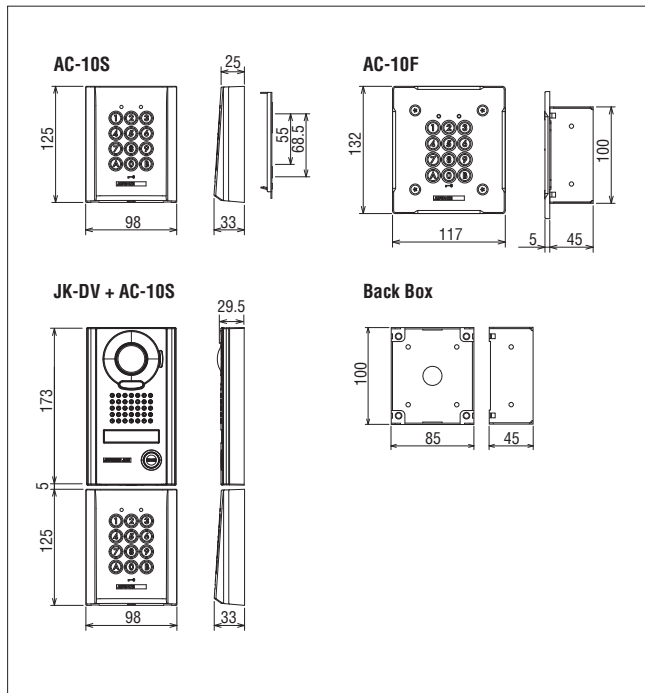
(1) Relay #1 (Normally open)



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



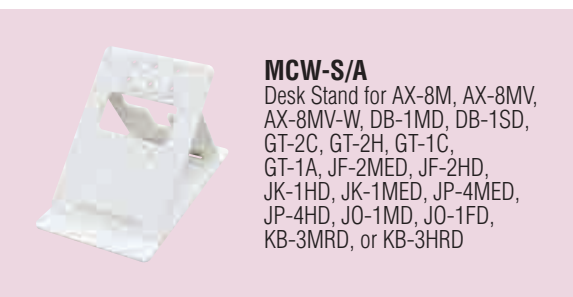
Unit dimensions



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)

Desk Stand



**MCW-S/A**  
Desk Stand for AX-8M, AX-8MV, AX-8MV-W, DB-1MD, DB-1SD, GT-2C, GT-2H, GT-1C, GT-1A, JF-2MED, JF-2HD, JK-1HD, JK-1MED, JP-4MED, JP-4HD, JO-1MD, JO-1FD, KB-3MRD, or KB-3HRD

Features

- Allows desk mounting of master and/or handset station
- Station is propped up for easier viewing
- Pre-drilled mounting holes
- Made of ABS plastic
- Adjustable to 45° or 60° angles

Used with:

AX-8M, AX-8MV, AX-8MV-W, DB-1MD, DB-1SD, GT-2C, GT-2H, GT-1C, GT-1A, JF-2MED, JF-2HD, JK-1HD, JK-1MED, JO-1FD, JO-1MD, JP-4HD, JP-4MED, KB-3MRD, or KB-3HRD

# Accessories

## Angle Boxes



**KAW-D**  
30° Angle Box  
for IX-BA,  
IX-DA, JF-DA,  
JK-DA, JO-DA,  
JP-DA, KB-DAR,  
or KB-DAR-M



**SBX-DV30**  
30° Angle Box  
for JK-DV,  
JF-DV, JO-DV,  
or JP-DV

### Features (KAW-D)

- Provides a better viewing angle for the camera
- Compatible with Aiphone 1-gang surface mount door stations
- Angles 1-gang door stations outward by 30°
- Can mount to either right or left of door
- Hinged cover for mounting door station

### Features (SBX-DV30)

- Provides a better viewing angle for the camera
- Designed for angle mounting door stations outward by 30°
- Applicable for wide or double door entrances

### Specifications

Material	KAW-D: ABS plastic SBX-DV30, 18AWG stainless steel
Mounting	Surface mount directly to wall or 1-gang box

### Used with:

**KAW-D** – IX-BA, IX-DA, JF-DA, JK-DA, JO-DA, JP-DA, KB-DAR, or KB-DAR-M  
**SBX-DV30** – JF-DV, JK-DV, JO-DV, or JP-DV

## Surface Mount Boxes



**SBX-DVF**  
Surface Mount Box for JF-DVF, JK-DVF, JO-DVF, or JP-DVF



**SBX-AXDVF**  
Surface Mount Box for AX-DVF



**SBX-DVF-P**  
Surface Mount Box for AX-DVF-P, JF-DVF-HID, JK-DVF-AC, JK-DVF-HID or Jx-DVF-AC



**SBX-IDVF**  
Surface Mount Box for IX-DVF, IX-SSA, IS-DVF, IS-IPDVF, IS-SS, IX-DF, IX-DF-P, IX-DF-PI or IX-SS



**SBX-ISDVPF**  
Surface Mount Box for IS-DVF-HID, IS-DVF-RP10, IS-IP4DVF, IS-IPDVF-HID, or IS-IPDVF-RP10



**SBX-IDVFRA**  
Surface Mount Box for IX-DVF-P, IX-DVF-RA, IX-SSA-RA, IX-SSA-2RA, IS-SS-CI, IS-DVF-2RA, IS-SS-2RA, IS-SS-2RA-R, IS-SS-RA, IS-SS-RA-R, IX-DF-2RA, IX-SS-2RA, IX-SS-RA, JP-DVF-HID, or JP-DVF-RP10



**SBX-1G**  
Surface Mount Box for LE-SS-1G



**SBX-2G/A**  
Surface Mount Box for IX-SS-2G, IS-SS-2G, IE-JA, IE-SS/A, IE-SSR, LE-DA, LE-SS/A or LE-SSR

### Features (SBX-DVF, SBX-AXDVF, SBX-DVF-P, SBX-IDVF, SBX-ISDVPF, SBX-IDVFRA)

- Hood provides weather resistance
- Includes space inside for wiring
- Mounts directly to wall
- Openings at bottom allow for moisture drainage

### Features (SBX-1G)

- Weather resistant
- Includes space inside for wiring
- Mounts directly to wall surface

### Features (SBX-2G/A)

- Weather resistant
- Includes space inside for wiring
- Mounts to 1-gang box or ring
- Can mount directly to wall surface
- Includes hardware for mounting intercom

### Specifications

Material	SBX-DVF-P, SBX-IDVF, SBX-ISDVPF, SBX-IDVFRA, SBX-1G, SBX-2G/A: 18AWG stainless steel SBX-DVF, SBX-AXDVF: 16AWG stainless steel (outer layer) 18AWG stainless steel (inner layer)
Mounting	SBX-DVF, SBX-AXDVF, SBX-DVF-P, SBX-IDVF, SBX-ISDVPF, SBX-IDVFRA: surface mount directly to wall, 1-gang box, or 2-gang box with included hardware (8 x 32 with T-15 Torx head) SBX-1G, SBX-2G/A: surface mount directly to wall or 1-gang box with included hardware (8 x 32 with T-15 Torx head)

### Used with:

**SBX-DVF** – JF-DVF, JK-DVF, JO-DVF, or JP-DVF  
**SBX-AXDVF** – AX-DVF  
**SBX-DVF-P** – AX-DVF-P, JF-DVF-HID, or JK-DVF-HID  
**SBX-IDVF** – IX-DVF, IX-SSA, IS-DVF, IS-IPDVF, IS-SS, IX-DF, IX-DF-P, IX-DF-PI, or IX-SS  
**SBX-ISDVPF** – IS-DVF-HID, IS-DVF-RP10, IS-IP4DVF, IS-IPDVF-HID, or IS-IPDVF-RP10  
**SBX-IDVFRA** – IX-DVF-P, IX-DVF-RA, IX-SSA-RA, IX-SSA-2RA, IS-SS-CI, IS-DVF-2RA, IS-SS-2RA, IS-SS-2RA-R, IS-SS-RA, IS-SS-RA-R, IX-DF-2RA, IX-SS-2RA, IX-SS-RA, JP-DVF-HID, or JP-DVF-RP10  
**SBX-1G** – LE-SS-1G  
**SBX-2G/A** – IX-SS-2G, IS-SS-2G, IS-SSR-2G, IE-JA, IE-SS/A, IE-SSR, LE-DA, LE-SS/A, LE-SSR, or NI-JA



## Call extension



**IER-2**  
Call extension

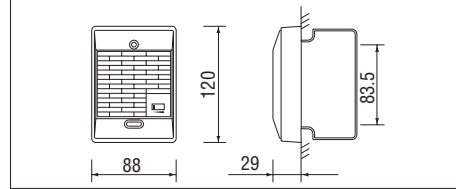
### Features

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

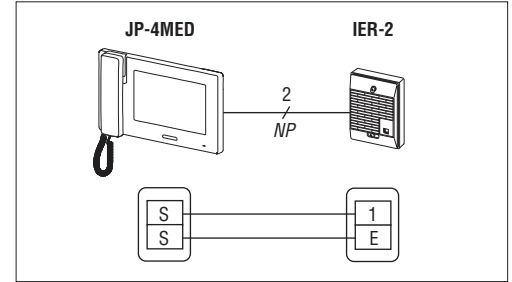
### Used for

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

### Unit dimensions



### Wiring



## Door release



**EL-12S**  
Electric door strike



**RY-PA**  
Door release relay

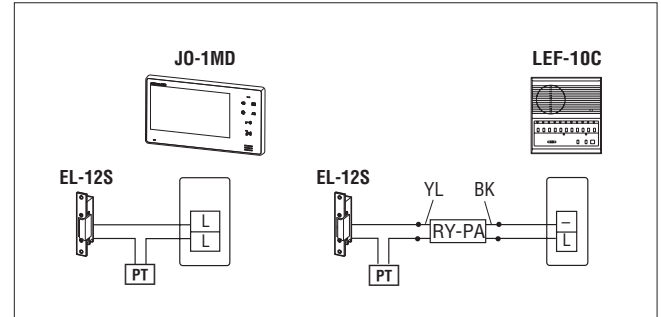
### Features

- Door release activation, momentary or talk line-controlled

### Used for

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

### Wiring



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

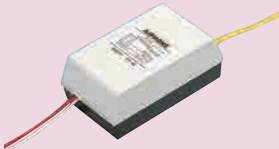
### Specifications (EL-12S)

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

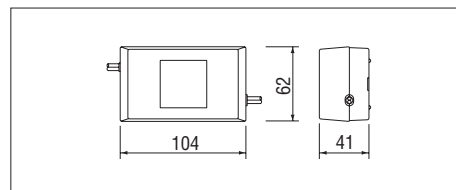
### Features

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.

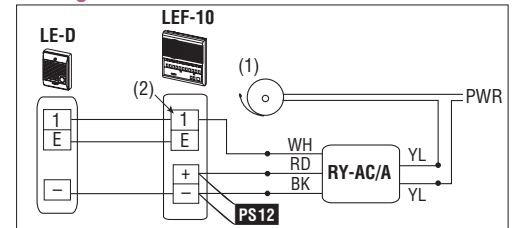
### Used for

TD-H/B  
IE-Series  
IE-8MD, LEF

### 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

## 16V AC

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

### Specifications (16VAC1500/5)

Input voltage & Capacity	240V AC, 50Hz
Output voltage	16V AC, 1.5A

## 6V DC

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

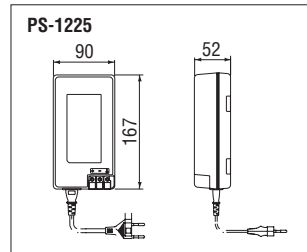
### Specifications (AMS66)

Input voltage & Capacity	230-240V 50Hz
Output voltage	6V DC, 0.2A

## 12V DC



### Unit dimensions



**Used for**  
IE-1AD(U), IE-1GD(U), IE-2AD(U),  
IE-2A2DU, IE-8MD, LEM-1DL, LEF,  
LEF-C, TD-H/B, (TC-M)

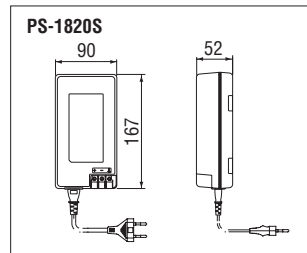
### Specifications (PS-1225)

Input voltage & Capacity	100-240V AC, 50/60Hz 37W/65-82VA
Output voltage	12V DC, 2.5A

## 18V DC



### Unit dimensions



**Used for**  
IE-8MD, JBW-BA, JO-1MD, JO-1FD, JK-1MED  
TC-M, RY-3DL

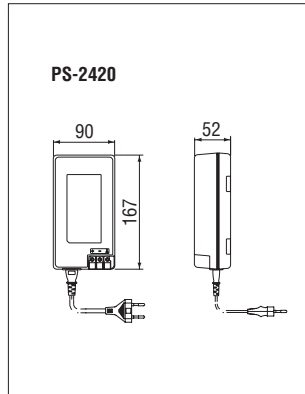
### Specifications (PS-1820)

Input voltage & Capacity	100V-240V AC, 50/60Hz, 45W/75-95VA
Output voltage	18V DC, 2A

## 24V DC



### Unit dimensions



### Used for

YAZ-90-3W, JP-4MED, JP-4HD, JPW-BA, JP-8Z, RY-3DL, MU-100

### Specifications (PS-2420)

Input voltage & Capacity	100-240V AC, 50/60Hz 60W/100-125VA
Output voltage	24V DC, 2A

## AIPHONE Approved product wire

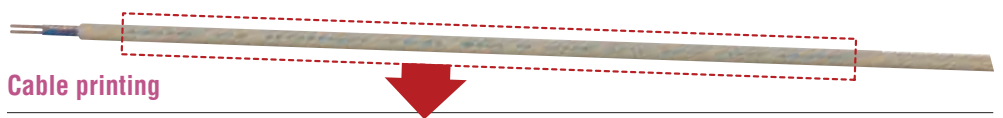


### AIPHONE Wire model name

Model	Length	Gauge	Insulation	Jacket color	Description	Recommendation
<b>AE7090220B</b>	200m	ø0.9mm	PE	BEIGE	2 conductor, PE, solid, non-shielded	GT
<b>AE7090220G</b>	200m	ø0.9mm	PE	GRAY	2 conductor, PE, solid, non-shielded	GT
<b>AE7090210B</b>	100m	ø0.9mm	PE	BEIGE	2 conductor, PE, solid, non-shielded	JK, JO, GT
<b>AE7090210G</b>	100m	ø0.9mm	PE	GRAY	2 conductor, PE, solid, non-shielded	JK, JO, GT
<b>AE7120230B</b>	300m	ø1.2mm	PE	BEIGE	2 conductor, PE, solid, non-shielded	JKW-BA, JPW-BA

### Wire number coding

1st & 2nd Characters	: Wire Approval	<b>AE</b> =Aiphone approved wire
3rd digit	: Type of Wire	<b>7</b> =solid, PE, non-shielded
4th & 5th digits	: Gauge	<b>09</b> =0.9mm diameter, <b>12</b> =1.2mm diameter
6th & 7th digits	: Number of Conductors	<b>02</b> =2 conductors
8th & 9th digits	: Length of Wire	<b>10</b> =100 meters box, <b>20</b> =200 meters box, <b>30</b> =300 meters box
10th Character	: Color of Jacket	<b>G</b> =Gray, <b>B</b> =Beige



### Cable printing

Model	Printing
<b>AE7090220B</b>	AIPHONE P/N AE7090220B 0.9-2C MADE IN JAPAN YYYY ROHS <LFV> AIPHONE
<b>AE7090220G</b>	AIPHONE P/N AE7090220G 0.9-2C MADE IN JAPAN YYYY ROHS <LFV> AIPHONE
<b>AE7090210B</b>	AIPHONE P/N AE7090210B 0.9-2C MADE IN JAPAN YYYY ROHS <LFV> AIPHONE
<b>AE7090210G</b>	AIPHONE P/N AE7090210G 0.9-2C MADE IN JAPAN YYYY ROHS <LFV> AIPHONE
<b>AE7120230B</b>	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

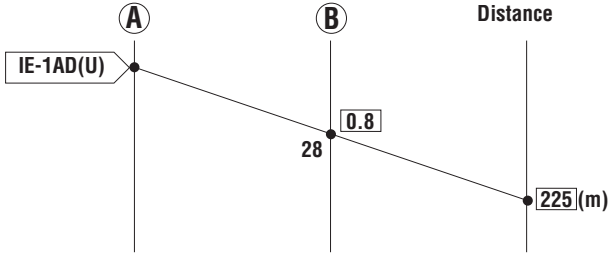
The below graph is to assist you in determining the diameter of wires or communication distance required.

**Example;**

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

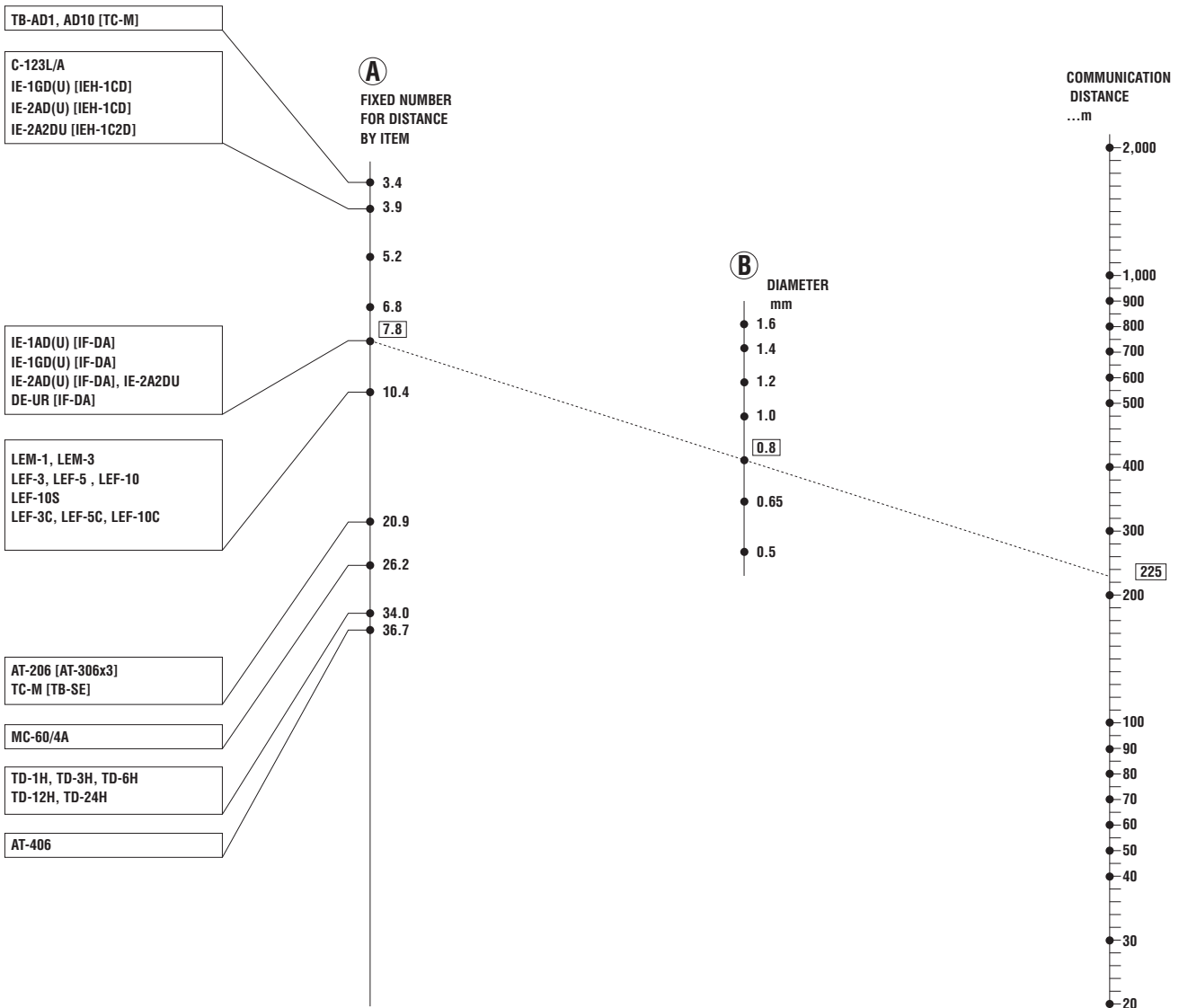
1. On the graph;

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 system

**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 JP-DVF-L	JO-DA JO-DV JO-DVF	JK-DA JK-DV JK-DVF	AX-DV AX-DV-P AX-DVF AX-DVF-P	GT-D	JO-1FD	JP-4HD	JK-1HD	JK-1SD (audio)	JPW-BA	JKW-BA
JO-1MD		✓				✓					
JP-4MED	✓				✓		✓			✓	
JK-1MED			✓					✓	✓		✓
AX-8MV				✓							

AX-8MV requires a central exchange unit.

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